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**CLIMATE CHANGE AND DEVELOPMENT
FRAMINGS:**

**A COMPARATIVE ANALYSIS OF THE HUMAN
DEVELOPMENT REPORT 2007/8 AND THE
WORLD DEVELOPMENT REPORT 2010**

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Abstract

The Human Development Report 2007/8 (HDR) and the World Development Report 2010 (WDR) are both devoted to the connections between climate change and development. The reports provide very different perspectives on where the key challenges reside. Their policy proposals are also different, but much less so. The paper investigates these dissimilarities and similarities, and explores the framings in the Overviews of the two reports. It compares their conceptions of development, their normative content, the role given to human rights, and the status of proposed market solutions to issues of climate change and development. It ends by asking why, when the problem framings so significantly differ, the proposed solutions differed far less.

Keywords

Climate change; problem- and policy-frames; human rights; United Nations Development Programme; World Bank

Climate change and development framings¹

-- a comparative analysis of the Human Development Report 2007/8 and the World Development Report 2010

1 Climate solidarity versus climate smartness

Multilateral organizations working on development issues and poverty reduction have started to assess the challenges that climate change poses to their work. Poor people are more directly dependent on nature and thus more vulnerable to environmental degradations; they are the first and most severely affected by climate change impacts. Moreover, they are more likely to be negatively affected by policy responses to climate change, from forest protection and agrofuels cultivation to mining in newly glacier-free areas. The Reports of the United Nations Framework Convention for Climate Change (UNFCCC) and the Intergovernmental Panel on Climate Change (IPCC) have shown how the relations between development pathways and climate change vulnerability, adaptation and impacts are amongst the fundamental challenges for our generation and those that will follow. The warming of the atmosphere and the consequences for weather patterns, onset of seasons, new parasites and pests affecting crops, availability of food and water, increases and changes in disease vectors, and more frequent severe weather events and disasters, amongst other impacts, affect more strongly the low-latitude developing countries and poor people and communities across the planet.

These impacts are the result of models of development that have been pursued by advanced economies for centuries and that have underpinned development strategies and aid policies since 1945. The attempts to mitigate climate change also have enormous consequences for developing countries and on people who are already vulnerable because of non-climate stressors. The inverse relation between vulnerability to climate change and responsibility for the change, together with the prevalence of advocacy of market-based growth as the leading tool to address both poverty and climate change, makes this set of issues deeply contentious.

Diverse perspectives and narratives have emerged. How are climate change, the meaning of progress, and models of development specified? How does climate change discussion link to ideas of human rights? What pathways and solutions do various agencies defend, and how protective are they of the poor? What types of informational basis and expert perspective are prioritized and why, and which issues are neglected?

That development institutions now respond to the challenge of climate change in conscious relation to development, aiming to tackle all issues in a synergetic way, is of utmost importance. Previously the global debate on climate change solutions had not given much attention to the poor and

¹ This paper is part of a research project funded by the Norwegian Research Council. Our thanks go to Desmond McNeill for valuable comments and to Trine Dahl and Kirsti Fløttum for some content-analysis suggestions and other helpful discussion.

underdevelopment. However, the emergent discourse linking these issues may fail to question the models of progress and development that have led to the climate crises in the first place.

Two institutions lead the debates in multilateral global development policy, providing perspectives that often cascade to other agencies and governments around the world: the United Nations Development Programme (UNDP) and the World Bank. In 2007 UNDP published its *Human Development Report 2007/8* on the connections between climate change and development, the HDR 2007/8. The World Bank followed with the *World Development Report 2010: Development and Climate Change*, WDR 2010 (published in 2009).

This paper compares the Overviews of these two reports.² We focus on their key terms and ideas, framing choices, similarities and differences. While giving some attention to the Reports as a whole, which are of book-length, we concentrate on the very substantial Overviews. These parts are by far the most read and most influential, and are the most carefully prepared, including through an interplay between knowledge and politics that is typical for multilateral organizations (St. Clair, 2006a).³ The two Overviews are large self-contained pieces, of very comparable scale (around 25 pages with about 600 words on a text-only page) and make little or no explicit reference to the rest of the report that they summarise. Close reading and content analysis of the Overviews provide insights into different worldviews that are prominent in the climate and development debate.

The HDR uses the same title for its Report and its *Overview: Fighting Climate Change – Human solidarity in a divided world*. The title provides an ethical and political message about struggle, division, and overcoming that division in order to face a shared crisis. It appeals to ideals of bravery, solidarity and human community. The Overview maintains this style. It opens with a quotation from Martin Luther King Jr., which urges people to confront ‘the fierce urgency of now’ and to take action, for ‘Over the bleached bones and jumbled residues of numerous civilizations are written the pathetic words: Too late.’ (p.7). The Report cites Gandhi and Chico Mendes in similar ways. Its call for solidarity is reflected in frequent use of the word ‘we’, which appears vastly more often in its Overview than in the WDR Overview (56 usages versus 11).⁴

² The HDR Overview is available in two versions: as part of the full report (pp.1-18), and as a longer self-standing document on the HDR website (pp.7-30 of a 31 page ‘Summary’ file that also contains tables, diagrams, the frontmatter, Foreword, contents list, etc.). Page references and wordcounts that we give in this paper are to the self-standing version, since that is more comparable to the WDR Overview, which also contains tables and diagrams; we add page references to the full report version in square brackets. Wordcounts for the WDR Overview (pp.1-29) exclude its References section, since the HDR Overview has no such section, and could indeed also exclude the Notes section (pp.26-29) for the same reason.

³ Indeed, the Overviews of international agency reports sometimes contain significant divergences from the main report in emphasis and even in message; see for example the World Development Report 2006 on Equity and Development, analysed by McNeill and St. Clair 2011.

⁴ In addition the Foreword to HDR 2007/8 includes no fewer than 28 uses of ‘we’, within three pages.

In contrast, the WDR 2010 adopts a bland Report title: *Development and Climate Change*. It sees a ‘challenge’ not a ‘fight’ (p.18). Its Overview has a separate title, *Changing the Climate for Development*, which conveys, first, that climate change affects the prospects for development; and, second, that the Report describes how to manage the climate in order to achieve or enhance development. The word ‘climate’ can be understood as meteorological features, and as the conditions that influence development such as institutions, markets, political stability. The WDR offers a more heavily technical perspective than the HDR, even if this is less marked in the Overview than in the rest of the report, which provides an enormous amount of detail, requiring readers to be versed in microeconomics and environmental issues in order to understand some sections. Its message is not a political and ethical statement asserting a We, but a managerialist ‘Can-Do’ that matches the World Bank’s predominant technocratic-bureaucratic style and reflects a framing of climate change as a challenge that can be tamed with sufficient funds and technology (O’Brien et al. 2009; McNeill and St. Clair, 2009). The word ‘can’ appears more than twice as often in the WDR Overview than in the HDR one (77 uses versus 32). The WDR in effect takes as its motto ‘a climate-smart world is within reach’ (p.10; & p.4).

Overall, the HDR 2007/8 has more ethical and political orientation, consistent with the capability approach that underpins the HDR series. While the Overview does not use the term ‘ethical’ or ‘ethics’, ‘moral’ appears three times, ‘justice’ seven times (usually as ‘social justice’) and ‘human rights’ eleven times. It includes strong and repeated messages on ‘social justice and respect of human rights’ (p.13 [6]), and speaks of an impending ‘moral failure on a scale unparalleled in history’ (p.8 [2]) if we fail to prevent runaway climate change.

The WDR Overview makes no use whatsoever of the terms ‘ethical’, ‘moral’, ‘justice’, ‘human development’, ‘human security’ or even ‘human rights’. ‘Climate-smart’, a term that conveys technocratic orientation and can-do ability, appears nine times, versus not at all in the HDR Overview. ‘Equity’ and ‘equitable’ are the WDR’s preferred normative terms, appearing 15 times, versus twice in the HDR Overview. The WDR Overview uses even the terms ‘political’ and ‘politically’ just six times (compared to 23 times in the HDR Overview) and focuses instead on economic growth (85% of its 26 uses of ‘growth’ concern economic growth; compared to 57% of the 23 HDR Overview uses), and on ‘efficiency’ or ‘efficient’ (48 uses, compared to 21).

