Bali's roadmap to nowhere…

(draft only – comments welcome)

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Abstract

This paper reflects critically on the recent United Nation's Framework Convention on Climate Change (UNFCCC) Conference in Bali. It argues that the Conference served to undermine the Convention's Article 3: the principle of common and differentiated responsibility. The importance of this can hardly be overstated for the principle serves in large measure as the Convention's ethical centre of gravity. It defines justice in contemporary global climate change policy. The UNFCCC's next conference will take place in Copenhagen late in 2009. This will be getting close to a last chance to get global policy settings right.

If this was not already clear, revised global emission projections published last month by the Australian Climate Change Review make it abundantly so. As the planet daily reveals greater fragility, we are, Garnaut, Head of the Climate Change Review, tells us, travelling well ahead even of worst case IPCC projections. The paper briefly surveys this evidence and notes that Garnaut, too, appeals to Article 3 of the UNFCCC. Not much can be achieved without it. Bali, however, revealed a developed world still too firmly in the grip of neo-liberal and state-centric values to reconcile itself to the more co-operative politics called for by Article 3. In conclusion, the paper asks how better and more co-operative climate change policies might be paid for – and finds lots of money that does not involve more hunger for the poor.

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Introduction

This paper reflects critically on the recent United Nations Framework Convention on Climate Change (UNFCCC or Framework Convention) Conference in Bali. Its principal argument proposes that the developed world effectively used the Bali Conference to undermine Article 3 of the Framework Convention and the "principle of common but differentiated responsibility". A regressive liberal politics –one part neo-liberalism and one part a realist state-centric politics of international distrust – were principally to blame. Neither of these ideologies of individual or national self-assertion could live with the co-operative politics in Article 3. Of course, there were differences between individual states and our argument does not claim highly orchestrated resistance. It's more a politics of least resistance and positioning by default : "What do think when we are not thinking?" The western political imagination no longer spontaneously embraces a politics of co-operation.

The significance of this question is highlighted by climate change problems that are, on a range of indicators, becoming more acute. Obstructing or even just delaying effective global policy has increasing costs that may, sooner rather than later, begin to spiral out of control. Evidence of deepening problems relates, on the one hand, to the planet's vulnerability as study after study reveals more limited tolerance in one biophysical subsystem or another. On the other hand, and despite the planet's shrinking tolerance margins, the human assault on it is intensifying. The global emission of greenhouse gases (GHGs) continues to accelerate. In this context we briefly consider revised emission forecasts developed recently by Ross Garnaut, Head of the Australian Climate Change Review.

Another important and much less well-explored question associated with the UNFCCC concerns the fact that Article 3 and its principle should not be considered isolated expressions of or quixotic tilts for a more co-operative world. They can, that is to say, be placed in a co-operative or cosmopolitan tradition that reaches back to the 18th century political writings of Immanuel Kant, runs through the core values of the UN itself, and then on to the current work of Ulrich Beck[1] – not the only, but certainly one of the more sophisticated of contemporary theorists of cosmopolitanism and globalisation. More importantly perhaps, Beck is mounting a powerful counter critique - arguing that competitive nation state-dominated thinking, has reached the outer limits of its usefulness. Climate change politics has nothing to lose and everything to gain by closer contact with this powerful, evolving critique of a regressive liberalism and nationalism wherever they obstruct or deny deeper and more extensive forms of international or global co-operation. This, however, is work we are pursuing elsewhere.[2]

A "Roadmap" to nowhere

In December of last year, the island of Bali hosted the thirteenth session of Conference of Parties (CoP) of the UN's Framework Convention on Climate Change, UNFCCC or just plain Framework Convention.[3] The best known CoP –the seventh – had taken place in Kyoto ten years earlier and famously given its name to the much

[1] Ulrich Beck (2006) *Cosmopolitan Vision,* Polity Press, Cambridge snd (2006) *Power in the Global Age (2002),* Polity Press, Cambridge.

[2] Peter Vintila (2008 –online paper, forthcoming). Competition, *Co-operation and Climate Change*, www.postkyoto.org

[3] The UNFCCC was created and ratified by the UN in the years between 1992 and 1994.

maligned Kyoto Protocol.[4] Bali[5] and the next CoP (to take place in Copenhagen in 2009) were or will also be landmark events. Together these two meetings are supposed to yield an agreement to succeed the Kyoto Protocol which expires in 2012. The new agreement will incorporate new targets to cover a second "commitment period" running through to 2020. Bali was unhelpful at best and it remains to be seen what happens in Copenhagen: recovery or further retreat?

