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Legal Perspectives
for Global Challenges

PRINCIPLES ON CLIMATE OBLIGATIONS OF ENTERPRISES

Expert Group on
Climate Obligations
of Enterprises

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Legal Perspectives for Global Challenges

Climate change is the most important challenge humankind ever faced. GHG emissions must be reduced at great pace and to a significant extent to keep global warming below 2 and preferably 1,5 degrees Celsius. This can only be achieved if the obligations of major players – States, enterprises and investors – are sufficiently clear. The Oslo Principles aimed to discern the legal obligations of States. The Principles on Climate Obligations of Enterprises focus on the obligations of enterprises and investors. They identify the reduction obligations of enterprises, and articulate a series of related obligations. Investors can and many already do play an important role to stem the tide.

The Principles on Climate Change Obligations of Enterprises aim to provide a legal basis for active investment management and engagement geared at stimulating enterprises to comply with their legal obligations. An extensive commentary further explains the Principles and their legal underpinning. The members of the expert group are Thomas Pogge, Brian Preston, Tianbao Qin, James Silk, Jaap Spier (reporter), Elisabeth Steiner, Philip Sutherland and Daniël Witte.

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PREFACES

Climate change may be the greatest challenge that currently faces mankind. If it is to be solved it requires collective action. That creates a problem, because if collective action is to be successful, each individual needs to understand what his or her contribution is to be. And if that contribution is to be made, it needs to be, and to be seen to be fair amongst all participants.

Scientists agree that we need to keep the temperature rise to two degrees. But what does that mean for way we run those enterprises that are the engine of the global economy? If we leave it for every company to invent their own rules, it will take enormous effort, and it is unlikely that all will agree that each has contributed their fair share.

That is why this document is of such importance. Here in less than 3,000 words, some of the world's most eminent lawyers have laid out a simple set of rules. In the length of a short board report, it sums up the guidelines that enterprises, banks and investors can use to ensure their operations are contributing their fair share to addressing a problem that, if ignored for too long will cost all their shareholders and investors an incalculable sum. The criteria are clear, concise and measurable. Through these simple rules any board of directors could use these principles to evaluate whether their company is behaving properly. Every investor can find a way to evaluate how well environmental risk is managed. And every regulator can see how private enterprises can be asked to make a fair contribution.

Maybe there are some improvements that could be made. The authors would certainly be open to that debate. But what they have shown is that rules can be established. That collective action, which our global political systems find so difficult, can be achieved. Here, expressed with practicality and clarity are rules for enterprises which allow them to audit whether they are playing their part in addressing mankind's greatest challenge.

David Pitt-Watson

Former Chair UN Environment Program Finance Initiative

All sectors of the economy now have to take responsibility for their actions with respect of their impact of climate and vice versa. The Enterprises Principles provide a very explicit and easy to follow mandate for corporates to incorporate the imperatives of reducing carbon emissions into their planning, management and reporting. The simplicity of the

PREFACES

document serves only to highlight the sophistication of its drafting and the power of its message.

Ashok Khosla

Chairman, Development Alternatives

Past Chairman, UN's International Resource Panel

Past President, IUCN and the Club of Rome

The Enterprises Principles fill an important gap. The Paris Agreement and Oslo Principles focus on governmental duties. The Enterprises Principles articulate the responsibility of business to address climate change. They provide a solid framework for identifying the obligations of all businesses to reduce their greenhouse emissions in line with national targets that are sufficient to meet the two degree goal. Businesses that reduce their total emissions in line with these principles are likely to avoid the risk of future litigation and liability for contributing to the loss and damage from climate change.

James Thornton

CEO Client Earth

GLOSSARY OF ABBREVIATIONS

AIGCC	Asia Investor Group on Climate Change
APQ	Above Permissible Quantum
BPQ	Below Permissible Quantum
CAR	Central African Republic
CCCEP	Centre for Climate Change Economics and Policy
CDP	Carbon Disclosure Project
COP	Conference Of Parties
CRISA	Code for Responsible Investing in South Africa
CSR	Corporate Social Responsibility
EC	European Commission
ECHR	European Court of Human Rights
EIA	Environmental Impact Assessment
EMB	European Marine Board
EP	Enterprises Principles
EPA	Environmental Protection Agency
ESG	Environmental, Social and Governance
EU	European Union
EWG	Environmental Working Group
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GICCC	Global Investor Coalition on Climate Change
GRI	Global Reporting Initiative
GSSB	Global Sustainability Standards Board
GWP	Global Warming Potential
IATA	International Air Transport Association
ICC	International Chamber of Commerce
ICJ	International Court of Justice
ICTSD	International Center for Trade and Sustainable Development
IDDDRI	Institute for Sustainable Development and International Relations
IDS	Institute of Directors in Southern Africa
IEA	International Energy Agency
IGCC	Investor Group on Climate Change
INCR	Investor Network on Climate Risk
IIGCC	Institutional Investors Group on Climate Change

GLOSSARY OF ABBREVIATIONS

IOE	International Organisation of Employers
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
ITLOS	International Tribunal for the Law Of the Sea
IUCN	International Union for the Conservation of Nature
MNC	Multi-National Corporation
NDC	Nationally Determined Contribution (to the Paris Agreement)
NGO	Non-Governmental Organisation
NOAA	National Oceanic and Atmospheric Administration
OECD	Organisation for Economic Cooperation and Development
OP	Oslo Principles on Global Climate Obligations
PETL	Principles of European Tort Law
PRI	Principles for Responsible Investment
RIA	Responsible Investment Association
SDSN	Sustainable Development Solutions Network
SEBI	Securities and Exchange Board of India
SICL	Swiss Institute of Comparative Law (Institut suisse de droit comparé)
SSF	Swiss Sustainable Finance
UCS	Union of Concerned Scientists
UDHR	Universal Declaration of Human Rights
UK	United Kingdom of Great Britain and Northern-Ireland
UN	United Nations
UNEP	United Nations Environment Programme
UNEP FI	United Nations Environment Programme Finance Initiative
UNEP FI AMWG	United Nations Environment Programme Finance Initiative Asset Management Working Group
UNEP GEAS	United Nations Environment Programme Global Environmental Alert Service
UNFCCC	United Nations Framework Convention on Climate Change
UNGC	United Nations Global Compact
UNHRC	United Nations Human Rights Council
UNOHCHR	United Nations Office of the High Commissioner for Human Rights
USA	United States of America
WBCSD	World Business Council for Sustainable Development
WEF	World Economic Forum
WRI	World Resources Institute
WWF	World Wildlife Fund

TEXT OF THE PRINCIPLES

I DEFINITIONS

1. In the Principles, except in so far as the context or subject matter otherwise indicates:

Above Permissible Quantum (APQ) country refers to a country that, in a specific year, has GHG emissions per capita that exceed the permissible annual quantum as defined in Oslo Principles 3 and 4.

Below Permissible Quantum (BPQ) country refers to a country that, in a specific year, has GHG emissions per capita that fall below the permissible annual quantum as defined in Oslo Principles 3 and 4.

Enterprise refers to

- (a) a business, company, firm, venture, organisation, operation or undertaking that is private unless it can be shown that it does not carry on commercial or industrial activities, or
- (b) any non-private entity when and to the extent that it carries on commercial or industrial activities, or
- (c) any other entity when and to the extent that it carries on activities that generally fall into category (a) or (b) in the same country even if it does not do so in the particular circumstances.

GHG refers to greenhouse gas or gases.

Global enterprise refers to an enterprise or a group of enterprises that manufactures products or offers services that are, for a significant part, consumed in multiple APQ countries. However, an enterprise in a BPQ country is considered to be a global enterprise only if it is, directly or indirectly, a subsidiary of an enterprise based in an APQ country.

Least developed country refers to any country that qualifies as least developed, as defined and classified by the United Nations Committee on Development Policy.

Oslo Principles refers to the Oslo Principles on Global Climate Obligations, drafted by the Expert Group on Global Climate Obligations, adopted on 1 March 2015.

Paris Agreement refers to the agreement done at the 21st meeting of the Conference of the Parties under the United Nations Framework Convention on Climate Change on 12 December 2015, FCCC/CP/2015/L.9/Rev.1, including any further elaboration or amendment of this agreement, or any subsequent international agreement, treaty or convention superseding this agreement.

Reduction percentage that the world has to achieve in a specific year refers to the percentage required to ensure that global average surface temperature will not exceed pre-industrial levels by more than 2 degrees Celsius, in accordance with Oslo Principle 6 and the precautionary principle as defined in Oslo Principle 1.

Relevant country refers to the country in which the enterprise performs its activities.

II ENTERPRISES' GHG REDUCTION OBLIGATIONS

Percentage GHG reduction to country's permissible quantum

2.1 An enterprise must reduce its GHG emissions in a relevant country by the higher of the percentage required under the Oslo Principles for that country to reduce the GHG emissions within its jurisdiction to the permissible quantum for the relevant year, or the reduction obligations expressed as a percentage assumed by the country on the basis of the Paris Agreement for the relevant year.

2.2 If an enterprise has reduced its GHG emissions in a given year by a higher percentage than required under these Principles, the surplus can be deducted from the reductions the enterprise fell short to achieve in previous years. Any remaining surplus can be used to deduct from reductions required in subsequent years.

Flexibility in allocating reduction obligations

3.1 A country complying with its reduction obligations under the Oslo Principles or the reduction obligations assumed by the country on the basis of the Paris Agreement, may determine the reduction obligations of any enterprise within its jurisdiction to be different from the reduction obligations under Principle 2. In doing so, the country must consider the following factors:

- (a) recent reductions achieved by the enterprise and their significance compared to the reductions of its competitors and the industry as a whole;

- (b) the GHG efficiency of the enterprise and its significance compared to the GHG efficiency of the enterprise's competitors and the industry as a whole;
- (c) the GHG efficiency of the enterprise's products or services and their significance compared to that of its competitors and the industry as a whole and the extent to which the enterprise is taking measures to develop and put on the market more GHG efficient products or services in the near future;
- (d) the extent to which the enterprise will take measures to increase its GHG reductions, improve its GHG efficiency, or improve the GHG efficiency of its goods and services during the period for which the enterprise would have obligations different to the obligations under Principle 2;
- (e) the extent to which the enterprise's products or services contribute to (the development towards) a low-carbon society;
- (f) whether the enterprise provides goods or services that are vital and, in the short term, cannot be substituted in the relevant country, even if the production or use of those goods and services is GHG inefficient, and whether the enterprise or country is taking effective measures to reduce the country's dependence on such goods and services;
- (g) whether the enterprise avoids its obligations under these Principles to reduce GHG emissions by outsourcing a significant part of its manufacturing process or other activities to enterprises in another country that is a BPQ country.

3.2 If a country determines, under Principle 3.1, the reduction obligations of an enterprise to be different from the reduction obligations under Principle 2, the relevant enterprise must nevertheless comply with the obligations under Principles 7 to 12.

4.1 If a country does not comply with its reduction obligations under the Oslo Principles or the reduction obligations assumed by the country on the basis of the Paris Agreement, it may determine the reduction obligations of any enterprise within its jurisdiction to be different from the reduction obligation under Principle 2 only if:

- (a) there is compelling reason to do so in the particular circumstances of the enterprise for the relevant year;
- (b) the aggregate of the reduction obligations of all enterprises in the country results in a reduction of at least the same amount of GHG emissions as is required for the country; and
- (c) the country considers the factors in Principle 3.1.

4.2 If a country determines, under Principle 4.1, the reduction obligations of enterprises to be different from the reduction obligations under Principle 2, the relevant enterprise must nevertheless comply with the obligations under Principles 7 to 12.

Global enterprises' GHG reduction obligations

5. A global enterprise must reduce its GHG emissions by the reductions that have to be achieved in accordance with Principle 2 for the activities of the global enterprise in all of the relevant APQ countries, adjusted in accordance with Principle 3.1 or 4.1, and the reductions that have to be achieved by applying the reduction percentage that the world at large had to achieve in the preceding year to the activities of the global enterprise in all of the relevant BPQ countries.

Obligations of controlling enterprise

6. An enterprise must ensure that any enterprise that is within its control complies with the obligations to reduce the GHG emissions of the controlled enterprise and the other obligations in these Principles.

Taking GHG reduction measures where no additional cost

7. 1. An enterprise must take all such measures to reduce its GHG emissions from its activities performed in the relevant country as can be taken without incurring additional cost. Examples include:

- a) switching off power-consuming equipment when not in use;
- b) eliminating excessive power consumption where possible, including for heating, cooling and lighting;
- c) promoting, to the maximum extent possible, measures that will reduce the need for consuming energy, such as improved insulation of buildings and improved efficiency of energy-consuming devices; and
- d) switching from fossil fuel-based energy sources to renewable energy sources.

2. An enterprise must take all such measures to improve the energy efficiency of its products and services as can be taken without incurring additional cost. Examples include:

- a) reducing the energy consumption of a car by using lighter materials if they are available at no additional cost;
- b) avoiding unnecessary energy consumption of devices by providing an automatic switch-off function;
- c) increasing the lifetime of products.

Taking GHG reduction measures where offset financially

8. An enterprise must take measures to reduce its GHG emissions from its activities performed in the relevant country that incur additional costs if the costs will, beyond reasonable doubt, be offset by future financial savings or financial gains within a reasonable time period.

Avoiding activities, products or services causing excessive GHG emissions

9. An enterprise must not carry out activities that will or are likely to cause excessive GHG emissions, including, for example, operating coal-fired power plants, without taking countervailing measures to offset the excessive GHG emissions. In relation to a new activity or investment, an enterprise must achieve and maintain best practice.

10. An enterprise must not make available products or render services that cause excessive GHG emissions, without taking countervailing measures to offset the excessive GHG emissions.

11. An enterprise need not comply with the obligations in Principles 9 or 10 if the activity, or the product or service, can be shown to be indispensable in light of prevailing circumstances, such as might be the case, in particular, in a least developed country.

The reduction obligations cannot be fulfilled

12. If and to the extent that an enterprise or a global enterprise has taken all steps reasonably available but nevertheless has failed to fulfil the obligations in Principle 2 or 5, as adjusted in accordance with Principle 3.1 or 4.1, that enterprise must take sufficient countervailing measures to offset the amount of GHG emissions that the enterprise has failed to reduce under its obligations or provide financial or technical means to a country or another enterprise. The receiving country or enterprise must use these means for GHG-reduction purposes. On the request of the enterprise that has provided financial or technical means, the receiving country or enterprise must provide information to allow the providing enterprise to prove that the means were used to achieve the intended purpose. Reductions brought about through such financial or technical means shall count as reductions for the enterprise that has provided the financial or technical means and not as reductions of the receiving country or enterprise.

Period of grace to achieve GHG reductions

13. If and to the extent that an enterprise can meet neither its obligations to reduce GHG emissions under Principle 2, adjusted in accordance with Principle 3.1 or 4.1, in the short term, nor the alternative obligation under Principle 12, because it would be unreasonably burdensome, the enterprise may have a period of grace in which to meet its obligations, provided that:

- a) the enterprise complies with its obligations under Principles 7 to 10;
- b) the enterprise proceeds as expeditiously as possible to comply with Principle 2, adjusted in accordance with Principle 3.1 or 4.1;
- c) the enterprise adds the reductions that could not be achieved in each year during the period of grace to the reductions that otherwise would be required in the subsequent years; and
- d) the enterprise adds a percentage of 8% to the reduction required under (c) to offset the climate change and other consequences of not having met the GHG-emission reduction required under Principle 2, adjusted in accordance with Principle 3.1 or 4.1, per year in which it does not comply with said GHG-emission reduction obligations.

Obligations to reduce GHG emissions apply even if small

14. An enterprise is not relieved of its obligations under these Principles to reduce its GHG emissions from its activities performed in the relevant country even if its contributions to the global GHG emissions are minimal.

Obligations to reduce GHG emissions apply even if less stringent domestic laws

15. An enterprise must comply with the obligations in these Principles even if relevant national laws or international agreements, whether existing or later promulgated, would require a less stringent reduction of GHG emissions.

Exemption in case of exceptional circumstances

16. An enterprise is exempted from its reduction obligations under Principles 2 to 10 if and to the extent that its non-compliance is the direct result of exceptional circumstances beyond the enterprise's control, such as a natural disaster.

III CONSIDERATION OF SUPPLIERS' GHG EMISSIONS

17. An enterprise must, to the extent reasonably and feasibly possible, ascertain and take into account the GHG emissions of the suppliers of goods and services to the enterprise when selecting its suppliers.

IV ENTERPRISES' OBLIGATIONS OF DISCLOSURE

Disclosure of vulnerability to climate change

18. An enterprise must evaluate:

- a) the vulnerability of its facilities and property to climate change;
- b) the financial effect that climate change will or is likely to have on the enterprise;
- c) the enterprise's actions to increase its resilience to climate change; and
- d) the technically and financially feasible and cost effective options available to reduce GHG emissions.

19. An enterprise must publicly disclose in an accessible manner, including by posting on the enterprise's websites, the information in Principle 18 and ensure, in particular, that it is readily accessible to those who are or are likely to be directly or indirectly affected by the enterprise's activities, including investors, shareholders, clients, financiers, employees, securities regulators and the public.

Disclosure of compliance performance

20. An enterprise must publicly disclose in an accessible manner, including by posting on the enterprise's websites, information about its performance in complying with its obligations under these Principles to reduce its GHG emissions from its activities and ensure, in particular, that this information is readily accessible to those who are or are likely to be directly or indirectly affected by the enterprise's activities, including investors, shareholders, clients, financiers, employees, securities regulators and the public.

Disclosure of GHG emissions from products and services

21. An enterprise must publicly disclose in an accessible manner, including by posting on the enterprise's websites, information about the GHG emissions connected to the enterprise's products and services, and how these emissions compare to those connected to the

products and services of other enterprises, and ensure, in particular, that it is readily accessible to users, consumers and customers.

Disclosure to be proportionate

22. The content and manner of disclosure required by Principles 18 to 21 should be proportionate to the relevant products and services and enterprises concerned.

Disclosure of risk of stranded fossil fuel assets

23. An enterprise whose activities include fossil fuel production must assess the impact that any limitations imposed on the future extraction or use of fossil fuels, consistent with the “carbon budget” concept enunciated by the Intergovernmental Panel on Climate Change and others, will have on its financial situation. The enterprise must disclose this information, and ensure, in particular, that it is readily accessible to investors, shareholders, clients, financiers, employees, securities regulators and the public.

V ENVIRONMENTAL IMPACT ASSESSMENT OF NEW FACILITIES

24. An enterprise must conduct environmental impact assessment complying with the best possible practise in this regard before building any major new or expanding an existing facility, including an assessment of:

- a) the proposed facility’s carbon footprint;
- b) the adverse upstream and downstream effects and ways to reduce such effects; and
- c) the potential effects that future climate change may have on the proposed facility.

VI OBLIGATIONS OF INVESTORS AND FINANCIERS

Obligations of financiers

25. An enterprise in the banking or finance sectors and any other major investor, irrespective of whether they are defined as an enterprise under Principle 1, including most pension funds, must ascertain and take into account the GHG emissions of any project, during both construction and operation of the project, that it considers financing, and the likelihood of the borrower’s ability to repay the loan granted in light of the GHG emissions caused.

Obligations of investors

26. An investor, such as a pension fund, insurer, reinsurer and public investment fund, must ascertain and take into account whether or not the entity in which it aims to invest or has already invested, be it a state under the Oslo Principles or an enterprise under these principles, complies with its obligations under these Principles, as part of its long-term strategy.

27. Investment in a non-complying entity, be it a state under the Oslo Principles or an enterprise under these principles, requires a justification that the investor must provide on request to those who are or are likely to be directly or indirectly affected by the investment, including securities regulators.

28. Investment by a prospective investor, such as a pension fund, insurer, reinsurer or public investment fund, in coal-fired power plants or enterprises engaged in energy generation from other comparatively excessively emitting fossil fuels requires a compelling justification.

29. If and to the extent that an investor decides to keep its investments in a non-complying entity, be it a state under the Oslo Principles or an enterprise under these principles, or if it decides to make new investments in such entities, it has to promote compliance by the relevant entities with the obligations under these principles by making use of its power as investor.

30.1. A pension fund must disclose in a timely, accurate and accessible manner to those who are likely to be directly or indirectly affected by its investments, including supervisory institutions:

- a) its investment portfolio;
- b) its investment strategy in light of the threat of climate change;

30.2. On the request of a beneficiary or a supervisory institution a pension fund must also disclose whether and, if so, to whom it has entrusted the asset management as well as its guidelines or instructions to the asset manager, unless it provides a justification for not disclosing such information.

ANNEX (MEMBERS OF THE GROUP AND ENDORSERS)

These Principles were prepared by the Expert Group on Climate Obligations of Enterprises, which consisted of the following members:

Editorial committee & founding members (see for affiliations the commentary under 4.1)

Brian Preston

Jaap Spier (reporter & author of the commentary)

Philip Sutherland

Daniël Witte (associate reporter)

Founding members

Thomas Pogge

Jim Silk

Contributing members

Qin Tianbao

Elisabeth Steiner

See for a full list of endorsers the commentary under 4.2.

GENERAL COMMENTARY

1 INTRODUCTION

Climate change poses an unprecedented challenge to humankind and the environment. In a speech called ‘The tragedy of the horizon’, the Governor of the Bank of England, Mark Carney, put it this way:

“There is a growing international consensus that climate change is unequivocal. (...) The challenges posed by climate change pale in significance compared with what might come. The far-sighted amongst you are anticipating...”¹

If society proves to be unable to curb the global Greenhouse Gas (GHG) emissions significantly in the very short term,² the future looks grim.³ The well-being and way of life of billions of people will be jeopardised. The environment and biodiversity will be severely impaired. Well over a billion people will need to migrate because their homes or even countries become unliveable or disappear altogether. In the upshot, the stability of the global economy will be seriously impaired.⁴

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- 1 Mark Carney, *Breaking the Tragedy of the Horizon – climate change and financial stability*, Speech at Lloyd’s of London, 29 September 2015, www.bankofengland.co.uk/publications/Documents/speeches/2015/speech844.pdf, p. 3 and 4.
 - 2 Opinions are divided as to whether it is still possible to stay below the 2°C threshold; see for instance Kevin Anderson and Alice Bows, *Beyond ‘dangerous’ climate change; emission scenarios for a new world*, *Philosophical Transactions of the Royal Society* 369, 2011, <http://rsta.royalsocietypublishing.org/content/roypta/369/1934/20.full.pdf>; they answer the question in the negative (p. 41).
 - 3 See in much more detail Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2014: Synthesis Report*, www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf and Institute for Sustainable Development and International Relations (IDDRI) and Sustainable Development Solutions Network (SDSN), *pathways to deep carbonization: 2014 report*, http://unsdsn.org/wp-content/uploads/2014/09/DDPP_Digit.pdf, p. 1 ff and Peter Howard and Derek Sylvan, *Expert Consensus on the Economics of Climate Change*, Institute for Policy Integrity, December 2015, <http://policyintegrity.org/files/publications/ExpertConsensusReport.pdf>. A Quarterly Bulletin of the Bank of England points to the economic disruption caused by significant uninsured losses and mentions, as example, the consequences of widespread flooding in Thailand in 2011: Matthew Scott, Julia van Huizen and Carsten Jung, *The Bank of England’s response to climate change*, in Bank of England, *Quarterly Bulletin 2017 Q2*, www.bankofengland.co.uk/Pages/reader/index.aspx?pub=qb17q2article2&page=1, p. 102.
 - 4 In his speech, mentioned in footnote 1, the Governor observed that “(w)e don’t need an army of actuaries to tell us that the catastrophic impacts of climate change will be felt beyond the traditional horizons of most actors”; a bit further down he continues: “once climate change becomes a defining issue to financial stability, it may already be too late” (p. 4). According to a study by United Nations Environment Programme Finance Initiative (UNEP FI) and Principles for Responsible Investment (PRI), *Universal Ownership: Why externalities matter to institutional investors*, 2011, www.unepfi.org/fileadmin/documents/universal_ownership_full.pdf, the external costs of GHG emissions amounted 7,54% of GDP in 2008; they are said to increase

It is important to understand that climatic changes will take place over centuries and millennia. Hence, the current scientific and policy discussions that focus on the period until 2100 are inherently limited and provide only a small part of the picture. Take sea level rise. Whereas the IPCC predicts sea level rise of between 50 and 100 cm by 2100,⁵ studies predict much more dramatic rises over longer periods of time. In a seminal paper titled ‘Consequences of Twenty-first-century Policy for Multi-millennial Climate and Sea-level Change’, Peter Clark et al. estimate sea level rise of between 25 metres (in a modest emission scenario) and 52 metres in a business as usual scenario.⁶ Sea level rise of 25 metres will affect 19% of the world’s current population.⁷ Another estimate is provided by Maureen Raymo et al., who estimate sea level rise of between 15 and 40 metres, with a mean of 25 metres, based on geological data from the Pliocene in which CO₂ concentrations were similar to those of today.⁸ The magnitude of these long-term consequences will inevitably depend on the degree to which global society manages to reduce its GHG emissions in the next decade.⁹

A policy paper of May 2015 projects the likely GHG emissions of regions. Compared to 2010, only Organisation for Economic Cooperation and Development (OECD) Asia Oceania countries and OECD Americas countries (excluding the USA) will have lower emissions by 2030.¹⁰

up to 12,93% of GDP in 2015. They would rise from 69% to 73% “of externalities between 2008 and 2050” (p. 18 and 19). It is not clear which “externalities” are or are not included.

5 IPCC, Climate Change 2014, o.c. in particular Chapter 13: Sea Level Rise.

6 Peter U. Clark et al., Consequences of Twenty-First Century Policy for Multi-Millennial Climate and Sea-level Change, *Nature Climate Change* 6, 2016, <http://dx.doi.org/10.1038/nclimate2923>.

7 European Marine Board (EMB), The ticking time bomb of climate change and sea-level rise: Why human actions in the next 10 years can profoundly influence the next 10,000, *Science Commentary No. 2*, February 2017, http://marineboard.eu/sites/marineboard.eu/files/public/EMB_Science_Commentary_2.pdf. Under 25-123 centimetres of global mean sea-level rise by 2100, between 0.2 and 4.6% of the world’s population would be flooded annually without adaptation efforts: see Jochen Hinkel et al., Coastal flood damage and adaptation costs under 21st century sea-level rise, *PNAS* 111 (9), 4 March 2014, <http://dx.doi.org/10.1073/pnas.1222469111>. For a more general overview of the future exposure of coastal populations to sea level rise and coastal flooding, see Barbara Neumann et al., Future Coastal Population Growth and Exposure to Sea-Level Rise and Coastal Flooding – A Global Assessment, *PLoS One* 10 (3), 11 March 2015, <http://dx.doi.org/10.1371/journal.pone.0118571>. For a detailed analysis of the impacts of sea level rise on US coastal communities up to 2100, see: Erika Spanger-Siegfried et al., When Rising Seas Hit Home: Hard Choices Ahead for Hundreds of US Coastal Communities, *Union of Concerned Scientists*, July 2017, www.ucsusa.org/sites/default/files/attach/2017/07/when-rising-seas-hit-home-full-report.pdf.

8 Maureen Raymo et al., Departures from eustasy in Pliocene sea-level records, *Nature Geoscience* 4, 2011, <http://dx.doi.org/10.1038/ngeo1118>.

9 See in more detail www.ipcc.ch/pdf/special-reports/spm/sres-en.pdf. In this debate the rights of or obligations towards future generations clearly carry weight. We believe that the obligations towards the present and the next generations serve as a sound legal underpinning of legal reduction obligations.

10 Rodney Boyd, Nicholas Stern and Bob Ward, What will global annual emissions of greenhouse gases be in 2030, and will they be consistent with avoiding global warming of more than 2°C, *ESRC Centre for Climate Change Economics and Policy and Grantham Research Institute on Climate Change and the Environment*

The Paris Agreement of 2015 clearly is a hopeful signal: the Agreement and its recitals point to an increasing willingness to cope with the unprecedented challenge that climate change poses. Unfortunately, the solemn pledges of politicians are, though certainly most welcome, significantly insufficient.¹¹ According to the Climate Action Tracker, current pledges would lead to a mean global temperature increase between 2.3 and 3.5°C by 2100 if fully carried out, with a mean of 2.8°C.¹² What's more, they are vague in regard to the near future.¹³ This is even more striking when one bears in mind that the seriousness of the matter, the urgency to change course radically and rapidly, and the fact that steps taken so far fall considerably short are underscored by the Paris Agreement and a series of other international documents.¹⁴ The question whether the Paris Agreement entails binding and enforceable obligations will be discussed below; see the commentary to Principle 2 under 'Paris Agreement'.

It would be quite a miracle if sufficient reductions could be achieved in the international political arena.¹⁵ To mention just a few obstacles: at the time of writing, there is an astonishing lack of political ambition in several key countries, GHG emissions are swiftly increasing in countries such as India,¹⁶ China has promised its emissions to "peak" by 2030

at London School of Economics & Political Science, www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/05/Boyd_et_al_policy_paper_May_2015.pdf, p. 7.

- 11 Low ambition in countries' climate pledges means avoiding dangerous warming will be harder and costlier than it could have been, according to Simon Evans, UN report: Climate pledges fall short of cheapest route to 2C Limit, Carbon Brief, 30 October 2015, www.carbonbrief.org/un-report-climate-pledges-fall-short-of-cheapest-route-to-2c-limit. See also United Nations Environment Programme (UNEP), Climate Change and Human Rights, December 2015, http://apps.unep.org/redirect.php?file=/publications/pmtdocuments/-Climate_Change_and_Human_Rightshuman-rights-climate-change.pdf, p. 32. The GHG mitigation actions pledged by countries in the Cancún Agreements at the COP in 2010 were not enough to prevent the global average temperature from exceeding the 2°C threshold, unless very rapid and costly reductions are realised after 2020; see Organisation for Economic Cooperation and Development (OECD), Environmental Outlook to 2050: The Consequences of Inaction, 2012, p. 3.
- 12 Climate Action Tracker, <http://climateactiontracker.org>. Also see Michael Gerrard, Sadly, the Paris Agreement Isn't Nearly Enough, Environmental Law Institute, November/December 2016, p. 57.
- 13 The recent agreement on the reduction of GHG emissions caused by air traffic seems to support the view that it is still extremely difficult to reach agreement on far-reaching and timely reductions; see International Air Transport Association, Airlines Hail Historic ICAO Carbon Agreement, Press Release 56, 6 October 2016, www.iata.org/pressroom/pr/Pages/2016-10-06-02.aspx. That said, we realise this agreement is a major step forward.
- 14 In a Joint statement by UN Special Procedures on the occasion of World Environment Day (5 June 2015) quite a few Special Rapporteurs and other senior lawyers rightly observe that "the heads of government and their climate negotiators represent the very last generation that can prevent catastrophic environmental harm to a vast array of human rights", www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=16049&LangID=E. It is all the more alarming that they have not been able to agree on reductions required to avoid passing the 2°C threshold.
- 15 See about inter alia the political landscape in quite a few countries Konrad Adenauer Stiftung, Klimareport 2011: Politik und Wahrnehmung.
- 16 See the India country page on Climate Action Tracker, <http://climateactiontracker.org/countries/india.html>, with information about historical emissions, current pledges, and assessment.

at the latest,¹⁷ methane emissions are increasing¹⁸ due to, *inter alia*, meat consumption and fracking and, last but not least, anthropogenic climate change is still being denied by political parties and pressure groups which have mounting influence in a growing number of countries. The latter serves as an ever more serious stumbling block to achieve the urgently needed reductions. Besides, and not unimportantly, experience has shown that it is quite optimistic to take it for granted that countries will honour their pledges.¹⁹ Even if these pledges amounted to legally binding obligations, their enforceability would be fraught with difficulties. In most instances, enforceability requires political action for which the will is usually lacking.²⁰

Naturally, a binding and enforceable international agreement containing measures that would effectuate a reduction of GHG emissions keeping the increase of global surface temperature below the 2°C threshold would be the best option.²¹ Reaching such an agreement would be unlikely at best. Hence, other options have to be explored.

Progress could be made if countries and enterprises knew their legal reduction obligations with sufficient precision. First, quite a few senior politicians and business leaders might be willing to comply with the legal obligations of the entities that they lead. Secondly, Non-Governmental Organisations (NGOs), investors, supervisory institutions and voters could put mounting pressure on non-complying countries and enterprises to meet their obligations. Last but not least, courts might be willing to enforce these obligations by issuing injunctive relief or declaratory judgements.

17 We readily admit that China is active in many fields; it has for instance become a world leader in renewable energy.

18 The greenhouse gas effect of methane (CH₄) is much larger than that of carbon dioxide (CO₂), even when its much shorter lifespan in the atmosphere is taken into account. See for instance Columbia Climate Center, The Global Network for Climate Solutions Factsheets: Mitigating Methane Emissions from Natural Gas and Oil Systems, April 2012, <http://climate.columbia.edu/files/2012/04/GNCS-Methane-from-Oil-Gas-Factsheet.pdf>; Robert Fares, Methane Leakage from Natural Gas Supply Chain Could Be Higher Than Previously Estimated, *Scientific American*, 13 July 2015, <http://blogs.scientificamerican.com/plugged-in/methane-leakage-from-natural-gas-supply-chain-could-be-higher-than-previously-estimated/>; Bobby Magill, USA 'likely culprit' of global spike in methane emissions over last decade, *the Guardian* 17 February 2016, www.theguardian.com/environment/2016/feb/17/us-likely-culprit-of-global-spike-in-methane-emissions-over-last-decade.

19 The Executive Summary of the International Energy Agency (IEA) World Energy Outlook 2016 is more optimistic. Countries are said to be "generally on track to achieve, and even exceed in some instances, many of the targets set in their Paris Agreement pledges." It adds that "this is sufficient to slow the projected rise in global energy-related CO₂ emissions, but not nearly enough to limit global warming to less than 2 degrees": www.iea.org/publications/freepublications/publication/WorldEnergyOutlook2016ExecutiveSummaryEnglish.pdf, p. 2.

20 To some degree, compliance with the judgments of the European Court of Human Rights (ECHR) is an exception to this rule.

21 For a discussion of this threshold, see §5.

2 FROM THE OSLO PRINCIPLES TO THE ENTERPRISES PRINCIPLES

The Oslo Principles on Global Climate Obligations (OP) were the first tangible result of a group of distinguished lawyers who were brought together to discuss the legal reduction obligations of countries and enterprises.²² These principles predominantly concern the reduction obligations of States. The group could not reach agreement on substantive reduction obligations of enterprises. The diverging views are summarised in the commentary to the OP.²³

According to the OP, States and enterprises must take measures to ensure that the global average surface temperature never increases by more than 2°C compared to the pre-industrial temperature. The extent of the measures that must be taken are determined by the precautionary principle (OP 6 in conjunction with OP 1).

The globally permissible GHG emissions for a specific year have to be divided by the world's population. The resulting figure is the permissible quantum per caput (OP 3). If the emissions of a State exceed the permissible quantum, it has to curb its emissions to the permissible quantum (OP 13).

In addition, the OP provide a series of other obligations – both of States and enterprises – of a substantive or procedural nature. Some of these obligations have inspired the present principles. Those will be discussed in the commentary to the relevant principle(s).

Since the adoption of the OP, only two and a half years ago, a lot has happened, both in the realm of climate change science and international politics. The present group could not escape reconsideration of bits and pieces of the OP; see in more detail below §19. Next to OP 7, 8, 9 and 27-30, obligations of enterprises were 'tabled' and have been further explored by the present group.

3 DRAFTING THE PRINCIPLES AND THE COMMENTARY: WORKING METHOD

Some members of the Oslo group, notably Thomas Pogge, Jim Silk, Jaap Spier and Philip Sutherland, decided to attempt drafting more concrete obligations of enterprises and investors. Elisabeth Steiner generously accepted our invitation to join us. We were keen

22 See for the principles <http://globaljustice.macmillan.yale.edu/sites/default/files/files/OsloPrinciples.pdf>. The principles and commentary of the Oslo Principles will be made available online together with these principles and this commentary.

23 See Oslo Principles (OP), 2015, p. 83-87 under Obligations of Enterprises.

to benefit from the experience and knowledge of a distinguished expert in the realm of environmental law, preferably a senior member of the judiciary. We were hence delighted that Justice Brian Preston accepted our invitation to join the group. At the final stage, when the pre-final draft of the text of the principles and the commentary was distributed for comment, Qin Tianbao, who could not attend earlier meetings, joined our group.

In the context of a presentation of the Oslo Principles, Thomas Pogge, Brian Preston, Jim Silk, Jaap Spier and Philip Sutherland met for two consecutive days in Beijing in June 2015 to discuss a first draft of principles prepared by Jaap Spier with the assistance of Max Essed (a research assistant at the Supreme Court of the Netherlands). In May 2016 the same group met again in Beijing for two days – in the context of presentations of the Oslo Principles – to discuss a significantly adapted draft, prepared by Jaap Spier. Both meetings in Beijing were co-organised by Thomas Pogge. On the basis of both discussions, Jaap Spier, in fall 2016 part-time joined by Daniël Witte, started working on the commentary. The lion's part of the research and the drafting of the commentary was executed by Jaap Spier. Daniël Witte assumed responsibility for the research of a few specific topics. Since November 2016, they have been working intensively on improving the commentary, discussing core issues with Philip Sutherland and Brian Preston on many occasions, and have closely cooperated to incorporate the feedback received from the group on the first and second draft.

We were eager to receive input on our principles and commentary from the “real world”. Books and articles shed quite some light on the views of major players and the challenges they face, but left many questions unanswered. Jaap Spier, in quite a few instances joined by Daniël Witte, has spoken about relevant parts of the principles and issues faced while drafting the commentary with senior executives of central banks, senior experts from pension funds and advisors, company lawyers, executives of NGOs and senior partners of major auditors. We are most thankful for the open and stimulating discussions with all these experts. The fruits of these discussions are reflected in the final version of the commentary.

The first draft of the commentary and the slightly adapted principles were dispatched to the group on December 12, 2016. The draft was heavily influenced by intensive discussions of key issues between Jaap Spier and Brian Preston (in Yogyakarta) and with Philip Sutherland (at Stellenbosch on several occasions for many consecutive days, in Johannesburg (at the occasion of a presentation of the Oslo Principles) and Shanghai). Jaap Spier and Daniël Witte discussed the first draft with Thomas Pogge (in The Hague) and the full draft *in extenso* with Philip Sutherland and Brian Preston (respectively in Stellenbosch and London).

The second drafts, dispatched on April 14, 2017 and several intermediate versions, were discussed at length by Brian Preston, Jaap Spier and Daniël Witte in Delhi; by Philip Sutherland and Jaap Spier at The Hague, in part joined by Daniël Witte. In addition, extensive comments were received from Philip Sutherland and Brian Preston in writing. Thomas Pogge provided insights and extensive comments on the principles. Elisabeth Steiner voiced her full endorsement of the text of both the principles and the commentary.

The third and final drafts were dispatched to the group on July 7, 2017. Some final issues in the principles were flagged in writing by Thomas Pogge and Qin Tianbao. These and all other remaining issues were discussed extensively by Brian Preston, Jaap Spier and Daniël Witte in London and by exchange of emails, and with Philip Sutherland by exchange of many emails. Jim Silk also provided valuable input in writing.

We stopped researching and processing new material on July 1, 2017. New material that was brought to our attention or published between that date and August 1, 2017, was processed on a limited scale.

4 THE MEMBERS OF THE GROUP AND ENDORSERS

4.1 *Members of the group*

Editorial committee and founding members

Brian Preston	Chief Judge of the Land and Environment Court of New South Wales Adjunct Professor at the University of Sydney and Western Sydney University
Jaap Spier	<i>Reporter & author of the commentary</i> Retired Advocate-General in the Supreme Court of the Netherlands Honorary Professor of Global Challenges at the Universities of Amsterdam (PPLE College) & Stellenbosch
Philip Sutherland	Professor of Mercantile Law at the University of Stellenbosch
Daniël Witte ²⁴	<i>Associate reporter</i>

24 Daniël Witte is not a founding member; he joined the group in fall 2016.

Founding members

Thomas Pogge	Leitner Professor of Philosophy and Political Science at Yale University Visiting Professor at King's College London
Jim Silk	Binger Clinical Professor of Human Rights at Yale University Allard K. Lowenstein International Human Rights Clinic Director of the Orville H. Schell Jr. Center for International Human Rights

Contributing members

Qin Tianbao	Luoja Professor of Law at Wuhan University Director of the Research Institute of Environmental Law, Wuhan University Professor of the China Institute of Boundary and Ocean Studies and the Europe Studies Centre, Wuhan University
Elisabeth Steiner	Former Judge in the European Court of Human Rights Attorney at the bar of Vienna Professor at the University of Graz Visiting Professor at the Universities of Iowa and Stanford

4.2 *Endorsers*

We were extremely honoured to receive many valued endorsements. The endorsements listed below are of the Principles only, as we did not want to burden them with this extensive commentary.

The Hon. A.F.M. Abdur Rahman	Justice in the Supreme Court of Bangladesh
Yann Aguila	Former member of the Council of State of France, Professor of Public Law at Sciences Po and University Panthéon-Sorbonne I (Paris)
The Hon. Antonio H. Benjamin	Justice of the High Court of Brazil, Chair of the IUCN World Commission on Environmental Law, Secretary General of the UN Environment International Advisory Council on Environmental Justice

Ben Boer	Professor at the University of Sydney (em.), National Distinguished Professor, Research Institute of Environmental Law, Wuhan University
Jean-Sébastien Borghetti	Professor of Private Law, University Paris-Assas (Paris II)
Klaus Bosselmann	Professor of Public International, European and Environmental Law at the University of Auckland
Client Earth	NGO, London
Esmeralda Colombo	PhD Researcher at the University of Bergen
Geert Corstens	Previous President of the Supreme Court of the Netherlands
The Hon. Hilario G. Davide, Jr.	Former Chief Justice of the Philippines; former Permanent Representative of the Philippines to the United Nations
David Estrin	Co-Chair International Bar Association Presidential Task Force on Climate Change Justice & Human Rights, Certified Environmental Law Specialist, Distinguished Adjunct Professor, Co-Academic Director, Environmental Justice and Sustainability Clinical Program Osgoode Hall Law School York University, Toronto
Michael G. Faure	Professor of Comparative and International Environmental Law at Maastricht University, Academic Director of the Maastricht European institute for Transnational Legal Research; Academic Director of Ius Commune Research School; Professor of Law and Economics at Erasmus University Rotterdam; Scientific Director at the European Center for Tort and Insurance Law
Jörg Fedtke	A.N. Yiannopoulos Professor in Comparative Law, Tulane University Law School and Professor of Common Law, University of Passau
Liz Fisher	Professor of Environmental Law, Corpus Christi College and Faculty of Law, Oxford University
Jan Watse Fokkens	Previous Procurator-General in the Supreme Court of the Netherlands
Monika Hinteregger	Professor of Private Law at the University of Graz
Paul Hohnen	Former senior diplomat and involved, inter alia, in numerous corporate governance initiatives
Ashok Khosla	Former co-President of the Club of Rome; former President of the International Union for the Conservation of Nature; former Co-chair of the United Nations Environment Programme's Resource Panel

The Hon. Michael Kirby	Retired Justice in the High Court of Australia, twice acting as Chief Justice of Australia, former President of the International Commission of Jurists
Bernhard A. Koch	Professor of Civil Law at the University of Innsbruck
Koh, Kheng-Lian	Professor (em.), National University of Singapore, Honorary Director Asia-Pacific Centre for Environmental Law
Marc A. Loth	Former Justice in the Supreme Court; Professor of Private Law at the Tilburg University
Miquel Martin Casals	Professor of Private Law at the University of Girona
M. C. Mehta	Legendary public interest attorney at the Supreme Court of India
Darrell Moellendorf	Professor of International Political Theory and Philosophy, Johann Wolfgang Goethe University, Frankfurt am Main
Karen Morrow	Professor of Environmental Law at Swansea University
Egbert Myjer	Commissioner of the International Commission of Jurists; Former Judge in the European Court of Human Rights
Antonio A. Oposa Jr.	Environmental lawyer, UNEP Roll of Honour (1997), Center for International Environmental Law Award (2008), Ramon Magsaysay Award (2009)
Jacqueline Peel	Professor of Law, Melbourne Law School
Nicholas A. Robinson	University Professor on the Environment, Gilbert and Sarah Kerlin Distinguished Professor of Environmental Law, Pace Law School
Eva Schulev-Steindl	Professor of Public Law; Director of the Institute of Public Law and Political Science at the University of Graz
Jessica Simor	barrister (QC), Matrix, London
Peter Singer	Ira W. DeCamp, Professor of Bioethics, University Center for Human Values, Princeton University and Laureate Professor, School of Historical and Philosophical Studies, University of Melbourne
Nico Soininen	Senior lecturer of environmental law at the University of Eastern Finland
Stephen Stec	Co-Executive Director Environmental Law Association of Eastern Europe and Newly Independent States (Guta Association)
James Thornton	CEO of Client Earth
The Hon. Emmanuel Ugirashebuja	President of the East African Court of Justice

Christina Voigt (personal capacity)	Professor of Public and International Law at the University of Oslo
Michael D Wilson	Associate Justice, Supreme Court of Hawaii
Mary Christina Wood (personal capacity)	Philip H. Knight Professor of Law and Faculty Director of the Environmental and Natural Resource Law Program, University of Oregon School of Law

5 THE 2-DEGREE THRESHOLD

Over the years and particularly in the course of the last decade, major enterprises and leading associations of enterprises have come to understand that tackling climate change requires a heavy intensification of present efforts.²⁵ Many endorse the view that the 2°C threshold should not be passed and, thus, that any measures necessary to avoid passing the 2°C threshold must be taken.²⁶

To the best of our understanding, this threshold is neither clear nor defined, and if it would be, the jury is still out on its exact location. It is however an ambition around which politicians, policymakers and scientists have converged. Even though an overwhelming majority of climate scientists agrees that 2°C is the ballpark in which the consequences of climate change become seriously adverse because of the passing of one or more tipping points, it is not known at which exact degree of warming these tipping points lie.²⁷

25 See, e.g., CDP, *The Climate Has Changed: Why bold, low carbon action makes good business sense*, We Mean Business Coalition, 2014, www.wemeanbusinesscoalition.org/sites/default/files/The%20Climate%20Has%20Changed_1.pdf; Global Commission on the Economy and Climate, *Better Growth, Better Climate: The New Climate Economy Report*, September 2014, http://newclimateeconomy.report/2014/wp-content/uploads/sites/2/2014/08/BetterGrowth-BetterClimate_NCE_Synthesis-Report_web.pdf. Auden Schendler and Michael Toffel have warned that “rating” climate change achievements may paint a misleading picture of the activities of enterprises by overlooking their political actions: *What Environmental Ratings Miss*, Working Paper 12-017, Harvard Business School, 21 September 2011, <http://www.hbs.edu/faculty/Publication%20Files/12-017.pdf>; also see Total, *Integrating Climate Into Our Strategy*, May 2017, www.total.com/sites/default/files/atoms/files/integrating_climate_into_our_strategy_eng.pdf. Unilever estimates the financial consequences of global warming to its business to have reached €400 million in 2015; see <http://nltimes.nl/2015/05/21/ceo-climate-change-costs-unilever-eu400-million>.

26 See, for instance, www.wbcsd.org/Clusters/Climate-Energy.

27 There are multiple tipping points, and it is uncertain at which level of global warming exactly they will each be triggered or what the exact consequences will be. It is, however, widely accepted that already the triggering of one such point is likely to lead to runaway climatic change, in which the climate irreversibly changes from its current (still) relatively stable state. The first two major tipping points lie around 2°C, so it can reasonably be assumed that this is the reason why that threshold has become so widely accepted and applied as the threshold at which climate change becomes dangerous. However, it must be stressed that there is uncertainty as to where the tipping points exactly lie. As the above findings suggest, we already face a risk of triggering one or more tipping points at the current level of warming (~1°C). It is also not clear whether triggering a single tipping point will cause enough extra warming that other tipping points will necessarily

When we refer to the 2°C threshold, we thus do not mean to say that the world has done a brilliant job if we limit global warming to 1.99°C, nor that catastrophe will set in if global warming reaches 2.01°C. The point is that global warming should be limited as much as possible. We believe that the *legal* maximum at the time of writing lies at 2°C.²⁸ Although such a clearly and narrowly defined threshold may not be the best option in light of the science, it is in light of the politics. It provides a clear, binding target toward which humanity can, and must, work. That is why we refer to the 2°C threshold in this text – bearing the imperfections of such a specific threshold. It is equally important to note that by this, we do not mean that the legal obligation to limit global warming may lie above 2°C. Even if the consequences of global warming become seriously adverse at, say, 2.3°C, the precautionary principle requires to err on the side of safety – with the caveat that, as mentioned in other parts of this text, according to current scientific insights, global warming of 2°C is by no means safe in view of the increasing amount and severity of natural disasters the world is already experiencing today.

6 LEADING ENTERPRISES AND ORGANISATIONS OF ENTERPRISES SOUND THE ALARM

Ever more enterprises are willing to curb their GHG-emissions or at least to discuss trajectories to that effect. A group of prominent policymakers, corporate leaders and scientists led by Christina Figueres recently issued a statement, saying:

“if the world doesn’t set greenhouse gas emissions on a downward path by 2020, it could become impossible to contain climate change within safe limits.”²⁹

According to the Global Risks Report 2016,³⁰

be triggered as a consequence. See in more detail Timothy M. Lenton, Earth System Tipping Points, [https://yosemite.epa.gov/ee/epa/erm.nsf/vwAN/EE-0564-112.pdf/\\$file/EE-0564-112.pdf](https://yosemite.epa.gov/ee/epa/erm.nsf/vwAN/EE-0564-112.pdf/$file/EE-0564-112.pdf); IPCC, Climate Change 2014, o.c. p.70-7; Brian Palmer, An Argument of Degree: An IPCC author assails the two-degree target as scientifically bankrupt and geographically biased, National Resources Defense Council, 27 March 2015, www.nrdc.org/onearth/argument-degree; Carlo C. Jaeger and Julia Jaeger, Three views of two degrees, *Regional Environmental Change* 11, 2011, <http://dx.doi.org/10.1007/s10113-010-0190-9>.

28 For a discussion on the ambition to limit global warming to 1.5°C introduced in the Paris Agreement, see §19.2.

29 Chris Mooney, These experts say we have three years to get climate change under control. And they’re the optimists, *The Washington Post*, 29 June 2017, www.washingtonpost.com/news/energy-environment/wp/2017/06/29/these-experts-say-we-have-until-2020-to-get-climate-change-under-control-and-theyre-the-optimists/.

30 World Economic Forum (WEF), *The Global Risks Report 2016: Insight Report*, 11th Ed., www3.weforum.org/docs/Media/TheGlobalRisksReport2016.pdf.

“[e]nvironmental worries have been at the forefront in recent years ... reflecting a sense that climate change-related risks have moved from hypothetical to certain because insufficient action has been undertaken Interestingly, extreme weather events ... are considered a concern in both the short and the long term, reflecting an expectation that the frequency and intensity of crises will continue to rise.”³¹

According to Institutional Investors Group on Climate Change (IIGCC)

“[i]n 2015 institutional investors representing over \$24 trillion assets under management called on governments to support a new global agreement, in addition to national and regional measures. This was in recognition of the significant impact that climate change will have on our holdings, portfolios and asset values in the short, medium and long term.”³²

Citi(bank), JP Morgan and Morgan Stanley point to concern regarding the impact of GHG emissions.³³ The “A Caring for Climate Report”, a guide for responsible corporate engagement in climate policy,³⁴ may serve as an example. The guide is a cooperative endeavour of the World Resources Institute (WRI), World Wildlife Fund (WWF), United Nations Environment Programme (UNEP), United Nations Global Compact (UNGC),³⁵ the Climate Group and Ceres,³⁶ among others. The guide observes that “business support and policy endorsement are powerful” and can “influence others within their industry, supply chain, or customer base.” It reports a general reluctance of enterprises to reduce GHG emissions, but also highlights that “a subset of Global Compact signatories have made an important commitment” i.e. to

31 P. 10 and 12; see also p. 13 and about the Paris Agreement p. 14.

32 Stephanie Maier and Oliver Grayer, *Investor Expectations of Oil and Gas Companies: Transition to a lower carbon future*, Institutional Investors Group on Climate Change (IIGCC), Investor Network on Climate Risk (INCR), Investor Group on Climate Change (IGCC) and Asian Investor Group on Climate Change (AIGCC), November 2016, p. 3.

33 *The Carbon Principles*, 2008, www.morganstanley.com/globalcitizen/environment/CarbonPrinciplesFinal.pdf, under The Intent.

34 United Nations Global Compact (UNGC), UNEP and United Nations Framework Convention on Climate Change (UNFCCC) Secretariat, *Guide for Responsible Corporate Engagement in Climate Policy: A Caring for Climate Report*, 2013, www.unglobalcompact.org/docs/issues_doc/Environment/climate/Guide_Responsible_Corporate_Engagement_Climate_Policy.pdf.

35 Both by offering a policy platform and practical framework for companies that are committed to sustainability and responsible business practices. It has more than 8,000 corporate participants in 145 countries (borrowed from just mentioned guide after footnotes).

36 A non-profit organisation mobilising business and investor leadership on inter alia climate change. It directs the Investor Network on climate risk, a network of over 100 institutional investors with assets totalling more than US\$ 12 trillion (same source as penultimate footnote).

“Engage more actively with [their] own national governments, intergovernmental organizations and civil society to develop policies and measures to provide an enabling framework for business to contribute effectively to building a low-carbon and climate-resilient economy.”³⁷

The guide calls, *inter alia*, for identification of implications and opportunities to engage, internal reviews to ensure “accountability in the company’s approach”, policies to reduce GHG-emissions “to minimize damage to the global climate system”, “low-carbon general term for products, services and business models with lower GHG emissions”. Thus, the authors aim to contribute to “the mitigation of operational, legal and reputational risks”.³⁸ More specifically, they recognise the urgency of decelerating climate change and the pressing need for extensive action by the corporate sector. The initiative’s business leaders committed to taking “further practical actions to improve continuously the efficiency of energy usage and to reduce the carbon footprint of our products, services and processes, to set voluntary targets for doing so, and to report publicly and annually on the achievement of those targets” and “becoming active business champion[s] for rapid and extensive climate action”.³⁹

There is, however, a gap between the rhetoric and the actions of these business leaders. As the adage says, actions speak louder than words. Unfortunately, there has been a reluctance to take sufficient action to match the words to reduce global GHG emissions at the greater pace required to avoid passing the 2°C threshold. This problem is exacerbated by the words – the voluntary commitments to reduce GHG emissions – being very abstract and lacking clarity. This is discussed in more detail in §11.

In most cases, this reluctance probably stems from the lack of assurance that competing businesses would join these leaders in achieving far-reaching reductions. If business leaders would have such assurances, they would be sure that they would realise emission reductions without putting their enterprise at a competitive disadvantage. Current reluctance is in these cases thus conditioned on the absence of any such assurance, as leaders fear that their efforts will put them at disadvantage while not resulting in significant positive effects.

37 UNGC, UNEP and UNFCCC Secretariat, Responsible Corporate Engagement in Climate Policy, o.c. Executive summary.

38 Thus we understand the first paragraph *in fine* under the heading Business engagement architecture; see also Lucy Amis, Peter Brew and Caroline Ersmarker, Human Rights: It is Your Business: The case for corporate engagement, The Prince of Wales International Business Leaders Forum, 2005, https://comdev.org/userfiles/files/1154_file_Human_Rights_It_Is_Your_Business.pdf, p. 4 and 8.

39 UNGC, UNEP and UNFCCC Secretariat, Responsible Corporate Engagement in Climate Policy, o.c. Appendix D.

7 ADVANTAGES OF ACHIEVING REDUCTIONS

Taking the measures necessary to stay below the 2°C threshold of global warming is in the best interest of enterprises. It entails benefits in terms of access to capital⁴⁰ and may improve consumer relationships, human resource management and innovation capacity.⁴¹ A report issued by the British Department for Business Innovation & Skills adds that it will drive innovation and productivity, and open up new markets. In addition, it could lead to new business models akin to those associated with the circular and sharing economy.⁴² The United Nations Guide to Corporate Sustainability convincingly puts it as follows:

“Corporate sustainability is imperative for business today – essential to long-term corporate success and for ensuring that markets deliver across society. To be sustainable companies must ... operate responsibly in alignment with universal principles and take actions that support the society around them. Then, to push sustainability deep into the corporate DNA”⁴³

Last but not least, clear and enforceable obligations would create a level playing field.⁴⁴

40 The enterprises' performance already plays a role in relation to “ratings”; see for instance Standard & Poor's Ratings Services, *Insights: Climate Risk: Rising Tides Raise the Stakes*, December 2015, www.spratings.com/documents/20184/984172/Insights+Magazine+-+December+2015/cff352af-4f50-4f15-a765-f56dcd4ee5c8, p. 44 ff.

41 European Commission (EC), *Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions: A renewed EU strategy 2011-2014 for Corporate Social Responsibility*, COM(2011) 681, p. 3; see also UNGC, *Guide to Corporate Sustainability: Shaping a Sustainable Future*, 2014, www.unglobalcompact.org/docs/publications/UN_Global_Compact_Guide_to_Corporate_Sustainability.pdf, p. 35.

42 Department for Business & Innovation Skills, Government of the United Kingdom (UK), *Corporate Responsibility, Good for Business & Society: government response to call for views on corporate responsibility*, April 2014, www.gov.uk/government/uploads/system/uploads/attachment_data/file/300265/bis-14-651-good-for-business-and-society-government-response-to-call-for-views-on-corporate-responsibility.pdf, p. 3. In the context of reporting obligations, see Céline Kauffmann, Cristina Tébar Less and Dorothee Teichmann, *Corporate Greenhouse Gas Emission Reporting: A Stocktaking of Government Schemes*, OECD Working Papers on International Investment 2012/01, www.oecd.org/daf/inv/investment-policy/WP-2012_1.pdf, p. 21 ff.

43 UNGC, *Guide to Corporate Sustainability*, o.c. p. 7.

44 Julie Campagna, *United Nations Norms on the Responsibility of Transnational Corporations and Other Business Enterprises with Regard to Human Rights: The International Community Asserts Binding Law on the Global Rule Makers*, *The John Marshall Law Review* 37, 2004, <http://repository.mls.edu/lawreview/vol37/iss4/4>, p. 1223.

8 THE DESIRABILITY OF A FOCUS ON THE OBLIGATIONS OF ENTERPRISES

“Legitimising corporations is not a case of offsetting any bad done in the name of profitability by ‘donating some money to save the rainforest’ (...). ‘That is not what making a business organisation legitimate is about; it has to be made legitimate by asking: How much does the business make the world a better place?’”⁴⁵

If all countries together were to curb their GHG-emissions to the extent needed to avoid passing the 2°C threshold,⁴⁶ it would not be necessary to focus on the obligations of enterprises. As previously pointed out, that would unfortunately take quite a miracle.

Moreover it may be difficult to enforce State obligations in courts and tribunals.⁴⁷ Even if some courts or tribunals may enforce mitigation obligations of States such enforcement is unlikely to be universal. Furthermore, litigation against States is likely to be drawn out and highly complex. We should therefore explore additional means to avoid global catastrophes, despite the obvious importance – and arguably pre-eminence – of State obligations. This need is underlined by the opinion of leading climate change scientists that annual reduction efforts to keep global warming below the 2°C threshold will increase dramatically if we keep falling short.⁴⁸ Hence, despite the obvious importance – and arguably pre-eminence – of obligations of States, we should explore additional means to avert the global catastrophes that can still be avoided. Put differently: it seems impossible to achieve the required global reductions without major contributions by enterprises.⁴⁹ As the Austrian

45 Laurie Havelock, The Essence of shareholder value: ESG Magazine Interview with John Kay, ESG Magazine 6, Winter 2016 p. 23. See for a similar view a circular of the Securities and Exchange Board of India (SEBI), Format for Business Responsibility Report, to All Listed Entities, CIR/CFD/CMD/10/2015 4 November 2015, p. 10.

46 This encompasses other measures, such as carbon storage, if sufficiently safe; see about that topic the in-depth study of Michael G. Faure and Roy A. Partain, Carbon Capture and Storage: Efficient Legal Policies for Risk Governance and Compensation, MIT Press, 2017.

47 Opinions diverge as to the role of courts in the realm of climate change; see inter alios Christian Djéffal, *The Iron Rhine Case – A Treaty’s Journey from Peace to Sustainable Development*, ZaöRV 71, 2011 www.zaoerv.de/71_2011/71_2011_3_a_569_586.pdf, p. 34 and 35 and Lucas Bergkamp, Adjudicating scientific disputes in climate science: the limits of judicial competence and the risks of taking sides, *Environmental Liability* 3, 2015, p. 80 ff; Lucas Bergkamp and Jaap C. Hanekamp, Climate Change Litigation against States: The Perils of Court-Made Climate Policies, *European Energy and Environmental Law Review*, October 2015, p. 102 ff (the latter three are extremely reluctant).

48 James Hansen et al., Assessing “Dangerous Climate Change”: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature, *PLOS ONE*, 3 December 2013, www.columbia.edu/~jeh1/mailings/2013/20131202_PopularSciencePlosOneE.pdf.

49 “Agenda 21”, for instance, is based on a similar thought; see Nicholas A. Robinson and Lal Kurukulasuriya, Training Manual on International Environmental Law, UNEP, 2006, p. 363, albeit not specifically in relation to climate change. Amis, Brew and Ersmarker rightly observed (already in 2005) that “[m]omentum for

Federal Administrative Court has nicely put it, global warming cannot be limited to 2°C if enterprises from all sectors would not cooperate and contribute to the reduction of CO₂ emissions.⁵⁰ Thus, the aim of these principles is to clarify the emission reduction obligations of enterprises.⁵¹

There are other reasons, too, for a focus on enterprises. A major part of global emissions is caused by the activities, products and services of enterprises.⁵² If sued before domestic courts for injunctive relief to curb GHG emissions, States are likely to bring up the argument that this is not a matter for courts but a political issue that needs to be solved in the (international) political arena. Enterprises may put forth similar arguments, posing that it is entirely up to the relevant State to determine the reduction obligations of all legal

corporate action has built rapidly over the last five years”, Human Rights: It is Your Business, o.c. p. 1. See further Mathilde Hautereau-Boutonnet (ed.), *What law in the face of climate change?* Dalloz, 2015, p. 24.

50 The Austrian Federal Administrative Court, as summarised by the Austrian Constitutional Court (Verfassungsgerichtshof), under 9.8: “dass das Zwei-Grad-Ziel nur erreicht werden könne, wenn alle Wirtschaftssektoren (insbesondere auch der Flugverkehr) zusammenwirken und einen Beitrag zur Reduktion der CO₂-Emissionen leisten würden.” (“that the 2-degree-goal could only be reached if all business sectors (in particular also airplane traffic) would work together and contribute to the reduction of CO₂ emissions”): *Schwechat Case*, 29 June 2017, www.vfgh.gv.at/downloads/VfGH_Entscheidung_E_875-2017_Flughafen_dritte_Piste.pdf. The judgment to which is referred has since been reversed, see footnote 413 for further elaboration.

51 We leave aside whether or not a reform of company law would be useful or even necessary; see about that topic *inter alios* Beate Sjøfjell, *Regulating Companies as if the World Matters: Reflections from the ongoing Sustainable Companies project*, University of Oslo Faculty of Law Legal Studies, Research Paper Series, 2011-35 and *Wake Forest Law Review*, 2012, <http://ssrn.com/abstract=1964213>, in particular p. 122 ff. That is a topic in its own right. See also Bas Steins Bisschop, *Globalization: Selected Developments in Corporate Law and Philip Sutherland, Globalization and Corporate Law*, both in Michael Faure and André van der Walt (eds.), *Globalization and Private Law*, Edward Elgar, 2010, respectively p. 211 ff and p. 255 ff. According to Geoff Lye, a move “towards one which takes into account both societal expectations and values, and the needs and expectations of the various stakeholders over and above the law” is necessary: *Multinational corporations and the changing landscape of climate accountability*, Linacre lectures 2008.

52 According to Katinka D. Jesse, who also refers to other sources, enterprises have become important actors: *The Responsibility of Business Enterprises to Respect the Environment: A Plea to Supplement the Ruggie Framework*, *Corporate Law Journal* 9, 2013, p. 43. Nils Rosemann, quoting Von Heinrich, convincingly put it as follows: “Alone, business can’t change the world. But together with public partners, business can make decisive contributions (...)”, *The UN Norms on Corporate Human Rights Responsibilities: An Innovative Instrument to Strengthen Business’ Human Rights Performance*, Friedrich Ebert Stiftung, 2005, <http://library.fes.de/pdf-files/iez/global/04669.pdf>, p. 9. Climate change is not mentioned, but his argument equally goes for that topic. Several sectors of industry, such as melting, cement production, steelmaking, oil refining and other distillation processes require vast amounts of energy; see IDDRI and SDSN, *deep decarbonization*, o.c. p. 18. For an extensive review about the role of enterprises from a human rights angle, see Monash University, *Human Rights Translated: A Business Reference Guide*, Castan Centre for Human Rights Law, International Business Leaders Forum and UN Office of the High Commissioner for Human Rights (UNOHCHR), 2008, www2.ohchr.org/english/issues/globalization/business/docs/Human_Rights_Translated_web.pdf. See also UNGC, *Guide to Corporate Sustainability*, o.c. According to UNEP and PRI, *Universal Ownership*, o.c. “[m]edium-to-large sized publicly listed companies cause one-third (35%) of global externalities annually” (this includes supply chains): p. 6.

persons within its territory. That argument is not without any merit, but it will carry less weight than similar arguments invoked by the State. Moreover, enterprises can sometimes be sued before a wider array of courts, unlike States. It may be possible to litigate against them beyond their home jurisdictions.

Courts in some developing countries have a reputation for being more progressive than courts in developed countries. Therefore, judgements issuing injunctive relief to curb GHG emissions are more likely to be issued in developing countries. Such judgements can be enforced in the respective countries by penalties if the enterprise in point does not comply.⁵³

Major investors could play an important role in their capacity as shareholders, either by pressurising “their” enterprises to reduce their emissions at the pace legally required or by refraining from buying shares of enterprises that do not comply with their emission reduction obligations. Partly because investors are starting to exercise their power exactly for this cause, an increasing number of enterprises are coming to understand the advantage of being labelled a sustainable corporation.

9 NOT ALL POTENTIALLY RELEVANT ACTIVITIES ARE COVERED BY OUR PRINCIPLES

An important contributor to global emissions is over-consumption. In our mind, over-consumption should not be stimulated by enterprises. However, over-consumption is at least in part based on individual choices. Another significant source of GHG emissions is global

53 Major enterprises and in particular multi-national corporations can be sued before courts in several countries, depending on the relevant private international and procedural law, courts in the country where the emissions take place, where the enterprise is based or where it has assets may qualify; the same may go for the place where the damage will occur. We are realistic enough to realise that enforcement may be fraught with difficulties. Courts and judges in quite a few countries may feel tempted to find legal justifications to dismiss claims for injunctive or declaratory relief; conversely, activist courts in African, Asian and Latin American countries may be keen to take the lead. Naturally, reluctant courts may find solace in the “political argument”, i.e. this is a matter to be decided by politicians. The marginal contributions to the global threats may also serve as a way out, as the contribution of no single enterprise exceeds 0,5% of the global GHG-emissions, whilst the emissions of the overwhelming part of enterprises is ways below this percentage. Richard Heede might disagree as, according to him, a major part of the GHG emissions can be attributed to a handful enterprises: Tracing anthropogenic carbon dioxide and methane emissions to fossil fuel and cement producers, 1854-2010, *Climatic Change* 122 (1-2), January 2014. <http://dx.doi.org/10.1007/s10584-013-0986y>. For more recent figures, see Paul Griffin, *The Carbon Majors Database: CDP Carbon Majors Report 2017*, CDP and Climate Accountability Institute, July 2017, <https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf?1501833772> and B. Ekwurzel, J. Boneham, M.W. Dalton, R. Heede, R.J. Mera, M.R. Allen and P.C. Frumhoff, *The rise in global atmospheric CO2 surface temperature and sea level from emissions traced to major carbon producers*, forthcoming. See §10 for further discussion regarding attribution. Last but not least: judges cannot play any role as long as interested parties do not submit the right cases.

food production, to a considerable degree because of livestock production. In general, the global food production system must make a radical transition towards sustainable modes of production and consumption. We wonder, however, whether the law has sufficiently progressed to discern concrete obligations.⁵⁴

Climate change will have many adverse consequences, such as torrential rainfall, excessive drought or increasingly heavy hurricanes. It follows that new buildings should be resistant to events that might occur. That affects the obligations of building companies, architects and others active in that field.⁵⁵ Auditors should assess the vulnerability to climate change of enterprises that have entrusted the auditing of their (annual) reports to them. These are just examples of obligations that are not directly related to GHG emissions and hence are not covered by our principles.

It would be an interesting, challenging and useful exercise to map obligations of these and other important players. That goes beyond the scope of our venture.⁵⁶ We stick to a few general observations:

- 1) It is probably impossible to paint a credible picture of obligations of such a myriad of players. Much will depend on the peculiarities of the applicable law⁵⁷ and of the contractual setting between the parties;
- 2) The contractual setting may not be decisive. These players may have obligations to third “parties”, whether or not based on (quasi) contracts, tort or other legal features. If they have such obligations, one has to determine the scope of the “third parties”;
- 3) Enterprises that provide services or goods often try to escape potential liability. To that effect they often incorporate contract clauses limiting or excluding liability. Once again, the question whether such clauses can be upheld in relation to the other contracting party or “third parties” has to be answered on the basis of the applicable law.

54 This would be an interesting question for further research. However, it falls beyond the scope of the already very elaborate research behind the principles and this commentary.

55 See e.g. Scott M. Seaman and John E. DeLascio, *Professional Liability and Global Warming Claims*, p. 18 and Paulino Fajardo, *Climate-change litigation: American phenomenon or global trend*, p. 20, both in Munich Re, *Liability for climate change? Expert’s views on a potential emerging risk*, 2010, www.munichre.com/site/touch-publications/get/documents_E753942211/mr/assetpool.shared/Documents/5_Touch/_Publications/302-05493_en.pdf.

56 The focus of our principles is on mitigating climate change; see in more detail §15. That is one of the reasons why we have not addressed activities that may be relevant in relation to climate change but that are unrelated to GHG emissions.

57 See about the private international aspects of climate change Ulrich Magnus, *Injunctive Relief against Climate Change*, in Jaap Spier and Ulrich Magnus (eds.), *Climate Change Remedies: Injunctive Relief and Criminal Law Responses*, Eleven, 2014, p. 144 ff and Luc Strikwerda, *Een zwakke steen in ‘Rome II’: de conflictregel voor aansprakelijkheid wegens milieuschade*, in Ton Hartlief and Michael G. Faure (eds.), *De Spier-bundel: De agenda van het aansprakelijkheidsrecht*, Wolters Kluwer, 2016, p. 149 ff.

10 HOW TO ATTRIBUTE EMISSIONS

10.1 Introduction

The attribution of GHG emissions is a key issue that needs to be addressed. In our view, the fairest and most workable solution is to attribute emissions to their direct source. For example, that means that emissions from oil exploration, extraction and refining are attributed to the responsible oil company, whereas emissions from combustion in an airplane are attributed to the airline.⁵⁸ There are several reasons for our view. First and foremost, it spreads the reduction burden in most instances (an exception, which is discussed below, is electricity) and makes it easier to comply with the reduction obligations *and* to enforce them if not fulfilled, need would be by seeking injunctive relief. Secondly, any other choice would create possibilities to circumvent or avoid the reduction obligation. The following examples may explain why we have opted for attribution to users.

10.2 General attribution of emissions

It follows from the formulation of Principle 2 that we attribute GHG emissions to the enterprise (be it a producer, supplier, service provider, or otherwise) which causes them. That follows from the formulation “An enterprise must reduce *its* GHG emissions from *its activities*” (emphasis added). Insofar as emissions are attributed to consumers or governmental agencies, they are covered under the OP. This is justified because entities only have direct power over *their* activities: a car producer chooses to produce cars, but a driver chooses how much and how efficiently to drive; and whether to drive a car in the first place. If one would choose to attribute emissions differently, it would be very difficult to calculate how the emissions from an end-product would have to be attributed to, say, the supplier of a small part. Take an aircraft manufacturer: it manufactures aircrafts by assembling thousands of parts acquired from suppliers. It would be impossible, and extremely arbitrary, to come up with a formula to attribute the emissions of the use of the aircraft to the supplier of, say, the millions of screws that hold it together. In our view, there is no legally or morally sound answer to this question. In other words: we cannot attribute the emissions from the use of a product to a previous link in the chain.

58 Emissions that are caused at earlier or later stages in the chain can be taken into account for the purpose of impact assessments.

Others advocate different approaches to the attribution of CO₂ emissions.⁵⁹ An example is ‘science based targets’, a highly interesting approach laid out in a report issued by Carbon Disclosure Project (CDP), WRI and WWF.⁶⁰ They prefer a focus on the respective sectors; they “take into account” “inherent differences among sectors, such as mitigation potential and how fast each sector can grow relative to economic and population growth”. Within each sector “companies can derive their science-based emission reduction targets based on their relative contribution to the total sector activity and their carbon intensity relative to the sector’s intensity in the base year”. Enterprises can choose a base year starting from 2010 and a target not later than 2050.⁶¹

This approach clearly has merits, but it makes things rather complicated. More importantly, the key features are rather vague,⁶² whilst the report does not explain *why* it advocates this way of counting emissions.⁶³ Furthermore, it is based on the idea that a relatively small group of enterprises (500) are responsible for the lion’s part of global emissions.⁶⁴ As explained in §10 we are not convinced that this strategy is the most effective or fairest to achieve the global reductions.⁶⁵

We admit that the fact that different enterprises or sectors have greater or lesser reduction *potential* may carry weight. But we do not think that generally applicable rules to cope with this and other factors will work, or that they are intrinsically fair. Some – in the short-term probably few – sectors may and likely will have to choose between closing their doors or adapting, or in the more extreme cases⁶⁶ substituting, their products or services. That is by no means novel. Over the centuries, industry has had to cope with the changing

59 The report discussed below (Science Based Targets) explains this choice as follows: non CO₂ emissions “are negligible for a majority of corporations”: p. 16, also see p. 47.

60 CDP, WRI and WWF, Sectoral Decarbonization Approach (SDA): A method for setting corporate emission reduction targets in line with climate science, Science Based Targets Initiative, May 2015, <https://sciencebasedtargets.org/wp-content/uploads/2015/05/Sectoral-Decarbonization-Approach-Report.pdf>.

61 P. 8.

62 That also goes for the “normalized targets” (emissions per unit of production, number of employees or value added), p. 18. Furthermore, the report does not provide guidance on how to weigh these normalised targets individually or how to combine them into a standardised model. On p. 34 value added is defined as “gross profit, which equals revenue minus cost of purchased goods and services”. It is not self-explanatory why gross profit should be relevant in determining these targets.

63 On p. 38 the report observes that the advocated method “does not take into account considerations of equity or fairness across different countries.” Our principles explicitly do, as follows from Principle 2.