The WDR Overview’s fourth sentence thus asserts: ‘Critical to the progress [in reducing poverty, lengthening lives and improving nutrition is]: rapid economic growth’ (p.1). This is repeated often (for example: ‘Economic growth is necessary to reduce poverty’, p.7). However, in long periods in many countries major economic growth did not lead to such progress, and several other countries had periods of major progress without rapid economic growth. The WDR itself later notes how ‘Creating social safety nets in countries that do not yet have them is critical, and Bangladesh shows how it can be done even in very poor countries’ (p.13). The WDR conceals issues by referring to ‘growth and poverty alleviation’ as an indissoluble package, which it treats as a singular noun not a plural (p.1).

The WDR Overview also gives much emphasis to economic calculations of efficiency and returns. It cites ‘a global average GDP loss of about 1 percent’ from climate change (p.5); and gives only one sentence at the end of a paragraph to the expected deaths from business-as-usual economic expansion: ‘And over 3 million additional people could die from malnutrition each year.’ (p.5). In contrast, the HDR focuses on human impacts more than on GDP. The first page of its Foreword says: ‘In terms of aggregate world GDP, these short term effects may not be large. But for some of the world’s poorest people, the consequences could be apocalyptic.’ (p.3 [v]).

Our paper probes these radical differences in style and declared priorities, and asks how far the two Reports differ in reality as policy frameworks. In other words, besides the evident dissimilarities, are there also important similarities? The paper undertakes a frame- and content- analysis (Alexander, 2009; Schmidt, 2006; Yanow, 2000). Section 2 presents the contexts—organisational, intellectual and situational—for reading and interpreting the reports. Section 3 compares the problem diagnoses in the two Overviews; how they frame the crisis/challenge of climate change. Section 4 then compares how they frame the approach to policy in response to that problem. Section 5 sums up our key arguments and notes areas for further work.

2 Organizational, intellectual and situational contexts

Global development organizations attempt to be agenda-setters, norm-setters, and knowledge-brokers. They operate in a global arena of multiple actors that try to exert influence through use of discursive as well as material power. Documents such as the annual Development Reports form key channels for this and compete for legitimacy and attention, aiming to demonstrate expertise on concrete issues. Both our chosen Reports were launched shortly before a UNFCCC Conference of the Parties (COP) annual meeting. The HDR 2007/8 appeared in advance of the December 2007 COP 14 in Bali, and the WDR 2010 appeared already in September 2009, before the COP 15 in Copenhagen.

The United Nations Development Programme has evolved from an agency created to coordinate UN technical and scientific assistance to less developed countries (LDCs) on a project basis, to become a policy agency that provides advice, advocacy and resources. It has achieved an intellectual leadership role since the creation of the Human Development Report Office (HDRO), which has published the annual global Human Development Report from 1990 onwards. Its ‘human development paradigm’ was the result of a partnership between especially the late Mahbub ul Haq (the first HDRO Director) and Amartya Sen. ‘Human development’ has become a morally grounded conception of development, supported by Sen’s capability approach that conceptualises development as the extension of the range of attainable ‘doings and beings’ that people have reason to value. An orientation also to human rights grew under later HDRO directors, including from 2004 to 2008 Kevin Watkins, former research director of Oxfam. Watkins was lead author for the HDR 2007/8.

The HDRs' novel perspective relies on the independent position of the HDRO vis a vis the governments in the board of UNDP. The HDRO is a relatively small unit officially outside UNDP. This gives it more freedom to criticise the status quo, though it often limits the 'clout' that its ideas have at country level (McNeill and St.Clair, 2009). While the human development paradigm has helped to revive UNDP as a leading multilateral (Murphy 2006) despite its tiny funding compared to the World Bank, this does not mean it readily achieves policy influence.

In contrast to the HDRs, the World Development Reports are the official flagship publication of the World Bank's research and data arm, the Development Economics Vice-Presidency (DEC), and are supervised by the Chief Economist. World Development Reports position the Bank as an expert in global debates about development and poverty reduction. The Bank is the largest source of knowledge for development worldwide, given its enormous research budget and capacity to access financing for events, and has direct and major influence on policy-making in client countries' governments. However, scholars who have explored the Bank's knowledge production processes describe them as circular, self-referential, cognitively narrow, and dominated by reductionist economic thinking (Broad 2006, Mosse 2011, McNeill and St.Clair 2009, 2011, St.Clair 2006a, 2006b, Stone and Wright 2006, Wade 2002). Unusually though, the 2010 WDR was co-directed by Rosina Bierbaum, Dean of Environment at the University of Michigan, working with Bank economist Marianne Fay. Draft WDRs are still scrutinized by country representatives in the Board of Governors and must be approved by the Executive Board of Directors. They tend to become statements of the 'institutional message'.

Because of the need to maintain a sense of coherence in an organization that is highly heterogeneous and complex, new ideas and themes tend to be built upon older and well established Bank ideas and discourse; critical views are excluded, in a process of what Broad (2006; following Wade 1996) calls 'the art of paradigm maintenance'. Where disagreement arises, consensus is reached through internal negotiation and contestation processes; however, these are not transparent, but rather take place in closed-door meetings. Ideas that are not suited to the tools of analysis and instruments of policy of the Bank (for example, the role of human rights in bringing about fair development processes) tend to be excluded. (McNeill & St.Clair, 2011: 104).

Similarly, the core business of the Bank—promoting and funding huge investments often in fossil-fuel based sectors, as in the recent \$3 billion loan for the coal-fired Medupi power plant in South Africa—typically overshadows its intellectual engagement in issues of climate change (Storm, 2011).

The Bank has sections that promote more socially aware perspectives. For example, the former head of the social development department, Steen Jorgensen, co-authored a paper that argues for a 'no regrets' approach and an important role for social protection mechanisms in addressing human vulnerability to climate change (Heltberg, Siegel, and Jorgensen, 2009). But 'adaptation for whom?' is not a key concern in the Overview of the WDR 2010. The WDR fits instead with the Strategic Framework for the World Bank Group (WBG), which represents the formal institutional position of the Bank. This states that the Bank can no longer avoid addressing climate change as part

of its ongoing work on poverty reduction and development, but that its mandate is to focus on building growth and reducing poverty (St.Clair, 2009). It aims to ‘effectively support sustainable development and poverty reduction at the national, regional, and local levels, as additional climate risks and climate-related economic opportunities arise’ (World Bank, 2008:5). The document emphasises expanding business opportunities in relation to energy efficiency, but stresses that ‘resources will not be diverted from financing core development needs’ (World Bank, 2008: 5).

Since the 1990s, the gap in ideas between these two multilateral organizations has reduced, as the Bank has increasingly opened up to acknowledging the complexity of development processes and the multidimensionality of poverty. However, although both organizations endorse the target of reducing emissions so that warming does not exceed a 2 degrees average, the two have moved apart in how they frame the challenge of climate change in relation to development, as evidenced by their views in these reports, as we see next.

3 Framing the problem

In exploring how the issue of climate change is framed in each report, we start with the importance given to the problem and for whom and for what it is considered a problem – for economic growth, for equity and human rights, for poor people and future generations? We analyse the links seen between climate and development, with attention to meanings attached to ‘development’ and the specification of causal linkages and structural rigidities, and the related degree of urgency. We look subsequently at what understanding of vulnerabilities and responsibilities the Reports offer, and at their uses of the term ‘efficiency’ and its role in directing attention to activities in poor rather than rich countries. The WDR in particular emphasises rigidities in rich economies and an efficiency case to focus on influencing change in low-income economies which have more degrees of freedom. Lastly, we see how far the reports consider the issue in terms of human rights.