The past decade has witnessed unimpressive global emissions management and the dominant liberal view in the developed world blames Kyoto for its failure to seek commitments from the developing world. This, we argue is at once a (re)turn to nation-state-dominated[6] thinking and to the tenacious neo-liberal user-pays principle. Only nations must pay (because they are the only players) and all nations must play (because it's not fair if some free ride). If justice goes no further than this, then more fundamental question about unequal incomes or risk exposure – which Kyoto responds to – are avoided. Annex 1 countries as defined in by the Protocol enjoy average daily per capita incomes 20 times as high as developing countries.[7] That's what neo-liberal and national interest politics conceal as they insist on the principle of user pays.

This was the argument that defined the Bali Conference –and the poor and the planet were losers. To be sure, Conference officials and the Western press largely succeeded in presenting the outcome as positive and a victory for commonsense. The outcome, in any event, was ostentatiously called "the Bali Roadmap." But never was there a cartographic aid providing travellers fewer useful directions. The unselfconscious banality of the language of CoP 13 and its "Roadmap" are an embarrassment. Thus the "Dialogue on long term cooperative action" secured the following resolution in Bali:

> at a minimum, the following building blocks would need to form part of a [working] response: **action on mitigation and adaptation; and supporting elements for advancing such action, in particular technology, investment and finance.**[8] (emphasis added)

There is no commitment to anything here and while this level of beginner's sophistication and vacant abstraction might be forgivable in the first or second CoP this, again, is the 13th. It registers the understanding that mitigation and adaptation are both necessary to good policy. What a break through! But there's more: money and technology will be involved. Thank God someone was on hand to record that insight. George Monbiot, Guardian journalist and author of the internationally acclaimed Heat, was on hand to report progress in Bali in a compelling mock-heroick present

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[4] The Kyoto Protocol builds on the ethical architecture of the UNFCCC by stipulating specific obligations of signatory states across three national groupings:

> Annex I countries: developed and transitioning economies nations (41 in number) required to meet future quantified emission reductions;
> Annex II countries: developed nations sufficiently wealthy to assist developing countries;
> Developing countries: no obligations specified.

The Protocol specifies a regime involving differentiated targets for Annex I and II signatories that amount to an average cut of 5.2% over a 1990 baseline by the first commitment period of 2008-2012.

[5] "The Conference, hosted by the Government of Indonesia… brought together more than 10,000 participants, including representatives of over 180 countries…" http://unfccc.int/meetings/cop_13/ite ms/4049.php

[6] This term points to the tenacious hold which the nation has not just on international relations (IR) thinking but on the conduct and culture of international politics. In IR methodology and philosophy, practitioners commonly refer to "realism". What has a more tenacious hold on the imagination than something you dignify as "real" as opposed to the unreal, fanciful or "ideal" your opponens believe in?

[7] Derived from Homer Dixon (2007) *The Upside of Down*, Text Publishing, Melbourne, p190.

[8] United Nations Framework Convention on Climate Change, *Report of the Conference of the Parties on its thirteenth session (*March 14th 2008) paragraph 48.

tense account. Well- dressed crowds, he told us, are "cheering and waving their hats as the train leaves the station at last…failing to notice that it is travelling in the wrong direction."[9]

The principle of differentiated responsibility

The key to our critical reading of the Bali Conference is provided by the Framework Convention, in particular, Article 3 containing "the principle of common but differentiated responsibility". It is not an exaggeration to say that this principle provides the UN's climate change policy work with its ethical centre of gravity. The first paragraph of Article 3 leads, as it should, with the requirements of intergenerational justice and then reads as follows:

> The parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country parties should take the lead in combating climate change and the adverse affects there of.

The following four paragraphs qualify and extend the first, identifying a range of circumstances warranting exceptional consideration or differential treatment. These include poverty, ongoing development challenges, vulnerability to climate change impacts and histories of fossil fuel use.[10]

No great forensic skill is required to see that Article 3 is likely to encounter opposition deriving from two powerful institutional sources. These are, of course, successful market traders and well-allied or militarily strong nations – each a success in its respective theatre of competition - whether that is trade, belligerent diplomacy or war. Article 3 offends advocates of free market policy because it threatens to seriously compromise a fundamental market principle: the principle of user-pays and the large suite of neo-liberal values it helps to sustain: eg self-interest, self-reliance, independence, competition, merit and performance principles, property, hostility to welfare (or aid) and so on. In addition to that, Article 3 is also likely to unsettle the institution of national sovereignty in a world that values self-reliance based on mutual mistrust, strong borders and preparedness to fight.