64 P. 10; also see p. 12 and 18. See for further elaboration p. 23 ff. Also see footnote 53 for the stance of Richard Heede on this topic.

65 Julie Raynaud, Carbon Compass: Investor guide to carbon printing, Kepler Chevreux, 23 November 2015, www.iigcc.org/files/publication-files/Carbon_Compass_final.pdf, rightly observes that “[c]arbon footprint is arguably the most widely-used, simple and high-level metric in this field”, p. 17; also see p. 24 and p. 72 (science based target methodologies have been developed for investment purposes).

66 Such as the coal, oil and gas sectors.

demands of society. In our view, countries are in the best position to tailor the allocation of reduction obligations between the respective enterprises within their jurisdiction, as is provided for in Principle 3 and 4.

10.3 *Attribution of emissions from oil*

The essence of attributing emissions remains, as discussed in the previous section, at the direct source. In oil production, there are three stages (simplified): excavation, refining and sale. If the three stages of oil production are conducted by different legal vehicles, we attribute emissions to that legal vehicle where they are caused. As with the screws of an aircraft, attributing emissions of the combustion of the end-product to one of the stages of production would be highly arbitrary. Another practical argument against attributing emissions from the use of oil to a previous link in the production chain would be that enterprises engaged in oil production would have to reduce their emissions; in order to achieve those reductions, they will surely have to invest. That would mean that, at least in the long-term, such an enterprise would have to reduce its sales of oil. That would, if oil demand remains constant, create a gap in supply that would likely be filled by other enterprises active in countries where these principles are unlikely to be enforceable. Hence, emissions from the combustion of oil by consumers are attributed to those that use the product (for example drivers). Insofar as those consumers are governmental agencies or private persons, those emissions are covered under the OP; insofar as those consumers are enterprises (in our example company cars used for company travel), those emissions are covered under these principles as well as the OP.

10.4 *Attribution of emissions from electricity production*

Attributing emissions from electricity production is definitely a hard case. Applying the logic explained and justified above would mean that virtually all emissions from electricity production are attributed to the utility company – except, of course, the emissions from excavating coal or gas where those fossil fuels are used as the basis for electricity generation.

The consequences of this approach are far-reaching: no emissions are attributed for the use of electricity.⁶⁷ In turn, electricity producers – usually utility companies – face carrying a relatively larger burden of the total emissions of their end product than oil production

67 That means, inter alia, that “only” electricity suppliers can be sued if they do not reduce their GHG emissions at the pace needed, which may be problematic if the relevant court is unwilling to issue, for example, injunctive relief. That in itself, however, is insufficient reason for a different approach than advocated in the text.

companies. Therefore, enterprises of which the production processes are powered by electricity do not emit GHGs for the generation of power, as those are attributed to their utility companies, whereas enterprises that combust oil to power their production processes do emit GHGs.

Although this may seem a large problem, in our view it is not. Enterprises that generate electricity can now switch from polluting production methods based on fossil fuels to clean production based on renewables – or switch to cleaner fossil fuel sources such as gas. That of course requires substantial investment, but such investment, where necessary, is usually externalised by raising the prices. In general, electricity markets are not as globalised as oil markets; because of that, the danger of a market gap in cheap electricity being filled by non-complying foreign enterprises is much smaller than in the case of oil production.

A careful reader may wonder how our different approach in attributing emissions from electricity and oil pans out. Take motor vehicles, machines that can be powered by oil-based fuels or electricity. The emissions of driving a petrol- or gas-powered motor vehicle are attributed to its driver, and ultimately to the State, as the State is responsible for the sum of emissions within its jurisdiction or control.⁶⁸ A State aiming to comply with its obligations under the OP would (have to) introduce policy and fiscal measures, such as taxation, to decrease emissions from motor vehicles. Such taxation would make it more expensive to drive, thereby discouraging driving. Hence, the costs of this emission reduction will ultimately be borne by the driver. The emissions of driving an electric motor vehicle are not attributed to the driver, but to the utilities company that provides the electricity, as follows from this section. That utilities company has to reduce its emissions under these principles. If it aims to comply with these principles, it will most likely add the costs of compliance to the price of its product. Hence, the driver of an electric motor vehicle also bears the costs of the necessary emission reductions.⁶⁹

We realise that our approach, although in our eyes justified, may be challenged; other approaches are conceivable. Where our approach is deemed unworkable or unfair in specific cases, States can apply Principle 3 or 4. In addition, where an enterprise, in light of the above specifically a utility company, cannot immediately fulfil its obligation, for example due to the sheer amount of investment necessary for compliance, it can call on Principle

68 OP 13.

69 When the price of electricity from renewable sources drops below that of electricity from fossil fuel sources, the driver of the electric automobile will most likely switch to renewable electricity and hence not bear additional costs from that point. At this stage, driving electric vehicles powered by renewable electricity may become cheaper than driving oil-powered vehicles without taking into account any subsidies or taxes. It would be a logical and desirable consequence that many people would then switch from oil-powered to electric vehicles.

12. A counter-argument to our approach may be that it removes all incentives for the consumers of electricity to switch to a provider that generates electricity from renewable, low-emission sources. That is not entirely true. Principle 17 requires enterprises to ascertain and take into account⁷⁰ the GHG emissions of the suppliers of goods and services to the enterprise when it is selecting its suppliers. This includes, importantly, the selection of a utility company. In the case that an enterprise is located in an area where it does not have access to electricity from renewable sources,⁷¹ a reasonable interpretation of Principle 8 would require an enterprise to invest in its own low-emission electricity generation if such investment would, beyond reasonable doubt and within a reasonable time period, be offset by future financial savings or financial gains.⁷²

10.5 *Attribution of emissions from leakages*

In most instances it will be clear to whom emissions have to be attributed. That is however not always the case. Leakages during the “transport” of gas serve as an example. This is not a minor issue, if for no other reasons because of considerable methane emissions.⁷³ We are inclined to believe that these emissions have to be attributed to the operator of the pipeline, unless contractual obligations determine otherwise.

11 OBLIGATIONS SHOULD BE AS CONCRETE AS POSSIBLE

The view that enterprises have reduction obligations may be endorsed by many lawyers, business leaders and politicians. But without clear reduction obligations, it does not bring us any further as enterprises cannot comply with unquantified obligations.⁷⁴

70 See obligations of investors and financiers under ‘must ascertain and take into account’ for an explanation of the wording ‘ascertain’ and ‘take into account’. It means much more than a mere acknowledgement of the GHG emissions; the amount of GHG emissions must be given weight in the decision-making process.

71 For example, in a State where electricity production is State-controlled and the national utility company produces electricity from non-renewable sources.

72 See the commentary to the respective principles for further elaboration.

73 See William H. Schlesinger, *Natural Gas or Coal: It’s All About the Leak Rate*, *Cool Green Science*, 24 June 2016, <http://blog.nature.org/science/2016/06/24/natural-gas-coal-leak-rate-energy-climate/>. For a further discussion on GHGs other than CO₂, see the commentary to Principle 2 under ‘Various kinds of GHGs’; Kate Larsen, Michael Delgado and Peter Marsters, *Untapped Potential: Reducing Global Methane Emissions from Oil and Natural Gas Systems*, Rhodium Group, April 2015, http://rhg.com/wp-content/uploads/2015/04/RHG_UntappedPotential_April2015.pdf.

74 More generally, the debate often hinges on most useful and valuable aspirations and goals, but falls short of painting a picture of concrete obligations of the respective players. We do not underestimate, let alone question, the value of these pleas, declarations and manifestos. We agree that a shift of paradigm, as advocated by for instance the “Oslo Manifesto” for Ecological Law and Governance is important. But we should also try to be as concrete as possible. See for a comparable view Rosemann, *UN Norms: An Innovating Instrument*, o.c. p. 4 and 38. We firmly second John H. Knox’s view that “the lack of a complete understanding as to

So far, the debate about the concrete reduction obligations of corporations is still in its infancy.⁷⁵ That makes our exercise both easy and difficult. Although GHG emissions can mostly be reduced at quite affordable cost, sufficient reductions will come at a price.⁷⁶

We have tried to discern the reduction obligations of enterprises. To this end we have interpreted a myriad of legal sources (international and human rights, environmental and tort law, as well as a series of codes of conduct).⁷⁷ Our interpretation is, at times, arguably

the content of all environmentally related human rights obligations should not be taken as meaning that no such obligations exist. (...) States should continue to account of all the decisions and recommendations from the many other forums, from international conferences to special procedures to regional human rights tribunals, which are actively developing and implementing the human rights norms relevant to environmental protection": Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, United Nations General Assembly (UNGA), United Nations Human Rights Council (UNHRC), A/HRC/22/3/43, 24 December 2012, www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session22/A-HRC-22-43_en.pdf, p. 18 and 19 *supra* 60 and 62. See in the context of investors UNEP FI and PRI, *Fiduciary Duty in the 21st Century*, September 2015, www.unepfi.org/fileadmin/documents/fiduciary_duty_21st_century.pdf p. 22 *ff.* A report by the EU High-Level Expert Group on Sustainable Finance emphasises the need to be more concrete: *Sustainable European Economy*, o.c.

75 The vagueness of the present debate is increasingly scrutinised; see among others John H. Knox, *Human Rights, Environmental Protection, and the Sustainable Development Goals*, *Washington International Law Journal* 24 (3), 2015, <https://digital.lib.washington.edu/dspace-law/bitstream/handle/1773.1/1496/24/WILJ0517a.pdf;sequence=4>, p. 13 and p. 16 and 17. See also Swiss Institute of Comparative Law (SICL), *Gutachten über Gesetzliche Verpflichtungen zur Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt bei Auslandaktivitäten von Unternehmen (Report on the Legal Obligations to Implement Due Diligence in Relation to Human Rights and the Environment in Activities Abroad by Enterprises)*, 6 September 2013, www.ejpd.admin.ch/content/dam/data/bj/aktuell/news/2014/2014-05-28/gutachten-sir-d.pdf, p. 16. The same point is made, albeit implicitly, by the UNGC, UNEP and UNFCCC Secretariat in *Caring for Climate*, o.c. p. 4. Senior judges have rightly argued that they will be able to interpret the law and by the same token to discern the reduction obligations of enterprises. But this argument will be of little avail to enterprises. Enterprises need to know their specific obligations to be able to comply and avoid unnecessary, time- and money-consuming litigation. According to the EC, the need to better clarify what is expected of enterprises is consistent with new and updated international principles and guidelines: *Communication on EU strategy 2011-2014 for CSR*, o.c. p. 5. The need for clear, enforceable and effective laws is also advocated in the International Union for the Conservation of Nature (IUCN) *World Declaration on the Environmental Rule of Law*, *supra* I a, 29 April 2016, www.unep.org/environmental-governance/erl/iucn-world-declaration-environmental-rule-law. To some extent, policy judgements are unavoidable, as rightly emphasised by the International Chamber of Commerce (ICC) and International Organisation of Employers (IOE), *Joint views of the IOE and ICC on the draft "Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with regard to Human Rights"*, submitted to the United Nations Commission on Human Rights, 24 November 2003, [www.ioe-emp.org/fileadmin/ioe_documents/publications/Policy%20Areas/business_and_human_rights/EN/\(2003-11\)%20Business%20and%20Human%20Rights%20Draft%20Norms%20joint%20Statement.pdf](http://www.ioe-emp.org/fileadmin/ioe_documents/publications/Policy%20Areas/business_and_human_rights/EN/(2003-11)%20Business%20and%20Human%20Rights%20Draft%20Norms%20joint%20Statement.pdf) p. 6 and 7; our principles have tried to reconcile the diverging interests and offer room for some flexibility. Strikingly, the IOE and ICC accuse the "Norms" of being "extremely vague" (p. 21), apparently advocating clearer obligations. That is what our principles aim to provide.

76 See §16 for more details.

77 Part of the problem lies in the very open norms and the often rather ambiguous terminology or legal concepts. See in relation to sustainability Katinka D. Jesse and Erik V. Koppe, *Business Enterprises and the Environ-*

both bold and imaginative. But we strongly believe that the odds are against those who believe that they can stick to business as usual as long as pertinent case law or black letter law is unavailable. Even if the reduction obligations formulated in these principles turned out to be mistaken, that would not mean that enterprises do *not* have *any* reduction obligations. In our view it is beyond reasonable doubt that at least enterprises in APQ countries are already under a legal obligation to reduce their GHG emissions, albeit perhaps more or less demanding than submitted by us.⁷⁸ It additionally seems likely that the law will progress as the threat of runaway climate change materialises. More likely than not, when that point is reached, courts will step in and interpret the law in a way that meets society's most urgent demands; the historic success stories of asbestos and, to a lesser extent, tobacco litigation, may serve as examples.⁷⁹ At that point in time, the court's interpretation of the law may or may not be aligned with our principles, but it will very likely interpret the law as creating emission reduction obligations of some serious sort. Besides, our principles are not only about the reduction of GHG emissions. They also entail a series of additional obligations derived from a variety of legal sources. All this said, we do admit that our submissions can be challenged.⁸⁰ We certainly welcome an in-depth debate and hope that criticism will be accompanied by concrete alternatives.

12 THE LEGAL NATURE OF THE PRINCIPLES

Our principles are of a legal nature. It is open to debate whether they go beyond or stay below moral responsibilities, despite the fact that we believe that the law mirrors moral duties in this area of discourse. They may – and hopefully will – serve as a source of inspiration for international or national legislation or other political instruments.

ment, *Dovenschmidt Quarterly* 4, December 2013, https://openaccess.leidenuniv.nl/bitstream/handle/1887/31679/DQ_4_2013%20Jesse%20%26%20Koppe%20-%20published.pdf?sequence=1, p. 181 and Gabriel Wedy, *Climate Change and Sustainable Development in Brazilian Law*, Sabin Center for Climate Change Law at Columbia Law School, March 2016, <http://columbiaclimatelaw.com/files/2016/06/Wedy-2016-03-Climate-Change-and-Sustainable-Development-in-Brazilian-Law.pdf>, p. 7 and 9.

78 The Urgenda judgement of the District Court of Hague (the Netherlands) may serve as an example. See for the English version: District Court of The Hague, *Urgenda Foundation v. The State of The Netherlands*, C/09/456689 / HA ZA 13-1396, Judgment of 24 June 2015, <http://deeplink.rechtspraak.nl/uitspraak?id=ECLI:NL:RBDHA:2015:7196>; the judgement was delivered in Dutch.

79 Many learned academics have pointed to these cases. Unlike our principles, they are about damages. That, however, does not make the example invalid. After all, damages require violation of a legal duty (norm); exceptions apply in case of strict liability; see for instance Jörg Fedtke, *Evolutionary Mismatch and Responsibility*, in Helmut Koziol and Ulrich Magnus (eds.), *Essays in Honour of Jaap Spier*, Jan Sramek Verlag, 2016, p. 91 ff.

80 If enterprises and investors would believe that our principles are mistaken, enterprises would be best served to stimulate in-depth discussions to further concretise their legal obligations. If they do not curb their emissions to a significant extent, they run a fair chance to be confronted with the nasty surprise of a development of the law to their detriment.

In our submission, even if politicians would ignore our principles they are not at all meaningless. Our principles do not and cannot create law, of course. We believe that they paint a fair picture of the current state of the law, albeit arguably based on a rather bold interpretation of it. Even if our interpretation is overly bold and imaginative when it comes to the current state of the law, it seems quite likely that the law will develop to provide much stricter reduction obligations of all major players as time progresses and the doom of climate change increasingly materialises.⁸¹ Hence, at the very least, our principles are aspirational; they will hopefully contribute to an *opinio iuris*.

Enterprises run liability risks if they do not curb their GHG emissions to the extent needed. In fact, they already run that risk today in relation to past and current emissions.⁸² First, we should distinguish between present and future damage. In all instances, one of the difficulties lies in the – quite often considerable – lapse of time between the initiation of a claim and the (ultimate) judgment. As to present losses, a further distinction is necessary depending on the question of whether or not the causal link between a specific event and climate change can be proven. If it cannot, claims for damages cannot be initiated before there is sufficient evidence of a causal link. In addition, present day's emissions do not immediately contribute to damage, due to the long-tail effect.⁸³ Hence, litigation regarding the consequences of present emissions can only be initiated at the time when losses as consequence of present emissions occur. Finally, claims for damages do not have to be brought before courts straightaway; victims can start litigation as long as the limitation period has not elapsed and a causal link can be proven. We do not advocate for the granting of damages awards, but many lawyers and others seem keen to reap the – in their view – low hanging fruit.⁸⁴ One cannot take it for granted that courts around the globe will abstain from issuing damages awards in the future.

81 See §13 and §20 for further elaboration.

82 See for instance Citi, JP Morgan Chase and Morgan Stanley, The Carbon Principles, o.c.. Litigation has already started; see for instance a case submitted by a Peruvian farmer against the German enterprise RWE, <http://climatejustice.org.au/peruvian-farmer-demands-compensation-rwe/>. The claim has been dismissed in first instance. Also see Greenpeace Southeast Asia and Philippine Rural Reconstruction Movement, Petition To the Commission on Human Rights of the Philippines Requesting for Investigation of the Responsibility of the Carbon Majors for Human Rights Violations or Threats of Violations Resulting from the Impacts of Climate Change, 2015, , , 2015, www.greenpeace.org/seasia/ph/PageFiles/105904/Climate-Change-and-Human-Rights-Complaint.pdf.

83 The phenomenon that it takes quite some time for emissions of GHGs to start contributing to the greenhouse effect in the atmosphere.

84 See for arguments why damages would be the wrong answer Jaap Spier, Shaping the law for global crises: Thoughts about the role the law could play to come to grips with the major challenges of our time, Eleven, 2012, p. 181 ff.

13 THE PURPOSE OF OUR PRINCIPLES

Our principles are not intended to serve one specific purpose. They may become a source of inspiration for legislators. They aim to show that it is possible to devise workable emission reduction and other climate change related obligations that are based on a (sometimes arguably bold) interpretation of the existing law. They can be used by business leaders to explain to their shareholders that they do not have a choice but to reduce their GHG emissions significantly. By the same token, investors can utilise them to put pressure on “their” enterprises to reduce their GHG emissions if they are unwilling to do so.⁸⁵ One could seek declaratory or injunctive relief from courts if an enterprise does not comply with its (alleged) reduction obligations.⁸⁶ We realise, of course, that not all courts may be prepared to issue this kind of relief,⁸⁷ but it is likely that the number of courts amenable to such remedies will increase as time progresses and the doom of climate change materialises.

Our principles could also play a role in giving teeth to a series of other obligations, such as impact assessments. They could make the work of auditors much easier by providing a blueprint of obligations that have to be complied with. Such a blueprint would enable them to calculate the risks that enterprises which violate their legal obligations would run and assess whether the enterprises’ sustainability reports are accurate.

In our view, we have broken some new ground. That unavoidably means that our principles can and will be challenged. Different approaches would have been possible. Even supposing that our principles paint the wrong picture of the reduction obligations of enterprises, it would be a serious mistake to conclude that enterprises do not have any obligations of this kind. Even if our principles do not fall on fertile ground, we hope that they will stimulate the debate and contribute to shaping sufficiently concrete legal obligations.⁸⁸

85 See the commentary to Principle 29 for further elaboration.

86 Which parties could seek such judgements will depend on the particularities of the applicable law, mostly of the country where relief is sought.

87 See, also for further references, Brian J. Preston, *Climate Change Litigation (Part 1) Carbon & Climate Law Review* 5 (1), 2011, <http://www.jstor.org/stable/24324006> and *Climate Change Litigation (Part 2), Carbon and Climate Law Review* 5 (2), 2011, <http://www.jstor.org/stable/24324036>; Jacqueline Peel and Hari M. Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy*, 2015; Brian J. Preston, *The Contribution of the Courts in Tackling Climate Change*, *Journal of Environmental Law* 28 (1), 2016, <https://doi.org/10.1093/jel/eqw004>. It follows from our commentary to the respective Principles that we can already borrow from case law. See also IUCN, *World Declaration*, o.c. p. 4.

88 See for a more or less similar view in relation to the UN Norms on Corporate Human Rights Responsibilities Rosemann, *UN Norms: An Innovating Instrument*, o.c. p. 4 and 38.

14 THE PRINCIPLES FIT INTO AN EMERGING TREND AROUND THE GLOBE

Not surprisingly, countries and international institutions such as the United Nations (UN) and the European Union (EU) have come to realise that corporations are vital in achieving the required reductions. A series of measures have already been adopted to that effect. The Research Handbook on Climate Change Mitigation Law provides an overview of what has been achieved.⁸⁹

15 FOCUS ON PREVENTION (REDUCTION OF GHG EMISSIONS)

Strikingly, but perhaps not surprisingly in light of the slow pace of progress, the focus of the climate change debate is shifting from prevention to adaptation and compensation. Even NGOs seem to be aiming less at prevention.

Over the years, a great many international instruments, policy documents, pledges by leading politicians and a series of Codes of responsible governance or conduct – often warmly endorsed and advocated by major industries⁹⁰ – have emphasised adequate remedies in particular in cases of human rights violations. That is relevant because, as explained in §20.4.1, climate change has a human rights dimension. Therefore, there is a fair chance that business as usual will give rise to a plethora of claims for damages against enterprises unwilling to curb their GHG emissions.⁹¹

There is, however, no reason to focus solely on the human rights dimension. Liability (tort) law may also serve as a basis for claims, both of enterprises and directors and officers.⁹²

89 See Geert van Calster, Wim Vandenberghe and Leonie Reins (eds.), *Research Handbook on Climate Change Mitigation Law*, Edward Elgar, 2015. See also §20.

90 John G. Ruggie, *The Ruggie Principles*, also known as *Guiding Principles on Business and Human Rights*, United Nations (UN) and UNOHCHR, 2011 and the UNGC may serve as examples, as will be demonstrated below.

91 See, for instance, Ruggie, *The Ruggie Principles*, o.c. Commentary to Principle 23. For a more general context, see Amis, Brew and Ersmarker, *Human Rights: It is Your Business* o.c., supra 6. Also see §12.

92 See inter alia Liberty International Underwriters, *Climate Change: The Emerging Liability Risks*, The Liberty White Paper Series, <http://assets.liuasiapacific.com/?LinkServID=E737ED39-5056-A25B-C6F95B79758163E5>, p. (not numbered) 9 and 16; Sarah Barker, *Directors' Duties in the Anthropocene: liability for corporate harm due to inaction on climate change*, December 2013, <http://responsible-investmentbanking.com/wp-content/uploads/2014/11/Directors-Duties-in-the-Anthropocene-December-2013.pdf>, p. 32 and 33; Richard H. Murray, *The U.S. Supreme Court Speaks on Liability for Climate Change: But What Did it Say and Will it Have Implications Elsewhere?* Geneva Association, SC5 Risk Management, June 2011, p. 2 and 3; Lindene E. Patton, *Why Insurers Should Focus on Climate Risk Issues*, Geneva Association, SC5 Risk Management, June 2011, p. 5 ff. For a more cautious stance, see Richard Stewart, *Climate Liability under the Obama Presidency*, interview in Munich Re, *Liability for Climate Change? Experts' views on a potential emerging risk*, 2010, www.munichre.com/site/touch-publications/get/documents_E753942211/mr/assetpool.shared/

Opinions on the desirability of this trend and prospect diverge.⁹³ For now, it suffices to emphasise the significant financial risks of a business as usual position. Put differently: it would be in the very best interests of enterprises to avoid an avalanche of claims for damages (including contribution to the costs of adaptation).⁹⁴ The best and probably only way to avoid possible future liability would be to reduce their GHG emissions at least to the extent legally required. If sought, courts should issue injunctive relief to curb GHG emissions. In this respect, a leading Japanese tort lawyer rightly observed:

“If no effective protection of those whose fundamental rights have been infringed can be obtained under the protective mechanisms already provided for by the legislator (compensation on the basis of art. 709 CC), then the courts, which are also organs of the state, have a duty to fill the gaps in the legislation and at least to grant minimum protection. Thus, if sufficient protection of fundamental rights cannot be obtained without granting reparative or preventive

Documents/5_Touch/_Publications/302-05493_en.pdf, p. 9; on p. 10, however, he observes that a “massive weather event ... that could be attributed to climate change might lead some state courts [in the USA] to authorise damages actions by victims against major industrial emissions sources”; Seaman and DeLascio, *Professional Liability and Global Warming*, o.c. p. 18; Fajardo, *Climate-Change Litigation*, o.c. p. 19 and 20; Guido Funke, *The Munich Re View on Climate-Change Litigation*, in *Munich Re, Liability for Climate Change? Experts’ views on a potential emerging risk*, 2010, www.munichre.com/site/touch-publications/get/documents_E753942211/mr/assetpool.shared/Documents/5_Touch/_Publications/302-05493_en.pdf, p. 23; Luciano Butti, *The Tortuous Road to Liability: A Critical Survey on Climate Change Litigation in Europe and North America*, *Sustainable Development Law & Policy*, 11 (2), 2011, <http://digitalcommons.wcl.american.edu/sdlp>, p. 32 ff.

93 See Spier, *Shaping the law*, o.c. p. 181 ff with further references and Nicola Durrant, o.c. p. 421-423. Damages is seemingly advocated in Ruggie, *The Ruggie Principles*, o.c. commentary to Principle 23; see Amis, Brew and Ersmarker, *Human Rights: It Is Your Business*, o.c. supra 6 for a more general context.

94 Adaptation costs are of a preventive nature; it is open to debate whether or not they fall under the umbrella of damages. Even if they do not, enterprises may still be forced to contribute to such costs. It goes beyond the scope of our project to discuss whether such claims would stand a favourable chance. See, in a European context, about potential defences Markus Kellner and Isabelle C. Durant, *Causation*, in Attila Fenyves, Ernst Karner, Helmut Koziol and Elisabeth Steiner (eds.), *Tort Law in the Jurisprudence of the European Court of Human Rights*, De Gruyter, November 2011, p. 449 ff and about ad hoc mitigation Olivier Moréteau, *Art. 10:401 Principles of European Tort Law (PETL): Reduction of Damages in European Group on Tort Law, Principles of European Tort Law: Text and Commentary*, Springer, 2005, p. 179 ff. In his concluding remarks on, inter alia, the “Reduction Clause”, Attila Fenyves does not bring us much further, see Attila Fenyves, *Concluding Remarks on Contributory Negligence and Reduction Clause*, in Attila Fenyves, Ernst Karner, Helmut Koziol and Elisabeth Steiner (eds.), *Tort Law in the Jurisprudence of the European Court of Human Rights*, De Gruyter, 2011. See also Spier, *Shaping the law*, o.c. p. 175 ff and *Injunctive Relief: Opportunities and Challenges: Thoughts About a Potentially Promising Legal Vehicle to Stem the Tide*, in Jaap Spier and Ulrich Magnus (eds.), *Climate Change Remedies: Injunctive Relief and Criminal Law Responses*, Eleven, 2014, p. 10 ff and Ina Ebert, *Climate Liability and Liability Insurance*, in Helmut Koziol and Ulrich Magnus (eds.), *Essays in Honour of Jaap Spier* p. 79 ff.

injunctive relief, the courts have a duty under the Constitution to grant such injunctive relief even in the absence of an explicit law.”⁹⁵

The OP focus on prevention, i.e. reduction of GHG emissions. They do not express a view on damages.⁹⁶ The same goes for the present Principles and their drafters.⁹⁷ All of us strongly believe that reduction should receive first priority. We must avoid the catastrophic consequences of climate change in so far as still possible. If we fail, catastrophe will set in. Preventing such catastrophe requires a dramatic departure from business as usual.

A focus on prevention is in line with internationally accepted views. Such a focus has been recognised in international environmental law as formulated by the International Court of Justice and the Seabed Disputes Chamber of the International Tribunal for the Law Of the Sea (ITLOS) and is embedded in a series of international instruments.⁹⁸

16 ACHIEVING THE REDUCTIONS REQUIRED STILL AFFORDABLE

“There are many things we can do to attempt to keep to around 2C, and if this is not possible in the end, then we can at least move in the right direction. The typical response is: ‘That is impossible’. In response, we need to ask: Is living with 4C global temperature rise by 2050 or 2070 less impossible?”⁹⁹

95 Keizō Yamamoto, Basic Questions of Tort Law from a Japanese Perspective, in Helmut Koziol (ed.), Basic Questions of Tort Law from a Comparative Perspective, Jan Sramek Verlag, 2015, p. 522. Once again, we do not express a view on compensation; we cannot think of a valid reason why injunctive relief would only be possible in the realm of climate change if damages would not work.

96 A submission of 16 December 2016 by the Sabin Center for Climate Change Law at Columbia Law School in support of Petitioners, to the Commission of Human Rights of the Philippines seems to create the impression on p. 27 that the OP endorse damages. That view is mistaken. The submission apparently endorses “remediation” obligations in case of violations of human rights in relation to climate change. It refers, inter alia, to the Ruggie Principles (p. 26, rger, Michael and Jessica Wentz, at Columbia Law School. Submission in support of Petitioners to missionsterprises will have rger, Michael and Jessica Wentz, at Columbia Law School. Submission in support of Petitioners to missionsterprises will have Michael Burger and Jessica Wentz, Submission in support of petitioners: Petition to the Commission on Human Rights of the Philippines Requesting an Investigation of the Responsibility of the Carbon Majors for Human Rights Violations or Threats of Violations Resulting from the Impacts of Climate Change, Sabin Center for Climate Change Law at Columbia Law School, CHR-NI-2016-0001, 16 December 2016, <http://columbiaclimate.com/files/2016/12/Wentz-and-Burger-2016-12-Submission-Case-No.-CHR-NI-2016-0001.pdf>.

97 Not surprisingly, opinions diverge on the desirability of damages.

98 See Philippe Sands and Jacqueline Peel, Principles of International Environmental Law (3rd ed.), Cambridge University Press, 2012, p. 200-202.

99 Kevin Anderson, Climate change going beyond dangerous – Brutal numbers and tenuous hope, What Next 3, Development Dialogue, September 2012, www.whatnext.org/resources/Publications/Volume-III/Single-articles/wnv3_andersson_144.pdf, p. 35.

It is self-explanatory that achieving the reductions required will often come at a cost. That may have a detrimental impact on the profitability of some enterprises. In the worst case, it may even be a fatal stab for some enterprises with the unavoidable consequences for employees, creditors and shareholders (often pension funds). Within certain bounds, countries may relieve (groups of) enterprises of (some of) the burden of emission reductions as long as the country as a whole complies with its emission reduction obligations under the OP; see Principle 3. Where unavoidable, bankruptcies must be accepted. The stakes are too high to be overly lenient. Bankruptcies are a normal phenomenon in a changing world, as exemplified by the tragedy of asbestos. As the world changes, it is generally accepted that businesses become redundant in consequence; an example would be the rise of internet shopping and the consequences that has had for conventional stores.

In the short term quite a lot can be achieved by higher efficiency and other no cost or even profitable measures. Experience has shown that far-reaching reductions often even result in financial and other gains.¹⁰⁰

The argument that sufficient GHG emission reductions are not affordable is based on a short-term perspective. As soon as the time horizon is stretched to include the medium and long-term it becomes apparent that reductions are affordable.

¹⁰⁰ For instance reputational gains. See Alexander C. Kaufman, Companies Should Be Forced To Disclose Climate Risk, Unilever CEO Says, The Huffington Post, 7 July 2016, www.huffingtonpost.com/entry/unilever-climate-risk_us_577e74b2e4b0344d514e261f; the Huffington Post article also points to challenges.

Even if the financial or economic price of taking sufficient emission reduction measures is high,¹⁰¹ business as usual will be much costlier.¹⁰² A lot, if not all, can be achieved without jeopardising the economy.¹⁰³ However, the longer appropriate measures are delayed, the steeper the necessary emission reductions and the higher the cost to address climate change will become. At some stage, probably in the foreseeable future, the price of implementing measures to reduce emissions to the extent necessary will become very high. In short: we can still avoid dangerous climate change at economically feasible cost, but we need to act now.

17 CARBON PRICING

One way that is proposed to both incentivise action and raise funds to finance emission reductions is putting a price on carbon.¹⁰⁴ This would be wholly in line with the polluter pays principle. It is (almost) commonly accepted that the “real price” of GHG emissions is very high. It is likely that governments will introduce mechanisms to internalise the cost

101 According to the IDDRI and SDSN, deep carbonization, o.c. p. xi, “[r]obust economic growth and rising prosperity are consistent with the objective of deep carbonization”. According to a report commissioned by WWF and CDP, *The 3% Solution: Driving Profits Through Carbon Reduction*, 2013, www.cdp.net/cdpresults/3-percent-solution-report.pdf, the 3% reduction advocated for the US corporate sector would end up in major net value. More likely than not, 3% will no longer suffice. Hence, the situation and arguably the financial impact, has changed for the worse. Mark Z. Jacobson and Mark A. Delucchi have explained how “100 percent of the world’s energy, for *all* purposes, could be supplied by wind and solar resources, by as early as 2030”: *A Plan to Power 100 Percent of the Planet with Renewables: Wind, water and solar technologies can provide 100 percent of the world’s energy, eliminating all fossil fuels. Here’s how*, *Scientific American*, November 2009, p. 58 with elaboration on the subsequent pages (this includes the emissions brought about by construction, operation and decommissioning (p. 59). In passing they observe that nuclear “power results in up to 25 times more carbon emissions than wind energy, when the reactor construction and uranium refining are considered” (p. 59). Yet, they point to a few challenges (p. 62 and 63). See for financial consequences p. 64-65. According to an IEA report, *Energy Technology Perspectives 2016: Towards Sustainable Urban Energy Systems: Executive Summary*, www.iea.org/publications/freepublications/publication/EnergyTechnologyPerspectives2016_ExecutiveSummary_EnglishVersion.pdf, decarbonisation of the power sector in a 2°C scenario “would cost about USD 9 trillion between 2016 and 2050 (equivalent to 0,1% of the cumulative global cross domestic product (GDP) over the same period. Achieving the energy savings ... in the buildings, industry and transport sectors would entail additional investment costs of US\$ 6.4 trillion between 2016 and 2050” (p. 3).

102 See about the discounting issue this commentary on Principle 9 under *Best practice*.

103 See, for instance, Nicholas Stern, *The Economics of Climate Change: The Stern Review*, Cambridge University Press, 2007; Richard S.J. Tol, *Climate Economics: Economic Analysis of Climate, Climate Change and Climate Policy*, Edward Elgar, 2014. The latter writes that “[m]ost studies agree (...) that a complete decarbonisation of the economy can be achieved at reasonable cost if policies are smart, comprehensive and gradual” (p. 31/32).

104 For a general overview of the debate surrounding carbon pricing, see Peter Cramton et al. (eds.), *Global Carbon Pricing: The Path to Climate Cooperation*, The MIT Press, 2017. Also see EU High-Level Expert Group on Sustainable Finance, *Financing a Sustainable European Economy*, Interim Report, July 2017, https://ec.europa.eu/info/sites/info/files/170713-sustainable-finance-report_en.pdf, p. 42-43.

of the use of fossil fuels in the foreseeable future; actually, 40 countries and 26 subnational jurisdictions have already done so.¹⁰⁵ There are different ways to achieve this goal: carbon allowances which give the buyer a right to emit or carbon taxes.¹⁰⁶

Opinions diverge on the “real price” of GHG emissions. That price depends, of course, on how the effects of a unit of GHG emissions are calculated¹⁰⁷ and the question whether one is prepared to accept that each emitter causes a proportional part of the future losses and costs of adaptation.¹⁰⁸ As our principles focus on mitigation and not on compensation of climate change-related losses, we do not express a view on the losses that might be taken into account, neither from a political, moral nor legal angle. For now, we stick to the observation that the real cost might well be very, very significant if all losses and adaptation costs would be taken into account.

It follows that it will be quite a challenge to make a reliable forecast of a future carbon price. It is, however, very likely that this policy tool will be introduced, making GHG emissions much more expensive. That has a direct implication for the future profitability of (investments in) new technologies, products, services and production facilities where an enterprise cannot (fully) pass on the additional cost to its customers. It also affects the cost of running already existing facilities.

In our view, enterprises must evaluate the impact of these likely developments. We realise that this will not be easy in light of the many uncertainties. That means, we think, that

105 Kevin Kennedy, Michael Obeiter and Noah Kaufman, Putting a Price on Carbon: A Handbook for U.S. Policymakers, WRI, April 2015, p. 26, www.wri.org/sites/default/files/carbonpricing_april_2015.pdf; see in more detail p. 16 and 42 ff. The government of Singapore announced its intent to implement a carbon tax from 2019 at a rate between \$ 10 and 20 per tonne: www.nccs.gov.sg/climate-change-and-singapore/domestic-actions/reducing-emissions/carbon-pricing.

106 See in more detail Patrick Luckow et al., 2015 Carbon Dioxide Price Forecast, Synapse Energy Economics, 3 March 2015, www.synapse-energy.com/sites/default/files/2015%20Carbon%20Dioxide%20Price%20Report.pdf, p. 5 ff. Also see Kennedy, Obeiter and Kaufman, Putting a Price on Carbon, o.c.

107 That will *inter alia* depend on the expected financial effects of climate change, about which opinions diverge. For more detail on the financial consequences of climate change, see Stern, Stern Review, o.c. and Tol, Climate Economics, o.c. p. 85 ff and §16.

108 See in more detail for instance Bob Litterman, What Is the Real Price for Carbon Emissions? The unknown potential for devastating effects from climate change complicates pricing, Regulation, Summer 2013, <https://object.cato.org/sites/cato.org/files/serials/files/regulation/2013/6/regulation-v36n2-1-1.pdf>; estimates diverge from US\$ 5 to over US\$ 100 per ton (p. 38) and Alex Bowen, The case for carbon pricing, Grantham Research Institute on Climate Change and the Environment at London School of Economics & Political Science and Centre for Climate Change Economics and Policy (CCCEP), Policy brief, December 2011, www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2014/02/PB_case-carbon-pricing_Bowen.pdf, p. 7 ff.

enterprises will have to base their calculations on a range of realistic scenarios, which must be justified.¹⁰⁹

To shed some light on the ballpark figures that are in circulation, a few submissions follow:

- Low scenario: US\$ 15 in 2020 and US\$ 45 in 2050; mid scenario: US\$ 20 in 2020 and US\$ 85 in 2050; high scenario: US\$ 25 in 2020 and US\$ 120 in 2050;¹¹⁰
- Low scenario C\$ 15 in 2018 and C\$ 30 in 2030; mid scenario C\$ 30 in 2018 and C\$ 40 in 2030; high scenario C\$ 30 in 2018 and C\$ 90 in 2030;¹¹¹
- Ranging from £30 or 40 in 2020 to £70 or 55 in 2030.¹¹²

18 THE ROLE OF COURTS

According to Lal Kurukulasuriya:

“more laws are not needed and more institutions are not required. Rather, the application of existing laws within existing institutions by applying a new mindset will elevate environmental considerations into the collective judicial consciousness.”¹¹³

The World Declaration on the Environmental Rule of Law, an offspring of a conference at Rio de Janeiro, predominantly attended by senior members of the judiciary from all over the globe, emphasises:

“the essential role that judges and courts play in *building* the environmental rule of law through *effective* application of laws at national, sub-national, regional and international levels ...” (emphasis added).¹¹⁴

A report issued by UNEP in cooperation with Columbia Law School’s Sabin Center for Climate Change Law put it as follows:

109 ‘Realistic’ depends on the national/regional circumstances.

110 Luckow et al., Carbon Price Forecast, o.c. p. 3.

111 Kennedy, Obeiter and Kaufman, Putting a Price on Carbon, o.c.

112 Bowen, The case for carbon pricing, o.c. p. 11.

113 The Role of the Judiciary in Promoting Environmental Governance and the Rule of Law, presentation at Global Environmental Governance: the Post-Johannesburg Agenda, Yale Center for Environmental Law and Policy, 23-25 October 2003, p. 6. See for example Brian J. Preston, The Role of the Judiciary in Promoting Sustainable Development: The Experience of Asia and the Pacific, Asia Pacific Journal of Environmental Law 9, 2005, www.lec.justice.nsw.gov.au/Documents/preston_the%20role%20of%20the%20judiciary%20in%20promoting%20sustainable%20development.pdf.

114 IUCN, World Declaration, o.c. Preamble under Observing.

“Litigation has arguably never been a more important tool to push policymakers and market participants to develop and implement effective means of climate change mitigation ... than it is today.”¹¹⁵

In the short term, claims by plaintiffs seeking injunctive relief are likely to founder in many, though not all, developed countries.¹¹⁶ Many judges tend to be reluctant to interfere in – what they perceive as – political issues and are inclined to stay within the confines of a case and not consider the wider consequences of the specific case. Quite a few may ask themselves whether it really matters for the world at large whether or not they issue injunctive relief. Common law judges may refrain from issuing such relief if there is not clear precedent to underpin their decisions. However, in many developing countries superior courts are more willing to cope with the urgent demands of society. The Supreme Court of India is a shining example.¹¹⁷ The Urgenda case, moreover, has shown that the same may happen in developed countries.¹¹⁸ We expect that courts around the globe will become increasingly willing to issue bold judgements if governments and enterprises fall short to reduce GHG emissions at a pace and to the extent needed; all the more so as the adverse consequences of climate change become more apparent. In that respect a report by Michal Nachmany and others reveals that:

“An assessment of existing court cases suggests that on balance courts have so far tended to enhance, rather than hinder, climate regulation.”¹¹⁹

115 Michael Burger and Justin Gundlach, *The Status of Climate Change Litigation: A Global Review*, UNEP and Sabin Center for Climate Change Law at Columbia Law School, May 2017, <http://hdl.handle.net/20.500.11822/20767>, p. 8; see in more detail the remainder of the report, in particular p. 14-15, 18-20, 24, 25, 33 and 34.

116 The Urgenda case, decided by the District Court of The Hague (appeal pending), shows that Courts in developed countries may step in. The same may go for courts in other developed countries, such as Australia, New Zealand and some US jurisdictions.

117 See Lavanya Rajamani and Shibani Ghosh, India, in Richard Lord et al. (eds.), *Climate Change Liability: Transnational Law and Practice*, Cambridge University Press, 2012, p. 154 and 155; see in considerable detail the impressive memoirs of Mahesh C. Mehta, *In the Public Interest: Landmark Judgements & Orders of the Supreme Court of India on Environmental & Human Rights (Volume I)*, Prakriti, 2009.

118 One should bear in mind, however, that the judgment was delivered by the court of first instance. Appeal is pending. Even if the judgment would be reversed on appeal or cassation, the fact remains that a court in a developed country issued injunctive relief.

119 Michal Nachmany et al., *Global trends in climate change legislation and litigation: 2017 Update*, Grantham Research Institute on Climate Change and the Environment at London School of Economics & Political Science, Sabin Center for Climate Change Law at Columbia Law School, Inter-Parliamentary Union (IPU) and CCCEP, May 2017, www.ipu.org/pdf/publications/global.pdf, p. 17.

In our view it is quite possible to remove the obstacles that seemingly block the road to success for climate change litigation.¹²⁰ This may require some boldness or creativity, but that is by no means novel. In many instances courts around the globe have not shied away from rendering innovative judgments to meet the demands of society and keep pace with changing societal circumstances and needs.¹²¹ Many of these judgments were applauded. They were rarely decried as the acme of judicial activism.

In the climate change context, it could well be argued that the true activists are not those courts that meet the demands of a changing society but those that look for ‘excuses’ for enterprises and countries that do not reduce their GHG emissions to a sufficient extent.¹²² However, we do not think that this is a fruitful debate. We don’t want to blame judges who take a cautious approach. Our aim is to demonstrate that the law as it stands provides sufficient ingredients that could support the case that enterprises have concrete obligations to curb their GHG emissions.

19 RELATION TO THE OP

19.1 Introduction

We have built upon the OP. The OP are a major step forward and should be read in light of the prevailing law and circumstances at the time of drafting. With a few qualifications discussed below, we (still) fully endorse the OP.

As a rule of thumb, our principles tie the reduction obligations of most enterprises to the obligations of the respective countries as set out in the OP. It is therefore necessary to elaborate on some of the salient features of the OP.

120 See for a comparable view Patricia Kameri-Mbote and Collins Odote, Kenya, in Richard Lord et al. (eds.), *Climate Change Liability: Transnational Law and Practice*, Cambridge University Press, 2012, p. 318.

121 See for examples and further references Jaap Spier, *The Rule of Law and Judicial Activism: Obstacles for Shaping the Law to Meet the Demands of a Civilized Society, Particularly in Relation to Climate Change?* in Michael G. Faure and André van der Walt (eds.), *Globalization and Private Law: The Way Forward*, Edward Elgar, 2010, p. 426 ff; Spier, *Shaping the law*, o.c. p. 75 ff; Sanjay Ruparelia, *A Progressive Juristocracy? The Unexpected Social Activism of India’s Supreme Court*, Kellogg Institute Working Paper 391, February 2013, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2807217; Ellen Wiles, *Aspirational Principles or Enforceable Rights? The Future for Socio-Economic Rights in National Law*, *American University International Law Review* 22 (1), 2006, <http://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1112&context=auilr>; and Salma Yusuf, *The Rise of Judicially Enforced Economic, Social, and Cultural Rights – Refocusing Perspectives*, *Seattle Journal for Social Justice* 10 (2), April 2012, <http://digitalcommons.law.seattleu.edu/cgi/viewcontent.cgi?article=1616&context=sjsj>.

122 See for a comparable view the former Chief Justice of India Kirpal, quoted by Kurukulasuriya, *Role of the Judiciary*, o.c. p. 7.

19.2 1.5 or 2 degrees?

The OP are based on a 2C global warming threshold. At the time of drafting the OP it was almost universally accepted that this would be the level at which climate change would become dangerous.¹²³ The Paris Agreement has since set a new ambition to limit global warming to 1.5C.¹²⁴ The agreement, under Article 2 para 1:

“*aims to strengthen the global response to the threat of climate change ... including by:*

(a) Holding the increase in the global average temperature to *well below* 2 °C above pre-industrial levels *and pursuing efforts* to limit the temperature increase to 1.5 °C” (emphasis added).

Under Article 4 para 1, the agreement labels the just-quoted aim as a “*long-term temperature goal*” (emphasis added). This bold, ground-breaking ambition can of course only be applauded. In our principles, we laboured to come up with concrete obligations of individual players in the face of climate change. With that goal in mind, we were not able to discern what “well below” 2°C or “pursuing efforts to limit the temperature increase to 1.5 °C” specifically means. We hope that the international community will be able to set more a more concrete ambition and, ideally speaking, even an obligation. Without such an obligation, we feel on unsafe ground to diverge from the clearly accepted obligation to limit global warming to 2°C.

That said, our definition of the Paris Agreement takes into account future amendments, which means that the obligations of enterprises in a given year will have to be amended on the basis of the text of the Agreement or any subsequent international agreement, treaty or convention superseding it, as it stands in the relevant year.¹²⁵ Additionally, if specific

123 In our submission it is beyond reasonable doubt that a) climate change is real, b) human induced and c) passing the 2C threshold will have major adverse consequences for humankind, nature and in the upshot the economy. As to b: greenhouse gas emissions are a major factor. Seen from a legal angle, these are facts that cannot be challenged in the legal arena. Hence, they lay at the basis of the obligations of the major players. Philippe Sands seems to be slightly less sure as to international law. In his view, it would be useful to seek an advisory opinion of the International Court of Justice (ICJ) to answer – among other issues – these questions; see *Climate Change and the Rule of Law: Adjudicating the Future in International Law*, *Journal of Environmental Law* 28, 2016, <http://dx.doi.org/10.1093/jel/eqw005>. Although we wonder whether this would be necessary, we endorse his view that an ICJ opinion to this effect makes defences, questioning the issues mentioned supra a – c, meaningless. A more interesting question would be whether obligations are or should be based on 1.5 or 2C, we think.

124 See Article 2, para 1 under a.

125 This is to be done through a three-tier process, as explained in §20.2, in which the reduction obligations of enterprises are based on the reduction percentage that the world has to achieve and then divided on a per-capita basis over all countries. That would mean that if an amendment to the Paris Agreement or a subsequent

States pledge to reduce their GHG emissions further than required of them by the OP, enterprises would have to reduce their GHG emissions according to that pledge over their activities in the relevant State under Principle 2.1.¹²⁶

It will be extremely challenging to achieve the reductions necessary to limit global warming to 1.5C above pre-industrial levels.¹²⁷ We already mentioned that the emissions of several developing countries will keep increasing significantly for the foreseeable future.¹²⁸ Pledges by other countries are significantly insufficient in this context and there is little reason to believe that they are going to reduce their GHG emissions at the pace needed to stay close to even 2C in the near enough future. If possible at all, staying below the 1.5°C threshold would require most developed countries to reduce their GHG-emissions to a very significant extent, if not to zero, in the near future. Last but not least: cases containing claims for injunctive relief, even if brought today, will not be decided by superior courts¹²⁹ within at least 5 to 10 years in most instances. By then, global warming will already be so close to 1.5 C that passing that threshold has become unavoidable, or it may even already have been passed.¹³⁰

According to the IPCC's Fifth Synthesis Report, "[t]he globally averaged combined land and ocean surface temperature data as calculated by a linear trend show a warming of 0.85°C [0.65 to 1.06°C] over the period 1880 to 2012."¹³¹ Seeing that at the time of writing we are in 2017 and global emissions have continued to rise until 2016, and although that trend has been reversed, global reductions lag far behind what is necessary to prevent further warming,¹³² it is reasonable to assume that even with strong action on the short-term the 1.5C will soon be out of reach.

agreement, treaty or convention superseding it would require the world to limit global warming to, say, 1.8°C, the permissible quantum would be lower and thus the reduction obligations of enterprises would be higher.

126 See for elaboration the commentary to Principle 2 under The Paris Agreement.

127 The Nationally Determined Contributions (NDCs) of parties to the Paris Agreement, if all met, will only limit global warming to 2.8C, but the current policies of the parties that are in place (as at 1 November 2016) will only limit global warming to 3.6C: see Climate Action Tracker, www.climateaction-tracker.org/global.html.

128 See §1.

129 Especially appellate and supreme courts.

130 It is possible that we are already locked in for 1.5C of global warming because of uncertainty regarding feedback loops that may have already or soon will be triggered and the fact that GHGs take some time to start contributing to the greenhouse effect after having been emitted. This unfortunate given does not affect claims for damages, of course.

131 IPCC, *Climate Change 2014*, o.c. p. 2, with footnotes.

132 See <http://data.worldbank.org/indicator/EN.ATM.CO2E.PC> in more detail.

Hence, *in this context* seeking injunctive relief will be of limited practical avail; there is little else courts could usefully contribute.¹³³ As explained above, we are not suggesting that injunctive relief is pointless. To the contrary, it will be tremendously useful if countries or enterprises fall short in curbing their emissions to the extent needed.¹³⁴ That, however, is a different issue than the one discussed in this section. All we are saying is that injunctive relief in order to stay below the 1.5C will be of little, if any, practical avail.

The 1.5C ambition is probably motivated by the unprecedented natural catastrophes that have been wreaking havoc around the world in the past few years, such as extreme droughts and excessive rainfall.¹³⁵ However, advocating obligations based on 1.5C that cannot or will not be achieved may work counter-productively, unless there are very compelling reasons to do so. It would undermine the credibility or acceptance of our principles. It is open to debate whether the law as it stands could serve as a sufficiently sound legal basis for obligations that might have deleterious consequences for society in the short term, despite the fact that being more lenient may and quite likely will have more serious adverse consequences in the future. Seeing that according to the scientific consensus avoiding dangerous climate change requires limiting global warming to at most 2C, we chose to uphold this benchmark. We may have to reconsider our stance if (new) research points to a serious threat of devastating consequences if the 1.5°C threshold, or any other threshold as the case may be, would be surpassed.

One of the most often discussed consequences of climate change is sea level rise. In the following paragraphs, we will discuss the question of 1.5 or 2°C in relation to this effect of raising temperatures. The logic explained, however, also applies to other types of consequences, such as more extreme weather events.¹³⁶ Moreover, the final legal assessment of the steps required to be taken will have to depend on the combination of consequences to

133 Courts of first instance could issue injunctive relief in summary proceedings, as the Urgenda case illustrates. We leave aside whether carbon storage, carbon capture and/or other technical features could be used to remove greenhouse gases from the air. The future will tell whether these novelties will be sufficiently reliable and safe.

134 These principles demand emission reductions that would limit global warming below 2C; injunctive relief will however always be useful to limit emissions to that or a different extent, according to the court's view at the time of issuing judgment.

135 Although it is still impossible to attribute single events to climate change, it is deemed between very likely (>95% probability) and likely (>66% probability) by the IPCC that the chance of extreme drought and excessive rainfall, and other extreme weather events such as hurricanes and record floods is being increased by climate change. See IPCC, Climate Change 2014, o.c. p. 7-8.

136 Davide Wallace-Wells argues that other effects of global warming – such as famine, economic collapse, deadly heatwaves, air pollution and ocean acidification – are actually a more imminent threat than sea level rise is: The Uninhabitable Earth: Famine, economic collapse, a sun that cooks us: What climate change could wreak – sooner than you think, New York Magazine, 9 July 2017, <http://nymag.com/daily/intelligencer/107/07/climate-change-earth-too-hot-for-humans.html>.

be expected with a specific degree of warming, and not be based on specific types of consequences individually. In par. ... we mentioned the uncertainties about the magnitude of sea level rise. Opinions diverge on the expected rise by 2100 and even more about the effects in the longer term. In our understanding, recent worst case scenarios reckon with a sea level rise of up to 3 metres by 2100 and considerably more by 2200 and beyond.¹³⁷ With worst case, we mean the worst outcomes scientists predict for global warming of around 2°C. Most often, the worst outcomes are linked to a very low, but not inexistent probability. These low probability, worst-case estimates matter, especially in light of the ever worse realities that have exceeded ‘worst-case’ predictions made in the past.¹³⁸ What

- 137 According to Sybren Drijfhout, a rise of over 3 metres will not happen before 2100: see Dewi Le Bars, Sybren Drijfhout and Hylke de Vries, A high-end sea level rise probabilistic projection including rapid Antarctic ice sheet mass loss, *Environmental Research Letters* 12, 3 April 2017, <https://doi.org/10.1088/1748-9326/aa6512>. For estimates of sea level rise by 2200, see William V. Sweet et al., *Global and Regional Sea Level Rise Scenarios for the United States*, National Oceanic and Atmospheric Administration, NOAA Technical Report NOS Co-OPS 083, January 2017, https://tidesandcurrents.noaa.gov/publications/techrpt83_Global_and_Regional_SLR_Scenarios_for_the_US_final.pdf, p. 23. For estimates beyond 2200, of rise by 2500, see Robert M. DeConto and David Pollard, Contribution of Antarctica to past and future sea-level rise, *Nature* 531, 31 March 2016, <http://dx.doi.org/10.1038/nature17145>. For estimates far beyond 2500, see Gavin L. Foster and Eelco J. Rohling, Relationship between sea level and climate forcing by CO₂ on geological timescales, *Proceedings of the National Academy of Science* 110 (4), 22 January 2013, <http://dx.doi.org/10.1073/pnas.1216073110>, p. 1213; Clark et al., *Multi-Millennial Climate and Sea-level Change*, o.c.; Raymo et al., *Departures from eustasy*, o.c.
- 138 New scientific insights on the stability of the Antarctic and Greenland ice sheet led the National Oceanic and Atmospheric Administration (NOAA) to include an ‘extreme’ scenario of sea level rise: “The projections and results presented in several peer-reviewed publications provide evidence to support a physically plausible GMSL [Global Mean Sea Level] rise in the range of 2.0 meters (m) to 2.7 m, and recent results regarding Antarctic ice-sheet instability indicate that such outcomes may be more likely than previously thought. To ensure consistency with these recent updates to the peer-reviewed scientific literature, we recommend a revised ‘extreme’ upper-bound scenario for GMSL rise of 2.5 m by the year 2100” (p. vi) and “the upper limit established by Pfeffer et al. (2008), which was based primarily on assessment of the maximum plausible loss rate from Greenland and which was the basis for the 2.0-m high scenario for 2100 of Parris et al. (2012), there has been continued and growing evidence that both Antarctica and Greenland are losing mass at an accelerated rate. (...) The growing evidence of accelerated ice loss from Antarctica and Greenland only strengthens an argument for considering worst-case scenarios in coastal risk management” (p.13-14): Sweet et al., *Sea Level Rise Scenarios for the United States*, o.c. New research on subglacial volcanoes in West Antarctica has concluded that the previously largely unmapped West Antarctic Rift System, “a volcanic belt traversing the deepest marine basins beneath the centre of the West Antarctic Ice Sheet could prove to be a major influence on the past behaviour and future stability of the ice sheet”: Maximillian van Wyk de Vries, Robert G. Bingham and Andrew S. Hein, A new volcanic province: an inventory of subglacial volcanoes in West Antarctica, *The Geological Society of London* 461, 29 May 2017, <https://doi.org/10.1144/SP461.7>. Referring to the different Representative Concentration Pathways (RCP) emission trajectories adopted by the IPCC in its Fifth Assessment Report, Clark et al., *Multi-Millennial Climate and Sea-level Change*, o.c. p. 361, observe that emissions have, until now, tracked the high end of IPCC scenarios, so the (lower) RCP 2.6 or 4.5 scenarios are all but guaranteed; the (higher) RCP 8.5 (and its consequences) is (are) becoming more likely. That new scientific insights have been causing worst-case predictions to be re-adjusted to even worse predictions is exemplified by new research on the effect on albedo of increased algae growth due to higher temperatures on the Greenland ice sheet. Algae darken the snow, reducing its albedo significantly. In a British Broadcasting Service (BBC) article, Martyn Tranter, the lead scientist on one of these studies, commented that “[p]eople are very worried about the possibility that the ice sheet might be melting faster

is more, worst-case estimates of the consequences of global warming of around 2°C become even more salient if one bears in mind that it is not all that certain that we will succeed in keeping global warming below that threshold.¹³⁹

The IPCC puts it as follows in its, at the time of writing, most recent (2013) Assessment Report:

“It is *virtually certain* that global mean sea level rise will continue beyond 2100, with sea level rise due to thermal expansion to continue for many centuries.

and faster in the future.” Although it was already known that algae accelerate melt, the effect of algae and increased algae growth due to global warming has not yet been built into sea level rise predictions: David Shukman, Sea level fears as Greenland darkens, BBC, 24 July 2017, www.bbc.com/news/science-environment-40686984. Another case in point is the rate of melting of permafrost: Sarah E. Chadburn et al. conclude that previous studies have underestimated how much permafrost will melt due to additional warming by around 20%: An observation-based constraint on permafrost loss as a function of global warming, *Nature Climate Change* 7, 10 April 2017, <http://dx.doi.org/10.1038/nclimate3262>. The Arctic Monitoring and Assessment Programme (AMAP) has found that permafrost has warmed by over 0.5°C since 2007–2009 in the High Arctic and other extremely cold areas: Snow, Water, Ice and Permafrost: Summary for Policymakers, 25 April 2017, www.amap.no/documents/download/2888, p. 4. That is extremely relevant as the Arctic is estimated to hold approximately 50% of global soil carbon (p. 5). Another example of a new scientific insight that leads scientists to believe that the consequences of sea level rise will be more extreme is provided by Sean Vitousek et al., who found that considering elevated water levels because of waves increases the potential impact of coastal flooding due to sea level rise: Doubling of coastal flooding frequency within decades due to sea-level rise, *Nature Scientific Reports* 7 (1399), 18 May 2017, <http://dx.doi.org/10.1038/s41598-017-01362-7>. Michael Oppenheimer and Richard B. Alley stress that “Taking an engineering approach and defending against the highest projections available at a given time, plus a margin of error, can be prohibitively expensive. But ignoring such estimates could prove disastrous”: How high will the seas rise? Coastal defense measures must be flexible in the face of rising sea level estimates, *Science* 354 (6318), 16 December 2016, <http://dx.doi.org/10.1126/science.aak9460>. In addition, it tends to be forgotten that climate change is already causing harm to people living in the most vulnerable regions today, and additional warming will thus cause additional harm. In the words of Michael E. Mann, “the notion that two degrees C of warming is a “safe” limit is subjective. It is based on when *most* of the globe will be exposed to potentially irreversible climate changes. Yet destructive change has already arrived in some regions. In the Arctic, loss of sea ice and thawing permafrost are wreaking havoc on indigenous peoples and ecosystems. In low-lying island nations, land and freshwater are disappearing because of rising sea levels and erosion. For these regions, current warming, and the further warming (at least 0.5 degree C) guaranteed by CO₂ already emitted, constitutes damaging climate change today”: Earth Will Cross the Climate Danger Threshold by 2036: The rate of global temperature rise may have hit a plateau, but a climate crisis still looms in the near future, *Scientific American*, 1 April 2014, www.scientificamerican.com/article/earth-will-cross-the-climate-danger-threshold-by-2036/.

139 Jeff Tollefson writes that “[c]limate modellers have developed dozens of rosy 2 °C scenarios over several years. (...) Despite broad agreement that the emissions-reduction commitments that countries have offered up so far are insufficient, policymakers continue to talk about bending the emissions curve downwards to remain the path to 2 degrees that was laid out by the IPCC. But take a closer look, some scientists argue, and the 2 °C scenarios that define that path seem so optimistic and detached from current political realities that they verge on the farcical”: Voigt, *The Paris Agreement*, o.c.ment: What is the standard of conduct for parties. Questions of International tments. July 2011 Voigt, *The Paris Agreement*, o.c.ment: What is the standard of conduct for parties. Questions of International tments. July 2011 Is the 2 °C world a fantasy? *Nature* 527, 26 November 2015, <http://dx.doi.org/10.1038/527436a>.

The amount of longer term sea level rise depends on future emissions. The few available process-based models that go beyond 2100 indicate global mean sea level rise above the pre-industrial level to be less than 1 m by 2300 for greenhouse gas concentrations that peak and decline and remain below 500 ppm CO₂-eq, as in scenario RCP2.6. For a radiative forcing that corresponds to above 700 ppm CO₂-eq but below 1500 ppm, as in the scenario RCP8.5, the projected rise is 1 m to more than 3 m (*medium confidence*). This assessment is based on *medium confidence* in the modelled contribution from thermal expansion and *low confidence* in the modelled contribution from ice sheets. The amount of ocean thermal expansion increases with global warming (0.2 to 0.6 m °C⁻¹) but the rate of the glacier contribution decreases over time as their volume (currently 0.41 m sea level equivalent) decreases. Sea level rise of several meters could result from long-term mass loss by ice sheets (consistent with paleo data observations of higher sea levels during periods of warmer temperatures), but there is *low confidence* in these projections. Sea level rise of 1 to 3 m per degree of warming is projected if the warming is sustained for several millennia (*low confidence*).

The available evidence indicates that sustained global warming greater than a certain threshold above pre-industrial would lead to the near-complete loss of the Greenland ice sheet over a millennium or more, causing a global mean sea level rise of about 7 m. Studies with fixed ice-sheet topography indicate the threshold is greater than 2°C but less than 4°C (*medium confidence*) of global mean surface temperature rise with respect to pre-industrial. The one study with a dynamical ice sheet suggests the threshold is greater than about 1°C (*low confidence*) global mean warming with respect to pre-industrial. We are unable to quantify a *likely* range. Whether or not a decrease in the Greenland ice sheet mass loss is irreversible depends on the duration and degree of exceedance of the threshold. Abrupt and irreversible ice loss from a potential instability of marine-based sectors of the Antarctic ice sheet in response to climate forcing is possible, but current evidence and understanding is insufficient to make a quantitative assessment.”¹⁴⁰

140 IPCC, Sea Level Change, in IPCC, Climate Change 2013: The Physical Science Basis, www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_Chapter13_FINAL.pdf, p. 1140. The AMAP is more certain of irreversible ice mass loss in relation to the Arctic: “[w]arming trends will continue. Models project that autumn and winter temperatures in the Arctic will increase by 4-5°C above late 20th century values before mid-century, under either a medium or high greenhouse gas concentration scenario. This is twice the increase projected for the Northern Hemisphere. These increases are locked into the climate system by past emissions and ocean heat storage, and would still occur even if the world were to make drastic near-term cuts in emissions”: The Arctic, o.c. p. 5. Recent insights point to a harsher reality: “[t]he recent recognition of

A small number of experts reckons with significant sea level rise by 2200.¹⁴¹ The view of a small number of experts counts, of course. Depending on the reputation and the number of such experts there can be, or even is, reason for further research. One should, however, be very cautious to use the view of a small minority as a basis for *far-reaching* legal obligations in the realm of climate change as the following example shows.

Let us first focus on 2100. Thus far experts take the view that sea level rise will not go beyond 3 metres or so in worst case scenarios.¹⁴² Sea level rise of that extent will already have a major adverse impact on many countries and people.¹⁴³ More generally, climate change experts are becoming increasingly worried about the fatal consequences of unabated climate change. They point to, for instance, increasing probability and occurrence of extreme weather events, melting of the arctic at an ever greater pace and significant damage to coral reefs (vital to biodiversity) that already occur at stage where global temperature has risen by approximately 1°C.¹⁴⁴ These most unfortunate developments would certainly justify setting the upper limit of “acceptable” global warming at 1.5°C at most.

We believe that even very high cost should not be, nor is, a legal obstacle if “a substantial number of eminent climate change-experts” would be submitting a “credible and realistic” picture of unacceptable consequences if global temperature would rise by more than

additional melt processes affecting Arctic and Antarctic glaciers, ice caps, and ice sheets suggests that low-end projections of global sea-level rise made by the [IPCC] are underestimated”: AMAP, *The Arctic*, o.c. p. 3.

141 See Sweet et al., *Sea Level Rise Scenarios for the United States*, o.c.; Robert E. Kopp et al., *Temperature-driven global sea-level variability in the Common Era*, *PNAS* 113 (11), 2016, <http://dx.doi.org/10.1073/pnas.1517056113> and Vivien Cumming, *This is how far seas could rise thanks to climate change*, BBC, 11 April 2016, www.bbc.com/earth/story/20160408-this-is-how-far-seas-could-rise-thanks-to-climate-change.

142 See footnote 137. A relevant consideration here, however, is that the initiation of processes that will lead to much more sea level rise on the longer term might be triggered in this century, depending on how many GHGs we continue to emit. In the words of Michael Oppenheimer and Richard B. Alley, “improved analyses of paleoclimate proxies indicate strongly that the sea surface was 6 to 9 m higher than today during the Last Interglacial (~130,000 to 116,000 years ago). These high sea levels can only be explained through mass loss from the ice sheets in response to a sustained forcing that is likely to be exceeded before 2100 under high emission pathways”: *How high will the seas rise? Coastal defense measures must be flexible in the face of rising sea level estimates*, *Science* 354 (6318), 16 December 2016, <http://dx.doi.org/10.1126/science.aak9460>.

143 See for more details Ben Strauss, *What Does the U.S. Look Like after 3 Metres of Sea Level Rise?* *Scientific American*, 14 May 2014, www.scientificamerican.com/article/what-does-the-u-s-look-like-after-3-meters-of-sea-level-rise/; Deltares – Taskforce Subsidence, *Sinking Cities: An integrated approach towards solutions*, October 2013, www.deltares.nl/app/uploads/2015/09/Sinking-cities.pdf.

144 Damien Cave and Justin Gillis, *Large Sections of Australia’s Great Reef Are Now Dead, Scientists Find*, *The New York Times*, 15 March 2017, www.nytimes.com/2017/03/15/science/great-barrier-reef-coral-climate-change-dieoff.html?_r=0; Eric Roston and Blacki Migliozzi, *How a Melting Arctic Changes Everything: Part I: The Bare Arctic*, *Bloomberg*, 19 April 2017, www.bloomberg.com/graphics/2017-arctic/ and www.pri.org/stories/2016-11-28/arctic-ice-melt-poses-risk-uncontrollable-climate-change-scientists-say.

1.5°C.¹⁴⁵ We readily admit that the phrases between quotation marks are somewhat ambiguous, but so much is clear: a small number of climate change experts does not suffice. For the time being, there is insufficient evidence to take the view that there is a *legal* obligation to take measures to limit global warming to 1.5°C. Such a need will emerge if ever more climate change experts take the view that passing the threshold of 1.5°C will have cataclysmic consequences for the world at large or at least for many people and the environment.

Things become significantly more difficult if we focus on sea level rise by 2200. In our understanding, there is still scientific uncertainty about the specific global warming outcome of specific GHG emission trajectories and concentrations. The three most widely used RCP scenarios (RCP2.6, RCP4.5 and RCP 8.5) correspond to estimated global warming of 1.9-2.3°C (RCP2.6), 2-3.6°C (RCP4.5) and 3.2-5.4°C (RCP8.5).¹⁴⁶ Seeing that RCP4.5 could still, in the most conservative estimates, be consistent with global warming of 2°C, we will take predictions of sea level rise that correspond to that GHG emission trajectory into account as the worst-case scenarios. At least one publication reckons with a significant sea level rise in the order of 9.7 metres in an extreme scenario, i.e. with very low probability of materialising.¹⁴⁷ Other studies predict lower levels of sea level rise in 2500.¹⁴⁸ In light of the – at the time of writing – small number of climate change scientists taking this view and the very low probability, the consequences of further global warming in relation to sea level rise do not provide a basis for a legal obligation to set the upper limit of “acceptable” climate change” well below 2°C.

Let us assume that a substantial number of eminent climate change experts would arrive at a credible and realistic conclusion that there is a legally relevant probability that an increase of global temperature by more than 1.5°C would lead to a sea level rise of 15 metres by the year 2200.¹⁴⁹ We have very little, if any, doubt such a threat matters, seen from both

145 The words between inverted commas are borrowed from OP 1: the precautionary principle. A recent Nature Communications Editorial, *Rising to the challenge of surging seas*, 10 July 2017, <http://dx.doi.org/10.1038/ncomms16127>, refers to other sources estimating that the cost of sea-level defence for the USA would be between US\$ 12-71 billion *per year*. On a global scale, inaction would lead to a total bill of US\$ 1 trillion *per year* by 2050 for the 136 largest coastal cities.

146 For further information, see Graham P. Wayne, *The Beginner’s Guide to Representative Concentration Pathways*, Skeptical Science, August 2013, https://skepticalscience.com/docs/RCP_Guide.pdf, p. 15 ff. Also see in more detail http://sedac.ipcc-data.org/ddc/ar5_scenario_process/RCPs.html.

147 Sweet et al., *Sea Level Rise Scenarios for the United States*, o.c. table 5 (p. 23). Also see table 4, p. 22.

148 See below.

149 ‘Legally relevant’ is unavoidably vague; what probability is legally relevant will probably be determined by a cost-benefit analysis of the costs of mitigating climate change to avoid such sea level rise and the benefits of the harm avoided by such measures. See the discussion of the Learned Hand formula under §20.3 on tort law.

a legal and a moral perspective. As explained in §1 of this commentary, a sea level rise of such a magnitude will have a tremendously adverse impact on billions of people. In addition, the year 2200 is closer than one may think *prima facie*; it will affect the (great-)great-grandchildren of today's younger generation. If this scenario unfolds the price in human and economic terms will be so high that the precautionary principle requires measures to stay below 1.5°C. If necessary one could draw on the principle of intergenerational equity. The exact contours of that principle, which is swiftly gaining ground, are however not yet very clear.¹⁵⁰ Be it as it may, we believe that it is beyond reasonable doubt that the principle of intergenerational equity applies in this hypothetical scenario. The argument that it is "likely" that well before 2200 there will (or may) be technological means to remove GHGs from the atmosphere and that we can safely assume that the measures will solve the problem is too speculative to carry much weight in light of the interests at stake.¹⁵¹ It is simply too risky to take it for granted that those means will become available or, if taken, will not have major adverse side-effects.

Things are even more problematic if we would take the year 2500 instead of 2200. Seen from a legal and, depending on the weight attached to non-economic factors, also from a moral angle, that scenario is a much harder case. The just-mentioned argument concerning technological development may carry more weight, as ongoing innovation increases the plausibility that the technology to reverse climate change and/or cope with sea level rise will be available then and that its adverse effects, if any, can be controlled. Although that argument does not necessarily suffice to discredit any legal obligation to limit global warming to 1.5°C, it is not irrelevant either. This is not to say that we do not believe in legal obligations towards future generations. All we are saying is that the weighting of the relevant factors may be different as the time span prolongs.

Our rather outspoken view about the legal obligations in the year 2200 hypothetical will probably be challenged as unrealistic. We do realise, of course, that it is highly unlikely

150 See, also for further references, Malgosia Fitzmaurice, David M. Ong and Panos Merkouris (eds.), *Research Handbook on International Environmental Law*, Edward Elgar, 2010, p. 108 ff; Peter M. Lawrence, *Justice for Future Generations: Climate Change and International Law*, Edward Elgar, 2014; Janna Thompson, *Intergenerational Justice, Rights and Responsibilities in an International Policy*, Routledge, 2009; Catherine Larrère, *Responsabilité à l'égard des générations futures et justice intergénérationnelle: Quelques interrogations* and Jaap Spier, *Intergenerational equity: an aspiration or an effective weapon?* both in Alain Papaux and Simone Zurbuchen (eds.), *Philosophy, Law and Environmental Crisis / Philosophie, droit et crise environnementale*, *Archiv für Rechts- und Sozialphilosophie* 149, 2016, respectively p. 47 ff and p. 69 ff; Javier de Cendra de Larragán, *Distributional Choices in EU Climate Change Law and Policy: Towards a Principled Approach?* *Kluwer Law International*, 2010, in particular p. 373 ff.

151 Since it is uncertain whether there will be suitable technological options to solve the problem of sea-level rise by 2200, this matter is also governed by the precautionary principle. That means that the chance of such technological development must be "clear and convincing", in line with OP 1.

that states and enterprises around the globe are *going* to reduce their emissions to such an extent that global warming will be limited to, in our hypothetical, 1.5°C. Admittedly, such measures may well have a serious impact on the world economy, unless unorthodox technologies such as geo-engineering and/or carbon capture will be effectuated. We are not in a position to take a stance on such alternative measures; we are a group of lawyers and do not have the expertise to assess the feasibility and dangers of geoengineering and carbon capture.¹⁵² Only if in just-mentioned hypotheticals conventional reduction measures would have a truly devastating impact on present day's society,¹⁵³ one would have to accept that it is impossible, and by the same token not required, to keep global warming below the threshold of, in our example, 1.5°C. In that scenario the rise must be kept as close to 1.5°C as possible.

Just-mentioned hypotheticals show the importance of the continuous re-evaluation and development of existing science, as well as the need to rely key decisions on the newest insights, for example when determining the world's carbon budget under OP 3 as well as in other key decisions in relation to climate change.