3.1 Importance and urgency of climate change – and importance for whom?

The HDR presents climate change as the most urgent and grave problem of our times. The ‘battle’ against it ‘is part of the fight for humanity’ (p.13 [6]).⁵ The Foreword of the HDR makes a call to ‘act now’ (p.3 [v]), while the opening page of the Overview states (in 2007) that ‘The world has less than a decade to change course’ (p.7 [1]); its conclusion section portrays climate change as perhaps ‘the gravest threat ever to have faced humanity’ (HDR p.27 [15]). The Overview uses the term ‘danger’ or ‘dangerous’ in combination with ‘climate change’ 27 times compared to only three times in the WDR Overview (plus twice in its Notes).

⁵ The HDR Overview uses ‘fight’ or ‘fighting’ nine times, apart from in its title, and ‘battle’ six times. The WDR Overview never uses either term.

The HDR views climate change as an ‘outrage to the conscience of mankind’ (p.10 [4]). Specifically, it highlights it as an inter-generational issue: ‘our generation is running up an unsustainable ecological debt’ (p.9 [3]); also as a human rights issue: to allow runaway climate change ‘would represent a systematic violation of the human rights of the world’s poor and future generations’ (p.10 [4]); and as a human development issue: ‘doing nothing offers a guaranteed route to [...] mutually assured destruction of human development potential’ (p.12 [5]). It repeatedly uses ‘blunt’ language, including condemning the ‘complacency and prevarication that continues to characterize international negotiations on climate change’ (p.13 [6]).

Underpinning this impatience is a notion of threshold: a danger point beyond which damage greatly accelerates.⁶ The idea can have its own dangers. First, as the HDR also notes (e.g., in Ch.1), use of the idea sometimes elides the issue of ‘dangerous for whom?’ A stage of climate change that is not immediately dangerous for most of the affluent is already past the danger point for millions of poor people: ‘262 million people were affected by climate disasters annually from 2000 to 2004, over 98 percent of them in the developing world’ (p.16 [8]); and ‘The 1 billion people currently living in urban slums on fragile hillsides or flood prone river banks face acute vulnerabilities’ (p.18 [9]). Nor are these temporary dangers, since much of the human development damage is irreversible (p.19 [10]); being born in a drought year in a poor country, for example, markedly increases one’s likelihood to be malnourished years later (p.16 [9]).

Second, continues the HDR: ‘If the next 15 years of emissions follows the linear trend of the past 15, dangerous climate change will be unavoidable’ (p.15 [8]). In fact, it already is, given the inertia in the natural systems involved (see e.g. Campbell et al., 2007). The spirit of the HDR message can be better conveyed by saying ‘even more dangerous climate change will be unavoidable, and will accelerate’, and will affect rich as well as poor.

Third, the notion that we are not yet at the dangerous level, but are approaching it, is meant to generate a sense of urgency but it can operate in the reverse way, like the idea that there is a safe range for smoking. By giving the feeling that we have a safe space, it can induce inertia followed by the wistful hope that the real threshold is a bit further away than we were previously told. For example, the level of 450 ppm CO₂-equivalent for greenhouse gases (GHGs) has widely become seen as a safe level, when it implies in fact a 50% chance of breaching the 2 degrees warming threshold. The HDR rightly points out that 450 ppm is not safe (p.14 [7]). However, the unsafe supposedly safe level (or even higher levels) become widely converted into targets calling for cuts of ‘at least X’ which become diluted in political practice to mean ‘at most X’. In the WDR the 2 degrees ceiling itself quickly gets downplayed: ‘From the perspective of development, warming *much above* 2°C is simply unacceptable’ (p.3; emphasis added) – but warming a bit above 2 degrees is left implicitly as tolerable, certainly from other perspectives than ‘development’ (meaning there

⁶ ‘Threshold(s)’ appears seven times in the HDR Overview, versus only once in the WDR Overview.

a concern for low-income nations and low-income people). For the WDR the target instead becomes ‘staying close to a 2°C warming’ (p.196).

In comparison then to the WDR 2010 and some other prominent work, the HDR reads as bold and ethical, including in declaring already in 2007 450 ppm as a target (p.29 [17]) when the Stern Review for the UK Government, led by the Bank’s former Chief Economist, had just adopted a target of 550 ppm as politically palatable, even after it had acknowledged elsewhere that ‘550 ppm CO₂-e would be a dangerous place to be’ (Stern 2007: 329). In face of the accumulating evidence of faster deterioration and greater risks, Stern later adjusted his target, though only to 500 ppm, in a 2009 book.

The WDR portrays climate change as an urgent issue, but considerably less urgent than in the HDR. The HDR Overview uses four times the idea of ‘window of opportunity’, a chance that must be taken within a fixed period or will be lost; the WDR Overview uses it not at all. Instead it presents figures of modest potential GDP losses: ‘a global average GDP loss of about 1 percent’ (p.5) and not more than a year’s foregone growth even in low-income countries.⁷ The figures are based on the relatively conservative 2007 IPCC climate projections and estimate the possible direct monetary costs of damage to agriculture, to coastal areas and so on; they ignore the other human costs and the indirect impacts of social and political unrest, conflict and migration, such as presaged in the Darfur crisis. The WDR Overview gives considerable space instead to discussions by economists about balancing the estimated monetary values of direct costs of climate change against costs of mitigation: ‘In the major models, the benefits of stabilization exceed the costs at 2.5°C warming (though not necessarily at 2°C)’ (p.8), or even only perhaps at ‘well above 3°C’ (p.8). These ‘major models’ are by neoclassical economists who value effects according to market prices: ‘The optimal target is defined as the concentration that would result in the lowest reduction in the present value of global consumption’ (p.8); and they rely on in some cases obsolete estimates of the (in)sensitivity of various linkages. Such models do not impress many climate scientists.⁸

3.2 The climate change – development link and the meaning of development

Both reports emphasize that climate change is an obstacle for development; that ‘High levels of poverty and low levels of human development limit the capacities of poor households to manage climate risks’ (HDR p.16 [8]); that climate change is ‘drawing resources away from development’ (WDR p.1); and that high-income countries must reduce their emissions, but that developing countries still need ‘massive expansions’ (WDR p.1). They differ, however, on what trade-offs they see and indeed in how they interpret ‘development’.

⁷ McNeill (2010) notes how the present value of costs in a hundred years time from now can vary by a factor of 100 according to whether one uses the Stern Report rate of discount or that recommended by some mainstream economists.

⁸ See e.g. a survey reported in <http://www.independent.co.uk/environment/climate-change/climate-scientists-its-time-for-plan-b-1221092.html>.

Climate change is placed by the WDR, from the outset, in a subordinate relation to ‘development’.⁹ It largely uses the concepts of development and (economic) growth interchangeably. For example, mitigation can be ‘without sacrificing growth’ (p.1), and, a few sentences later, is ‘compatible with furthering development’ (p.2). The same equivalence is found in successive sentences in the middle of the next column on p.2 and in many other places. The only difference in the WDR’s usage of the two terms appears to be that ‘development’ is reserved for low-income countries. Damage is discussed largely in terms of GDP.

The conception of development in the HDR is ‘human development’, ‘human well-being and prosperity’ (p.3 [v]). It discusses damage in terms of people's quality of life and questions the dominant paradigm that equates development to unending economic growth.

There could be no clearer demonstration than climate that economic wealth creation is not the same thing as human progress. Under the current energy policies, rising economic prosperity will go hand-in-hand with mounting threats to human development today and the well-being of future generations. But carbon-intensive growth is symptomatic of a deeper problem. One of the hardest lessons taught by climate change is that the economic model which drives growth, and the profligate consumption in rich nations that goes with it, is ecologically unsustainable. (UNDP, 2007: 15).