If we stand back from the detail for a moment, we see that the principle of differentiated responsibility as enunciated the Framework Convention threatens continuous high-volume fiscal transfusions, the violation national borders, national sovereignty and the principle of user pays all at the same time. And there is more. The offensive transfusions also happen to be of great strategic importance: they are centred on energy infrastructure development. And they are politically compelling and of profound public interest as they go to the possibility of globally catastrophic climate change. Everyone is watching. In summary here, the issues are more potent in their offensiveness to hard liberalism and realism than general international aid which often flows (or not) invisibly. Should we be surprised that no-one has been more offended by the Framework Convention and its principle than a US policy establishment cut from equal parts neo-liberal and neo-conservative cloth?[11]

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[9] George Monbiot (2007) Hurray*! We're going backwards,* http://www.monbiot.com/archives/2007/12/17/hurray-were-going-backwards/

[10] Some relevant evidence is considered below but just as an example here. the developed world still accounts for almost 90% of historic emissions. For detailed overview of differences here see JT Roberts and BC Parks (2007) *A Climate of Justice*, MIT Press, Cambridge Mass.

[11] Opposition is usually directed against the Kyoto Protocol but this instrument is a child of UNFCCC and *the principle of differentiated responsibility*. The *Kyoto Protocol* also takes its moral architecture directly from *Article 3* and *the*

In highly condensed form, my case is as follows: the entire scheme of arrangement proposed in Article 3 defines a new discursive space involving history, trust, new concessions, a co-operative logic, ethically defined (or at least debated) responsibilities and obligations, transfers based on need, capacity to pay, the suppression of older borders and recognition of neglected ones - between generations. Such a scheme will clearly give offence to interests and institutions upholding the dominant order of the world as we know it. In Bali, again, that offence became opposition, improvised perhaps, but opposition nevertheless. .

Back in Bali

Is there more empirical evidence to support this argument? A closer look at Conference outcomes is certainly revealing. The US may no longer be boycotting. It has tenuously committed to participating in future climate change negotiations. This was the biggest triumph of the occasion. The price, or part of it, at least, paid for this victory was the EU's proposals for bold short term (2020) targets.[12] Not really too much to brag about and, on the morning after, it could hardly been defended as a great trade. Perhaps someone had been screwed. The US, supported by Canada, Japan and Australia then pressed successfully for firmer developing country obligations. This was another part of the price demanded by the US for its commitment. And it was still not enough.

US delegates also sought to defeat a modest call from India for more substantial developing world climate change assistance, almost causing the Conference to collapse in its final sitting hours. Monbiot, again, summed this up perfectly. The US, he said, "wrecked the treaty and was praised for saving it."[13] Indeed, it is not difficult to see that the substantive positions secured by the US in Bali all work to undermine or diminish Article 3. [14]

Journalists amassed from around the world in Bali lent their unbiased political wisdom to the judgment of these developments. All had the same song sheet: the Kyoto Protocol and the principle of differentiated responsibility had been a mistake and Bali served to put things right. Paul Kelly, one of Australia's most influential and supposedly balanced journalistic voices, declared Bali "important for two reasons":

> The US moved a long distance and the developing world accepted the idea of new obligations… Rudd, like John Howard, knows a post-2012 system must impose obligations on both developed and developing nations… He said that all developed nations, including the US must accept deeper binding emission cuts and the developing world must match this with new pledges… This… recognises **the architecture of the UN Framework Convention is flawed** because of the leverage it gives to developing nations (along with an **excuse for their**

principle and this is the real reason for its unpopularity.

[12] The European Union (EU) came to Bali with a serious proposal to accelerate developed world emission reductions – not just cuts for 2050 but substantial cuts of between 25% and 40% by 2020. Despite having science on its side, the EU was defeated on this matter.