19.3 *The role of the precautionary principle*

We realise that the point taken above under §19.2 is not easily reconcilable with the precautionary principle. From our interpretation of the precautionary principle, as laid out in OP 1,¹⁵⁴ it cannot easily be argued that there would not be an obligation to limit global warming to 1.5°C, seeing that it has become overly clear that there is at least a sufficiently credible risk of considerably adverse consequences that will already ensue with global warming of above 1.5°C.¹⁵⁵ The only reason – that we can think of – that society continues to focus on limiting global warming to 2°C,¹⁵⁶ would be that it apparently believes that the costs of limiting global warming to 1.5°C outweigh the benefits. We are not in a position

152 See f.i. John Fogarty and Michael McCarty, Health and Safety Risks of Carbon Capture and Storage, *Journal of the American Medical Association* 303 (1), 6 January 2010, <http://shalegas-bg.eu/download/ccs/100106-Health-Risks-CCS.pdf>; Carlo C. Jaeger, Carbon Capture and Storage: Risk Governance and Rent seeking, Potsdam Institute for Climate Impact Research, 2007, www.irgc.org/IMG/pdf/IRGC_CCS_Jaeger07.pdf; The Royal Society, Geoengineering the climate, Science, governance and uncertainty, September 2009, https://royalsociety.org/~media/Royal_Society_Content/policy/publications/2009/8693.pdf.

153 In light of the extremely serious consequences of a sea level rise of 50 metres, truly devastating really means scenarios close to apocalyptic.

154 See the OP (print version), p. 4.

155 Although that may – at the current state of the science – not be the case in terms of sea level rise, it is the case for other deleterious consequences of climate change such as extreme weather events – for instance droughts and excessive rainfall – and biodiversity loss.

156 With the caveat that the Paris Agreement has newly added the *ambition* to strive to limiting global warming to 1.5°C.

to offer a sound view on this point because this (kind of) cost-benefit analysis is not within the area of expertise of our group.

Some people may believe that our approach is not very principled, but as long as there is no sufficiently credible evidence pointing to an urgent need to keep the rise of global average temperature to 1.5°C, it is at least pragmatic. It would be impractical to advocate a goal that is blatantly unrealistic and will only be endorsed by countries that have little to no reduction obligations. Our principles are, however, by no means toothless or unimaginative. We map a series of rather stringent but workable obligations, both for enterprises and the financial sector and investors, as will be motivated in the commentary to the specific principles.

19.4 *Per capita approach and the Paris Agreement*

Many poor countries showed a willingness to reduce their GHG emissions at the 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) in Paris. That is an extremely courageous decision and a most welcome step forward. It will make it much easier – though still not easy – to avoid catastrophic climate change. The OP are far less demanding for most developing countries; at least, that was our assumption.¹⁵⁷ With a few notable exceptions, embedded in OP 7, 8 and 9, the OP do not require emission reductions from least developed countries. Furthermore, most developing countries will not be required to reduce emissions in accordance with the reduction obligation set out in OP 13, as their per capita emissions will be below the permissible quantum.

This development is not to say that the OP are mistaken. We believe that most developing countries are not (yet) under a general *legal* obligation to reduce their GHG-emissions as long as they are Below Permissible Quantum (BPQ) countries. We are inclined to believe that, once countries have accepted reduction obligations under the Paris Agreement or a subsequent amendment thereof, they are bound to honour their pledges.¹⁵⁸ We would draw the same conclusion in the unlikely scenario that one or more developed countries accept obligations beyond the requirements emanating from the OP.

¹⁵⁷ See for elaboration below.

¹⁵⁸ See the commentary to Principle 2 for further elaboration on whether (parts of) the Paris agreement has/have a binding character. According to Gerrard, the pledges are not binding: Paris Agreement Isn't Nearly Enough, o.c. p. 57 He expresses the same view together with Edward McTiernan, Three Major Developments in International Climate Change Law, *New York Law Journal* 256 (92), 10 November 2016, <http://columbiaclimatelaw.com/files/2016/09/070111614-Arnold.pdf>; an exception applies to monitoring, reporting and control measures.

19.5 *The need to reduce the emissions to the permissible level*

The permissible quantum is first calculated for the world at large under OP 6, based on the precautionary principle under OP 1, and is then distributed among countries under OP 13. The size of this permissible quantum, in other words the carbon budget of the world, is calculated in accordance “with a plan of steady emissions reductions to ensure that the global average surface temperature increase ultimately caused by GHG emissions never exceeds pre-industrial temperatures by more than 2 degrees C” (OP 3). The IPCC provides multiple scenarios of emission reduction paths that would lead to stopping global warming at 2°C.¹⁵⁹ These scenarios assume different ‘climate sensitivities’, or how strongly the climate is expected to react to inputs. These assumptions include, amongst other considerations, when and how strong feedback loops will come into play. Because there remains uncertainty about climate sensitivity, the IPCC attaches probabilities to specific emission scenarios; for example, they provide an emission scenario for limiting global warming to 2°C at a probability of 50%.

The fact that there are multiple probabilities attached to emission scenarios begs the question what ballpark of probability should be accepted to calculate the permissible quantum. The permissible quantum under the OP is calculated on the basis of the precautionary principle. In our view, a probability of 50% or even 66% of limiting global warming below dangerous levels is irreconcilable with the precautionary principle. The essence of that principle, as also explained in the commentary to OP 1, is that one should err on the side of safety. Accepting a 50% or 34% chance that global warming exceeds the level regarded as dangerous “by a substantial number of eminent climate experts”¹⁶⁰ is not erring on the side of safety; that chance should be kept considerably smaller.

According to OP 13 an Above Permissible Quantum (APQ) country must reduce its emissions to the permissible quantum “within the shortest time feasible”.¹⁶¹ It appears that

159 GHG emissions are estimated through ‘emission factors’, according to 1996 IPCC guidelines; for more information on measuring emissions, see Ulrich Wieland, *Using official statistics to calculate greenhouse gas emissions: a statistical guide*, Eurostat, 2010, <http://ec.europa.eu/eurostat/documents/3217494/5724229/KS-31-09-272-EN.PDF/16497950-fa38-465d-a1fc-fe6b50ac092c?version=1.0>, p. 18. In some cases, these emission factors approximate reality quite well, in other cases, they may not do so. This might mean that, in the future, we will realise that more has been emitted than was reported in preceding years. That would cause the remaining permissible quantum to turn out to be (much) lower than previously expected. Therefore, it would be preferable for a margin of error to be taken in calculating and using up the permissible quantum.

160 OP 1 under a (2).

161 It could be argued that “within the shortest time feasible” means that enterprises have to start reducing their emissions at the very beginning of the year and not wait to the end of the year in point. However, the OP are silent on this point.

the glide path, explained in detail in the commentary to OP 3, has fuelled some misunderstanding. OP 13 has to be understood as follows. An above permissible quantum country must reduce its GHG-emissions in the year in point to the permissible quantum. If that is impossible, Principle 18 explains how that country has to achieve the reductions required.

States – and enterprises – should be able to discern the reductions to be achieved in the subsequent years. The “glide path” aims to provide a ballpark figure. As a matter of fact, the concrete obligations for a specific year have to be (re)calculated every year, as explained in the commentary to Principle 6. After all, climate change science provides increasingly worrying data; it often requires additional global reductions. Besides, not every APQ country (will) meet(s) its reduction obligations. It is clearly unsatisfactory that complying countries would have to fill that gap, but that is the inevitable consequence of OP 1, 6 and 13, read in conjunction. It follows from the formula adopted by the OP, which coincides with an almost universally adopted view, that *together* we must avoid passing the threshold of 2°C. That implies that the reductions required will most probably increase annually.¹⁶² In light of the link between the reduction obligations of countries and those of enterprises in APQ countries, this inevitably affects the reduction obligations of enterprises in these countries.¹⁶³

To some extent, OP 20 provides a solution. Trade sanctions can be imposed on States that do not comply with obligations to reduce emissions. Moreover, unfulfilled obligations in previous years do not fall away simply because the emission reduction burden is redistributed. Primary responsibility for making the reductions will continue to lie with the defaulting country even after others have received secondary obligations to achieve the reductions not made by the defaulting country. Although the issue is not taken further here, the countries whose obligations are increased because of the failures of others may have remedies against those which do not comply.¹⁶⁴ Betting on technological innovation that would create new ways to reduce GHG emissions or reduce the cost thereof does not free APQ countries of their reduction obligations. Carrying their obligations forward in

162 Emissions will *most probably* increase annually because of the strong expectation that not all countries and enterprises will comply, and that the world as a whole will thus not realise sufficient emission reductions, increasing the necessary reductions in subsequent years. However, we cannot fully rule out a scenario in which there is a full-blown paradigm shift and all countries and enterprises do come into compliance. If this would happen, the result would be that the reduction obligations would remain constant over the years in relative terms (assuming that the scientific assessment of what is necessary to avoid dangerous climate change remains constant as well), and shrink in absolute terms as a constant reduction percentage is applied to a shrinking total amount of emissions.

163 For further elaboration on how gap filling obligations affect the reduction obligations of enterprises in APQ countries and global enterprises, see the commentary to Principle 5 under ‘Gap filling obligations’.

164 This obligation comes close to the effect of “sureties”, albeit that this phenomenon of private law is about fundamentally different scenarios.

time through such a bet is clearly unjustifiable because, if not for other reasons, these developments are uncertain and governments cannot bind their successors.

19.6 *The not so special position of developing countries*

The drafters of the OP believed that most developing countries would not have reduction obligations beyond those mentioned in Principles 7, 8 and 9, as they would not be APQ countries. That probably would be true if the focus were on CO₂-emissions. If one takes the other GHGs into account, namely methane (CH₄) and nitrogen dioxide (N₂O), there are anomalies such as the Central African Republic (CAR).¹⁶⁵ This may require some flexibility in the application of the OP. OP 15 provides a solution for such anomalies insofar as they concern least developed countries by absolving such countries from any reduction obligations at their own expense. This would be the case for the CAR.

19.7 *Historical emissions*

The stance on historical emissions of the Oslo group has been criticised at almost every presentation of the OP.¹⁶⁶ Even with the benefit of hindsight, we wonder whether and how they should have been taken into account. The commentary on the OP supra 3.2 (per capita approach) mentions the following reasons:

- we could not glean a sufficiently sound legal basis for specific legal principles and rules;¹⁶⁷
- we were keen to submit a workable formula. An open and vague formula or set of criteria would complicate its application;

¹⁶⁵ See David Weisbach, Negligence, Strict Liability and Responsibility for Climate Change, Iowa Law Review 97, 2012, http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=3020&context=journal_articles table 9. At the time of drafting the OP, we did realise that there might be a few anomalies. Anomalies may be caused, for example, by large amounts of GHG emissions from land use. With the benefit of hindsight, we should have addressed this issue, for instance by excluding specific activities, such as agriculture in BPQ countries. The CAR's high emissions are probably caused by HFC, PFC and SF₆; see www.indexmundi.com/facts/central-african-republic/indicator/EN.ATM.GHGO.KT.CE.

¹⁶⁶ See for data and the positions of a few key countries: Tommi Ekholm and Tomi J. Lindroos, Assessing countries' historical contributions to GHG emissions, VTT Research Report VTT-R-00139-15, 17 August 2015, www.vtt.fi/inf/julkaisut/muut/2015/VTT-R-00139-15.pdf; also see Duncan Clark, Which nations are most responsible for climate change, the Guardian, 21 April 2011, www.theguardian.com/environment/2011/apr/21/countries-responsible-climate-change.

¹⁶⁷ That is by no means only a problem for lawyers; see for instance Lukas H. Meyer and Dominic Roser, Distributive Justice and Climate Change. The Allocation of Emission Rights, *Analyse & Kritik* 28, 2006, http://analyse-und-kritik.net/2006-2/AK_Meyer_Roser_2006.pdf. They advocate to take those emissions into account but do not provide a concrete solution.

- in most instances high GHG emissions in the past “translate” into high per capita emissions. Put differently, to quite some extent historical emissions are already captured in the formula adopted in the OP.

After the ample criticism received on the OP on this point, we did consider including historical emissions in these principles, but did not change our approach from the OP for two additional reasons. First, although it is not impossible to include historical emissions,¹⁶⁸ it is unworkable. The resulting formula would be overly complicated, undermining the main aim of this project: to come up with concrete obligations that will help concretise the debate about what enterprises should do in the face of climate change. Secondly, we fear emission reduction obligations that include historical emissions would become unrealistic. Already, the obligations of enterprises in APQ countries can be – and in the rule will be – quite steep, seeing that such countries are in principle required to reduce their emissions to the permissible quantum within a year by OP 3 and 6, and enterprises are required to reduce their emissions by the higher of the percentage required under the OP or that assumed by the country under the Paris Agreement.

Before 1990, it was not sufficiently clear let alone accepted that GHG emissions would cause significant harm.¹⁶⁹ At that point in time, one could also not have known development would be so fast-paced that global GHG emissions would skyrocket in the way that they have. Aside from the clearly insufficient voluntarily imposed reduction obligations under the Kyoto Protocol, countries could not have known their concrete legal obligations, since the legal discussion did not go beyond abstract discussions. Countries (politicians) probably should have understood that business as usual, or sticking to the voluntary promises under the Kyoto Protocol, would be insufficient,¹⁷⁰ but we doubt that they should have known *to what extent* they had to reduce their GHG emissions.¹⁷¹ We do realise that unfettered GHG emissions have contributed to the wealth of most APQ countries, but not necessarily

168 One would have to select an unavoidably arbitrary point in time after which emissions are taken into account and adapt the formula we have devised for these principles to include those emissions in one or another way. This would complicate the calculation of specific emission reduction obligations, but not make it impossible.

169 1990 was the year the IPCC’s First Assessment Report came out. See for a different view, from a moral angle, Henry Shue, Responsible for what? Carbon producer CO₂ contributions and the energy transition, <https://link.springer.com/article/10.1007/s10584-017-2042-9>.

170 At least, that goes for self-acclaimed developed countries.

171 We do realise, of course, that this argument will be criticised by people arguing that the law is how courts interpret it *ex post facto*. That argument would be valid, but unhelpful at the same time. The fact remains that the law was unclear *ex ante*. Criticism of alleged retroactivity of judgement rarely explains how, let alone why, the court should have interpreted the law differently. Or, put differently, why the law was different at the time the relevant facts happened (in the case of climate change: at the time of the GHG emissions in point).

to the same extent.¹⁷² That in itself is an insufficient reason for changing our stance. In short, it is very difficult to determine exactly how countries have benefited from past emissions. As explained in the commentary to OP 3.2, we believe that current per capita emissions are a workable proxy for giving effect to past emissions, although we realise our approach is imperfect.

Finally, the benefits of past emissions should be carefully considered. These benefits have mostly been distributed unevenly between and within countries. The least wealthy part of the populations of APQ countries have emitted less GHGs per capita than the wealthiest citizens. The former is, however, often most severely affected by natural catastrophes: those citizens do not have the funds to insure their humble property and may well lose their jobs as a consequence of a serious natural catastrophe.¹⁷³ In addition, their social security benefits and pensions will be cut if countries incur significant costs to cope with climate change.¹⁷⁴ If one compares the poorest citizens of APQ countries to the citizens of least developed countries, it is obvious that the former are better off as they benefit from at least basic social security and health care. However, aside from these basic benefits, the poorest citizens of APQ countries barely benefit from the excessive historical GHG emissions brought about by their country.¹⁷⁵

A more subtle approach is possible in relation to the historical emissions of enterprises.¹⁷⁶ We have considered including historical emissions in these principles; to some extent, we did, as follows from Principle 3.1 under (a). The difference between countries and enterprises lies in their relative comparability. If not through a per capita yardstick, it is very difficult to compare States.¹⁷⁷ It is much easier to compare enterprises. Competitors are the most obvious example.¹⁷⁸

It would be fair to take into account whether or not a specific enterprise has already reduced its GHG emissions, and whether it has done so to a higher degree as its competitors and/or

172 Wars, for instance, have swept away many of the advantages of the past.

173 Hurricane Katrina in New Orleans, USA is a case in point. The most affected people were the poor and disadvantaged.

174 In many APQ and BPQ countries many social and economic rights still are a paper tiger.

175 See in more detail Jaap Spier, *De lange schaduw van het verleden? Omgaan met historisch onrecht* (The long shadow of the past? Dealing with historical injustice), valedictory lecture, University Maastricht, 4 March 2016, Boom Juridisch, p. 23 ff.

176 See also Durrant, *Tortious liability for GHG emissions*, o.c. p. 413 and 414.

177 For instance, it would be possible to attach importance to the question whether or not a country lies in the tropical or the polar zone. But such a stance would make it impossible to develop workable formula. Besides, it would be impossible to discern the importance and weight of each and every peculiarity.

178 See for further elaboration on comparing enterprises the Commentary to Principle 2 under 'Mergers, acquisitions, disposals, expansions or downscaling of activities'.

whether its carbon footprint is considerably lower (or higher) than the footprint of its competitors. Hence, it is quite possible to attach some importance to the historical GHG emissions of enterprises. But the basic questions remain the same. There is no sufficiently compelling legal basis to translate historical emissions or historical reduction measures into pertinent principles.¹⁷⁹ See for further elaboration the commentary to Principle 3.

20 LEGAL BASIS

20.1 *General observations*

With a few significant provisos discussed below, the legal basis for our Enterprises Principles (EP) is by and large the same as the legal basis for the OP. The challenge of the EP lies in the direct applicability of international and human rights law and a series of codes of governance to enterprises. Like the drafters of the OP, we believe that one should draw from all relevant legal bases rather than focus on one specific realm of the law, be it international, human rights, environmental or tort law. We do realise that opinions are divided on the question whether international and human rights law and codes of governance are of any direct avail in relation to enterprises. The question there is whether they create enforceable obligations.

The interpretation below *may* be bold and arguably largely aspirational in light of the law “as it stands”. It is however not meaningless. First, it could – and hopefully will – stimulate further debates. More importantly, the law is not cast in stone; it is a “living” instrument, as the ECHR has put it.

We strongly believe that the odds are against those who believe that they can stick to business as usual as long as pertinent case law or black letter law is unavailable. The law constantly evolves in response to the demands of changing societies: the historic success stories of asbestos and, to a lesser extent, tobacco litigation, may serve as examples.¹⁸⁰ The willingness of courts to support obligations to prevent runaway climate change will increase as their countries face intensifying natural catastrophes and/or when climate scientists

179 See for a similar approach Durrant, *Tortious liability for GHG emissions*, o.c. p. 413 and 414. She starts by saying that “[c]ustomarily, there have been no limits or restrictions on those emissions from industrial activities. However, this is not but one factor for the court to take into consideration and will not necessarily operate to prevent a finding of breach of duty.”

180 Many learned academics have pointed to these cases. Unlike our principles, they are about damages. That, however, does not make the example invalid. After all, damages require violation of a legal duty (norm); exceptions apply in case of strict liability; see for instance Jörg Fedtke’s ground-breaking *Evolutionary Mismatch and responsibility*, o.c. p. 91 ff.

become ever more pessimistic about the future. It is in our view beyond cavil that a failure to sufficiently reduce GHG emissions will cause significant and unnecessary suffering around the globe. It may also adversely affect enterprises whether or not they reduced their GHG emissions to the extent “needed”.¹⁸¹ Courts typically apply the law as interpreted by them at the time of judgement. In relation to reduction and related obligations of enterprises, they will probably apply or at least borrow from international law and codes of governance when domestic law does not provide a sufficient legal underpinning. In addition, such legal sources may be utilised for the development and interpretation of the open-ended norms of international and domestic legal systems.

Hence, enterprises that have underestimated their reduction obligations or even trust that there is no legal reduction obligation whatsoever may face serious difficulties of various kinds. First, they have to reckon with the possibility that the reductions they had to achieve, but did not achieve, will be added to their future reduction obligations. In fact, enterprises would be well-advised to reckon with future judgments pointing to *much more demanding* obligations than those painted by our principles. Secondly, they run liability risks for not having reduced their GHG emissions to the extent required by law.¹⁸²

We are not suggesting that our view is unequivocally right, let alone that it cannot be challenged: it can be and it will be. But once catastrophe sets in, those who have advocated reluctance will regret their stance. By then, it will be too late. This is the main reason for our exercise: to provide a considered blueprint that makes the minimum reduction obligations of enterprises concrete and can be used for judgement by legal actors.

20.2 *A three-tier process*

There are multiple steps that have to be taken to come to the legal obligations of enterprises. The first question to be answered is how much GHG emissions have to be reduced on a *global* level in a given period. Thereafter, that reduction burden must be divided between countries. We have tried to address these issues in the OP and have explained at length why we believe that our view is in line with an – arguably bold and imaginative – interpretation of international, environmental and tort law. In answer to these first two issues, we refer to that discussion.

181 “needed” may seem to point to a circular argument. But it will be explained below that that impression is mistaken.

182 As explained in §15 and §21, we do not express a view on compensation issues. But that does not mean that enterprises do not run liability risks. For more detail on liability risks, see §12 and §15.

The third – and for the purpose of these principles vital – step is to discern the legal obligations of individual enterprises. We have arrived at the conclusion that the best – fairest and most practical – option is to link the obligations of enterprises to those of the countries in which they operate.¹⁸³ It is also the most logical approach, with a few provisos to be discussed below.

If one is prepared to believe that the better option is to relate the reduction obligations of enterprises to those of the countries in which they operate, it is open to debate whether we still need a convincing legal underpinning for the specific reduction obligations that these principles prescribe. However, there is a very strong legal underpinning for the fact that enterprises have *some* reduction obligations, as well as non-reduction obligations. It could well be argued that this approach simply follows from the approach adopted in the OP. Such an approach is not necessarily fair in relation to *each* individual enterprise. But we do not believe that it is possible, nor desirable, to map more detailed reduction obligations of individual enterprises (other than the obligations under Principles 7 and 8). Much depends and ought to depend on the local circumstances. Hence, Principles 3 and 4 create flexibility for countries to (re)allocate the reduction burden between enterprises within their jurisdiction.

Our principles are not only about reduction obligations. Principles 9, 10 and 17 formulate additional substantive obligations; Principles 18-21 and 23 introduce a series of mainly procedural obligations. They, too, are largely based on (the ideas behind) at least human rights, environmental and tort law, as they are means to stem the tide and to avoid the huge losses that will occur if GHG emissions will not be curbed to the extent needed. All these realms of the law have one basic and important message in common: causing or contributing to significant harm must be avoided.¹⁸⁴

20.3 *Tort law*

With the proviso discussed in the previous section, the first and most obvious legal basis for the reduction obligations of *enterprises* can be discerned from national law, in particular tort and environmental law:¹⁸⁵ see OP 3 and 4. The commentary on the OP elaborates on

183 Global enterprises are an exception, as will be explained in the context of Principle 5.

184 For elaboration, see under §20.3.

185 See, for instance, Olivier De Schutter et al., Human Rights Due Diligence: the Role of States, The International Corporate Accountability Roundtable, the European Coalition for Corporate Justice and the Canadian Network on Corporate Accountability, December 2012, <http://humanrightsinbusiness.eu/wp-content/uploads/2015-05/De-Schutter-et-al.-Human-Rights-Due-Diligence-The-Role-of-States.pdf>, p. 16, 17; Durrant, Tortious liability for GHG emissions, o.c. p. 409 ff; she also points to the social utility of the act

the question why tort law provides a solid legal basis for reduction obligations to the effect that the global surface temperature does not exceed the level of 2C.¹⁸⁶ The strongest argument against applying tort law in this context is perhaps that enterprises are often licensed to perform the activities that they perform. However, in our view obtaining a permit does not generally absolve an enterprise of its obligations emanating from these principles.¹⁸⁷ Even if that basis in its own right would not suffice, additional legal sources such as international law, human rights law and a series of codes of governance can be called to aid irrespective of whether or not they apply directly in the context of non-State actors. At the very least, they reflect the prevailing *opinio iuris*. Hence, they provide a sound basis for the interpretation of the open-ended norms of tort¹⁸⁸ and environmental law.¹⁸⁹

The OP rely on the so-called Learned Hand formula¹⁹⁰ and similar formulae of tort liability: “it is a fundamental and widely accepted rule of thumb that an act or omission will be unlawful if it subjects the life, well-being or property of others to a risk of damage, if the

and “relevant statutory and customary standards” (p. 413); SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 3, 23 and 25 ff. See also IUCN, World Declaration, o.c. Principle 1. See for an in-depth analysis and a more general perspective Liesbeth F.H. Enneking, Foreign Direct Liability and Beyond: Exploring the role of tort law in promoting international corporate social responsibility and accountability, PhD thesis, University Utrecht, Eleven, May 2012.

186 As already mentioned above, it is open to debate whether the 2C threshold should still be the basis. In light of the Paris Agreement and the emerging view among climate change scientists, 1.5C would be a better and safer pick.

187 This is a difficult and sensitive issue. A different position would serve as a blow to these principles and by the same token torpedo any chance to avoid passing the 2°C threshold. See for a much subtler approach Bernhard A. Koch, Art. 7:101 para 1 under (e) PETL: Defences Based on Justifications, in European Group on Tort Law, Principles of European Tort Law: Text and Commentary, Springer, 2005, p. 126. If permits or licences would have an exonerating effect, countries are under an obligation either to terminate or to adapt them if and to the extent that they allow GHG emissions above what would otherwise be required. This obligation stems from their duty to prevent human rights violations within their territory; see in more detail below under human rights. Also see *Coventry and others v. Lawrence and another*, [2014] UKSC 13 and *Friends of Animals et al. v. Paul Phifer et al. and State of Maine et al.*, US District Court of Maine, 1:15-cv-00157-JDL (2017), www.gpo.gov/fdsys/granule/USCOURTS-med-1_15-cv-00157/USCOURTS-med-1_15-cv-00157-2/content-detail.html.

188 Particularly the so-called Learned Hand formula and similar formulae adopted around the globe.

189 See in much more detail Brigitta Lurger and Thomas Thiede, *The International Dimensions of Law* (2nd edition), Jan Sramek Verlag, 9 April 2015; Monica Claes, *The National Courts’ Mandate in the European Constitution*, Hart Publishing, 2006.

190 *United States et al. v. Carroll Towing Co., Inc. et al.*, 159 F(2d) 169 at 173 (2d Cir. 1947). See the Commentary on the OP under Tort law. Interestingly, Bevis Longstreth also refers to this formula in the context of divestment from fossil fuel equity: *Outline of Possible Interpretative Release by States’ Attorneys-General Under The Uniform Prudent Management of Institutional Funds Act*, draft, 29 January 2016, <https://insideclimatenews.org/sites/default/files/documents/UPMIFAInterpretationBevisLongstrethPDF.pdf>. Without any underpinning, Burger and Gundlach observe that “the theories of tort, nuisance, and negligence are not available in civil law jurisdictions as a general matter”: *Status of Climate Change Litigation*, o.c. p. 34. That view is mistaken, if not for other reasons because almost identical formulae belong to the core of tort law around the globe; see in more detail Commentary to the OP under 4.4, p. 38 ff (printed version).

risk is considerable, if the potential damage is colossal, and if the risk can be avoided without undue detriment to the party/parties causing that risk”.¹⁹¹

It is up for debate whether the Learned Hand and similar formulae *necessarily* point to an *allocation* of the reduction burden to individual parties as submitted by the present principles.¹⁹² The same question could be posed for international law and human rights law. The difficulty lies in the characteristics of – at least – domestic law. This realm of the law is believed to be about the obligations of individual players, be it natural persons, enterprises or governmental agencies.¹⁹³

To stick to the essence: tort law aims at avoiding losses caused by unlawful conduct. Unfettered GHG emissions will cause tremendous losses. Because climate change is a global challenge, these losses will arise around the globe. According to the prevailing view we must stay below the 2°C threshold. That cannot be achieved without major emission reductions by enterprises. From there onwards it is a small step to accept that “enterprises” are under an obligation to reduce their emissions. Tort law certainly firmly underpins that view.

It does not, however, stipulate how much each individual enterprise has to contribute. The Learned Hand formula and similar formulae also do not answer that question. We will simply have to accept that the current state of tort law – and other realms of the law – does not provide a sufficiently clear answer to that question. But it does not leave any room for doubt that enterprises have to curb their emissions to some degree individually, and to the extent required to limit global warming to 2°C collectively.

As already mentioned, our approach, embedded in Principle 2, is the logical consequence of the OP. The OP, in turn, are based on the widely applauded idea that all people are entitled to the same amount of GHG emissions (the per capita approach). We have decided to build the EP on the same foundation as long as there is insufficient reason or legal basis for a different stance, and hence link the reduction obligations of enterprises to those of

191 Commentary on the OP under 4.4; also see *Wyong Shire Council v Shirt* (1980) 146 CLR 40; see about cost-benefit analysis in the context of bona fide business judgments *Barker, Directors’ Duties*, o.c. p. 49 ff.

192 This question was raised at the occasion of a presentation of the OP at the Swiss Institute for Comparative Law by Pierre Widmer, a distinguished tort law expert. A similar question could be posed in relation to the OP. Leaving all technicalities aside – they are discussed in considerable detail in the commentary on the OP – there can be little doubt that the global reductions must be curbed to such an extent that the 2°C threshold will not be passed. International, human rights, environmental and tort law serve as a sound underpinning for that view. Once the global reductions to be achieved in a specific year have been calculated, the per capita approach determines the obligations of the respective countries.

193 In some legal systems, the acts of governmental agencies belong – either in part or in full – to the domain of administrative law. We can ignore these subtleties in light of our definition of enterprises.

the countries in which they operate, leaving it to the respective countries to fine-tune these obligations, or in other words, to allocate the reduction obligations among the natural and legal persons within their territory. Enterprises, after all, are part of a country: they benefit from and give back to the society, institutions and infrastructure of that country.¹⁹⁴ If enterprises would believe that they have lower obligations than those emanating from our principles, they might consider seeking declaratory judgments from their domestic courts.

Our view may – and probably will – be challenged by academics (and others), arguing that we have ignored the feature of joint and several liability. If one would follow this reasoning, all enterprises would have to reduce their emissions to nil. Lenient advocates of this view may be willing to accept the idea that this does not apply to enterprises in least developed or developing countries and/or that enterprises may take a few (or more) years to comply with this alleged obligation. We have considered this view, but reject the idea for the following reasons.

First, it is very much open to debate whether the joint and several liability doctrine applies in cases such as climate change in light of the great many enterprises that contribute to it.¹⁹⁵ It would also be unfair. More importantly, it does not follow from the doctrinal feature in point.

194 If courts would disagree with our submissions, they could craft injunctive relief in accordance with their interpretation of the law.

195 An example borrowed from a different context: a large mob of 100,000 or one million people engages in a violent demonstration. Even if joint and several liability for the loss suffered by each victim would be the rule of thumb in a specific country, it does not seem likely that courts will apply the same rule in case of such a multitude of people; see about this topic Christian von Bar (ed.), *Principles of European Law: Non-Contractual Liability Arising out of Damage Caused to Another*, Oxford University Press, 2009, p. 774 ff. Conversely, one could well imagine that courts would be prepared to accommodate potential victims of such a mob to issue injunctive relief to urge people keen to join the mob to refrain from doing so; see about liability of members of the group that did not cause damage themselves p. 775. See in more detail Spier, *Injunctive Relief*, o.c. p. 20 ff. The law of causation differs from country to country; it keeps pace with the demands of society and struggles to arrive at fair solutions if new questions or problems occur. The major difficulty probably is that “fair” often has a very different meaning for plaintiffs, defendants or society at large. This makes it difficult to paint a picture of the law as it may develop. It might be rewarding to focus on, doctrinally speaking, unrelated topics such as joint and several liability, attribution (in some countries labelled causation or adequate causation) and uncertain causes. See in more detail Jaap Spier (ed.), *Unification of tort law: causation*, Kluwer Law International, 2000, in particular cases 1, 17 and 21, the respective country reports and the Comparative Conclusions, p. 127 ff. See also Ken Oliphant and Marlene Steininger, *Aggregation and Divisibility of Damage in Tort Law and Insurance: Comparative Summary*, in Ken Oliphant (ed.), *Aggregation and Divisibility of Damage*, Springer-Verlag, 2009, p. 490 ff and Herbert L. A. Hart and Tony Honoré, *Causation in the law* (2nd edition), Oxford University Press, 1985, p. 225, and 465 ff. Hart and Honoré quote Street: “(...) as the wrongful act which is alleged to have caused the damage increases in moral obliquity or in illegality, the legal eye reaches further”; according to these authors, there is “much truth” in the quoted words (p. 302 and 303). In light of the global threats, not reducing GHG emissions ought to be affected by this quotation. We reiterate that our approach focusses on prevention only. See for comparative exercises the country reports in Helmut Koziol (ed.), *Basic Questions of Tort Law from a*

We firmly believe that one cannot decently argue that *all* GHG emissions are unlawful.¹⁹⁶ Hence, at least a specific amount of emissions is (for the time being) lawful. It is difficult to understand why any enterprise would be under a legal obligation to curb its lawful emissions. The joint and several approach would be irreconcilable with these considerations. For a further elaboration of the causation issue, see the commentary on the OP, in particular on OP 11.¹⁹⁷

We reiterate that our Principles are not only about reduction obligations. Almost universally accepted general formulae, such as the Learned Hand formula, serve as a sound legal basis for a series of additional obligations. In that context, the allocation issue does not come into play.

20.4 *International and human rights law*

20.4.1 **Introduction**

The Commentary to the OP explains in quite some detail why international and human rights law serves as a basis for legal obligations to reduce GHG emissions. We refer to this explanation.¹⁹⁸

The question whether international law and human rights create obligations is one of the most discussed and disputed issues in the context of sustainability in general and climate change in particular. The following quotation from a lecture by Harold Koh puts the issues clearly and convincingly:

“... I hope to challenge your preconceived notions of how today’s practice of international legal engagement really works. In the 21st century, I would argue, we are now moving to a whole host of less crystalline, more nuanced forms of

Comparative Perspective, Jan Sramek Verlag, 2015: the French report by Olivier Moréteau p. 52 ff; the Norwegian report by Bjarte Askeland p. 126 ff; the Polish report by Katarzyna Ludwichowska-Redo p. 204 ff; the Hungarian report by Attila Menyhárd, p. 296 ff; the English report by Ken Oliphant p. 399 and 400; the U.S. report by Michael D. Green and W. Jonathan Cardi, p. 468 ff and Koziol’s concluding remarks p. 773 ff.

196 The prevailing view is not that we have to reduce global emissions to nil effective immediately, hence not all emissions could be unlawful, at least at this stage. See for a different stance Greenpeace Southeast Asia and Philippine Rural Reconstruction Movement, Petition to Commission of Human Rights of the Philippines, o.c.; it does not explain the legal basis for this view.

197 As also mentioned in the Commentary, the issue in point is at the interface of causation and wrongfulness. See Attila Fenyves and H. L. Weyers (eds.), *Multikausale Schäden in modernen Haftungsrechten (Multicausal Losses in Modern Tort Law)*, Alfred Metzner, 1988 for more detail on joint and several liability.

198 See the Commentary under 4.2 and 4.3, p. 22 ff (print version). Also see Burger and Gundlach, *The Status of Change Litigation*, o.c. p. 31 and 32.

international legal engagement and cooperation that do not fall neatly within any of these three pigeonholes. My message is that in the 21st century, our international legal engagement has become about far more than just treaties and executive agreements. We need a better way to describe the nuanced texture of the tapestry of modern international lawmaking and related activities that stays truer to reality than this procrustean construct that academics try to impose on a messy reality.”

(...)

“In closing, professors and students taking classes in international law still like to focus on concrete treaty language and judicial decisions. These remain important and are still the leading texts of international law. But the world has become far more fluid and messy. International legal instruments do not come neatly packaged into tripartite constitutional boxes, and the process of ensuring national compliance with international obligations — both before and after ratification of a treaty — now often takes us out of courtrooms and into the halls of Congress, or onto blogs and Twitter or into the offices of foreign policy bureaucrats or even local sheriffs.

Increasingly, traditional forms of international legal engagement do not convey the entire picture of our legal diplomacy. We help our clients advance foreign policy objectives through an innovative array of binding and non-binding arrangements, layered cooperation, normative dialogues and hybrid public-private partnerships. We have broadened our focus beyond a narrow view of international lawmaking that focuses only on the wording of particular treaties, to include innovative techniques of norm-enunciation and forum-creation to promote adherence to important principles.

21st century lawmaking is not limited to traditional “lawmaking” in the sense of drafting codes and static texts, so much as it is a process of building relationships to foster normative principles in new issue areas, leading to “soft law,” “regime-building,” and sometimes eventually crystallizing into legal norms.

(...)

What I hope this lecture has conveyed is that 21st century international lawmaking is not a rote checklist of traditional hornbook tools, such as treaties and executive agreements. Instead, it includes a living, breathing human tapestry of meetings, relationships, and other communications — personal and virtual — all focused on the broader tasks of promoting cooperation, engagement and norm-promotion.

(...)

The story is neither simple nor static. Twenty-first century international lawmaking has become a swirling interactive process whereby norms get “uploaded”

from one country into the international system, and then “downloaded” elsewhere into another country’s laws or even a private actor’s internal rules.”¹⁹⁹

It is commonly accepted that international law imposes obligations on States. The same holds true for human rights law:²⁰⁰ States are under an obligation to ensure that these obligations are not violated within their jurisdiction.²⁰¹ The ECHR puts it as follows in *Brincat v. Malta*:

199 See Harold H. Koh, Twenty-First Century International Lawmaking, speech, Georgetown University Law Center, 17 October 2012, <https://2009-2017.state.gov/s/l/releases/remarks/199319.htm>. See also UNHRC, Report of the Office of the United Nations High Commissioner for Human Rights and on the relationship between climate change and human rights, A/HRC/10/61, 15 January 2009, www.ohchr.org/Documents/Press/AnalyticalStudy.pdf and ECHR in *Kyrtatos v. Greece* (2003), under 52 and about shale gas extraction and tar sand mining *Jesse and Koppe, Business Enterprises and the Environment*, o.c. p. 177 and more generally p. 180.

200 This includes social and economic rights, although opinions diverge as to their enforceability; see inter alios Jheelan Navish, The Enforceability of socio-economic rights, *European Human Rights Law Review* 2, 2007, p. 146 ff; David Landau, The Reality of Social Rights Enforcement, *Harvard International Law Journal* 53 (1), Winter 2012, www.harvardilj.org/wp-content/uploads/2012/01/HILJ_53-1_Landau.pdf. The formulation of these rights tends to be rather open, but there is at least a minimum core; see e.g. Katharine G. Young, The Minimum Core of Economic and Social Rights: A Concept in Search of Content, *Yale International Law Journal* 33, 2008, <http://lawdigitalcommons.bc.edu/cgi/viewcontent.cgi?article=1920&context=lsfp>.

201 Nicholas A. Robinson and Lal Kurukulasuriya, Training Manual on International Environmental Law, UNEP, 2006, <http://digitalcommons.pace.edu/lawfaculty/791/>, p. 52 ff; UNHRC, Resolution 17/4 on Human rights and transnational corporations and other business enterprises, A/HRC/RES/17/4, 6 July 2011, endorsing the Ruggie Principles/Guiding Principles on Business and Human Rights, particularly Principles 1-4; UNOHCHR, The Corporate Responsibility to Respect Human Rights: An Interpretive Guide, UN, p. 10, 46 and 48; Andrew Clapham, Human Rights Obligations of Non-State Actors, Oxford University Press, 2006, p. 94 (several obligations constitute “*erga omnes*-protection; for instance protection from slavery and racial discrimination”). See also Marion Weschka, Human Rights and Multinational Enterprises: How Can Multinational Enterprises Be Held Responsible for Human Rights Violations Committed Abroad? *ZaöRV* 66, 2006, www.zaoerv.de/66_2006/66_2006_3_a_625_662.pdf, p. 628 ff. She observes that given the economic power of multi-national enterprises, their international mobility and the dependence of many countries on international direct investment, especially “developing countries, occasionally fail to take efficient action against Multinational Enterprises that violate human rights in their territory”; Daniel Augenstein, Study of the Legal Framework on Human Rights and the Environment Applicable to European Enterprises Operating Outside the European Union, submitted by The University of Edinburgh to the EC, 1 October 2010, http://en.frankbold.org/sites/default/files/tema/101025_ec_study_final_report_en_0.pdf, p. 11; Jesse, Responsibility of Enterprises to Respect the Environment, o.c. p. 37, 40 and 57; Robert McCorquodale, Non-state Actors and International Human Rights Law, in Sarah Joseph and Adam McBeth (eds.), *Research Handbook on International Human Rights Law*, Edward Elgar, 2010, p. 104 ff; UN Convention on Biological Diversity, Rio de Janeiro, 5 June 1992, Art. 1; UN Sub-Commission on the promotion and Protection of Human Rights, Norms on the Responsibilities of Transnational Corporations and Other Business Enterprises with Regard to Human Rights, 13 August 2003, Art. 1; Knox, Report on human rights obligations relating to the environment, o.c. p. 16 supra 50 with further references; UN Human Rights Committee, The Nature of the General Legal Obligation Imposed on States Parties to the Covenant, General Comment No. 31 [80], 29 March 2004. See also Jan Wouters and Anna-Luise Chané, Multinational Corporations in International Law, in Math Noortmann, August Reinisch and Cedric Ryngaert (eds.), *Non-State Actors in International Law*, Hart Publishing, 2015, p. 236, with further elaboration. On p. 238 they observe that “Companies can incur increased costs and sustain reputational damage when they are measured

“101. The Court makes reference to its general principles as Stated in *Öneryıldız* and further elaborated on in *Budayeva and Others* (both cited above), as summarised in *Kolyadenko and Others v. Russia*, nos. 17423/05, 20534/05, 20678/05, 23263/05, 24283/05 and 35673/05, §§ 157-161, 28 February 2012, and as reiterated in *Vilnes and Others v. Norway*, nos. 52806/09 and 22703/10, § 220, 5 December 2013:

“The Court reiterates that the positive obligation to take all appropriate steps to safeguard life for the purposes of Article 2 (see paragraph 151 above) entails above all a primary duty on the State to put in place a legislative and administrative framework designed to provide effective deterrence against threats to the right to life (see *Öneryıldız*, cited above, § 89, and *Budayeva and Others*, cited above, § 129).

The Court considers that this obligation must be construed as applying in the context of any activity, whether public or not, in which the right to life may be at stake, and a fortiori in the case of industrial activities, which by their very nature are dangerous. In the particular context of dangerous activities special emphasis must be placed on regulations geared to the special features of the activity in question, particularly with regard to the level of the potential risk to human lives. They must govern the licensing, setting up, operation, security and supervision of the activity and must make it compulsory for all those concerned to take practical measures to ensure the effective protection of citizens whose lives might be endangered by the inherent risks (see *Öneryıldız*, cited above, §§ 71 and 90).”²⁰²

That does not mean, however, that enterprises do not have obligations derived from international and human rights law.²⁰³ The Independent UN Expert John G. Ruggie has delivered an important report: *Protect, Respect and Remedy Framework*. Attached to his report is a set of *Guiding Principles on Business and Human Rights*, also known as the *Ruggie Principles*. These Principles were endorsed by the UN Human Rights Council

according to human rights standards by which they are not even legally bound.” ETO Consortium takes the same view with extensive elaboration: *The Maastricht Principles on Extraterritorial Obligations of States in the Area of Economic, Social and Cultural Rights*, Maastricht University and the International Commission of Jurists, 28 September 2011, www.etoconsortium.org/nc/en/main-navigation/library/maastricht-principles/?tx_drblob_pi1%5BdownloadUId%5D=23, see for instance Principles 1.3, 8, 12, 24 and 25.

²⁰² See the ECHR in *Brincat and others v. Malta* (2014).

²⁰³ Not surprisingly, the view that they do have is fiercely criticised by the ICC and IOE; see *Joint views on the draft*, o.c. p. 3, 4 and 17.

(UNHCR) in its Resolution 17/4 of June 2011. The Preamble to the Resolution reads as follows:

“Stressing that the obligation and the primary responsibility to promote and protect human rights and fundamental freedoms lie with the State,

Emphasizing that transnational corporations and other business enterprises have a responsibility to respect human rights,

Recognizing that proper regulation, including through national legislation, of transnational corporations and other business enterprises and their responsible operation can contribute to the promotion, protection and fulfilment of and respect for human rights and assist in channelling the benefits of business towards contributing to the enjoyment of human rights and fundamental freedoms,

Concerned that weak national legislation and implementation cannot effectively mitigate the negative impact of globalization on vulnerable economies, fully realize the benefits of globalization or derive maximally the benefits of activities of transnational corporations and other business enterprises, and that further efforts to bridge governance gaps at the national, regional and international levels are necessary (...)”

According to the United Nations Office of the High Commissioner for Human Rights (UNOHCHR), the responsibility to respect human rights is not optional for enterprises:

“In many cases the responsibility of enterprises to respect human rights is reflected at least in domestic law or regulations corresponding to international human rights standards. ... [It] is not, however, limited to compliance with such domestic law provisions. It exists over and above legal compliance, constituting a global standard of expected conduct applicable to all businesses in all situations. It therefore also exists independently of an enterprise’s own commitment to human rights, it is reflected in soft law instruments.”²⁰⁴

“The responsibility to respect human rights applies in all contexts. ... the responsibility to respect human rights extends beyond compliance with national laws and regulations protecting human rights and entails respect for all inter-

204 UNOHCHR, Corporate Responsibility to Respect Human Rights, o.c. p. 13/14.

nationally recognized human rights. It therefore also applies where there are no national laws and regulations to protect these rights. For the same reason, where national laws and regulations offer a level of human rights protection that falls short of internationally recognized human rights standards, enterprises should operate to the higher standard.²⁰⁵

Andrew Clapham²⁰⁶ elaborates on the question whether enterprises have human rights obligations based on international human rights law:

“Ever since the Nuremberg Tribunal held individuals accountable for war crimes against humanity, it has been clear that having international law obligations does not imply respectability, legitimacy, or decency. If this point holds with regard to the law of crimes against humanity, it can also hold for the law of human rights violations.

We can also see that, to deny the applicability of human rights to powerful non-state actors, is to deny the empowerment which accompanies human rights claims.²⁰⁷

“In fact, holding the public/private line in this way risks actually undermining the opportunities for progressive change by shielding the nature of private activity that threatens human well-being.²⁰⁸

“The focus on courts .. is, in part, to illustrate that human rights arguments are already used to hold non-state actors accountable for actions in the private sphere. By honing the arguments used in litigation, I aim to develop a more coherent approach to the human rights obligations of non-state actors, even in the absence of applicable tribunals entitled to hand down binding decisions.²⁰⁹

205 P. 77. For a similar view, see John H. Knox, Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, UNGA, UNHRC, A/HRC/31/52, 1 February 2016, www.ohchr.org/Documents/Issues/Environment/A.HRC.31.52_AEV.docx.

206 Andrew Clapham, Human Rights Obligations of Non-State Actors, o.c.. See also Olivier De Schutter, The Accountability of Multinationals for Human Rights Violations in European Law, Center for Human Rights and Global Justice Working Paper 1, 2004, <http://chrgj.org/wp-content/uploads/2012/07/s04deschutter.pdf>, p. 6, 7 and 11.

207 Clapham, Human Rights Obligations, o.c. p. 53.

208 P. 53/54.

209 P. 55.

“If human rights once offered a shield from state oppression in the vertical relationship between the individual and the state, they now also represent a sword in the hands of victims of private human rights abuses.”²¹⁰

“Perhaps, it may be that that human rights can indeed be used by private power and against private power at the same time. This may seem counterintuitive, or naïve, but it is possible. Perhaps human rights do indeed have this double quality and it is not necessarily misguided to propose greater attention to the possibility of human rights having the necessary qualities to act as a check on private power. At least we should perhaps admit that our appreciation of human rights has been skewed by the jurisdictional filters that have been employed in our experiments to examine them. (...) But if we look elsewhere [i.e. beyond actions against states based on violations of human rights or constitutions], we may find evidence of human rights obligations being opposable to private power. In other words, the results of our investigation depend on where we set up our experiment and the filter we are looking through. With a multiplicity of jurisdictions for human rights claims, we have to accept that human rights obligations may attach to non-state actors in some jurisdictions and not in others. These different jurisdictional appreciations of the nature of human rights need not be contradictory. They can be considered complementary.”²¹¹

“The message is that international human rights obligations can fall on states, individuals and non-state actors. Different jurisdictions may or may not be able to enforce these obligations, but the obligations exist just the same. With more and more national jurisdictions applying international human rights law as the law of the land, we look set to see an increasing acknowledgement of the relevance of human rights norms for judging the conduct of private actors.”²¹²

Further down, Clapham quotes the International Court of Justice (ICJ) Opinion in Reparations for injuries in the service of the UN:

“The subjects of law in any legal system are not necessarily identical in their nature or the extent of their rights, and their nature depends on the needs of the community. Throughout its history, the development of international law has been influenced by the requirements of international life, and the progressive

210 P. 56.

211 P. 57.

212 P. 58. See for further elaboration p. 59 ff.

increase in the collective activities of States has already given rise to instances of action upon the international plane by certain entities which are not States.”²¹³

Lauterpacht has argued along the same lines:

“there is nothing in the existing international law which makes it impossible for individuals to be directly subjects of international duties imposed on them as such. The question is one of technique and procedure (...) the actual centre of legal and moral responsibility is in the individual and not in the metaphysical personality of the State. Decisive reasons of progress of international law and morality seem to favour that construction”.²¹⁴

It follows that opinions are divided on the question whether or not enterprises have enforceable human rights *obligations*.²¹⁵

Several countries, such as Bolivia and South Africa, have requested the UNHRC “to establish an open-ended working group on a legally binding instrument on transnational corporations and other business enterprises with respect to human rights, the mandate of which shall be *to elaborate an international legally binding instrument* to regulate, in international human rights law, the activities of transnational corporations and other business enterprises”.²¹⁶ At first glance, the words in italics seem to suggest that these countries take the view that corporations are not yet bound by human rights on the basis of the law as it stands. That conclusion is not necessarily right. The draft resolution could also be interpreted in a different way, saying that the obligations are already binding, but

213 P. 64.

214 Quoted by Clapham, *Human Rights Obligations*, o.c. p. 72/73. Clapham acknowledges that there is “strong resistance” (p. 76), but adds “It is possible to move beyond the self-imposed formalistic legal problem of subjectivity and concentrate on capacity. Moreover, even without an international jurisdiction, the acts of corporations can be regarded as international crimes (...) and it therefore makes complete sense to talk about limited international personality” (p. 77/78). See, also for further references, Wouters and Chané, *Multinational Corporations in International Law*, o.c. p. 228 and 229, albeit that “the picture changes (...) if one takes a look at the national level, where MNCs have been sued for human rights abuses before civil and criminal tribunals” (p. 246 with further elaboration; on p. 236 they write that MNCs have no direct obligations under international law, but they also point to “a growing body of non-binding ‘soft law’ regulating their conduct”; also see Jesse and Koppe, *Business Enterprises*, o.c. p. 181.

215 See in considerable detail, with references to international instruments, doctrine and case law, Campagna, *UN Norms: International Community Asserts Binding Law*, o.c. inter alia at p. 1209, 1211 and 1214, 1218, 1219, 1222, 1223, 1237 and 1252.

216 UNHRC, Draft resolution on the Elaboration of an international legally binding instrument on transnational corporations and other business enterprises with respect to human rights, A/HRC/26/L.22/Rev.1, 25 June 2014 (emphasis in the text added).

not yet sufficiently concrete. Hence, there is a need for elaboration. The draft resolution was not adopted.

Even if enterprises were not directly bound by international law and human rights, these realms of the law colour domestic law.²¹⁷ That also is the barely veiled message of the World Declaration on the Environmental Rule of Law, submitted by participants (mostly very senior judges)²¹⁸ at the International Union for the Conservation of Nature (IUCN) World Environmental Law Congress in Rio on 29 April 2016, as subsequently amended by the IUCN:²¹⁹

“The environmental rule of law is understood as the application of the rule of law at local, national, regional and international levels in the environmental context. Strengthening the environmental rule of law is key to achieving the highest possible level of environmental conservation and protection.

The environmental rule of law is premised on key governance elements, including, but not limited to:

- a. The development, enactment and implementation of clear, strict, enforceable, and effective laws, regulations and policies that are efficiently administered through fair and inclusive processes to achieve the highest standards of environmental quality at national, sub-national, regional and international levels;
- b. Measures to ensure effective compliance with laws, regulations, and policies, including adequate criminal, civil and administrative enforcement actions, and mechanisms for timely, impartial and independent dispute resolution;
- c. Effective rules on access to information, public participation in decision-making and access to justice;
- d. Environmental auditing and reporting, together with other effective accountability, integrity and anti-corruption mechanisms.”²²⁰

217 See extensively (in Dutch), Stefan Somers, *Aansprakelijkheidsrecht en mensenrechten: Kruisbestuiving in een meergelaagde rechtsorde* (Liability law and human rights: Cross pollination in a multi-layered legal order), Intersentia, 2016.

218 That is exactly the reason why this Declaration carries weight. True, these judges spoke for themselves and not in their judicial capacity, but the Declaration leaves no room for misunderstanding about their view and dedication to the good cause. A footnote to the Declaration mentions that it does not represent “a formally negotiated outcome and does not necessarily represent the views of any individual”. See IUCN, *World Declaration* o.c.

219 There is quite a difference between the text adopted in Rio and the final text; the latter is softened in several respects. We quote from the final version.

220 Preamble under II.

In a European context and quite possibly more generally,²²¹ corporations acting as State agents are directly bound by human rights, in the same way as public authorities are.²²² In these situations two issues matter: did a State outsource public functions to the private sector and is the enterprise owned or controlled by the State?²²³

All this said, the prevailing view still is that enterprises must *respect* human rights. Arguably, this view has become almost universally endorsed.²²⁴ Although the term “respect” implies responsibility, which is weaker than a legal obligation, leading academics increasingly contend that human rights are by no means meaningless in relation to enterprises. In fact, there is a strongly emerging view that enterprises are legally obligated to refrain from violating international human rights law.²²⁵ In 2003, the UN Sub-Commission on the Promotion and Protection of Human Rights drafted “Norms on the Responsibility of Transnational Corporations and Other Business Enterprises with Regard to Human Rights”.²²⁶ According to the Preamble of the Norms, the UN Charter “promote[s] universal respect for, and observance of, human rights and fundamental freedoms”. It also borrows

221 See Brunnée et al., Overview of legal issues relevant to climate change, o.c. p. 29. For the European context and further references, see Augenstein, Legal Framework on Human Rights and the Environment, o.c. p. 19-21.

222 For a concise overview of the human rights that will be impaired by the respective effects of climate change, see Center for International Environmental Law (CIEL) and CARE International, Climate change: tackling the greatest human rights challenge of our time, February 2015, www.careclimatechange.org/files/CARE_and_CIEL_-_Climate_Change_and_Human_Rights_web.pdf, p. 4 and UNEP, Climate Change and Human Rights, o.c.

223 Augenstein, Legal Framework on Human Rights and the Environment, o.c. p. 20 and 21, also for further elaboration. See also ETO Consortium, Maastricht Principles, o.c. supra 12 (p. 7).

224 UN Sub-Commission, Norms on the Responsibilities of Transnational Corporations with Regard to Human Rights, o.c. nrs 1, 14 and the Preamble; see about these “norms” and their legal status (not entirely consistent), Rosemann, UN Norms: An Innovating Instrument, o.c. in particular p. 14 supra 3.4, p. 16 (not in line with the preceding discussion). According to McCorquodale, Research Handbook on International Human Rights Law, o.c. p. 97 non-state actors cannot breach international human rights law, irrespective of the severe impact of the actions.

225 E.g. De Schutter, Accountability of Multinationals, o.c. p. 4 ff and 72 – 74, albeit very cautiously, with further references; Rosemann, UN Norms: An Innovating Instrument, o.c. p. 12 (referring to a General Comment by the UN Human Rights Committee), 14-16, albeit sophisticated; Jesse, Responsibility of Business Enterprises to Respect the Environment, o.c. p. 51 and 53.

226 UN Sub-Commission, Norms on Responsibilities of Transnational Corporations with Regard to Human Rights, o.c. See about that report extensively Rosemann, UN Norms: An Innovating Instrument, o.c.; he observes that the Commission on Human Rights decided that “the Norms themselves had no legal standing”, p. 30 and in more general terms p. 32. The Norms have been severely criticised by the ICC and IOE: see Joint views on the draft, o.c. They “strongly support greater efforts to secure the enjoyment of human rights”, and emphasise that “all of our work aims at increasing the enjoyment of human rights”. But they strongly oppose the extreme “privatization of human rights”. In their view, only States are “duty-bearers of human rights” (e.g. p. 2, 3, 4, 6, 17 and 19). They point at the inherent vagueness of the norms and also of many human rights obligations (for instance, p. 6, 10, 20 and 21). Although it is important to take this criticism into account, the close-to universal preliminary endorsement of these norms does reflect that it is widely accepted that enterprises must respect human rights.

from the Universal Declaration of Human Rights (UDHR) that “proclaims a common standard of achievement for ... other organs of society and individuals” to “promote respect for human rights”. In addition, it points to a series of other international instruments. Further down, the Commission “reaffirms” that “transnational corporations and other enterprises”,²²⁷ their officers, including inter alia managers and other executives, have human rights obligations and responsibilities. According to Art. 1:

“Within their respective spheres of activity and influence, transnational corporations and other business enterprises have the obligation to ... secure the fulfilment of, respect, ensure respect of and protect human rights ...”.

This is also the message of Art. 14:

“Transnational corporations and other business enterprises shall carry out their activities in accordance with national laws, regulations, administrative practices and policies relating to the environment of the countries in which they operate, as well as in accordance with relevant international agreements, principles, objectives, responsibilities and standards with regard to the environment as well as human rights (...) and the precautionary principle, and shall conduct their activities in a manner contributing to the wider goal of sustainable development.”²²⁸

Despite the fact that all fifty-three member States of the Commission supported their adoption,²²⁹ these Norms never obtained legal effect. Hence, their legal significance is somewhat limited. Even if human rights (and international law) would not have any direct implication for enterprises, they may, and in our view ought to, influence the interpretation of domestic and international law.²³⁰

The preamble of the UN Covenant on Economic, Social and Cultural Rights “realizes” that “the individual, having duties to other individuals and to the community to which he belongs, is under a responsibility to strive for the promotion and observance of the rights

227 See for a definition of “other enterprise” Art. 21.

228 See also Andreas Rühmkorf, *Corporate Social Responsibility, Private Law and Global Supply Chains*, Edward Elgar, 2015, p. 15-17.

229 Campagna, *UN Norms: International Community Asserts Binding Law*, o.c. p. 1206. She discusses the Norms in great detail. She observes that the “international business community virulently opposes the Norms because of their enforceability” (p. 1207).

230 See for a similar, albeit more cautious, view UNEP, *Climate Change and Human Rights*, o.c. p. 29. See also Weschka, *Human Rights and Multinational Enterprises*, o.c. p. 631 ff and IUCN, *World Declaration*, o.c. p. 5 and 6.

recognized in the present Covenant". Even though this realisation is phrased rather ambiguously and is not repeated in the Covenant's subsequent articles, it is of relevance as climate change will jeopardise a series of these rights.²³¹

20.4.2 Minimal contribution and international law

Naturally, the emissions of each single enterprise will not by themselves cause legally relevant, let alone provable, harm. As a matter of fact, climate change is a 'wicked' problem because only *together* will most GHG emissions cause increasingly serious harm for a multitude of people. The minimal contribution of single players also creates a legal problem. Thus, ignoring the often negligible impact of the emissions of single actors would render the problem of climate change unsolvable and quite possibly allow the violation of human rights at a much larger scale than any other process or situation does.²³² Hence, it would be very unsatisfactory if human rights law could not be applied. Minimal causation may, however, still turn out to be an obstacle. This will be discussed further in the commentary to Principle 14.

20.4.3 Lower domestic standards and international law

Whether or not enterprises have to respect human rights is important. An answer in the affirmative would mean that countries are not allowed to set lower reduction standards than those that follow from these principles. In our opinion, States are in principle not allowed to set lower standards because they are under an obligation to prevent violations of international law and human rights within their jurisdiction.²³³ It should therefore follow that an attempt by a State to justify the conduct of enterprises in contravention of the State's duties cannot have legal effect and cannot protect enterprises that merely comply with measures imposed by such States. However, that does not mean that States have no manoeuvring room to be lenient to specific (groups of) enterprises as long as the State as a whole meets its obligations under international and human rights law. Further commentary to this point can be found under Principles 3, 4²³⁴ and 15.

231 See also UNHRC, Nature of Obligations Imposed, o.c. supra 2, 4, 8, 15 and 19.

232 Human rights violations are employed in all kinds of, in context, relatively minor issues – such as excessive noise. In our eyes, it is unacceptable that human rights can be violated in relatively trivial issues, but not for the major issue of climate change. See in more detail Spier, *Shaping the law*, o.c. p. 75 ff.

233 Constitutions may also be an obstacle to lowering the obligations. Quite a few States have adopted a constitutional right to a healthy environment; see Knox, *Human Rights, Environmental Protection and the Sustainable Development Goals*, o.c. p. 3.

234 Principle 4 concerns situations where a state does not comply with its obligations under these principles, which are predominantly based on international and human rights law.

20.5 *Guidelines and codes of conduct*

20.5.1 **Introduction**

Codes of conduct and guidelines could serve as a legal basis for our principles. Opinions are divided on the significance of these instruments: do they have any binding force or not? Harold Koh put it as follows:

“Finally, the new 21st century international lawyering process recognizes that states are not the only actors. Of course neither international law nor foreign policy have ever been completely restricted to states, but the proliferation and influence of non-state actors has “gone viral” in recent years. And so it is inevitable that the U.S. Government now finds itself developing relationships not just with states, but with civil society and industry groups too, among others. With this trend has come an explosion in so-called “public-private partnerships,” or “hybrid arrangements.”

One early and important landmark was the Voluntary Principles on Security and Human Rights, an initiative I helped launch in 2000 during my last days as Assistant Secretary of State for Democracy, Human Rights and Labor in the Clinton Administration. The Voluntary Principles bring together governments, companies, and NGOs to promote guiding principles for oil, gas, and mining companies on providing security for their operations in a manner that respects human rights. (...) So the current framework of cooperation exemplifies the modern “hybrid arrangement:” to promote international norms and respect for human rights in the extractive industries, participants have set up a public-private partnership through which best practices can be shared and norms internalized. And we’ve helped set up an entity to provide the initiative necessary support — organizing that entity under the law of the Netherlands!”²³⁵

In the course of the last 25 years or so, guidelines and codes of governance and conduct (hereinafter collectively: codes of conduct) of all kinds have sprang up like mushrooms.²³⁶

²³⁵ See Koh, *Twenty-First Century International Lawmaking*, o.c.

²³⁶ For more details, see OECD, *The OECD Guidelines for Multinational Enterprises: Reference instruments and initiatives relevant to the updated Guidelines*, March 2012, www.oecd.org/daf/inv/mne/ResourceDocumentWeb.pdf; Robinson and Kurukulasuriya, *Training Manual on International Environmental Law*, o.c. p. 363; OECD, *Overview of Selected Initiatives and Instruments Relevant to Corporate Social Responsibility (Part II, Chapter 6)*, in OECD, *Annual Report on the OECD Guidelines for Multinational Enterprises, 2008*, www.oecd.org/corporate/mne/40889288.pdf; and Ecosense, *Respecting Human Rights: Tools & Guidance Materials for Business*, 2014, www.econsense.de/sites/all/files/Respecting_Human_Rights.pdf (Ecosense members are mostly major German enterprises). Olivier De Schutter has observed that “Codes of conduct have acquired, deservedly, a bad reputation in human rights circles. When they are self-designed by the concerned companies and lack any independent and public monitoring mechanism, they are merely public

They are based on the almost commonly held perspective that broad and open rules on the core responsibilities of enterprises serve the interests of enterprises, society at large and investors.²³⁷

It seems self-explanatory that these guidelines and codes matter, irrespective of whether they are legally binding or not. Below, we will briefly discuss some of the most relevant ones.²³⁸ Although both binding and voluntary instruments relevant to global warming matter, opinions diverge on whether binding or non-binding ones are the most effective. Some practitioners with whom we have discussed the principles support non-binding guidelines and codes, because they expect that enterprises, investors and the like would be more willing to adhere to (at least part of) them. Others, including ourselves, believe that mandatory instruments such as Environmental, Social and Governance (ESG) requirements are, on average, more effective.²³⁹ We especially prefer this stance in light of the pressing need to accelerate the global effort to tackle climate change.

relation exercises”: *Accountability of Multinationals*, o.c. p. 58. See about new “stewardship codes” around the globe and specific legislation on ESG in South Africa, the Netherlands, the United Kingdom, Canada, Switzerland, Japan, Malaysia, Kenya, Taiwan, Hong Kong and Italy, Raji Menon, *Good stewards? The number of new stewardship codes around the world indicates significant take-up, but there are questions on application*, *ESG Magazine* 6, Winter 2016, p. 24-25 Also see about France and other countries Sophie Robinson-Tillet, *Article of faith? France’s Article 173: What does the world’s first ESG/climate reporting law mean, and which countries are following suit?* *ESG Magazine* 6, Winter 2016, p. 44/45. PRI and MSCI mention “almost 300 individual policy tools or market-led initiatives, covering the relationship between finance and ESG issues” by early 2016; of the top 50 economies only Iran “has no policy initiatives relating ESG factors and investment”: *Global Guide to Responsible Investment Regulation*, 2016, www.unpri.org/download_report/22438, p. 9; see in more detail p. 13 ff. In August 2016 China launched *Guidelines on Establishing the Green Financial System*: o.c. p. 11. See about Japan UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 61.

237 See about the relationship with investors PRI and MSCI, *Global Guide to Responsible Investment Regulation*, o.c. p. 25 with the caveat that “it is less clear that this is driving adherence to long-term business models – on the contrary, evidence points to an increase in the short-term pressures on many companies.”

238 See for a useful and concise comparison of the OECD Guidelines for Multinational Enterprises, the UNGC and the ISO 26000 Martje Theuws and Mariette van Huijstee, *Corporate Responsibility Instruments: A Comparison of the OECD Guidelines, ISO 26000 & the UN Global Compact*, Centre for Research on Multinational Corporations, December 2013, www.somo.nl/wp-content/uploads/2013/12/Corporate-Responsibility-Instruments.pdf and for an overview OECD, *Overview of Selected Initiatives and Instruments*, o.c.

239 PRI and MSCI, *Global Guide to Responsible Investment*, o.c. p. 17 in the context of reporting requirements.

Although these codes no doubt have had a positive impact, they are usually rather vague.²⁴⁰ They are not binding according to the prevailing view,²⁴¹ or are at best soft law.²⁴² However, some authors hold the view that they could be enforced through private law because they colour open norms.²⁴³

In our submission these codes are far from meaningless, even if they are not given or are not intended to have legal effect. Increasingly enterprises are coming to realise that they have to be(come) more active in the realm of sustainability. Moreover, these codes may and ought to inspire courts around the globe to interpret the law in accordance with the ideals formulated in them where it is clear that traditional laws have become anachronistic.²⁴⁴ Additionally, this may even be true for international law when applied by international courts. Creativity is necessary to give legal significance to basic legal norms set out in

240 According to PRI and MSCI, Global Guide to Responsible Investment Regulation, o.c. mandatory requirements “were associated with considerably better ESG scores” (p. 20).

241 Weschka, Human Rights and Multinational Enterprises, o.c. p. 644; EC, Communication COM(2011) 681 final, o.c.; Sjäfäll, Regulating Companies, o.c. p. 119; Department for Business Innovation and Skills, Government of the UK, Corporate Responsibility, o.c. p. 3. For a subtle distinction of “four dimensions”, see Rosemann, UN Norms: An Innovating Instrument, o.c. p. 15/16; his conclusion is that “voluntary concepts” amount to “moral duties” (p. 16).

242 See Jesse, Responsibility of Business Enterprises to Respect the Environment, o.c. p. 41; Jesse and Koppe, Business Enterprises and the Environment, o.c. p. 176, but much more cautious on p. 181 ff. The ASX Corporate Governance Council encourages to “act ethically and responsibly” which “goes well beyond mere compliance with legal obligations”: Corporate Governance Principles and Recommendations (3rd edition), 2014, www.asx.com.au/documents/asx-compliance/cgc-principles-and-recommendations-3rd-edn.pdf, p. 19.

243 See, under English law, Rühmkorf, Corporate Social Responsibility, Private Law and Global Supply Chains, o.c. p. 3-5; see for a similar view De Schutter, The Accountability, o.c. p. 62. See also for instance Weschka, Human Rights and Multinational Enterprises, o.c. p. 652-653. See for an in-depth analysis Sutherland, Globalization and Corporate Law, o.c. p. 255 ff and Cees van Dam, Enhancing Human Rights Protection: a Company Lawyer’s Business, Inaugural Lecture, Erasmus University, 18 September 2015, <https://repub.eur.nl/pub/78743/Professor-Cees-van-Dam-Inaugural-Lecture-EN.pdf>, p. 31. Van Dam mentions more reasons why “soft law norms” should not be ignored, pointing to the fluid line between soft and “hard” law. The Ruggie Principles, for instance, “basically formulate the expectations of the international community vis-à-vis the way companies behave with respect to human rights risks. They can be seen as social norms. Social expectations are an important element in shaping the open norms of tort law” (p. 31).

244 For a comparable view in relation to the OECD Guidelines discussed below, see Robinson & Kurukulasuriya, Training Manual on International Environmental Law, o.c. p. 366; for a comparable message, see UNHCR, Resolution 17/4 on Human rights and transnational corporations, o.c. supra 3 and 4. Not surprisingly, the ICC emphasises the voluntary character of these initiatives. It observes, a bit ambiguously, that “the real question should be: given the many different existing initiatives, what can be done to improve the capacity of governments, businesses, intergovernmental organizations, labour, and non-governmental organizations, to work together towards their full and effective implementation?” According to the ICC there is “overwhelming empirical evidence to show that transnational corporations tend to raise standards – including human rights standards – where they operate”; they are not the major source of violations: Maria Livanos Cattai, letter to Dzidek Kedzia (Chief, Research and Right to Development Branch of the High Commissioner for Human Rights) regarding Request for input on report concerning the “Responsibilities of transnational corporations and related enterprises with regard to human rights,” ICC, 7 September 2004.

international instruments and codes of governance. If not the vagaries of different domestic legal systems will create legal vacuums that will make it almost impossible to address climate change. Without legally significant norms, fewer enterprises will comply, leaving those that do comply at competitive disadvantage.

20.5.2 Guiding Principles on Business and Human Rights

The Guiding Principles on Business and Human Rights or Ruggie Principles are the product of John G. Ruggie's impressive work.²⁴⁵ The Ruggie Principles are "grounded on the recognition" that the primary responsibility falls on States. Enterprises "as specialized organs of society performing specialized functions" are required to "respect human rights". The Ruggie Principles, however, do not aim to create new "international law obligations".²⁴⁶ Hence, they are, in a way, a restatement. Or, perhaps one should say: they aim to concretise the law as it stands.²⁴⁷

A few years later, quite a few countries have called for the Ruggie Principles to be developed into a binding human rights instrument in relation to *inter alia* multinational companies. The draft was adopted by a clear majority, although there were several abstentions.²⁴⁸

The Ruggie Principles cover a wide range of topics. They include the general principle to respect human rights (Principles 11-15 and 23), a series of operational principles (Principle 16), a principle on due diligence (Principle 17) and one on impact assessments (Principles 18 and 19).

20.5.3 OECD Guidelines for Multinational Enterprises

The OECD Guidelines for Multinational Enterprises (2011)²⁴⁹ are probably one of the most important and authoritative instruments not based on international or domestic legislation. According to the Foreword, they contain "recommendations endorsed by governments to multinational enterprises".²⁵⁰ They provide

245 As mentioned in §20.4.1 his principles were endorsed by the UNHCR in its Resolution 17/4 of 16 June 2011.

246 P. 1.

247 See in more detail Wouters and Chané, *Multinational Corporations in International Law*, o.c. p. 240 ff.

248 Wouters and Chané, *Multinational Corporations in International Law*, o.c. p. 243.

249 OECD, *OECD Guidelines for Multinational Enterprises: 2011 Edition*, www.oecd.org/corporate/mne/48004323.pdf. For a comparison to other instruments, see OECD, *The OECD Guidelines: Reference instruments and initiatives*, o.c.; it refers to a series of relevant instruments with a brief description and web links. According to Weschka, *Human Rights and Multinational Enterprises*, o.c. p. 648, "the primary aim of the OECD-Guidelines is not to protect human rights but state sovereignty", referring to a publication by N. Weiss.

250 Also see p. 17: the Guidelines are recommendations and hence not binding. They do thus not aim to override domestic law.

“non-binding principles and standards for responsible business conduct in a global context consistent with applicable laws and internationally recognised standards. ...

The *Guidelines* express the shared values of the governments of the countries”.²⁵¹

Courts do not operate in a vacuum. They attempt to interpret the law in a useful and responsible way, keeping pace with the demands of society. Hence, it would be rather surprising if they ignored the Guidelines, regardless of whether they are voluntary or binding. After all, they are called on to decide what “responsible” means, whilst “shared values of governments” obviously matter.²⁵² Those governments would have reason to complain if those values were ignored, all the more so as the Guidelines “enjoy the backing of governments whose territories are home to almost 90 per cent of foreign direct investment flows and 97 out of the top-100 multinational enterprises”.²⁵³ According to Rosemann, the Norms on the Responsibility of Transnational Corporations and Other Business Enterprises with Regard to Human Rights “can be used as a clarification of existing standards”, such as the OECD Guidelines, despite the fact that they are not binding either.²⁵⁴

The Guidelines cover a wide spectrum in the realm of environmental progress and sustainable development,²⁵⁵ due diligence,²⁵⁶ disclosure of information,²⁵⁷ and human rights.²⁵⁸ It seems useful to quote part of the Guidelines:

251 P. 3. About the voluntary, non-binding character, also see Weschka, Human Rights and Multinational Enterprises, o.c. p. 649; Wouters and Chané, Multinational Corporations in International Law, o.c. p. 243; SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 15; Theuvs and van Huijstee, Corporate Responsibility Instruments, o.c.: the Guidelines are recognised by EC as part of a “core set of internationally recognized principles and guidelines regarding CSR”; they are endorsed by the UNGA and recognised in a number of international contexts, such as the G8: p. 14/15.

252 Ivar Cisar refers to the voluntary character of the Guidelines, but adds that “reality” is a bit different and subsequently elaborates on that view; OECD Multinational Enterprises Guidelines and their Enforcement Mechanism, COFOLA 2011: the Conference Proceedings 1, www.law.muni.cz/sborniky/cofola2011/files/normotvorba/Cisar_Ivan_6073.pdf. Rosemann also points to the non-binding character, but adds “in a sense”. In his view “they do call for observance”: UN Norms: An Innovating Instrument, o.c. p. 19. See also Campagna, UN Norms: International Community Asserts Binding Law, o.c. p. 1207.

253 OECD and UNEP FI, The UN Principles for Responsible Investment and the OECD Guidelines for Multinational Enterprises: Complementarities and Distinctive Contributions, Working document for the 2007 Annual OECD Roundtable on Corporate Responsibility, 18 June 2007, www.oecd.org/investment/mne/38783873.pdf, p. 2.

254 UN Norms: An Innovating Instrument, o.c. p. 4. On p. 30 he adds that “some first commentators on the Norms [have] argued that since the Norms can be seen as a restatement of existing human rights obligations, one has to analyse the sources of the Norms to find what legal standing they possess.”