While the WDR Overview says nothing on such issues for rich countries, the HDR Overview reiterates the message in its Conclusion: ‘economic wealth creation is not the same thing as human progress’ (p.27 [15]); and even if it were: ‘the profligate consumption in rich nations [...] is ecologically unsustainable’ (p.27 [15]). But the HDR seems internally divided: the next paragraph in the Conclusion says ‘with the right reforms, it is not too late to cut greenhouse gas emissions to sustainable levels without sacrificing economic growth: [...] rising prosperity and climate security are not conflicting objectives’ (p.27 [15]). To restrict this judgment to only low-income countries appears to have been too politically sensitive for a Conclusion section, even in the HDR.

The WDR argues that some climate change policies have co-benefits in terms of growth and that climate change policy is not a choice between growth and the environment. The two goals can be combined, though particular patterns of consumption and production are dangerous. Development remains treated as economic growth, but new ways of growing have to be devised. The WDR goes further: ‘there is no reason to think that a low-carbon path must necessarily slow economic growth’ (p.7): no reason, even though climate-proofing redirects resources and even though reorientation takes time.¹⁰ The arguments given are economic not ecological and consist of analogies with past environmental regulations. Here is a second fundamental premise in the WDR

⁹ Marianne Fay, the WDR’s Bank co-director, presents the Report as follows: ‘Our interest in climate change starts, and ends in many ways, with our interest in development’ (http://www.youtube.com/watch?v=t9Kn1bD_5FU).

¹⁰ The claim might become true by re-definition, if growth with adjustments to climate change is compared not with a world of projected continuing current growth, but with growth in a world of climate-related collapse.

(the first being that economic growth is required to remove poverty): economic growth does not need to be slowed in order to avoid dangerous climate change. This certainty is not allowed to be shaken by evidence elsewhere in the WDR, such as that: ‘the coal-fired power plants proposed around the world over the next 25 years are so numerous that their lifetime CO₂ emissions would equal those of all coal-burning activities since the beginning of the industrial era. Only those facilities located close enough to the storage sites could be retrofitted for carbon capture and storage (*if and when that technology becomes commercially available*)’ (p.11; emphasis added). Investments already envisaged for the next couple of decades could lock the world into a high-emissions pattern.

3.3 Inertia, hence urgency and a policy focus on LDCs

Both the HDR and the WDR address inertia in the processes around climate change. The WDR extends the theme to more issues and declares ‘Inertia is the defining characteristic of the climate challenge’ (WDR: p.3). The first type of inertia, which both reports address, concerns the *nature of climate change*: the emissions of today affect GHG concentrations, temperatures and sea levels for hundreds or even thousands of years. So a delay in mitigation now makes it almost impossible to avoid crossing the threshold of 2°C warming that both reports warn against.

Both reports also *consider inertia in economies*. If changes are not made today in LDCs’ investment patterns, their economies will be locked—like those of rich countries—in patterns of production that will be very difficult and costly to change in the future. If already developed economies are seen as ‘locked’ in a specific model of production and consumption that is hyper-expensive to ‘unlock’, then it is efficient to invest to avoid this model being adopted by LDCs. That the HDR Overview uses the structuralist language of ‘lock’ (seven uses) slightly more (and also ‘trap’ - five uses) is not surprising.¹¹ But the WDR employs the additional language of ‘inertia’ in development processes that leads in the same direction. It highlights two further types of inertia that reduce speed of response.

The next type affects research and development (R&D). According to the WDR, the time required for innovation and development of new technologies and energy sources is nearly always long. So, one must invest now in R&D in order to have the required technology and systems when they will be needed. The final type of inertia is related to the ‘ingrained’ behavior of individuals and organizations, which is difficult to change (p.20). The WDR mentions high risk-aversion, social norms that rigidify patterns of consumption and production, and the ways in which political leaders and managers make decisions. This last type of inertia, added to the previous ones and especially the rigidity of economies, implies the need to influence people's behaviour at

¹¹ The HDR even says, out of structuralist habit, ‘regulatory standards can unlock double-dividends’ (p.22 [11]), and talks of a ‘mechanism for unlocking this win-win scenario’ (p.23 [12]). The WDR Overview uses the idea of socio-economic lock-in five times, and uses ‘trapping’ only for physical processes.

many levels, and to act on a great number of aspects of the lives of peoples of LDCs. The WDR places considerable emphasis here (see e.g. pp.17-18).

Overall, the physical metaphors of locking and inertia give a picture of something fixed. The high-income economies are fixed in their models of production and consumption. So the policy focus should be on economies that are not yet fixed, those of the LDCs. The framing of the problem leads to the framing of the solution.

3.4 Responsibility versus vulnerability

Interconnection of different parts of the world in relation to climate change is stressed by both reports. Climate change is a global problem because emissions in one location affect other locations. This justifies a response that includes all countries and recognises that high-income countries ‘cannot continue to fill up an unfair and unsustainable share of the atmospheric commons’ (WDR p.1). Considering too countries’ different levels of development, both reports stress that they should respond differently to the challenge.

While both reports mention inequality as a condition that worsens climate change hazards, the HDR refers to inequality between countries more. It strongly emphasises that while LDCs have contributed to climate change much less, they are more vulnerable to its impacts (e.g., p.9 [3]). The inequalities in terms of causal responsibility and of vulnerability, as well as the special needs of more vulnerable groups, justify financial transfers from high-income countries to LDCs.

Both reports, especially the WDR, focus on one side of this unequal relationship: the victim, the developing countries. This creates a sense of solidarity and urgency, but it does not push people to question the other side: the high-income economies. The picture there is much vaguer. We know from the Reports that high-income economies are substantially responsible for what is happening and will happen, but we do not learn much about how, or how the problems of power in high-income economies (HIEs) could be addressed. Additionally, the image of victim can deny LDCs their own voice and capacity of action. In this perspective, the strong (causally) ‘responsible’ economies yet speak on LDCs’ behalf—via the multilateral organizations, dominated by HIEs. The ‘responsible’-‘vulnerable’ divide, while valid, can reinforce a system of international relations in which HIEs exert control over LDCs under the pretext that it is ‘our responsibility’ (now using the word in a second sense) to be in charge.

3.5 Reduction of emissions and the ‘efficiency’ shift of attention from HIEs to LDCs

Unlike the WDR, the HDR refers to power when analyzing the causes of the lack of emission reductions in HIEs. It points out that power imbalances between countries, and between different groups within the same country (let alone between the living and the unborn), have determined the negotiations agendas and their unsatisfactory results in terms of emissions. Lobbying by

powerful business groups is one reason why ‘caps on emissions have been set far too high’ in the European Union’s Trading System (HDR p.20 [11]). In contrast, the WDR, a huge report, does not mention the issue of power.¹² The HDR does not proceed to openly advocate change in power systems, or open spaces to hear the voices of those who are silenced, but these seem implied.

A key concept in both reports, but especially the WDR, through which attention is shifted to reduction of emissions in LDCs, is ‘efficiency’. According to the HDR ‘[l]ow levels of energy efficiency in developing countries are currently a threat to climate change mitigation efforts’ (HDR p.22 [12]). The WDR advocates cuts in subsidies and increases in taxes for energy in LDCs, to give incentives for more efficient use. It argues that the required changes in agricultural practices and the use of land and water must occur in LDCs, ‘because agriculture in high-income countries is already close to maximum feasible yields’ (p.17). LDC agriculture must become more productive without increasing environmental damage; it must become more efficient like that in HIEs. The WDR does not explain in terms of what values some agricultural practices are considered efficient. Elements such as cultural factors, local knowledge, nutrition habits and needs, among others that may figure in people’s decision-making about resource use, are not considered in its assessment of what is ‘efficient’. Rural communities are assumed to be in need of modernization and technification, as it discusses in detail in its chapter 3.