[13] George Monbiot (2007) *op. cit.*

[14] This hardly involves great forensic insight. The US all but said in advance that they would not play while this architecture was effectively in place. And, just to make sure that no-one had misunderstood its "concessions" in Bali, the Whitehouse was back pedalling – issuing clarifications and expressing "serious concerns" within hours of Conference closure. AFP (Dec. 2007) "Serious concerns about Bali Climate Conference Deal" http://afp.google.com/article/ALeqM5g_loFMBHHBfIACdCGS4kBAA1lwNA See also John Vidal writing in *The Guardian* (December 17 2007) "US pours cold water on Bali optimism: White House wants more from India and China". http://www.guardian.co.uk/environment/2007/dec/17/bali.climatechange

> **inaction**) and for its failure to predict how quickly nations such as China and India would become main emitters…. (emphasis added)[15]

Neither the US, nor the developing world, compromised significantly in Bali. That's fantasy. We have already seen just how vacant the language of the "Roadmap" turned out to be. But here it is other matters calling for attention. First, there's the hardnosed character of the argument. Kelly takes us immediately into a world in which sympathy is for suckers and cheats; fellow-feeling can only be an illusion. The dismissive treatment of the UN's instruments follows. Dismissal, however, takes the form of assertion and repetition, never rising to the level of argument or bothering with evidence. Instead we have the parenthetic observation that the principle of differentiated responsibility is an "excuse for … inaction". The poor have been caught doing what they always do: cheating, lying and free riding instead of working and paying their own way. It's so unspeakably offensive. Yet this is a voice that commands front page display whenever it speaks.

Does Kelly know or care, that average incomes in the developed world are around 20 times higher than in the developing world: $80 as against $4 per day? Does he know that these inequalities are widening or how much discretionary spending power the differential – $76 per day – confers or denies.[16] Does he know that the history of careless fossil fuel use is deeply implicated in these differences; that the rich world accounts for as much as 90% of historic emissions? Does he know or care about the difference between a reason and an "excuse"? Or, is this too only a distinction that gulls and fools make?

In Bali, again, the US, with a little help from their closest friends, succeeded in defeating EU proposals for specified 2020 emission targets. They did not simply settle for substantive victory on this matter. Reference to the targets as indicative goals in a non-binding preamble was also unacceptable to them.[17] They wanted symbolic victory too.

In the last hours of the Conference and in the face of ongoing US obstruction, a Papuan delegate dared to suggest that the Conference might well benefit from complete US withdrawal.[18] It's a pity that this point was not taken more seriously. There were a number of good reasons for leaving the US out in the cold for the time being – not least the fact that Bush is in his last days and his successor, whoever that might be, will be more amenable. Anyone resolutely committed to constructive change would have taken advantage of this.[19] Why was this point left to Papuans to make politely? Indeed, it only seems to make sense if other stakeholders were taking advantage of vexatious American behaviour. Sadly, it seems that they were. And, for them, Bush could usefully make ambit claims or distracting noise if nothing else.

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[15] Paul Kelly, "Rudd beyond Kyoto" The *Australian*, Dec. 19th 2007.

[16] Derived from Homer Dixon (2007) *The Upside of Down*, Text Publishing, Melbourne, p190 http://www.garnautreview.org.au/CA25734E0016A131/WebObj/OXREP_paper_2-05-08/$File/OXREP_paper_2-05-08.pdf

[17] See www.theaustralian.news.com.au/story/0,25197,22934549-11949,00

[18] "We seek your leadership but if for some reason you are not willing to lead, leave it to the rest of us. Please get out of the way." Papuan delegate, Kevin Conrad, as reported by Mathew Warren in "Cheers as Climate Deadlock Broken", *The Australian*, Dec. 17th 2007.

[19] US NGO's at least were capable of appreciating this point. Referring to the coming two years and the lead up to Copenhagen, David Doniger declared that "the US will field a new team in the second half. And there are good odds that the next president will get serious on global warming". Reported by Thomas Fuller ("Climate Plan Looks Beyond Bush's Tenure" in *The New York Times,* Dec. 16th 2007.

Neo-liberalism and realism, it appears, still have a wider hold on the world's political imagination and the US could not have prevailed if its case had not resonated elsewhere. Even Europe, though it might be conducting its own experiment in continental co-operation, is equivocating as climate crisis calls for more determined global co-operation. Neo-liberalism, it seems, has more than a foothold in the EU's collective political imagination too – even in notionally social democratic parties. And we can add the Australian Labor Party to this list, too. A wide, even if sometimes shame-faced global coalition cannot boldly grasp the moral architecture of differentiated responsibility or break with neo-liberalism's and realism's monochromatic world of competition – even if that breaks the planet.

