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Final report on stakeholder views of development / humanitarian assistance and its
contribution to climate and development**

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DEVELOPMENT AND CLIMATE CHANGE IN THE HIMALAYAN REGION

Mainstreaming As Seen And Engaged With At The Recipients' End

Final deliverable of the ADAM Project, Work Package D-P3b.2b

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Introduction

Our first "lesson from Nepal" is that the original title of this deliverable – "Stakeholder Views of Development/Humanitarian Assistance and its Contribution to Climate and Development Goals" – needs to be changed. The feeling in South Asia is that the word "stakeholder" should not be used. On the one hand, when it comes to climate change, we are *all* stakeholders; on the other hand, the term obscures the crucial power differences – between, for example, large landowners and landless sharecroppers – that are so often present in that part of the world. Since those in the rich countries can no more escape the effects of climate change than can those in the poor countries,^{*} and since power differences are by no means absent from the developed world, this is a lesson of general validity.[†] On top of that, "stakeholder", properly speaking, refers to the person who, because he has no interest in the outcome, is trusted by both parties to a sporting wager to hold the money – the stake – that is being wagered. This is the exact opposite of the now popular usage of the term: a person who *has* an interest in the outcome!

Our Month 21 deliverable was very much "work-in-progress": an Executive Summary and a lengthy Response to the Reviewer's Comments, together with the table of contents and draft first chapter of the book – "Development, Climate Change and Clumsiness: The Lessons from Nepal", edited by Michael Thompson, Dipak Gyawali and Marco Verweij – that will be the final product. Whilst there has been much progress, that book is not yet finished, mostly for the reason that it soon became apparent that, in order to provide an adequate justification

^{*} Though they may be able to spend money to lessen the impacts, on them, of those effects.

[†] The first person in South Asia to protest about the word stakeholder seems to have been India's water secretary of state, Ramaswary Iyer, who asked how you could put a landowner and his landless sharecroppers in the same room and claim, as did The World Bank and its ilk, to have done a "stakeholder meet".

for its contents, we would first have to set out a reasoned critique of the current "development paradigm" and specify (and render operational) a "new paradigm" to put in its place. We have now done that and are proceeding with the rest of the book. [The book's revised table of contents is included as Appendix A. The gist of its new introductory chapter – "Ditching The Development Paradigm" – is threaded through this deliverable (and is also included, in box form, in chapter 2 of the P3b book, edited by Joyeeta Gupta, that is being published by Cambridge University Press).]

Something else, which was not apparent when we started our ADAM Project but now emphatically is, is that it is not just developing countries that have development problems. The credit crunch and the subsequent global economic turmoil have put the developed world dramatically into reverse. The UK's economy, for instance has contracted by more than 4% in the 12 months up to April 2009, and the average UK household has lost between 30 and 40% of its wealth (indeed, many are now in negative equity). And banks in Europe and the United States are now largely nationalized, leaving the Washington consensus – the cornerstone of all recent development policy – dead in the water.

The hope, of course, is that this de-development is only temporary, but it would not take many years at this sort of rate for the UK and some of the other worst-affected developed countries to join the ranks of the LDCs (Least Developed Countries). What this means is that the new development paradigm will have to be as valid for the North as it is for the South: the comforting (and patronising) separation – business schools for us; institutes of development studies for them – will no longer pass muster.[‡] So it is not enough to set out the new

[‡] The development problems, of course, will likely vary as we go from South to North, but the idea that you leave such problems behind once you have achieved "take-off" is finished.

paradigm solely with reference to the old customers: the developing countries. Its applicability to all those nations that are at the other end of aid transfers must also be demonstrated. This too has now been done (Thompson 2008b). (This is one of three pieces of work, each of which needs to be seen as very much a part of this work package; see Box A.)

Here, in this final deliverable, we explain the various workshops, round-tables, sets of interviews and so on that we have carried out, together with brief summaries of the main findings. First, however, a "cautionary tale", in which we try to capture the implications of these research efforts for the notion of mainstreaming that, in a fairly unexamined way, underlies our entire ADAM Project.

A Cautionary Tale From The Recipients' End

Following the overthrow of the Rana regime (in the 1950s), Nepal's forests, which had long been managed as common property resources at the village level, were nationalized and placed under the control of the Forestry Service. This government intervention destroyed the village level institutions, fatalizing the villagers and precipitating a rapid deterioration of the country's forests: a deterioration that was then wrongly ascribed, by all the international aid donors and others (eg UNEP, The United Nations Environment Programme) and their scientific advisors, to population growth: the Theory of Himalayan Environmental Degradation (THED) as it is now called.

BOX A: THE NEW PARADIGM'S APPLICABILITY TO THE DEVELOPED WORLD

"History", as Mark Twain observed, "does not repeat itself; at best it rhymes". Analyses of the credit crunch and the subsequent economic turmoil are all based on the repeating, not the rhyming model, in that they all invoke just two forms of solidarity – markets and hierarchies, as they are conventionally dubbed – with the time-lagged responses of light- and heavy-hand regulation imparting a pendulum-like oscillation: boom and bust.