‘Efficiency’ can be an economic or a technical term. Typically it refers to the rate at which utilities or benefits are produced per quantum of resources invested; ‘efficient’ means attaining the maximum attainable (net) benefits. If the required output is a certain reduction in emissions compared to what they would otherwise have been, it is efficient to invest in LDCs, the Reports state, because less resources are required in order to achieve the output. However, if the efficiency that concerns us is in terms of human development per unit of emissions, then, due to the enormous needs in the LDCs, might it be more efficient to cut emissions in HIEs and redistribute emission quotas to LDCs? Besides judgments about what are priority benefits, judgments of efficiency are also relative to judgments about what is valid knowledge.

Framing the problem in terms of ‘inertia’ and ‘efficiency’, as in the WDR, leads to putting the spotlight for policy action upon developing rather than rich countries. A focus on efficiency in energy use, as conventionally conceived, may shift attention from total emissions, for which HIEs are much more responsible, to inefficient usage, where LDCs are worse.

¹² Of the WDR’s over 200 usages of ‘power’ and ‘powerful’, none relate to power imbalances or powerful groups.

3.6 A Human Rights issue?

According to the HDR, climate change ‘raises profoundly important questions about social justice, equity and human rights across countries and generations’ (HDR p.8 [2]). The Report equates non-action in relation to climate change with a violation of human rights. It cites and endorses strong formulations such as ‘adaptation apartheid’ (pp.24 [13], 26 [18]) to describe a situation in which countries with more resources will be able to invest in adaptation, while countries with less income will not be prepared for the worst consequences of climate change. Hence the HDR calls for ‘stronger international commitment on adaptation’ (HDR p.13 [6]), in the name of human rights.

In contrast, the WDR Overview has no mention of human rights and ‘social justice’ in the whole Report. A text-box on ‘Ethics and climate change’ in Chapter 1 does touch on human rights (and has the one reference to ‘justice’; p.53). It considers the possible use of human rights as a criterion to evaluate impacts of climate change, but focuses on use of formal legal channels, within which responsibility and harm must be decisively proven, and so lists consequent problems for taking human rights impact as a criterion of evaluation of climate change.¹³ However, law is not the only relevant channel for applying human rights concerns. Thus the HDR, in contrast, takes human rights as priority criteria that should influence policy-level design.

In sum, the HDR frames the problem partly in terms of human rights and human development, with much emphasis on duties of rich countries. The WDR frames the problem more as one of inefficiency and inertia. In the next section we consider to what extent the differences in the problem-framings give rise to different proposed solutions.

4 Framing the solutions

We explore next the solutions that each report recommends. Interestingly, after the distinctly different problem-framings, the solution-framings are considerably closer. Both reports present a model that includes these features:

1. Developing countries need more development.
2. HIEs should adopt carbon-pricing: either a carbon tax or a cap-and-trade system.

¹³ ‘Because the causes of climate change are diffuse, the direct link between the emissions of a country and the impacts suffered in another are difficult to establish in a litigation context. A further obstacle to defining responsibility and harm in legal terms is the diffusion of emissions and impacts over time: in some cases, the source of the harm has occurred over multiple generations, and the damages felt today may also be felt by many future generations.’ (WDR, p.53). Similar narrowly legal understanding of human rights is evident in the 2006 WDR on equity and development and in the internal Bank debates about the role of rights (McNeill and St. Clair, 2011).

3. From these mechanisms, finances will be generated that should be administered by a multilateral mechanism, which will administer the transfer of finances and technology to the LDCs, for both mitigation and adaptation.
4. These transfers will be programme-based. Developing countries will obtain finances and technologies, if they commit to quantitative goals and policy changes in terms of mitigation, adaptation and management of resources such as water, land, and energy.
5. More free markets are necessary. For example, the HDR calls for free markets in international trade, so that e.g. low cost Brazilian ethanol could outcompete high cost Northern fuel supplies (HDR p.22).

Less on the surface, the reports accept that in a world of nation-states the rich nation-states are not forced to make commitments. No global enforcement mechanisms are recommended, nor any mechanism that would make financial commitments automatic and obligatory. Even the HDR does not draw many institutional implications from its arguments about human rights and who bears responsibility for past damage. It does recommend 'a national carbon budget in all developed countries with targets for reducing overall emissions from a 1990 reference year incorporated into national legislation' (p.29). But it fails to clarify the principles of responsibility that are to guide action – which mixture of the principles of response-ability ('ability to pay') and causal responsibility ('polluter pays') is advocated, asks Opschoor (2008: 1199). The WDR stays with the vague term 'equity', and remains 'singularly unclear about the principle of equity which should underlie [its] global deal' (Storm, 2011: 402).

The reports implicitly appeal to the following: in the HDR, feelings of general sympathy and 'imperfect obligation'; in both reports, enlightened self-interest, a self-interest that is able to look beyond today and tomorrow to the longer-term; and, perhaps combining the two (Opschoor, 2008), identification of win-win options. Enlightened self-interest is often referred to, especially in the WDR, in the unthreatening language of 'insurance'; unthreatening because it does not highlight the implied appeal to show concern for future generations. At other points the WDR adopts a more open language of enlightened self-interest, relying on rich countries to extend their calculations in terms of 'self' to their children and children's children: 'the losses implied by delays are so large that there are clear economic benefits for high-income countries committed to limiting dangerous climate change to finance early action in developing countries' (WDR, p.12).¹⁴ The WDR makes no claim on the basis of broader sympathy and solidarity with poor countries, and relies on purported market solutions, rather than transfers to those in need. We look first at the basic commitment to more growth and development for poor countries; second at the ideas about insurance; and then at several of the detailed individual proposals.

¹⁴ Low birth rates in much of Europe and in Japan make it not obvious however whether enough rich country consumers have sufficient interest in future generations for a language of self-interest ('all will be better off' – WDR, p.56) that tacitly covers future generations to be sufficient to motivate present-day action.

4.1 The intermediate means: more development/growth

Both reports see fighting climate change and fighting poverty as interrelated. According to the WDR, economic growth enhances the resilience of countries that are vulnerable to climate change. However, the Report also states that growth is not sufficient because it is not fast enough, can increase vulnerability to climate hazards, and is not equitable enough to assure that the poorest people will be protected (WDR p.7). Hence the Report frames the solutions to these problems in terms of growth pursued along a low-carbon path to reduce environmental hazards, and including adaptation measures to take care of the more vulnerable.

This applies for low-income countries. We saw that for rich countries the HDR sometimes rejects such a position but sometimes hesitates. The WDR's location in a development bank controlled by representatives of finance ministries in the US, Japan and Europe guarantees its silence on foregoing growth in rich countries. Instead it asserts that growth provides the resources to make all necessary transitions. 'WDR 2010's almost exclusive focus on "win-win" techno-fixes suggests, without solid grounds, that the structural shift to a low carbon path can all be painless—without sacrificing growth and development' (Storm, 2011: 400). Storm explores the full Report and suggests the flimsy basis of many components and the incoherence of the overall structure: '...serious climate stabilization is not consistent with strong global income growth However much WDR 2010 wants us to believe it' (p.415). An agenda of 'de-growth' in rich countries cannot be avoided. But the World Bank's political embedding seems to inevitably lead it to 'irresponsible Micawberism' (p.400).

4.2 Insurance and reinsurance

'Efficiency' is a language of maximizing aggregate net benefits, whereas 'insurance' is a language of covering against possibilities which are known to exist at aggregate level but whose disaggregated occurrence at some lower level cannot be predicted reliably. The Reports, especially the WDR, employ both languages. They portray climate-change related investment as an insurance to avoid the worst consequences of climate change: a familiar reassuring framing.