255 OECD, Guidelines for Multinational Enterprises, o.c. p. 19 and, regarding the environment, p. 42 ff.

256 P. 20.

257 P. 27 ff.

258 P. 31 ff.

“IV. Human Rights

States have the duty to protect human rights. Enterprises should, within the framework of internationally recognised human rights, the international human rights obligations of the countries in which they operate as well as relevant domestic laws and regulations:

1. Respect human rights, which means they should avoid infringing on the human rights of others and should address adverse human rights impacts with which they are involved.
2. Within the context of their own activities, avoid causing or contributing to adverse human rights impacts and address such impacts when they occur.
3. Seek ways to prevent or mitigate adverse human rights impacts that are directly linked to their business operations, products or services by a business relationship, even if they do not contribute to those impacts.
4. Have a policy commitment to respect human rights.
5. Carry out human rights due diligence as appropriate to their size, the nature and context of operations and the severity of the risks of adverse human rights impacts.
6. Provide for or co-operate through legitimate processes in the remediation of adverse human rights impacts where they identify that they have caused or contributed to these impacts.”²⁵⁹

The Guidelines only “apply” to enterprises in OECD-countries and countries adhering to the OECD Investment Declarations.²⁶⁰

20.5.4 United Nations Global Compact

The UNGC was initiated by UN Secretary-General Kofi Annan together with business actors and UN agencies.²⁶¹ It did not aim to be a “regulatory instrument”, nor a code of

²⁵⁹ P. 31.

²⁶⁰ Theuvs and van Huijstee, *Corporate Responsibility Instruments*, o.c. p. 11, with further details.

²⁶¹ See for instance UNGA, Resolution 70/224 Towards global partnerships: a principle-based approach to enhanced cooperation between the United Nations and all relevant partners, A/RES/70/224, 22 December 2015. It “reaffirms” “the principles of sustainable development, and underlin[es] the global consensus reached on the key values and principles that will promote sustainable, fair, equitable and sustained economic development, and that corporate social and environmental responsibility are important elements of that consensus” (p. 3/7). Despite the vagueness and the factors that may point into different directions, the “consensus” may carry weight for courts when they have to decide whether the Global Compact is only voluntary.

conduct.²⁶² The UNGC is voluntary,²⁶³ but certainly not meaningless as companies can – and many have been – “delisted”²⁶⁴ “for failure to meet the ... mandatory annual reporting requirement”.²⁶⁵ A joint note on the relationship between the Guiding Principles and the commitments undertaken by UNGC signatories, by the UNGC and the UNOHCHR explains that the:

“Guiding Principles provide further conceptual and operational clarity for the two human rights principles championed by the Global Compact. They reinforce the Global Compact and provide an authoritative framework for participants on the policies and processes they should implement in order to ensure that they meet their responsibility to respect human rights.”²⁶⁶

The UN Guide to Corporate Sustainability seems to suggest that the UNGC entails more than merely non-binding principles.²⁶⁷ The following quotations seem to endorse this submission:

“The Global Compact’s Ten Principles provide a universal language – understood and interpreted in 160 countries around the world by over 8,000 companies – and a framework to guide all businesses regardless of size, complexity or location.

Respecting the principles ... is a baseline for corporate sustainability (...)²⁶⁸

“Corporate sustainability starts with a company’s value system and a principled approach to doing business. This means operating in ways that, at a minimum, meet fundamental responsibilities in the areas of human rights ..., the environment, By incorporating the Global Compact principles into strategies, policies

262 Rühmkorf, *Corporate Social Responsibility, Private Law and Global Supply Chains*, o.c. p. 14.

263 Weschka, *Human Rights and Multinational Enterprises*, o.c. p. 650, with elaboration and criticism; Wouters and Chané, *Multinational Corporations in International Law*, o.c. p. 245; SICL, *Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt*, o.c. p. 15; Theuws and van Huijstee, *Corporate Responsibility Instruments*, o.c. p. 10; Rosemann, *UN Norms: An Innovating Instrument*, o.c. p. 23; he also observes that they are “extremely vague” (idem).

264 “Delisted” means that an enterprise is removed from the UNGC membership.

265 Rühmkorf, *Corporate Social Responsibility, Private Law and Global Supply Chains*, o.c. p. 15; as of 25 August 2017, 7,259 participants have been delisted (see www.unglobalcompact.org/participation/report/cop/create-and-submit/expelled). Also see ABP, *Duurzaam en verantwoord beleggen: 2016 (Investing in a sustainable and responsible way)*, www.abp.nl/images/verslag-duurzaam-en-verantwoord-beleggen-2016.pdf, p. 44.

266 *The UN Guiding Principles on Business and Human Rights: Relationship to UN Global Compact Commitments*, July 2011 (updated June 2014), www.unglobalcompact.org/docs/issues_doc/human_rights/Resources/GPs_GC%20note.pdf.

267 Albeit that compliance lags behind; see e.g. p. 22 and 36.

268 P. 8

and procedures ... companies are not only upholding their basic responsibilities to people and planet, but also setting the stage for long-term success.”²⁶⁹

Principle 1 reads: Businesses should support and respect the protection of internationally proclaimed human rights. The commentary provides further guidance:

“This Principle sets out the UN Global Compact’s overarching expectation of business on human rights, namely, to respect and support human rights. Respecting human rights means a business should use due diligence to avoid infringing human rights (“do no harm”) and should address adverse human rights impacts with which they are involved. In addition, beyond respecting human rights, business is encouraged to take action to support human rights. This means seeing the opportunity to take voluntary action to make a positive contribution towards the protection and fulfillment of human rights whether through core business, strategic social investment/philanthropy, public policy engagement/advocacy, and/or partnerships and other collective action. Action to support human rights should be a complement to and not a substitute for action to respect human rights.

Why should companies care?

Respect for human rights is the right thing to do, but it is also a business issue. Not respecting human rights poses a number of risks and costs for business including putting the company’s social license to operate at risk, reputational damage, consumer boycotts, exposure to legal liability and adverse government action, adverse action by investors and business partners, reduced productivity and morale of employees.

While governments have the primary duty to protect, respect and fulfill human rights, other organizations and individuals have important complementary roles to play in respecting and supporting human rights. All businesses everywhere, regardless of size or sector and whether or not they are participants in the UN Global Compact, have the baseline responsibility to respect human rights. This has been recognized by the UN Guiding Principles on Business and Human Rights

269 P. 11.

Respecting and supporting human rights also strengthens a business' relationships with its stakeholders. For example, workers who are treated with dignity and respect are more likely to be productive and remain loyal to an employer. New recruits increasingly consider the social, environmental and governance record of companies when making their choice of employer. Human rights and inclusive business models can also be a source of innovation for new products or services, access to new markets, help strengthen the social license to operate and to make the business a valued member of the community and society.

What can companies do?

Respecting Human Rights

Business has the potential to impact — positively and negatively — virtually all human rights. Accordingly, business should consider their potential impact on all rights. However, some actual or potential impacts will require special consideration, for example, where the actual or potential impacts are very serious and/or there is a strong connection between the company and the abuse.

For the content of human rights, at a minimum, companies should look to the International Bill of Human Rights The publication *Human Rights Translated* elaborates the main internationally proclaimed human rights from a business perspective and offers practical examples of how companies have infringed on human rights as well as examples of how businesses have supported the enjoyment of the rights. Although some rights will be more relevant than others in particular circumstances, situations change, so broader periodic reassessment is necessary.

Business must comply with all applicable laws and respect internationally recognized human rights, wherever they operate.²⁷⁰ In the rare situation that national law directly conflicts with international standards, companies should seek ways to honour the principles of internationally recognized human rights. Please click here for our good practice note entitled “Meeting the Responsibility to Respect in Situations of Conflicting Legal Requirements”.

270 See Principle 15 for an elaboration on the duties of enterprises that emanate from human rights.

Importantly, the corporate responsibility to respect exists independently of States' human rights duties. Among other things, this means that businesses have a responsibility to respect human rights whether they are operating in an area of weak governance or in a more stable context. In areas where there is weak governance, the risks of infringing human rights may be greater because of the context.

Determining the scope of their responsibility

Companies should consider three sets of factors in determining the scope of their responsibility to respect human rights or, in other words, the risk of potential negative impacts on human rights in connection with the conduct of their business:

- The first is to consider the country and local context in which it is operating for any human rights challenges that context might pose. (...) Pay particular attention to the context in countries where laws are widely known to fall short of international standards and where enforcement may be inadequate.
- The second set of factors involves considering whether the company is causing or contributing to adverse human rights impacts through their own activities within that context — for example, in their capacity as producers, service providers, employers and neighbours ("activities" is understood to include both actions and omissions).
- Companies should then address those impacts by adjusting their policies and practices to prevent the infringement from occurring. An illustrative list of activities with direct impact might include the production process itself; the products or services the company provides; labour and employment practices; the provision of security for personnel and assets; and the company's lobbying or other political activities.
- The third set of factors is an analysis of the company's relationships with Government, business partners, suppliers and other non-State actors to consider whether they might pose a risk for the company in terms of implicating it in human rights abuse. Look particularly at the provision or contracting of goods, services and even non-business activities, such as lending equipment or vehicles. Consider the track records of those entities your company deals with to assess whether the company might contribute to or be associated with abuse caused by those entities. The responsibility to respect human rights also includes the Global Compact commitment to avoid complicity, that is, being involved in human rights abuse that another company, government, individual, group etc. is causing.

Policy Commitment

Companies should adopt a statement of policy as a public commitment to fulfill their responsibility to respect human rights, approved by their board or equivalent. It can be a stand-alone statement or integrated into a broader corporate sustainability policy or code of conduct. Broad inspirational language may be used to describe respect for human rights, but more detailed guidance in specific functional areas is necessary to give those commitments practical meaning. The policy should stipulate the company's human rights expectations of personnel, business partners and those directly linked to the organization's operations, products or services. As such, it should be communicated to these parties, as well as be publically available.

The policy should be informed by internal/external human rights expertise. Developing a human rights policy can also be an important opportunity for stakeholder engagement on the topic of human rights, which can be almost as important as the policy that results from the process. View sample Human Rights policies. Once prepared, the policy should be reflected in operational policies and procedures in order to embed it throughout the business functions. Download: A Guide for Business: How to Develop a Human Rights Policy.²⁷¹

According to Principle 7, businesses should support “a precautionary approach to environmental challenges.”

By 15 November 2016, 166 countries and 9,000 companies had joined the UNGC.²⁷²

20.5.5 ISO 26000

The International Organization for Standardization (ISO) is an independent, non-governmental international organisation with 163 “national standards members”. It develops “voluntary, consensus-based, market relevant international Standards that support innovation and provide solutions to global challenges.”²⁷³ ISO 26000 is particularly relevant for our principles, as it concerns social responsibility.

271 www.unglobalcompact.org/what-is-gc/mission/principles/principle-1.

272 The website of the UNGC links to a tweet of August 20, 2017 stating a membership of 162 countries and 9,531 companies: www.unglobalcompact.org/what-is-gc/participants.

273 www.iso.org/iso/home/about.htm. The ISO norms are not formally endorsed by many governments: Theuws and van Huijstee, *Corporate Responsibility Instruments*, o.c. p. 10. ISO standards have, however, been translated into national standards in more than 60 countries (p. 60).

20.6 *Final observations on the legal basis*

One of the pre-eminent questions in most of our discussions with representatives from business, investors, government and civil society concerned the legal nature of our principles. More specifically: are they legally binding? We stress that we are not a legislator. Hence, our principles are not binding by themselves. If our interpretation of the law is correct, or if the law will develop as we expect it will do, enterprises and investors are or will be²⁷⁴ bound to comply with the obligations painted by our principles. Not because we believe that these are their obligations but because they are already or will become embedded in the law.

We openly admit that it cannot be taken for granted that our principles mirror “the law” lock stock and barrel. We cannot tell the fortunes. The (further) development of the law depends on unavoidably uncertain factors: the way international and domestic judges will interpret the law, the cases to be submitted to them,²⁷⁵ political action (either by means of treaties, conventions, domestic legislation or other relevant instruments) and the reception of our principles by enterprises, investors and academia. The reception matters: at some stage it may develop into a kind of *opinio iuris*.

In the scenario that enterprises and/or investors will be reluctant to comply with our principles, our hope is vested on the judiciary and active (we do not mean: activist) investors to pressurise States and enterprises to scale up their efforts along the lines of our principles. This arguably requires some courage as the legal basis of the respective principles is not equally strong in every single case.

In our view there is a sufficiently sound legal basis for our principles. However, the degree of soundness differs among principles, as is explicitly mentioned in the commentary to the respective principles. Most doubt can be cast about Principles 2-5, and in the upshot thereof Principles 12-16,²⁷⁶ 20, 26, 27 and 29.²⁷⁷ We have discussed the Principles 2-5 at great length and believe that our approach makes sense. Much depends on the question whether the core obligations of the OP (OP 1, 6 and 13) paint a fair interpretation of the law as it stands (or will develop). Principles 12-16, 20, 26, 27 and 29 discern different obligations to those mentioned under 2-5, but link the outcome of those obligations to an

²⁷⁴ See about the retroactive effect of judgments §20.1.

²⁷⁵ Plaintiffs would be well-advised to consider this point very carefully. Hard cases make bad law; the same goes for ill-considered cases. We resist the temptation to be more concrete, but there are many examples to highlight this caveat.

²⁷⁶ To the extent that they refer to principles 2-5.

²⁷⁷ To the extent that non-compliance is related to principles 2-5.

enterprise's performance on its obligations under 2-5. We describe the unique legal basis for each in the commentary to the respective principles.

We stand firm in our belief that enterprises and investors have *relevant* obligations in the face of climate change, but acknowledge that there may be alternatives to Principles 2-5. If one would believe that we are mistaken, that does not mean that enterprises and investors have *no* obligations. It also does not mean that the legal basis for Principles 12-16, 20, 26, 27 and 29 disappears. As mentioned above, their legal basis is different from that of 2-5.²⁷⁸ The one who chooses not to apply the principles will have to motivate an alternative to the obligations under Principles 2-5 based on their different interpretation of the law, and apply that alternative to 12-16, 20, 26, 27 and 29.

We have little doubt about the precautionary principle (OP 1) and the obligations for all States and enterprises *together* to avoid passing the threshold of 2°C (OP 6). The allocation among States, based on a per capita approach (OP 13 in conjunction with OP 4), is in line with the prevailing view, but not self-explanatory. Enterprises Principle 2 is based on this approach. As to global enterprises (Principle 5 in conjunction with Principle 1): the idea that global enterprises are a class of their own is barely a revelation. But the formula/definition we have adopted in Principle 1 is not self-explanatory. It is the fruit of long and complex internal discussions. Particularly in borderline cases another approach might be preferable, as will be explained in the commentary to Principle 5.

If our interpretation of the law as lined out in the Oslo Principles would be mistaken, States and enterprises have different obligations. More likely than not most developed States and enterprises operating in those countries will have more stringent obligations, whereas States and enterprises in the lowest part of APQ countries will have less stringent obligations under Principle 2 (and 5).

Enterprises and investors seemingly prefer voluntary commitments to concrete obligations in the face of climate change. What really matters is whether they will be willing to comply with their legal obligations. If so, they may do so on a (in their view) voluntary basis. Openly endorsing our principles, if they prefer with the addition that the relevant entity does not second the view that they are "binding", will probably be a valuable public relations feature, but is not essential, of course. They may also opt for compliance without further ado. The advantage of the latter strategy might be that they do not have to take an open

278 Principles 14 and 15 are not as clearly focused on enterprise performance as the other ones, but are linked to the obligations under 2-5.

stance about our principles; they would be best-served to at least be pragmatic and try to avoid the (liability) risks connected to taking insufficient steps.

21 OBLIGATIONS OF OTHER PLAYERS

Without much ado, Richard Lord, Silke Goldberg, Lavanya Rajamani and Jutta Brunnée label corporations “obvious targets for actions claiming that they are responsible for climate change”. They even go a step beyond, arguing that:

“liability may also attach to those who promote, support and advise them, including their shareholders, lenders and professional advisers (auditors, lawyers, actuaries) and liability between these entities in relation to climate change is also a possible scenario.”²⁷⁹

First of all, these principles are about enterprises. We repeat that we do not express a view on whether enterprises could and should be liable for damages in the case of climate change-related losses. Secondly, we also do not express a view on such corporate liability for the wider circle, such as the liability of parent companies, nor on potential liability for damages of auditors, lawyers and actuaries. Importantly, we certainly do not endorse compensation obligations of investors. It would not be desirable for investors to become liable for damages because the enterprises they have invested in do not comply with their legal climate change obligations.

22 A GENERAL EXEMPTION FOR HARD CASES

22.1 *Introduction*

The law as enshrined in laws, treaties and – in common law countries – precedent may be fair in most instances, but there are unexpected and unforeseen scenarios and cases where strict application of “the law” is unfair. That also goes for our principles. We have discussed and contemplated a series of cases and scenarios, but no doubt we have not been perspicacious enough. Practitioners from the bench and the bar know from experience that time and again unanticipated cases pop up. They are often hard cases – hard in several respects. First, because strict application of “the law” would end up in an inequitable result. Secondly,

279 Richard Lord et al. (eds.), *Climate Change Liability*, Cambridge University Press, 2012, p. 29 and 30.

because fiddling with “the law” may do justice in the case in point but may open a Pandora’s box, thus undermining the essence of the rule in point.

There is no panacea for this universal problem. So we confine ourselves to a few general observations laid out on the basis of some concrete examples.

We hope that our principles will fall on fertile ground and that they will be endorsed and applied by enterprises, investors, academia and, need would be, by courts. But we realise at the same time that there is and should be an escape if equity clearly requires so in a specific case. We emphasise “clearly”. If each single case would have to be judged on its own merits, the law would be(come) unpredictable. That would do a lot of damage to society, particularly in the context of climate change. It is essential that key players know what they must do and why, as without this knowledge they are effectively unable to take the necessary measures. Justice tailored to the needs of each single case sacrifices legal certainty and predictability in a specific case. Hence, we hope that our principles will be widely applied until others have come up with a more appealing and legally sound set of principles and/or superior courts have developed case law that provides enough certainty to enterprises and investors how to act in the face of climate change.

All this said, we believe that our principles, like all other realms of the law, should be applied with common sense. There are instances where strict application does not make sense and would be contrary to the spirit of the drafters.

The great majority of our principles provide some – and at times quite some – flexibility. This flexibility, however, may not suffice in specific cases. Some examples are discussed in this commentary on Principle 2. The following cases may further exemplify this point.

22.2 *Concrete examples of hard cases*

X is an enterprise manufacturing consumer products. The margins are high; so are the profits. X is under an obligation to reduce its GHG emissions by $y\%$ in the five years to come. Instead a) it decides to *invest*²⁸⁰ in renewable energy elsewhere, or b) provides money to an electricity company to switch from burning coal to renewables, without asking for anything in return. The reductions of GHGs achieved are way beyond the reductions that X had to achieve in the five year-period. In light of the principles as they stand, X would not be relieved from its own reduction obligations in either scenario. Principle 12 does not apply because X has not taken all steps reasonably available to fulfil its obligations

280 With ‘invest’ we mean investment as is covered under Principles 26-30.

under Principle 2 or 5. In the scenario mentioned under a that is fully justified. There is no reason to equate investments to own reductions. Buying shares of e.g. solar power companies is certainly useful, but it is and remains an investment and is not a reduction measure. Scenario b is, though perhaps not overly realistic in real life, a harder case. We are inclined to believe that an exception to Principle 2 (or 12) might apply (we are not saying: should, let alone must, apply). The trick lies in the potential consequences.

One may wonder why, in light of the example above, Principle 12 is so restrictive. The main reason is to prevent the creation of a loophole for cunning enough enterprises to avoid reducing the emissions from their own activities. Allowing enterprises, in Principle 12, to comply with their reduction obligations by providing financial or technical means to countries or other enterprises even if they would be able to fulfil their obligations under Principle 2, through reducing their own emissions, would create the possibility for enterprises to come up with all kinds of arguments as to why they have complied with their obligations under Principle 12 rather than Principle 2. For example, enterprise E has given technical means to its provider of raw materials P to reduce its emissions to a sufficient extent that enterprise E fulfils its reduction obligations. The enforcing authority or E's auditors with oversight over E would then need to check if P has indeed used these technical means, if those means have indeed led to a sufficient reduction of emissions and if P is not counting that reduction as its own reduction for the purpose of complying with its *own* emission reduction obligations. Hence, such a scenario would be a nightmare for enforcement of our principles.

Another example would be a railway company looking to expand its network. It may argue that it does not need to reduce its GHG emissions because the expansion ends up in a greater reduction of GHGs for society at large, bearing in mind that less people will use cars (assuming that that would be true). Again, this kind of argument may not be completely without merit, but accepting it would open the doors for all kinds of other enterprises to come up with similar arguments (such as E in the previous example). The railway company's investment in network expansion is a business decision and thus a different kind of "investment" compared to the example under scenario a) in the penultimate paragraph.

As a rule of thumb, the better option, we think, is to leave it to the relevant countries to find appropriate solutions for these and similar cases; see for elaboration Principle 3 and 4. But at the end of the day, one cannot avoid the task of manoeuvring between Scylla and Charybdis. That is one of the niceties and at the same time the frustrating aspects of the law.

23 ENFORCEMENT OF THE PRINCIPLES: DAYDREAM OR REALITY?

In our discussions with enterprises and investors the question was posed whether our principles are enforceable. That is an important question and the answer is not as easy as one might expect. Let us first shed light on similar questions in relation to the Ruggie Principles. The “official” answers read as follows:

“Q 6. What is the legal status of the Guiding Principles?

The Guiding Principles do not constitute an international instrument that can be ratified by States, nor do they create new legal obligations. Instead, they clarify and elaborate on the implications of relevant provisions of existing international human rights standards, some of which are legally binding on States, and provide guidance on how to put them into operation. The Guiding Principles refer to and derive from States’ existing obligations under international law. National legislation will often exist or may be required to ensure that these obligations are effectively implemented and enforced. This, in turn, means that elements of the Guiding Principles may be reflected in domestic law regulating business activities.

Q 7. If the Guiding Principles are not a legal instrument, are they just voluntary?

No. Protecting human rights against business-related abuse is expected of all States, and in most cases is a legal obligation through their ratification of legally binding international human rights treaties containing provisions to this effect. The State duty to protect in the Guiding Principles is derived from these obligations. The responsibility to respect human rights is a minimum expectation of all companies. In many States it is reflected—fully or partly—in domestic law or regulations on companies. Companies are bound by such domestic law. The responsibility to respect human rights may also be incorporated in binding contractual requirements between companies and their corporate and private clients and suppliers. Such requirements can in most cases be enforced through judicial means. The Guiding Principles state that companies should always treat the risk of causing or contributing to gross human rights abuses as a legal compliance issue. Furthermore, while human rights due diligence and the remediation of harm may not always be legally required, they are necessary if a company is to know and show that it is meeting its responsibility to respect human rights. Failure to do so can subject companies to the “court of public opinion”—comprising employees, communities, consumers, civil society, as

well as investors. So there can be legal, financial and reputational consequences if companies fail to respect human rights as set out in the Guiding Principles.²⁸¹

The same goes by and large for our principles. They are not the law, and do not create law, but are an interpretation of the law. If and to the extent the interpretation is correct, the *underlying* law is enforceable.

In addition, even if our principles do not paint a fully correct interpretation of the law as “it stands”²⁸² and are thus rather aspirational, they may contribute to an *opinio iuris* that will translate into black letter law (case law or legislation) in the years to come.

24 ENDORSEMENT OF THE PRINCIPLES

We hope that our principles will be endorsed by enterprises and investors. Such endorsements would show extremely valuable commitment to come to grips with climate change. They could be mentioned in relevant sustainability reports and communications.

Does endorsement create voluntary self-imposed obligations in excess of the legal obligations flowing from the law as it has to be interpreted?²⁸³ In most instances, the answer will be in the negative. If we are right that our principles paint a fair picture of the state of the law, endorsement does not create any *additional* obligation. If our interpretation of the law is mistaken, we should distinguish between two scenarios: enterprises have more or less stringent obligations under the law as it stands or is interpreted by courts *ex-post facto*.²⁸⁴ In the former scenario endorsement does not adversely affect the enterprise that has endorsed our principles; it has to comply with the law anyway. In the latter scenario, there may be some room for doubt about the legal consequences of endorsement. We expect that courts will be reluctant to hold enterprises accountable for non-compliance with self-imposed obligations stretching beyond what is legally required. Courts will probably realise that endorsement was based on the assumption that our principles do mirror the state of the law and that endorsing enterprises did not want to commit themselves

281 UNOHCHR, Frequently Asked Questions about the Guiding Principles on Business and Human Rights, UN, 2014, www.ohchr.org/Documents/Publications/FAQ_PrinciplesBusinessHR.pdf. See more generally about enforcement issues regarding environmental law Ludwig Krämer, *Enforcement of Environmental Law*, Edward Elgar, 2016.

282 The inverted commas illustrate that the exact meaning of the law in the realm covered by our principles is uncertain due to lack of pertinent case law and legislation.

283 This question came up in one of the very productive discussions we had with a senior lawyer of a multinational corporation.

284 Obligations could differ for all or specific classes of enterprises; if our interpretation is mistaken, it is quite possible that the law does not lump all enterprises together.

to *more demanding* obligations, if for no other reasons because compliance with the law will in this respect often be a challenge. Having said that, it can only be hoped that enterprises are willing to honour pledges even if they go beyond what would be required by law.

25 TEMPORAL EFFECT OF THE PRINCIPLES

Enterprises and investors keen to comply with their obligations might wonder when our principles came into effect, or when they will come into effect. We reiterate that we are no legislative body; our principles are an interpretation of the law as it stands. Hence, they should have effect over the activities of all enterprises and investors today.

Whether or not these principles have effect over past activities is a difficult question; different (sub-)principles are based on different legal doctrines. But this is irrelevant: our position has been to not include historical emissions.²⁸⁵ What matters is that these principles are based on the law as it stands at the time of writing and hence, when launched, they should surely have effect over all activities of enterprises and investors from that point onwards.

285 See §19.7 for a detailed discussion on the difficult topic of historical emissions.

COMMENTARY TO RESPECTIVE PRINCIPLES

PRINCIPLE 1

The definitions of *below and above permissible quantum country* do not require elaboration.

The definition of *GHG* is self-explanatory. That does not mean that all GHGs should be treated alike. There are significant differences as to the impact of, for instance, CO₂ and CH₄. This difficult and delicate issue will be discussed in the context of Principle 2.

Enterprise

“The company is one of the most ingenious inventions of our time.”²⁸⁶

We have discussed the definition of “*enterprise*”, and by the same token the scope of these principles, at length. Some members were and one member still is in favour of a broader definition, and thus a much wider scope of our principles, in that they would encompass all governmental agencies, ministries, municipalities and the armed forces. Other members have considered including governmental agencies with the exception of vital services such as the army, the judiciary, ministries and the like. Ultimately, a majority spoke in favour of a narrower scope, i.e. a focus excluding the typical, non-commercial endeavours of government.²⁸⁷

All members realise that the distinction between enterprises and non-enterprises is somewhat fluid. By way of example: some NGOs and governmental institutions also sell articles such as postcards, ties and sweets to make profits. Some small States sell stamps knowing that most of them will end up in collections and will never be used. We do not think that it is overly fruitful to enter into discussions whether or not these activities are characteristic of enterprises. At the end of the day, each example has to be assessed on its own merits and on the basis of common sense.

²⁸⁶ Sjäfjell, *Regulating Companies*, o.c. p. 113.

²⁸⁷ We realise, of course, that private persons (citizens) are responsible for a huge amount of GHG emissions. It is up to countries to determine the reduction obligations of their citizens. It would be pointless to propose reduction obligations of private persons, if not for other reasons because they are not enforceable unless the relevant country has enacted pertinent legislation.

The majority admits that the OP confine themselves to countries and cover enterprises to a far lesser extent; hence, they leave it to the relevant country to allocate the reduction burden of governmental agencies. The majority endorses the view that it is up to the respective countries to allocate the reduction burden, e.g. by being lenient to the armed forces and demanding others, such as State bodies, individuals, and – within the boundaries of Principles 3 and 4 – enterprises, to achieve the reductions necessary to comply with the country’s obligations. These members are particularly keen to avoid entering into discussions whether or not, say, sensitive or strategic institutions such as the armed forces are under an obligation to reduce their GHG emissions in all cases. That said, obligations such as “no cost” reductions always apply to governmental agencies, either on the basis of OP 7 or this Principle 7.

Obviously, flexibility in allocating reduction obligations under Principle 3 or 4 may not, as a rule of thumb, be used by the State to disproportionately move away its emission reduction obligations under the OP to enterprises, as legal obligations must be interpreted in good faith.²⁸⁸ Hence, disproportionately means that a State reduces its reduction obligations over its own activities to a very significant extent. An exception to this rule would be where a country can fulfil its reduction obligations for a given year by simply closing a coal power plant.

The key factor that makes a venture an enterprise for the purpose of these Principles is whether it is ‘private’ and carries out ‘commercial or industrial activities’. ‘Private’ means that the enterprise is not under the financial control of one or multiple governments. In most instances, the answer to the question whether a venture carries on ‘commercial or industrial activities’ is self-explanatory. When it is not, a few factors may inform a decision: the generation of profits, existence of competition and/or the nature of the activity.

Most investors are enterprises. If their investments are managed by banks that is self-explanatory; after all, banks are private and/or carry out commercial activities. The same holds true for independent investment funds, such as Blackrock or Robeco. Most, if not all, pension funds will not be enterprises as defined in Principle 1. In a sense they generate profits, but those profits are of different nature compared to the profits of enterprises that engage in manufacturing goods or providing services. The “profits” generated by pension funds are necessary to comply with their pay-out obligations to beneficiaries; that would be impossible without a return on the capital invested. The difference between, say, General

288 We do not express a view on whether a legislator would have the right to re-allocate the reduction burden disproportionately; that would depend on the constitution of a specific State or perhaps international human rights law such as Article 1 of the First Protocol to the ECHR.

Motors and the Dutch pension fund ABP is that unlike General Motors, ABP does not carry out a commercial or industrial activity. However, asset management companies (hereinafter: asset managers) that manage assets for pension funds such as the ABP *are* enterprises, as they carry out a commercial activity.

The burden of proof for a venture that does not want to be considered as an enterprise for the purpose of these principles lies with the venture itself.

Things get slightly confusing if some ventures are organised for commercial purposes and others that operate in or belong to the same field are not. Hospitals may serve as an example. If the majority of hospitals in a country are government-run, no hospital in that country is considered an enterprise for the purpose of our principles, regardless of whether or not the specific hospital is government-run or private. We realise that our definition may be unsatisfactory as it excludes some ventures that should be included, for example in countries where part (c) of the definition does not apply. Examples are free public transport, prisons, public and elderly homes. The emissions caused by these ventures are thus covered by the obligations of the relevant country according to the OP, and not under the obligations of enterprises according to these EP.

Global enterprises

In our view it is fair to treat global enterprises differently from purely domestic enterprises. After all, these enterprises are global players and thus generally emit larger quantities of GHGs, for example due to transport. Furthermore, their status as global players empowers them to influence policy to a greater extent and they are generally also in a better financial position to do so.²⁸⁹ Additionally, their global nature usually allows them to better spread costs. This special position also comes into play if a global enterprise operates in part or in whole in BPQ countries.²⁹⁰ The obligations of global enterprises are stipulated in Principle 5; for more detail, refer to the commentary thereto.

A special focus on global enterprises is in line with a swiftly emerging trend. For practical purposes, codes of conduct or governance mostly apply to major enterprises.²⁹¹ A report by the Institut suisse de droit comparé (Swiss Institute of Comparative Law (SICL)) observes

289 That point is also emphasised by the OECD, Guidelines for Multinational Enterprises, o.c. p. 17. Also see Roshani Poudyal, Globalization and Jeopardizing of Human Rights, Nepal Law Review 26 (1&2), Year 39, Nepal Law Campus, 2016, p. 313 ff.

290 An enterprise that operates wholly in BPQ countries is only a global enterprise for the purpose of our principles if it is a subsidiary of an enterprise based in an APQ country, directly or indirectly.

291 The Global Compact is an exception to this rule; see UNGC, Guide to Corporate Sustainability, o.c. p. 8.

that big enterprises and/or enterprises listed on the stock exchange are often treated differently; they have to comply with more stringent rules of conduct.²⁹² A communication issued by the European Commission (EC) observes, in the context of Corporate Social Responsibility (CSR):

“The complexity of that process [inter alia “identifying and mitigating their possible adverse impact”] will depend on factors such as the size of the enterprise and the nature of its operations. For most or all small and medium-sized enterprises, especially micro-enterprises, the CSR process is likely to remain informal and intuitive.”²⁹³

The OECD Guidelines for Multinational Enterprises (2011) emphasise that the Guidelines “extend beyond the law in many cases.”²⁹⁴ They differentiate between multinational enterprises and other enterprises, which supports the view that global enterprises are a beast of a different kind.

We must admit that it was quite a challenge to arrive at a – in our eyes – satisfactory definition of “global enterprise” that is not too wide nor too narrow. With exceptions to be discussed below, the criteria mentioned in our definition seem reasonable. The key feature that needs to be defined is *global*. That is almost impossible in light of the many different situations the vehicle *global enterprise* aims to encompass. We aimed to capture at least the truly global players, multinationals that are listed on the world’s major stock exchanges. The reason for focusing on the major players is that when one places higher obligations on a class of entities one must ask whether one can reasonably expect that entity to be able to fulfil those obligations.

Our definition speaks of an enterprise that ‘manufactures products or offers services that are, for a significant part, consumed in multiple APQ countries’. Multiple is deliberately ambiguous. It would be fully in line with the spirit of our principles that a large enterprise with high revenues that is located in two (wealthy) APQ countries and one BPQ country is a global enterprise. On the other hand, it would probably be less in line with the spirit

292 SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 3, 30 and 39; for an overview of German and French law, see p. 25. The report leaves open what is meant by “ab einer Gewisse Grösse” (‘of a certain size’). Also see Department for Business Innovation and Skills, Government of the UK, Corporate Responsibility, o.c. p. 4.

293 EC, Communication COM(2011) 681 final, o.c. p. 6. On p. 13 mention is made of “enterprises with more than 1.000 employees”. That figure might serve as an alternative to our yardstick, but it is equally arbitrary, if not for other reasons because enterprises in so-called cheap labour countries tend to have many more employees per unit of product compared to enterprises that produce in wealthier countries.

294 P. 17. The contrary seems to be suggested on p. 18, supra 5.

of our principles if an enterprise that is located in two just APQ countries²⁹⁵ and one BPQ country would have higher reduction obligations than the sum of its constituent parts would have under Principle 2. Hence, such enterprises may not be deemed global enterprises for the purpose of our principles. We acknowledge that our definition allows for some grey areas; some uncertainty in borderline (hard) cases is unavoidable – as is always the case with borderline cases. Hence, it will come down to a reasonable interpretation of our principles and the specific factors of the case at hand.

It would be unrealistic and unfair to expect from enterprises only active in BPQ countries that they curb their GHG emissions at the rate of the world at large, even if (part of) their products or services are sold in APQ countries. Hence, for the purpose of our principles, these enterprises are not defined as global. In this respect, one should bear in mind that Principle 2 would not require any reduction of emissions of such enterprises.

The picture changes if the enterprise in a BPQ country is directly or indirectly a subsidiary of an enterprise based in an APQ country. By way of example: X is based in Bangladesh; it is engaged in manufacturing clothes. X is directly or indirectly a subsidiary of an enterprise in an APQ country. In such a setting it would be unfair for X not to have any reduction obligation. After all, (part of) the fruits of X's activities is/are generated by enterprises in APQ countries. In addition, the reason for having subsidiaries in BPQ countries often is that such enterprises can produce goods or services at much cheaper rates compared to production in an APQ country, thanks to lower wages and all kinds of lower standards, for instance concerning working conditions and the environment.

We are mindful that our definition is imperfect. The same would go for any alternative formula. However, we have been guided by a wish to create a clear and easily applicable formula, in view of maximising applicability and workability.²⁹⁶ Having said that, it seems useful to shed light on some of the imperfections.

295 By 'just APQ country' we mean a country with per capita GHG emissions that are only a little higher than the permissible quantum.

296 OECD, *Guidelines for Multinational Enterprises*, o.c. take a different stance: "a precise definition (...) is not required. These enterprises operate in all sectors of the economy. They usually comprise companies or other entities established in more than one country and are so linked that they may coordinate their operations in various ways." Also see Sagarika Chakraborty, *Transnational Corporations, Other Business Enterprises and Human Rights: The Right Step Toward Corporate Social Responsibility?* Business Law Brief, Fall 2006, p. 21 and 22 and with examples borrowed from legislation in France, Argentina, Denmark and California; De Schutter et al., *Human Rights Due Diligence*, o.c. p. 43, 44 and 46. As we have mentioned in several instances, we prefer clear and applicable definitions to vague ones that are difficult to apply. One of the most important reasons for our stance is that enterprises need clear information on their minimal obligations if they are to be held accountable.

First, it makes a huge difference whether enterprise X, based in an APQ country, outsources part of its production to an enterprise in a BPQ country (Y) that is not a part of its group of corporations or, conversely, entrusts the production to a subsidiary in that BPQ country. In the first scenario, outsourcing to Y may bear fruits for X: as Y is not a subsidiary of X, it is not under an obligation to reduce its emissions under Principle 5; as it an enterprise in a BPQ country, it is also not under an obligation to that effect under Principle 2. As the emissions caused by the production are attributed to Y, the activities performed by Y are likely cheaper and X gets, in a sense, a free ride. That may be unsatisfactory, but it would be utterly unfair to impose a significant reduction obligation on Y. One could imagine – and we would applaud – that X would be under an obligation to provide means to Y to reduce its emissions, but we do not think that there is, *lege ferrata*, a sufficiently sound legal basis for such an obligation.²⁹⁷ That said, Principle 17 could solve (part of) this problem.²⁹⁸

The second part of the definition (‘However, an enterprise in a BPQ country ... based in an APQ country’) may raise difficulties if the parent company is based in or moves to a wealthy BPQ country²⁹⁹ because this country has reduced its GHG emissions to such an extent that it has become a BPQ country. In such a scenario, it would be against the spirit of the idea behind global enterprises that parts of the global enterprise based in BPQ countries would have *no* reduction obligations. The idea behind global enterprises and placing reduction obligations on their subsidiaries is that it would be unfair to create the possibility for large, wealthy enterprises to avoid reduction obligations through subsidiaries

297 There might be a justification for imposing some reduction obligations on enterprises such as Y, but even if that would be the case, an increase from no reduction obligations under Principle 2 to the percentage the world at large had to achieve in the preceding year (Principle 5) would be disproportionate. We do realise that our approach is not necessarily fair in each and every context. By way of example: both a group of enterprises with a) 1 factory in the USA and 9 of equal size in Africa and b) 9 factories in Africa and 1 in the USA fall under our definition of global enterprise. We hence must accept that equitable solutions may urge for (some) leniency in the application of Principle 5. See §22 and the commentary to Principle 2 under ‘Hard cases’ for further thoughts on these kinds of issues. In addition, we acknowledge that there may be scenarios in which it would be justified for international enterprises that exclusively operate in and produce products or services to be consumed in BPQ countries to also have some reduction obligations. However, we have not been able to discern a workable and justifiable formula to this end, which would also likely receive support. We realise that this may have negative consequences for the level playing field, as it would make having a subsidiary in a BPQ country more expensive than outsourcing activities to an independent enterprise in a BPQ country. We do not expect, however, that this will lead to the closure of many subsidiaries in BPQ countries; having a subsidiary instead of outsourcing activities brings beneficial side-effects to the global enterprise, and allows them to have more control over their supply chain and hence safeguard corporate social responsibility interests.

298 Refer to the commentary to Principle 17 for further elaboration.

299 If or when those exist, which will likely happen in the future as some developed countries are moving towards carbon neutrality. With wealthy, we mean a country that has a per-capita income on the level of that of OECD countries.

in BPQ countries. If we would allow a loophole for global enterprises that happen to be located in a wealthy BPQ country, it would be unfair for subsidiaries in BPQ countries as whether or not they are subject to reduction obligations would depend on the location of their parent company. That would jeopardise the level playing field. In such – probably exceptional – scenarios³⁰⁰ the definition should be interpreted in accordance with the spirit and not in a literal way. Additionally, where global enterprises located in BPQ countries are engaged in activities that will or are likely to cause excessive GHG emissions³⁰¹ or GHG emissions that are likely to become deemed excessive in the (near) future, these enterprises will be obliged to reduce the excessive part of emissions or take countervailing measures to offset those emissions under Principle 9. The same goes for enterprises that make available products or render services that cause excessive GHG emissions, under Principle 10.

To explain our idea behind global enterprises through a concrete example: a parent company P in an APQ country has two subsidiaries: one in Bangladesh, a BPQ country, and one in the Netherlands, an APQ country. The subsidiary in Bangladesh has to reduce its emissions in accordance with the rate at which the world at large must reduce its emissions in a given year; the subsidiary in the Netherlands must reduce its emissions in accordance with the higher of the reduction obligations of the Netherlands under the OP or those assumed on the basis of the Paris Agreement, as would follow from Principle 2.1. It may, however, be acceptable that, in our example country Bangladesh or The Netherlands apply Principle 3 or 4 (respectively) to the subsidiary.³⁰²

Reduction percentage that the world has to achieve

The definition does not require further elaboration. The relevance of this criterion does; elaboration will follow in the commentary to Principle 5.

300 Some examples do come to mind: e.g. Tata Steel (India) and Petrobras (Brasil).

301 Which may be the case for the two examples mentioned in the footnote above; see for further elaboration on what is by ‘excessive’ the commentary to Principle 9.

302 They can apply Principle 3 to any enterprise within their territory, of course, as long as they comply with the specific requirements mentioned under the Principle.

PRINCIPLE 2

Justification

We have discussed at length what would be the fairest reduction yardstick for enterprises. In our view, the most appealing, sensible and fairest solution would be to align their reduction obligations with those of the country or countries in which they perform their activities. After all, countries under an obligation to curb their emissions will generally spread the burden among enterprises and the public at large. Principle 2 follows this logic. It follows from Principle 3 that complying countries have quite some flexibility in determining the reduction obligations of enterprises in their jurisdiction; even non-complying countries have some manoeuvring room, as provided for in Principle 4. See for further elaboration the introductory chapter of this commentary under §20.2 and §20.3.

In §19.5 we have explained how the relevant provisions in the OP have to be understood. It follows that pairing the obligations of States and enterprises may put a heavy burden on enterprises based in countries with GHG emissions that by far exceed the permissible quantum. These countries and enterprises will have to curb their emissions significantly within a year, or provide financial or technical means to others if they are unable to meet their reduction obligation. Principles 3 and 4 offer flexibility to the countries in point to soften this burden of enterprises in their countries.

We do not close our eyes to the potentially far-reaching consequences of this burden, particularly if the relevant country refrains from taking steps under Principle 3 or 4.³⁰³ There may be instances where strict application of our approach creates serious difficulties for specific enterprises or ends up in unsatisfactory outcomes. A few examples may elucidate this point. Take, for instance a) new enterprises, b) enterprises that have already reduced their emissions at a higher pace than their competitors in and outside the country and c) a scenario that the high emissions of the country are caused by, say, many coal-fired power plants or the cement industry.

As to all these examples: enterprises do not find themselves in a different position compared to the citizens of the country. The country as a whole may have benefited from high past emissions. This may have been translated into e.g. a better infrastructure, education, medical care and/or social security. That is not always the case. Some countries have largely wasted the financial benefits from the past; a major part of the gains often ends up in the

303 See for an elaboration the commentary to Principles 3 and 4, 'the distinction between complying and non-complying countries'.

hands of a happy few. As a matter of fact, society at large – often those who benefited comparatively little – will have to shoulder the burden caused by major reductions. That is a political reality and there is nothing our principles can do to solve this injustice. It is entirely up to the relevant countries to cope with this challenge if and to the extent they think fit. There is little reason why enterprises should be treated differently. They “belong” to the country and are doomed to pay the price of past mistakes or present political shortcomings. Countries that are willing can however relieve that burden under specific conditions; see Principles 3 and 4 and the commentary thereto for further elaboration.

Enterprises in APQ and BPQ countries

Pairing the reduction obligations of enterprises to those of the country or countries they operate in means that, as a rule of thumb, enterprises in BPQ countries do not have reduction obligations apart from those enumerated in Principles 7 and 8. An exception applies in relation to global enterprises which will be discussed in the context of Principle 5. We realise that this approach may raise questions in particular circumstances, such as for enterprises that are based in BPQ countries which manufacture goods that are consumed in APQ countries. In many instances, these enterprises will be considered global enterprises and thus fall under the umbrella of Principle 5, but exceptions will exist.

There are two separate reasons for our choice. First, rules should be clear; overly subtle distinctions would undermine the workability and applicability of our principles. More importantly, it would be illogical to assign reduction obligations to large enterprises in a country that as a whole is not under an obligation to reduce its emissions. The reason why BPQ countries do not have reduction obligations³⁰⁴ is that such countries are (mostly) relatively poor and emit a modest amount of GHGs per capita. Therefore, such a country’s components – in other words, its enterprises – should also be free of reduction obligations under Principle 2, notwithstanding certain exceptions where enterprises that are located in a BPQ country are clearly global enterprises according to our definition. Attaching separate reduction obligations to enterprises in these countries would thus undermine this rationale.

According to this principle, enterprises in APQ countries are treated differently, depending on the country in which they operate. Hence, an enterprise engaged in, say, manufacturing cars may be subject to considerably greater or lesser reduction obligations depending on the APQ country in which it operates. In a sense, that disturbs the level playing field. Although that may indeed be problematic, it seems to be justified and fair for the reason

304 Apart from OP 7 and 9, or in case of self-imposed higher obligations.

mentioned in the previous paragraph: it would not make much sense for the “components” of a country to have higher or lower reduction obligations than the country as a whole. It would be close to impossible to discern a sensible alternative to obligations on the basis of consumption or production.³⁰⁵ *Prima facie*, one could argue that all car manufacturers should be treated in the same way, but that is easier said than done. There are many kinds of cars; the manufacturing process of each variant probably emits different quantities of GHGs per unit of product. Most enterprises are engaged in a series of activities. It would be impractical, if possible at all, to sort out the respective activities and attach emission obligations to each one of them; it would also require allocating a “fair” percentage of general administrative support to each activity, which would be an arbitrary process. Last but not least: it is quite normal that enterprises reap the fruits, or alternatively pay the price, for being based in a specific country: the cost of taxes, energy, labour and so on differ per country. That is part of the game.

The Paris Agreement

*“The Paris Agreement is probably an exemplar of the ‘brave new world of international law’ in which forms of law and law-making have ‘mutated into fascinating hybrid forms.’ The Paris Agreement, a product of a deeply discordant political context, rife with fundamental and seemingly irresolvable differences between the Parties, is an unusual Agreement. It contains a carefully calibrated mix of hard, soft and non-obligations, the boundaries between which are blurred.”*³⁰⁶

According to this principle, the reduction obligation is the higher of either the country’s reduction obligations under the OP or the country’s voluntarily assumed obligation under the umbrella of the Paris Agreement.³⁰⁷ This approach is based on the idea that such voluntarily assumed obligations are sincerely meant.³⁰⁸ According to that reasoning, the same percentage should be adopted in relation to enterprises performing activities in that country. We do realise, however, that the Paris Agreement, and particularly Art. 4.2, does not go beyond preparing, communicating and maintaining “contributions” (i.e. reduction

305 As explained in the commentary on the OP, we have decided to allocate obligations based on production.

306 Lavanya Rajamani, The 2015 Paris Agreement: Interplay Between Hard, Soft and Non-Obligations, *Journal of Environmental Law* 28 (2), 9 July 2016, <http://dx.doi.org/10.1093/jel/eqw015>, p. 358.

307 For a discussion on what this formulation means for the question to what extent global warming should be limited, see §19.2.

308 That view is endorsed by Cramton et al., *Global Carbon Pricing*, o.c. p. 1 quoting Christina Figueres: “Frankly, none of them [the negotiating states] are doing it [agreeing to their pledges] to save the planet. Let us be very clear. They’re doing it for what I think is a much more powerful political driving force, which is for the benefit of their own economy.”

obligations) “with the aim of achieving the objective of such contributions.”³⁰⁹ The G7 Ise-Shima Leaders’ Declaration of 26-27 May 2016, however, seems to back our approach:

“We commit to take the lead by early, transparent and robust implementation of our nationally determined contributions (...)”³¹⁰

Christina Voigt, an internationally renowned expert in international law and actively involved in the COP 21-negotiations, observes that:

“other obligations”, notably not obligations aimed at a specific result, “express an expectation that Parties act in a particular manner or according to agreed guidance. These provisions express a certain standard of conduct that corresponds with what a responsible State ought to do under conditions in a situation with its best practical and available means, with a view to fulfilling its international obligation.”³¹¹

The view that self-imposed obligations go beyond merely voluntary pledges, we think, is reinforced by Art. 4.3 of the Paris Agreement reading:

“3. Each Party’s successive nationally determined contribution will represent a progression beyond the Party’s then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.”

A required³¹² progression of a target or pledge would mean very little if that pledge would be of no consequence. Hence, the concept of successively determined progressing contributions seems to suggest that the previous pledge that serves as a basis for the following or progressing pledge is legally binding. But this argument could – and no doubt will – be challenged by pointing to a) the (in)famous words “shall”, “intends” and “the aim” in art. 4 para 2 and b) the many circumstances enunciated in art. 4 para 3.³¹³

309 Art. 4.17 seems to suggest a kind of binding force.

310 G7, Leader’s Declaration, G7 Ise-Shima Summit, 26-27 May 2016, www.mofa.go.jp/files/000160266.pdf#page=26&zoom=auto,-158,326.

311 The Paris Agreement: What is the standard of conduct for parties, Questions of International Law Zoom-in 26, 24 March 2016, www.qil-qdi.org/wp-content/uploads/2016/03/03_COP21_VOIGT_FIN-2.pdf, p. 1 with further elaboration on the subsequent pages.

312 See the words “will represent”.

313 See in considerable detail Rajamani, The 2015 Paris Agreement, o.c. p. 337 ff and Voigt, The Paris Agreement, o.c. p. 2.

Hence, we do realise that the voluntarily assumed obligations are arguably not legally binding in a strict sense, but they are *legally relevant* for two reasons. First, in the future, when the consequences of climate change have materialised, judges may look back and hold countries accountable to the (now) voluntary pledges that they made. Secondly, even non-binding obligations may colour the often open norms of domestic and international law, as explained in §20.5.1. Hence, we expect that the law will develop in this direction. That being the case, it makes sense to align the reduction obligations of enterprises with the pledges made by the States in which they operate where they go beyond the obligations of the relevant State under the OP.

International transport

Transport is accountable for 25% of global GHG emissions.³¹⁴ Although not specifically mentioned in our principles, it seems useful to address this topic.³¹⁵ As emissions caused by domestic transport are included in the emissions brought about by countries and enterprises and therefore covered by the OP and these principles, we confined ourselves to international transport. The solution advocated below seems a sensible and practical way to account for these emissions.

In our view the emissions caused by international transport of people (either for tourism or not) and goods should count as emissions of the transport company as it delivers a service. If it would not be willing to bear the cost necessary to curb emissions, it could increase the price of its service.

In cases where an enterprise's activity is international transport, we suggest that its emissions from transport should be calculated by summing the emissions from all transport activities; the enterprise's reduction obligation are then calculated over this number.³¹⁶ Its obligation is calculated by taking 50% of the reduction obligation of the country of departure and

314 IEA, *Transport, Energy and CO₂: Moving Towards Sustainability*, 2009, www.iea.org/publications/freepublications/publication/transport2009.pdf.

315 There also are other activities that greatly contribute to global warming, such as the "production" and consumption of meat; see UNEP Global Environmental Alert Service (GEAS), *Growing greenhouse gas emissions due to meat production*, October 2012, https://na.unep.net/geas/archive/pdfs/GEAS_Oct2012_meatproduction.pdf. Unlike international transport, these emissions are usually covered by these principles and the OP. It might be useful to discuss them in more detail, but that goes beyond the scope of our venture.

316 This data is available; an example is KLM's CO2ZERO programme. KLM states that it receives emission data from each flight, and uses this data to calculate its carbon footprint per passenger. More information on this programme is available at: www.klm.com/travel/nl_en/about/co2/together/index.htm.

50% of that of the country of destination under Principle 2.³¹⁷ This may seem arbitrary, but incorporating the reduction obligations of the countries through which transport is conducted would be impractical and at times even impossible, for instance in case of transport over the part of oceans that is not under the control of any country or the Arctic.³¹⁸

In its 39th Assembly in Montreal early October 2016, the International Aviation Organization agreed on two policies applicable to international transport. That is a not unimportant step forward, but far from enough.³¹⁹

Various kinds of GHGs

It is beyond cavil that the international community appreciates the urgent need to stay below the 2C threshold. This is the unequivocal message of the Paris Agreement and other international instruments, declarations and pledges.

The commentary to the OP explains in quite some detail that countries are under a legal obligation to reduce their GHG emissions. In attributing reduction obligations, the OP

317 This may open a door for ‘smart’ constructions to minimise the reduction obligation (and therewith probably the cost): it could be imagined that either the contracting parties or a transport company itself arranges transport so that most of the emissions caused are between countries with low(er) or no reduction obligations. By way of example: horticulture produce is transported from Kenya to Italy. Kenya is a BPQ country, Italy is an APQ country; direct transport between these two countries would hence result in large reduction obligations for the international transport enterprise and consequentially high(er) costs. But if the horticulture produce is transported from Kenya to Albania, and then from Albania to Italy, the emission reduction obligations would turn out much lower (because Albania is a BPQ country). In the case where this transport is organised by one and the same enterprise, the solution is quite clear: the stopover in Albania should be seen as nothing more than that, and the reduction obligations should be calculated over the transport between Kenya and Italy. In the case where the transport between Kenya and Albania is organised by one enterprise, the produce is handed over to another enterprise in Albania and thereafter transported to Italy, the solution is less clear. In the latter scenario, it will be the responsibility of a judge or other legal overseer to correct such evasive behaviour.

318 See about the latter topic, labelled as the use of “ownerless property”, Paulo Magalhães and Francisco Ferreira, *Global Free Riders*, in Paulo Magalhães et al. (eds.), *SOS Treaty: The Safe Operating Space Treaty: A New Approach to Managing Our Use of the Earth System*, Cambridge Scholars, 2016, chapter 1 supra 4.

319 See in more detail, also about the shipping sector, Gerrard and McTiernan, *Developments In International Climate Change Law* o.c. Also see about recent developments in Bulgaria and Germany, Michal Nachmany et al., *The 2015 Global Climate Legislation Study, A Review of Climate Change Legislation in 99 Countries*, Summary for Policy-makers, Grantham Research Institute on Climate Change and the Environment at London School of Economics & Political Science, GLOBE and IPU, www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2015/05/Global_climate_legislation_study_20151.pdf, p. 18. Despite the fact that the Agreement is an important step forward, it is too little, too late and too much based on voluntary steps until 2026 (!); see in more detail: International Center for Trade and Sustainable Development (ICTSD), *Countries agree international aviation emissions pact*, 14 October 2016, www.ictsd.org/bridges-news/biores/news/countries-agree-international-aviation-emissions-pact and IATA, *Airlines Hail Carbon Agreement*, o.c.

formulate a reduction percentage to be achieved in total, not distinguishing between different GHGs such as CO₂, CH₄ and sulphur hexafluoride (SF₆). For these Principles, we take the same stance with a few provisos.

We maintain the approach of the OP to formulate obligations for the emission of all GHGs rather than for the emission of specific GHGs. In OP 13, in conjunction with OP 6, the world's carbon budget and its reduction target is calculated annually. In order to take into account all GHGs, the carbon budget is to be calculated in CO₂e (CO₂ equivalent), meaning that GHGs other than CO₂, such as CH₄ and N₂O are expressed in accordance to their greater Global Warming Potential (GWP) in relation to CO₂, according to the most accepted scientific insights. For example, imagine that the latest IPCC report recorded CH₄ to have 25 times the GWP of CO₂ over its lifetime in the atmosphere. That means that 10g of CH₄ equals 250g of CO₂e.³²⁰

In practice, CH₄ is often emitted by animals (ruminant livestock such as cattle). Scientists have warned that massive CH₄ emissions can be expected if the tundra's in Russia start to melt. It follows that a part of global CH₄ emissions cannot be attributed to specific enterprises or States. However, the global carbon budget is calculated taking into account *all* global GHG emissions, and not just those that are anthropogenic.³²¹ After all, the climate does not care whether a molecule of CH₄, N₂O or CO₂ is emitted by man or nature; it will warm nonetheless. As non-anthropogenic GHG emissions also take up part of the global carbon budget, such emissions will lead to quicker reduction obligations of States and enterprises. In other words, CH₄ emissions from melting tundra will concretely lead States and enterprises to have to reduce *their* GHG emissions at an even faster pace.³²²

320 See for more details footnote 18; also see Marielle Saunio et al., The growing role of methane in anthropogenic climate change, *Environmental Research Letters* 11, 2016, <http://dx.doi.org/10.1088/1748-9326/11/12/120207>, p. 1 ff; Peter Bergamaschi et al., Top-down estimates of European CH₄ and N₂O emissions based on four different inverse models, *Atmospheric Chemistry and Physics* 15, 2015, <http://dx.doi.org/10.5194/acp-15-715-2015>.

321 This is not explicitly mentioned in the OP; it was, however, implied.

322 An important counter-argument to be made by States and their enterprises is that this approach implies that the stronger reductions needed because of massive CH₄ emissions by countries due to activities such as fracking or an out-of-proportion ruminant livestock staple will also have to be carried by countries that barely emit CH₄. We acknowledge this point and see that it is an imperfection. However, there are a few counter-arguments to be made. First of all, higher CH₄ emissions will in the rule mean that such a country will be far above permissible quantum. That will lead to a much stronger than average reduction obligation under the OP and thus these principles. Second, we must be practical. The bitter truth is that to limit climate change, we must take sometimes painful measures, that may not always seem fair. This is one of those. The world as a whole will have to reduce its GHG emissions to permissible quantum if we are to limit global warming to 2°C and thereby avert dangerous climate change. Third, international climate negotiations have not until now, to our knowledge, taken into account such particularities in the activities of specific countries. They have, however, worked from the same premise we are working from: the world as a whole

So much is clear: CH₄ emissions and other dangerous³²³ GHGs should preferably be phased out in the very short term, not in the least because that would greatly accelerate the reduction of global GHG emissions. That also seems to be the message of the G7 Ise-Shima Summit³²⁴ and the agreement on the amendment to the Montreal Protocol, Kigali (Rwanda), October 2016.³²⁵ In §10.5 we explained that CH₄ emissions from leakages in pipelines must be attributed to the operator of the pipeline. We believe that this operator cannot stick to reducing the emissions by leakage in accordance with Principle 2. The leakage should come to an end as swiftly as reasonably possible. For that purpose tort law provides a sound basis.³²⁶

Hard cases

Hard cases are almost unavoidable. The examples given under §22.2 illustrate this point. Some specific issues come up in relation to this Principle, which is why we will further our discussion on hard cases here. It is ultimately up to courts – often, but not necessarily only domestic courts – to avoid applications that would lead to manifest injustice in accordance with the different rules of interpretation of specific legal systems.

Not all enterprises are equally profitable. Complying with the reduction obligations under this principle will, not in all but definitely in some cases, cost money. It follows that enterprises that have larger margins have more capacity to finance compliance. That can be a problem if enterprises cannot sufficiently control their margins, i.e. if they are not allowed to raise their prices by law, or if a maximum is set by suppliers. In these cases, it will be up to the State to grant flexibility to these enterprises by using Principle 3 or 4. Where the State does not do so, the ultimate consequence could be that the enterprise must close its doors, if Principles 12 or 13 do not offer sufficient solace. In cases where that is clearly unjust, for example where the relevant enterprise offers vital products and services to a vulnerable population group, that might justify an exception to the strict application of this principle.

will need to reduce its GHG emissions to the extent necessary to limit global warming to 2°C; which country does what is secondary to that reality.

323 Dangerous in the sense that they have a greater and more intense warming potential than CO₂, the ‘conventional’ GHG.

324 G7, Leader’s Declaration, o.c. p. 27.

325 See in more detail Gerrard and McTiernan, *Developments In International Climate Change Law* o.c. Once again, this new agreement can only be welcomed, but the reductions required fall short of what is needed. As so often, it comes too late and is too little.

326 See §20.3 on the basis for our principles in tort law.

Another hard case is enterprises that are engaged in the production of goods or services that are clearly beneficial to society at low margins. For example, enterprise Q is engaged in manufacturing solar equipment. Q sells its products at highly competitive prices because it believes that low prices stimulate people to change to the use of this kind of equipment. Hence, Q's profits are very small. The net effect of the use of its products after subtraction of the carbon footprint of manufacturing and transport is clearly positive. Due to its low margins, Q does not have the funds to reduce its own emissions. It can only be hoped that Q's government understands that application of Principle 3 or 4 to the benefit of Q would be a very sensible solution. But not all governments care for climate change and some may refrain from doing so. We are inclined to believe that in such an extreme scenario Principle 2 only applies to the extent Q can afford taking reduction measures. But at the same time we acknowledge the extreme characteristics of this example.

Mergers, acquisitions, disposals, expansions or down-scaling of activities

We have discussed how to deal with mergers, acquisitions, disposals, expansions and down-scaling of activities at length. These events are relevant to determining whether an enterprise has reduced its GHG emissions. Below we will discuss

- closing down part of the enterprise,
- sale of part of the enterprise, and
- new activities or increase of production.

As a general rule, closing part of an enterprise's activities down will diminish the total GHG emissions of the enterprise.³²⁷ In that scenario, the GHG emissions no longer emitted by the closed part count as reductions for the enterprise as a whole. If the reduction achieved in a specific year is higher than required by these principles, the surplus can be carried forward and will count as a reduction by the remaining part in subsequent years. In general, enterprises that reduce their GHG emissions by a higher percentage than required in a given year may carry that surplus forward in time: see Principle 2.2.

We have considered limiting the possibility of carrying surplus reductions forward in time. It is open to debate whether an enterprise should benefit from closing part of a factory, particularly if the closing is caused by lasting losses. Nevertheless, it is better not to set a time limit. Firstly, a time limit could make it beneficial for enterprises to spread the downscaling of activities over time to attain maximum benefits from surplus reductions. Hence, a time limit could work to slow down emission reductions achieved through the closing down of part of an enterprise as it would work as a disincentive for enterprises to

³²⁷ Not necessarily so. The relevant part may only have used renewable sources of energy.

achieve more emission reductions than necessary in a given year. Secondly, the climate does not care about intentions, even if they could be proven; society simply must reduce GHG emissions as fast as possible and at least to the extent necessary. Finally, there is no sound legal basis for any limitation in time, let alone for any specific number of years.

We realise that this position may encourage enterprises that are part of a corporate group to shift activities within the group to limit their reduction obligations as much as possible. In most instances, this will only be feasible for global enterprises. According to Principle 5 under b, however, they will not gain much by doing so as they would still be under an obligation to reduce their emissions by the reduction percentage for the world at large. Besides, they will have to comply with Principles 6 and 9 - 11. In addition, private law may provide sufficient legal means³²⁸ to cope with these kinds of practices, which are often abuses.

If the enterprise fell short of meeting its reduction obligations in past years, any surplus in the present year will also be applied to erase that deficit. In other words, it will be added to the reductions achieved in past years (again, see Principle 2.2). In such a situation, however, the obligations under Principle 13(d) remain in place.

The sale of a part of the enterprise does not cause difficulties for the purpose of our Principles. We assume that enterprises know or are able to calculate the GHG emissions of their distinguishable parts, and thus know the amount of GHG emissions ‘sold’ with the sale of a part of their business.³²⁹ The GHG emissions of the sold part will be deducted from those of the seller and added to those of the buyer. In subsequent years, the buying enterprise’s emissions will consist of the sum of its GHG emissions and those of the bought business. Its reduction obligations will be calculated accordingly.

The solution advocated in the previous paragraph should also be applied if an enterprise scales its production up significantly.³³⁰ In subsequent years, the reduction percentage to be achieved will be applied to the new GHG emissions – and thus the total amount of GHG emissions to be reduced will be greater.

As to mergers, two scenarios have to be distinguished: so-called share deals and asset deals. The former scenario does not need to be discussed as only the shareholder will change; this does not affect the legal person that must reduce the enterprises’ emissions or the

328 Such as piercing the corporate veil.

329 The calculations should be realistic and accurate, of course.

330 To keep things manageable, trivially small changes should be ignored.

share or quantity of emissions to be reduced. The asset deal means, for practical purposes, that the buyer only acquires the assets of another enterprise, whereas the employees remain employed by the seller³³¹ – who may then try to get rid of them. The seller may go into bankruptcy or continue its life as a legal vehicle without or with only a few employees. In such a scenario, the surplus will be of little use to the seller; it no longer emits GHGs and is thus also no longer under an obligation to decrease emissions. Consequentially, there are no emissions from which the surplus could be deducted. In other words, the surplus disappears, as would also happen in the case of bankruptcy.³³²

We will illustrate the logic explained above through two practical examples: a merger, acquisition or increase of production and a closure, sale or decrease of production.

Enterprise A emitted 100 units of GHGs at the start of year 1. Its reduction obligations for that year were 6% – i.e. 6 units. However, it reduced its emissions to 80 – by 20% (20 units). Thus, it gained a surplus of 14% (14 units). In year 2, it merged with enterprise B, bringing the emissions of the newly merged enterprise AB to 300. In year 2, the reduction obligations for enterprise AB remained at 6%, i.e. 18 units. The surplus that AB could carry forward from A's reductions in year 1 was 14 units. Thus, the reduction obligations of AB in year 2 after deducting A's surplus are 4 units. This logic is the same in cases of acquisitions or significant increases of production. We choose to calculate the surplus in units and not percentages, because a calculation using percentages would have the perverse consequence of tripling the benefit in the example above. If a surplus of 14% rather than 14 units would be calculated, enterprise AB would benefit from a surplus of 14% of 300 units, i.e. 42 units.

In the case of closures, sales or significant decreases of production, we choose to calculate the surplus in percentages rather than units, for the same reason as mentioned above (but then reversed). Enterprise X emitted 100 units of GHGs before closing part of its factory. After closing, X's GHG emissions amount to 50. Hence, X has achieved a reduction of 50 units (50% of its initial emissions). Assume X was required to reduce its emissions by 6% in that year. In that case, X has achieved a reduction surplus of 44% (44 units; 50 – 6). In year 2, X again has to reduce its emissions by 6% – i.e. to 47 units. As X still has a large surplus, it is not required to further reduce its emissions in year 2. At the end of year 2, X will still have a surplus of 38% (44 – 6), if it does not further reduce its emissions in that

331 Unless the applicable law determines otherwise, as, for example, European Council, Directive 2001/23/EC of 12 March 2001 on the approximation of the laws of the Member States relating to the safeguarding of employees' rights in the event of transfers of undertakings, businesses or parts of undertakings or businesses, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001L0023&from=EN>, does.

332 Here, the question arises whether a surplus that can no longer be used by the enterprise that created it could be sold. In our view, that would require specific national legislation.

year. The surplus will continue to be subtracted from X's reduction obligations until it is used up. In this case, calculating the surplus in units would mean that enterprise X would have a surplus of 44 units after year 1. After year 2, its surplus would be 41 units – after deducting the 3 unit's X was required to reduce its emissions by. Since we try to limit the benefit an enterprise has from gaining a surplus in time, calculating in percentages is the desirable option.

Gap filling obligations

As a matter of fact, at least in the near future, quite a few countries and enterprises will not comply with their obligations under the OP and these principles. That creates a problem in how to deal with these reduction gaps. That topic will be discussed under Principle 5. According to Principle 12, enterprises that cannot reasonably comply with their reduction obligations under Principle 2 or 5, as adjusted in accordance with Principle 3.1 or 4.1, can comply with their obligations by providing sufficient financial or technical means to a country or another enterprise.³³³ Where enterprises are willing to comply with their climate change obligations, this may offer a solution.

PRINCIPLES 3 AND 4: THE DISTINCTION BETWEEN COMPLYING AND NON-COMPLYING COUNTRIES

There may be compelling reasons for leniency in relation to some enterprises; these can be found in Principle 3.1 under (a) through (f). Countries often are in the best position to judge whether such leniency is necessary or desirable. That does not mean, however, that countries are given *carte blanche* in being lenient to their enterprises.

If a country complies with its reduction obligations, it should have a broad flexibility to determine the reduction obligations of enterprises. Since complying countries are already realising sufficient reductions, they should be granted more flexibility in how they continue to achieve such sufficient reductions. Leniency may, however, be constrained in respect of specific enterprises and/or groups of enterprises. For example, leniency may well disturb the level playing field. In such a scenario, trade or competition law may come into play.³³⁴

Countries that comply with their reduction obligations naturally have and should have more manoeuvring room than non-complying countries. Flexibility may be both a carrot

³³³ Refer to the commentary to Principle 12 for a further discussion of this topic.

³³⁴ Further addressing those realms of the law goes beyond our Principles.

and a stick. Greater flexibility may serve as a positive incentive for countries to comply with their obligations. By the same token, the prospect of having less manoeuvring room will hopefully encourage countries to (keep) meet(ing) their reduction obligations. But it would be unfair to sacrifice enterprises that operate in a non-complying country *entirely* on the altar of the country's non-compliance. In most instances, enterprises will be unable to influence the country's conduct. Principle 4 attempts to provide some flexibility in non-complying countries. The strict requirements that will have to be met before a non-complying country is allowed to be lenient in determining reduction obligations may have a detrimental effect on domestic enterprises, as it may disturb their level playing field. Yet, all in all that seems justifiable. There are many instances where the politics of a country (for instance strict or lenient permits; heavy corporate taxes or an enterprises-friendly tax regime) have an impact on the competitiveness of enterprises.

Under Principle 2 we discussed the potentially harsh consequences if an APQ country and, by the same token, the enterprises based in that country, would have to reduce their GHG emissions significantly because the country's emissions are far above the permissible level. In such a scenario, the country may feel obliged to use the flexibility offered by Principle 3 or 4. It may also refrain from doing so, whether or not due to pressure from parts of the business community. That may be unsatisfactory, but some injustices are simply though regrettably inevitable. It is up to governments to manage their country in the way they deem fit.

We do realise – and were reminded of this point at a meeting with a major enterprise – that enterprises may face serious difficulties if the governments of the countries in which they operate refuse to apply Principle 3 or 4. That may be unsatisfactory for the enterprise. Unfortunately, however, there is no better solution. The law as it stands does not provide a sound basis for further elaboration on the application of the factors mentioned in Principle 3.1 in concrete cases. Offering a vague formula, allowing enterprises to lower their obligation under Principle 2, would be of limited or no avail to enterprises: they would not have a clue what their reduction obligations are. In addition, the likely result would be that the *global* reduction obligations that stem from Principle 2 will not be achieved, as many – if not most – enterprises will argue that *their* reduction obligations should be lower.

As a rule, *countries* will be unable to reduce their GHG emissions in accordance with the OP (to the extent required by law) unless *all enterprises together* reduce their emissions at the same pace as required for the country. Hence, leniency to some enterprises almost

inevitably means *increasing* the reduction obligations of other enterprises.³³⁵ That requires political choices; they should be left to the relevant countries. That said, strict application of Principle 2 may be unduly harsh in a given case. In such cases, the enterprise in point may seek a declaratory judgement about its reduction obligations. That is one of the reasons we wrote this extensive Commentary, and hope that it will enable courts to take all relevant circumstances into account, i.e. those of the enterprise seeking the judgement as well as the impact on the emissions of other enterprises.³³⁶

In the same discussion under Principle 2, we mentioned the example of major coal-fired power plants in a country which are causing that country's very high emissions. In such a scenario, the country could opt to close these plants down. Forthwith, it would reduce the aggregate emissions of all enterprises. That might solve the difficulty governments face if very stringent reduction obligations would follow from Principle 2.

PRINCIPLE 3.1

This principle allows complying countries³³⁷ to amend the reduction obligations of enterprises within their jurisdiction from those set out in Principle 2. In doing so, the country in question must consider a series of factors. It is in the best position to tailor the reduction obligations of enterprises in the fairest way.

The country's flexibility is not and should not be unlimited to avoid arbitrary choices or the favouring of GHG-intensive enterprises at the expense of other players within the country. The country must consider a series of factors enumerated supra (a)-(g). This mandatory consideration means that it does not suffice to merely pay lip service to these factors. The decision to put lower or higher reduction obligations on (groups of) enterprises should be justifiable. Depending on the legal system of a particular country, this decision may be challenged before courts.

As to (a): "recent reductions" is a rather open criterion. The circumstances of the case may justify flexibility regarding the time scale. If, for example, a country did not have reduction obligations until recently (because it was a BPQ country) most enterprises would not yet

335 'Almost' because a country could also achieve the additional reductions needed through imposition on citizens or governmental agencies.

336 We do not mean to say that enterprises could seek declaratory judgments on these principles as such, as we are no lawmaker and our principles are no law; declaratory judgments would have to be sought on the specific (case) law that our principles are based upon.

337 This may be the national government, but is not necessarily so: depending on the structure of the polity, the relevant authority may also be a local government (legislator or executive) body.

be under an obligation to reduce their GHG emissions; see Principle 2. Such a scenario may justify focussing on the very recent past. The opposite may go for APQ countries. As a rule of thumb, enterprises should have understood as from, say, the year 1990³³⁸ that business as usual was no longer an acceptable option – even more so if their competitors were already reducing their GHG emissions. We do nevertheless not think that the law provides a sound basis for pertinent rules, applying to all or even most scenarios.

Newly established enterprises do not have past emissions. If they operate on the basis of best available practices, as they ought to do,³³⁹ they do not fall under a but can benefit from b, assuming that the relevant country makes use of the flexibility provided by this principle.

As to (a), (b), (c): it matters, we think, whether or not competitors have or the industry as a whole has already taken reduction measures. If many competitors have or the industry as a whole has already done so, this implies that they took the view that this was, at least, morally imperative. Moral views of the relevant actors carry weight when it comes to the interpretation of legal obligations.

The wording is deliberately ambiguous in relation to “competitors” and “the industry as a whole”. Space should be left to negotiate the interpretation of different cases. Relevant factors are, *inter alia*, the size of the enterprise and the market in which it operates.

The text under (a), (b) and (c) requires a comparison with competitors. Two unrelated issues play a role: on the one hand the reductions achieved (a), the GHG efficiency of the enterprise (b) and the GHG efficiency of its products and services (c) and on the other hand their significance compared to the achievements of competitors. An example may shed light on the meaning of ‘significance’. Enterprise X has reduced its GHG emissions by, say, 5% annually over the past three years; most competitors achieved reductions at a rate of 3% annually. At the beginning of the relevant period X’s energy-efficiency was considerably worse compared to its competitors. Worse does not necessarily mean that X’s energy-efficiency was poor; it may have been quite good, but the mere fact that the competitors’ efficiency was even better indicates that X could have done an even better job; in most instances, it could reasonably be expected of X that it should have done so. Hence, looking at the reductions or efficiency only, would be mistaken.³⁴⁰

338 According to general opinion, 1990 is the year when climate change started to be widely considered to be a serious issue, as is demonstrated for instance by the coming out of the first IPCC Assessment Report.