Such a model assumes just two kinds of goods – *private* (the market) and *public* (the hierarchy) – and ignores the other two kinds: *common-pool* goods and *club* goods, each of which, theorists of plural rationality point out, has its associated solidarity (activist groups/egalitarianism and fatalised margins, respectively). Solutions based on the repeating model therefore lack the *requisite variety* and are doomed to failure. Pendulums can't swing back and forth between four attractors!

The pendulum model, of course, is also at the heart of the "development paradigm" with, for instance, its idea of the public ownership of the "commanding heights" of the economy having quite recently given way to the "Washington consensus": the idea that markets can, and should, do it all. Change in a four-attractor system, by contrast, is *complex* – indeterminate, unpredictable, non-linear, sensitive to initial conditions and so on. Hence the lack of repetition. However, when one solidarity's voice drowns out the others, as has happened in both developed and developing countries (or even when some combination of just two voices drowns out the others), we can find ourselves being surprised in ways that clearly have *something* in common with surprises we have run into the past. But of course to get an adequate handle on all that rhyming we need models and methods (theory-based scenario planning, for instance, and agent-based modelling) that encompass the requisite variety.

Source: Michael Thompson (2008) Beyond Boom and Bust. *Journal of The Royal Society of Arts*, Winter: 24-29.

Since then, careful research – research that was much resisted by these powerful actors – has demolished this theory (see Thompson and Warburton 1985; Ives and Messerli 1989; Ives 2004). This demolition, in undermining the scientific credibility of these THED-justified actors, has enabled other actors (from the individualist and egalitarian solidarities, as they are

called), whose voices had previously been excluded, to gain a toehold in the policy process. The result, 20 or so years on, is that Nepal's forests have undergone a massive – and massively carbon-sequestering – transformation. All this raises some serious questions about the classic markets-and-hierarchies distinction – the distinction that underpins the assumption that some adaptation happens "autonomously" whilst other adaptation requires government intervention – that has long been at the heart of the "development paradigm".

- Most analysts, of course, would say that this massive transformation, with all its sequestered carbon, is mitigation not adaptation. However, that mitigation is best seen as an unintended consequence of a clumsy, multi-vocal and argumentative process that sought to reverse the profound loss of adaptive capacity that had resulted from the inappropriate and over-elegant interventions that started in the 1950s.
- Climate change was not even on the radar back then (indeed, as we will see from our most recent interviews, it still isn't so far as most Nepalis are concerned). Yet this outcome – a massive nationwide increase in both mitigation and adaptation – is precisely what is now being called for in EU development policy. Mainstreaming, this cautionary tale suggests, is therefore what you get when you are looking for something else: clumsiness: each of the solidarities' voices (a) heard and (b) responded to by the others.
- The "top-down" versus "bottom-up" distinction (as, for instance, in planned versus autonomous adaptation), in itself, is deaf to the different voices/solidarities that are present at every scale level. The Forestry Service, for instance, performs a crucial role within the community forest success story: a role that, while still hierarchical, is not at all the role it aspired to back in the 1950s, Policy design, therefore, needs to be sensitive to both *social scale* (what is the appropriate level – global, national, village

or whatever?) and *cultural style* (which voices are being excluded or not responded to?).

- The conventional idea that some adaptation can be counted on to happen autonomously whilst other adaptation will require deliberate intervention is profoundly wrong, in that the deliberate intervention back in the 1950s actually prevented adaptation that would have happened autonomously from happening! The same, we will be arguing, is true of many of the deliberate interventions that are currently being advocated in the names of mitigation and adaptation. We can be more precise on this and say that any intervention that increases fatalism – destroys social capital, whether it be *bonding* social capital (the egalitarian solidarity), *bridging* social capital (the individualist solidarity) or *linking* social capital (the hierarchical solidarity) – needs to be avoided. (These capitals and solidarities are explained in Thompson and Gyawali 2007. This is one of the three pieces of work, each of which needs to be seen as very much a part of this work package; see Box B.)

Pulling the above bullet points together, we would say that the goals of mitigation and adaptation (together with the broader goal of development that is sustainable) that are being sought through the process of mainstreaming are dangerously over-elegant. They smack far too much of just one voice – the hierarchical voice – and effectively exclude all those who simply do not see the problem and the solution in that way (and, as is evident from our most recent interviews, even Nepal's environment minister does not see things that way). What we need, rather, are decision processes that encompass the *requisite variety*. Ensure clumsiness, we are saying, and all the rest will look after itself: an on-the-face-of-it absurd claim that is however supported by our case studies, in that it turns out that in all those cases (community forests amongst them) where development efforts *have* been successful it is because initially

excluded voices have managed to force their way in. Hence the title of our book's second chapter: "Forget Mainstreaming; Restore the *Dharma* instead". [*Dharma*-restoration, together with all the developments in institutional theory that underlie the fourfold typology of voices – individualism, hierarchy, egalitarianism and fatalism – is explained later in this deliverable.]