The HDR stresses that we have sufficient certainty about climate change – the evidence is 'overwhelming' (p.12 [5], 14 [7]), 'the debate is over and climate scepticism is an increasingly fringe activity' (12 [5]). US \$1 of pre-disaster prevention and preparation 'can prevent losses of US \$7' (p.24 [14]). However there is uncertainty about effects in detail and their distribution, so that an insurance rationale is relevant; 'if we value the well-being of our children and grandchildren, even small risks of catastrophic events merit an insurance-based precautionary approach' (p.8 [2]).¹⁵

Located next door to the US Congress and the fossil-fuel lobby, the World Bank is more cautious, but shares these conclusions. The WDR explains that

¹⁵ Opschoor is surprised that the HDR does not articulate and elaborate the precautionary principle from the Rio declaration; it is 'mentioned only in passing by UNDP' (Opschoor, 2008: 1196).

given the difficulties of using a simple cost-benefit analysis of climate change, plus the uncertainties about the potential ‘catastrophic risks’ of the phenomenon, it is justifiable to undertake ‘earlier and more aggressive action’, which can be seen as ‘climate insurance’ (WDR p.9). ‘Spending less than half a per cent of GDP [net] as ‘climate insurance’ could well be a socially acceptable proposition’ (p.9), though finding adequate financial systems and intermediaries will require attention.

The WDR puts forward the argument for climate policy as insurance rather tentatively. It employs more hedging than normal, reflecting the implicit move beyond its usual aggregating economic cost-benefit calculations. The short paragraph about climate insurance on page 9 contains ‘may well’, ‘could be thought of’, and ‘could well be’. In contrast, hedging is absent when the Report later sums up its policy diagnosis, much of which is far more contentious: ‘The previous pages describe the many steps needed to manage the climate change challenge.’ (p.18). Why such hedging about insurance? An insurance argument in this context introduces an assumption of moral community, at some level or levels: across generations, within nations, between nations. Often the risks fall largely on the poor and the premiums on the rich. Climate change insurance is largely for the benefit of future generations, mostly abroad. Even if the argument is that HIEs should invest now in the efforts of developing countries in adaptation and mitigation, because this investment prevents future ‘catastrophic risks’ for all (p.9) – for example from an increase of migration flows from South to North due to climate change – there is a presumption of solidarity of the present day rich North with at least the future generations in the North. In other words the WDR discussion relies on moral premises that, unlike the HDR, it is not bold enough to recognize or discuss.

4.3 Mitigation

The WDR uses a language of ‘acting together’ (pp. 3-4, 10-11), in order to engage developing countries in the effort for mitigation and to involve HIEs in the effort for financing. Acting together diminishes the costs of mitigation for all; and postponing mitigation in developing countries because of lack of finances will greatly increase the cost of preventing more than a 2°C temperature rise. In that sense, investing in mitigation in developing countries brings economic benefits not only for developing countries, but for high-income countries as well. The WDR remains vague though about emissions ceilings for rich countries, let alone for poor countries.

The HDR is again bolder and more emphatic. Its main mitigation strategy is for new emission limits for the post-2012 Kyoto Protocol period that must be consistent with the ‘global carbon budget’ (HDR p.19). That budget must be translated into ‘practical national strategies—and national carbon budgets’ (p.20 [10]). Reaching these emissions targets will be supported by grants and loans from a Climate Change Mitigation Facility (p.23 [12]). The HDR proposes that ‘any multilateral agreement without quantitative commitments from developing countries will lack credibility in terms of climate change mitigation’ (HDR p.28 [16]; also p.12).

The target of avoiding more than 2°C warming requires further that by 2050 rich nations reduce their emissions by at least 80 percent relative to levels of 1990, notes the HDR (p.15 [7]). While drawing on the same calculations by UNFCCC, IPCC and others, the WDR mentions the figure only in the fourth chapter of the whole Report, in a small text-box at the bottom of page 189, not in the Overview. The initial pages of the WDR address the importance of reducing emissions drastically, but the Overview does not state the percentage reductions required of HIEs. The WDR’s techno-optimism, married to a faith in the magic of markets, plus firm tutelage from HIE government representatives to the Bank, seem to mean that the fine details of feasibility are left hazy. While the Bank recognises the need for ‘almost complete de-carbonization of the power sector’ (Storm, 2011: 410), it continues to fund vast coal-fired power stations and puts its faith in questionable scenarios of huge-scale economical carbon-capture-and storage, bio-fuels production, and so on. Yet ‘half of the energy models reviewed in the [WD] Report conclude that the required de-carbonization (before 2050) is technologically infeasible (at acceptable costs, whatever that may mean)’ (loc. cit.).¹⁶

4.4 Adaptation

The WDR emphasises the urgency of investment in adaptation in LDCs. This covers ‘changing the kinds of risks people prepare for; where they live; what they eat; and the way they design, develop, and manage agroecological and urban systems’ (WDR p.10). The HDR goes even further. Given its different diagnosis of the problem – in terms of human rights impacts and human development impacts – it identifies relevant responses differently and more broadly. Policies for adaptation have to be integrated ‘into all aspects of policy development and planning for poverty reduction’ (HDR p.24 [13]); ‘Successful adaptation policies cannot be grafted on to systems that are failing to address underlying causes of poverty, vulnerability and wider disparities’ (p.27 [15]). It insists that HIEs are morally ‘obliged to support adaptation capacity development’ (p.25 [14]), and brings in the veiled threat of responding to damage by invoking ‘the legal principles of protection from harm and compensation for damage’ (p.25 [14]). It is outspoken about the ‘derisory’ response (p.25 [14]) so far by rich countries to help poor countries adapt to damage caused by the rich; and insists on the rich’s obligation to provide ‘new and additional’ support for adaptation, not divert other aid (p.26 [15]).

4.5 Mobilisation and orchestration of the proximate means: technology and finances

North-to-South transfer of technologies and finance, for both mitigation and adaptation, is a major topic in both reports. The WDR discusses it at special length, perhaps reflecting Bank ambitions to coordinate the transfers. It uses repeatedly the notion of a ‘global deal’ between high-income and developing countries, including a package of agreements on innovation, transfer and

¹⁶ Some of the HDR authors too believe in the optimistic techno-vision of CCS (p.22 [12] & 30 [18]).

adaptation of technology, and a supporting system for financing and administration. The WDR Overview employs the term ‘deal’ (as a noun) sixteen times, as in ‘global deal’; the HDR Overview not at all.¹⁷

Sufficient finance flowing to developing countries—combined with capacity building and access to technology—can support low-carbon growth and development. If mitigation finance is directed to where mitigation costs are lower [developing countries], efficiency will increase. If adaptation finance is directed to where the needs are greatest, undue suffering and loss can be avoided. Climate finance offers the means to reconcile equity, efficiency, and effectiveness in dealing with climate change (WDR p. 22).

Some elements of the WDR ‘deal’ deserve mention. First, international transfers of clean technologies, cost-sharing agreements, and financial support for the incremental cost of adopting new technologies must be included. Second, pricing carbon through carbon taxes or cap-and-trade will generate finance, though most finance required for infrastructure will come via the private sector (WDR p. 24). Third, the role of the public sector is to create incentives for climate action, including incentives and flexible regulation for private infrastructure service providers, and to supply information and education and eliminate market failures. And last, says the WDR, the deal must be acceptable for high-income countries, which means their competitiveness must not suffer, especially in relation to middle income countries (p. 22).

The HDR strongly advocates financial and technology transfers as well (p.23 [13]), but it frames the issues more in terms of responsibility and social justice (p.28 [16]), and does not refer to maintaining HIE competitiveness. For pricing carbon in HIEs, via carbon taxes and/or cap-and-trade mechanisms to generate finance, it takes the same line as the WDR.

4.6 Multilateral mechanisms

Both reports advocate a planned, controlled and orchestrated process of development in LDCs. Who will plan, control and orchestrate? Both reports see a multilateral mechanism as ideal to manage financial and technological transfers from HIEs to LDCs. Various statements in the WDR suggest the Bank’s wish to position itself centre-stage in not just the climate change debate but in climate funds management. It stresses the expertise needed for managing climate finance, and how ‘the aid experience does offer critical lessons’ (p.22), including on the need for centralization rather than having innumerable funders. It repeatedly emphasises that designing and implementing an international agreement and international transfers ‘is no trivial matter’ (p.2); ‘...action must be enabled by an efficient and effective international agreement, one that factors in development realities’ (p.19), thus hinting at a new ‘deal’ for the World Bank too, the development knowledge bank.