339 Ought to, because this is not a legal requirement, we think. Principle 9 only concerns excessive emissions. Principle 24 provides at least an incentive to use best practices.

340 Explaining significance as the energy-efficiency of an enterprise in comparison to its competitors causes a certain degree of overlap between (a) and (b). However, (a) relates to the emission reductions of the enter-

As to (c): The core question is to what extent similar but related products can be compared. Much depends on the method used for comparison. By way of example: X manufactures small cars. Y manufactures four wheel drives. Z manufactures very efficient cars for middle class people keen to buy energy friendly cars. We do not suggest that these different kinds of cars should be compared. We are not suggesting either that such a comparison should not be made. A possible solution would be to compare manufacturers' products and services with several classes, such as is done in the automotive industry. That said, we strongly believe that, as a rule of thumb,³⁴¹ energy inefficient products and services need to be phased out in the near future; see below under Principle 10. That, we think, is not only a moral obligation. It probably is the only way to avoid passing the 2°C threshold. Hence, it increasingly amounts to a legal obligation.

(d) does not require further elaboration.

As to (e): some enterprises provide products or services that offer low-carbon alternatives to carbon-intensive consumption. A few examples are: public transport – especially if run on renewable energy³⁴² – manufacturing (components of) renewable energy technologies, utility companies that to an increasingly large extent offer electricity from renewable sources, and construction companies that specialise in carbon-neutral architecture and building technologies. Seeing that such enterprises deliver a tremendously useful contribution to society's move towards carbon neutrality, it makes a lot of sense to be lenient towards their own reduction obligations if necessary – so that they would not have to cut back on such useful activities to comply with their obligations under Principle 2. Whether an enterprise would fall in this category should be determined by balancing their own carbon footprint with the carbon footprint benefits for society. In our view, such 'emission obligation breaks' cannot be embedded in our principles by the use of a general formula, not in the least because how the carbon footprint of an enterprise is calculated can make a large difference when making up the balance, and thus such considerations should be left to countries. It is our view that where enterprises clearly qualify under this sub-principle, countries not only can but ought to be lenient in relation to the reduction obligations of such enterprises.³⁴³

prise, whereas (b) relates to the overall GHG efficiency of the enterprise. Hence, only the explanation of significance overlaps here; (a) and (b) are still both useful in their own right.

341 For the time being, it may be unavoidable to accept energy inefficient products and services in poorer countries if the people living in those countries would otherwise be deprived from commonly accepted essential features. See *supra* (e) and Principle 11.

342 On January 1st, 2017, the largest Dutch railways company NS became the first railways company to run all its electric trains on 100% wind energy; by 2018, all of its trains will do so. See <http://groenetrein.ns.nl>.

343 This factor was by and large inspired by KPMG's 'True Value' approach and private conversations on the matter with Barend van Bergen, the *actor intellectualis* of this approach. See for extensive details KPMG

As to (f): by “vital” we mean goods and services that constitute basic life necessities as formulated in international human rights instruments.

As to (g): the outsourcing of the manufacturing process or other energy consuming activities is one of the hotly debated and controversial issues in the climate change discussion. The divide mainly lies in the allocation of the GHG emissions to the host country. BPQ countries tend to argue that at least part of the emissions of export products or services should count as emissions brought about by the countries of the ultimate consumers. Conversely, APQ countries take the view that the host countries reap the fruits of production and that it is thus fair to attribute all GHG emissions of export products or services to the country of production – in the rule a BPQ country. This divide is one of the major stumbling blocks in the international climate change negotiations.

Despite the fact that outsourcing to developing countries fosters development in those countries and contributes to the alleviation of poverty, it can cause serious environmental problems. As pointed out by sub-clause (g), in BPQ countries – mostly the “recipient” countries of outsourcing – the environmental duties of enterprises may be less stringent or non-existent at all, which could create a loophole to escape obligations. Additionally, decreasing outsourcing could also reduce the emissions of GHGs for two reasons: a) production facilities in APQ countries tend to be more energy efficient than facilities in BPQ countries and b) the energy-consuming transport of products can be avoided. Besides, it avoids painful international debates about the allocation of GHG emissions. Hence, this factor is important, in particular in light of the urgent need to reduce global emissions.

A not exhaustive list

The list of factors mentioned in Principle 3.1 is not meant to be exhaustive. A country may also consider deviating from Principle 2 in attributing the reduction burden if there would be another compelling reason for doing so. Such a reason might be that one or more enterprises (X) are willing to provide technical or financial means to others to reduce their emissions, or to provide them with less energy consuming products or services, in particular if the reductions thus achieved would exceed those to be achieved by X. If the country in point would not be sympathetic to such a proposal, X will have to reduce its own emissions as Principle 12 will rarely apply due to the requirement that all reasonably available steps have been taken.

International, *A New Vision of Value: Connecting corporate and societal value creation*, 2014, <https://assets.kpmg.com/content/dam/kpmg/pdf/2014/10/a-new-vision-of-value-v1.pdf>. The group, however, does not express a view on this valuation approach as whole, see footnote 470.

PRINCIPLE 3.2

The obligations under Principles 7-12 are vital. Leniency would hamper the almost universally endorsed goal to stay below the 2°C threshold. Hence, countries are not allowed to be lenient towards enterprises when it comes to these obligations.

The potential ramifications of investment treaties

Investment treaties are agreements between countries that protect investments by enterprises in one of those countries against policies that significantly affect the profitability of investments. Such treaties can serve as an obstacle for governments to urge enterprises within their jurisdiction to effectuate the necessary reductions of GHGs and even more so to be more demanding to some enterprises compared to other enterprises. It goes beyond the scope of this commentary to discuss these treaties in any detail. A few observations, however, are necessary because they go to the heart of the matter.

The reduction obligations that emanate from our principles are based on an interpretation of the law as it stands or will likely develop. In most instances, they will not have a strong adverse effect on the profitability of enterprises, at least not in the short term. They create a level playing field which allows enterprises to increase the prices of their products and services to cope with the additional costs.³⁴⁴

As time progresses and low-cost options to reduce GHG emissions run out, the cost of continued compliance may become very high. For some enterprises, they may even become unbearably high. Unless the relevant country applies Principle 3.1 or 4.1 some enterprises may be forced into bankruptcy. That, however, is the unavoidable price that has to be paid to tackle climate change. It is a business risk, next to the many other risks enterprises face. The longer we wait, the steeper the GHG emission reductions necessary to limit climate change to 2°C global warming will become. Hence, it is by far the cheapest for society as a whole to start reducing GHG emissions right now.

Governments may – and increasingly will – opt for closing excessively emitting enterprises, such as coal fired power plants. In all these instances, it would be extremely unsatisfactory and in our view also mistaken from a legal angle to argue that the enterprises in point are entitled to compensation because of government liability – the consequence of such arguments would be that these enterprises would be compensated from the public purse.

344 Even if all competitors increase prices to an equal extent, profits may still be reduced because of decreased demand at a higher price, and not all additional costs may be compensated for.

First, the reduction obligations are based on an interpretation of the law.³⁴⁵ Secondly, in most instances – and particularly so in relation to excessively emitting enterprises – the enterprises in point should have understood that business as usual is not an option. Put differently, they should have reckoned with even far-reaching emission reduction obligations or other measures and, unless leniency can be applied through Principle 3.1 or 4.1, have no choice but to accept them as a business risk.³⁴⁶

PRINCIPLE 4.1

In the short term few countries will comply with their reduction obligations. This begs the question whether and, if so, how this unfortunate fact affects the manoeuvring room of this group of countries to determine the reduction obligations of enterprises within their jurisdiction different from the reduction obligations under Principle 2. It could be argued that enterprises cannot help it that the countries in which they operate do not meet their obligations, despite the fact that pressure from industry as a whole might well bring politicians to their senses. It would be unfair to sacrifice the interests of enterprises that already have reduced their GHG emissions significantly or have already switched to energy efficient products or services. Nevertheless, countries should not get a free ride in scenarios in which they assume that their own reduction obligations cannot be enforced. The world at large is best served by strong incentives for countries to comply with their reduction obligations. Restricting their flexibility in relation to the determination of the reduction obligations of enterprises in their jurisdiction may serve as a powerful incentive towards compliance.

The flexibility provided by this principle is also desirable in light of the broad definition of enterprise. As already mentioned above in the commentary to Principle 1 under Enterprises, public transport or even prisons may fall under this definition. The same may well go for elderly homes or day care for indigent persons. In those instances, the relevant institution will either entirely or partially depend on public money. It may face the dilemma to spend money on the reduction of GHG emissions or lower the, too often,³⁴⁷ already

345 See about arbitration under investment treaties Yulia Levashova, Tineke Lambooy and Ige Dekker (eds.), *Bridging the Gap between International Investment Law and the Environment*, Eleven, 2015 and Meredith Wilensky, *Reconciling International Investment Law and Climate Change Policy: Potential Liability for Climate Change Measures Under the Trans-Pacific Partnership*, *Environmental Law Reporter* 45, July 2015, <http://columbiaclimatelaw.com/files/2016/06/Wilensky-2015-07-International-Investment-Law-and-Climate-Change-Policy.pdf>.

346 Refer to §16 about asbestos and the like.

347 See, e.g., Megan Mumford, Diane Whitmore Schanzenbach and Ryan Nunn, *The Economics of Private Prisons*, The Hamilton Project, 2016, www.brookings.edu/wp-content/uploads/2016/10/es_20161021_private-prisons_economics.pdf; Jill Filipovic, *America's private prison system is a national disgrace*: An ACLU

poor service or increase the already high prices of services. The better solution would be for the government to provide the money needed to ensure a good service. If it is unwilling to do so, it could use this principle to lower the reduction obligation of the relevant institution. If the government decides not to use any of these options, the institution will be on the horns of a dilemma. It might consider legal action against the relevant governmental institution(s) for the money needed to comply with its reduction obligation.

It follows that principle 4 is based on a compromise; it tries to balance the competing interests. Even non-complying countries are granted some flexibility to determine the reduction obligations of enterprises within their jurisdiction, provided that *all* of the conditions of Principle 4.1 (a)-(c) are met. It follows that the mere fact that an enterprise has already curbed its GHG emissions to a higher extent than its competitors or that its GHG efficiency is higher than the efficiency of its competitors will not suffice. That may be different if its performance is considerably better than the performance of its competitors. In that scenario there may be a compelling argument for greater leniency, provided that the criteria *supra* c and particularly b are also met.

Principle 4.1 speaks of “the particular circumstances of the enterprise”. This may include the circumstances of a group of enterprises.

PRINCIPLE 4.2

See the commentary on Principle 3.2 above.

PRINCIPLE 5

Justification

In the context of the definition of global enterprises, we already referred to an emerging trend to put special emphasis on the role, responsibilities and obligations of multinational enterprises. Many of these enterprises outsource part of their production to low wage and/or low regulation countries, almost always BPO countries.³⁴⁸ Their products often

lawsuit against a prison in Mississippi is the latest to detail flagrant abuses at a private correctional facility, *The Guardian*, 13 June 2013, www.theguardian.com/commentisfree/2013/jun/13/aclu-lawsuit-east-mississippi-correctional-facility.

348 See in more detail, Olivier De Schutter, *Trade in the Service of Climate Change Mitigation: The Question of Linkage*, in Anna Grear and Conor Gearty (eds.), *Choosing a Future: The Social and Legal Aspects of Climate Change*, Edward Elgar, 2014, p. 69 and 70.

unnecessarily³⁴⁹ flow back and forth across the globe causing the emission of huge amounts of GHGs. The expansion of trade, created by global enterprises, leads to higher consumption and therefore increasing GHG emissions.³⁵⁰ Last but not least, due to their “immense economic power and influence, transnational corporations would be able to contribute to a better social and political environment”, but few of them really do.³⁵¹ In quite a few countries, global enterprises are so powerful that legislators are reluctant or outright unwilling to create the necessary regulatory framework for combatting climate change. After all, “economically weaker states depend on the investments of MNCs”.³⁵² In addition, global brands – necessarily put on the market by global enterprises as defined in Principle 1 – are viewed differently by consumers than non-global brands.³⁵³ Principle 5 aims to counterbalance these effects.

The submission that the global nature of Multi-National Corporations (MNCs) creates a kind of a *status aparte* is by no means novel. The only and important question is: what are the legal implications of this *status aparte*?³⁵⁴ In that respect, Principle 5 does not create a substantive obligation for enterprises in APQ countries that goes beyond the sum of their individual obligations. That may not be the case for enterprises in just APQ countries; see for elaboration below. It only establishes a responsibility for the group to achieve the aggregate reductions required in APQ countries on the basis of Principle 2, adjusted on the basis of Principle 3.1 or 4.1 as the case may be. This Principle does, however, create obligations for global enterprises in BPQ countries.

This pans out as follows. Global enterprise X is a parent company in the USA, and has subsidiaries in Germany, Australia, Japan, India and Zambia. In this scenario, the Indian

349 Unnecessary in the sense that the only reason for the transport often lies in the outsourcing.

350 For the latter argument, see De Schutter, Trade, o.c. p. 69. He adds that the effects of increased consumption “raises levels of greenhouse gas emissions more than the technological spill over of trade lead to GHG emissions being reduced”.

351 Rosemann, UN Norms: An Innovating Instrument, o.c. p. 8. Ikea states having “a clear responsibility – and a great opportunity – to have a positive impact on people and the planet”, exactly because it is a global player; IKEA Group, FY15 Sustainability Report, 2015, www.ikea.com/ms/en_US/img/ad_content/2015_IKEA_sustainability_report.pdf, p. 9.

352 Wouters and Chané, Multinational Corporations in International Law, o.c. p. 225 and 226, with further elaboration on p. 228; also see Weschka, Human Rights and Multinational Enterprises, o.c. p. 659 and 660.

353 Douglas B. Holt, John A. Quelch and Earl L. Taylor, How Global Brands Compete, Harvard Business Review 82 (9), September 2004, <https://hbr.org/2004/09/how-global-brands-compete>.

354 That question has to be answered by interpreting the law. As we have seen before, a series of – mostly non-binding – instruments has emerged. They are most valuable, but often lack precision. Principle 5 aims to provide more clarity. Waiting for internationally accepted and binding legal instruments is barely an option in the face of the threats of climate change. John G. Ruggie put it as follows: “I am under no illusion that the conclusion of my mandate will bring all business and human rights challenges to an end”: The Past as Prologue? A Moment of Truth for UN Business and Human Rights Treaty, 26 June 2014, https://sites.hks.harvard.edu/m-rcbg/CSRI/Treaty_Final.pdf, footnote 18.

and Zambian GHG emissions should be reduced at the rate the world at large must reduce its emissions in a given year. This is so because India and Zambia – as BPQ countries – do not have reduction obligations under the OP, and hence enterprises with activities in those countries are not under an obligation to reduce a percentage of the GHGs emitted in relation to *those* activities under Principle 2 either.³⁵⁵ The reductions to be achieved by X's subsidiary enterprises in Germany, Australia, Japan and the USA must be based on the reductions to be achieved by these countries.

The global nature of the enterprises in point begs the question whether or not they should be allowed to achieve GHG emission reductions within their group in the most effective and practical way. Exactly because global enterprises are of a global nature it seems fair to allow them to achieve the reductions required for the concern as a whole (in our example those of Germany, the US, Australia, Japan, India and Zambia) in the most efficient way. After all, such enterprises have additional obligations compared to the sum of the individual enterprises because of their global nature. Our approach makes it more attractive to global enterprises to comply with these principles. Besides, it is more balanced. Although global enterprises are under additional obligations, they also reap the fruits of their global nature.

If it would be most cost-effective to cut the Zambian emissions by half in a given year, whereas only a reduction of 5% would be required, 45% (to be translated into units of GHGs) could be attributed to other subsidiaries or the parent company. Hence, these reductions would be deducted from the emissions to be achieved by the other enterprises.

We realise that our submission may cause some difficulties for countries. If the American parent company opts to achieve its American reductions by additional reductions in India, the USA may face difficulties to achieve its reductions. After all, American reductions are the sum of the reductions achieved by all American players, be it citizens, enterprises or governmental agencies. The impact of our submission will probably be marginal for the USA if only one or very few relatively small global enterprises would opt for the solution advocated above. That may be very different in case many global enterprises or a few giants in one and the same country do so. APQ countries would be well-advised to anticipate a scenario in which many of their global enterprises meet their reduction obligations through reductions in foreign countries. If it is the case that the APQ country in point stands to fail meeting its reduction obligations under the OP, it would need to make it more attractive (read: less expensive) for global enterprises to make emission reductions domestically.

355 Unless these countries have committed themselves to higher emission reductions through NDCs under the Paris Agreement.

We have stressed above and in the commentary to Principle 1 under *Global enterprises* that it is justified for *truly* global enterprises to have further-reaching reduction obligations than the sum of reduction obligations their constituent parts would have under Principle 2. This is relevant in relation to just APQ countries.³⁵⁶ The reduction percentage of a just APQ country is less than the reduction percentage the world at large must achieve in a given year. In this scenario, a strict reading of Principle 5 would conclude that a global enterprise would have to realise less GHG emission reductions over its activities in a just APQ country than over its activities in BPQ countries, as the global enterprise must apply the reduction percentage that the world at large had to achieve in the preceding year in BPQ countries. That may seem unfair, but it is impossible to come up with a general, applicable formula that is fair to all scenarios.

There are two arguments for our choice. First, as a rule of thumb, parts of global enterprises in BPQ countries will emit more GHGs per unit of product than in APQ countries.³⁵⁷ Therefore, in terms of efficiency it would be easiest to achieve reductions in BPQ countries. That is also in the best interest of the world at large. Secondly, we mentioned above that global enterprises have the flexibility to achieve their required reductions there where they can most efficiently do so. It follows that the key factor is not how many GHGs must be reduced over the activities performed in BPQ countries and how many over those in just APQ countries, but that a global enterprise *as a whole* has to reduce more GHGs than its constituent parts would under Principle 2. The fact that a global enterprise has flexibility in determining where GHG emission reductions are achieved will hopefully ensure that the burden will not have to be shouldered by BPQ countries in a way that will create negative consequences.³⁵⁸ If the choices made by a global enterprise would threaten to be unreasonably burdensome for a BPQ country, the country's government may be able to move to lower the reduction obligations over the activities of the global enterprise within its jurisdiction under Principle 3; see the commentary to this principle under 'Flexibility in relation to Global Enterprises in BPQ and APQ countries'.

An alternative would be if, in our example, *global enterprise X as a whole* would have to reduce its emissions at the rate the world at large has to curb its emissions if that figure would be higher than the sum of the reduction obligations of the individual enterprises on the basis of Principle 2. We have considered that option, but we do not think that it

356 For the meaning of 'just APQ countries', see footnote 295.

357 As there often will be a lack of funding and subsidisation to invest in the newest, most efficient technologies or practices and environmental standards tend to be lower in BPQ (mostly developing) countries.

358 Actually, it is unlikely that that will be the case, as there are still many benefits to producing in BPQ countries (such as cheaper labour). In addition, investment in new, more GHG efficient technologies may lead to better labour standards and worker's health and safety improvements.

would be a better solution as the following example may illustrate. Global enterprise X has four factories of equal size. Two in APQ and two in BPQ countries; their respective GHG emissions are equally high. The enterprises in the APQ countries have to curb their GHG emissions by, say, respectively 7.8 and 7.9% to comply with Principle 2. The reduction to be achieved by the world at large is 4%. If one would apply the reduction percentage for the world at large to X *as a whole*, the reductions to be achieved would be marginally higher than the aggregate reductions to be achieved by the enterprises on the basis of Principle 2, as the enterprises in BPQ countries would not have any reduction obligations under Principle 2.³⁵⁹ Hence, despite the fact that X is a global enterprise, this would barely result in any reduction obligations of the enterprises in BPQ countries. That would only be the case if we change the example, so that X has one factory in an APQ country and three in BPQ countries. Say that X's factory in the APQ country must reduce its emissions by 8%. In this scenario, the global enterprise would have to reduce its emissions in the BPQ countries in which it operates by 2.67%.³⁶⁰ This would imply that it would be mere coincidence whether or not the concept of global enterprise would have any impact on the reduction obligations of the parts of the global enterprise.

Flexibility in relation to global enterprises in BPQ and APQ countries

BPQ countries do not have *general* reduction obligations under the OP. Hence, enterprises based in those countries do not have reduction obligations under Principle 2. Global enterprises, covered by this principle, are an exception to this rule.

Exactly because enterprises do not have reduction obligations under Principle 2 over their activities performed in BPQ countries, BPQ countries do not need the flexibility provided by Principle 3 to lower the reduction obligations of purely domestic enterprises.³⁶¹

359 This pans out as follows. Assume that each factory emits 100 units of GHGs. That means that the enterprise emits 400 units of GHGs. 4% of 400 units equals 16 units. That is marginally higher than the 15.7 units of GHGs the two factories in the APQ countries would have to reduce under Principle 2 ($0.078 \times 100 + 0.079 \times 100$).

360 If we again calculate in units and take 400 units of GHGs for the global enterprise as a whole and 100 units for each factory, the factory in the APQ country would have to reduce its emissions by 8% of $100 = 8$ units. As X as a whole would have to reduce its emissions by 4% of $400 = 16$ units, the remaining 8 units would have to be reduced by the three factories in the BPQ countries. That would come down to 2.67 units per factory. As, in our example, each factory emits 100 units, that equals 2.67%.

361 Principle 4 does not come into play because BPQ countries are 'complying' countries. Complying is put between inverted commas because not all BPQ countries necessarily comply with our Principles: although they do not have reduction obligations under the OP, they may have committed themselves to reductions under the Paris Agreement. If they do not fulfil these reductions, they are not a complying country under Principle 3.

However, some flexibility in relation to *global enterprises*, operating in BPQ countries, is desirable, if not required. By way of example: global enterprise G, operating in BPQ country B, has already reduced its emissions significantly, compared to competitors in APQ countries, while it is more energy efficient than most of them. It would be unfair if G would be under an obligation to reduce its GHG emissions at the rate of the world at large. B should hence be allowed to determine G's reduction obligations differently compared to the rate of the world at large. In doing so, B must consider the factors enumerated in Principle 3.1. Where Principle 3.1 refers to competitors, one should read the best-performing competitors that are (part of) global enterprises, seeing that G is a global enterprise. With best-performing, we mean the competitors that have achieved the best results regarding the factors enumerated in Principle 3.1, regardless of where they are based.

For the same reason the flexibility of APQ countries is somewhat limited in relation to global enterprises in their jurisdictions as illustrated by the following example. Enterprise G is based in an APQ country with very limited reduction obligations under the Oslo Principles. Exactly because G is a global enterprise, a comparison under Principle 3.1 supra a, b and c with "its competitors" has to be understood as competitors in the higher part of APQ countries. That is also justified because multi-national enterprises in North America, Western Europe, Australia, New Zealand and Japan may feel tempted to transfer part of their business to other APQ countries with lower reduction obligations (and often also lower wages and a series of other financial benefits for the parent companies in point).

Some global enterprises are in a position to pressurise BPQ countries to lower their obligations – not only obligations relating to GHG emissions but all kinds of obligations. In addition, countries (by no means only BPQ countries) are increasingly competing to make it attractive for enterprises to settle or expand (tax benefits/holidays are the example *par excellence*). This state of affairs may incentivise one or more countries to be overly lenient to global enterprises by applying Principle 3.1 against its text and spirit. Under those circumstances, the relevant enterprises are only relieved from their reductions obligations to the extent this principle can reasonably be applied.³⁶² The remaining reduction obligations of which the relevant enterprise cannot be relieved should be added to the reduction obligations of the global enterprise as a whole, as they are unlikely to be enforced by the BPQ country that has applied Principle 3.1 against its text and spirit.

362 We must admit that this statement is somewhat vague. We would be very happy if someone could come up with a more concrete answer. This is an issue that would warrant further research.

The reduction percentage of the world at large

Enterprises need to know to what extent they must decrease their GHG emissions.³⁶³ The relevant percentage should be clear by the beginning of any particular year. That is why the reduction obligation of global enterprises in BPQ countries is the same as the reduction percentage the world at large had to achieve in the preceding year.

Gap filling obligations

At least in the near future, it is not to be expected that all – and perhaps even most – countries and enterprises will comply with their reduction obligations under the OP and these principles. That creates the problem of dealing with the reductions that have not been achieved. That is particularly problematic in relation to this principle as it puts reduction obligations on specific enterprises in BPQ countries based on the reduction percentage for the world at large – which is negatively influenced by non-compliance.

The reductions to be achieved in a specific year depend, *inter alia*, on the achievements in the recent past. If a major country (X) does not meet its reduction obligations by z ton in year 1, z will be added to the reductions that have to be achieved globally in year 2. Ideally speaking, X will assume responsibility for z *and* the percentage required for year 2 in the subsequent year, but in most instances it is unrealistic to assume that X will honour this obligation.³⁶⁴ The only *practical* way to achieve the aggregate reductions, globally required, for year 2 is to redistribute z among all APQ countries and by the same token enterprises that have reduction obligations under Principle 2 and 5 read in conjunction as the case may be. That means that part of z will be added to the reduction obligations of complying countries.

The commentary on OP 19 is more ambivalent. It reads:

“This principle is not intended to address failures by countries to comply with their reduction obligations. We do not think that the remaining countries are under a *legal obligation* to fill gaps by non-compliance of others. Such an obligation would also serve as a perverse incentive for irresponsible behaviour. Moreover, it is at least open to debate whether the remaining countries would

363 According to De Schutter, the “norms MNE’s should be obligated to respect, ... are available”, *Accountability of Multinationals*, o.c. p. 72, with further elaboration. That is mostly true, for instance in relation to child labour. It is a bit more delicate in the arena of climate change, but even in that respect we basically endorse his statement.

364 X is a shorthand for *many* countries and enterprises. Some may be willing to act responsibly.

be *able* to reduce their GHG emissions to the extent “needed” to “offset” the shortcoming of other major countries” (emphasis added).

As to OP 19 supra (a), the commentary reads:

“The additional reductions have to be implemented by above permissible quantum and specific developed countries. APQ countries should take the lead, as all of them are “developed” countries. Seen from that angle, it seems only fair that they have to assume the burden of additional reductions to the extent reasonably possible. This also follows from Principle 14. The latter obligation also implies that the heaviest burden must fall on the shoulders of the rich countries.”

To fill the gaps left by non-complying countries is an obligation of complying countries that does not supersede the initial obligations which were not complied with by the non-complying countries. In other words, the emission reduction obligation remains an obligation of the non-complying country; the gap filling obligation is a secondary obligation placed on complying countries. In our understanding, international agreements and pledges are based on the idea that the reductions to be achieved globally have to be recalculated on the basis of the latest insights provided by climate change scientists and the reductions achieved in the previous year or period. It seems to follow that politicians are keen to strike *adequate* international agreements, despite the fact they have failed to do so. Their stance seems to be based on the need to fill the gap caused by non-compliers; they fully realise that this is the only practical way to avoid passing the 2°C threshold. If our assessment is correct, there would at least be some legal basis for the submission that the gap filling-obligation is not voluntary.

This does not mean, of course, that free-riding should be rewarded – for two reasons. First, the law of unjust enrichment may pave the way, but materialising this realm of the law will not be a walk-over. Secondly, the reduction obligations not met will be added to the future obligations of the countries and enterprises in default. It can only be hoped that these obligations will be (come) enforceable and that the measures advocated by OP 20 will be effectuated, if required. At the end of the day, these problems will have to be solved in the political arena.

A similar gap filling obligation follows from Principle 2, that is, in turn, based on the OP. It follows from the formula adopted in OP 1, 3, 6, 13 and 18, read in conjunction, that:

- 1) The global reductions to be achieved in a given year should be based on the precautionary principle;

- 2) The globally permissible GHG emissions should be divided by the number of the world's population; thus we have calculated the permissible quantum per caput;
- 3) The permissible quantum of a country can be calculated by multiplying the number of inhabitants of a given country with the per capita amount;
- 4) If the GHG emissions of the country in point are above the permissible level, it is required to reduce its emissions to the permissible quantum within the shortest time feasible;
- 5) The reductions mentioned under 1 have to be recalculated annually.

Despite many positive developments – increasing awareness of the looming threats and the increasing willingness to achieve reductions, not to mention the increasingly bold pledges made in the international arena, cast in ever more alarming language – it would be a miracle if global GHG emissions are going to be curbed to keep the rise of global temperature below 2C. The pledges made in the context of the Paris Agreement are telling. Hence, it will be increasingly difficult and, at some stage in the foreseeable future, (close to) impossible for the complying countries and enterprises to fill the gap left by non-compliers. This situation is exacerbated by the expectation that this gap will be huge in the short term. If filling this gap would turn out to be impossible or excessively burdensome, the gap should only be filled *to the extent reasonably possible*. Even if the 2C threshold *will* be passed due to the non-compliance by a series of countries and enterprises, filling the gap to the extent feasible will still be immensely useful as it would minimise the degree to which the threshold is passed. What is “avoidable” and what can still be regarded as “reasonably possible” depends on an assessment of the relevant facts of the year in point. One of the factors to be taken into account may well be that an enterprise is a global enterprise based in a BPQ country. It is impossible to be more concrete.

PRINCIPLE 6

Traditionally, company law determines the controlling obligations of enterprises that belong to the same group. That also goes for the question of whether or not they are under an obligation or in a position to control related companies. That may depend on the law of the country of the “controlled” company and that of the “controlling” company.

In most instances, “related companies” as mentioned above refers to enterprises that belong to the same group. In those instances, the “controlling” company will usually be the parent company. The law, in particular that of the “controlled” enterprise, may restrict control by the parent company, for instance because non-executive directors of a subsidiary, trade union or corporate council have a decisive say in specific areas.

Similar questions arise in the context of joint ventures. The joint venture contract mostly determines which of the companies can control the other(s).

In our view it is fair to expect that enterprises in a position to exercise some control over related enterprises should exercise those powers. The reason is, once again, the urgency of coming to grips with climate change. All these enterprises need to do is to ensure that the enterprises under their control comply with their obligations – no more, no less. Thus, no additional obligation is put on the “controlled enterprise”. There is no valid reason why “controlling companies” should not make use of their powers³⁶⁵ to ensure that those under their control meet their climate change-related obligations.

The principle comes close to the OECD Guidelines for Multinational Enterprises, albeit that the OECD’s message is cast in more expansive and concrete language. Referring to these enterprises, the Guidelines observe:

“The *Guidelines* are addressed to all the entities within the multinational enterprise (parent companies and/or local entities). According to the actual distribution of responsibilities among them, the different entities are expected to co-operate and to assist one another to facilitate observance of the *Guidelines*.”³⁶⁶

PRINCIPLE 7

In the words of the Global Reporting Initiative (GRI):

“Using energy more efficiently and opting for renewable sources is essential for combating climate change and for lowering an organization’s overall environmental footprint.”³⁶⁷

This principle borrows from OP 7.³⁶⁸ Unlike OP 7, we confine ourselves to additional cost, instead of “relevant additional cost” as mentioned in OP 7. It follows from the commentary on OP 7 that we realised that “relevant” is a bit vague. Still, it will often be sufficiently clear in the context of countries. We wonder whether the same holds true for enterprises. That

365 As already mentioned, this right may be restricted in specific scenarios.

366 OECD, Guidelines for Multinational Enterprises, o.c. under I. Concepts and Principles (p. 17 and 18). This also seems to be the message of UNOHCHR, Corporate Responsibility to Respect Human Rights, o.c. p. 22.

367 Global Sustainability Standards Board (GSSB), GRI 302: Energy, GRI, 2016, www.globalreporting.org/standards/media/1009/gri-302-energy-2016.pdf, p. 4.

368 This obligation is implicated in UNEP, Climate Change and Human Rights, o.c. p. 13.

is one of the reasons why we have deleted “relevant”. That does not mean, however, that any cost to be incurred by the enterprise can serve as a justification to refrain from taking the steps mentioned in this principle. In addition, if the costs are small, they will usually be offset financially in which scenario Principle 8 will apply. Hence, this issue is of limited practical importance.

The phraseology of (d) is a bit more stringent in comparison to OP 7. It is even clearer now than it was at the time of drafting the OP that there is no valid reason to stick to fossil fuel based sources of energy if a switch to renewable energy sources could be achieved at no cost.

We have deleted the obligation to eliminate fossil fuel subsidies. After all, that obligation can be imposed only on States. We do, however, strongly believe that enterprises have to refrain from putting pressure on governments to keep or to advocate fossil fuel subsidies. We realise that an obligation to that effect may go quite far, particularly if put on enterprises engaged in or connected to the fossil fuel industry; one may wonder whether there is a sufficiently sound legal basis for this submission. After all, abandoning fossil fuel subsidies would have a tremendously adverse financial impact on this branch of industry. These subsidies, however, create an uneven playing field by keeping the prices of fossil fuels lower than justified.³⁶⁹ Hence, they provide an economic disincentive to a switch to renewable energy. Thereby, they form a serious obstacle to achieving needed global emission reductions. If one is prepared to accept that these subsidies must be abandoned in light of the devastating consequences of passing the 2°C threshold,³⁷⁰ it seems rather self-explanatory that the relevant branch of industry (or lobby groups sponsored by them) is not allowed to lobby governments to maintain fossil fuel subsidies.³⁷¹ In addition, lobbying should be of little avail as governments are not allowed to provide such subsidies under OP 7.³⁷²

The very foundations of tort law lie at the basis of this principle. The key formula, adopted around the globe, is based on what can be expected from a reasonable person. It belabours

369 See about the subsidies by country IEA, World Energy Outlook: Energy Subsidies by Country 2015, www.worldenergyoutlook.org/resources/energysubsidies/.

370 See for an underpinning the Commentary on OP 7.

371 We leave aside the possible ramifications of the position that this issue should exclusively be solved politically. We strongly believe that such pleas are, or at least ought to be, wrongful (a violation of the law). After all, they advocate subsidies that make it at best very, very difficult to avoid passing the 2°C threshold.

372 Exceptions may apply; OP 7 speaks of “broad fossil-fuel subsidies”; also see the last paragraph of the commentary on OP 7. We realise, of course, that in reality fossil fuels are subsidised to a very large extent, much larger still in fact than renewable energy technologies. This is a large hinder to the energy transition.

the obvious that a reasonable person should not put the world at large at significant risk if they can lower that risk through no cost measures.³⁷³

PRINCIPLE 8

This principle is borrowed from OP 9.³⁷⁴ Hence, we refer to the commentary on OP 9.³⁷⁵ Unlike OP 9 (in relation to countries) we did not create a special provision for enterprises in least developed countries. The reason for not doing so is of a practical nature. Enterprises across the globe, also in least developed countries, will be in either of two (simplified) situations. Either they can finance the measure that will be offset by future financial savings from their own pockets, or they have to borrow to finance them. In the latter scenario, an enterprise is obviously only under an obligation to take measures that also pay back the additional costs of financing.³⁷⁶ Financing may entail such high additional costs, especially for enterprises in least developed countries, that the additional cost of financing is not paid back by the investment. In consequence, this provision will probably apply in relatively many cases.

An important example of a concrete application of this principle concerns large electricity consumers – such as insurers, investors, financiers, information technology enterprises and others that largely depend on heavy computer modelling and big data or other activities that are electricity-intensive. In so far as those enterprises do not have the option to choose a utility company that generates electricity from renewable, low-emission sources, and the cost of installation of renewable technologies such as wind, solar and/or geothermal could be offset by future financial savings or financial gains beyond reasonable doubt and within a reasonable time period, they would be required to do so under this principle, as it has to be interpreted.³⁷⁷

373 See in more detail the Commentary on the OP, the general introduction under 4.4 and about the minimal causation issue below under Principle 14.

374 For the avoidance of doubt, we have added the words ‘within a reasonable time period’, which was implicit in OP 9.

375 The Carbon Principles emphasise the need of energy efficiency and investment in “cost-effective demand”: Citi, JP Morgan Chase and Morgan Stanley, Carbon Principles, o.c. This, we think, comes close to our Principle 8.

376 In the case where taking a loan to finance the measures would be unreasonably burdensome – for example in light of an enterprise’s credit rating – this obligation may not apply even if the costs of the measure and financing would be offset by future savings. “May not” would depend on the extra costs caused by the additional burden.

377 A careful reader will remember that we attribute emissions to their direct source. In §10.4, we explain that in the case of electricity production and use all emissions are caused during generation and hence attributed to the generating enterprise. Principle 8 relates to the emissions of the activities of an enterprise itself. In our view, it is reasonable to expect from *heavy* users of electricity to take measures based on Principle 8 in

It will not always be clear whether the costs of GHG emission reduction measures will be offset by future financial savings or gains. For example, whether investments in energy efficiency measures or improved insulation in buildings will be made good will depend on a series of factors, such as – in some cases volatile – energy prices and tax regimes. Hence, it is important to clarify that Principle 8 only applies to cases where the costs of GHG emission reduction measures will be offset financially beyond reasonable doubt.

There may, however, be scenarios where our approach is less self-explanatory. By way of example: an enterprise in a least developed country (or, as the case may be, a developing country) has a choice between borrowing money to increase the very low wages that barely allow the family of its employees to live a more or less decent life,³⁷⁸ or to reduce its GHG emissions. It cannot do both at the same time. In this and similar scenarios the enterprise may opt for increasing the wages if that would be a sound/reasonable decision.

More generally: enterprises will often have a choice – and flexibility – to decide how to spend their funds.³⁷⁹ For instance, an enterprise in a developed country may have the choice between the acquisition of another enterprise and investing towards carbon neutrality; without the acquisition, the costs associated with investing towards carbon neutrality would easily be offset. Acquisition will often imply that the enterprise will have to pay higher interest rates for additional borrowing. Hence, it will have an impact on the possibility to borrow money at a rate that makes it attractive to switch to renewable energy. Generally, the prioritisation between the acquisition and investing towards carbon neutrality should be left to the enterprise.

PRINCIPLE 9

This principle is borrowed from OP 8.³⁸⁰ Hence, we refer to the commentary on OP 8. The second sentence of OP 8 reappears in Principle 11 in a slightly different format and will be discussed in the commentary to that principle.

situations where the electricity they consume is generated in a very unsustainable way, such as through coal-fired power plants, even if those measures would reduce the emissions of the electricity supplier and not of the enterprise itself. We believe this stance is justifiable, even if it diverges slightly from a strict reading of the principle and our explanation of the attribution of GHG emissions, because only measures that are offset financially within a reasonable time period are required under this principle.

378 We are keen to avoid answering the question what that exactly means. So much is clear: a living standard just above the poverty line is not “decent” in the sense mentioned in the text.

379 See in more detail Liberty International Underwriters, *Climate Change: Emerging Liability Risks*, o.c. p. 11 and 12.

380 See for a similar approach Ruggie, *The Ruggie Principles*, o.c. commentary on Principle II.17; OECD, *Guidelines for Multinational Enterprises*, o.c. under VI.6 and Ceres, *Letter to US and Global Leaders*, 2015,

“Excessive” is unavoidably vague. It provides flexibility that would allow all relevant circumstances to be taken into account. An example of a relevant circumstance would be whether an enterprise operates in an APQ or a BPQ country. The definition of excessive must be flexible because what is legally defined as excessive diverges in different cases; the noise from an airport becomes excessive at a different point than that from music played in a residential area at night. In addition, the definition of excessive will change over time, as innovation drives the possibilities for efficiency and a transition towards renewable energy.

The text mentions operating coal-fired power plants as an example; other examples are tar sand oils and shale gas. The carbon footprint of these fossil fuel sources is considerably worse compared to oil and gas.³⁸¹ Hence, investing in new coal power plants would be an especially ill-considered business decision, bearing in mind that only 20% of current total fossil fuel reserves can be combusted; it follows that building new fossil fuel combustion capacity, especially geared towards the most carbon-intensive fossil fuel types, would be incompatible with limiting global warming to 2°C and thus highly undesirable.³⁸² This principle is however not limited to the exploitation of coal-fired power plants and encompasses other excessively emitting activities, such as the ‘production’ of lamb meat.³⁸³

http://tools.ceres.org/files/global-food-and-beverage-leadership-statement-on-climate-change/at_download/file (Ceres is a major NGO working in the field of sustainable investment). Also see Jesse and Koppe, *Business Enterprises and the Environment*, o.c. p. 184.

381 Ecofys calculated the well-to-wheel emissions from unconventional oil (which includes oil from tar sands) to be 140g CO₂e per Mega Joule of fuel produced. In comparison, that of conventional oil (Middle East crude) is 90g CO₂e per Mega Joule of fuel produced. Where alternatives to the use of crude oil (whether conventional or unconventional) exist, even the use of the most GHG efficient sources of oil is, or will in the near future be, excessive. For more detail, see Arno van den Bos and Carlo Hamelinck, *Greenhouse gas impact of marginal fossil fuel use*, Ecofys, November 2014, www.ecofys.com/files/files/ecofys-2014-ghg-impact-of-marginal-fossil-fuels.pdf. For electricity production, the picture becomes even starker. Lignite coal emits up to 1400 tonnes of CO₂e (tCO₂e) per Gigawatt Hour (GWH) of electricity produced. For conventional coal, that is 800-1000 tCO₂e GWH⁻¹. Coal with Carbon Capture and Storage (CCS) still emits 200 tCO₂e GWH⁻¹. In comparison, natural gas emits 400-500 tCO₂e GWH⁻¹. For renewables, such as wind and solar, the values lie below 100 tCO₂e GWH⁻¹ (solar) and close-to-zero (wind). These figures are based on life-cycle analyses and thus include emissions from the production of, for example, windmills; that is why a relatively small amount of GHGs is still emitted by these technologies. For much more detail, see IPCC, *Energy Supply*, in IPCC, *Climate Change 2007: Mitigation of Climate Change*, www.ipcc.ch/pdf/assessment-report/ar4/wg3/ar4-wg3-chapter4.pdf, in particular p. 283. We do not express a view on whether specific technologies should be used in specific circumstances, such as CCS in developing countries or wind over solar, based on these numbers. What is clear is that the most GHG efficient and safe technologies are strongly preferable over less efficient ones.

382 See James Leaton et al., *Unburnable Carbon 2013: Wasted capital and stranded assets*, Carbon Tracker and Grantham Research Institute on Climate Change and the Environment at London School of Economics & Political Science, <http://carbontracker.live.kiln.digital/Unburnable-Carbon-2-Web-Version.pdf>, p. 4.

383 The Environmental Working Group (EWG) conducted a life-cycle analysis of, *inter alia*, the carbon footprint of different animal- and vegetable-based protein sources. This analysis concluded that the carbon footprint of lamb is 39.2 kilograms CO₂e per kilogram of lamb meat ‘produced’, in comparison to 27kg CO₂e for

As a rule of thumb, the GHG emissions of activities, products or services will be excessive if they are higher than those of competitors,³⁸⁴ or could have been made lower at an affordable cost, e.g. if the enterprise opts for inefficient equipment or buildings where more efficient choices could have been made at affordable cost. 'Affordable cost' leaves enough room to cope with the diverging interests of APQ and BPQ countries. This is not to say that every single feature must be efficient. Luxury reception areas, boardrooms and the like may be acceptable, even without countervailing measures. Immaterial emissions will not carry much weight.³⁸⁵ The emissions caused by fracking or oil from tar sands will be excessive compared to the exploration of conventional oil and gas.³⁸⁶

There can be little doubt that the open formula of tort law, discussed in the introductory chapter under §20.3 serves as a sound underpinning of this principle. It is common ground in many countries that for instance excessive noise amounts to a tort.³⁸⁷ The same goes for the European Convention on Human Rights.³⁸⁸ It is a small step to extrapolate this concept

beef, 6.9kg CO₂e for chicken and 0.9kg CO₂e for lentils: Kari Hamerschlag, *Meat Eater's Guide to Climate Change + Health*, EWG, July 2011, http://static.ewg.org/reports/2011/meateaters/pdf/report_ewg_meat_eaters_guide_to_health_and_climate_2011.pdf?_ga=2.174885099.892522176.1501079729-1330266108.1501079729, p. 6. Of course, the carbon footprint per kilogram of meat does not provide a full picture; it also depends on the GHG emissions per gram of protein and other nutrients produced. For example, lamb meat contains around 25g of protein per 100g of meat; chicken breast around 31g and chicken drumsticks around 15g. These differences are not so substantial to compensate for the almost six-fold difference in GHG emissions per kilogram of meat. Aside from the emissions per kilogram of meat or gram of protein, one should consider whether there are viable alternatives to an activity, product or service, especially in light of how vital the activity, product or service is as a livelihood or for consumers. In this example, a consideration could be that lamb production is possible on farmland that suffers from drought, where other farming activities have become impossible. A final nuance is that the numbers provided by the EWG depend on specific on-farm management practices that differ globally. These factors must be taken into account when determining whether an activity, product or service is excessive or not.

384 It is close to impossible to be more precise about the meaning of competitor. In many instances, competition law may serve as a source of inspiration. Enterprises in BPQ countries will have to be compared with other enterprises in BPQ countries, but exceptions may apply in relation to global enterprises.

385 Also see Jesse, *Responsibility of Business Enterprises to Respect the Environment*, o.c. p. 52 and 58 ff.

386 In addition, and importantly, fracking gives rise to CH₄ emissions. Oil from tar sands has many adverse consequences for the environment as well as higher carbon intensity; and in addition often jeopardises indigenous rights.

387 See Cees van Dam, *European Tort Law*, Oxford University Press, 2006, under nr. 1413, Johann Neethling, Johan M. Potgieter and P. J. Visser, *Law of Delict* (7th edition), LexisNexis, 2015, p. 127 ff about South African law and Dan B. Dobbs, Paul T. Hayden and Ellen M. Bublick, *The Law of Torts* (2nd edition), West, August 2011, p. 1325 ff.

388 See, also about related issues, ECHR in *Lopez Ostra v. Spain*, Series A No 303-C (1994); *Taskin and others v. Turkey* (2004); *Giacomelli v. Italy* (2005); *Powell and Reynier v. United Kingdom*, Series A No 172 (1990) and *Hatton and others v. United Kingdom* (2003) 37 EHRR 611 and Jane Wright, *Tort Law and Human Rights*, Hart Publishing, 2001, p. 126 ff.

to the much more important issue of climate change. A circular issued by the Securities and Exchange Board of India (SEBI)³⁸⁹ is more courageous.³⁹⁰ It reads:

“Principle 2: Businesses should provide goods and services that are safe and contribute to sustainability throughout their life cycle

1. Businesses should assure safety and optimal resource use over the life-cycle of the product – from design to disposal – and ensure that everyone connected with it – designers, producers, value chain members, customers and recyclers are aware of their responsibilities.

2. Businesses should raise the consumer's awareness of their rights through education, product labelling, appropriate and helpful marketing communication, full details of contents and composition and promotion of safe usage and disposal of their products and services.

3. In designing the product, businesses should ensure that the manufacturing processes and technologies required to produce it are resource efficient and sustainable.

4. Businesses should regularly review and improve upon the process of new technology development, deployment and commercialization, incorporating social, ethical, and environmental considerations.”

Best practice

We have added a new sentence about best practice, although we realise that this requirement is slightly undetermined; naturally, its meaning evolves. The best practice requirement is in line with the Outcome Document of Rio+20, the Future We Want:

“47. We encourage industry, interested governments and relevant stakeholders with the support of the United Nations system, as appropriate, to develop models for best practice and facilitate action for the integration of sustainability reporting, taking into account experiences from already existing frameworks and paying particular attention to the needs of developing countries, including for capacity-building.”³⁹¹

389 SEBI, Format for Business Responsibility Report, o.c. Annexure II p. 10.

390 We endorse this circular but wonder whether there already is a sufficiently sound legal basis for extending such an obligation to enterprises that do not fall under the SEBI. See also Principle 8 para 1 of the circular (“Businesses should understand their impact on social and economic development, and respond through appropriate action to minimise the negative impacts”).

391 For more detail and further references, SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 18.

It is open to debate whether courts will get to the heart of the matter if, for instance, conditions of permits about best practice are challenged before them.³⁹²

That said, it remains useful to emphasise the importance of best practice. Even if the meaning of best practice and how it should be applied to concrete cases is often not overly clear, there will be quite a few instances where it can and should make a difference. It is not, for example, best practice to continue using old-fashioned and energy consuming techniques if more efficient ones are readily available and not excessively expensive. Again, “excessively” is unavoidably vague. The additional cost of increasing energy efficiency will carry weight to determine whether costs are excessive. However, not only the cost of additional measures counts. Unnecessarily high GHG emissions come at a very high price for society at large. Economists may argue that such societal cost must be discounted to translate future losses into present cost-benefit analyses.³⁹³ Because climate change is not just an economic issue but foremost a very serious threat to the life and well-being of billions of people and the environment, we do not believe that discounting would be appropriate.³⁹⁴ Whether one decides to discount or not, the cost of excessive GHG emissions is substantial. Dan Esty, a distinguished expert in this field, links ignoring the social costs of fossil fuels to future liability.³⁹⁵ Once again, we do not express a view on compensation, but Esty’s view underscores the importance of taking best practice seriously.

392 See David Zaring, *Best Practices*, *New York University Law Review* 81, April 2006, www.nyulawreview.org/sites/default/files/pdf/1_1.pdf, in particular p. 307, 308, 310, 318-320 and 324, about the vagueness and assessments by courts, particularly in a US context but with comparative notes. His conclusion is rather pessimistic: “However, they [best practices] are unlikely to be successful at forcing technology to adapt to new problems – best practices do not force anything” (p. 345 and 346) and “[a]lthough “bestness” is by no means always realized by best practices, the ideals of experimentation, evaluation, and persuasion are rooted in a worldview of administrative law that suggests that there are right answers out there, and that harmonization techniques can reach them” (p. 348). The report issued by Department for Business Innovation and Skills, Government of the UK, *Corporate Responsibility*, o.c. also points to the desirability of further elaboration (p. 9). Our Australian member disagrees with Zaring as to Australian courts.

393 See Environmental Protection Agency (EPA), *Social Cost of Carbon: EPA Fact Sheet*, December 2016, www.epa.gov/sites/production/files/2016-12/documents/social_cost_of_carbon_fact_sheet.pdf; see in more detail Union of Concerned Scientists (UCS), *The Hidden Costs of Fossil Fuels: The costs of coal, natural gas, and other fossil fuels aren’t always obvious—but their impacts can be disastrous*, 30 August 2016, www.ucsusa.org/clean-energy/our-energy-choices/coal-and-other-fossil-fuels/hidden-cost-of-fossils#.V-eHk_CLRaQ. See about this issue also *Zero Zone, Inc. et al. v. United States Department of Energy et al.*, US Court of Appeals (7d Cir. 2016), <http://media.ca7.uscourts.gov/cgi-bin/rssExec.pl?Submit=Display&Path=Y2016/D08-08/C:14-2159-J:Ripple:aut:T:fnOp:N:1807496:S:0>.

394 See for a similar view, with further elaboration, Cass R. Sunstein, *Worst-case Scenarios*, Harvard University Press, 2009, p. 10-12.

395 Quoted by Jay Michaelson, *The ‘Social Cost of Carbon’ Is The Most Historic Climate Change Decision Yet*, *The Daily Beast*, 30 August 2016, www.thedailybeast.com/the-social-cost-of-carbon-is-the-most-historic-climate-change-decision-yet, p. 4.

Timeframe

We realise that it would not be justified to expect the immediate cessation of existing excessively emitting activities or demanding the implementation of sufficient countervailing measures effective immediately in all cases.³⁹⁶ Enterprises must take all reasonable steps to reduce the emissions of their activities to the point where they are no longer excessive in the shortest time reasonably feasible. That is, admittedly, a somewhat vague statement. What ‘all reasonable steps’ and ‘in the shortest time reasonably feasible’ means in specific cases however depends on the circumstances; it is therefore not possible to come up with a more specified formula. In some cases, such as coal-fired power plants in countries other than least developed ones, where it is simply impossible to reduce the emissions from their activities so that they are no longer excessive, the conclusion may be that an enterprise must cease the activity. It does not have to do so effective immediately if the activity is vital and in the short term irreplaceable to the country; see Principle 3.1 under (f).

PRINCIPLE 10

This principle is probably the most innovative one. It is, in a sense, far-reaching. It is also again slightly ambiguous because of the word “excessive”. “Excessive” leaves room for flexibility; it may, and often will, be interpreted differently for APQ and BPQ countries. In the abstract, it is impossible to be more concrete without running the risk of being either too or insufficiently lenient; also see the commentary on Principle 9.

The mere fact that emissions of a product or service are very high does not necessarily mean that they are ‘excessive’ for the purpose of this principle. If products or services are deemed to be necessary or even unavoidable to save lives or for vital services or activities, such as Roentgen or MRI-scanners, or defibrillators; they will usually not be excessive.³⁹⁷

This principle targets all products or services put on the market – either as consumer goods, semi-finished products, or services – irrespective of whether they are similar to or the same as those sold in the past, completely redesigned or new. Thus, enterprises will

396 For a more pronounced view, see Sara L. Seck, who writes that “[i]t may be that the answer to certainty from the perspective of the climate vulnerable would be that irrespective of state law, business responsibilities for human rights affected by climate change require all businesses to seek to become carbon neutral, and in the interim to both reduce and offset emissions while taking into account the need to provide remedy for climate harms, consistent with the polluter pays principle”: *Business Responsibilities for Human Rights and Climate Change: A Contribution to the work of the Study Group on Business and Human Rights of the International Law Association*, draft 3, May 2017, <http://dx.doi.org/10.2139/ssrn.2974768>, p. 15-16.

397 The same would be true for the emissions of quite some military equipment. However, they are not covered by these principles but by the OP.

either have to redesign and redevelop products or services that cause excessive GHG emissions to become more GHG efficient or take countervailing measures to offset the excessive GHG emissions brought about by the continued sale of these products and services.

It is important to note that this principle does not (necessarily) mean the end of excessively emitting products or services, such as some (old-fashioned) four wheel-drive cars, energy inefficient technical equipment such as washing machines and refrigerators, air-conditioners, luxury resorts and the like.³⁹⁸ The second part of the principle emphasises that even excessively emitting products and services are still acceptable when countervailing measures to offset the excessive GHG emissions are taken. By way of example: luxury hotels that cause excessive emissions do not have to close their doors if they provide sufficient financial or technological means to offset such excessive emissions through *further* emission reductions achieved by third parties. That may increase the price of such hotels, but that is only fair. Seeing that further emission reductions or countervailing measures are, for now, not too costly, the impact will probably be very limited in at least the short term.

Without countervailing measures, excessively emitting products and services should be phased out as soon as reasonably possible. It will be impossible to redesign some products or services that emit excessive amounts of GHGs. The ultimate consequence of our position is that they will only be allowed to remain on the market if countervailing measures to offset their excessive emissions are taken. Examples are conceivable where this requirement would render a product or service uncompetitive. That may seem harsh. Past examples, such as the asbestos industry and cluster bomb manufacturers have shown that this ultimate conclusion is however both necessary and justifiable. In our view, climate change poses a greater threat to humanity and the earth than just-mentioned examples.

Even if this measure would not render some products or services uncompetitive, it will increase the price of these products or services, thus transferring the cost to the users of these products or services. That is fully justified. According to an old saying that stems from the early days of motoring, “motoring should pay its way.”³⁹⁹ That principle is currently known as the polluter pays principle. We now live in a different era. The amounts at stake are higher than ever and particularly much higher than those of victims of car accidents: a bright and prosperous future of humankind and the environment is at risk. Time for leniency has elapsed. This is partly due to the lack of foresight and very passive stance of

398 Many luxury hotels increasingly care for their carbon footprint and reduce their GHG emissions. In many of those instances, their emissions will not be excessive.

399 This saying points to the idea that the costs incurred by the use of cars, such as harm suffered by victims of car accidents, should be born by the users of cars.

industry itself. That said, a certain transition period may be unavoidable to enable manufacturers and service providers to adapt by making their products and services less GHG-intensive. But such a transition period must be as short as reasonably possible without running the risk that vital products and services become unavailable. Thus, the interests of investors, employees and creditors are also taken into account.

It is not beyond all reasonable doubt that a sound basis for this principle exists in the law as it currently stands, either international or domestic, in particular in relation to products or services that were already on the market. However, we have little doubt that the law will develop in this direction.⁴⁰⁰ We believe that it accords with the hard core of tort law and quite possibly also human rights law, as explained in the commentary to Principle 9. After all, this principle is about *excessive* emissions and not about emissions in general.

Even if for now our interpretation of the law would be quite imaginative, we expect that the law will develop in this direction. If the latter happens, the law as interpreted at the time of judgment will probably be applied to the past without much ado. Society is unlikely to curb its GHG emissions to the extent needed. It follows that ever higher reductions will be required in the foreseeable future. It will not take long before truly unorthodox and painful measures will become unavoidable. The measures required by this principle will often come at a price for many people – predominantly for people in developed countries – but they will not adversely affect their lives or well-being to a significant extent. Many of the steps required by this principle will only come at the expense of unsustainable luxury.

One may wonder why this principle speaks of countervailing measures, whereas Principle 12 offers the alternative of providing financial or technical means to others. Countervailing measures need to be taken by an enterprise itself, to offset the ‘excessive’ GHG emissions from its activities, products or services.⁴⁰¹ If that would be unduly burdensome (for whatever sound reason)⁴⁰² the enterprise may provide financial or technical means to a country or another enterprise that are employed to achieve the reductions the enterprise had to achieve under Principle 12. In the most extreme cases where an enterprise is also unable to meet that obligation, it may fall back on a period of grace in accordance with Principle 13.

400 Without obligations for enterprises to quickly redevelop and redesign existing products and services that emit excessive amounts of GHGs, it will prove impossible to limit global warming to 2C, if still possible at all. In so far as the international community is serious about limiting global warming to the even more ambitious target of 1.5C, it is clear that such measures as provided for in this principle are indispensable.

401 For further elaboration on the meaning of ‘excessive’ and the specificities of the obligation to take countervailing measures, see the commentary to Principle 9.

402 One could imagine, for example, that requiring the enterprise to take countervailing measures by itself could be a much less efficient allocation of resources than outsourcing that activity to a county or other enterprise.

This principle comes close to Principle 13 of the Ruggie Principles, which requires that enterprises “[s]eek to prevent or mitigate adverse human rights impacts that are directly linked to (...) their products and services”. It is clear that the impact of excessively emitting products or services is often unnecessary seeing that other more or less similar, but much more GHG-efficient, products and services are available.⁴⁰³ Excessively emitting products or services can be equated to unsafe or unduly unhealthy products or services. It is generally not allowed to put such products or services on the market. There is little reason why this should be any different for the kind of products or services mentioned in this principle, at least in developed countries.

Many products and services offered in developed countries are already much more environmentally friendly than they were in the recent past, exactly because manufacturers and governments have come to understand that sustainability issues cannot be ignored any longer. Some relatively straightforward steps can be taken to reduce emissions. An example would be banning unnecessary layovers in air travel, which allows companies to offer trips at a lower price than direct flights. Another one would be adapting the perverse system of frequent flyer miles whereby people book unnecessary flights to maintain their benefits. Hence, *even if* this principle would be largely aspirational in light of the present state of the law, there is a fair chance that it will mirror the law in the near future.

This principle does not mean that the GHG emissions brought about by products and services will always be attributed to the manufacturer or service provider. That will only be so in a minority of cases, such as luxury resorts. In that case the provision and use of the service take place simultaneously. In most instances, the emissions caused by the products and services will be attributed to the final user whose use of the product or service actually causes emissions.⁴⁰⁴

PRINCIPLE 11

As already observed in the commentary to Principle 9, the essence of this principle is borrowed from OP 8. It has been extended to apply to the scenarios mentioned in Principle 10. There is a slight difference between this principle and OP 8. The second sentence of OP 8 contains a provision for indispensable new activities; in those cases, least developed countries are “obligated to opt for less GHG emitting new activities only if and to the extent that developed countries or other entities provide the relevant least developed country with the additional means to meet this obligation.” The text of Principle 11, on the other

403 About the minimal causation issue, see Principle 14.

404 An exception, of course, is electricity: see §10.4.

hand, only mentions that an activity, product or service *may be* indispensable in particular in least developed countries. One of the reasons for this change is the introduction of a new obligation in Principle 10. It is open to debate whether there is a sufficiently sound legal basis for such a general rule without exception as provided by Principle 10; it follows from Principle 11 that exceptions are only allowed in case of indispensability.

Of course, whether an enterprise may be relieved from its obligations under Principles 9 or 10 does not only depend on indispensability. It also depends on whether the enterprise would be unduly affected by reducing the excessive GHG emissions of its activities, products or services. Take a subsidiary S of a large and profitable enterprise D that manufactures clean, potable water for the Bangladeshi market. This water is indispensable for the local population. However, D has more than enough funds to subsidise investments by S to mitigate the excessive part of its GHG emissions – without S having to raise the prices for its product. In this case, it would be against the text and spirit of our principles to relieve S of its obligations under Principles 9 and 10.

PRINCIPLE 12

This principle is, by and large, borrowed from OP 18. We have arrived at the conclusion that there is insufficient reason to require that technical or financial means should only be provided to BPQ countries or enterprises in BPQ countries, partly because of criticism expressed at several presentations of the OP. The important point is that emissions are to be reduced globally. If that is most efficiently achieved by giving technical or financial means to APQ countries or enterprises in APQ countries, that should not be a problem.

Joint responsibility, which emanates from the third sentence of OP 18, will often create serious practical difficulties for the providing enterprise. The providing enterprise will rarely have the practical means to enforce the obligation of the receiving enterprise. Hence, we have not included joint responsibility in these principles. On the request of the enterprise that has provided the financial or technical means, the receiving entity should prove that the means were used to achieve the intended purpose.⁴⁰⁵

405 The wording of Principle 12 is slightly different from OP 18, but we mean exactly the same (OP 18 speaks of “determine whether the support was used”). We have converted “whether” into “that”. It would be useless to require the receiving entity to prove whether it did or *did not* comply with its obligation; it is required to prove *that it has* complied with its obligation.

The non-complying or not fully complying enterprise has to provide financial or technical means that suffice to achieve reductions of GHG emissions elsewhere to the extent not achieved by the providing enterprise.

An example where Principle 12 would take effect – notwithstanding some exceptions, see the next paragraph – is when an enterprise has taken all available efficiency measures and cannot switch to renewable energy, for example because of limited availability. Another example would be when an enterprise enters a transition towards GHG neutrality, but at the start of that period does not yet reach its reduction obligations, for example because of a time lag between investment in measures and resulting emission reductions. In such a case, the enterprise would have to prove that its transition pathway is serious and guarantee it will complete it fully within a reasonable timescale.

Whether an enterprise may fall back on this Principle depends on whether it “has taken all steps reasonably available”. That phrase must be interpreted in a tight manner. First of all, as explained in the commentary to OP 18, a lack of financial means is in general not an excuse not to fulfil emission reduction obligations. Hence, in those cases, enterprises may not fall back on this Principle.

PRINCIPLE 13

Quite a few enterprises will be obliged to effectuate significant reductions within a year. That may prove impossible without shutting down (part of) their activities. (Refer to the commentary to Principle 2 *supra* ‘Mergers, acquisitions, disposals, expansions or down-scaling of activities’ for further commentary.)

This principle leaves room for some flexibility to achieve equitable results in concrete cases. In particular, “unreasonably burdensome” leaves room for leniency if the strict application of Principle 2, adjusted as the case may be according to Principle 3 or 4, would have far-reaching implications for a significant number of employees or if the enterprise in point manufactures vital and not easily replaceable products or services. That said, it is first and foremost up to the relevant country to apply Principle 3.1 or 4.1. As a rule of thumb, Principle 13 should not come into play easily once the flexibility mechanisms in Principle 3.1 or 4.1 have been applied.

Minor cases of non-compliance can be tolerated if they:

- a) are not of a structural character;
- b) do not last longer than, say, a few months and

- c) the reductions not achieved will be achieved in the subsequent year next to the reduction obligations of the preceding year.

If the shortcoming lasts more than a few months, the non-compliance is no longer immaterial and this principle comes into play. In such a scenario, the relevant enterprise has to comply with the obligations enumerated under a-d to benefit from the period of grace.

“In the short term”, mentioned in the first paragraph of the principle, should generally not be interpreted to exceed a period of a few years.

Para (a) and (c) speak for themselves. The question whether an enterprise has “expeditiously” complied with Principle 2, adjusted in accordance with Principle 3 or 4 as the case may be, has to be answered in light of the given circumstances.

The percentage mentioned under (d) is a ballpark figure. It is borrowed from an EU Effort Sharing Decision.⁴⁰⁶ It is meant as an incentive for the enterprise to achieve the required emission reductions; it is not meant as a punishment.⁴⁰⁷ According to leading climate change scientists, the longer we delay reducing our GHG emissions to a sufficient extent, the higher the required reductions will become. This increase follows an arithmetical progression curve.⁴⁰⁸ Seeing that this progression is caused by non-compliers, placing additional reduction obligations on those non-compliers to compensate for the adverse effect of their non-compliance is justified.

This principle aims at offering some flexibility to enterprises *willing* to meet their obligations. The obligations mentioned under (b)-(d) equally apply to enterprises *unwilling* to do so. The percentage mentioned under (d) may be too low if an enterprise structurally ignores its reduction obligations. In such a scenario, the percentage equalling the additional reductions that have to be made because of delayed compliance could be used instead.

406 European Parliament and Council, Decision No 406/2009/EC of 23 April 2009, on the effort of Member States to reduce their greenhouse gas emissions to meet the Community’s greenhouse gas emission reduction commitments up to 2020, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0136:0148:EN:PDF>, borrowed from Kaley Hart et al., Research for Agri-Committee – The Consequences of Climate Change for EU Agriculture. Follow-up to the COP21 – UN Paris Climate Conference, European Parliament, Directorate-General for Internal Policies, February 2017, [www.europarl.europa.eu/Reg-Data/etudes/STUD/2017/585914/IPOL_STU\(2017\)585914_EN.pdf](http://www.europarl.europa.eu/Reg-Data/etudes/STUD/2017/585914/IPOL_STU(2017)585914_EN.pdf), p. 33 and 34.

407 There would probably be insufficient legal basis for such a penalty.

408 See Hansen et al., *Dangerous Climate Change*, o.c.

PRINCIPLE 14

This principle is borrowed from OP 11. For the legal basis, we refer to the commentary to OP 11 and this commentary under §20.4.⁴⁰⁹

We realise that most enterprises make an even smaller contribution to global GHG emissions than most States do, although exceptions apply.⁴¹⁰

Minimal contribution may constitute a convenient excuse for courts to refuse granting injunctive or declaratory relief. It can, and no doubt will, serve as a legal basis to dismiss claims.⁴¹¹ It does not belabour the obvious that truly small contributions suffice to create legal obligations. This is largely a matter of judicial policy. It would be disappointing, not least for policy reasons, if the legal subtleties of causation would make climate change a lawless realm. This view is in line with the reasoning of the majority of the United States

409 See about this topic Jaap Spier, *Injunctive Relief*, o.c. p. 22 ff; Helmut Koziol, *Österreichisches Haftpflichtrecht (Austrian Tort Law)*, Band I, Allgemeiner Teil (3rd edition) Manz, 1997, p. 134 and 135. He refers to strikes; courts accept joint and several liability, but that view is challenged in doctrine. Koziol puts forth the question whether the same should go if the tortfeasors do not act together ('gemeinschaftlich') but act independently from each other. In his view, each tortfeasor should be liable to the extent he could have contributed to the damage ('er möglicherweise den Schaden herbeigeführt hat'); see also Helmut Koziol, *Schaden, Verursachung und Verschulden im Entwurf eines neuen Österreichischen Schadenersatzrechts (Losses, Causation and Fault in the Design of a New Austrian Liability Law)*, JBL, 2006, p. 774. Under US law, the Iowa Court groups "defendants or their conduct together into a set of relevant conduct"; see in more detail Dobbs, Hayden and Bublick, *The Law of Torts*, o.c. p. 417; they label their stance a "policy decision, or merely an intuitive selection." However, it is unclear whether this concept could also be applied in case of minimal causation. Also see Divest McGill, *Carbon at All Costs: The Fossil Fuel Industry and the Case for Divestment*, 2 February 2015, http://divestmcgill.com/wp-content/uploads/2015/02/Feb2015_CAMSR_Submission_Brief.pdf, p. 72, although not explicitly framed as a minimal causation issue; Miriam Haritz, *An Inconvenient Deliberation: The Precautionary Principle's Contribution to the Uncertainties Surrounding Climate Change Liability*, Kluwer Law International, 2011, p. 202 ff; Monika Hinteregger, *Civil Liability and the Challenge of Climate Change: A Functional Analysis*, JETL 2017 (forthcoming), under Causation and Burger and Gundlach, *Status of Climate Change Litigation*, o.c.

410 Small States, such as the Vatican, Monaco, Liechtenstein, emit less GHGs than many multinational enterprises.

411 See for instance Landgericht Essen, *Lliuya v. RWE AG* (2016) (in German). According to the press release dated 15 December 2016, "es gebe zahllose Emittenten die Treibgase freisetzen. Wenn diese Gase in einem komplexen Naturprozess eine Klimaänderung hervorriefen, lasse sich keine lineare Verursachungskette zwischen der Quelle der Treibgasgabe und dem Schaden ausmachen." ("There are many parties that emit greenhouse gases. When such gases cause climate change through a complex natural process, it is impossible to determine a linear causal connection between the cause of such emissions and damage"); Barker, *Directors' Duties*, o.c. p. 11 and 12; William Stewart and Danielle Willard, *Kivalina v. ExxonMobil Dismissed by Federal Trial Court*, in Munich Re, *Liability for Climate Change? Experts' views on a potential emerging risk*, 2010, www.munichre.com/site/touch-publications/get/documents_E753942211/mr/assetpool.shared/Documents/5_Touch_Publications/302-05493_en.pdf, p. 12 and 13; Fajardo, *Climate-Change Litigation*, o.c. p. 20.

Supreme Court in *Massachusetts v. EPA*⁴¹² regarding its decision not to regulate GHG emissions of new motor vehicles. The Environmental Protection Agency (EPA) had observed that any marginal domestic decrease would likely be offset by an increase of GHG emissions from “developing nations, particularly China and India”. This view is rejected, as follows from the quotation further down.

In addition to the argument above, which is based on legal policy, case law provides an underpinning of our view: a) the asbestos cases; b) the *Urgenda* judgment issued by the court of first instance in the Hague and c) a judgment of the Austrian Federal Administrative Court about a planned third runway for Vienna International Airport.⁴¹³

In the US Supreme Court judgment in *Massachusetts v. EPA*, Justice Stevens, joined by Justices Kennedy, Souter, Ginsburg and Breyer held:

“EPA does not dispute the existence of a causal connection between man-made greenhouse gas emissions and global warming. At a minimum, therefore, EPA’s refusal to regulate such emissions contributes to Massachusetts’ injuries. EPA nevertheless maintains that its decision not to regulate greenhouse gas emissions from new motor vehicles contributes so insignificantly to petitioners’ injuries that the agency cannot be haled into federal court to answer for them. For the same reason, EPA does not believe that any realistic possibility exists that the relief petitioners seek would mitigate global climate change and remedy their injuries. That is especially so because predicted increases in greenhouse gas emissions from developing nations, particularly China and India, are likely to offset any marginal domestic decrease.

But EPA overstates its case. Its argument rests on the erroneous assumption that a small incremental step, because it is incremental, can never be attacked in a federal judicial forum. Yet accepting that premise would doom most challenges to regulatory action. Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop. See *Williamson v. Lee*

412 *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007). The argument was equally rejected in relation to the positive impact of a wind farm on GHG emissions: *Genesis Power Ltd v. Franklin District Council*, [2005] NZRMA 541, www.mfe.govt.nz/sites/default/files/energy/energy%20NPS/HearingProceedings/49-6-genesis-awhitu-decision-extract.pdf, at 587-588 (borrowed from a presentation by Brian Preston). Patton rightly argued that “the history of such [i.e. experiences in Hurricane Katrina or in Micronesia] mass torts and growing efforts to overcome these barriers by particular stakeholders suggest that the outcome of such cases is by no means certain”: *Insurers Should Focus on Climate Risk*, o.c. p. 7 and also on p. 9.

413 This judgment was reversed on June 29th, 2017, by the Austrian Constitutional Court (*Verfassungsgerichtshof*), in essence because it saw no legal basis for the judgment under appeal. The Court reversed the afore-mentioned judgment without going into the substance of the case. See Austrian Constitutional Court, *Schwechat Case*, o.c. See for more information about the case in first instance below in the text.

Optical of Okla., Inc., 348 U. S. 483, 489 (1955) [A] reform may take one step at a time, addressing itself to the phase of the problem which seems most acute to the legislative mind). They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more-nuanced understanding of how best to proceed. Cf. SEC v. Chenery Corp., 332 U. S. 194, 202 (1947) (Some principles must await their own development, while others must be adjusted to meet particular, unforeseeable situations). That a first step might be tentative does not by itself support the notion that federal courts lack jurisdiction to determine whether that step conforms to law. And reducing domestic automobile emissions is hardly a tentative step. Even leaving aside the other greenhouse gases, the United States transportation sector emits an enormous quantity of carbon dioxide into the atmosphere according to the MacCracken affidavit, more than 1.7 billion metric tons in 1999 alone. ... That accounts for more than 6% of worldwide carbon dioxide emissions. To put this in perspective: Considering just emissions from the transportation sector, which represent less than one-third of this country's total carbon dioxide emissions, the United States would still rank as the third-largest emitter of carbon dioxide in the world, outpaced only by the European Union and China. Judged by any standard, U. S. motor-vehicle emissions make a meaningful contribution to greenhouse gas concentrations and hence, according to petitioners, to global warming.”

The asbestos cases concerned the question whether a small (likelihood of) a causal link suffices. Courts around the globe have been creative to overcome legal challenges to issuing compensation awards. That is all the more important because in quite a few cases the plaintiff was unable to prove a *condicio sine qua non*-relation between between the alleged wrong and his damage.⁴¹⁴

In the case of the Urgenda judgment, it seems useful to emphasise that the meaning of judgments of courts of first instance should first not be overestimated in civil law jurisdictions. That said, the judgment and in particular the words “no matter how minor” in the quotation below, seem to suggest that minor contributions suffice as far as causation (the requirement of *condicio sine qua non*) is concerned:

414 See in more detail Oliphant and Steininger, Aggregation and Divisibility of Damage, o.c. in particular the country reports and the comparative analysis on the questions 19-22 and Spier (ed.), Unification of tort law: causation, o.c. the country reports and the comparative conclusions on the questions 17 and 21 of the questionnaire.