A more vulnerable planet?

All of this would be bad enough if we properly understood the impacts of climate change. As we learn more, however, it is often only to discover that conditions are deteriorating. We will cite just one example: In recent weeks, a British newspaper reported on an international review, allegedly "the first" of its kind systematically linking "some of the most dramatic changes to the world's wildlife and habitats with human induced climate change." The reviewed studies were conducted between 1970 and 2004 and included some 30,000 plant and animal species. In nine tenths of cases, changes in wild life behaviour and populations "could only be explained by global warming". According to one leading researcher:

> When we look at all of these impacts together, it is clear that they are across continents and endemic. We are getting a sense that climate change is already changing the way the world works.[20]

More current were two comparably disturbing reports released in the US in recent weeks, one by *The New York Times* and the other by *Associated Press*. According to *The New York Time,* a review-based report declared:

> The rise in concentrations of carbon dioxide in the atmosphere from human activities is influencing climate patterns and vegetation across the United States and will significantly disrupt water supplies, agriculture, forestry and ecosystems for decades. a new federal report says.[21]

Associated Press reported at the same time on a just completed study revealing the extreme acidity of the North American Pacific Coast:

> Waters along North America's Pacific coast are becoming more acidic, posing a threat to marine life, federal scientists, adding that while that fits global warming scenarios, no one had expected the acidification to happen so soon. "We did not expect to see this extent of ocean acidification until the middle to the end of the century," said study co-author Chris Sabine.[22]

At the same time, sceptics continue to argue that the evidence of change calling for determined policy is not conclusive.[23] Not surprisingly, this argument returns, again and again, to the fundamental parameter - temperature and its measurement. Most

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[20] http://www.commondreams.org/archive/2008/05/15/8983/

[21] By Andrew C. Revkin, "US report foresees effects of climate shift", *The New York Times*, May 28, 2008, p A14. Report at climatescience.gov

[22] http://www.precaution.org/lib/pacific_acidification.080522.pdf

[23] In Australia, a leading considered sceptic's statement was made by Professor Don Aitkin in a provocative lecture given to the Australian Institute of Planning early in April and subsequently published as *A Cool Look at Global Warming*. See at http://onlineopinion.com.au/documents/articles/A_Cool_Look_5-4-08.pdf . See also Clive Hamilton's reply, *Death Rattles of Climate Change Sceptics*, at http://www.newmatilda.com/2008/05/19/death-rattles-climate-change-skeptics and Aitkin's rejoinder,*The IPCC is not God,* also at http://www.newmatilda.com/2008/05/22/ipcc-not-god?page=1

recently the focus has been on the last decade of measurement: the data is equivocal. It neither proves nor rules out warming. As unsatisfying as this may be for those crave definitive scientific closure, practical life must also respond to increasingly abundant "circumstantial" evidence of the kind cited above, not to mention the melting of polar and high altitude glacial ice. This catalogue of evidence becomes more compelling with every passing day and almost certainly suggests one of two things: either mistaken temperature measurement or underestimated biophysical sensitivity to temperature change. How does it vindicate the sceptics position if the ecological fabric of the world is unravelling even while temperature change remains small or uncertainly measured? It reminds one of allegedly ancient Chinese saying: that the fool looks to the finger while the wise man points at the moon. Or, we could move on: scold the ice, or the ripening fruit or the hatchlings for getting it wrong.[24]

Sceptics aside, one of the best general indicators of the Earth's sensitivity relates to the question of the planet's assumed GHG tolerance. As recently as 2006, when the Stern Review was published, it was widely assumed that we could allow concentrations to double from their pre-industrial (280ppm of CO2e) levels and rise to 550ppm of CO2e while still coping with the consequences. Today actual concentration stands at some 430ppm and, already, well before reaching 550ppm, extensive cascading biophysical changes are taking place. Already, too, the number of people at risk of hunger has climbed from one to two billion as food prices have doubled in recent years. Climate change is not the only factor affecting food prices but is it is a factor generating its own pressures in a number of ways.[25] Barely a year after publication of his Review, Stern's 550ppm limit was being revised. Thus Professor Ross Garnaut, Head of the Australian Climate Change Review, for example, is, to the apparent displeasure of the Government he serves, building his policy case around a 450ppm limit.[26] Late last year, however, Jim Hansen, one of the world's foremost authorities on climate change, made a detailed case for a 350ppm CO2e limit in a submission to the US Lower House.[27]