¹⁷ Forester (2009) warns against the restrictive conception of bargaining a ‘deal’, for it rests on a picture of given, fixed identities and purposes, and obscures many opportunities and dangers.

The HDR's concluding recommendations open with a section headed 'Develop a multilateral framework...' (p.29 [17]). But in some contrast to the WDR, and in line with UNDP tradition, it argues that: 'While project-based support has an important role to play, the locus for adaptation planning has to be shifted towards national programmes and budgets' (p.27 [15]).

4.7 Market mechanisms – 1. carbon pricing, plus market regulation

Both Reports emphasize the role of markets to raise finance and re-incentivize activity. According to the HDR's Foreword, price mechanisms should be used instead of quotas (p.5 [vii]); and 'putting a price on carbon emissions [is] the starting point' (HDR p.20 [10]), which can be done through either a carbon tax or cap-and-trade. The HDR seems not to mind which, and its final list of recommendations includes suggestions for both options (p.29 [17]). Indeed, of the two reports, the WDR seems relatively more inclined to a carbon tax.

The reports agree that a global carbon market is a long-term project, not something to be prioritized now. In the short run the markets will not be global, because 'the world lacks the required governance system' (HDR p.20 [11]). The HDR proposes 'rich countries [should] develop carbon pricing structures [and] [a]s these structures evolve, developing countries could be integrated over time as institutional conditions allow' (HDR p.20 [11]). The WDR gives a similar discussion in its later chapters.

The HDR recognises too that 'market pricing alone will not be enough' for carbon (p.13 [5]), given the numerous forms of market failure seen in carbon trading. It cites the bizarre experiences of the Emission Trading Scheme in Europe, subject to real political pressures (p.20 [11]). Governments must set regulatory standards and support low-carbon research, development and deployment (HDR p.21 [11]). Although the influence of power groups in the determination of the caps for emissions is acknowledged in the Report, Opschoor complains that the 'analysis remains superficial. So does the discussion on the flaws of [the Clean Development Mechanism]' (2008: 132), a scheme of 'smoke and mirrors' that too readily generates fraudulent supposed greenhouse-gas offsets (measured against notional benchmarks) that are bought by high-emitters to permit them to continue high emissions.

The WDR concurs with the HDR in its optimistic treatment of regulation. It suggests very high potential returns exist from 'Efficiency standards and labeling programs', as well as by redesigning power utility companies' contracts (p.15). The Report remarks that 'in the absence of a global enforcement mechanism, the incentives for meeting global commitments are domestic' (WDR p.19). This could be read as a conditional 'if-then' proposition, but it is treated as a 'since-therefore' proposition. Major cuts on emissions must happen in the high-income economies if the 2°C ceiling is to be respected; yet while developing countries will be subjected to various enforcement mechanisms, as a condition to receive financial and technological transfers, there will not be internationally binding commitments and enforcement mechanisms for the high-income economies.

4.8 Market mechanisms – 2. International trade

Both Reports incline towards open global product markets. The HDR's mitigation strategy includes expansion of alternative fuels markets: 'international trade could play a much larger role in expanding markets for alternative fuels', such as ethanol (HDR, p.22 [12]). The WDR argues the same (p.308) and advocates open markets in general. The same device that it used regarding economic growth and poverty reduction—to presume that they form an indissoluble package—is used for trade and market stability: 'To ensure adequate water and nutrition for all, the world will have to rely on an improved trade system less prone to large price shifts' (p.14). 'Improved' is equated to more open and global, on the grounds that more integrated world markets will allow LDCs access to rich country markets when LDCs have surpluses, and will allow resources to enter LDCs from outside when required and thereby reduce local price fluctuations. But integrated markets allow food to be moved out to areas of higher purchasing power, away from poor people, and they allow food crops to be displaced by more lucrative production for global markets on land from which poor people have been displaced too. For the WDR, markets will ensure prices that reflect scarcities and induce scarcity-reducing innovation. Storm (2011) comments on the lack of discussion of the interests of 'rural landless workers, the urban poor and the non-agricultural workers' as food prices rise (p.409), and on the assumptions that markets in poor countries will generate the historically unprecedented required agricultural productivity rises as climate deteriorates and populations rise. 'The discrepancy between "required" yield growth and "likely yield growth with moderate warming" is huge in the developing world, but rather small in the rich regions...[Further,] The principal uncertainties in the estimates are all on the downside' (Storm p.409).

4.9 Market mechanisms – 3: Economic regimes in LDCs

The WDR anticipates that climate change will threaten the availability of food and water for all countries, so that international cooperation is required. The Report focuses on an area that is considered much less in the HDR: changes in the management of energy supply, agricultural practices, water and other resources in LDCs. To cut GHG emissions in LDCs without sacrificing growth, the WDR advocates higher fuel taxes and reduction of energy subsidies (pp.14-15). In contrast, it says nothing in the Overview about energy prices, subsidies and taxes in high-income economies, such as the USA. These pricing measures in LDCs should be accompanied, according to the WDR, by other tools for advancing energy efficiency, such as norms, regulatory reform and financial incentives that attract private power companies. Such reforms are not scheduled for the North because rich countries are supposedly ready for adapting without help, according to both reports. Proposals to further privatize energy supply would leave national states with less control and capacity of action to manage shocks related to energy. Given the unequal technological capacities of high-income countries and developing countries, added to increasing openness of markets, control over energy production would lie in the hands of international investors. The opening of LDC markets fits as part

of a move to greater control over resources in LDCs by powerful market actors, funding agencies and, indirectly, rich country governments. The HDR says far less on systems for the management of resources in LDCs, but the multilateral mechanisms that it envisages might open the door for these in weaker economies.

5 Two ways of approaching the future?

The structured comparison of the problem-framing and solution-framing in the two Reports, guided by attention to key vocabulary, has given us several insights compared to the earlier review essays by Opschoor (2008) and Storm (2011). We have two major findings.

First, the HDR 2007/8 and the WDR 2010 represent importantly different perspectives on the problem of climate change in relation to low-income people. For the Human Development Report the problem is a fundamental civilizational issue, in which the basic life quality and even sometimes the lives of poor people--‘rural communities in Bangladesh, farmers in Ethiopia and slum dwellers in Haiti’ (p.10 [3])--are endangered, in large degree by actions by others, in rich countries, who have a compelling moral obligation to provide support and to modify their current patterns of living. Thus the HDR makes frequent use of terms and phrases like ‘the world’ (including as an actor, such as ‘If the world acts now...’; p.10 [3]), ‘humanity’, ‘the world’s poor’, ‘the international community’, ‘human community’, ‘our children’, ‘our children and grandchildren’, ‘future generations’, ‘the world’s poor and future generations’. None of this language characterises the World Development Report (see Table 1).¹⁸ Its Overview never mentions grandchildren or future generations, and rarely employs even the pronoun ‘we’, the indicator of shared fate and shared concern and commitment. Its favoured terms are ‘manage’ and ‘efficiency’. The contrast of vocabularies shown by Table 1 is stark and revealing.

Besides these local messages we need to look at the overall messages, so Section 3 compared the main problem specifications across the two Overviews, and Section 4 did so for their policy designs. Section 3 confirmed that they specify the problem situation in importantly different ways. The WDR evinces less urgency, reflecting its relatively greater concern with monetary magnitudes and hence implicitly with the interests of those with more resources to protect themselves from possible future stresses. The HDR’s reliance on a currency of human welfare highlights that lives can be broken and stunted, and contributes to its greater sense of urgency and willingness to query unending economic growth in rich countries. The Reports share ideas about inertia and lock-in, which generate urgency but which,

¹⁸ Table 1 distinguishes word-occurrences in the HDR Overview and Foreword/Contents. Their sum (plus occurrences in the front matter) gives the total count for the downloadable file. The HDR Overview is electronically available as a file that includes front matter and the Foreword, itself a major statement that functions as close partner to the Overview. The WDR 2010’s Foreword is far less significant, only a third the length, presented in a separate file, and functionally distinct.