“4.79 ... It is an established fact that climate change is a global problem and therefore requires global accountability. It follows from the UNEP report that based on the reduction commitments made in Cancun, a gap between the desired CO₂ emissions (in order to reach the climate objective) and the actual emissions (14-17 Gt CO₂) will have arisen by 2030. This means that more reduction measures have to be taken on an international level. It compels all countries, including the Netherlands, to implement the reduction measures to the fullest extent as possible. The fact that the amount of the Dutch emissions is small compared to other countries does not affect the obligation to take precautionary measures in view of the State’s obligation to exercise care. After all, it has been established that any anthropogenic greenhouse gas emission, no matter how minor, contributes to an increase of CO₂ levels in the atmosphere and therefore to hazardous climate change. Emission reduction therefore concerns both a joint and individual responsibility of the signatories to the UN Climate Change Convention. In view of the fact that the Dutch emission reduction is determined by the State, it may not reject possible liability by stating that its contribution is minor, as also adjudicated *mutatis mutandis* in the Potash mines ruling of the Dutch Supreme Court (HR 23 September 1988, NJ 1989, 743). The rules given in that ruling also apply, by analogy, to the obligation to take precautionary measures in order to avert a danger which is also the subject of this case. Therefore, the court arrives at the opinion that the single circumstance that the Dutch emissions only constitute a minor contribution to global emissions does not alter the State’s obligation to exercise care towards third parties. Here too, the court takes into account that in view of a fair distribution the Netherlands, like the other Annex I countries, has taken the lead in taking mitigation measures and has therefore committed to a more than proportionate contribution to reduction. Moreover, it is beyond dispute that the Dutch per capita emissions are one of the highest in the world.

....

Causal link

4.90. From the above considerations, particularly in 4.79, it follows that a sufficient causal link can be assumed to exist between the Dutch greenhouse gas emissions, global climate change and the effects (now and in the future) on the Dutch living climate. The fact that the current Dutch greenhouse gas emissions are limited on a global scale does not alter the fact that these emission contribute to climate change. The court has taken into consideration in this respect as

well that the Dutch greenhouse emissions have contributed to climate change and by their nature will also continue to contribute to climate change.”⁴¹⁵

A final underpinning for our view is provided by the judgement of the Austrian Federal Administrative Court (Bundesverwaltungsgericht).⁴¹⁶ It concerned the question whether the construction of a third runway for the Viennese airport Schwechat was legally acceptable. In a very lengthy judgment, the court answered that question in the negative. Climate change was one of the decisive issues. Having observed that the “achievement of the two-degree goal would mean an increase of almost 4 ° C for Austria” it maps a series of adverse consequences.⁴¹⁷ The court concludes that:

“the public interest in the construction of the third runway is thus largely lacking. The application submitted by the parties concerned must therefore be dismissed in its entirety.”⁴¹⁸

We are mindful that the contributions of most enterprises to global climate change are considerably lower than those of the parties in these cases. The very least to say is that the cases illustrate courts do not shy away from exploring strategies and stretching well-established legal concepts to arrive at equitable results in concrete cases. Not all courts and judges may do so in the context of climate change; at least not in the short-term. But we strongly believe that most courts will understand that they cannot refrain from issuing bold and imaginative judgments if that would be the only practical way to avoid global catastrophes. That is what justice is about: *ars est ius aequi et boni* (the law is art of equity and goodness), as the Romans already knew.

415 District Court of The Hague, *Urgenda Foundation v. The Netherlands*, 24 June 2015, ECLI:NL:RBDHA:2015:7145. See for an English translation: <https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2015:7196&keyword=urgenda>.

416 *AFLG and others v. Federal State Government of Lower Austria*, 2 February 2017; see for the English translation (made by Pooja B. Chawda, a master student at Columbia University): <http://systemchange-not-climatechange.at/wp-content/uploads/2017/03/unofficial-translation.pdf>. For further elaboration, see the commentary to Principle 24. This judgment was reversed on June 29th, 2017; see footnote 413 for more details.

417 P. 122 and 123. This is explained by the fact that global warming is the *average* of different degrees of warming in different regions. In the case of Austria, warming is apparently expected to be more pronounced than on the global average level.

418 P. 127.

Although our reduction obligations are not based on clear-cut proportional responsibilities,⁴¹⁹ this legal phenomenon serves as an (additional) underpinning of this principle.⁴²⁰

PRINCIPLE 15

This principle is borrowed from OP 12. For elaboration, see the commentary to that principle.

The reduction obligations of enterprises in APQ countries are linked to the reduction obligations of the countries in which they operate. We have already briefly discussed the meaning of the Paris Agreement, focussing on the nature of voluntary pledges by either APQ or BPQ countries. With “voluntary”, we mean reduction obligations over and above the obligations emanating from the OP.

Voluntary obligations, as just mentioned, will almost certainly flow from the follow-up to the Paris Agreement. More likely than not, such agreements and pledges will be the result of painstaking international negotiations. Like all earlier international achievements in the arena of climate change, politicians will openly admit that more must be done – if not straightaway, then at least in the very near future. They have been doing so time and again over the past two decades. Hence, such agreements, often set insufficient *minimum* standards that only impose aggregate obligations on all countries together. However, it is commonly accepted that they do *not* suffice at this point. Clearly insufficient international instruments cannot serve as a justification to reduce GHG emissions to an insufficient extent and pass the 2°C threshold.

Whether or not individual and voluntary pledges are legally binding only matters if a country is unwilling to honour its pledges. We are inclined to believe that self-imposed obligations are binding. We realise, of course, that our position may make it unattractive for countries to make pledges that extend beyond their previously existing legal obligations. The flipside of the coin is that making pledges only to dress windows is detrimental to the

419 This follows, among other issues, from the distinction between enterprises in APQ and BPQ countries and additional obligations emanating from Principles 7-11.

420 There is, we think, an emerging trend to apply proportional “liability” if justice so requires. See, also for wealth of comparative sources, Israel Gilead, Michael D. Green and Bernhard A. Koch (eds.), *Proportional Liability: Analytical and Comparative Perspectives*, De Gruyter, 2013. Proportional “liability” is, for instance, accepted in France (“unofficially”), Italy, Poland, Spain and Switzerland and openly in Austria, England, the Netherlands, Israel and the US (p. 65). According to Koch, *Casual Uncertainty and Proportional Liability in Austria*, in Israel Gilead, Michael D. Green and Bernhard A. Koch (eds.), *Proportional Liability: Analytical and Comparative Perspectives*, De Gruyter, 2013, minimal causation is not problematic, albeit that courts treat it differently (p. 88).

world at large. It creates the false impression that a country is going to reduce its GHG emissions in accordance with its undertakings and makes it less imperative for other countries to offer reductions that extend beyond their legal obligations. From that angle, it makes sense to label voluntary pledges as binding. However, we also acknowledge that there are some aspects in the wording of the Paris Agreement which appear to indicate that commitments are not strictly binding: see the commentary on Principle 2 under “The Paris Agreement”. This matters because the reduction obligations of enterprises under Principle 2 are linked to those of the countries in which they operate.

As already mentioned above, countries are granted some flexibility to determine the reduction obligations of enterprises within their jurisdictions in accordance with Principle 3 or 4 as the case may be. Greater leniency is not allowed. That, we think, follows from the *international* standards discussed in the introductory chapter under international law and human rights. States are under an obligation to ensure that human rights are not violated in their jurisdiction. Furthermore, according to *The Corporate Responsibility to Respect Human Rights, An Interpretive Guide*, a report issued by the UNOHCHR, enterprises’ responsibility to respect human rights is not optional.⁴²¹ Their obligations are not confined to compliance with national law:

“it exists over and above legal compliance, constituting a global standard of expected conduct applicable to all businesses in all situations. It therefore also exists independently of an enterprise’s own commitment to human rights. It is reflected in soft law instruments” such as OECD Guidelines (...) where business poses a risk to human rights, it increasingly also poses a risk to its own long-term interests.”⁴²²

The same report observes that this responsibility applies in all contexts:

“(...) the responsibility to respect human rights extends beyond compliance with national laws and regulations protecting human rights and entails respect for all internationally recognized human rights. It therefore also applies where there are no national laws and regulations to protect human rights. For the same reason, where national laws and regulations offer a level of human rights protection that falls short of internationally recognized human rights standards, enterprises should operate to the higher standard.”⁴²³

421 O.c. p. 13.

422 P. 13 and 14.

423 P. 77.

Finally, the non-regression principle stipulates that norms which have already been adopted by states may not be revised if that would imply regressing on the standards of individual and collective right protection. It follows from this principle that countries are not allowed to reduce the protection that they give against climate change by being more lenient to all enterprises together, than they are at any point.

PRINCIPLE 16

This principle is largely borrowed from the second sentence of OP 23. We did not incorporate the first sentence of OP 23, nor the reference to excessive hardship mentioned in that Principle. Principle 13 already provides enough flexibility. Hence, we do not distance ourselves from OP 23.

The criterion contained in Principle 13 (“unreasonably burdensome”) is slightly more lenient compared to “excessive hardship” contained in OP 23. There is a difference in the permanence of the exemption. Under OP 23 a country’s reduction obligations would be suspended as long as “excessive hardship” lasts.⁴²⁴ Under Principle 13, the obligation is temporarily deferred, but has to be met at a later stage alongside the additional obligation under Principle 13(d). If strict application of Principle 2 or 5 would be unduly harsh, the relevant country can apply Principle 3.1 or 4.1 as the case may be. The country is in the best position to judge the peculiarities pertaining to specific enterprises. If it does not make use of the flexibility mentioned in Principle 3.1 or 4.1, there is little reason for greater leniency than Principles 13 and 16 already provide.

For the remainder Principle 16 is in line with OP 23. For elaboration, refer to the commentary to the latter principle.

PRINCIPLE 17

Principle 17 is inspired by a swiftly emerging view, as illustrated by Principle 3.2 of the Climate Principles. The total amount of GHGs that is emitted in producing or supplying products or services put on the market by enterprises is often significantly influenced by the GHG efficiency of their supply chain. Most products and services are the result of intricate and widely ranging supply chains, sometimes even of supply networks that stretch across the globe. Quite often, supply chains are predominantly located in developing

⁴²⁴ By this, we also mean that the country would not have to fulfil its obligations for the period of excessive hardship at a later stage.

countries, whether due to outsourcing or not, simply because products are produced more cheaply in those countries.⁴²⁵ Such supply policies may give rise to serious concerns about human rights violations of various kinds.⁴²⁶ It is in the best interest of enterprises to maintain the “integrity of a brand and ensur[e] business continuity”, which may be adversely affected if they do not take the practices of their suppliers into account.⁴²⁷ Hence, this is an important topic for both climate change and the enterprises whose supply chains do not emit significant quantities of GHGs.

This principle requires enterprises to both ascertain and take into account the GHG emissions of suppliers. The latter requirement (“take into account”) leaves room to tailor the obligation to the circumstances of a particular case. But the obligation is not met by merely paying lip-service to it. “Take into account” means that the results of the ascertaining process have to be given serious and genuine weight.⁴²⁸ If, for instance, the supplier’s GHG emissions related to the products or services bought by the enterprise are *significantly higher* than those of its competitors, the buying enterprise would have to extensively justify why those products or services are nevertheless bought from the supplier in point. The mere fact that they are cheaper than similar products or services should not serve as a justification for their purchase. The cheaper price may in whole or in part be a reflection of the fact that the supplier has not internalised the costs of mitigating or compensating for its excessive GHG emissions in its costs of production.

There is no one-size-fits-all solution. Some enterprises confine themselves to the labelling or simply retailing of goods manufactured by others, having outsourced the entire or major part of production. In contrast, there are enterprises that exclusively buy a wide range of components and then incorporate them into their own products. As a rule of thumb, enterprises that consider to outsource a major part of their production to others are under a stringent obligation to avoid that such outsourcing increases the GHG emissions con-

425 See also Cody Sisco et al., Supply Chains and the OECD Guidelines for Multinational Enterprises: BSR Discussion Paper on Responsible Supply Chain Management, OECD, 30 June 2010, www.oecd.org/corporate/mne/45534720.pdf, p. 4.

426 See, also for further references, Rühmkorf, Corporate Social Responsibility, Private Law and Global Supply Chains, o.c. p. 80 ff and Sisco et al., Supply Chains and the OECD Guidelines, o.c. p. 6 and 8.

427 UNGC and BSR, Supply Chain Sustainability: A Practical Guide for Continuous Improvement, 2010, www.bsr.org/reports/BSR_UNGC_SupplyChainReport.pdf, p. 7 and Sisco et al., Supply Chains and the OECD Guidelines, o.c. p. 8.

428 See for a similar approach Ruggie, The Ruggie Principles, o.c. under II.17 and II.19. These principles do not mean that the responsibility for huge GHG emissions by suppliers is shifted to buyers of their products and services; thus also OECD, Guidelines for Multinational Enterprises, o.c. under II.12 and the commentary under 43. We admit that our principle is still rather open; that is exactly the criticism on the instruments quoted in the text below legal basis by Sisco et al., Supply Chains and the OECD Guidelines, o.c. (see for instance p. 9, 11, 12, 14, 16 and 24).

tributed by the production and supply of a product or service and its constituent part in comparison to the counterfactual scenario in which they would not have outsourced (a part of) production.⁴²⁹ That also carries weight under Principle 3.1 (f) and 4.1. It equally does under Principle 17, independently from the former principles. The closer the links between supplier and enterprise are, the stronger the enterprise's obligation is under this Principle.⁴³⁰

The obligation emanating from this principle is not unqualified. Exceptions apply if compliance would not be 'reasonably and feasibly possible'. This is a kind of cost-benefit test. When enterprises have "large numbers of entities in their value chains, it may be unreasonably difficult to conduct due diligence to adverse human rights impacts across them all." In such scenarios a more general action ascertaining the GHG emissions of a specific sector may suffice.⁴³¹ A grocery shop is not under an obligation to ascertain the GHG emissions of the supplier of a scale or a truck for the shop. It would be overly demanding to burden small enterprises with difficult and often costly obligations in relation to for instance refrigerators, computers or desks that are bought to be used by the enterprise itself rather than for sale, or if the information is readily available at no or very little cost. "Materiality" also plays a role,⁴³² albeit that this concept is rather vague. It means that this principle has to be applied with common sense. There are many instances where it plays an important role.⁴³³

As already explained in §10 we believe that emissions have to be attributed to the enterprises that are directly responsible for them. Hence, those occurring at a later link in the chain cannot be attributed to an earlier link, be it manufacturer, seller, wholesaler or other intermediary. The emissions caused by cooking food in a restaurant⁴³⁴ are to be labelled as the emissions of the restaurant and not of the dining guests; the emissions caused by airplanes to the air carrier and not to the passengers.

429 Augenstein, Legal Framework on Human Rights and the Environment, o.c. points to research showing that "the vast majority of alleged corporate human rights and environmental abuses examined were contributed by subsidiaries or contractors" (p. 9).

430 In a similar sense, Sisco et al., Supply Chains and the OECD Guidelines, o.c. p. 16 and 17.

431 Borrowed from Ruggie, The Ruggie Principles, o.c. Commentary to Principle II.17. We endorse that view.

432 Sisco et al., Supply Chains and the OECD Guidelines, o.c. p. 15, 20 and 21.

433 One of the relevant factors is, of course, whether the enterprise has "visibility into their supply chain"; Sisco et al., Supply Chains and the OECD Guidelines, o.c. p. 12; they argue that many enterprises do not have such "visibility". That in itself, however, should not be decisive, we think. Enterprises should either have visibility toward their supply chains or be able to create it. Another difficulty may lie in the enterprise's bargaining position (p. 12 and 13) (they call it a "nascent concept"). Enterprises are increasingly willing to cope with this principle, as sustainability reports show. IKEA Group, Sustainability Report, o.c. and Siemens' website may serve as *partes pro toto*.

434 Except for cooking on electricity, in which case emissions would be attributed to the utility company. See §10.4 for more details.

As alluded to in §10.4, emissions from electricity are attributed to the producers of electricity, the utilities companies, as they are the direct source of those emissions. This means that large electricity consumers – such as insurers, investors, financiers, information technology enterprises and others that largely depend on heavy computer modelling and big data – have an especially stringent obligation to ascertain and take into account the emissions of electricity suppliers when selecting a supplier. If they would opt for a utility company that offers electricity at significantly higher emissions per unit than alternatives, that would require an extensive justification on the part of the enterprise.

Legal basis

As already mentioned, this principle fits into an emerging trend. Even if it would, for the time being, not extend beyond a soft law obligation, it seems quite likely that the law will swiftly develop in this direction. Enterprises would be well-advised to anticipate this scenario, if not for other reasons because “new” law is often declared to have been the law at the time of the breach, which, for practical purposes, means that it is applied retroactively.

A similar provision appears in the OECD Guidelines for Multinational Enterprises under VI, pointing to an obligation to:

“[c]ontinually seek to improve corporate environmental performance, at the level of the enterprise and, where appropriate, of its supply chain, by encouraging such activities as: a) adoption of technologies and operating procedures in all parts of the enterprise that reflect standards concerning environmental performance in the best performing part of the enterprise ...”

and under IV.3 emphasising that enterprises should:

“[s]eek ways to prevent or mitigate adverse human rights impacts that are directly linked to their business operations, products or services by a business relationship,⁴³⁵ even if they do not contribute to those impacts”.

The Ruggie Principles convey the same message under II.13:

435 According to the OECD this includes the supply chain; see Guidelines for Multinational Enterprises, o.c. p. 33.

“The responsibility to respect human rights requires that business enterprises:
(a) Avoid causing or contributing to adverse human rights impacts through their own activities, and address such impacts when they occur;
(b) Seek to prevent or mitigate adverse human rights impacts that are directly linked to their operations, products or services by their business relationships, even if they have not contributed to those impacts.”⁴³⁶

A similar provision appeared in the (not adopted) UN Norms on the Responsibility of Transnational Corporations with Regard to Human Rights:⁴³⁷

“15. ... Each transnational corporation or other business enterprise shall apply and incorporate these Norms in their contracts and other arrangements and dealings with contractors, subcontractors, suppliers ... in order to ensure respect for and implementation of the Norms.”⁴³⁸

The “promotion of social and environmental responsibility through the supply chain” is recognised as an “important cross-cutting” issue and part of the EC agenda.⁴³⁹ It is in line with EU directive 2014/95/EU, quoted in the commentary to Principle 18 below.⁴⁴⁰

UNGC labels “[r]especting principles in business operations and supply chains” a “baseline for corporate sustainability.”⁴⁴¹

436 Also see under 17 and 19. For much more detail, see De Schutter et al., *Human Rights Due Diligence*, o.c. p. 49 ff and Theuvs and van Huijstee, *Corporate Responsibility Instruments*, o.c. p. 7-9; SICL, *Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt*, o.c. p. 15 and 16 and Stefanie R. Roos, *Climate Change and Human Rights: What Follows for Corporate Human Rights Responsibility?* in Olivier C. Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (eds.), *Climate Change: International Law and Global Governance Volume I: Legal Responses and Global Responsibility*, Nomos, 2013, p. 318.

437 Refer to ‘Guidelines and Codes of Conduct’ above for a broader discussion on these Norms.

438 UN Sub-Commission, *Norms on Responsibilities of Transnational Corporations with Regard to Human Rights* o.c. Further down – under 21 – the Norms emphasise that they apply “regardless of the international or domestic nature of its activities”.

439 EC, Communication COM(2011) 681 final, o.c. p. 7.

440 European Parliament and Council, Directive 2014/95/EU of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2014:330:TOC>, see in particular under 3 and 8. For further elaboration, see EC, Communication from the Commission: Guidelines on non-financial reporting (Methodology for reporting non-financial information), 2017/C 215/01, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C:2017:215:FULL&from=EN>.

441 UNGC, *Guide to Corporate Sustainability*, o.c. p. 8; see also p. 21.

Other regulatory instruments, such as the Espoo Convention⁴⁴² and the EMAS regulation⁴⁴³ entail similar rules.⁴⁴⁴ The same goes for legislation in Italy, the United Kingdom of Great Britain and Northern-Ireland (UK), Romania, the Czech Republic⁴⁴⁵ and “numerous examples” in other countries.⁴⁴⁶ Large investors are increasingly demanding this kind of information.⁴⁴⁷ *Le Club des Juristes*, all distinguished French lawyers, such as senior members of the judiciary, label obligations in relation to supply chains as an aspiration;⁴⁴⁸ the same goes for Ceres, a major NGO in the realm of sustainable investment.⁴⁴⁹ GRI 102-10⁴⁵⁰ requires reporting about supply chains, but only regarding disclosure and changes in the chain. The need to provide such information seems to suggest that it is relevant information. If it is relevant to disclose, it is a little step to accept that the information should be used by enterprises when selecting suppliers.

Knowledge of bad practices and in particular human rights violations by suppliers may suffice to require active steps from the enterprise.⁴⁵¹

Further reaching obligations?

We have considered to include an additional obligation that enterprises must not only ‘ascertain’ and ‘take into account’ the GHG emissions of the suppliers of goods and services, but also the emissions of the products and services themselves. For instance, are buyers under an obligation to – at least – consider the emissions of hugely energy-consuming equipment? If so, what would such an obligation mean? Would they be obliged to buy considerably less energy consuming equipment if more energy efficient ones are available at a (slightly) higher price? We do not think that the law as it stands has already developed to the stage that these questions can be answered with any precision, but we would not be

442 United Nations Economic Commission for Europe, Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 1991.

443 EC, The European Eco-Management and Audit Scheme: Improving your environmental and business performance, European Communities, 2011.

444 For more detail, see Augenstein, Legal Framework on Human Rights and the Environment, o.c. p. 30 and 31 and Rühmkorf, Corporate Social Responsibility, Private Law and Global Supply Chains, o.c. p. 81 ff.

445 See Augenstein, Legal Framework on Human Rights and the Environment, o.c. p. 64.

446 De Schutter et al., Human Rights Due Diligence, o.c. p. 50 ff, albeit often in a very different context.

447 De Schutter et al., Human Rights Due Diligence, o.c. p. 43.

448 Hautereau-Boutonnet (ed.), *What law*, o.c. p. 27; see also their *Propositions pour un droit au secours de climat* (‘proposals for a law to the relief of the climate’), under the second bullet point.

449 Letter to US and Global Leaders, o.c. Also see Jesse, Responsibility of Business Enterprises to Respect the Environment, o.c. p. 53.

450 GSSB, GRI 102: General Disclosures, GRI, 2016, www.globalreporting.org/standards/media/1037/gri-102-general-disclosures-2016.pdf, p. 12.

451 For a similar view, see Campagna, UN Norms: International Community Asserts Binding Law, o.c. p. 1245 with further references and Sisco et al., Supply Chains and the OECD Guidelines, o.c. p. 18.

surprised if – and hope that – it will develop into this direction. Even then, it is too uncertain how the emerging law will look like.

All this said, as a general rule it would be in the best interest if buyers of goods and services would opt for low energy-consuming goods and services in light of their obligations under Principles 2, 5 as the case may be, 9 and the fact that their customers are also bound by Principle 17.⁴⁵²

DISCLOSURE OBLIGATIONS: PRINCIPLES 18-23

Disclosure obligations requiring the disclosure of relevant information are a most necessary or even indispensable tool to create a better understanding of GHG emissions, their consequences and the impact they will have on inter alia enterprises and investments. Enterprises expect that disclosure can contribute to shareholders' value.⁴⁵³

Climate change is:

“the one global megaforce that directly impacts all others discussed in this report. Predictions of annual output losses from climate change range between 1 percent per year, if strong and early action is taken, to at least 5 percent a year if policymakers fail to act.”⁴⁵⁴

The principles on disclosure are a further elaboration of OP 27-30 and the commentary thereto. There are compelling reasons for more detailed principles. First, a trend to require specific information about climate change related risks is emerging.⁴⁵⁵ Secondly, the most recent scientific assessment predicts ever higher risks of intensifying natural catastrophes and, in the longer term, a series of other devastating events which will unavoidably impact

452 For a discussion of how this applies to electricity, see §10.4, Principle 8 and above under this principle.

453 UNEP FI, *Portfolio Carbon: Measuring, disclosing and managing the carbon intensity of investments and investment portfolios*, Investor Briefing, July 2013, www.unepfi.org/fileadmin/climate-change/UNEP_FI_Investor_Briefing_Portfolio_Carbon.pdf, p. 18. Further down, however, the report observes that interviews show that disclosure “is a first good step, to fundamentally change behaviour,” but that further incentives, such as making disclosure part of investment decisions, are necessary (p. 19).

454 KPMG International, *Integrated Reporting: Performance insight through Better Business Reporting*, Issue 2, 2012, <http://integratedreporting.org/wp-content/uploads/2012/06/KPMG-Integrated-Reporting-Performance-Insight-Through-Better-Business-Reporting-Issue-2.pdf>, p. 2.

455 See in considerable detail, also for a wealth of recent initiatives, figures and other sources, Wim Bartels et al., *Carrots & Sticks: Global trends in sustainability reporting regulation and policy*, KPMG, GRI, UNEP and Centre for Corporate Governance in Africa at University of Stellenbosch Business School, 2016, <https://assets.kpmg.com/content/dam/kpmg/pdf/2016/05/carrots-and-sticks-may-2016.pdf>. Also see in more detail PRI and MSCI, *Global Guide to Responsible Investment Regulation*, o.c. p. 13 ff.

the economy adversely.⁴⁵⁶ Thirdly, progress has continuously been lacking in the international climate change negotiations, despite the widely acclaimed “breakthrough” at COP21 in Paris. Fourthly, obligations that are not mandatory make it too easy to escape or to pay lip-service to this requirement.⁴⁵⁷ And last but not least, despite the widely held view that GHG emissions must be curbed at great pace, reality shows a very different picture. Until recently, *global* GHG emissions were still increasing. Thankfully, this trend has been reversed,⁴⁵⁸ but the *global* reductions are still very small.⁴⁵⁹ Hence, disclosure might contribute to solutions. It should however be proportionate. Further elaboration will follow under Principle 22 below.

The impressive Kay review emphasises that only useful information should be provided. It is particularly critical about the present state of affairs (it does not specifically focus on climate change risks). The review stresses that:

“At each stage of the equity investment chain, reporting should be clear, relevant, timely, related closely to the needs of users and directed to the creation of long term value in the companies in which savers’ funds are invested. (..) [N]oise in information – the frequent reporting of data irrelevant to long-term value creation – should be reduced. (..) Aside from the cost of collection and dissemination, useless information is often worse than useless. People may feel obliged to act on it, or fear that other people will oblige them to act on it, or believe that others will act on it.”⁴⁶⁰

These caveats are justified. But there is a lot of useful information about the risks and impact of climate change that deserves to be disclosed. Such disclosure needs to be understandable and accessible. Users, in particular pension funds, should be able to assess the information provided.⁴⁶¹ In that respect, there is said to be room for improvement.

456 See the introductory chapter of this commentary for more detail.

457 Sharlene Leurig, *Climate Risk Disclosure by Insurers: Evaluating Insurer Responses to the NAIC Climate Disclosure Survey*, Ceres, September 2011, www.2degreesnetwork.com/groups/.../survey...insurers...climate-risk/.../6391/, p. 50 points to the desirability of mandatory rules.

458 In part probably because of the aftermath of the financial crisis.

459 See §19.2 and footnote 132 for more detail.

460 John Kay, *The Kay Review of UK Equity Markets and Long-term Decision Making*, Department for Business Innovation & Skills, Government of the UK, 15 September 2011, www.gov.uk/government/uploads/system/uploads/attachment_data/file/253454/bis-12-917-kay-review-of-equity-markets-final-report.pdf, p. 70 and 71; also see p. 46: the information should be tailored to the needs of users.

461 See for instance GSSB, *GRI 101: Foundation*, GRI, 2016, www.globalreporting.org/standards/media/1036/gri-101-foundation-2016.pdf, under Principle 1.5 (p. 13) and Al Gore and David Blood, *A Manifesto for Sustainable Capitalism*, Wall Street Journal, 14 December 2011, www.algore.com/news/a-manifesto-for-sustainable-capitalism under the sixth bullet point.

According to a report by Generation Investment Management, at present “most fund managers look to third-party rating agencies to analyse company sustainability disclosures and provide ratings for them to interpret.”⁴⁶² If that is (still) true, it can only be hoped that these rating agencies do a better job than they did before the financial crisis. Not surprisingly, the OECD and others advocate a set of “consistent, reliable, clear and efficient ... disclosure” metrics.⁴⁶³

PRINCIPLE 18

This principle concerns the evaluation of the impact of climate change on enterprises and the actions they can take to counter these effects.

The law does not

“tolerate decisions based on uninformed assumptions, or that arise from a default from a failure to turn the directional mind to a relevant issue.”⁴⁶⁴

Hence, short-sightedness must be avoided. That is not easy as the following quotation shows:

“The point to note is that most CEO’s usually look only three to five years ahead when making capital investment decisions on behalf of their companies. Yet, climate change risks and opportunities evolve over a [long] period of time. Most CEOs would probably leave their companies before they see the end results of their decisions in relation to climate change. This does not mean, however, that actions should be left to their successors. It is up to the CEO’s of the day and their management teams to show institutional investors the company’s corporate plans and, in so doing, emphasize long-term financial results and build long-term shareholder value.”⁴⁶⁵

462 Generation Investment Management, *Sustainable Capitalism*, 15 February 2012, www.genfound.org/media/1136/advocacy-3-sustainable-capitalism.pdf, p. 16.

463 OECD, *Divestment and Stranded Assets in the Low-carbon Transition*, Background paper for the 32nd Round Table on Sustainable Development, 28 October 2015, www.oecd.org/sd-roundtable/papersandpublications/Divestment%20and%20Stranded%20Assets%20in%20the%20Low-carbon%20Economy%2032nd%20OECD%20RTSD.pdf, p. 20, also for further references.

464 Sarah Barker and Kurt Winter, *Changing balance of evidence: Recent legal opinions suggest the shift from ethical to financially material concern means fiduciaries are legally obliged to consider climate risks*, *ESG Magazine* 6, Winter 2016, p. 46.

465 Liberty International Underwriters, *Climate Change: Emerging Liability Risks*, o.c. p. 12 (not numbered).

This principle is by and large borrowed from OP 27 and 29. We have added the obligation under (d). That obligation is, in fact, a rewording of OP 29.

Legal basis

It seems useful to elaborate on the legal basis provided by the commentary on OP 27 and 29. In spite of the fact that this principle does not concern impact assessments, we start with addressing that topic in light of its close relationship with the issue in point. Over the years, impact assessments have become one of the cornerstones of environmental law. In the realm of international law, they have become “a requirement”. The ICJ has labelled these assessments:

“a requirement under international law (...) where there is a risk that the proposed industrial activity may have a significant adverse impact in trans-boundary context”.⁴⁶⁶

The GHG emissions of enterprises clearly pose such risks, despite the fact that the contribution to global climate change of *each single* enterprise is minimal. See Principle 14 for a discussion of the minimal causation issue.

466 John H. Knox, Forging Stronger Cooperation Between Human Rights and Climate Change Communities: Assessing the Impacts of Climate Change on Human Rights, address at UNHRC Seminar to Address the Adverse Impacts of Climate Change on the Full Enjoyment of Human Rights, 24 February 2012, www.ohchr.org/Documents/Issues/ClimateChange/Seminar2012/JohnKnox24Feb2012.pdf. Knox apparently refers to the ICJ case *Argentina v. Uruguay* (2010) (the *Pulp Mills* case) www.icj-cij.org/docket/files/135/15427.pdf.

Over 130 countries have allegedly adopted “an environmental impact assessment regime of one sort or another”⁴⁶⁷ however, few are mandatory.⁴⁶⁸ The requirement to conduct impact assessments also seems to follow from the Equator Principles.⁴⁶⁹ This principle goes a step beyond *environmental* impact assessments as mentioned in Principle 24 below. It requires evaluation of the impact of climate change on the enterprise’s existing and future activities and property.⁴⁷⁰ In addition, it requires evaluation of feasible and cost effective avenues to reduce GHG emissions. Such a requirement aligns with increasing pressure by major investors on Security and Exchange Commissions to improve disclosure.⁴⁷¹ It is gaining ground in mandatory instruments.⁴⁷²

467 De Schutter et al., Human Rights Due Diligence, o.c. p. 20 with more detailed information, also about EU legislation; also see p. 25. Further see Hautereau-Boutonnet (ed.), What law, o.c. p. 25; Kauffman, Tébar Less and Teichmann, Corporate GHG Emission Reporting, o.c.; SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 2, 17, 18, 20, 25, 26 and 36 ff; UNGC, UNEP and UNFCCC Secretariat, Responsible Corporate Engagement in Climate Policy, o.c. p. 25 and 31; Knox, Human Rights, Environmental Protection and the Sustainable Development Goals, o.c. p. 10 and 11; UN Sub-Commission, Norms on Responsibilities of Transnational Corporations with Regard to Human Rights, o.c. under 16; EC, Communication COM(2011) 681 final, o.c. p. 7 and International Integrated Reporting Committee, Towards Integrated Reporting: Communicating Value in the 21st Century, Discussion Paper, September 2011, http://integratedreporting.org/wp-content/uploads/2011/09/IR-Discussion-Paper-2011_spreads.pdf; UNEP FI, Portfolio Carbon, o.c. p. 19 ff; for details on the status of environmental impact assessment legislation and procedures, see Bram F. Noble, Introduction to Environmental Impact Assessment: A Guide to Principles and Practice (3rd edition), Oxford University Press, 2015. See, more generally, about reporting requirements European Parliament and Council, Directive 2014/95/EU, o.c. as regards disclosure of non-financial and diversity information by certain large undertakings and groups.

468 PRI and MSCI, Global Guide to Responsible Investment Regulation, o.c. p. 19; exceptions are the Toronto, Kazakhstan and Pakistan Stock Exchanges (p. 19).

469 See Principle 8 of the Equator Principles.

470 KPMG, one of the “big four” auditor firms, advocates a different approach, more based on “value creation” and less on monetised intangible assets; see Integrated Reporting, o.c. This approach is allegedly applicable to companies listed on the Johannesburg Securities Exchange (p. 9). We strongly prefer the approach mentioned in Principle 18. In KPMG’s view, there are many kinds of value creation (paying high wages or taxes, creating decent working conditions, offering public transport facilities, environmentally beneficial actions such as reducing GHG emissions etc.) which can be put on the same footing in order to calculate the final balance of value created by a company. Although we do not deny that such activities are useful and may create (social) value, they can, in our view, not be compared to and calculated on the same footing.

471 Shanna Cleveland, Rob Schuwerk and Chris Weber, in Mark Fulton (ed.), Carbon Asset Risk: From Rhetoric to Action, Ceres, 2 Degrees Investing Initiative, Energy Transition Advisors and Carbon Tracker, September 2015, http://2degrees-investing.org/IMG/pdf/car_action_final1015.pdf?iframe=true&width=800&height=500, p. 23; Veena Ramani, View from the Top: How Corporate Boards can Engage on Sustainability Performance, Ceres, October 2015, www.ceres.org/sites/default/files/reports/2017-03/ceres_viewfromthetop.pdf.

472 See in more detail about the US and several States Leurig, Climate Risk Disclosure by Insurers, o.c. p. 7 and about France p. 5 and 49/50; Leaton et al., Unburnable Carbon, o.c. p. 26; KPMG, Centre for Corporate Governance in Africa, GRI and UNEP, Carrots and Sticks: Sustainability Reporting Policies Worldwide – today’s best practice, tomorrow’s trends, www.globalreporting.org/resourcelibrary/Carrots-and-Sticks.pdf, p. 9. Sustainability reporting has become a listing requirement on several stock exchanges in non-OECD countries and the UN is asking governments to stimulate reporting by developing best practice and smart regulation. See about best practice Voigt, The Paris Agreement, o.c.

A recent EU directive seconds this requirement:⁴⁷³

“3. (...) the European Parliament acknowledged the importance of business divulging information about sustainability such as social and environmental factors, with a view of identifying sustainability risks and increasing investor and consumer trust (...) disclosure of non-financial information is vital for managing change towards a sustainable global economy by combining long-term profitability with (...) environmental protection.”

“In order to enhance the consistency and comparability of non-financial information disclosed throughout the Union, certain large undertakings should prepare a non-financial statement containing information relating to at least environmental matters, (...). Such statement should include a description of the policies, outcomes and risks related to those matters and should be included in the management report of the undertaking concerned. The non-financial statement should also include information on the due diligence processes implemented by the undertaking, also regarding, where relevant and proportionate, its supply and subcontracting chains, in order to identify, prevent and mitigate existing and potential adverse impacts. (...)

(7) Where undertakings are required to prepare a non-financial statement, that statement should contain, as regards environmental matters, details of the current and foreseeable impacts of the undertaking's operations on the environment, and, as appropriate, on health and safety, the use of renewable and/or non-renewable energy, greenhouse gas emissions (...).

(8) The undertakings which are subject to this Directive should provide adequate information in relation to matters that stand out as being most likely to bring about the materialisation of principal risks of severe impacts, along with those that have already materialised. The severity of such impacts should be judged by their scale and gravity. The risks of adverse impact may stem from the undertaking's own activities or may be linked to its operations, and, where relevant and proportionate, its products, services and business relationships, including its supply and subcontracting chains. This should not lead to undue additional administrative burdens for small and medium-sized undertakings.”

473 European Parliament and Council, Directive 2014/95/EU, o.c.; the quotation stems from the recitals.

Principle 10 of the Rio Declaration 1992, re-confirmed by the UN Conference on Sustainable Development of 2012 (Rio + 20) in “The Future We Want”⁴⁷⁴ also emphasises the importance of “appropriate access to information concerning the environment”. Principle 10, however, does not create pertinent and specific obligations, let alone for enterprises, and it is even less explicit about the issues mentioned under (a)-(d), as follows from the quotation below from the Future We Want:

“47. We acknowledge the importance of corporate sustainability reporting and encourage companies, where appropriate, especially publicly listed and large companies, to consider integrating sustainability information into their reporting cycle. We encourage industry, interested governments and relevant stakeholders with the support of the United Nations system, as appropriate, to develop models for best practice and facilitate action for the integration of sustainability reporting, taking into account experiences from already existing frameworks and paying particular attention to the needs of developing countries, including for capacity-building”.

The latter is equally true for the Convention on access to information, public participation in decision-making and access to justice in environmental matters, the Aarhus Convention, in particular art. 5 under 6.

In December 2016, the Task Force on Climate-related Financial Disclosures, chaired by Michael Bloomberg, issued recommendations, stressing that:

“[o]ne of the most significant, and perhaps most misunderstood, risks that organizations face today relates to climate change”,

and

“Without the right information, investors and others may incorrectly price or value assets, leading to misallocation of capital”.⁴⁷⁵

The Task Force’s recommendations, emanating from Fundamental Principles for Effective Disclosure, are of significant importance; they read as follows:

474 UNGA, Resolution 66/288 The future we want, A/RES/77/288, 27 July 2012. See under II Renewal political commitment, A Reaffirming the Rio Principles supra 15 and in more detail 43.

475 Task Force on Climate-related Financial Disclosures, Recommendations of the Task Force on Climate-related Financial Disclosures, 14 December 2016, www.fsb.org/wp-content/uploads/Recommendations-of-the-Task-Force-on-Climate-related-Financial-Disclosures.pdf, p. 2.

“Principle 1: Disclosures should present relevant information

The organization should provide information specific to the potential impact of climate-related risks and opportunities on its markets, businesses, corporate or investment strategy, financial statements, and future cash flows.

- Disclosures should be eliminated if they are immaterial or redundant to avoid obscuring relevant information. However, when a particular risk or issue attracts investor and market interest or attention, it may be helpful for the organization to include a statement that the risk or issue is not significant. This shows that the risk or issue has been considered and has not been overlooked.

- Disclosures should be presented in sufficient detail to enable users to assess the organization’s exposure and approach to addressing climate-related issues, while understanding that the type of information, the way in which it is presented, and the accompanying notes will differ between organizations and will be subject to change over time.

- Climate-related impacts can occur over the short, medium, and long term. ... An organization should provide information from the perspective of the potential impact of climate-related issues on value creation, taking into account and addressing the different time frames and types of impacts.

.....

Principle 2: Disclosures should be specific and complete

- An organization’s reporting should provide a thorough overview of its exposure to potential climate-related impacts; the potential nature and size of such impacts; the organization’s governance, strategy, processes for managing climate-related risks, and performance with respect to managing climate-related risks and opportunities.

- To be sufficiently comprehensive, disclosures should contain historical and future-oriented information in order to allow users to evaluate their previous expectations relative to actual performance and assess possible future financial implications.

- For quantitative information, the disclosure should include an explanation of the definition and scope applied. For future-oriented data, this includes clarification of the key assumptions used. Forward-looking quantitative disclosure should align with data used by the organization for investment decision making and risk management.

- Any scenario analyses should be based on data or other information used by the organization for investment decision making and risk management. Where appropriate, the organization should also demonstrate the effect on selected risk metrics or exposures to changes in the key underlying methodologies and assumptions, both in qualitative and quantitative terms.

Principle 3: Disclosures should be clear, balanced, and understandable

- Disclosures should be written with the objective of communicating financial information that serves the needs of a range of financial sector users (e.g., investors, lenders, insurers, and others). This requires reporting at a level beyond compliance with minimum requirements. The disclosures should be sufficiently granular to inform sophisticated users, but should also provide concise information for those who are less specialized. Clear communication will allow users to identify key information efficiently.

Disclosures should show an appropriate balance between qualitative and quantitative information and use text, numbers, and graphical presentations as appropriate.

- Fair and balanced narrative explanations should provide insight into the meaning of quantitative disclosures, including the changes or developments they portray over time. Furthermore, balanced narrative explanations require that risks as well as opportunities be portrayed in a manner that is free from bias.

- Disclosures should provide straightforward explanations of issues. Terms used in the disclosures should be explained or defined for a proper understanding by the users.

Principle 4: Disclosures should be consistent over time

- Disclosures should be consistent over time to enable users to understand the development and/or evolution of the impact of climate-related issues on the organization's business. Disclosures should be presented using consistent formats, language, and metrics from period to period to allow for inter-period comparisons. Presenting comparative information is preferred; however, in some situations it may be preferable to include a new disclosure even if comparative information cannot be prepared or restated.

Principle 5: Disclosures should be comparable among organizations within a sector, industry, or portfolio

- Disclosures should allow for meaningful comparisons of strategy, business activities, risks, and performance across organizations and within sectors and jurisdictions.

- The level of detail provided in disclosures should enable comparison and benchmarking of risks across sectors and at the portfolio level, where appropriate.

- The placement of reporting would ideally be consistent across organizations—i.e., in financial filings—in order to facilitate easy access to the relevant information.

Principle 6: Disclosures should be reliable, verifiable, and objective

- Disclosures should provide high-quality reliable information. They should be accurate and neutral—i.e., free from bias.

- Future-oriented disclosures will inherently involve the organization’s judgment (which should be adequately explained). To the extent possible, disclosures should be based on objective data and use best-in-class measurement methodologies, which would include common industry practice as it evolves.

- Disclosures should be defined, collected, recorded, and analyzed in such a way that the information reported is verifiable to ensure it is high quality. For future-oriented information, this means assumptions used can be traced back to their sources. This does not imply a requirement for independent external assurance; however, disclosures should be subject to internal governance processes that are the same or substantially similar to those used for financial reporting.

Principle 7: Disclosures should be provided on a timely basis

- Information should be delivered to users or updated in a timely manner using appropriate media on, at least, an annual basis within the mainstream financial report.

Climate-related risks can result in disruptive events. In case of such events with a material financial impact, the organization should provide a timely update of climate-related disclosures as appropriate.”⁴⁷⁶

The Task Force labels its ‘Fundamental Principles for Effective Disclosure’ as “ambitious, but also practical for the near term”, whereas they “provide a foundation for immediate adaptation”.⁴⁷⁷ These Fundamental Principles provide guidance for enterprises as to how to disclose the information required under Principle 18.

The ASX Corporate Governance Council has issued Corporate Governance Principles and Recommendations. According to Principle 5:

476 P. 64-66.

477 Task Force on Climate-related Financial Disclosures, Recommendations, o.c. p. 41.

“A listed entity should make timely and balanced disclosure of all matters concerning it that a reasonable person would expect to have a material effect on the price of its securities”.⁴⁷⁸

UNEP’s Putting Rio Principle 10 into Action: An Implementation Guide⁴⁷⁹ provides a host of valuable information about implementation in the international and national context.⁴⁸⁰ Guideline 4 of the Bali Guidelines (an obligation to collect and update “relevant environmental information, including information on environmental performance and compliance by operators of activities potentially affecting the environment”) may be relevant, although it does not contain any concrete obligations of enterprises and requires the disclosure of even less information than is listed in our Principle 18 under (a)-(d).⁴⁸¹

This principle has a lot in common with GRI’s 102-15 disclosure reporting standard reading:

“The reporting organization shall report the following information:
a. A description of key impacts, risks, and opportunities”.

This requirement is followed by reporting recommendations:

“When compiling the information specified in Disclosure 102-15, the reporting organization should include:

- 2.2.1 a description of its significant economic, environmental and social impacts, and associated challenges and opportunities. This includes the effects on stakeholders and their rights as defined by national laws and relevant internationally-recognized standards;
- 2.2.2 the range of reasonable expectations and interests of the organization’s stakeholders;
- 2.2.3 an explanation of the approach to prioritizing these challenges and opportunities;

478 ASX Corporate Governance Council, Corporate Governance Principles and Recommendations, o.c. p. 24.

479 Stephen Stec, Putting Rio Principle 10 Into Action: An Implementation Guide, UNEP, October 2015, <http://wedocs.unep.org/bitstream/handle/20.500.11822/11201/UNEP%20MGSB-SGBS%20BALI%20GUIDELINES%20-%20English.pdf?sequence=1&isAllowed=y>.

480 See about the international dimension p. 14 ff and the national provisions p. 25 ff.

481 UNEP, Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters, November 2011, <https://wedocs.unep.org/rest/bitstreams/46803/retrieve>. These guidelines were adopted by the Governing Council of UNEP in decision SS.XI/5, part A of 26 February 2010. According to Stec, Putting Rio Principle 10 Into Action, o.c. it is up to countries to determine the meaning of relevant information (p. 44). The UNEP FI mentions a few more data that should be disclosed: Portfolio Carbon, o.c. p. 22.

- 2.2.4 key conclusions about progress in addressing these topics and related performance in the reporting period, including an assessment of reasons for underperformance or overperformance;
- 2.2.5 a description of the main processes in place to address performance, and relevant changes;
- 2.2.6 the impact of sustainability trends, risks, and opportunities on the long-term prospects and financial performance of the organization;
- 2.2.7 information relevant to financial stakeholders or that could become so in the future;
- 2.2.8 a description of the most important risks and opportunities for the organization arising from sustainability trends;
- 2.2.9 prioritization of key economic, environmental, and social topics as risks and opportunities according to their relevance for long-term organizational strategy, competitive position, qualitative, and, if possible, quantitative financial value drivers;
- 2.2.10 table(s) summarizing targets, performance against targets, and lessons learned for the current reporting period⁴⁸².

We started the commentary to this principle by referring to impact assessments. They have to be conducted by enterprises and assessed by public authorities.⁴⁸³ Assessment presupposes that enterprises have sufficiently specific obligations to avoid future harm.⁴⁸⁴ If not, it would be impossible to attach consequences to the assessment of the impact of specific activities. It follows, we think, that this feature of public law supports our submission that enterprises do have disclosure obligations, even if they do not emanate from *detailed* and *specific* legal provisions.⁴⁸⁵ There is no valid reason why such an obligation would only apply to *new* activities or *new* building activities. Conversely, the threats of climate change to the world at large and to single enterprises at the same time are so significant that it is fully justified that these effects need to be evaluated by enterprises. An obligation to evaluate implies that the information has to be used if necessary.⁴⁸⁶ The higher the future

482 GSSB, GRI 102: General Disclosures, o.c. p. 15. See in more detail GSSB, GRI 302: Energy, o.c. in particular the Guidance on Disclosure 302-2, p. 8.

483 See about verification Daniel C. Esty and Todd Court, Corporate Sustainability Metrics: What Investors Need and Don't Get, forthcoming in the Journal of Environmental Investing, fall 2017, <https://corporate-sustainability.org/wp-content/uploads/Corporate-Sustainability-Metrics.pdf>, under Verification (p. 30).

484 For a similar view, see Ross Abbs, Peter Cashman and Tim Stephens, Australia, in Richard Lord et al. (eds.). *Climate Change Liability: Transnational Law and Practice*, Cambridge University Press, 2012, p. 76 ff referring to Australian case law.

485 Many countries already require reporting, also about sustainability issues; for instance the EU, India, the US, Norway, the UK, Finland, Japan, Korea, Pakistan, Malaysia, Canada. See Esty and Court, Corporate Sustainability Metrics, o.c. under III. A Path Forward for Corporate Sustainability Metrics (p. 34 ff).

486 See for a somewhat comparable view Leaton et al., *Unburnable Carbon*, o.c. p. 25.

impact, the greater the need for appropriate action. We are unable to provide hard and fast rules about the kind of action enterprises would have to take in light of this information. To a large extent, that is up to the board-members of the relevant enterprise who have to make decisions for the enterprise in accordance with their fiduciary and other legal duties.⁴⁸⁷

The obligation under (b) is of particular importance to financiers and investors; see below under Principles 25-30.⁴⁸⁸ This information will often be vital to supervisory institutions, such as central banks, to assess the financial position of banks and insurers.⁴⁸⁹ It may, however, be difficult to assess these risks as much depends on the actions taken by politicians and other major players;⁴⁹⁰ see the commentary to Principle 23 in relation to Exxon Mobil. Actions taken by politicians matter in relation to the extent to which climate change is allowed to progress as well as how far future policies to reduce GHG emissions and mitigate climate change will go. An example of this is whether, and if so how high, a carbon price will be implemented.⁴⁹¹

The obligation mentioned under (d) aligns with Exhibit II to the Equator Principles.⁴⁹² The World Declaration on the Environmental Rule of Law calls for:

“Environmental assessment, incorporating multidimensional, polycentric perspectives and the complexity of social-ecological relationships”.⁴⁹³

Assessments as envisaged here are, *inter alia*, useful and for some enterprises probably necessary⁴⁹⁴ preconditions for compliance with Principles 7 and 8.⁴⁹⁵

487 The Kay review refers to the corporation, its shareholders and employees as beneficiaries of this duty, and takes the stance that directors have a duty to the company and not its share price: Kay, *The Kay Review*, o.c. p. 12 under 4; also see p. 57.

488 Also see Leaton et al., *Unburnable Carbon*, o.c. p. 5 and 6. According to Cleveland, Schuwerk and Weber. *Carbon Asset Risk*, o.c. quantitative measures are available to test exposure to carbon asset risks (p. 5). “Real assets” (real estate, infrastructure, agriculture, timber) are increasingly exposed to climate risks: Mercer, *Investing in a Time of Climate Change*, 2015, www.mercer.com/content/dam/mercer/attachments/global/investments/mercer-climate-change-report-2015.pdf, p. 19.

489 Thus, in relation to insurers, Leurig, *Climate Risk Disclosure by Insurers*, o.c. p. 50.

490 Leurig, *Climate Risk Disclosure by Insurers*, o.c. p. 19.

491 See §17 for further discussion on carbon pricing.

492 See p. 20 under b, e and h read in conjunction.

493 IUCN, *World Declaration*, o.c. under V (o); also see under (a), (d) and under II supra (c) and (d).

494 The insurance industry is said to be lax to reduce operational GHG emissions: Leurig, *Climate Risk Disclosure by Insurers*, o.c. p. 44.

495 See for a similar view Liberty International Underwriters, *Climate Change: Emerging Liability Risks*, o.c. According to this paper “a sensible opening question for directors and officers is whether their company is prepared for climate risks” (part 3; the document does not contain page numbers), with further elaboration and Barker, *Directors’ Duties*, o.c. p. 18. This is only possible if the relevant information is available, of course. Also see Seaman and DeLascio, *Professional Liability*, o.c. p. 17; Linda Murphy and Lindsay Lau,

Jessica Wentz has mapped a protocol on how to consider the effects of climate change.⁴⁹⁶ Her study relates to “Environmental Review and Planning”, but her ideas could be applied more generally. In our view the protocol provides a series of useful “overarching principles”:

“2. The analysis of climate change effects should encompass the following considerations:

- a. No action baseline: How might climate change affect current and future baseline conditions, including temperature, precipitation, hydrology, vegetation, wildlife, and ecosystem function?
- b. Sustainable use: How might climate change affect the sustainable use of natural resources from forests, grazing lands, fisheries, and other managed landscapes?
- c. Management implications: How might climate change affect the implementation and efficacy of resource management actions?
- d. Environmental impacts: How might climate change affect the environmental impacts of resource management actions?
- e. Adaptation: What adaptation measures could be implemented to enhance the resilience and adaptive capacity of natural resources, ensure the long-term sustainable use of natural resources, and otherwise fulfill resource management objectives in the context of a changing climate?
- f. Environmental impact mitigation: If a management activity may have adverse environmental effects that are exacerbated by climate change, what mitigation measures can be implemented to eliminate or reduce those effects?
- g. Monitoring and adaptive management: How can planning and decision-making processes be structured to account on an ongoing basis throughout the life of an activity for uncertainty and new information about the effects of climate change and the efficacy of management decisions and to ensure that this information informs future management decisions? What types of monitoring programs are needed to obtain relevant information about the effects of climate change on the managed resources, to assess the outcomes of management decisions, and to modify decisions as appropriate?

Climate change: the next wave of corporate liability, *Australian Insurance Law Bulletin*, September 2009, www.cbp.com.au/portals/0/climate%20change%20article.pdf, p. 138 ff and Jesse and Koppe, *Business Enterprises and the Environment*, o.c. p. 183.

496 Jessica Wentz, *Considering the Effects of Climate Change on Natural Resources in Environmental Review and Planning Documents: Guidance for Agencies and Practitioners*, Sabin Center for Climate Change Law at Columbia Law School, September 2016, <http://columbiaclimatelaw.com/files/2017/01/Wentz-2016-09-Considering-the-Effects-of-Climate-Change-on-Natural-Resources.pdf>.

3. To address uncertainty about the pace and magnitude of climate change, managers should assess management decisions and environmental outcomes under a range of plausible climate change scenarios. To frame these scenarios, managers should refer to the most recent Representative Concentration Pathways (RCPs) for greenhouse gas emissions that have been released by the Intergovernmental Panel on Climate Change (IPCC), as well as any other relevant projections (such as sea level rise projections) that have been developed or adopted by authoritative bodies. The probabilities of each of the scenarios should be disclosed if they can be estimated.
4. The analysis of climate change and its effect on temperatures, precipitation, and other environmental phenomena should account for changes in both long-term average conditions and the range of variability. When considering the range of variability, managers should be sure to account for changes in the frequency and magnitude of extreme weather events such as heavy downpours, cold snaps, and heat waves.
5. The timeframe for this analysis should encompass not only the duration of management activities but also the duration of their long-term effects on the environment and natural resource base.
6. The scope and depth of this analysis should be tailored to provide useful information for decision-makers, and should reflect the magnitude of the risk posed by climate change and the correlated vulnerability of affected natural resources.
7. The analysis of climate change impacts should inform final management decisions, including decisions about resource use and conservation, and whether to approve actions that may impair the resilience or adaptive capacity of natural resources. (...)⁴⁹⁷

Knox paints a disappointing picture of present day impact assessments in the realm of climate change.⁴⁹⁸ Others are more positive.⁴⁹⁹ Even enterprises that conduct impact

497 P. A1 and 2. The document provides an in-depth analysis in relation to a series of factors.

498 Knox, *Cooperation between Human Rights and Climate Change Communities*, o.c.

He adds, somewhat mysteriously, "Taking human rights into account in environmental impact assessment would add rigor to existing efforts to examine social impacts in light of binding human rights standards." This view seems to coincide with our submission, but we wonder which "binding human rights standards" Knox has in mind. In his preliminary report (to the UNGA) he observes that "the *obligations* that human rights law imposes regarding environmental protection are less clearly understood": Knox, Report A/HRC/22/43, o.c. p. 12 *supra* 35.

499 According to UNEP FI, *Portfolio Carbon*, o.c., 4,000 companies around the globe disclose both GHG emissions and the company's exposure to climate change risks (p. 18). On p. 24 the report goes a step further: GHG accounting and reporting has become "common practise (..) particularly in fossil fuel sectors". Most investors do not disclose the GHG emissions associated with their portfolios (p. 19).

assessments do not necessarily act upon climate change risks. According to the UN Guide to Corporate Sustainability, only 50% of UNGC companies “indicate taking a specific action” in this field.⁵⁰⁰

Correct compliance is rewarding

The information provided by enterprises should give a fair picture of the relevant facts and events.⁵⁰¹ A ‘fair picture’ does not mean that such information must always be correct. The correctness of disclosures largely depends on assessments in which quite a few of the relevant factors are uncertain or even speculative. However, the European Guidelines on non-financial reporting state that “[t]he non-financial statement should give fair consideration to favourable and unfavourable aspects, and information should be assessed and presented in an unbiased way.”⁵⁰² If disclosed information is deceptive, or incorrect because of (wilful) negligence on the part of directors, they run a liability risk.⁵⁰³ That is not to say that we advocate such liability, but others have pointed to this risk which does not seem to be unrealistic.⁵⁰⁴

PRINCIPLE 19

The matters that require evaluation under Principle 18 that are to be disclosed under this principle would materially impact the financial situation of a firm and would therefore have to be disclosed in terms of annual reporting requirements. The obligation contained in this principle will often be an example of an obligation without large material additional cost and in that sense relates to Principle 7, albeit in a different context.⁵⁰⁵

500 UNGC, Guide to Corporate Sustainability, o.c. p. 22, 39 and 41. Also see EC, Communication COM(2011) 681 final, o.c. p. 11.

501 Liberty International Underwriters, Climate Change: Emerging Liability Risks, o.c. p. 7 ff.

502 EC, Communication 2017/C 215/01, o.c. p. 7.

503 The European Guidelines on non-financial reporting indeed point to the fact that “[t]he non-financial statement should consider all available and reliable inputs, taking into account the information needs of relevant stakeholders. Users of information should not be misled by material misstatements, by omitting material information, or disclosing immaterial information”: EC, Communication 2017/C 215/01, o.c. p. 7.

504 For elaboration, refer to footnote 495.

505 Also see De Schutter et al., Human Rights Due Diligence, o.c. p. 28 and 44; Barker, Directors’ Duties, o.c. p.31; ASX Corporate Governance Council, Corporate Governance Principles and Recommendations, o.c. p. 4. We realise that the cost may not be insignificant, in which case the parallel with Principle 7 does not apply, even not *per analogiam*. Even if that is the case, the cost will be ‘paid back’ (Principle 8) or not be additional because investors are increasingly keen to receive this information. As to the analogy with Principle 7, that principle is about the reduction of emissions, but the idea is the same: it can reasonably be required of enterprises to take useful steps that do not cause relevant additional cost.

The information to be disclosed under Principle 18 is important to those for whose benefit it must be disclosed in terms of this principle, in particular to investors and financiers,⁵⁰⁶ as already highlighted in the commentary to that principle.

Prima facie, it may seem open to debate whether there already is a sound legal basis for an obligation to provide material information to clients, financiers, employees and the public. This submission, however, does no more than make the purpose of proper annual reports explicit.⁵⁰⁷ Many enterprises will be under an obligation to publish annual accounts or even integrated reports, for instance due to listing requirements.⁵⁰⁸ Enterprises that are not listed will still have to comply with Principle 18 and evaluate the issues mentioned under (a)-(d). For many of these enterprises, there will be a limited additional cost in preparing that evaluation for publication.⁵⁰⁹ For those that already create such publications, it is easy to digitalise them and make them available to the public through their website at no additional cost.⁵¹⁰

This principle – like all other principles – should be applied with common sense. In light of the global nature of climate change, GHG emissions will have a worldwide impact. GHG emissions by a Dutch enterprise will contribute to climate change globally, and thus also to natural catastrophes in the Philippines. Thus, emissions from every enterprise will – together with other GHG emissions – not only jeopardise the life and well-being of people living in their country of operation but also in other countries which happen to suffer from climate change-caused events. Disclosure of the enterprises’ vulnerability and contribution to climate change and its efforts to reduce emissions on the enterprise’s website will enable people all over the globe – including prospective investors, employees and customers – to

506 See in more detail Barker, Directors’ Duties, o.c. p.33; ASX Corporate Governance Council, Corporate Governance Principles and Recommendations, o.c., p. 3; EU High-Level Expert Group on Sustainable Finance, Sustainable European Economy, o.c. p. 22.

507 The EC rightly emphasises the role of trade unions, civil society and investors: Communication COM(2011) 681 final, o.c. p. 7; that role presupposes adequate information. On p. 11 the Commission uses the more general term “stakeholders”; that is exactly what we also aim at. A consultation document on the revision of the Dutch Corporate Governance Code aims at long term value creation for *all* stakeholders; see Sven Dumoulin, Het voorstel voor een nieuwe Nederlandse Corporate Governance Code: visie en strategie (The proposal for a new Dutch Corporate Governance Code: vision and strategy), Ondernemingsrecht 69, 2016, with critical observations.

508 Although there are many enterprises that are not under this duty, the obligation under this principle goes beyond listing requirements. See SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 17 ff in more detail.

509 That may not be the case for smaller enterprises, for which such additional cost may be substantial.

510 If such information would be damaging to the enterprise if accessible to competitors, exceptions to this rule may apply. The report by ASX Corporate Governance Council, Corporate Governance Principles and Recommendations, o.c. prefers publication on the website (p. 6).

assess the enterprises' vulnerability to and performance on climate change.⁵¹¹ It will generally suffice to provide the information in the language usually used for other reporting requirements by the enterprise; it would be overly demanding to expect an enterprise to provide information in other languages to make it easily accessible to people worldwide.

PRINCIPLE 20

The disclosure required under this principle allows others – in particular customers, consumers and investors – to decide on an informed basis whether they want to buy products or services, invest in or finance the enterprise.⁵¹² Without this knowledge they cannot judge whether the enterprise complies with its reduction obligations.

At first glance, this principle appears to be broad and onerous. At closer look, we do not think it is. It only requires enterprises to disclose pertinent information about compliance with their legal obligations,⁵¹³ which includes relevant information about the emissions themselves.⁵¹⁴ It is in line with GRI 307 reading:

“1.1 The reporting organization shall report its management approach for environmental compliance using GRI 103”⁵¹⁵

And GRI 101:

511 See about putting the information on the corporate website: IIGCC, Investor Network on Climate Risk, Investor Group on Climate Change and Asia Investor Group on Climate Change, Investor Expectations of Oil and Gas Companies: Transition to a lower carbon future, November 2016, www.iigcc.org/files/publication-files/IIGCC_2016_Oil_and_Gas_report_v17_WEB.PDF, p. 9.

512 See about the disclosure of products and services Principle 21.

513 See for a somewhat comparable approach World Business Council for Sustainable Development (WBCSD) and WRI, The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (revised edition), March 2004, www.ghgprotocol.org/sites/default/files/ghgp/standards/ghg-protocol-revised.pdf. There is, however, a major difference between just-mentioned “Standard” and Principle 20. The former is voluntary and based on self-imposed goals. See also Cleveland, Schuwerk and Weber, Carbon Asset Risk, o.c. p. 23 and SEBI, Format for Business Responsibility Report, o.c. p. 1.

514 We agree with the OECD, Divestment and Stranded Assets, o.c. p. 19 in that disclosure of emissions *as such* is useful. We would like to add, however, that what particularly matters is performance relative to a baseline and the GHG efficiency of the enterprise and/or its products and/or services.

515 GSSB, GRI 307: Environmental Compliance, GRI, 2016, www.globalreporting.org/standards/media/1014/gri-307-environmental-compliance-2016.pdf. The subsequent article (Disclosure 307-1) provides a further elaboration requiring, inter alia, fines and other sanctions in relation to non-compliance. GSSB, GRI 302: Energy, o.c. elaborates considerably on energy consumption, including the use of non-renewables and renewables (Disclosure 302-1), the energy intensity (Disclosure 302-3), reduction of energy consumption (Disclosure 302-4) and reductions in energy requirements of sold products (Disclosure 302-5).

“The reported information shall reflect the positive and negative aspects of the reporting organization’s performance to enable a reasoned assessment of overall performance.”⁵¹⁶

This principle requires enterprises to disclose what they see as their legal obligations to reduce GHG emissions as well as information on their performance regarding these obligations.⁵¹⁷ Enterprises must comply with their legal obligations. We have attempted to formulate concrete obligations that are based on our interpretation of the law as it stands, or at the very least the direction in which it will likely develop, but do not deny that our principles are not the final word, at least not as long as they are not endorsed by international and/or national courts.

Our principles are based on a series of assumptions about, *inter alia*, historical emissions and the attribution of GHG emissions caused by manufacturing processes outsourced to “developing” countries in scenarios that the resulting products will be used in “developed” countries.⁵¹⁸ In our submission, the obligations emanating from our principles reflect at least the *minimum* reduction obligations of enterprises.⁵¹⁹

Alternative interpretations of the law are, of course, possible. Nevertheless, we stand firm in our belief that enterprises⁵²⁰ do have obligations concerning the reduction of GHG emissions from their activities, although they may differ from those that we have discerned.

516 GSSB, GRI 101: Foundation, o.c. p. 13. See in considerable detail GSSB, GRI 305: Emissions, GRI, 2016, www.globalreporting.org/standards/media/1012/gri-305-emissions-2016.pdf, in particular Disclosure 305-1, the recommendations under 2.2.2-2.2.4, the Guidance for Disclosure 305-1, Disclosure 305-2 for Scope 2 GHG emissions, 305-3 for Scope 3 emissions and 305-4 for GHG emissions intensity. Disclosure 305-5 is about Reduction of GHG emissions and includes a series of GHGs. See for a link between the GRI and CDP: GRI, GSSB and CDP, Linking GRI and CDP, How the GRI Sustainability Reporting Standards and CDP’s 2017 climate change questions aligned? 2017, www.globalreporting.org/standards/resource-download-center/linking-gri-and-cdp-how-are-gri-standards-and-cdp-climate-change-questions-aligned/?g=040e6a32-8fa0-412f-bd7c-53e53657b3b2. See for a link between the GRI and SEBI Business Responsibility Report Framework: GRI, GSSB and Bombay Stock Exchange, Linking the GRI Standards and the SEBI BRR Framework, February 2017, www.globalreporting.org/standards/resource-download-center/linking-the-gri-standards-and-the-sebi-brr-framework/.

517 This is in line with the view espoused by the EU High-Level Expert Group on Sustainable Finance, Sustainable European Economy, o.c. p. 18 and 20.

518 This plays a role in relation to the emission reduction obligations of States. It follows from Principle 2 that the reduction obligations of enterprises are closely linked to those of States.

519 Exceptions may apply in relation to enterprises in countries just above permissible quantum.

520 If one follows our interpretation of the law, not all obligations apply to all enterprises: for example, the obligation to reduce the GHG emission of an enterprise’s direct activities set out in Principle 2 only applies to the activities performed in APQ countries. For detailed explanations of to what types of enterprises each principle applies, see this Commentary to the relevant principle.

If enterprises are uncertain on what their concrete reduction obligations are, they can seek expert advice or a declaratory judgment from a competent court.

In a certain sense, the obligation under this Principle is inspired by the almost universally endorsed Ruggie Principle 17 (human rights due diligence). In that Principle, John G. Ruggie explains that enterprises should carry out human rights due diligence “in order to identify, prevent, mitigate and account for how they address their adverse human rights impacts.” Part of this ‘requirement’ is “communicating how impacts are addressed.”

It would be a mistake to keep a closed eye to legal obligations regarding the reduction of GHG emissions. As we have explained in §13 and 20, part of our principles are based on an expectation on how the law will likely develop. As also mentioned in those paras, if the law does develop in that way, judges will apply it retrospectively to hold enterprises to their obligations over activities performed in the past.

PRINCIPLE 21

There is a fast-emerging trend to impose the kind of obligations on enterprises that are set out in this principle.⁵²¹ It is open to debate whether the law has already progressed to the stage of a universally recognised obligation to compare the enterprise’s products and services to those of its competitors. In this respect, this principle is largely aspirational.

This principle focuses on information about the GHG emissions connected to products and services, such as but not limited to GHG emissions from both manufacturing and use.⁵²² In some instances, the emissions caused by use may be limited due to measures taken in the manufacturing process. In turn, the manufacturing process usually causes

521 For much more detail, see Stephen Wiel and James E. McMahon, Governments should implement energy-efficiency standards and labels – cautiously, *Energy Policy* 31 (13), October 2003, [https://doi.org/10.1016/S0301-4215\(02\)00199-4](https://doi.org/10.1016/S0301-4215(02)00199-4), p. 1403 ff; Howard Geller et al., Polices [read: policies] for increasing energy efficiency: Thirty years of experience in OECD countries, *Energy Policy* 34 (5), March 2006, <https://doi.org/10.1016/j.enpol.2005.11.010>, p. 556 ff and De Schutter, Trade, o.c. p. 92 ff with further references to international instruments. He observes that developing countries have expressed “a range of concerns about ecolabelling”; these countries point to historical injustices and, in turn, their present relatively high GHG emissions. According to De Schutter, ecolabelling will also affect “small-scale-producers, especially small-scale farmers, who are the least equipped to comply with requirements imposed and who cannot easily meet the upfront costs of acquiring labels”. He also mentions other difficulties: the lack of a “multi-national body that can act as standard-setter” and the measurement of “the carbon footprint of a product using a life-cycle assessment” (p. 94). The EC rightly emphasises the need to address misleading marketing related to the environmental impacts of products: Communication COM(2011) 681 final, o.c. p. 9.

522 This requirement is in line with ISO 26000 par. 6.2.2.2; see for further references Jesse and Koppe, *Business Enterprises and the Environment*, o.c. p. 184.

relatively significant GHG emissions. In other cases, disposal of products brings about significant GHG emissions.

We realise that this principle is, unavoidably, somewhat ambiguous in relation to the meaning of “products” and “other enterprises”. However, more pertinent rules are impossible or would be unworkable. A few examples may illustrate this point. X manufactures cars, ranging from “middle-class” to “luxury” motor vehicles for the very rich. These cars cannot be lumped together. Both kinds of cars have to be compared to similar cars. Even that comparison entails some arbitrariness: there are middle-class cars of all kinds: for example, some have much higher fuel economy than others. The bottom line is that most products or services cannot be easily compared, even if one would compare products or services within sub-groups of similar products or services. The same goes for “other enterprises”. With this phrase we mean peers. The insights from competition law, that faces similar questions, may provide guidance to determine what can be regarded as a comparable enterprise.

As a rule of thumb, the products or services of enterprises in APQ countries are to be compared to those of enterprises in other APQ countries. However, logical sense has to be used: enterprises are not necessarily comparable across all APQ countries.⁵²³ In that light, this principle, too, has to be applied and interpreted in such a way that it is workable and practical.

As to the website: see the commentary to Principle 19.

PRINCIPLE 22

Disclosure should be proportionate, that speaks for itself. The outcome of the proportionality-test will depend on the relevant circumstances, including the size of the enterprise and whether it is based in a developing or developed country.⁵²⁴ Only material facts and circumstances have to be disclosed.⁵²⁵ The authoritative GRI standards put it this way:

523 For instance a product manufactured by both a Canadian and South-African enterprise.

524 This view is in line with the EC, which posits that: “[t]he disclosure requirements for non-financial information apply to certain large companies with more than 500 employees, as the cost of obliging small and medium-sized enterprises to apply them could outweigh the benefits”: Communication 2017/C 215/01, o.c. p. 2.

525 See in more detail SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 17 and about Materiality, E. Lynn Grayson and Patricia L. Boye-Williams, SEC Disclosure Obligations: Increasing Scrutiny on Environmental Liabilities and Climate Change Impacts, in Lawrence P. Schnapf (ed.), Environmental Issues in Business Transactions, ABA Book Publishing, 2011, www.eli.org/sites/default/files/docs/seminars/09.07.11webinar/GraysonExcerpt.pdf?q=pdf/seminars/09.07.11webinar/Grayson

“In financial reporting materiality is commonly thought of as a threshold for influencing the economic decisions of those using the organization’s financial statements, investors in particular.”⁵²⁶

PRINCIPLE 23

This principle concerns the disclosure of so-called stranded assets. The stranded asset theory has been gaining international traction. It means that only part of the proven reserves of fossil fuels can be exploited if strong policies to limit global warming to 2°C are put in place. In such a scenario, the fossil fuel assets that are unburnable in light of the world’s carbon budget become worthless, and are therefore stranded.⁵²⁷ There are several reasons why those assets can become stranded: climate change regulation, falling oil prices and energy technology innovation.⁵²⁸ The story of coal power is telling. After a decade of unprecedented expansion, coal power under development dropped significantly in 2016, particularly so in China and India.⁵²⁹ Quite a few fossil fuel companies in and beyond

Excerpt.pdf, p. 451, ff; Global Environmental Management Initiative, Quick Guide: Materiality, <http://gemi.org/wp-content/uploads/2015/09/GEMI-MaterialityQuickGuide-2015.pdf>, in particular p. 3, 4, 7 and the tables attached to the report; CDP et al., Statement of Common Principles of Materiality of the Corporate Reporting Dialogue, March 2016, <https://corporatereportingdialogue.com/wp-content/uploads/2016/03/Statement-of-Common-Principles-of-Materiality1.pdf>, with a series of definitions used by other institutions on p. 5-8; and Sisco et al., Supply Chains and the OECD Guidelines, o.c. p. 20 and 21. Also see 2 Degrees Investing Initiative and Generation Foundation, All Swans Are Black in the Dark: How the Short-term Focus of Financial Analysis Does Not Shed Light on Long Term Risks, February 2017, www.tragedyofthehorizon.com/All-Swans-Are-Black-in-the-Dark.pdf, p. 15.

- 526 GSSB, GRI 101: Foundation, o.c. p. 10; “material topic” is defined as a “topic that reflects a reporting organization’s significant economic, environmental and social impacts, or that substantively influences the assessments and decisions of stakeholders” (p. 27). Also see Esty and Court, Corporate Sustainability Metrics, o.c., under Materiality (p. 25-26).
- 527 See extensively Leaton et al. Unburnable Carbon, o.c.; also see Murray Gold and Adrian Scotchmer, Climate Change and the Fiduciary Duties of Pension Fund Trustees in Canada, Koskie Minsky, 1 September 2015, https://kmlaw.ca/wp-content/uploads/2015/10/KM_Climate_Change_Paper_06oct15.pdf, p. 26. More generally, an analysis by the 2 Degrees Investing Initiative and the Generation Foundation suggests that the value of 70-80% of listed companies as calculated by analysts is based on a very limited long-term analysis which likely leads to mispricing of stocks: All Swans Are Black, o.c. p. 62.
- 528 See in more detail Ashim Paun, Zoe Knight and Wai-Shin Chan, Stranded assets: what next? How investors can manage increasing fossil fuel risks, HSBC Bank, 16 April 2015, www.businessgreen.com/digital_assets/8779/hsbc_Stranded_assets_what_next.pdf. Also see OECD, Divestment and Stranded Assets, o.c. p. 4, 5, 7 and 8 and Ben Caldecott and Jeremy McDaniels, Stranded generation assets: Implications for European capacity mechanisms, energy markets and climate policy, Smith School of Enterprise and the Environment at Oxford University, Working Paper, January 2014, www.smithschool.ox.ac.uk/research-programmes/stranded-assets/Stranded%20Generation%20Assets%20-%20Working%20Paper%20-%20Final%20Version.pdf.
- 529 Christine Shearer et al., Boom and Bust 2017: Tracking the Global Coal Plant Pipeline, CoalSwarm, Greenpeace USA and Sierra Club, March 2017, <http://endcoal.org/wp-content/uploads/2017/03/Boom-Bust2017-English-Final.pdf>, p. 3 with further and detailed elaboration on the subsequent pages. Interestingly, also countries such as Vietnam, Indonesia and Bangladesh are reconsidering their strategies (p. 14 and 15).