Our point here relates not the identification of a correct limit. In a sense, there is no right answer. The discussion is really on about levels of planetary damage future humans can tolerate and what present humans are willing to spend on damage limitation. (The argument and trading-off, moreover, take place in a darkened room.) Our point here relates instead to ongoing dramatic and downward revision of the limit – that seems much more certain - and its meaning. It seems clear that as we watch the planet more closely, it is unmistakeably revealing itself to be more rather than less fragile. The sceptics on the other hand appear to be saying, somewhat

[24] At this point in the argument, climate change sceptics typically appeal to the idea of the planet's natural variability and/or its capacity to establish new states of biophysical equilibrium when disturbed. In the absence of tight specification, however, these arguments are consistent with death, destruction and extinction on massive scales – and so, are utterly unhelpful in policy terms. It may be anthropocentric, but what billions of the planet's people want to know is whether their children and grand children will at least have the opportunity to work at a satisfying human existence attended only by normal measures of hardship and deprivation. Few will be satisfied with the re-assurance that the planet will go on existing in the absence of humans or, more than that, of vigorous and civilised human communities.

[25] See "UN urges 50% lift in global food production" in *The West Australian* (June 4th 2008) p9.

[26] Ross Garnaut (February 2008) *Interim Report to the Commonwealth, State and Territory Governments of Australia*, p19-20.

[27] Hansen is director of the NASA Goddard Institute for Space Studies, Adjunct Professor at the Columbia University Earth Institute, a member of the US National Academy of Sciences, and has testified before the Senate House of Representatives on many occasions. His case for a 350ppm ceiling has now been made in many places including a slide show at: http://www.columbia.edu/~jeh1/ 2008/ illwesleyan20080219.pdf . See also the following Washington Post Report: http://www.washingtonpost.com/wp-dyn/content/article/2007/12/27/AR2007122701942.html

counter-intuitively, that our understanding of the planet was better when we watched it less closely and assumed it be both unbreakable and infinite. And got on with our human projects and present day pleasure seeking.)

Platinum age emissions

At this point one could be forgiven for thinking that the sceptics and the business as usual strategies they favour were losing; that industry and economy were already winding down as they made their serious concessions to the planet. On the groune and where it matters most, nothing could be further from the truth. Global emissions are continuing to grow at alarming rates. This is what we discover as we begin to attend more to physical metrics of economic activity. [28] Whatever the planet's fragilities, whatever the sense of alarm their discovery momentarily creates, humans are continuing to emit more GHGs and emit them faster. These mismatching processes could hardly be worse. If we think again of the planet's fragility, then it is as if our packs are getting heavier just as the ice on which we trek is becoming thinner.

To regroup and re-establish contact with our original argument, we should also make the following point: this is a very bad time for political leaders to spurn co-operative values, practices and principles as they apparently did Bali. The developed world's leaders seem not to get it. They believe that they have the time to outwait the poor (with all of their lame excuse) and to go loading their packs because their ears are still attuned to an infinite and unbreakable planet.

This brings us, then, to the core of Ross Garnaut's research – how heavy are we in terms of growing global emissions? His work is internationally current and his most recent paper - *Emissions in the Platinum Age: The Implications of Rapid Development for Climate Change Mitigation*[29] – indicates that GHG emissions, especially CO2, are rising at rates that considerably outstrip earlier predictions. His updated forecast indicates a doubling of current global emissions by 2030 based on established trends and current policy settings. In other words, emissions are 20 years ahead on Stern's business-as-usual scenario and 11% worse than then the IPCC worst case projections for 2030. Today, the world is emitting 27.8 Gt of CO2; by 2030 that figure is projected to rise to 59.5 Gt. That represents an annual average growth rate of 3.1% though, that figure conceals huge differences between developed and developing countries: emission growth rates of 0.6% and 5.1% respectively.[30]

Various factors contribute to these alarming trends including significant upward movement is the energy intensity of economic growth and carbon intensity of energy used – in short, it points to the increasing reliance of the world's rapidly growing economies on dirty coal. For the most part, however, it is the brute fact of this rising growth itself (whatever the fossil fuel used) that drives the global emissions trajectory most steeply upwards. Thus annual GDP growth in the developing world

[28] Arran Gare (2008) The Scientific Status of Accounting Methodologies: From Ecological Economics to Human Ecology M/S Swinburne University.