TABLE 1
Vocabularies of the Overview chapters in HDR 2007/8 and WDR 2010

We	56 (29)	11 [2]
children	11 (3)	3
our children	4 (2)	0
grandchildren	3 (1)	0
future generations	19 (0)	0
the world's poor and future generations	6 (0)	0
the world's poor	17 (0)	0
the poor [as a noun; in addition to uses of 'the world's poor']	12 (0)	1 [1]
the world	32 (8)	13 [6]
human	102 (19)	8 [2]
humanity	8 (0)	1
community/communities	11 (2)	9
the international community	2 (1)	1
global community	1 (0)	0
human community	2 (0)	0
climate smart	0 (0)	9
efficiency/efficient/inefficient/inefficiency	21 (1)	48 (4)
effective	2	12
consumption	7 (0)	19 (0)
threshold/s	7 (0)	1 [1]
catastrophe/s/catastrophic	13 (2)	7 [2]
'indow of opportunity	3 (0)	0
insurance/ insurers/ insure	3 (3)	16 [2]
climate insurance	0 (0)	5
precaution / precautionary	1 (0)	1
fight	5 (4)	1
challenge/s	27 (6)	10 [2]
can	32 (3)	77 (3)
manage/(mis)management/mismanaging	6 (0)	26 [8]

together with a standard market-based conceptualisation of 'efficiency', direct attention primarily towards influencing the faster-growing LDCs.

Our second major finding is that, following the significantly different diagnoses, the two reports are surprisingly similar in major policy proposals: a carbon price in rich countries, which will help to finance a global insurance system of efficient mitigation measures and prudent adaptation measures in poorer countries and support the growth that those countries need; a multilateral mechanism for conditional, expert, program-based planning and disbursement of the support; which together with an increased reliance on global markets will imply greater control by powerful global actors over LDC economies, in contrast to a lack of multilateral enforcement mechanisms for rich countries. There are also differences: the HDR calls for carbon budgets for all countries and more program flexibility for LDCs, and is explicit about the ethical underpinnings—solidarity over time and obligations of rich

countries arising from the damage to others that they are responsible for—which together imply (but here the HDR hesitates) limits to further economic growth in rich countries; whereas the WDR tries to proceed with only a language of enlightened self-interest and win-win ‘deals’, with no talk of Northern obligations or self-limitation, let alone of human rights. Yet the bulk of the proposals are the same.

Following its stress on human rights and ethical principles, the HDR does relatively little to apply those ideas in policy proposals (Opschoor, 2008: 1201). Whether the key constraints are the training of its staff in economics schools in the North, its lesser budget compared to the World Bank’s research resources, political pressures within and upon a multilateral agency, or stubborn reality, would require a separate study to try to answer. Fault lines may be sensed between the HDR’s Foreword, co-written by Kemal Dervis, the UNDP Administrator, who had spent a quarter-century in the World Bank, and its Overview, led by Kevin Watkins, who had spent most of his career in Oxfam, which espouses a rights-based approach. The Foreword, while steeped in ‘We’ language, insists on the priority of market solutions (p.5 [vii]). The HDR 2007/8 seems a classic UN report, influenced by inspiring humanist perspectives but with relatively limited resources for research and little associated funding for programs with which to induce others to accept its ideas. It is perhaps then led to propose a synthetic set of practical measures that do not offend potential funders and largely rely on proposals worked out by richer agencies.

In contrast, the WDR represents a working-out of a mainstream economic vision of a world smoothly ordered by corporations and markets, and is marked by convenient omissions and techno-optimism wherever required for maintaining this vision (Storm, 2011) and by absence of self-reflection regarding the models of development that have led to the climate crises in the first place. In the WDR’s organizational and intellectual context, climate change and poverty are technical problems to be addressed by economic policy and technological innovation, tasks to be led by the development aid bureaucracies and global business.¹⁹ They are problems that will be resolved, not intensified, by economic growth. Societies become judged then according to their aggregate consumption achievements, more than by the way they treat their most vulnerable members; and market-based ‘solutions’ are put forward to whatever ‘local difficulties’ may arise, such as climate change (O’Brien et al. 2009; St.Clair, 2009). ‘Economic growth alone is unlikely to be fast or equitable enough to counter threats from climate change’ acknowledges the WDR in one of its summary ‘Main Messages’, but this can supposedly be compensated for by the carbon-pricing and multilateral-guided programs for mitigation and adaptation that the WDR outlines.

Discourse analysis of various types could help in further exploring the Reports’ Overviews and the Reports as a whole. One might look for generative metaphors and notable silences; for example, the WDR contains very little on

¹⁹ The WDR adopts the role of the expert. Its Overview adds the emphasiser ‘clear’ in respect of reasoning or conclusions eight times; the HDR Overview does so only once.

sustainable consumption, consumption reduction and redirected consumption.²⁰ One could examine the visual orchestration of messages by the use of text boxes, titles, and pictures: the ‘hooks’ that grab attention; and the language traditions that are invoked, such as the HDR’s occasional use of quasi-Biblical language, including in its Overview.²¹ One could look too at syntax as well as vocabulary. The WDR’s language consultant was Bruce Ross-Larson, best-selling author of *Stunning Sentences* and *Powerful Paragraphs*. The WDR Overview has a fondness for sentences and paragraphs that start with ‘But’, and for American colloquialisms like ‘put[ting] climate on the back burner’ (p.3), ‘Making it happen’ (p.18), and its theme-tune ‘A climate-smart world is within reach’ (section title, p.10). These features could indicate an American or Americanized intended or assumed primary audience.

In the current debate on the relations between climate and development, support is building for critical views such as expressed in the HDR 2007/8 (Books, Grist and Brown 2009; Lohman, 2006, 2011; Storm ed. 2009). But the HDR 2007/8 does not yet convert its critique far into a distinctive policy approach. Its structuralist belief in ‘lock-in’ already in the North, and fear of an imminent high-carbon ‘lock-in’ too in the South, leads it to share the mainstream preference to focus on change of direction in the South, not the North. This leaning may be exacerbated by its residual adherence sometimes to a decontextualized notion of ‘efficiency’ as judged in market terms (i.e. according to market purchasing power, rather than in terms of human development values). Given then, its belief in ‘the fierce urgency of the now’, the HDR rushed to a full policy package -- designed in terms of instruments already available on the tables of its member-state governments.

The United Nations Intellectual History Project (1999-2010) concluded that to achieve practical impact a movement of ideas needs, first, an intellectual vision, consistent with and partnered by—second—an inspiring set of values; and further, that these two must become action-relevant by—third—being operationalised in action-agendas and methodologies and practical proposals, and, fourth, institutionalised in organizations, processes and networks that carry the ideas forward and continually press for their use (Jolly, Emmerij, Weiss, 2009). The HDR 2007/8 may have fallen short in the fourth respect, its network of active cooperators, and especially (and consequently) in the third respect—conversion of its vision and values into practical means rather than taking over means that have been devised to express different visions and values. By implication, a new Human Development Report on climate change could be appropriate, whether by UNDP or others, to go further with that conversion, on the basis of insights from a broader network.

²⁰ E.g. the WDR takes for granted that ‘richer people eat more meat’ (p.16). Figure 2 of the WDR points to benefits from switching in the US from SUVs to saloon cars, but does not raise what Storm (2011) considers the real need: to drive less.

²¹ E.g.: ‘the world’s poor walk the Earth with a light carbon footprint’ (HDR p.9 [3])

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