Europe have written down the value of their assets.⁵³⁰ “An increasing number of recently built, high-efficiency combined-cycle gas turbine (CCGT) power plants, are being mothballed or prematurely closed across the EU as profits from gas are eroded by decreased electricity demand, changing fuel prices and depressed carbon prices.”⁵³¹

The risk of stranded assets is not the only challenge to be faced by fossil fuel companies. They also face claims for damages, as a case pending before the Philippines’ Commission of Human Rights shows.⁵³²

The Principle speaks of ‘fossil fuel production’. With this phrase we mean enterprises that are engaged in offering fossil fuels to the market. This would include, for example, extraction and refining in case of oil and liquefaction in case of gas.

The basic idea behind this principle, largely borrowed from OP 28, is in line with the gist of Chapter IV of these principles: enterprises should disclose *material* information.⁵³³ It is self-explanatory that limitations on the future extraction or use of fossil fuels will have an adverse impact on the financial situation of this branch of industry.⁵³⁴ This issue has been put on the agenda by the 2 degrees initiative⁵³⁵ and has gained wide-spread attention and support.⁵³⁶ Hence, this is vital information to investors and financiers,⁵³⁷ but also securities regulators, employees, clients and the public.

530 Arabella Advisors, The Global Fossil Fuel Divestment and Clean Energy Investment Movement, December 2016, www.arabellaadvisors.com/wp-content/uploads/2016/12/Global_Divestment_Report_2016.pdf, p. 29 and 30.

531 Caldecott and McDaniels, Stranded generation assets, o.c. p. iii with elaboration on p. 2 and 12 ff.

532 See Greenpeace Southeast Asia and Philippine Rural Reconstruction Movement, Petition to Commission of Human Rights of the Philippines, o.c. Arabella Advisors, Global Divestment and Clean Investment, o.c. puts it as follows: “Legal action against fossil fuel companies for climate-related damages have the potential to set a powerful precedent” (p. 21 with further elaboration).

533 See footnote 526 about materiality. For a more general overview of current reporting and disclosure by the fossil fuel industry, see Critical Resource, The Heat Is On: Catalysing Leadership by Fossil Fuel Companies on Climate Change, November 2015, www.c-resource.com/assets/The-Heat-Is-On-Initiative-report-A-call-to-action-Critical-Resource-24.11.15.pdf.

534 In some instances, a lot can already be achieved at little or no cost.

535 For details, see <http://2degrees-investing.org> and the Carbon Tracker initiative, www.carbontracker.org/report/unburnable-carbon-wasted-capital-and-stranded-assets/.

536 SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 66.

537 For a similar view see Stathis Gould, Stranded Assets and Reserve Accounting, International Federation of Accountants, 2 December 2013, www.ifac.org/global-knowledge-gateway/sustainability/discussion/stranded-assets-and-reserve-accounting. He submits recommendations to improve disclosure, i.e. a) convert reserves into potential CO₂ emissions, b) produce a sensitivity analysis of reserves levels in various price/demand scenarios, c) publish valuations of reserves using a range of disclosed price/demand scenarios and d) discuss the implications of this data when explaining their capital expenditure strategy and risks to the business model.

“Limitations imposed” is not limited to legislative measures or executive measures by the government. It includes lower demand if and to the extent that renewable energy gains ground. We realise, however, that it may be difficult to assess the impact of such limitations on *specific* enterprises. By way of example: assume that the global demand for fossil fuels will decrease by 20% in the decade to come. Although it is clear that a decrease in global demand will affect all fossil fuel companies negatively, it is unclear how *individual* companies will specifically be impacted.⁵³⁸ In addition, unpredictable events may impact both demand and supply.

More importantly, not all fossil fuels can be tarred with the same brush. Coal is considerably more GHG-intensive than oil. Gas may be less of a blessing than most people seem to believe, depending on how much of it leaks into the atmosphere. It may be difficult to assess how limitations of the *respective sources* of energy are going to develop in the international and domestic political arena. That said, it seems safe to assume that energy derived from coal will become increasingly unpopular in the very near future, even if it comes from existing coal fired plants.

Enterprises may try to obtain compensation when their assets become stranded because of legislative measures, for example by means of investment treaties. Refer to the commentary to Principle 3 for a discussion of such treaties.

In spite of the fact that proven reserves might already become stranded in case of an energy transition, several fossil fuel giants are keen to explore and extract new oil or gas fields,⁵³⁹ for instance in the arctic region, through fracking or by combusting tar sand oil. Many of these activities entail considerable risks. For the purpose of this principle, it is important to realise that these sources are fairly likely to become stranded assets.⁵⁴⁰ In addition and not unimportantly, they often have an impact on the environment and jeopardise the rights of – inter alios – indigenous people.⁵⁴¹ Hence, they also entail serious liability risks beyond the risks they pose to the climate.⁵⁴²

538 That said, it seems safe to assume that the investment will often not pay back; see e.g. Spring Associates, Sluiting van de Nederlandse kolencentrales: Maatschappelijke en economische effecten (Closure of the Dutch coal power plants: Societal and economic effects), June 2016, www.kyos.com/wp-content/uploads/2016/09/Spring-Associates-Impact-closure-Dutch-coal-stations.pdf, with a summary in English on p. 2.

539 Divest McGill, Carbon at All Costs, o.c. p. 90 and Cleveland, Schuwerk and Weber, Carbon Asset Risk, o.c. p. 16 ff.

540 Leaton et al., Unburnable Carbon, o.c. p. 4.

541 See e.g. Divest McGill, Carbon at All Costs, o.c. p. 73-75 and 81.

542 See for instance Divest McGill, Carbon at All Costs, o.c.

Exxon challenges the idea that its assets will be(come) stranded. Its arguments proceed along the following lines:⁵⁴³

- It conducts a ‘rigorous and comprehensive’ annual global energy outlook analysis, which has accounted for regulatory policies on GHG emissions for several years.⁵⁴⁴
- “Based on this analysis, we are confident that none of our hydrocarbon reserves are now or will become “stranded.” We believe producing these assets is essential to meeting growing energy demand worldwide, and in preventing consumers – especially those in the least developed and most vulnerable economies – from themselves becoming stranded in the global pursuit of higher living standards and greater economic opportunity.”⁵⁴⁵
- “As part of our Outlook process, we do not project overall atmospheric GHG concentration, nor do we model global average temperature impacts” because “[t]hese would require data inputs that are well beyond our company’s ability to reasonably measure or verify.”⁵⁴⁶
- “All economic energy sources are needed to meet growing global demand.” Although renewables are anticipated to grow at the fastest rate, they will continue to comprise only 5% of the total energy mix by 2040 because of their comparatively small contribution to date. Limiting factors for further penetration include intermittency, scalability, geographic dispersion, and higher relative cost.⁵⁴⁷
- “While the risk of regulation where GHG emissions are capped to the extent contemplated in the “low carbon scenario” during the Outlook period is always possible, it is difficult to envision governments choosing this path in light of the negative implications for economic growth and prosperity that such a course poses, especially when other avenues may be available, as discussed further below.”⁵⁴⁸
“ExxonMobil has proven reserves that are estimated to last sixteen years, and it does not expect meaningful political action to sufficiently restrict hydrocarbon production within that time period so that these assets will become stranded.”⁵⁴⁹
- ExxonMobil factors in governmental policies to reduce GHG emissions from energy production and consumption through a proxy-cost of CO₂ in its economic analysis of

543 ExxonMobil, Energy and Carbon – Managing the Risks, 2014, <http://cdn.exxonmobil.com/~media/global/files/energy-and-environment/report---energy-and-carbon---managing-the-risks.pdf/>.

544 P. 1.

545 P. 1.

546 P. 5.

547 P. 6. Recent fast-paced developments in renewable energy technologies mean this view is, or will soon become, outdated.

548 P. 11. It adds a graph we have deleted. Furthermore, the point that a low carbon scenario would entail strong enough negative consequences for ‘economic growth and prosperity’ for governments to withhold climate measures is at least challengeable; see the introductory chapter to this commentary under ‘Achieving the reductions required still affordable’.

549 P. 12.

electricity cost, in allocating investment and in general in its reports for several years. This cost ‘may approach’ \$80//ton over the outlook period (2040) in ‘some areas’.⁵⁵⁰

We do not want to express a view on the question whether Exxon is right or not in relation to its own business, in particular in light of its alleged reserves of (only) 16 years. But the example of Exxon points to an inconvenient truth.⁵⁵¹ It is unfortunately true that many governments lag far behind what is necessary. It would indeed be a miracle if they would solve the problem within the time required. But important players – businesses, investors, civil and “real” society – are increasingly willing to change this scenario. More importantly the economic tide is turning. Renewables become ever cheaper and new technology pops up ever faster; a transition towards clean energy is emerging and arguably unstoppable. A 10% shift in market share can be crippling for the fossil fuel industry and even more for the coal mines. All this may take more time than desirable but the odds are against Exxon’s view. Hence, there is a fair chance that the miracle will materialise despite the failures of governments.⁵⁵²

One cannot, however, deny that fossil fuel giants are entitled to follow the approach exemplified by Exxon’s. Not only in light of their freedom of speech/expression,⁵⁵³ but also because they *may* be right. They should, however, add a calculation based on the still available carbon budget to keep global warming below 2°C. It is then up to those addressed to draw their conclusions. E.ON’s Annual Report 2016 underscores the importance of this principle. Its net loss over 2016 of € 16 billion is caused by its completed sustainability working programme.⁵⁵⁴

The world’s governments have united to limit global warming “well below” 2°C, with an ambition to intensify measures to reach a 1.5°C target in the Paris Agreement. In our view, it is difficult to contest a scenario that is deemed so vital to achieve by most of the world’s governments, although other scenarios are still conceivable. Hence the obligation put forth in this principle.

550 P. 17 and 18.

551 Also see Cleveland, Schuwerk and Weber, Carbon Asset Risk, o.c. p. 19.

552 See in much more detail Luke Sussams and James Leaton, Expect the Unexpected: The Disruptive Power of Low-carbon Technology, Carbon Tracker and Grantham Institute on Climate Change and the Environment at Imperial College London, February 2017, www.carbontracker.org/wp-content/uploads/2017/02/Expect-the-Unexpected_CTI_Imperial.pdf.

553 In parts of the world.

554 www.eon.com/content/dam/eon/eon-com/investors/annual-report/EON_Annual_Report_2016.pdf, p. 37 and 48.

For the avoidance of doubt: enterprises active in fossil fuel production have not only to comply with this principle, but equally with Principles 19 and 20.

PRINCIPLE 24

Countries are under an obligation to ensure an informed decision-making process which includes an evaluation of the risks and effects of envisaged activities.⁵⁵⁵ It follows that enterprises have to provide this type of information where relevant.

The obligation to conduct Environmental Impact Assessments (EIAs) coincides with national and international developments,⁵⁵⁶ as already explained in the commentary to Principle 18 under Legal basis. The obligation under (b) is related to Principles 17 and 21.

Naturally, the assessment needs to be executed before building new or expanding existing facilities.⁵⁵⁷ It is self-explanatory that the outcome of the assessment should carry weight in the decision-making process; see Principle 9.

A recent judgment of the Federal Administrative Court of Austria (Bundesverwaltungsgericht) shows the relevance and importance of this principle. The case was about the question of whether the alleged advantages of a planned third runway for Vienna airport carry more weight than the adverse impact on – inter alia – climate change. In a lengthy

555 SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 21 and 31. The report refers to ECHR judgements borrowing from a series of international conventions. See about enterprises inter alia Citi, JP Morgan Chase and Morgan Stanley, Carbon Principles, o.c.

556 For more detail, see SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 31 and more cautious p. 66; De Schutter et al., Human Rights Due Diligence, o.c. p. 43 ff. For a discussion of non-compliance with procedural requirements, see Brian J. Preston, Mapping litigation to enforce climate change obligations of states and enterprises (the text of the presentation has not been published); Preston refers to Gray v Minister for Planning (2006) 152 LGERA 258; Border Power Plant Working Group v. Department of Energy, 260 F Supp 2d 997 (2003); Mid States Coalition for Progress v. Surface Transportation Board, 345 F 3d 520 (8th Cir. 2003); Centre for Biological Diversity v. California Department of Fish and Wildlife, 361 P 3d, 195; Friends of Highland Park v. City of Los Angeles et al., Cal Ct App, NO B261866. Also see, with a wealth of further references, Marie-Claire Cordonier Segger and Ashfaq Khalfan, Sustainable Development Law: Principles, Practices and Prospects, Oxford University Press, 2004, p. 156 ff and p. 175 ff; Roos, Climate Change and Human Rights, o.c. p. 315 ff and about Australian and New Zealand case law Wilensky, Climate Change in the Courts, o.c. p. 19 ff, 25 and 39 and Burger and Gundlach, Status of Climate Change Litigation, o.c. p. 37 and 38. Also see UNEP FI, The Principles for Positive Impact Finance: A Common Framework to Finance the Sustainable Development Goals, 30 January 2017, www.unepfi.org/wordpress/wp-content/uploads/2017/01/POSITIVE-IMPACT-PRINCIPLES-AW-WEB.pdf.

557 This is also emphasised by Jesse, Responsibility of Business Enterprises to Respect the Environment, o.c. p. 56 with further references.

and detailed judgment, this question is answered in the negative. The court held *inter alia* (in the English translation by Pooja B. Chawda):⁵⁵⁸

“Evaluation criteria:

In many cases, legislators have already prioritized different interests. This is, on the one hand, determined by the target regulations (eg in nature conservation laws), on the other hand by the fundamental rights concerned (Label in: Year-book of the Austrian and Europe, Environmental Law 2012, International Assessment in Austrian Environmental Law, p. 144, with reference to Berka, Constitutional Law 3 [2010] 1550).

In the LFG [Federal Law Gazette], the requirement as a legitimate public interest is explicitly stated in Section 71 (2).

Criteria for consideration, which under the "other public interests" according to § 71 Abs. 1 lit. D LFG is to be understood as not allowing the opposition to provision of civil airfield permit, are however not defined in the LFG.

In any case, public interests are to be understood as those which concern the interests of the common good over individual interests.

These are, in the present case, the requirements set out in point III.4.5.3. To III.4.5.11. Enumerated interests. Private economic interests must therefore not be included in the consideration.

Even if no criteria for the evaluation of the interests are provided in § 71 LFG and such a constellation is criticized in the literature with reference to Article 18 B-VG (...), the Constitutional Court considered this relevant provision in the National Conservation Act to be unobjectionable (VfSlg 11.019 / 1986, cf., further, VfSlg 9883/1983 mwH).

If no criteria can be taken from a substantive law, as in the case of the LFG, the evaluation must be based on the value of democratically legitimated organs or the gradual building of the legal system.

Such indications arise, for example, from decisions of the Federal Government or resolutions of the National Council, from the provisions of Union law, as well as from federal and state constitutional provisions.

The public interest legitimizing the project:

As the project legitimizing public interest is the growing need, the increasing demand for the flight movements in the Austrian East region, which in the foreseeable future, is to be anticipated. (...)

Consideration by Federal and Land Constitutional Law:

558 <http://systemchange-not-climatechange.at/wp-content/uploads/2017/03/unofficial-translation.pdf>.

The evaluation of public interests is not absolute and is subject to the change of time.

When the relevant provision of LFG (Federal Law Gazette no. 253) was issued in 1957, climate change and the prevention of greenhouse gas emissions have not yet been considered.

At the time, the air was largely still a free product. Now, the compulsion to take into account the increase in greenhouse gases and the associated overall social costs is also acknowledged at the level of international law, but also in federal and state legislation.

Climate change is one of the most urgent problems in today's context.

As a result of the changes in the situation, the interpretation of the concept of public interests has also changed.

The dominance of the development of aviation and the related economic aspects typical of the time when the LFG was adopted are replaced by increased attention to environmental protection.

This is also reflected by the issuance of the "Federal Constitutional Law of 27 November 1984 on Comprehensive Environmental Protection" with Federal Law Gazette No. 491/1984 (BVG Umweltschutz), which introduced environmental protection as a national goal.

The Federal Constitutional Law for Environmental Protection was then adopted in 2013 (...).

The Federal Constitutional Law for Sustainability is, therefore, to be used in the interpretation of the notion of public interest as means to achieve a national target.

According to the BVG sustainability, the Republic of Austria (...) is committed to the principle of sustainability in the use of natural resources in order to ensure the best possible quality of life for future generations (§ 1) as well as on comprehensive environmental protection (§ 2 para. 1).

Comprehensive environmental protection is the preservation of the natural environment as a human basis for humans from harmful effects.

Comprehensive environmental protection consists, in particular, of measures for the protection of air, water and soil and the prevention of noise pollution (section 2 (2)). The Lower Austrian Provincial Law 1979 (Lower Austria, 1979) – concerns itself with the third runway in the province of Lower Austria – and prioritizes environmental protection and especially for climate protection. (...) Finally, the last sentence of this clause specifically states: "Climate protection is particularly important." In the provinces of Vorarlberg, Tyrol, Salzburg, Upper Austria and Carinthia too, environmental protection and climate pro-

tection in particular are given prominence as an objective and principle of state action.

Furthermore, Article 4 (3) of the Lower Austrian Law, under the heading "Economy", provides that "the Land of Lower Austria shall promote the development of the economy, taking into account social, ecological and regional needs".

Thus, both the Federal and the Lower Austrian Constitutional Authorities have emphasized environmental protection – and in particular climate protection – as a particular target.

Even if such national targets are primarily directed at the legislature, these constitutional provisions are nevertheless to be used as an interpretation aid within the framework of the co-application (...).

Although national targets are directed primarily at legislators, they can be used as a means of interpretation in the interpretation of undefined legislation (such as 'public interests') (...).

Evaluation by means of resolutions or resolutions by state authorities:

The Austrian Federal Government has decided by a resolution adopted by the Council of Ministers on 23.10.2012 to adopt a strategy for adaptation to climate change. All the possible consequences of climate change are to be taken into account in all relevant planning and decision-making processes on the national level up to the local level, take into account the private sector and the individual (p. 127)."

The court subsequently turns to a document submitted to it and concludes that the "construction of the third runway is placed on the fourth category in a five-stage scale. The construction of the third runway is therefore not the highest priority.

The court further observes that the National Council adopted by a majority "Austria's contribution to an ambitious result at the Climate Conference COP 21 in Paris". In "particular the Federal Ministers of Agriculture, Forestry, Environment and Water Management, Calls on the European Union and its objective to reduce the number of European countries' Greenhouse gas emissions of at least 40% by 2030 against the 1990 status at the COP 21 climate conference in Paris for an ambitious global, legally binding climate protection agreement for the post-2020 period, which is consistent with the objective of limiting the increase in global average temperatures to below two degrees Celsius.

Ruling

As to the construction of the third runway, the public interests speak of an additional need for air connections and the associated improvement of the

eastern region of Austria as well as the better supply of transport infrastructure and the creation of additional jobs.

Also in terms of flight safety, the third runway would be a profit, but the authorities always have to give priority to safety.

No special public interest in the construction of the third runway exists from the point of view of taxation and duties.

In the Austrian Federal Constitution as well as the Lower Austrian Land Constitution, environmental protection – and here climate protection in particular – is given special priority. Also, EU laws aims at a high environmental protection level through Art. 37 of Governance, Risikomanagement und Compliance (GRC).

As climate change is associated with severe health damage, with an increase in heat – related deaths as well as severe impairments of the Austrian economy and the agriculture and the project will lead to a significant increase in GHG emissions, the public interest in the realization of the project fall below the public interest in the protection against the negative effects of climate change and land use.

On the whole, the public interest prevails that there is no further significant increase in GHG emissions in Austria due to the construction and operation of the third runway.

Austria respects its national and international commitments to reduce GHG emissions compared to the various public interests that speak for the establishment of the project. Also, the preservation of valuable arable land for future generations to provide food is urgently required. The public interest in the construction of the third runway is thus largely lacking. The application submitted by the parties concerned must therefore be dismissed in its entirety.⁵⁵⁹

We realise that it cannot be reasonably expected that an enterprise in a developing country should conduct an EIA to the same standard as an enterprise in a developed country. An enterprise must show that it has conducted the best possible EIA, taking into account its means, the local context and other relevant circumstances. For instance, a Sri Lankan enterprise is not obliged to adhere to the same standard of best practice as a German enterprise where it would require substantial additional cost or inaccessible specialised knowledge or skills. Hence, this principle leaves room for flexibility. Nevertheless, departure from strict compliance with this principle should be the exception.

559 P. 122-127.

Jessica Wentz has advocated enhancing online access to environmental impact documents which would make it easier for the public to use the information contained in those documents.⁵⁶⁰ Such a requirement would make sense if and to the extent that the documents do not disclose confidential business information. She has also drafted a set of Principles on impact assessments. Below we quote her key submissions; for further elaboration we refer to her analysis.

“1. Scoping: Managers should conduct a preliminary analysis of climate change impacts and possible responses to those impacts during the scoping phase to identify issues that should be explored in greater depth in subsequent environmental review documents, and to receive public input on the scope of the climate change impact analysis before the publication of the draft environmental impact statement or environmental assessment. In particular, through the scoping process, the manager should:

- a. Identify the most important ways in which climate change may affect natural resources in the management area, taking into account different climate change scenarios and how these could influence average conditions and the range of variability in the area;
- b. Identify previous studies and assessments on how climate change may affect the management area, so that these can be incorporated by reference into the subsequent environmental review document;
- c. Consider whether adaptation measures or environmental mitigation measures are needed to address the impacts of climate change and how these should inform the development of action alternatives;
- d. Consider whether and how the effects of climate change may influence the purpose of, need for, or size or timing of the proposed action;
- e. Solicit information from stakeholders regarding any data or local knowledge that is relevant for the purpose of assessing the impacts of climate change on natural resources and developing action alternatives and environmental mitigation measures to address those impacts; and
- f. Use the “rule of reason” to determine the scope of the analysis for subsequent environmental review documents and to eliminate from detailed study those issues which are not significant.”⁵⁶¹

560 Jessica Wentz, *Using Online Databasing to Unlock the Full Value of Environmental Impact Assessments*, Sabin Center for Climate Change Law at Columbia Law School, November 2016, <http://columbiaclimate.com/files/2016/11/Wentz-2016-11-Using-Online-Databasing-to-Unlock-Full-Value-of-EIA.pdf>.

561 Wentz, *Considering Climate Change in Review and Planning*, o.c. p. A8 and A9 with further elaboration on the subsequent pages.

In addition to environmental impact assessment, John Knox has demonstrated that human rights impact assessments are also ‘progressing’ rapidly. Although they are (primarily) required of States, there is an emerging view that the same goes for enterprises.⁵⁶² According to the Ruggie Principles,⁵⁶³ corporations should identify and assess actual and potential adverse human right impacts “either through their own activities or as a result of their business relations.” The link to human rights (violations) matters because excessive GHG emissions are increasingly labelled as a human rights issue.⁵⁶⁴

OBLIGATIONS OF INVESTORS AND FINANCIERS

Over the past decades, an addiction to short-term benefits has become the scourge the financial system. This addiction has led to detrimental long-term outcomes for society. However, luckily, at least part of the financial world is waking up.

“An obsession with short-term outcomes can result in investment choices which may damage or thwart the long-term development of the wider economy, a healthy corporate sector and the financial performance of investment portfolios”.⁵⁶⁵

Reasons for concern

Principles 25-30 concern the obligations of investors and financiers. They elaborate on OP 30. A focus on the obligations of investors is important in light of the power that even a relatively small group of investors wields.⁵⁶⁶ Pension funds and insurers own a substantial part of the global capital market, and hence hold a profound potential to influence virtually

562 Knox, Cooperation between Human Rights and Climate Change Communities, o.c.

563 Endorsed by the UNHRC, as mentioned in §20.4.1.

564 See the report, submitted by students of Jim Silk’s Yale’s Human Rights Clinic, quoted in the commentary on the OP under 4.3: Ben Farkas, Allana Kembabazi and Stephanie Safdi, Draft Memorandum for the Experts’ Group on Global Climate Obligations, Allard K. Lowenstein International Human Rights Clinic at Yale Law School, April 2013, https://law.yale.edu/system/files/documents/pdf/Climate_and_Human_Rights__Memo.Final.pdf.

565 Marathon Club, Guidance Note for Long-Term Investing, Spring 2007, www.law.harvard.edu/programs/corp_gov/long-term-value-creation-roundtable-2014-materials/marathon-club-guidance-note-long-term-investing_EX.pdf, p. 4; this allegedly is “deep-rooted in the investment system” p. 4; strikingly, the report defines long term as “five years or more” (p. 5) which is clearly insufficient for pension funds.

566 Freshfields Bruckhaus Deringer, UNEP FI and UNEP FI Asset Management Working Group (UNEP FI AMWG). A legal framework for the integration of environmental, social and governance issues into institutional investment, October 2005, www.unepfi.org/fileadmin/documents/freshfields_legal_resp_20051123.pdf, p. 6. Also see EC, Communication COM(2011) 681 final, o.c. p. 7.

all industries, and potentially even States.⁵⁶⁷ In addition pensions are a crucial investment for many people and an area where people are particularly vulnerable to the failure of capital markets.⁵⁶⁸ Insurance coverages are vital to the economy and protect people against risks that they cannot or do not want to bear.

The UNEP Finance Initiative and Principles for Responsible Investment (PRI)⁵⁶⁹ point to emerging risks. They assess the external costs of GHG emissions at 7,54% of global GDP in 2008 and 12,93% in 2050.⁵⁷⁰ Medium- to large-sized publicly listed enterprises cause over 35% of global externalities;⁵⁷¹ the related cost represents nearly 7% of the combined revenues of the 3,000 largest companies.⁵⁷² The UNEP FI rightly observes that reducing GHG emissions will have the greatest diminishing effect on environmental costs.⁵⁷³

567 Freshfields Bruckhaus Deringer, UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues, o.c. p. 22 and 23. The insurance industry “controls” over US\$ 23 trillion in global investments: Leurig, Climate Risk Disclosure by Insurers, o.c. p. 7. Pension funds control assets equivalent to 76% of national GDP throughout the Western world, on average: Claire Woods, Funding Climate Change: how pension fund fiduciary duty masks trustee inertia and short-termism, School of Geography and Environment at Oxford University, 2009, <https://ora.ox.ac.uk/objects/uuid:f8296faa-6757-4246-a8e7-c9894fe01fec>, p. 2. In most OECD countries, publicly listed companies have become owned for an increasing share by institutional investors. In the UK, only 10% of all public equity is in the hands of natural persons; see Serdar Çelik and Mats Isaksson, Institutional Investors as Owners: Who are they and what do they do? OECD Corporate Governance Working Papers, No. 11, 2013. [www.lse.ac.uk/fmg/researchProgrammes/corporateFinance/corporateGovernance/pdf/Corp.Gov.2014-1-Institutional-Investors-as-Owners-Celik-Isaksson-\(5\).pdf](http://www.lse.ac.uk/fmg/researchProgrammes/corporateFinance/corporateGovernance/pdf/Corp.Gov.2014-1-Institutional-Investors-as-Owners-Celik-Isaksson-(5).pdf). 50% Of installed wind capacity in Europe was reportedly owned by institutional investors: Christopher Kaminker et al., Institutional Investors and Green Infrastructure Investments: Selected Case Studies, OECD, Working Papers on Finance, Insurance and Private Pensions, No. 35, 2013, <http://dx.doi.org/10.1787/5k3xr8k6jb0nen>.

568 Law Commission (England & Wales), Fiduciary Duties of Investment Intermediaries, LAW COM No 350, Crown, 30 June 2014, www.lawcom.gov.uk/app/uploads/2015/03/lc350_fiduciary_duties.pdf, p. 7.

569 These Principles are a joint initiative of the UNEP FI and the UNGC; they aim at “incorporating ESG issues to mainstream investment decision-making and ownership practices” and are “based on the premise that institutional investors and asset managers have a duty to act in the best long-term interests of their investors and therefore, need to give appropriate consideration to how environmental, social and governance (ESG) issues can affect the performance of investment portfolios”: OECD and UNEP FI, The UN PRI and the OECD Guidelines, o.c. p. 3.

570 UNEP FI, Universal Ownership, o.c. p. 4. In a business as usual scenario, global environmental costs are projected to reach 18% of GDP, i.e. US\$ 28.6 trillion (p. 3). The publication does not explain how these figures have been calculated, nor whether they include potential claims for damages. On p. 8 the report refers to the polluter pays principle: “companies will have to meet the costs of reducing pollution and waste or pay compensation for the damage they cause” (p. 8). Also see Viola Lutz and Martin Stadelmann, Potential Impact of Climate Change on Financial Market Stability: Final report, South Pole Group, commissioned by the German Federal Ministry of Finance, 21 October 2016.

571 UNEP FI, Universal Ownership, o.c. p. 6.

572 UNEP FI, Universal Ownership, o.c. p. 7. Five sectors (electricity, oil & gas, industrial metals & mining and construction & materials) account for 60% of all externalities (p. 7).

573 UNEP FI, Universal Ownership, o.c. p. 4.

The World Economic Forum's (WEF) Global Risks Report 2016 puts it in unequivocal terms: it expects that "[i]n the coming months or years":

“the impact of the Paris Agreement will be felt in board rooms, banks and stock exchanges across the world. The expectation is that, as a result, trillions of dollars needed for investments will be unlocked to put the world onto a climate-safe-pathway. The time has come to pivot from business-as-usual.”⁵⁷⁴

A study by Mercer⁵⁷⁵ quotes a communiqué of the G20 Finance Ministers and Central Bank Governors of April 2015:

“We ask the Financial Stability Board to convene public and private sector participants to review how the financial sector can take account of climate change-related issues”.⁵⁷⁶

This statement rightly emphasises the correlation between climate change and financial stability. Besides, it weakly proposes to take action on climate change. Our principles go further, by trying to paint the core obligations of investors and financiers.

The overarching rationale

The overarching rationale for Principles 25-30 is similar to the rationale of Principles 6, 7, 9 – 11, 17, 18, 21 and 23. Enterprises and other (major) investors in the financial or banking sectors increasingly face a series of risks, affecting their loans and/or investments. First, the value of their assets and the financial capacity of borrowers will be increasingly jeopardised as climate change progresses.⁵⁷⁷ That is, already in itself, a compelling reason for a cautious stance on the part of enterprises and other (major) investors in the financial or banking sectors.⁵⁷⁸ Secondly, providing vital financial services to activities that generate

574 O.c. p. 14.

575 Mercer, *Investing in a Time of Climate Change*, o.c.

576 P. 5. The report provides important data and statistics and on p. 59 ff the portfolio implications and investor actions.

577 See for instance Mercer, *Climate Change Scenarios: Implications for Strategic Asset Allocation*, 2011, www.ifc.org/wps/wcm/connect/6b85a6804885569fba64fa6a6515bb18/ClimateChangeSurvey_Report.pdf?MOD=AJPERES, p. 12, 15 and 21; Mercer, *Investing in a Time of Climate Change*, o.c. p. 7; also see Cleveland, Schuwerk and Weber, *Carbon Asset Risk*, o.c p. 27.

578 For a similar view, see Edward J. Waitzer and Douglas Sarro, *Pension Fiduciaries and Public Responsibilities: Emerging Themes in the Law*, *Rotman International Journal of Pension Management* 6 (2), 2013, <http://dx.doi.org/10.2139/ssrn.2330356>, p. 31 with further references.

unduly high GHG emissions puts the world, humankind and nature at risk.⁵⁷⁹ Thirdly, the value of some investments is at risk from (potential) measures taken against climate change.

If humankind and nature are put at risk by runaway climate change, the value of *all* investments will equally be put at risk. IIGCC points to other risks: consumer trends that may impact fossil fuel demand, the role of geopolitics,⁵⁸⁰ and assumptions around the utilisation of “negative emission.”⁵⁸¹ A report issued by Swiss Sustainable Finance adds the reputational risk and litigation risk as well as the risk of evolving technology which may have an adverse impact on the value of investments.⁵⁸² The South Pole Group emphasises the regulatory risk.⁵⁸³

Business as usual is not an option

Leading public pension funds have understood that business as usual is no longer an option. They have come to realise that they can and have to play a role to stem the tide; an increasing number of them have started to act.⁵⁸⁴ The example of the major Dutch pension fund ABP is illustrative. As from 2020 it aims to invest only in shares and bonds of enterprises with “voldoende aandacht voor duurzaam en verantwoord ondernemen” (sufficient attention to sustainable and responsible business activities).⁵⁸⁵

579 This comes close to complicity. We do not express a view on that delicate topic. We certainly do not advocate liability of investors and banks. For our stance on liability of enterprises, see §15.

580 Also see Swiss Sustainable Finance (SSF), *Handbuch Nachhaltige Anlagen: Hintergrundinformationen und Praxisbeispiele für institutionelle Investoren in der Schweiz* (Handbook Sustainable Investments: Background information and Practical Examples for Institutional Investors in Switzerland), November 2016, www.sustainablefinance.ch/upload/cms/user/SSF_Handbuch_Nachhaltige_Anlagen_2016_11_28_einseitig_Web.pdf, p. 84.

581 Global Investor Coalition on Climate Change (GICCC), *Climate Change Investment Solutions: A Guide for Asset Owners*, 22 April 2015, www.iigcc.org/files/publication-files/Climate-Change-Investment-Solutions-Guide_IIGCC_2015.pdf, p. 8. The GICCC is made up of the four regional climate change investor groups, being IIGCC (Europe), INCR (USA), IGCC (Australia & New-Zealand) and AIGCC (Asia).

582 *Handbuch Nachhaltige Anlagen*, o.c. p. 84 and 85.

583 Lutz and Stadelmann, *Impact of Climate Change on Financial Stability*, o.c. p. 10; also see Gold and Scotchmer, *Climate Change and Fiduciary Duties in Canada*, o.c. p. 25.

584 See in much more detail UNEP FI AMWG and UK Social Investment Forum Sustainable Pensions Project, *Responsible Investment in Focus: How leading public pension funds are meeting the challenge, 2007*, www.unepfi.org/fileadmin/documents/infocus.pdf. Also see UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 19 and 34 ff and a rather disappointing conclusion on p. 56; the report refers to another report stating that “many U.S. state treasurers and controllers have begun to show support for SG integration approaches, particularly to the risk of climate change” (p. 27). Also see Climate Group, *The Climate Principles: A framework for the finance sector*, 2 December 2008, www.theclimategroup.org/sites/default/files/archive/files/The-Climate-Principles-English.pdf, under “Vision”.

585 ABP, *Duurzaam en verantwoord beleggen*, o.c. p. 10. What immediately follows is not fully in line with this goal. ABP is prepared – “in principle” – to keep investments in laggards when they can be incited to “verbeteringen” (‘improvements’), same page. Major pension funds seem less interested in the role of gov-

This development carries all the more weight in light of a survey conducted in 2005 which found that “the use of positive screening for environmental, social and ethical factors is entering mainstream investment analysis”, whilst 70% of fund managers believed that this would become mainstream.⁵⁸⁶

How to cope with uncertainties?

In the commentary on Principle 18, we pointed to uncertainties about the future. It is uncertain to what extent and at what pace GHG emissions *will* be reduced. In a similar vein, it is uncertain to what extent policies to limit global warming and climate change will be adopted and what their effect will be on specific enterprises. It can only be hoped that the 2°C threshold will not be passed, but there is a fair chance it will. It is not even unthinkable that worst-case scenarios of a rise of global temperature far beyond 2°C will materialise. It is equally possible – albeit not the most likely scenario – that the 2°C threshold will not be passed. This uncertainty matters, of course, to society, banks, insurers and long term investors.⁵⁸⁷ These factors must be taken into account by financiers under Principle 25, as they play a part in determining whether a borrower can repay the loan granted. It speaks for itself that these factors should also be taken into account by investors, as they will influence the value of return on investments. As such, they are relevant financial considerations. Finally, investors and financiers should take into account the vulnerability of enterprises to climate change, and the financial consequences thereof (Principle 18 (a) and (b)).

We strongly believe that the financial sector must err on the safe side. There are many reasons for that view. First, the financial sector is extremely important to society. Banks offer vital services such as providing loans and serving as a vehicle to deposit money for natural persons and enterprises. Many investors manage the retirement benefits of millions of people; of which the overwhelming majority fully depends on their capability to meet their duties to pay out these pensions.

The financial crisis has taught us that even relatively minor events can greatly affect financial stability in a major part of the world. The crisis that will be sparked by runaway climate change will be of a completely different magnitude from the financial crisis that

ernments and their power as bondholders and major economic players to pressurise governments to upscale their reductions.

586 Freshfields Bruckhaus Deringer, UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues, o.c. p. 23. The conclusion on p. 29 is more cautious, pointing to a lack of consensus.

587 Also see Mercer, Climate Change Scenarios, o.c. p. 7 and 10 and Generation Investment Management, Sustainable Capitalism, o.c. p. 13.

was caused by the mishaps of banks such as Lehman Brothers. Hence, the financial sector must properly anticipate devastating climate change. That follows from their fiduciary duties, discussed in more detail below. If (still) necessary, the precautionary principle colours the fiduciary duties to this extent.

There is another reason for this position. Without pressure from the financial world on States and enterprises there is very little, if any, hope for improvement. This pressure encompasses refraining from loans to unduly emitting activities and investing in States (by means of bonds) and enterprises (by means of shares, bonds or equity) that do not comply with their reduction obligations. The UNEP FI and PRI hit the mark:

“Large institutional investors are, in effect, “Universal Owners”, as they often have highly-diversified and long-term portfolios that are representative of global capital markets. Their portfolios are inevitably exposed to growing and widespread costs from environmental damage caused by companies. They can positively influence the way business is conducted in order to reduce externalities and minimise their overall exposure to these costs. Long-term economic wellbeing and the interests of beneficiaries are at stake. Institutional investors can, and should, act collectively to reduce financial risk from environmental impacts.”⁵⁸⁸

‘Must ascertain and take into account’

The wording in Principles 25 and 26 is rather vague through the phrases “must ascertain” and “take into account”. The law as it stands may not have progressed to a stage where it is possible to be more concrete⁵⁸⁹ To the extent possible we have tried to be as concrete as possible, as follows from Principles 27-29.

588 UNEP FI, Universal Ownership, o.c. p. 2.

589 The obligation as such probably already belongs to the domain of the law. It is explicitly endorsed by the UNEP FI and UNGC, Principles for Responsible Investment Principle 1 and 4. But both are as vague as our principle. Well over 1,500 players from the financial arena have signed these Principles. Also see Jesse, Responsibility of Business Enterprises to Respect the Environment, o.c, p. 58. According to Peter Ellsworth and Kirsten Snow Spalding, The 21st Century Investor: Ceres Blueprint for Sustainable Investing, Ceres, June 2013 (updated June 2016), www.ceres.org/sites/default/files/reports/2017-03/Ceres%20Blueprint%20for%20Sustainable%20Investing.pdf, trustees should understand sustainability risks, monitor the implementation of sustainable investment initiatives, review current asset allocation strategies to determine whether they are prepared for the ensuing risks, examine climate risks in routine reviews of portfolios and strategies, and increase allocation to assets that will benefit from low carbon (p. 16-20). See for strategies and recommendations for banks on how to develop meaningful and appropriate activities to cope with the challenge of climate change Bettina Furrer, Volker Hoffmann and Marion Swoboda, Banking & Climate

There clearly is an emerging trend to the obligations set out in these principles, as the (World Bank's) IFC Performance Standards on Environmental and Social Stability,⁵⁹⁰ and the position taken by the European Investment Bank, show.⁵⁹¹ The Equator Principles, which *inter alia* concern project-finance and project-related corporate loans, emphasise the importance of environmental and social review, due diligence⁵⁹² and impact assessment.⁵⁹³

Even though this phrasing is rather vague, it is certainly not without content. The phrase “must ascertain” goes well beyond a loose or cursory investigation. The relevant enterprise or other major investor in the banking or finance sector is obliged to establish the GHG emissions that will result from all stages of a project it considers financing.⁵⁹⁴ With the phrase “take into account”, we mean that the subsequent decision should be reasonable in light of all relevant factors,⁵⁹⁵ explicitly including the carbon footprint of the project and whether investment in GHG intensive projects will yield a financial return.⁵⁹⁶ It also means that an enterprise in the banking or finance sectors must consider, according to financial

Change: Opportunities and Risks: An Analysis of Climate Strategies in more than 100 banks worldwide, March 2009, www.sustainabilitycompany.it/img/text/SAM_ETH_Study_Banking.pdf.

590 International Finance Corporation, IFC Performance Standards on Environmental and Social Sustainability, 1 January 2012, www.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES. These Standards are effective as of 1 January 2012. See p. 2, 3 and 6 ff in more detail. The objectives put it as follows: “To adopt a mitigation hierarchy to anticipate and avoid, or where avoidance is not possible, minimize, and where residual impacts remain, compensate/offset for risks and impacts to (...) Affected Communities, and the environment” (p. 6). The impact seems to be lowered on p. 7, observing that “[t]he scope of the risks and impacts identification process will be consistent with good international industry practice” (as defined in footnote 10). p. 8 explicitly concerns GHG emissions.

591 SICL, Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt, o.c. p. 41. The report continues by stating that only a handful of European countries, notably Germany, the Netherlands and the UK, take human rights and environmental impacts directly into account (p. 42). Also see Ellsworth and Snow Spalding, *The 21st Century Investor*, o.c. p. 30; UNEP FI, *Universal Ownership*, o.c. That does not necessarily mean that many lenders incorporate environmental risk appraisal into their due diligence procedures; see Benjamin J. Richardson, *Fossil Fuels Divestment: Is It Lawful?* University of New South Wales Law Journal 39 (4), 23 November 2016, <https://ssrn.com/abstract=2874660>, p. 1702.

592 Equator Principles: A financial industry benchmark for determining, assessing and managing environmental and social risk in projects, version 3, June 2013, www.equator-principles.com/resources/equator_principles_III.pdf, Principle 1.

593 Principle 2. See also, in more detail, UNEP FI AMWG, *UNEP FI AMWG, Fiduciary responsibility: Legal and practical aspects of integrating environmental, social and governance issues into institutional investment*, July 2009, www.unepfi.org/fileadmin/documents/fiduciaryII.pdf, o.c. p. 26 ff.

594 See for instance UNGC, *Guide to Corporate Sustainability*, o.c. p. 9 and UNEP FI AMWG, *Fiduciary responsibility*, o.c. p. 26: it would be unlawful to merely pay “lip service to the incorporation of ESG as mainstream investment considerations” (p. 26).

595 Thus also, paraphrased, Freshfields Bruckhaus Deringer, *UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues*, o.c. p. 11 and p. 12. The report subsequently concludes that there is no consensus regarding the weight that this factor should be given (p. 29).

596 The problem of stranded assets is gaining traction in the international debate, and is covered by Principle 24 under (c).

regulatory standards, that a prospective project could lose its value because of the law. If assets become stranded the enterprise that intended to run the project could become unable to repay borrowed loans.⁵⁹⁷ Practically speaking, this is similarly the case for investors under Principle 26, albeit that in case of investors, the relevant consideration is not whether an enterprise could become unable to repay borrowed loans, but whether an enterprise will diminish in value because its assets become stranded.⁵⁹⁸

Taking into account the GHG emissions of a project also means considering the potential effects of continued GHG emissions across financing or investment portfolios. This consideration should be particularly consequential for the financing of or investment in non-complying enterprises and/or enterprises engaged in generating carbon energy, covered under Principles 27 and 28.

THE DISTINCTION BETWEEN PRINCIPLE 25 AND PRINCIPLES 26-30

The difference between Principle 25 and Principles 26-30 is that the former includes banks insofar as they conduct regular banking activities and the latter only include banks when they act as investor. This distinction was made because it would be too much to extend the obligations of Principles 26-28 to banks as that would render banking business impossible. If applied to banks, these principles would require a bank to vet the compliance of each enterprise customer with our principles and justify any loan given to non-compliers, even if such a loan would be given because of overdraft. This might be different in case of significant loans.⁵⁹⁹

PRINCIPLE 25

This principle concerns the obligations of enterprises in the financial sector and other major investors irrespective of whether they are an enterprise according to the definition proposed in Principle 1. It focuses primarily on banks, similar financial institutions and investors. It only addresses the insurance industry to the extent that insurers lend money

⁵⁹⁷ For further discussion of the stranded asset problem, see the commentary to Principle 23.

⁵⁹⁸ Legally speaking it is not completely the same. If an investment decreases in value because of, for example, sharpened climate policy, the loss materialises immediately and is not substituted for in any way. If the financed object of a loan decreases in value, the borrower remains obligated to repay the loan. However, as in most of these instances borrowers will go into bankruptcy, the difference is not necessarily salient in practice. See in the context of investors UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 17.

⁵⁹⁹ The meaning of 'significant' should be determined by the size of the enterprise and the project that is financed.

to others or act as investor.⁶⁰⁰ The specific obligations of investors are covered by Principle 26-30.

That the law in this realm is (swiftly) developing is illustrated in a report by UNEP, *Inquiry: Design of a Sustainable Financial System*. The report makes mention of:

600 The insurance industry is one of the major global investors; see for instance www.insuranceeurope.eu/protecting-long-term-investment. It would certainly be important to discern the obligations of insurers: are they under an obligation to provide coverage for climate change related losses or should they refrain from doing so? What is their aggregate exposure in case of a series of natural catastrophes in a specific year? That important topic requires further research. See about insurers SICL, *Durchführung einer Sorgfaltsprüfung bezüglich Menschenrechte und Umwelt*, o.c. p. 43. See also (in Dutch) Guido Schotten et al., *Tijd voor Transitie: een verkenning van de overgang naar een klimaatneutrale economie* (Time for Transition: an exploration of the transition to a climate neutral economy), De Nederlandsche Bank (the Dutch Central Bank), 2016, www.dnb.nl/binaries/TijdvoorTransitie_tcm46-338545.pdf; Liberty International Underwriters, *Climate Change: Emerging Liability Risks*, o.c. p. 16 and 18; Seaman and DeLascio, *Professional liability*, o.c. p. 17 and 18; Funke, *Munich Re View on Climate-Change Litigation*, o.c. p. 23; Patton, *Insurers Should Focus on Climate Risk*, o.c. p. 10 and 14 ff; Samuel P. Gunther, Richard H. Murray and Sheila A. S. Gunther, *The Sustainability Accounting Standards Board, Insurance Companies and the SEC, Securities Regulation & Law Report 46*, 4 August 2014, www.samuelpgunther.com/images/bbna_article_4.pdf; also see UNEP FI, *Principles for Sustainable Insurance*, June 2012, www.unepfi.org/psi/wp-content/uploads/2012/06/PSI-document.pdf. Some authors cast doubt about the ability of insurers to assess the impact of climate change on their business; see for instance Leurig, *Climate Risk Disclosure by Insurers*, o.c. p. 4, 5, 6, 20, 26, 34. The report observes that the fast-emerging threat of climate change will impact the industry broadly “clouding its ability to price physical perils, creating potentially vast new liabilities and threatening the performance of its huge investment portfolios” (p. 4). See for a slightly more optimistic stance: Geneva Association, *Warming of the Oceans and Implications for the (Re)insurance Industry*, June 2013, www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public//warming_of_the_oceans-factsheet.pdf; about the liability aspect, see: Munich Re, *13th International Liability Forum: Climate change litigation and environmental liability – Commonalities and differences*, Munich Re Group, 2009 and Christina Ross, Evan Mills and Sean B. Hecht, *Insurance Risk-Management Strategies in the Context of Global Climate Change*, *Stanford Environmental Law Journal*, Symposium on Climate Change Risk 26A/43A, <http://evanmills.lbl.gov/pubs/pdf/liability-in-the-greenhouse.pdf>. Also see: Ralf Toumi and Lauren Restell, *Catastrophe Modelling and Climate Change*, *Lloyd’s*, 2014, www.lloyds.com/~media/lloyds/reports/.../cc-and-modelling-template-v6.pdf; Prudent Regulation Authority, *The impact of climate change on the UK insurance sector*, Bank of England, September 2015, www.bankofengland.co.uk/prad/Documents/supervision/activities/prad-fra0915.pdf; Swiss Re, *Mind the risk: A global ranking of cities under threat from natural disasters*, 18 September 2013, http://media.swissre.com/documents/Swiss_Re_Mind_the_risk.pdf; Miroslav Petkov, Volker Kudszus and Tracy Dolin, *Are Insurers Prepared For The Extreme Weather Climate Change May Bring?* in *Standard & Poor’s Ratings Services, Credit Week*, 28 May 2014, http://mts.sustainableproducts.com/Capital_Markets_Partnership/DueDiligence/33/Climate-Change-Special-Report-Credit-Week.pdf, p. 17-20; Allianz’ board member Joachim Faber rightly observed that “we are the frontline industry to feel the heat of climate change”: Allianz, *Allianz Warns Climate Change Could Hit Harder than Financial Crisis*, *Insurance Journal*, 22 November 2010, www.insurancejournal.com/news/international/2010/11/22/115074.htm. The ClimateWise Principles “encourage our customers to adapt to climate change and reduce their greenhouse emissions through insurance products and services”: Cambridge Institute for Sustainability Leadership, *The ClimateWise Principles*, 2008, www.cisl.cam.ac.uk/business-action/sustainable-finance/climatewise/pdfs/ClimateWise_Principles.pdf, under 3.2.

“a lack of global agreement on the interpretation of fiduciary duty as it relates to ESG issues. The consensus is growing on the need for wider debate, acceptance and integration of fiduciary duty as it is related to ESG issues across all jurisdictions as investors are, in a large part, global investors and the outcomes of their investment decisions are impacted by the prevailing laws that affect investments in all markets”.⁶⁰¹

Having said that, we strongly believe that the law as it stands already offers a sufficiently sound legal basis for this Principle. That basis comes from developed and developing countries around the globe. Next to the sources mentioned before and below, the following illustrations may suffice. China’s “Green Credit Policy and Green Credit Guidelines require banks to include covenants in their loan documentation to comply with environmental standards. Banks are also required to monitor their borrowers’ compliance with environmental regulations.” The Banco Central do Brasil encourages “banks to assess their exposures to carbon risks from their activities [and] to publicly disclose their sustainability risks.” The Financial Regulation of Peru “has introduced a requirement that banks request project managers to complete a due diligence report on projects that includes consideration of social, environmental and economic risk.”⁶⁰² A report by UNEP FI observes that “... sustainability is increasingly included as a risk-avoidance strategy”, whereas “minimizing the negative impact of finance continues to be a cornerstone of risk management within the banking sector.” It emphasises that “financial institutions need to begin aligning fully with sustainable development and the transition to a 2-degree economy.”⁶⁰³

A compelling justification is required for the financing of projects that generate GHG emissions beyond the level allowed under these principles.⁶⁰⁴ For example, the financing

601 Toby A. A. Heaps and Danyelle Guyatt, *A Review of International Financial Standards As They Relate to Sustainable Development*, UNEP Inquiry: Design of a Sustainable Financial System, February 2017, http://unepinquiry.org/wp-content/uploads/2017/02/A_Review_of_International_Financial_Standards_as_They_Relate_to_Sustainable_Development.pdf, p. 47. That is further highlighted by figure 5 (p. 58 ff).

602 Heaps and Guyatt, *Review of International Financial Standards*, o.c. p. 69 (all quotations in this paragraph).

603 Eric Usher, Yuki Yasui and Lara Jacob, *Connecting Financial System and Sustainable Development: Market Leadership Paper*, UNEP FI, October 2016, www.unepfi.org/wordpress/wp-content/uploads/2016/11/MKT-LEADERSHIP-REPORT-AW-WEB.pdf, p. 5, 6 and 17. Also see UNEP FI, *Principles for Positive Impact Finance*, o.c. p. 2 ff. In relation to the EU, the EU High-Level Expert Group on Sustainable Finance states that “financing the transition to a low-carbon sustainable economic model will require the full engagement of the banking sector, as banks are the backbones of the EU’s financial system and the largest source of external finance for the economy”: *Sustainable European Economy*, o.c. p. 31.

604 The Climate Principles take a more cautious stance: “We will consider practical ways to assess the carbon and climate risks of our lending and investment activities” under 2.5.2. Principle 2.7, however, comes closer in relation to “projects that release or are likely to release 100,000 tons CO₂ equivalent per year [100,000 tons, or 0.1 Megaton CO₂e, corresponds with the average emissions of 700,000 trips between Amsterdam and Paris; if you assume an average airplane carries 100 people, that means 7,000 flights] (...), except where

of an oil refinery in a developing country could be justified by a lack of sufficient access to renewable energy in that country or region.

A criticism of the obligation contained in this principle might be that to comply with such an obligation an enterprise in the banking or finance sectors or a major investor needs knowledge about the medium to long-term future, which it cannot reasonably possess.⁶⁰⁵ That such enterprises and major investors cannot know the specificities of the medium to long-term future may be true, but that does not incapacitate them in face of this principle. Enough is by now known about the future to say without hesitation that a business as usual scenario will bring us past climate change thresholds that will cause such catastrophic events that loans or equity will, if not specifically then at least generally at portfolio level, be affected. This can no longer be ignored; enterprises in the banking or finance sectors and major investors must start incorporating this certainty in their working decisions.

For the avoidance of doubt, it must again be pointed out that financiers are usually banks or financial institutions. In these instances, they also have to comply with Principles 18 and 19 because they are enterprises. This, however, is not a hard and fast rule. Financiers that are not banks or financial institutions that are run as a commercial activity, such as public pension funds, can also provide loans or equity to enterprises. That does not necessarily make them enterprises as defined in Principle 1 as their investment activities often cannot be described as commercial activities and will not generally be conducted by private parties. See under Principles 26-28 below.

PRINCIPLES 26-28

*“A pension is not an end in itself but a means to the end of a secure and prosperous retirement.”*⁶⁰⁶

*“Risk is hardly new, but the nature of risk facing investors, (...) and businesses in the 21st century is different – even unprecedented.”*⁶⁰⁷

justified deviation is provided”: it requests the client to “Seek opportunities to reduce project-related GHG emissions (...); Quantify and disclose direct GHG emissions and indirect GHG emissions (...); Monitor and report GHG emissions annually (...); Evaluate technically and financially feasible options to reduce or offset project-related GHG emissions”: Climate Group, Climate Principles, o.c. We appreciate that it might be useful to exclude financing of truly small projects, but we cannot come up with a concrete yardstick.

605 This might be the reason why most banks currently do not track whether their granted loans are sustainable. See EU High-Level Expert Group on Sustainable Finance, Sustainable European Economy, o.c. p. 52.

606 FairPensions, The Enlightened Shareholder: Clarifying investors’ fiduciary duties, 2012, www.nuffieldfoundation.org/sites/default/files/files/EnlightenedFiduciaryReport.pdf, p. 17.

607 Ellsworth and Snow Spalding, The 21st Century Investor, o.c. p. 5.

Investors, whether an enterprise according to the definition under Principle 1 or not, have a fiduciary duty to contemplate the impact of their activities.⁶⁰⁸ Even if a decision to invest in a certain project or enterprise does not affect the investor's other investments in the slightest, the investor should still take the broader impacts of each of its investment decisions, including on the environment and climate, into account. Even if a single investment would not have a noticeable adverse impact (the profitability of) in the short or longer term on the entire portfolio, it would give a wrong signal to invest in enterprises that do not meet their obligations under these principles. Thus we are not saying that these investments are not allowed per se. It follows from the wording of both Principles 26 and 27 that there may be justifications for such investments. The fact that the relevant investment is small may be a reason why it is acceptable, for instance if it would result in high return which would make it easier to otherwise invest in less profitable equity.

Why should investors care about climate change? And why can they make a difference?

“Investors are in a unique position to make the economic case for climate change and energy policies that send the appropriate price signals to incentivise low carbon, clean energy investment”⁶⁰⁹.

The financial crisis has shown that there was room for considerable improvement in the financial system. Relatively minor events caused massive losses around the globe. The ripple effect played an important role. We already observed that the threat of climate change and its impact on society and the environment is of a fundamentally different nature and magnitude.

Climate change is both a short- and long-term issue. If society is unable to curb global emissions significantly in the near future, catastrophe will set in. That will not, however, happen immediately. The adverse consequences of present day emissions will not be felt immediately.⁶¹⁰ That leaves untouched that we are already experiencing the consequences of past emissions, although these consequences will pale compared to future catastrophes.

608 See more generally Sutherland, *Globalization and Corporate Law*, o.c. p. 290 ff. Richardson, *Fossil Fuels Divestment*, o.c. p. 1705 challenges the idea that lenders have a fiduciary duty. We agree with him in so far that the nature of the obligation – fiduciary, contractual or *sui generis* – may be relevant in relation to the question to whom the duty is owed.

609 GICCC, *Climate Change Investment Solutions*, o.c. p. 7.

610 Kirsten Zickfeld and Tyler Herrington, *The time lag between carbon dioxide emission and maximum warming increases with the size of the emission*, *Environmental Research Letters* 10, 10 March 2015, <http://iopscience.iop.org/article/10.1088/1748-9326/10/3/031001/pdf>.

Hence, it is of the essence that investors anticipate this. They are in a privileged position to put pressure on enterprises if they own their shares or other equity.⁶¹¹ They could and, to the extent reasonably feasible, should only invest in enterprises that comply with their reduction obligations. That requires a long-term view.

Pension funds are under an obligation to pay the retirement benefits of the beneficiaries. Many of those payments need to be made in the future; a substantial number is due a few decades from the present.⁶¹² There are similarly good reasons for insurers to operate with reference to a long-term perspective. Many insurance policies cover future risks. In the realm of climate change, long-tail liability risks spring to mind.⁶¹³ Without proper and sound investments they run the risk that they would not be able to meet their obligations towards their beneficiaries.⁶¹⁴

A focus on the long term is required

Until recently short-term views dominated, also in the arena of investors.⁶¹⁵ Investors and those to whom they have entrusted the management of their assets often confined them-

611 According to Axel Hesse, Long-Term and Sustainable Pension Investments: A Study of Leading European Pension Funds, study commissioned by Asset4 and the German Federal Environment Ministry, May 2008, www.sd-m.de/files/Long-term_sustainable_Pension_Investments_Hesse_SD-M_Asset4.pdf, short-term orientation of investors is transferred to investee companies (p. 8).

612 See for a similar view Larry Beeferman and Allain Wain, Whose Power? Whose and Which Duties? Pension Fund Investments and Fiduciary-related Duties in the United States and India, February 2015, www.law.harvard.edu/programs/lwp/pensions/publications/WHOSE%20POWER%20WHOSE%20AND%20WHICH%20DUTIES%20-%20FINAL.pdf, p. 49; Joakim Sandberg, (Re-)Interpreting Fiduciary Duty to Justify Socially Responsible Investment for Pension Funds? Corporate Governance: An International Review 21 (5), September 2013, <http://dx.doi.org/10.1111/corg.12028>, p. 439; Hesse, Long-Term and Sustainable Pension Investments, o.c. p. 7 and 34; Gold and Scotchmer, Climate Change and Fiduciary Duties in Canada, o.c. p. 11, 12, 18 and 23. GICCC, Climate Change Investment Solutions, o.c. seems to suggest that a period of 3-5 years may suffice (p. 13).

613 Also see Leurig, Climate Risk Disclosure by Insurers, o.c. p. 1 (Mindy Lubber's foreword). Also see the Geneva Association, SC5 Risk Management: Liability Issues Related to Climate Risk, June 2011; Gold and Scotchmer, Climate Change and Fiduciary Duties in Canada, o.c. p. 11. With long tail liability risks we do not only – and perhaps not even in the first place – mean the potential liability for losses caused by climate change. Most so called “new risks”, such as cyber, mobile phones and nanotechnology, entail the prospect of liability. It is, however, uncertain when and if so to what extent such claims will be made and how courts will react.

614 Strikingly, in 2008 pension fund managers very moderately accepted the thesis that “pension investments in companies that make an above-average contribution to climate change could represent a breach of fiduciary duties in 10 years time”, Hesse, Long-Term and Sustainable Pension Investments, o.c. p. 39/40. In the meantime, they may have changed their mind – quite a few have probably done so.

615 Kay, The Kay Review, o.c. p. 44. Also see Liberty International Underwriters, Climate Change: Emerging Liability Risks, o.c. p. 12. At a conference in 2011, organised by Morgan Stanley, 20% of the attendees voted for an investment time horizon of more than one year, whereas 55% voted for one of a quarter or less: Generation Investment Management, Sustainable Capitalism, o.c. p. 9.

selves to benchmarks and a “market hypothesis”, depending on the idea that “knowable information is known to all market participants, or at least market participants act as if that were so”. The system as it currently works is based on incentives to stay close to benchmarks, i.e. what others do.⁶¹⁶ Kay put it brilliantly as follows (emphasis added):

“Competition between asset managers to outperform each other by anticipating the changing whims of market sentiment – Keynes’ beauty contest – can add nothing, in aggregate, to the value of companies (just as the contest Keynes describes does not make any of the faces portrayed more beautiful) – and hence nothing to the overall returns to savers. This competition is the search for alpha and, to a first approximation, the aggregate of alpha is zero. *Any positive impact on company performance and overall returns to savers must come through investment research which aims to understand the activities of the company and their long-term consequences, and from direct engagement with the company itself.*

(...)

Analysis of the fundamentals of a company has no direct impact on the underlying value of a company (just as observing which face is most beautiful has no direct impact on the attractiveness of the faces). But fundamental analysis has an indirect effect, which may be very large, in enabling companies to make long-term decisions with greater confidence that the benefits of such decisions will be recognised by investors.”⁶¹⁷

Hence, we need a paradigm shift from investing by the sway of the day to investing for the creation of value in the long-term.⁶¹⁸ In an ideal world, investors would have to refrain from investing in equity of any kind if the investee emits more GHG emissions than allowed by law.⁶¹⁹ However, such a far-reaching obligation would unduly restrict investing, even

616 See in much more detail Kay, The Kay Review, o.c. p. 33, 39 and 40/41.

617 The Kay Review, o.c. p. 42.

618 Cleveland, Schuwerk and Weber, Carbon Asset Risk, o.c. p. 49, referring to the Montreal Pledge, and Leurig, Climate Risk Disclosure by Insurers, o.c. p. 1 (Mindy Lubber’s foreword); Hesse, Long-Term and Sustainable Pension Investments, o.c. p. 31; the wording of the trust deed is emphasised by Keith Bryant and James Rickards, Abridged joint opinion: The legal duties of pension fund trustees in relation to climate change, advise, Client Earth, n.d. www.documents.clientearth.org/wp-content/uploads/library/2016-12-02-the-legal-duties-of-pension-fund-trustees-abridged-opinion-ext-en.pdf, p. 12 and 16. However, “research shows that risk and valuation models have a 3-5-year forecast horizon, afterwards short-term trends are extrapolated” which implies that it is not easy to effectuate a long-term view: 2 Degrees Investing Initiative and Generation Foundation, All Swans Are Black, o.c. p. 13; also see p. 52-53. Also see EU High-Level Expert Group on Sustainable Finance, Sustainable European Economy, o.c. p. 35.

619 This goes both for bonds or other financial instruments issued by States and for bonds, shares or other financial instruments issued by enterprises. See, more generally, about strategies and metrics to measure and improve the “climate friendliness” of portfolios: Stan Dupré et al., Climate Strategies and Metrics:

if it is accepted that the entire portfolio, rather than single investments, matters.⁶²⁰ Pension funds need diversified portfolios to avoid unnecessary risks.

Are an adequate return on investment and a focus on climate change reconcilable?

Most, if not all, investors need revenues to generate at least minimum return in order to cope with the inevitable financial risk inherent in each investment as well as inflation. That particularly goes for insurers and pension funds. Without such returns and revenues, they cannot meet their long-term obligations.⁶²¹ If investors are limited to investments in entities that comply with their obligations to reduce GHG emissions under the relevant law,⁶²² they may not be able to generate these returns. This unfortunate state of affairs will often suffice as a *general* justification to invest in non-compliers, be it States or enterprises.

In particular if there would be insufficient alternative investments, as will probably be the case in the foreseeable future, not all non-compliers⁶²³ should be treated equally. In such a scenario investors should opt for investing in the *best performing* non-compliers, i.e. non-compliers that come closest to complying with their obligations (under these principles).⁶²⁴

Extensive research seems to suggest that a focus on responsible investment is not incompatible with optimal investment returns.⁶²⁵ Despite the fact that there are ample opportu-

Exploring Options for Institutional Investors, WRI, UNEP FI and 2 Degrees Investing Initiative, December 2015, www.unepfi.org/fileadmin/documents/climate_strategies_metrics.pdf; also see Sean Kidney et al., Shifting Private Finance towards Climate-Friendly Investments, Policy options for mobilising institutional investors' capital for climate-friendly investment, EC, Directorate-General for Climate Action, 6 March 2015, https://ec.europa.eu/clima/sites/clima/files/international/finance/docs/climate-friendly_investments_en.pdf.

620 For a focus on the entire portfolio, see Waitzer and Sarro, Pension Fiduciaries and Public Responsibilities, o.c. p. 29.

621 See for instance Gold and Scotchmer, Climate Change and Fiduciary Duties in Canada, o.c. p. 10.

622 We realise that our principles may not be the final word. Refer to the commentary to Principle 20 for a more detailed discussion on enterprises' compliance with their reduction obligations.

623 For an elaboration of what we mean with 'non-compliers', see the commentary to Principle 27.

624 Bryant and Rickards, Abridged joint opinion: duties of pension fund trustees, o.c. emphasise that all "competing relevant factors should be weighed, balancing the risk against return, before an investment decision is made." They add – and in that respect they are more cautious than our principles – "As long as all financially material risks are taken into account then an investment may be selected even if it involves risks, including those associated with climate change, providing that the decision to invest could not be described as unreasonable or perverse. (...) The important thing is that they have taken all financially material risks into account in reaching that decision" (p. 16 with elaboration on p. 17-19).

625 See in much more detail Ellsworth and Snow Spalding, The 21st Century Investor, o.c. p. 5, 8 and 21 with further references, and about the "best in class" p. 21; also see RCM Capital Investors, Sustainability: opportunity or opportunity cost? Applying ESG factors to a portfolio does not negatively impact performance and may enhance it, RCM Sustainability White Paper, 5 June 2006, www.allianz.com/media/responsibil-

nities to invest in renewable energy and a more climate change resilient infrastructure,⁶²⁶ we cannot judge whether that would still be the case if many (or most) major investors would simultaneously decide to reroute their investments; in the short- and medium-term, this approach may have adverse consequence for the value and diversity of their portfolio.⁶²⁷ However, it is at least unlikely that most major investors will see the light and take such a progressive step simultaneously; a more realistic scenario would be one in which they do so over a considerably longer period of time, regardless of whether a specific investor starts to reroute its investments today and improves incrementally or whether it switches to fully responsible investment strategies at once at some point in the future. In the meantime, opinions are divided on the question of how high the risks of widespread investment in renewables are in light of the policy and technology risks involved.⁶²⁸

Another reason for being cautious to extrapolate the findings of distinguished experts that sustainable investments do not go at the expense of return on investment is that, according to Dan Esty, only a relatively small percentage of total assets under management is invested sustainably.⁶²⁹ Esty and Court conclude that sustainable investing is more talk than action. If that is true, it seems very much open to debate whether similar returns on capital can be achieved if investors would simultaneously turn their back to unsustainable enterprises and countries. That is exactly the reason why Principles 27 and 28 are formulated very cautiously. They may not be overly principled, but we would overstate our case by advo-

ity/documents/rcmsustainabilitywhitepaper2011.pdf (also about the “best in class”); Eurosif, Corporate Pension Funds & Sustainable Investment Study, 2011, www.eurosif.org/wp-content/uploads/2014/07/corporate-pension-funds.pdf, p. 10 ff; Mercer, Climate Change Scenarios, o.c. p. 15; First State Investments, Responsible Investment and Stewardship: Annual Report 2016, Colonial First State Group; investing in “best in class” did not detract from proper return: p. 12. Further see Gary Hawton, New Study Shows that Responsible Investment Funds Protect Investor Capital Better than Non-RI Funds, in Responsible Investment Association (RIA), RIA Guide to Responsible Investment, 2015, www.sageinvestmentadvisors.com/pdfs/RIA%20Guide%20to%20Responsible%20Investing.pdf, p. 5; SSF, Handbuch Nachhaltige Anlagen, o.c. p. 19 and 85; IIGCC, Climate Change Investment Solutions, o.c. p. 37 and Dermot Foley, A Prudent Approach to Climate Risk, in RIA, RIA Guide to Responsible Investment, 2015, www.sageinvestmentadvisors.com/pdfs/RIA%20Guide%20to%20Responsible%20Investing.pdf, p. 13. See for a critical view Sandberg, (Re-) Interpreting Fiduciary Duty, o.c. p. 438/439.

626 See in more detail: IEA, World Energy Outlook 2016, o.c. p. 2; Kaminker et al., Institutional Investors and Green Infrastructure Investments, o.c. p. 7. Also see: Mercer, Climate Change Scenarios, o.c. p. 11/12 (technology investments could accumulate to US\$ 5 trillion by 2030, including investment in nuclear energy and carbon capture); GICCC, Climate Change Investment Solutions, o.c. p. 14, 22 and 26; Arabella Advisors, Global Divestment and Clean Investment, o.c. p. 19 and Baker & McKenzie, Superannuation Trustees and Climate Change Report, 17 October 2012, www.climateinstitute.org.au/verve/_resources/BakerandMcKenzie_SuperannuationTrusteesandClimateChangeReport_October2012.pdf, p. 12 and 13.

627 See Sandberg, (Re-) Interpreting Fiduciary Duty, o.c. p. 440/441.

628 Baker & McKenzie, Superannuation, o.c. p. 23 with further elaboration.

629 Esty and Court, Corporate Sustainability Metrics, o.c. under Introduction (p. 1 ff). Their study goes into much detail and is definitely worth reading. See for a discussion of the findings of a series of other studies under I Sustainability and Market Value (p. 6 ff).

cating steps that will not be taken and will jeopardise pension (rights) of many people. This problem will be solved if enterprises are going to comply with these principles and States with the OP. By then, investors have the choice between compliers.⁶³⁰

Sustainable investment and the practicalities of divesting

It has been argued that investors are able to buy and sell shares at any point deemed most appropriate.⁶³¹ We wonder whether that is entirely true.⁶³² It probably is in relation to relatively small investments. Nevertheless, proportionately large investments in particular instruments often cannot be sold without incurring major financial losses. The one-off sale of a proportionately large investment in a particular financial instrument such as a share in a particular enterprise will often a trigger substantial decrease in the price of the instrument which in turn could cause major losses for the investor. Additionally, a scenario in which many investors would try to sell their bonds or shares at the same time could entail particularly negative financial consequences.⁶³³

It is also open to debate whether major instant disinvestment would create the desired impact. For sure, it gives a clear signal and that in itself is already important. But other – potentially less scrupulous – investors may step in,⁶³⁴ which may have an adverse impact on climate change and other sustainability issues, if buyers would have (a more) short-term-oriented perspective. In addition, divestment from fossil fuel companies may not

630 Esty and Court emphasise that investors “need clarity on what sustainability means” (under B. Divergent Investor Sustainability Interests and Expectations, p. 13 ff). That is also true for performance in light of the threat of climate change. Investors do understand that investing in, say, coal fired power plants is no longer a serious option, but do not yet know how to assess whether enterprises reduce their GHG emissions to the extent required. If the OP are right, investors (could) know that few States reduce their GHG emissions to the extent required by law (even if they do not know the OP that is barely a revelation). To the extent we can judge, the OP or the almost universally accepted view that few States reduce their GHG emissions to the extent needed did not (yet) influence investment decisions, seeing that pension funds have not divested from for example bonds issued by evidently non-complying countries. The reason may be the need for diversification and the fact that some clearly non-complying APQ countries pay relatively high interests compared to other countries. See about the need for diversification under Australian law Baker & McKenzie, *Superannuation*, o.c. p. 22.

631 For instance by Mark Fulton and Christopher Weber, *Carbon Asset Risk: Discussion Framework*, WRI and UNEP FI, August 2015, www.unepfi.org/fileadmin/documents/carbon_asset_risk.pdf, p. 43 ff and Divest McGill, *Carbon at All Costs*, o.c. p. 88/89 and 98.

632 For a similar view UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 16.

633 See for a different – and in our opinion unrealistic – view in *Harris v Church Commissioners*, quoted by Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 56.

634 This point is emphasised by Kay, *The Kay review*, o.c. p. 21. That may also be the reason why the Geneva Association takes the view that “asset fire sales” will not destabilise the system: *Insurance Sector Investments and Their Impact on Financial Stability: An Empirical Study*, June 2016, www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public/060716_investment-behavior_complete_digital_2.pdf, p. 19.

necessarily lead to increased investment in renewables or have an impact on the production of fossil fuels.⁶³⁵

It follows that a distinction should be drawn between different kinds of investments: small versus large; short-term versus long-term.⁶³⁶ As already mentioned, particularly pension funds and insurers must operate from a long-term perspective.⁶³⁷ With the just mentioned caveat, such a long-term perspective would require investors to exclusively invest in enterprises or States that comply with their legal obligations (these principles or the OP), to the extent that such investment opportunities are available. Where such investment opportunities are insufficiently available, long-term investors face a difficult dilemma between lower returns or investing in a non-complying enterprise or State, with potential risks.⁶³⁸ However, investors should attempt to wield their influence to incentivise compliance;⁶³⁹ see in more detail Principle 29.

What do we mean by investors for the purpose of these principles?

As explained in the commentary to the definition of “enterprise” not all investors are enterprises as defined in Principle 1. Pension funds, for instance, are not; asset managers are. For the purpose of Principle 26-29 it does not matter whether or not the investor is an enterprise as defined in Principle 1; which the provisos below these principles apply to investors anyway.

635 Jamie Bonham, What a Responsible Investor Should Know about Fossil Fuel Divestment, in RIA, RIA Guide to Responsible Investment, 2015, www.sageinvestmentadvisors.com/pdfs/RIA%20Guide%20to%20Responsible%20Investing.pdf, p. 7. Divestment may not have an impact on the production *capacity* of fossil fuels, but it will most probably have an impact in other ways. If fossil fuel companies located in European and/or North American countries suffer from a surge in divestment, companies located in other parts of the world, where regulation is often less stringent, will probably step in. In our mind, that is definitely a (negative) impact.

636 It may be so that hedge funds fulfil their fiduciary obligation with a short-term perspective, but pension funds would need to provide a long-term perspective in order to fulfil this obligation as they have fiduciary obligations that span long time periods.

637 See Freshfields Bruckhaus Deringer, UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues, o.c. p. 7. According to this report, the relevant law in civil law countries is black letter law and “frozen into codes and often rigid doctrine”. In contrast, the law is said to be more flexible in common law countries because it is largely based on judgments. We are not entirely sure that this view is correct.