[29] R. Garnaut, S. Howes, F. Jotzo and P. Sheehan, *op.cit* (2008)

[30] While the developing world now accounts for some 47% of global emissions in aggregate terms, huge differences remain in per capita terms - a the ratio reveals huge differences - 1:5 (11 to 2.2 tons of CO2e). At the same time the historic emissions split is about 9:1 in favour of the developed world.

has climbed from around 4.0% in the early 1990s to 6.2% in the early years of the present century. China, of course, is the well-known standout in a field of high achievers, growing at 10%+ since the mid 1990s and almost reaching rates of 12% in the past few years.

To be sure, the developed world looks a long way behind in term of growth rates (2%-3% over the past decade) but that growth is calculated against a base, a world GDP share, that is four times larger[31] than the developing world share. Two percent of the one is still a substantially greater mass than six percent of the other - roughly $1 as against $0.8 trillion. Given lower energy and carbon intensities in the developed world, these two worlds are currently, as the growth of incomes suggest, rough equals in aggregate emissions.[32] Garnaut also provides current data on per capita emission differences: 11 as against 2.2 tons of CO2e – or 5:1[33] (As against GDP differences of 4:1 and income GDP per capita differences of 20:1.)

There is no need to speculate on the practical implications of these figures. Garnaut is happy to say what they mean in policy terms and his opening statement is clear enough:

> **Larger and earlier cuts in developed country emissions will be required than previously thought and major deviations from baselines will be required in developing countries in 2020.**

When Garnaut says more work everywhere and sooner rather than later, he does not adopt conservative standards as his benchmark. But nor does he provide answers (What are larger cuts? What is earlier? What are major deviations?) in the form of straight forward figures. He aims, rather, to demonstrated that the existing strategic framework as broadly understood is unworkable and that change is needed at this level. In broad terms, he basically argues that:

> we understand what the planet needs – CO2e stabilisation at 450ppm or for high rollers, 550ppm; and
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> we know what the best shorter term developed world offer has been – the EU proposal made in Bali (cuts ranging between 25% and 40% by 2020).[34]

With this information in place, Garnaut asks two critical questions. First, what is the scale of the emission reduction task left to the developing world? Second, what are their prospects of meeting this requirement? These questions are then answered against the background of his own revised rapid growth forecasts in the developing world. Table 12 in Garnaut's paper provides answers that relate to four scenarios – 25% and 40% cuts against 450ppm stabilisation target and the same cuts against 550ppm target. Those with heads for numbers can go to the original table. But, in the final analysis, the numbers don't matter.[35] Garnaut says that they are all, even the least demanding scenario for the developing world, too costly. The developing world is too poor to pay the bill. And unless we can think of something else "the prospects for climate change mitigation are bleak."

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[31] http://en.wikipedia.org/wiki/List_of_countries_by_GDP_

[32] http://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions)

[33] . Garnaut, S. Howes, F. Jotzo and P. Sheehan, *op.cit* (2008) Table 9

[34] To be sure, the EU offer was rejected - or deferred in Bali - but it was on the table and in the press and has sufficient presence to serve Garnaut comparative purposes here.

[35] For a 450ppm stabilisation target the emissions called for in the developing world by the EU proposal are 33% and 40% the top and bottom of the EU range. The percentages are measured against different bases but the absolute burdens (GT of CO2e reductions) placed on the developing world are huge – bigger than those place on the developing world by a long shot.

So, where to from here or there? Anyone still awake and reading this piece should be saying: "Wait a minute… isn't this the problem that Article 3 of the UNFCCC – with its differentiated responsibilities – was intended to solve? The very principle that was sidelined in Bali?" Garnaut, it appears, has been led to the same understanding. In his conclusion he too invokes Article 3 of the UNFCCC, arguing that

> … the terms of the climate change debate need to be shifted. There is no room any longer for defending the view that the differentiation of effort called for in the UNFCCC between developing and developed countries should be based on the application of binding emission targets or policies to the latter and not the former.