638 The major trick lies in the need for a sufficient return on the capital invested as, *inter alia*, emphasised by ABP, *Duurzaam en verantwoord beleggen*, o.c. p. 13. In the abstract it is impossible to provide detailed guidance on balancing the decisive factors that often point into different directions; see in more detail under Principle 27.

639 For a similar view: Ellsworth and Snow Spalding, *The 21st Century Investor*, o.c. p. 27 ff; Mercer, *Climate Change Scenarios*, o.c. p. 19; Leurig, *Climate Risk Disclosure by Insurers*, o.c. p. 41.

Not each and every pension fund is necessarily affected by Principles 26-30. Within limits, the participants of a pension fund may opt for an approach that is not in line with Principles 26-30. But that would require explicit consent of the beneficiaries; adherence to general terms and conditions will mostly not suffice.⁶⁴⁰ If, for example, a small law firm has created a legal vehicle to pay the pensions of its partners who have chosen to invest from a short-term perspective, that legal vehicle may do so,⁶⁴¹ unless the applicable law provides otherwise.⁶⁴²

We have tried to be pragmatic. It would be over-demanding to require that small investors take all kinds of, to them often disproportionately expensive, measures to ascertain and take into account GHG-emissions of enterprises in which they consider investing, or have invested. That goes for private persons and small legal entities alike, unless domestic law provides otherwise. However, we have not been able to pinpoint where the line of application of our principles should be drawn. That is why we have not qualified ‘investor’ in Principles 26-29.

These principles apply to investors that have, or *should* have, a long-term horizon. By their very nature, some do not act from a long-term perspective and do not need to either. The most obvious example are hedge funds if and to the extent the investors clearly want short-term gains only.

We did not attempt to define investors as they probably are an amorphous phenomenon. The term may include sovereign wealth funds,⁶⁴³ endowments and charities,⁶⁴⁴ but whether that is the case with a specific entity has to be answered by assessing the characteristics of the relevant entity.

640 See about the information investors should have about beneficiaries’ preferences: Hesse, Long-Term and Sustainable Pension Investments, o.c. p. 41 and Sandberg, (Re-)Interpreting Fiduciary Duty, o.c. p. 442.

641 See in more detail Bryant and Rickards, Abridged joint opinion: duties of pension fund trustees, o.c. p. 2; they emphasise that “the purpose of the trust [regarding pensions] is invariably to provide the members with pensions. Therefore, a power of investment under a pension trust should always be exercised to further that purpose by seeking to maximise the pension benefits to be received by the members, ie the trustees should act in the best financial interests of the members” (p. 7). In their view the trustees are obliged to take the risks associated with climate change into account (p. 8).

642 Mere consensus may not suffice, if the cost of adapting a long-term perspective is small or irrelevant, if the beneficiaries are unexperienced or if local pension law determines differently, as may well be the case.

643 There are said to be about 60 SWF’s with assets of some US\$ 7.5 trillion as of early 2016 (Richardson, Fossil Fuels Divestment, o.c. p. 1709); see about specific legislation concerning these funds p. 1709 ff.

644 See GICCC, Climate Change Investment Solutions, o.c. footnote 1 (on p. 39). Also see Richardson, Fossil Fuels Divestment, o.c. p. 1691.

Asset Managers⁶⁴⁵ and the continuing responsibility of investors/trustees

Many, if not most pension funds have delegated part of the management of their investments to asset managers;⁶⁴⁶ many pension funds have relatively few in-house staff.⁶⁴⁷ In April 2014 the Investment Management Industry had GBP 788 billion in funds under management.⁶⁴⁸ In such situations, these asset managers are investors for the purpose of Principles 26-29. Hence, they must comply with these principles.⁶⁴⁹

Investors that have delegated the management of their assets (including the selection of funds and buying or selling the same) cannot escape full responsibility for the management of the invested money.⁶⁵⁰ After all, they have a fiduciary duty towards the investees and (future) pensioners.⁶⁵¹ This duty cannot be met by leaving the core activity of investing to the discretion of the asset managers. The very least the trustees,⁶⁵² board or other responsible group of people⁶⁵³ of the pension fund, insurance company or other investment vehicle must do is:

645 See for an in-depth study of duties in the investment chain: Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 183 ff. See, more generally, about the fiduciary obligations of financial advisors Robert H. Sitkoff, *The Fiduciary Obligations of Financial Advisors under the Law of Agency*, Harvard Public Law Working Paper No. 13-16 and *Journal of Financial Planning* 27, 2014, <https://dx.doi.org/10.2139/ssrn.2234830>.

646 See for instance Kay, *The Kay Review*, o.c. p. 29 and 37. The report is rather critical about the Christmas tree of managers and advisors; they are hugely expensive and they create “potential for misalignment of incentives at each link of the chain”: p. 30, 31, 35 and 45; see also p. 37.

647 Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 183.

648 Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 189.

649 For a very similar view also see Kay, *The Kay Review*, o.c. p. 12, 51-53 (with further elaboration), p. 65 and 67; Bryant and Rickards, *Abridged joint opinion: duties of pension fund trustees*, o.c. p. 12 and EU High-Level Expert Group on Sustainable Finance, *Sustainable European Economy*, o.c. p. 22, 24, 26, 37-38. Many asset managers allegedly do not yet receive any targets with regard to a shorter or longer holding; see Hesse, *Long-Term and Sustainable Pension Investments*, o.c. p. 23, but things may have changed for the better since.

650 A FairPensions report rightly observes that they can only avoid (personal) liability if they have taken all reasonable steps to satisfy themselves that the manager has the appropriate knowledge and experience and is carrying out his work competently: Christine Berry, *Protecting Our Best Interests: Rediscovering Fiduciary Obligation*, FairPensions, March 2011, www.nuffieldfoundation.org/sites/default/files/files/FPProtectingOurBestInterests.pdf, p. 38. It follows from examples given in the report that the current situation is unsatisfactory. Also see Institute of Directors in Southern Africa (IDSA), *Code for Responsible Investing in South Africa (CRISA)*, 19 July 2011, http://c.ymcdn.com/sites/www.iodsa.co.za/resource/resmgr/crisa/crisa_19_july_2011.pdf, Principle 2 under 6.

651 At least, they have such a duty in the common law world. Their duties may have a different name in civil law jurisdictions, but the nature and substance of the obligations are similar; see the commentary on the Legal basis of Principles 26-28, *Fiduciary and related duties*, on the next page.

652 We endorse FairPensions’ view that contractual derogation is not allowed: Berry, *Protecting Our Best Interests*, o.c. p. 65 and 67.

653 The name and function of the concept of trust may (and almost certainly will) depend on the respective legal systems. Trustees, for instance, are predominantly a common law feature.

- a) Instruct the asset manager about essential features of required investment policy, such as a long-term perspective and the issues mentioned in Principles 26-29;⁶⁵⁴
- b) Require appropriate reporting on how these issues are dealt with.⁶⁵⁵

The asset managers themselves also have duties: first towards the Trustees (pension funds), and arguably also towards the pensioners. What the precise duties of asset managers towards others than the trustees or investor are is a tremendously complex issue that falls outside the scope of our principles and this commentary.⁶⁵⁶

Legal basis of Principles 26-28

Fiduciary and related duties

*“This part of the law has been bedevilled by unthinking resort to verbal formulae.”*⁶⁵⁷

The prevailing view in the *common law* world is that the nature of the obligations of investors depends on an interpretation of their fiduciary duty. Fiduciary duty is a common law feature, but investors in non-common law countries probably have very similar obligations.⁶⁵⁸ These duties are imposed upon a person or organisation exercising some discretionary power in the interests of others in circumstances that give rise to a relationship of trust and confidence. They are particularly important if there is an asymmetry in expertise and where the beneficiary has a limited ability to oversee the actions of those acting in their interests.

654 According to Leurig, *Climate Risk Disclosure by Insurers*, o.c. an increasing number of investors already require asset managers to incorporate climate change into the investment strategy (p. 12). Also see Berry, *Protecting Our Best Interests*, o.c. p. 37 ff with further references; OECD, *OECD Guidelines for Pension Fund Governance*, 5 June 2009, www.oecd.org/finance/private-pensions/34799965.pdf, Annotations under 10 and GICCC, *Climate Change Investment Solutions*, o.c. p. 12. For a similar view UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 17. See in more detail under Principle 30.2.

655 See about active engagement with asset managers: Mercer, *Climate Change Scenarios*, o.c. p. 19; Kay, *The Kay review*, o.c. p. 12 and Berry, *Protecting Our Best Interests*, o.c. p. 37 ff with further references.

656 See in more detail Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 189 ff. The first and arguably most important part of their obligations flows from the contract with the trustees/pension funds; see p. 195 ff. Also see EU High-Level Expert Group on Sustainable Finance, *Sustainable European Economy*, o.c. p. 22 ff, 36-37.

657 Lord Justice Millet in *Bristol and West Building Society v. Mothew*, quoted by Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 33.

658 See for a similar view EU High-Level Expert Group on Sustainable Finance, *Sustainable European Economy*, o.c. p. 18 and 22.

In the context of climate change, a fundamental question is how investors should respond to the associated risks.⁶⁵⁹ In common law jurisdictions, fiduciary duties limit the discretion of investment decision-makers.⁶⁶⁰ In civil law countries, such as Brazil, Germany and Japan, equivalent obligations are set out in statutory provisions and guidelines.⁶⁶¹

The Law Commission (of England & Wales) has emphasised that fiduciary duty means different things to lawyers and non-lawyers, whilst it also has different meanings in the legal arena.⁶⁶² This commentary is not about any specific legal feature, but aims to explain the meaning of our principles and to provide a legal basis for them. Hence, we stick to the essentials needed for our purpose and refrain from delving into the niceties of the law of fiduciary obligations in general.⁶⁶³

Other realms of the law also matter in this context, depending on the relationship between the “parties”. The obligations of asset managers will (also) be governed by the terms and conditions of their contract with the pension fund. If they have any obligations towards pensioners, they may or may not be governed by quasi-contracts.⁶⁶⁴ For the remainder, tort law will probably be the basis of obligations, if any. The obligations of pension funds and, as the case may be, their trustees towards pensioners will be governed by contract law, the interpretation of which may be influenced by the law on fiduciary duties.⁶⁶⁵

The obligations of insurers towards their insureds will predominantly be covered by contract law. Their primary obligation is to pay losses covered by the insurance contract. If they are financially unable to do so, it is of limited avail whether they have also violated any duty in relation to their investments. The latter duty, however, still matters at an earlier stage. It provides guidance to those responsible for the investments of insurance funds on how to invest so that they are able to meet their obligations.

659 UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 11 with further elaboration on the subsequent pages.

660 UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 12.

661 UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 12 with the observation that there are slight differences between countries.

662 Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 33 with elaboration on the subsequent pages.

663 See for more details UNEP FI and PRI, *Fiduciary Duty*, o.c.

664 See in more detail Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 31 ff and p. 183 ff. See about the (German) concept of contracts with *Schutzwirkung für Dritte* (contracts that also protect third “parties”) Walter van Gerven, Jeremy Lever and Pierre Larouche, *Tort Law (Cases, Materials and Text on National, Supranational and International)*, Hart Publishing, 2001, p. 220-222, 234-235 and 601-602.

665 The European context is governed by a wealth of specific rules and regulations: see EU High-Level Expert Group on Sustainable Finance, *Sustainable European Economy*, o.c. p. 36.

As need would be, non-compliance with these duties can be challenged by for instance supervisory bodies and, depending on the applicable legal system, the pensioners. All the issues mentioned above are important, but they would require a research project in its own right. For our purpose, we do not need to go into further of detail;⁶⁶⁶ we confine ourselves to fiduciary duties and the civil law equivalent.

Last but not least, investors have to comply with domestic legislation and “judge made law”.⁶⁶⁷ That also goes beyond the scope of our project. We confine ourselves to key issues. For the purpose of our principles, investors are obliged to monitor developments on all relevant issues,⁶⁶⁸ such as stranded assets, the impact of climate change on their investments and the ongoing debate on their legal obligations in the relevant jurisdictions.

Fiduciary duties are considered to proscribe conduct rather than prescribe it.⁶⁶⁹ Trustees should take into account relevant considerations and ignore irrelevant ones. That may belabour the obvious, but it is less helpful than one might think *prima facie*. After all, it does not provide details on what is relevant and what is not.⁶⁷⁰ In other words, fiduciary duties do not necessarily provide clear guidance to investors on what they should do concerning *concrete* investments or investment decisions.

Trustees are not required to avoid all risk.⁶⁷¹ That, again, is important and at the same time self-explanatory in the realm of investments. Trustees and similar civil law features are not required to invest in the most profitable investment available;⁶⁷² we could not agree more, if not for other reasons because what is “the most profitable” today may not be the most profitable tomorrow. The financial crisis and many other nasty surprises in the financial arena are telling: “producing a good return over the relevant time period is not simply a matter of applying a mechanical calculation”.⁶⁷³

666 See, inter alia, Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 53 ff and at many other places. Also see Richardson, *Fossil Fuels Divestment*, o.c. p. 1706 ff. At EU level, duties of loyalty and prudence are partly codified in a number of Directives, and climate change has become a crucial issue in fiduciaries’ decision-making processes: see EU High-Level Expert Group on Sustainable Finance, *Sustainable European Economy*, o.c. p. 23. According to the High-Level Expert Group, it would be important to establish a set of principles about the meaning of fiduciary duty and related concepts: p. 57.

667 Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 31 and 32.

668 For a similar view, see UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 20, albeit more cautiously phrased (“Organisations need to monitor”).

669 Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 45.

670 Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 51.

671 Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 55.

672 Lord Murray quoted by Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 74.

673 Quotation from Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 109; see also p. 112. If UNEP FI and PRI are right about its meaning under English law, trustees have to show that

In many countries, asset owners are obliged to obtain advice from investment consultants.⁶⁷⁴ That will certainly be useful and in most instances probably necessary if investors do not have access to relevant information themselves.⁶⁷⁵

It is self-explanatory, we think, that pension funds and insurers as investors have stricter fiduciary duties than run-of-the-mill fiduciary duties.⁶⁷⁶ After all, the interests at stake and the sheer amount of people (pensioners and the insured) involved are significant. That means, *inter alia*, that the relevant persons, be it trustees or others, have to make decisions on an informed basis after conducting appropriate due diligence and to seek specialised advice where relevant.⁶⁷⁷

Do non-financial factors matter?

Until recently, the prevailing view has been that investors are under a legal obligation⁶⁷⁸ to maximise the return on their investments. According to this approach, the social and environmental impacts of the investee's activities did not matter. That view has become

they have weighed up the relevant considerations and that "they have arrived at a decision that could not be said to be irrational, perverse or absurd": Fiduciary Duty, o.c. p. 54.

674 UNEP FI and PRI, Fiduciary Duty, o.c. p. 18.

675 The information sought should be useful and relevant, of course, and the benefits should outweigh the costs.

676 See for instance Gold and Scotchmer, Climate Change and Fiduciary Duties in Canada, o.c. p. 9.

677 See for instance Gold and Scotchmer, Climate Change and Fiduciary Duties in Canada, o.c. p. 10 about the law of British Columbia (Canada).

678 Fiduciary or otherwise.

outdated.⁶⁷⁹ According to US,⁶⁸⁰ English,⁶⁸¹ Spanish, Brazilian⁶⁸² and Italian law⁶⁸³ these issues *may* be taken into account. German,⁶⁸⁴ French, Swedish, Norwegian and New Zealand law, and quite a few guidelines for public pension funds consideration *has to be* given to ethics and the environment.⁶⁸⁵ Under the Japanese Stewardship Code institutional investors should aim to “enhance the medium-to-long-term return on investments (...) by improving

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- 679 See, inter alia, <http://truevaluemetrics.com/DBpdfs/Initiatives/UNPRI/UNPRI-Responsible-investment-and-fiduciary-duty.pdf>; UNEP FI AMWG, Fiduciary Responsibility, o.c. p. 15 ff and 24; the report quotes another report pointing to “a very real risk” of liability of investment consultants or asset managers ignoring ESG considerations (p. 16). Also see Jeroen Veldman, Filip Gregor and Paige Morrow, Corporate Governance for a Changing World: Report of a Global Roundtable Series, Frank Bold and Cass Business School at City University of London, 2016, www.purposeofcorporation.org/corporate-governance-for-a-changing-world_report.pdf, p. 30; Marathon Club, Guidance for Long-Term Investing, o.c. p. 6 ff; Ellsworth and Snow Spalding, The 21st Century Investor, o.c.; Eurosif, Corporate Pension Funds & Sustainable Investment, o.c.; Berry, Protecting Our Best Interests, o.c., and Barker and Winter, Changing balance of evidence, o.c. Nevertheless, the obligations (of long-term investors) are not overly clear if we confine ourselves to black letter law; see Eurosif, Corporate Pension Funds & Sustainable Investment, o.c. p. 10 without mentioning black letter law. It is open to debate whether the penny has sufficiently dropped in the realm of investors; see Sandberg, (Re-)Interpreting Fiduciary Duty, o.c. p. 437. According to UNEP FI and PRI, Fiduciary Duty, o.c. there are no pertinent rules prescribing how to integrate ESG opportunities and risks in investment processes in the countries covered by the report (Australia, Canada, South Africa, the UK, the US, Brazil, Germany and Japan (p. 12)). Some practitioners still resist a wider interpretation of fiduciary duty which allows for the consideration of non-financial factors: on p. 41 the report mentions that Canadian legal advisers and investment consultants continue arguing “for very narrow interpretations of fiduciary duty”.
- 680 Freshfields Bruckhaus Deringer, UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues, o.c. p. 8 and 9; all decisions must be motivated by the fund’s beneficiaries or the fund’s purpose; see also UNEP FI AMWG, Fiduciary responsibility, o.c. p. 25. A report issued by UNEP FI and PRI, however, emphasises that interviewees in the US “pointed to the common belief that investors can only pursue corporate governance or non-financial issues if it can be clearly demonstrated that these activities do not harm the value of investment assets” (Fiduciary Duty, o.c. p. 16). Also see p. 76: according to some investors, the bulletins issued by the US Department of Labor “discourage long-term risk management measures such as active ownership and voting by focusing on the short-term costs ... and benefits”, whereas they “create a bias against green investments by not giving due account to their financial and risk mitigation contributions to wider portfolio performance.”
- 681 Freshfields Bruckhaus Deringer, UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues, o.c. p. 9, referring to “UK authority”. About English law, also see Law Commission, Fiduciary Duties of Investment Intermediaries, No 350, o.c. p. 86 ff and 107; the Commissions adds, however, that “quality of life now and in the future” may also be taken into account “when choosing between two equally beneficial investments” (p. 86) and 116); on p. 101 it adds that “ESG is a portmanteau concept, covering so many different factors, and used in so many different ways, [that] it should not make sense to say that trustees must take an ESG approach”; see also p. 112 ff. Also see FairPensions, The Enlightened Shareholder, o.c. p. 10 and Sandberg, (Re-)Interpreting Fiduciary Duty, o.c. p. 438.
- 682 UNEP FI and PRI, Fiduciary Duty, o.c. p. 32 and 33.
- 683 Freshfields Bruckhaus Deringer, UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues, o.c. p. 10, our interpretation.
- 684 Freshfields Bruckhaus Deringer, UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues, o.c. p. 10.
- 685 See Sandberg, (Re-)Interpreting Fiduciary Duty, o.c. p. 444. Also see IDSA, CRISA, o.c. Principle 1; SSF, Handbuch Nachhaltige Anlagen, o.c. p. 14; UNEP FI, Portfolio Carbon, o.c. p. 21 and in quite some detail Richardson, Fossil Fuels Divestment, o.c. p. 1693 ff. See for a discussion of Australian law Baker & McKenzie, Superannuation, o.c. p. 19 ff and for elaboration under Principle 26.

and fostering investee companies' corporate value and sustainable growth through constructive management, or purposeful dialogue."⁶⁸⁶ In our view, this is not only allowed but also required, at least in relation to climate change.⁶⁸⁷ The long-term interests of their pensioners and insureds are no different from those of society at large.⁶⁸⁸ See for further elaboration below.

According to Waitzer and Sarro, the view that future developments must be taken into account is emerging.⁶⁸⁹ Climate change and most other sustainability issues are predominantly about *future* consequences. We do know that business as usual will jeopardise nature, human life, the economy and by the same token investments. Hence, a short-term perspective is no longer acceptable.⁶⁹⁰ Neither is it acceptable or legally permissible that investments are influenced by "self-serving behaviour by those on whom we depend to act on our behalf".⁶⁹¹

Climate change has a significant impact on investments and is a financial issue.

If one is prepared to accept that "impact upon value" has to be taken into account in the decision-making process,⁶⁹² one cannot escape the impression that the impact of climate change and compliance by investees with their reduction obligations matters.⁶⁹³ We reiterate that pension funds must be able to pay pensions in the 30-50 years to come. Hence, climate

686 UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 61; it is up to each institutional investor to decide whether it will support and adopt this "Code". The report adds (on the same page) that "the market for responsible investment is immature". On p. 63 the report observes that "Japanese investors are concerned that implementing responsible investment may be a breach of their fiduciary duties" (see about their duties p. 62 and 63).

687 See for a similar view inter alia Gold and Scotchmer, *Climate Change and Fiduciary Duties in Canada*, o.c. p. 15 ff.

688 See for a slightly different Gold and Scotchmer, *Climate Change and Fiduciary Duties in Canada*, o.c. p. 30.

689 Waitzer and Sarro, *Pension Fiduciaries and Public Responsibilities*, o.c. p. 29 (as a growing recognition), p. 3; for the general standard in Canada, refer to p. 30; further refer to *FairPensions, The Enlightened Shareholder*, o.c. p. 12 ff, primarily as an aspiration.

690 Veldman, Gregor and Morrow, *Corporate Governance*, o.c. p. 32 with further references; refer to p. 56 for the public debate in Europe.

691 Eurosif, *Corporate Pension Funds & Sustainable Investment*, o.c. p. 10.

692 See Principle 26 and Freshfields Bruckhaus Deringer, *UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues*, o.c. p. 10.

693 The Freshfields report draws the same conclusion, although in a slightly more cautious manner and without reference to climate change: Freshfields Bruckhaus Deringer, *UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues*, o.c. p. 13. Refer to the subsequent pages for more detail, also about the respective decision-makers and the angle of international law and human rights. See p. 30 ff for European legal instruments and p. 36 ff. This view is underscored by Cynthia McHale and Rowan Spivey, *Assets or Liabilities? Fossil Fuel Investments of Leading U.S. Insurers, Ceres and Mercer*, June 2016, www.ceres.org/sites/default/files/reports/2017-03/Ceres_AssetsRiskFossilFuel_InsuranceCo_060616_2.pdf. Also see Gore and Blood, *Sustainable Capitalism*, o.c.

change is by no means only a moral, but also a financial factor of utmost importance.⁶⁹⁴ That, in turn, points to an obligation of investors.⁶⁹⁵ This, we think, is the best interpretation of the “prudent person rule” that is now incorporated into statutory obligations of trustees in several jurisdictions.”⁶⁹⁶

This interpretation is in line with FairPensions’ view:

“This standard of prudent behaviour becomes particularly counter-productive when the conventional wisdom of the market reflects ‘irrational exuberance’ – as many would accept was the case in the build-up to the financial crisis. It is also problematic if the norms being followed do not match the objectives or time horizons of the scheme’s beneficiaries. If the purpose of the duty of prudence is to ensure that beneficiaries’ savings are invested wisely, in a pensions context it would be reasonable to assume that a ‘prudent’ strategy would be one designed to ensure long-term stable growth, safeguarding the retirement income of the fund’s youngest beneficiaries as well as the oldest. Yet, as Woods argues, in practice the reverse may be true: “In circumstances such as the present, where investors are typically driven by short-term performance, prudent investment becomes short-term investment.” Thus, despite being inherently long-term investors, pension funds remunerate their asset managers based on short-term performance measures (see Chapter 3). In addition, many have been swept up in the extraordinary growth in churn in the equity markets as a whole – now at 150% per year of aggregate market capitalisation. This has generally been poor value for beneficiaries: indeed, Paul Woolley has calculated that management fees and trading costs, based on 100% annual turnover, could erode a pension’s value by 1% a year – resulting, if continued, in an average 30% loss to the end-value of the pension. Yet few trustees worry that these poor outcomes could mean they are breaching their fiduciary duties – albeit they may well be concerned about them for other reasons. As one pension trustee characterised it in our first seminar: “in the herd, you’re safe, regardless of what happens to the members’ benefits.” The concept of ‘prudence’ is inherently difficult to define, and it is not surprising that it has developed into a standard that is judged against the actions of others. The prudent man standard is essentially a reasonableness standard, and, as in other areas of the law, necessarily refers to what another reasonable person would have done in the circum-

694 See for a similar view Gold and Scotchmer, *Climate Change and Fiduciary Duties in Canada*, o.c. p. 18.

695 See for instance Hesse, *Long-Term and Sustainable Pension Investments*, o.c. p. 34.

696 Quotation from Berry, *Protecting Our Best Interests*, o.c. p. 16.

stances. However, if interpretation swings towards what Keith Johnson calls a ‘lemming standard’, this could become damaging to beneficiaries’ interests. Nor does it accord with the law’s emphasis on the process of trustee decision-making, and the requirement that trustees “appl[y] their minds separately and specifically to the question whether [the decision at hand] would be in the best interests of the beneficiaries.” It is a vital principle of fiduciary obligation that fiduciaries cannot outsource their obligation to think. It therefore seems unlikely that a court today, particularly in light of the financial crisis, would in fact treat following the herd as synonymous with fulfilling the duty of prudence. Measures could be taken to steer the interpretation of prudence in a more positive direction without waiting for a court judgement to this effect. One possible model for statute or guidance is the formulation of directors’ duties in the [UK] Companies Act 2006, which requires them, in promoting the success of the company, to have regard to “the consequences of any decision in the long-term”. (...) This is not to suggest that misunderstandings of the duty of prudence are by any means the only factor at play, or that a renewed interpretation of this duty would be a panacea for short-termism. Clearly, pension funds struggling with enormous deficits face a real imperative to maintain returns in the short-term. Balancing this with the long-term needs of fund members presents a genuine dilemma. But there is a danger that prevailing interpretations have helped to tilt the balance against the long-term. Professor Keith Johnson has suggested that one way of restoring this balance may lie in another fiduciary duty: what he calls ‘the ‘forgotten duty of impartiality’. (...)

The duty of impartiality requires trustees to act impartially as between different classes of beneficiary. Although this duty is alive and well in judicial decisions (indeed, it was an important factor in the case of *Cowan v Scargill* (...), its implications do not seem to be reflected in the investment policies of many schemes. Johnson argues that a full appreciation of the duty of impartiality would require trustees to act for the long-term in order to ensure intergenerational equity between their youngest and oldest members. As well as being a valuable counterweight to the ingrained short-termism of the financial markets, this offers a framework for trustees to think about questions of ecological sustainability.”⁶⁹⁷

697 Berry, *Protecting Our Best Interests*, o.c. p. 23/25 (footnotes omitted).

According to German law, pension funds:

“need to invest their assets in the best interests of investors [i.e. beneficiaries]. This is defined as financial best interests taking account of the risks associated with the investments. In broad terms, pension funds must ensure that the highest possible security and profitability are guaranteed, that they have sufficient liquidity, that the risks are effectively managed and that investments are managed professionally in line with the fund’s investment principles.”⁶⁹⁸

It also follows, we think, that investors are not only *allowed*, but are also *obliged* to invest in funds that generate less profits in the near(er) future if and to the extent that this strategy would be the only way to avoid that global temperature will rise by more than 2°C.⁶⁹⁹ The trick lies, once again, in “to avoid”. This should not be taken literally. Seen from the angle of causation no single investor, let alone one single investment, can make a decisive difference; together they can. Hence, all investors who should have a long-term view have to act in a way that does not jeopardise the ultimate goal of staying below 2°C.

Even if the law as it stands does not yet provide a sufficiently sound basis for such obligations, we expect the law to develop in this direction in the next 10 or at most 20 years. Also see the commentary to Principle 26.

698 UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 48.

699 For a similar view, albeit slightly more cautiously phrased, see Gold and Scotchmer, *Climate Change and Fiduciary Duties in Canada*, o.c. p. 15; also see p. 18 – 21. More cautious Sandberg, *(Re-)Interpreting Fiduciary Duty*, o.c. p. 444. It probably is impossible to be more concrete. Gold and Scotchmer of Koskie Minsky rightly observe that it comes down to providing “the greatest financial benefits for present and future generations” (o.c. p. 15). *Prima facie*, it does not make sense to attempt to reach that goal by accepting a lower return on capital. That *may*, however, be the best strategy if business as usual would yield lower *aggregate* returns in the longer term. *Whether* that is the case or not can only be judged after quite some time when the investment decisions have been made. At that stage one should try to avoid hindsight bias, one of the challenges for lawyers and judges. This view is, we think, in line with that of the Cambridge Institute for Sustainability Leadership, *ClimateWise Principles*, o.c. under 4. The Law Commission is right that “this is a question of broad judgment rather than mathematical formulae- and must be judged at the time of the decision, not in hindsight”: Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 95; also see p. 112 and 113: “trustees *should* take into account financially material factors” (quote on p. 113); we agree, but would prefer to say that they *must* take them into account. Further down, the Law Commission seems reluctant to accept divestments to avoid a bad reputation only (p. 116). Also see about hindsight bias UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 16 and about the South African Pension Funds Act 2011, which requires “appropriate consideration to any factor which may materially affect the sustainable long-term performance of a fund’s assets, including factors of an environmental, social and governance character” p. 67; also see p. 69 and 70. If it is true, as Baker & McKenzie argue in *Superannuation*, o.c. p. 7, that 94% of Australian asset owners do not calculate “any portfolio-wide climate change risks” there is room for improvement.

PRINCIPLE 26

This principle is the investor’s equivalent of Principle 25.

For a discussion of the phrase “under these Principles”, see the commentary to Principle 20. For a discussion of the phrase “must ascertain and take into account”, see the commentary under ‘Obligations of investors and financiers’.⁷⁰⁰ See for elaboration also under Principle 27.

It follows from the discussion on the fiduciary duty of investors under Principles 26-28 above that investors have to take the relevant climate change issues, which are part of the wider sphere of ESG issues, into account. Relevant issues are the impact of climate change on the value of their investments and their ability to meet their financial obligations towards their beneficiaries. That, in turn, means that they have to assess the impact of climate change on those in which they have invested and whether their investees meet their obligations in the face of climate change. The Global Investor Coalition on Climate Change (GICCC) also mentions key variables asset owners might consider: physical impacts and carbon price.⁷⁰¹

Whether or not climate change (to the extent that it continues unabated), especially in the short but also in the long-term, will have such dire financial consequences that investors cannot (fully) meet their financial obligations to their beneficiaries, is a question we cannot answer with sufficient certainty at present due to a lack of hard data and predictions. However, it is clear that climate change will have financial consequences and will affect investments; that is already happening today. Hence, especially if investors maintain climate change sensitive or GHG intensive portfolios, the financial impact will be relevant. Maybe not necessarily so relevant that it will render each individual investor unable to meet its financial obligations towards its beneficiaries, but certainly so relevant that it will eat away its margins and make it more vulnerable to other economic downturns. That is why climate change is a financial consideration for investors.

This principle confines itself to investments in States (bonds) and other enterprises (shares and bonds) because these entities are covered by the OP and these principles. We have not, in either project, discerned the obligations of other entities such as international institutions, individuals or governmental agencies such as provinces, municipalities, etc.

700 Also see UNEP FI AMWG, *Fiduciary responsibility*, o.c. for instance p. 10 and 11 in quite some detail.

701 *Climate Change Investment Solutions*, o.c. p. 6 with elaboration on p. 24.

According to the Law Commission of England & Wales:

“[t]he law ... allows trustees discretion not to take an ESG approach if after due consideration they consider that another strategy would better serve the interests of their beneficiaries”⁷⁰²

and

“it is permissible to accept lesser return in some areas where this is justified by the benefits of a portfolio as a whole. The anticipated benefits of an investment decision based on such factors must, however, outweigh the likely costs”⁷⁰³

and

“The law is flexible and allows trustees wide discretion to invest as they see fit. ... So long as they keep the purpose of the power of investment in mind, consider the relevant factors and follow the procedural requirements we have outlined, the court will not second guess their decisions.”⁷⁰⁴

The U.S. District Court for the Southern District of New York put it as follows:⁷⁰⁵

“The statutory authorization to invest in a security of a particular class, however, does not relieve the trustee of the obligation to exercise prudence in respect to each individual investment. *Delafield v. Barret*, 270 N.Y. 43, 200 N.E. 67, 69 (N.Y. Ct. of Appeals 1936). The classic Statement of the “prudent man rule” in New York is that “the trustee is bound to employ such diligence and such prudence in the care and management [of the fund], as, in general, prudent men of discretion and intelligence in such matters, employ in their own like affairs.” *King v. Talbot*, 40 N.Y. 76, 85-86 (N.Y. Ct. of Appeals 1869). See, *In re Bank of New York*, 35 N.Y.2d 512, 364 N.Y.S.2d 164, 169, 323 N.E.2d 700 (N.Y. Ct. of Appeals 1974); *In re Clark’s Will*, 257 N.Y. 132, 177 N.E. 397, 398 (N.Y. Ct. of Appeals 1931). In the area of investment decisions, the obligation to exercise prudence is essentially an obligation to give primacy to the preservation of the

702 Law Commission (England & Wales), *Fiduciary Duties of Investment Intermediaries: Summary*, Consultation Paper No. 215, October 2013, https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jsxou24uy7q/uploads/2015/03/cp215_fiduciary_duties_summary_web.pdf, p. 19; also see p. 20.

703 *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 21.

704 *Fiduciary Duties of Investment Intermediaries: Summary*, Consultation Paper No. 215, o.c. p. 22; also see p. 30 ff.

705 *Withers v. Teachers’ Retirement System et al.*, 447 F. Supp. 1248 (S. D. N. Y. 1978), at 1254 and 1255.

trust estate and the procurement of a reasonable income while avoiding undue investment risks, see *e. g.*, *King v. Talbot*, *supra*, at 86; *In re Mendleson's Will*, 46 Misc.2d 960, 261 N.Y.S.2d 525, 534 (Surrogate's Ct. 1965); Scott, *The Law of Trusts* § 227.3 (3d ed. 1967), and to make independent inquiry into the merits of particular investments rather than to rely wholly upon the advice of others. See, *e. g.*, *In re Clark's Will*, *supra*, at 399; Scott, *The Law of Trusts* § 227.1. In evaluating a trustee's investment decision under the prudent man rule, the focus of the court's inquiry is the individual investment itself rather than the performance of the portfolio as a whole. The New York Court of Appeals has stated that “[t]he fact that [a] portfolio show[s] substantial overall increase in total value during the accounting period does not insulate the trustee from responsibility for imprudence with respect to individual investments for which it would otherwise be surcharged *In re Bank of New York*, *supra*, 364 N.Y.S.2d at 168, 323 N.E.2d at 703.”

The Court continued, however:

"The record of any individual investment is not to be viewed exclusively, of course, as though it were in its own water-tight compartment, since to some extent individual investment decisions may properly be affected by considerations of the performance of the fund as an entity, as in the instance, for example, of individual security decisions based in part on considerations of diversification of the fund or of capital transactions to achieve sound tax planning for the fund as a whole. The focus of inquiry, however, is nonetheless on the individual security as such and factors relating to the entire portfolio are to be weighed only along with others in reviewing the prudence of the particular investment decisions."⁷⁰⁶

Baker & McKenzie paint the relevant Australian law as follows:

“The duty to prudently manage investment risk arises from various provisions of the Superannuation Legislation, and, unlike the duty of care, skill and diligence, this duty is extensively described in the legislation.

First, trustees must have regard to certain risks in the investment strategy and second, trustees must oversee a risk assessment which includes reasonable “measures and procedures to be used to identify, monitor and manage the risks

706 For a similar view, see Law Commission, *Fiduciary Duties of Investment Intermediaries*, No 350, o.c. p. 56.

to the investment strategy relevant to the entity and the risks to the entity's financial position." In addition, it is implied that trustees formulate an investment strategy that has "regard to the risk involved in making, holding and realising, and the likely return from the entity's investments." This duty is procedural in nature, and must be performed to the high standards of skill, care and diligence described above. In order to fulfil this duty to the requisite standard in practice, some regard to climate change risk should be included in the investment strategy."⁷⁰⁷

It follows that investors have (quite) some manoeuvring room.⁷⁰⁸ Principle 27 does not aim to limit this flexibility. It does, however, emphasise that the impacts of climate change have to be weighed, and explains how that should be done.

PRINCIPLE 27

*"Carbon metrics are no silver bullet. Investors also need sector and company-specific data to guide top-down and bottom-up investment decisions (...)"*⁷⁰⁹

Non-compliance with obligations

This principle aims to clarify the obligations of investors that have invested in or aim to invest in a non-complying entity. It follows from Principle 20 and the commentary to that Principle that we would overstate our case if we would be arguing that our principles are the one and only possible interpretation of the law; also see §20.6. Hence, non-complying refers to the legal obligations of enterprises. We already explained that:

- 1) we believe that there is a fairly sound legal basis for the obligations ensuing from Principles 2-5 and 17, whereas there are strong arguments to underpin the obligations mentioned in Principles 6-11. The obligations flowing from Principles 18-24 basically align with a series of legal instruments emerging around the globe;
- 2) it is not overly likely that if Principle 2 is mistaken the reduction obligations of all enterprises together in the respective APQ countries will be lower than those formulated in Principle 2;
- 3) it is highly unlikely that enterprises in, at least, APQ countries will not have some obligations comparable to those emanating from Principles 5-11 and 17-24;

⁷⁰⁷ Superannuation, o.c. p. 20 with further elaboration on the subsequent pages and more generally on p. 16.

⁷⁰⁸ See, for instance, Climate Group, Climate Principles, o.c. under 2.2.1; UNEP FI, Principles for Positive Impact Finance, o.c. p. 1 and Baker & McKenzie, Superannuation, o.c. p. 7, 8 and 11.

⁷⁰⁹ Eric Borremans, Vice Chair of IIGCC, in Raynaud, Carbon Compass, o.c. p. 4.

- 4) it would be a costly mistake to assume that enterprises do not have legal reduction obligations because there is not (yet) specific legislation⁷¹⁰ or case law pointing to the concrete obligations of the respective groups of enterprises;
- 5) enterprises have to disclose information about their performance in complying with their reduction obligations. They have to explain what these obligations are.⁷¹¹

Even if national legislators would enact legislation to determine the reduction (and other) obligations, these obligations will not be the upper limit of what enterprises are required to do if it is sufficiently clear that the legislation in point is insufficient in light of the universally accepted need to keep global warming below 2°C. Even more so if (associations of) enterprises have lobbied for these insufficient reduction obligations; see the commentary to Principle 15.

Hence, non-compliance is linked to the obligations ensuing from the applicable law. It would be overly demanding to require investors to spend much time and money to figure out the reduction obligations of the enterprises in which they have invested or are considering to invest in if they are not convinced by our principles. As a rule – and with the proviso mentioned in the next paragraph – they may rely on the information provided by the relevant enterprises unless it lacks a sound basis.⁷¹² Alternatively, they might consider to seek a legal opinion from legal experts.⁷¹³

We do not think that enterprises are under a legal obligation to explain what they believe to be the “alternative” obligations if they are not convinced by one or more of Principles 6-11 and 17-24. If investors doubt whether these Principles are right, they will have to explore alternative means to discern the nature of these obligations. That may be overly time- and money-consuming for individual investors, but it is quite achievable if they join forces.⁷¹⁴ If such research would be a disproportionate burden in a given case, it does not need to be executed.

Irrespective whether our principles apply, there is, we think, a hierarchy between the respective obligations. The reduction obligations (Principles 2 and 5 as adjusted in

710 See about climate change legislation: Nachmany et al., *Global trends*, o.c. p. 8 ff and 24.

711 See the commentary to Principle 20.

712 Global enterprises need to explain what they believe to be the legal reduction obligations in countries in which they have enterprises.

713 There are multiple ways to execute such research. Investors could for example employ a series of universities, leading law firms or retired judges. They might also consider seeking declaratory judgments. If major pension funds and other investors join forces, these opinions will not be overly expensive compared to the amounts at stake.

714 See for elaboration the previous footnote.

accordance with Principle 3 or 4 as the case may be) carry most weight. Next the obligations mentioned in Principles 8-11, followed by Principle 17. The obligations emanating from Principles 18-21, 23 and 24 are important but they are of a procedural nature. Investors may face a problem if they do not have enough information to assess whether enterprises in which they have invested or aim to invest comply with their obligations. That lack of information may be a reason to divest or to refrain from investing, but more likely Principle 29 paves a more attractive alternative. As not each obligation carries equal weight, the investors' response may be different. The wording "must ascertain and take into account" in Principle 26 provides enough flexibility. The same goes for the "justification" mentioned in this principle.

Justifications for buying or keeping equity issued by non-compliers

It follows from Principle 26 that there is no hard and fast rule about the investment choices of pension funds and insurers acting as investors. There may be sound reasons to opt for investments in non-compliers, especially in the short term.⁷¹⁵ If, for instance, pension funds would be obliged to refrain from buying bonds issued by the many non-complying countries,⁷¹⁶ or shares or other equity issued by non-complying enterprises, there would almost certainly not be enough viable alternatives, let alone that they would end up in a sufficiently diversified portfolio;⁷¹⁷ see, also for further references, the commentary to Principles 26-28. This factor is not a licence to refrain from taking action. Regard must be had to the possibility to focus on the best in class among non-compliers or to divest from the worst in class;⁷¹⁸ this carries all the more weight if the portfolio as a whole has relatively little low carbon or climate resilient equities.⁷¹⁹

Another justification for keeping equity issued by a non-complier might be that the investor is taking active steps to pressurise that non-complier into compliance; see Principle 29. In addition, divestment may mean that especially shares but also bonds will end up in the "wrong hands", e.g. hedge funds that are only interested in short term profits. Hedge funds usually do not have any incentive to pressurise the relevant entities to curb their emissions

715 I.e. due to lack of sufficiently return generating alternatives; see the commentary to Principles 26 and 27.

716 See about sovereign debt RCM Capital Investors, Sustainability: opportunity or opportunity cost? o.c. p. 34.

717 "Many financiers and governments" allegedly take the view that "divesting is financially irresponsible"; see Richardson, Fossil Fuel Divestment, o.c. p. 1686 and 1687. According to Martin Grosskopf, Fossil Fuel Divestment: A Solutions-Based Approach, in RIA, RIA Guide to Responsible Investment, 2015, www.sageinvestmentadvisors.com/pdfs/RIA%20Guide%20to%20Responsible%20Investing.pdf, p. 9, the resulting cash flows are "simply too attractive to ignore for most investors" when oil, gas and coal prices are high.

718 The latter strategy is adopted by a leading pension fund, we were told in one of our discussions.

719 See for a similar submission GICCC, Climate Change Investment Solutions, o.c. p. 13.

or to refrain from investing in projects or assets that will become stranded in the more distant future because of a short-term oriented strategy. That is an inconvenient truth. For more detail, refer to the commentary to Principles 26-28. This factor, however, does not carry much, or at least less, weight if it is unrealistic to expect that engagement or pressure by responsible investors will be of any avail. In such cases, divestment by responsible investors may be a desirable action.

A justification for a short-term focus in relation to *part of the investments* of a pension fund could be that it needs sufficient returns to pay present day's pensions. In addition, climate change is – though urgent and impactful – not the only pressing sustainability issue of our time, as the Millennium Development Goals and their successor the Sustainable Development Goals⁷²⁰ emphasise. So is, for instance, the alleviation – and preferably eradication – of poverty, Sustainable Development Goal 1.⁷²¹ In this respect, a justification for investment in a non-complying enterprise could be that this particular enterprise creates many jobs or pays higher-than-average wages in developing countries, thereby contributing to the alleviation and eradication of poverty in the country in point.

Other relevant factors are very limited exposure of the enterprise to climate change catastrophes, no or very limited historical emissions and no related liability risk.⁷²²

A sufficient justification?

Whether these and similar examples can serve as a sufficiently sound justification for investing in non-compliers has to be judged on the basis of the merits of a particular case. It also matters whether it would have been fair (in light of Principle 3.1 (a)-(f) or Principle 4.1 (c) if the country in which an enterprise is operating would have applied Principle 3 or 4 even if it does not make use of the flexibility offered by these principles.

The factors discussed above may especially be significant – although they should not be decisive – in situations where insufficient alternatives to investment in non-compliers exist.

720 www.un.org/sustainabledevelopment/blog/2015/12/sustainable-development-goals-kick-off-with-start-of-new-year/.

721 www.un.org/sustainabledevelopment/poverty/.

722 Also see Raynaud, Carbon Compass, o.c. p. 44 and 68.

Specific requirements of investors

We already mentioned that not all investors can be lumped together. Some have and are allowed to have a short-term view. Others may have specific desiderata, for instance because they do not want to invest in fracking (which would be a very good idea anyway). In those instances these desiderata may influence the interpretation of ‘justification’.⁷²³

Scope 2 and 3 emissions

Recent studies emphasise the importance of other factors,⁷²⁴ first and foremost the so-called scope 2 (indirect upstream emissions from the purchase of electricity, heating and cooling) and 3 (emissions from both the upstream supply-chain and downstream activities such as use and disposal) issues.⁷²⁵ We agree that in particular the scope 3 factors carry weight.⁷²⁶ If double-counting can be avoided,⁷²⁷ it may make sense to take the energy efficiency of an enterprise’s products and services into account, regardless of whether the enterprise complies with its own reduction obligations or not.⁷²⁸ More generally, the nature of the enterprise’s activities and its contribution to lower GHG emissions by society as a whole may carry weight.⁷²⁹ Examples are initiatives by manufacturers to only buy sustainable palm oil⁷³⁰ or public transport, when carried out by an enterprise.

723 See in more detail Esty and Court, *Corporate Sustainability Metrics*, o.c. under III. A Path Forward for Corporate Sustainability Metrics, p. 34 ff, with the proviso that they do not address legal obligations.

724 Raynaud, *Carbon Compass*, o.c., also for further references.

725 Definitions borrowed from Raynaud, o.c. p. 20. See about the relevance of these factors the entire report and for instance p. 11 and 12. The report rightly emphasises that a “better standardisation of metrics and reporting practices [in relation to scope 3] is highly desirable (p. 15). The lack of such a standardisation makes it impossible to submit concrete obligations, we think. In addition, most enterprises do not disclose scope 3 emissions (p. 20 and 63). In its annual report 2017, ABP, *Duurzaam en verantwoord beleggen*, o.c. emphasises the importance of scope 1 and 2 emissions for bought energy (p. 28); the CO₂-footprint of enterprises in its portfolio decreased by 22% in 2016 (after an increase of 5% in the preceding year); also p. 28. Also see Esty and Court, *Corporate Sustainability Metrics*, o.c. under Footprints versus Handprints (p. 24-25).

726 We are more reluctant about the scope 2 factors, in particular the purchase of electricity; see §10.4 where we explain why the better option is to allocate GHG emissions to the provider. Including scope 2 and 3 factors may be problematic in relation to sovereign bond and real estate; see Raynaud, *Carbon Compass*, o.c. p. 31. The report observes that it is not easy to calculate avoided emissions (p. 48).

727 See about that topic Raynaud, *Carbon Compass*, o.c. p. 21 and 22 and GICCC, *Climate Change Investment Solutions*, o.c. p. 36.

728 In this respect regard must be had to Principle 10.

729 See for a comparable view: Deb Abbey, *The Future of Investing*, in RIA, *RIA Guide to Responsible Investment*, 2015, www.sageinvestmentadvisors.com/pdfs/RIA%20Guide%20to%20Responsible%20Investing.pdf, p. 10; SSF, *Handbuch Nachhaltige Anlagen*, o.c. p. 85.

730 Example borrowed from PricewaterhouseCoopers and Climate Group, *Climate Principles: Progress Review*, January 2011, www.theclimategroup.org/sites/default/files/archive/files/Climate-Principles-review-2011.pdf, p. 9.

Disclosure on request

The obligation to disclose on request is aligned with the law as it stands in at least Australia, France, Germany, Italy (pending), the UK,⁷³¹ the UK Stewardship Code⁷³² and the CRISA Principles, supported by the Johannesburg Stock Exchange.⁷³³

PRINCIPLE 28

This principle should be read in conjunction with Principle 23. Investment in coal-fired power plants and enterprises engaged in generating carbon energy is mostly not only morally and legally problematic,⁷³⁴ but also risk-laden.⁷³⁵ At the very least, investors face a fair chance that such investees have to close down, with the concomitant negative impact on the value of the investment.⁷³⁶ That justifies the, in comparison with Principle 27, stronger need for a ‘compelling’ justification required by this principle. The financial risks involved point to a need for investors to track developments on what is deemed to be ‘excessive’, particularly with a view on the hazard of stranded assets. As the transition from fossil fuels to renewable technologies progresses, attention can be expected to move towards other products and services – within the energy sector, where coal will probably be joined by fracking in the short-term and conventional oil and gas on the somewhat longer term, but also outside the energy sector, in other sectors that emit significant amounts of GHGs, such as agriculture, in particular livestock production and land use.

That said, we are not suggesting that investing in coal power plants is never acceptable. There may be instances where there are no realistic alternatives for such plants. An

731 Freshfields Bruckhaus Deringer, UNEP FI and UNEP FI AMWG, Framework for the integration of ESG issues, o.c. p. 11. This report only investigated these countries.

732 Financial Reporting Council (FRC) of the UK, The UK Stewardship Code, September 2012, www.frc.org.uk/getattachment/e2db042e-120b-4e4e-bdc7-d540923533a6/UK-Stewardship-Code-September-2012.aspx, Principle 1.

733 IDSA, CRISA, o.c., Principle 5 under 11-13. Principle 5 is more stringent than our Principle 27, in that it also requires regular engagement “with its stakeholder groupings” including the ultimate beneficiaries. Also see GICCC, Climate Change Investment Solutions, o.c. p. 7 and SSF, Handbuch Nachhaltige Anlagen, o.c. p. 86; Cambridge Institute for Sustainability Leadership, ClimateWise Principles, o.c., under 4.3; UNEP FI, Portfolio Carbon, o.c. p. 27 and 28 and Gold and Scotchmer, Climate Change and Fiduciary Duties in Canada, o.c. p. 10 and 12.

734 For the legal argument, see OP 21 and Baker & McKenzie, Superannuation, o.c. p. 20 and 21.

735 For the latter, see, for instance, McHale and Spivey, Assets or Liabilities, o.c. p. 4 ff.

736 For information about investment treaties, see above. Although this view is gaining in acceptance, some remain cautious. UNEP FI and PRI write that “a decision not to invest in coal mines (e.g. because of concerns about these assets being stranded as a result of climate change policy) is likely to be seen as consistent with fiduciary duties so long as the decision is based on credible assumptions and a robust decision-making process” (emphasis added) in Fiduciary Duty, o.c. p. 16.

example is the case of a least developed country with huge coal reserves and no access to cleaner sources of energy, because of a lack of financial means or otherwise. If no other country or international institution is willing to provide funds for less emitting options, investment in a coal power plant may be justified, if and only if the risk of this investment getting stranded has been given sufficient weight. Even in the just-mentioned scenario it is by no means self-explanatory that there is a sound justification for pension funds and insurers acting as investors to invest in this kind of equity. The mere fact that a country is dependent on power from coal fired power plants does not mean that this problem should be solved by institutions that have (fiduciary) duties towards their beneficiaries only. In addition, the better option would be for the investor to pressure the country to choose for renewable energy technologies.

Other fossil fuels

Since the Group's last meeting (spring 2016) the debate on fossil fuel divestment in general has intensified.⁷³⁷ At least some major investors have already divested or are already divesting their fossil fuel equity.⁷³⁸

There are many reasons indeed why such a stance could be prudent and perhaps even required.⁷³⁹ We are, however, cautious to take a firm stance in this debate because we do not have a sufficiently clear picture of the consequences of keeping or selling (part of) the equity. For example, it is uncertain whether investors will be able to sell the equity at a reasonable price when the price of carbon-neutral energy drops below that of oil or gas. It is also unclear *when* the price of carbon-neutral energy will drop below that point in a significant number of cases. Nor can we judge the potential benefit of the alleged relatively huge profits (dividends) of fossil fuel equity compared to alternative investments.⁷⁴⁰

It follows from these principles that GHG emissions have to be curbed significantly in the decades to come. That position inevitably means that, in our view, fossil fuels do not need to be phased out overnight, at least not from a legal angle.⁷⁴¹ That, in turn, implies that we would overstate our case if we would advocate fully-fledged divestment of equity in the

737 See for details Ashim, Knight and Chan, *Stranded assets*, o.c. and Arabella Advisors, *Global Divestment and Clean Investment*, o.c.

738 See for more details Arabella Advisors, *Global Divestment and Clean Investment*, o.c. p. 5 ff and 12 ff.

739 According to Arabella Advisors, *Global Divestment and Clean Investment*, o.c. "Over the past few years, more legal and financial analysts acknowledge that standards of ordinary prudence may actually require divestment from fossil fuels" (p. 8 with further references).

740 See Ashim, Knight and Chan, *Stranded assets*, o.c. p. 18.

741 That picture changes dramatically if we would have to keep global warming below 1.5°C. See about that scenario §19.2.

fossil fuel industry. We are not suggesting either that investors such as pension funds may keep this kind of equity.⁷⁴² We simply refrain from taking a stance because we feel on unsafe ground. In the short-term, whether investors are under an obligation to divest or not may well depend on financial considerations.⁷⁴³

PRINCIPLE 29

“Investors are in a unique position to make the economic case for climate and energy policies that send the appropriate price signals to incentivise low carbon, clean energy investment.”⁷⁴⁴

This principle is, in a sense, the corollary of Principle 26.⁷⁴⁵ We already mentioned in the commentary to Principle 27 that the possibility to pressurise a non-complying enterprise or State to comply with its obligations may be a justification to maintain investment in such an entity, all the more so if it would be likely that the shares or bonds, if sold, would be bought by investors with a short term view only.⁷⁴⁶ Moreover, one should not underestimate the power of the threat of major divestment because of non-compliance with reduction obligations, as was stressed by a leading financial expert that we have consulted. In this respect one should bear in mind that divestment from and subsequent discrediting of the tobacco industry may well have contributed to the lower sales of cigarettes.⁷⁴⁷

742 Interestingly, Longstreth, Outline of Possible Interpretative Release, o.c. states that “The prudence standard of the Act can easily support a decision not to continue to hold or invest in fossil fuel companies. The risks and rewards by such companies are asymmetric, in the sense that the foreseeable rewards are not likely to be equal to the foreseeable risks. ... Whether the duties of care, skill and caution today compel a decision not to hold or invest in fossil fuel companies can ultimately only be answered by a court, which always looks back in time, and therefore can be subject to the force of hindsight. At some point down the road towards the red light of 2°C, however, it is entirely plausible, even predictable, that continuing to hold equities in fossil fuel companies will be ruled negligence”. We fully endorse the latter view and find it quite likely that the first part of the statement is equally true.

743 See about that perspective Arabella Advisors, Global Divestment and Clean Investment, o.c. p. 28 ff and Ashim, Knight and Chan, Stranded assets, o.c. p. 8 ff and 15 ff; the latter rightly observe that there is not necessarily a need for black and white choices: partial divestment or selling the equity of the worst in class might also be an option (p. 16 and 17). For the avoidance of doubt: the sooner the world can get rid of energy based on fossil fuels the better.

744 GICCC, Climate Change Investment Solutions, o.c. p. 8.

745 See for a similar approach Climate Group, Climate Principles, o.c. under 2.2.3.

746 See for instance Ashim, Knight and Chan, Stranded assets, o.c. p. 21.

747 See about sales in the US: www.cdc.gov/tobacco/data_statistics/tables/trends/cig_smoking/. We are not in a position to express a view on the question how much this factor contributed. Other factors, such as ever more intrusive warnings, may also have contributed (significantly).

There is, however, no reason why this obligation should be confined to scenarios of *non-complying* enterprises in which the investor has invested. There is emerging support for investor engagement in general.⁷⁴⁸

The Brazilian Corporations Code requires controlling shareholders “to exercise their shareholding power to promote the social well-being of the other shareholders and the community.”⁷⁴⁹

The GICCC elaborates on engagement by asset owners. It mentions the following actions they could take:

“Measurement. Encourage companies to measure and report the carbon emissions and carbon intensity associated with their operations (e.g. via the CDP survey and in their annual reports and websites).

Integration. Evaluate the extent to which carbon exposure is a risk factor for the company’s business and how it is managing this across its strategy and business operations.

Policy engagement. Enquire into the company’s position on climate policy and its involvement in related groups or activities that seek to influence climate policy outcomes, and whether they are supporting or opposing climate and clean energy policies.

Collaboration. Evaluate the extent to which the company is collaborating with other companies and industry participants to improve how carbon exposure is managed and ultimately reduced. Asset owners can also join forces with other investors and industry groups to encourage greater transparency and action (see Box: Examples of company engagement on mitigation).

Targets. Request that companies set targets to reduce the carbon exposure and intensity of their operations over a certain time period and that this be measured and reported on a regular basis.

748 See for instance Wentz, *Considering Climate Change in Review and Planning*, o.c p. A2 and A3 under 8. Also see FRC of the UK, *The UK Stewardship Code*, o.c. Principle 6 and 7; IDSA, *CRISA*, o.c. Principle 2 under 3; GICCC, *Climate Change Investment Solutions*, o.c. p. 7, 12, 13, 15 and 25. According to Bonham, *What a Responsible Investor Should Know*, o.c., engagement is not a silver bullet; excluding enterprises has been unavoidable (p. 7). Grosskopf, *Fossil Fuel Divestment*, o.c. p. 9 is a bit sceptical about the engagement with fossil fuel industry; in his view investors cannot afford to divest as “even most ‘responsible’ investment portfolios will have close-to market-weight exposure in fossil fuel companies”. His argument is not very convincing, if not for other reasons because it seems to suggest that the status quo is a given for eternity. Richardson, *Fossil Fuels Divestment*, prefers engagement because he wonders whether “fossil fuels divesting itself is lawful” (p. 1687 and for further elaboration p. 1693).

749 UNEP FI and PRI, *Fiduciary Duty*, o.c. p. 33.

Reduce or remove exposure. Remove or reduce exposure to companies where they have undertaken a process of evaluation and engagement and have concerns about how carbon exposure is being managed and consider the risks to be too high to retain the current exposure.”⁷⁵⁰

Some NGOs have advocated that information regarding the dialogues between investors and asset owners be published.⁷⁵¹ We appreciate that this might be useful; it would increase pressure on enterprises unwilling to comply with their legal obligations. But we wonder whether there already is a legal basis for requiring the publishing of such information.

PRINCIPLE 30

The disclosure requirements of this principle are a corollary of the issues discussed under Principles 25-28.⁷⁵² This obligation comes close to what is advocated in the OECD Guidelines for Pension Fund Governance:⁷⁵³

“The governing body should disclose relevant information to all parties involved (notably pension plan members and beneficiaries, the supervisory board- where relevant – (...), and supervisory authorities, etc.) in a clear, accurate, and timely fashion. The specific information that (...) beneficiaries should receive is described in the OECD Guidelines for the Protection of the Rights of Members and Beneficiaries. In the case of pension funds that support personal pension arrangements, certain information (e.g. costs and investment returns) may also need to be disclosed to the public at large via appropriate mechanisms (e.g. websites and printed media). The governing body may also be required to disclose publicly if, and if so how, environmental, social, and governance considerations are taken into account in the investment policy. Two useful references

750 Climate Change Investment Solutions, o.c. p. 15. Also see EU High-Level Expert Group on Sustainable Finance, Sustainable European Economy, o.c. p. 36.

751 Anita M. Halvorsen and Cody D. Eldredge, Investing in Sustainability: Reform Proposals for the Ethics Guidelines of the Norwegian Sovereign Wealth Fund, European Company Law 11(2), April 2014, p. 110.

752 See for a similar view Hesse, Long-Term and Sustainable Pension Investments, o.c. p. 31; Leurig, Climate Risk Disclosure by Insurers, o.c. p. 49-50 in relation to French law about carbon risk issues.

753 OECD, Guidelines for Pension Fund Governance, o.c. Also see Gold and Scotchmer, Climate Change and Fiduciary Duties in Canada, o.c. p. 10; Richardson, Fossil Fuels Divestment, o.c. p. 1693, 1707 and 1708; for Germany UNEP FI and PRI, Fiduciary Duty, o.c. p. 47 and for Japan p. 61; also see the membership commitment document for asset owners of UNEP FI's Portfolio Decarbonization Coalition under 4 (http://unepfi.org/pdc/wp-content/uploads/PDCmembership_assetownersUPDATED1.pdf).

in this regard are the OECD Guidelines for Multinational Enterprises and the OECD Principles of Corporate Governance.”⁷⁵⁴

The UK Stewardship Code of September 2012 (not a legally binding instrument)⁷⁵⁵ entails similar obligations in relation to “institutional investors”.⁷⁵⁶ It observes that:

“[d]isclosures under the Code should improve the functioning of the market for investment mandates. Asset owners should be better equipped to evaluate asset managers, and asset managers should be better informed, enabling them to tailor their services to meet asset owners’ requirements.”⁷⁵⁷

Some pension funds already comply with part of these obligations.⁷⁵⁸ UNEP FI and PRI emphasise that, according to interviewees:

“disclosure requirements (...) which will require pension funds to disclose information about whether ESG factors are incorporated into their investment policies and procedures, have been particularly important in stimulating boards of trustees to explicitly discuss ESG issues and to seek advice on how responsible investment is consistent with their fiduciary duties.”⁷⁵⁹

Pension funds may be relieved from the obligation under Principle 30.2 if disclosure of this information would have an adverse impact on the fund. Full disclosure by all pension funds will likely end up in standard guidelines and instructions and serve as an obstacle to improvement.

754 Annotation under 11 (Disclosure). PRI and MSCI wonder whether “increasing dialogue between companies and investors” always has the desired impact; to the contrary, the “evidence points to an increase in the short term-pressures on many companies”: Global Guide to Responsible Investment Regulation, o.c. p. 25. That is probably true, but this kind of pressure is, hopefully, only or predominantly exercised by investors with a short-term view or perspective, such as most hedge funds; also see Richardson, Fossil Fuels Divestment, o.c. p. 1691.

755 This follows from inter alia p. 2 under 2.

756 Hence, its scope is wider than our Principle 29 and includes “asset owners, ... insurance funds, investment trusts and other collective vehicles” (see p. 1 under 6). See for a similar approach IDSA, CRISA, o.c. Principle 5 (supported by the Financial Services Board and the Johannesburg Stock Exchange).

757 P. 2 under 4. See for the Ontario (Canada) standards UNEP FI and PRI, Fiduciary Duty, o.c. p. 39. The same goes for art. 135 para 4 of the Dutch Pension Code (Pensioenwet).

758 For instance First State Investments, Responsible Investment and Stewardship, o.c. in relation to climate change statements and how the respective teams see and manage how GHG emission-intensity influences its decision-making: p. 3 and 41/42.

759 Fiduciary Duty, o.c. p. 15.

ROOM FOR ELABORATION AND FURTHER RESEARCH

Our principles and this commentary aim to cover the most important topics connected to the obligations of enterprises and investors. We do realise that there are black spots on our map. Further research and discussion on these topics would be valuable but a small group of experts like ours can unfortunately not cover everything. To mention just a few of the topics we have contemplated but not covered: the impact of GHG emission trading schemes, such as the European Emissions Trading Scheme, on the (reduction) obligations of enterprises,⁷⁶⁰ international transport over sea, rivers or roads, extra-territorial activities such as oil drilling,⁷⁶¹ sovereign immunity,⁷⁶² relevant aspects of competition law as well as of private international law⁷⁶³ and intergenerational equity.⁷⁶⁴

760 To be more concrete: what is the impact of emission rights on the reduction obligations of enterprises? Are these rights a legal justification or defence against further-reaching reduction obligations based on a sound interpretation of the applicable law? Does it matter that enterprises (should) know that the currently available emission rights exceed the emissions that can be tolerated if global warming must be limited to 2°C or any other lower figure that applies at a relevant moment in time. These questions really matter: if emissions rights determine the legal obligations of enterprises, it will be impossible to keep global temperature below 2°C as too many emissions rights have been issued. If the question would be answered in the negative, emission rights would be of limited avail; enterprises would often have to pay for rights that are of no use to them. For now, we stick to the observation that emission rights *should* not be a legal defence if the enterprise's obligations to curb its GHG emissions go beyond the rights granted by emission rights. See about the shortcomings of tradable pollution rights f.i. Sharon Beder, Trading the Earth: The politics behind tradable pollution rights, *Environmental Liability*, 9 (2), 2001, www.uow.edu.au/~sharonb/liability.html, p. 152 ff. For an elaborate evaluation of the European Emissions Trading Scheme, see Mirabelle Muûls et al., Evaluating the EU Emissions Trading System: Take it or leave it? An assessment of the data after ten years, Grantham Institute on Climate Change and the Environment at Imperial College London, Briefing Paper No 21, October 2016, www.imperial.ac.uk/media/imperial-college/grantham-institute/public/publications/briefing-papers/Evaluating-the-EU-emissions-trading-system_Grantham-BP-21_web.pdf, who refer to "the low carbon-price that is associated with an over-generous emissions cap" (p. 9).

761 These topics have in common that it is not self-explanatory to which countries the relevant activities (and hence emissions) should be attributed, which determines the reduction obligation of the enterprise under Principle 2. That matters as the reduction obligations of enterprises under Principle 2 are linked to the relevant country.

762 See f.i. Dinah Shelton, *Remedies in International Human Rights Law* (2nd edition), Oxford University Press, 2005, p. 30 ff.

763 See Ulrich Magnus, Injunctive Relief against Climate Change, in Jaap Spier and Ulrich Magnus, *Climate Change Remedies: Injunctive Relief and Criminal Law Responses*, Eleven, 2014, p. 146 ff.

764 See for a concise discussion the introductory §19.2.

We reiterate that our principles focus on mitigation; see §15. Hence, we did not tackle immensely important topics such as adaptation,⁷⁶⁵ migration⁷⁶⁶ and compensation for climate change related losses.⁷⁶⁷ Nor did we address the obligations of private persons, small enterprises,⁷⁶⁸ international bodies, NGOs, governmental agencies to the extent they are not enterprises as defined in Principle 1.⁷⁶⁹ The obligations of auditors, supervisory institutions, insurers and re-insurers are of utmost importance.⁷⁷⁰ Procedural issues, such as declaratory and injunctive relief,⁷⁷¹ access to courts and effective remedies by means of class action or similar features might be (come) cornerstones to enforce legal obligations.⁷⁷²

765 See in more detail f.i. Michael B. Gerrard and Katrina Fischer Kuh (eds.), *The Law of Adaptation to Climate Change: U.S. and International Aspects*, ABA Book Publishing, 2012 and Margaux J. Hall and David C. Weiss, *Climate Change Adaptation and Human Rights: An Equitable View*, in Olivier C. Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (eds.), *Climate Change: International Law and Global Governance Volume I: Legal Responses and Global Responsibility*, Nomos, 2013, p. 261 ff.

766 See f.i. Clionadh Raleigh, Lisa Jordan and Idean Salehyan, *Assessing the Impact of Climate Change on Migration and Conflict*, Social Development Department, World Bank Group, 2008, http://sitere-sources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/SDCCWorkingPaper_MigrationandConflict.pdf.

767 See, more generally, Enneking, *Foreign Direct Liability*, o.c.; Lord et al. (eds.), *Climate Change Liability*, o.c.; Roda Verheyen, *Climate Change Damage and International Law: Prevention Duties and State Responsibility*, Martinus Nijhoff, 2005; Daniel A. Farber, *The Case for Climate Compensation: Justice for Climate Change Victims in a Complex World*, *Utah Law Review* 377 (2), 1 August 2008, <http://scholarship.law.berkeley.edu/facpubs/434>, p. 377 ff; International Bar Association, *Achieving Justice and Human Rights in an Era of Climate Disruption*, *Climate Change Justice and Human Rights Task Force Report*, July 2014, www.ibanet.org/PresidentialTaskForceClimateChangeJustice2014Report.aspx, p. 76 ff; Joseph Smith and David Shearman, *Climate Change Litigation: Analysing the Law, Scientific Evidence & Impacts on the Environment, Health & Property*, *Presidian Legal Publications*, 2006, p. 77 ff; Marjan Peeters, *The regulatory approach of the EU in view of liability for climate change damage*, in Michael G. Faure and Marjan Peeters (eds.), *Climate Change Liability*, Edward Elgar, 2011, p. 116 ff; Elena Kosolapova, *Liability for climate change-related damage in domestic courts: claims for compensation in the USA*, in *idem*, p. 189 ff and Michael G. Faure and Marjan Peeters, *Concluding remarks*, in *idem*, p. 255 ff; Haritz, *An Inconvenient Deliberation*, o.c. in particular p. 157 ff; Spier, *Injunctive Relief*, o.c. p. 5 ff and more generally Clapham, *Human Rights Obligations*, o.c. If liability would or should be a starter, one of the relevant questions is who should be liable: the relevant legal person or its directors and officers.

768 See this commentary under Principle 17.

769 See for the reasons for this choice the commentary to Principle 1 under 'Enterprise'.

770 See about insurers for instance Geneva Association, *The Geneva Reports: Risk and Insurance Research: The insurance industry and climate change – Contribution to the global debate*, No. 2, July 2009, www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public/2009_geneva_report_2_the_insurance_industry_and_climate_change_-_contribution_to_the_global_debate_0.pdf and Geneva Association, *An Integrated Approach to Managing Extreme Events and Climate Risks: Towards a Concerted Public-Private Approach*, September 2016, www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public/20160908_ecoben20_final.pdf.

771 See, also in a broader context, Eva Rieter, *Preventing Irreparable Harm: Provisional Measures in International Human Rights Adjudication*, *Interesentia*, 2010 and Shelton, *Remedies in International Human Rights Law*, o.c.

772 See Magnus, *Injunctive Relief against Climate Change*, o.c. p. 121 ff.

We realise that carbon capture and storage and at some stage, perhaps, even geoengineering are, or may become, important or even necessary to avoid the rise of global temperature above a certain level.⁷⁷³ The question whether those technologies are feasible, what the inherent risks are and whether these or other measures are acceptable and will become inevitable go beyond the scope of our venture; they are *also* of a non-legal nature.⁷⁷⁴ They require and justify in-depth research and discussion.⁷⁷⁵

Many of the above-mentioned projects warrant research projects in their own right; we did not want to unduly delay the publication of our principles. We hope that, despite the foregoing, our principles and the commentary thereto will contribute to the debate about the core obligations of the major players and that they will stimulate further debate.

EPILOGUE

“The direction of travel is changing, but the destination is still not 2 degrees.”⁷⁷⁶

The International Energy Agency (IEA) hits the mark. That is why it is of utmost importance to paint a clear picture of the reduction obligations of enterprises. It will be a Herculean task to reach the destination of avoiding the passing of the 2°C threshold. If, in light of the political deadlock, this will be possible at all, it can only be achieved if enterprises around the globe are going to contribute their fair share. These principles attempt to quantify that “fair share” and the role investors and financiers of those enterprises should play to stem the tide.

It is important to be ambitious. But it is equally important to be pragmatic. A better understanding of the legal obligations of major players to reduce GHG emissions will contribute to both ambition and pragmatism.

Writing about President Obama’s final speech at the UN, the International New Times observed:

773 See extensively Faure and Partain, Carbon Capture and Storage, o.c.

774 See in more detail Jan Glazewski, Legal and Regulatory Aspects of Carbon Capture and Storage: A Developed and Developing Country Perspective, in Olivier C. Ruppel, Christian Roschmann and Katharina Ruppel-Schlichting (eds.), Climate Change: International Law and Global Governance Volume I: Legal Responses and Global Responsibility, Nomos, 2013, p. 933 ff and IEA, Carbon Capture and Storage: Legal and Regulatory Review (5th edition), www.iea.org/publications/insights/insightpublications/InsightsSeries2016CarbonCaptureandStorageLegalandRegulatoryReview.pdf.

775 We may start working on one or more of these issues at a later stage.

776 IEA, World Outlook 2015, o.c. p. 7.

“As he exits the world stage, Mr. Obama sometimes seems less determined to change the world than to come to terms with it.”⁷⁷⁷

However, realism cannot trump ambition. High aspirations are needed to realise the ambitious but necessary goals to limit the emission of GHGs and hence climate change. In Achim Steiner’s words:

“The recent crisis cannot be an alibi for inaction, but a call for action.”⁷⁷⁸

Needless to say, we hope that many important players – politicians, business leaders, NGOs, courts and academics – will endorse our principles. We realise, of course, that these principles are not the final word. We firmly believe that they paint a credible picture of the law as it stands, albeit based on a bold and at times imaginative interpretation, as we have alluded to multiple times throughout this commentary.

Enterprises in just APQ countries may be under less stringent obligations than emanate from our principles. The obligations embedded in Principles 9, 10 and 17 may be unduly harsh on some enterprises, particularly on those operating in least developed countries. The principles provide flexibility to cope with apparent injustices in case of strict application of the respective obligations, in particular through Principles 9 and 10 (‘excessive’), 11 and in extreme situations 16. As to Principle 17, ‘reasonably and feasibly possible’ also provides a margin to avoid manifest injustice. With these possibilities for flexibility, we do not think that the obligations contained in these principles are either overly strict or lenient.

In our view, our principles attempt to concretise what is needed, but not necessarily what is achievable. Even if some interpretations may be too far-fetched at present, we are confident that the law will develop in the direction that we have laid out here. When it does so, it will be applied retroactively.⁷⁷⁹ Thus, our principles have relevance, even if one believes they are far-fetched at present. We expect that the law will develop in such a direction that our principles turn out to have concretised the minimum obligations of enterprises, rather than that they will be judged excessive.

We welcome criticism, and hope that it will be accompanied by concrete suggestions for improvement that gives society a better shot at keeping the increase of global temperature

⁷⁷⁷ Mark Landler, Obama, in Farewell to U.N., Paints Stark Choices for Unsettled World, *The New York Times*, 19 September 2016, www.nytimes.com/2016/09/21/world/barack-obama-unga-2016-united-nations.html, p. 8.

⁷⁷⁸ UNEP FI AMWG, *Fiduciary responsibility*, o.c. p. 5.

⁷⁷⁹ See in more detail §20.1.

below the threshold of 2°C. Time for denial, leniency and other escapes has elapsed. Luckily, the job can still be done. As indicated before, it can even be done at affordable cost.⁷⁸⁰

The Lambeth Declaration 2015 on Climate Change⁷⁸¹ eloquently summarises the gist of our principles:

“We call ... for courage, justice and hope. We are faced with a huge challenge. But we are hopeful that the necessary changes can be made – for the sake of all who share this world today – and those who will share it tomorrow.”

We only have to perform.

780 See in more detail §16.

781 Lambeth Declaration 2015 on Climate Change, 17 June 2015, www.churchofengland.org/media-centre/news/2015/06/archbishop-of-canterbury-join-faith-leaders-in-call-for-urgent-action-to-tackle-climate-change.aspx.

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