If there were no more, this would be another ordinary neo-liberal pitch for the principle of user pays. But Garnaut's arithmetic and sense of decency have told him it won't work. He is preparing in the lines above not for abandonment of the principle of differentiation but for its radical re-interpretation, "Differentiation is critical", he says,

> but should enter the frame through the developed countries taking on more stringent targets **and** through their provision of finance to back mitigation efforts in developing countries… [36] (emphasis added)

Although quietly and discreetly (in the final paragraph of a draft paper filled with numbers), Garnaut is proposing heresy: that the rich do more at home **and more** to assist the developing world to cut emissions as well. And, of course, this befits a world in which the ratio of rich to poor incomes stands at 20:1. In terms of GDP per capita that's $80 as against $4 daily and the current effort at rapid development represents an attempt to close that yawning $76 gap. It's a desperate, determined and heroic bid and both the means and the will to surrender some of the $4 to clean up CO2 are in short supply. Here, in the developed world, we anguish at the prospect of giving up a little of our $80. Garnaut has honestly confronted these differences and that why he speaks of "extreme difficulty" .

Of course his reference to "financing" mitigation in the developed world needs further elaboration. Is Garnaut talking about loans or grants? If loans, on what terms? If grants, how substantial? It's probably smart to rehabilitating the principle as a principle and to leave the money and operational detail until later. As it turns out it's not all bad news… and so we conclude on a more positive note: it can be done.

Funding the principle of differentiated responsibility

We want to conclude by very briefly surveying the scale of the financial effort that might be involved and to meet a predictable objection in advance: that we can barely pay for ourselves; so paying for others is out of the question. There is, of course, a small contradiction here: we can barely manage with our $80 per day but we can insist they do it with a part of their $4!

Contradictions aside, the Chinese have recently flagged a credible figure: they have suggested a transfer of 0.5% of developed world GDP.[37] In dollar terms, this currently amounts to some $260 billion annually. That's about $250 per person in the developed world per year, $5 per person per week or 70 cents per person day[38] – taken, again, from an average daily income of $80. There are many ways of raising

[36] R. Garnaut, S. Howes, F. Jotzo and P. Sheehan, *op.cit* (2008) p27.

[37] http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aagEF0uFgZ0I

[38] Persons = persons over 14 years. For relevant global population statistics, see http://www.un.org/esa/population/publications/wpp2006/English.pdf

this money in the developed world and importantly, the less well-off in the developed world need not be taxed. The poor everywhere deserve a break.

Let's start by looking to the rich. Millionaires alone in the developed world hold capital assets worth $25 trillion. An annual one percent wealth tax on that sum would provide aid to the level of the Chinese request and no-one would be surrendering a breakfast bowl or a protein fortified UN biscuit for lunch. On the other hand, it is worth noting here that the developing world also has its millionaires. As with most things, apart from poor people, not as many but, in terms of assets, they hold half as much again as millionaires in the developed world.[39] This is the right place to pitch for the level playing field. For 1% tax purposes, millionaires can be treated alike.

In an earlier discussion,[40] we have also noted a range of further funding sources for the world's new energy and climate control requirements. For example, the developed world spends around $1 trillion on defence and $350 billion on agricultural subsidies each year. It also collects $380 billion – mostly interest – from outstanding third world debt and then, increasing the stakes, it currently deposits $11.5 trillion in tax havens of questionable legality. Dwarfing all of that, it trades around $300 trillion in currency markets each year.[41] A variety of light weight taxes could raise all of the resources necessary to finance global low-carbon energy infrastructure several times over. What could the objection be? It hurts too much? It damages productive business? It would be better to let the planet go? Or it's only worth paying for with reclaimed protein-fortified biscuit mix? In a word, there is no objection that is not ultimately absurd. We have nothing to weigh in the balance against a living planet, nothing that comes close. In any event, just a little creative public effort and global redistribution, will probably do the trick. These are directions that deserve to called a "roadmap"…. not the shabby and selfish counsel of user pays.

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[39] All data on millionaires sourced from Merryl Lynch (2007) *World Wealth Report* 2007 http://ml.com/media/79882.pdf

[40] Peter Vintila (Feb. 2008) *Coffee, Confection and the Trillion Dollar Climate Connection,* OnlineOpinion. http://www.onlineopinion.com.au/view.asp?article=7038

[41] Melanie Jarman (2006) Rich World, Poor World, Pluto Press, p13 http://books.google.com.au/books?id=91rMMTCh9lgC&pg=PT25&lpg=PT25&dq=Melanie+Jarman+rich+world&source=web&ots=7dKSLAy5G4&sig=lg35CtWk91i_7NsWNC8diQLK2NU&hl=en#PPA41,M1