STAGE 1

We were fortunate in that, instead of having to start from scratch, we could draw on a set of in-depth interviews with representatives of close to one hundred organisations – homegrown and foreign – that are involved in development work in Nepal, together with the insights generated by two round-table meetings: one with NGOs, the other with researchers [see Appendix B for details of these interviewees and attendees]. These were conducted in 2003, as part of a study (on Social Exclusion and Nation Building in Nepal) that was commissioned by the Norwegian Embassy in Kathmandu and carried out by a team of four, one of whom was Michael Thompson. Many of those we listened to were far from starry-eyed about the half century-long process that has turned Nepal into, in their words, an "aid junkie nation". As we collated their various explanations for how this had happened we found some common themes: themes that could all be traced back to certain shortcomings of the "development paradigm": essentially that it had imposed just one storyline and excluded all those who did not go along with it.

BOX B: CAPITALS AND SOLIDARITIES

A key publication in the demolition of the Theory of Himalayan Environmental Degradation (THED) was the book *Uncertainty on a Himalayan Scale* (Thompson, Warburton and Hatley 1986). THED, however, is a theory that, though dead, will not lie down. Hence the decision, by the Nepali publisher Himal Books, to republish this 1986 book, together with a major new introduction by Michael Thompson and Dipak Gyawali, with the Asia launch taking place in conjunction with our Kathmandu workshop (at a public lecture, on "Technology and Democracy: What's the Connection and What Can We Do About It?" by Michael Thompson.

After giving a number of topical instances of THED's refusal to lie down, this introduction sets out to "kill three birds with one stone".

- Effecting the escape of the social constructionist approach pioneered by the Uncertainty book from the intellectually prestigious (but somewhat policy-remote) sociology of knowledge enclosure that it has found itself confined to.
- Making explicit the theory – cultural theory/theory of plural rationality – that underpinned the original book.
- Bringing up to date the whole "environmental orthodoxy" – questioning enterprise that was set in motion by the original book.

The stone we chose for this triple killing was a "rather rapid probing of the dynamics of trust and mistrust that are generated by the interactions between the physical flows (water, silt and so on) and the human inhabitants (farmers, engineers, World Bankers and so on) of these southern slopes of the Himalaya".

This probing provided considerable substantiation for the argument we are making in this deliverable. It also paved the way for a rapid historical survey of institutional approaches in social science: a survey in which cultural theory (the theory of plural rationality can be seen as doing nothing more than providing a way of subsuming existing institutional framings (such as those of Sir Henry Maine, Hindu philosophy, the "new institutionalists" and, most recently, the various theorists of social capital). This subsumation, we went on to show, "rules out almost everything that the sort of social science underlying most of what is euphemistically called 'development' rules in". And it is that that enables us to pin-point the desired policy shift: from elegance to clumsiness.

The introduction concludes with some rather down-to-earth instances: contending attitudes to unwanted silt down in the plains of Bihar (the Indian state immediately downstream of Nepal) and the various alternatives that (contra the present insistence that "there is no alternative") can be advanced to challenge the currently near-hegemonic solution to Kathmandu's water crisis: The Melanchi Trans-basin Transfer Project.

Source: Michael Thompson and Dipak Gyawali (2007) Introduction: Uncertainty Revisited or The Triumph of Hype Over Experience. In Thompson, Warburton and Hatley: *Uncertainty on a Himalayan Scale*. Lalitpur, Nepal: Himal Books, xv-l.

In this dominant storyline there is a plurality, down there at the village and household levels, that nicely matches the four forms of social solidarity that, according to our "new paradigm", constitute the requisite variety. This plurality, however, is something to be got rid of, rather than something to be encouraged into a more constructive interplay (ie through *dharma* restoration). Only when that mess of contending ways of relating to others, of knowing, of acting and of justifying has been cleared out of the way, we were told by one rather orthodox aid practitioner, will it be possible to "provide development". Social preparedness – the mess cleared up, so that authority is clearly established and decisions can be optimal – is thus the pre-condition for development. "The attack on poverty", he assured us, "is an attack on mindset".

So we cast our report to the Norwegian Embassy in terms of the contrast between this – we called it "The Social Preparedness Story" – and the more reflexive and clumsy agenda – we called it "The Triangular Interplay Story" – that, we urged, was the story we needed to shift the entire aid industry across to. [The triangular interplay is between the three active solidarities: *hierarchy* (eg state actors), *individualism* (eg market actors) and *egalitarianism* (eg civil society actors). The fourth, and somewhat inactive, solidarity – *fatalism* – is comprised of those who find themselves marginalised by this triangular interplay, and it will vary in strength depending on the nature of that interplay, reaching its highest levels when just one of the active solidarities becomes dominant. These complex dynamics and their practical implications are explained more fully in the later sections of this deliverable.]

This framing – two stories, together with the arguments for getting away from the first and towards the second – then provided the basis for the "discussion paper" for our first ADAM workshop (Kathmandu, 23-25 March 2007); the participants are listed in Appendix C. In that

discussion paper (see Figure 1) we set out this framing under three headings: *development surprises* (which, as is explained more fully later in this deliverable, are what you get in those decision processes where things fall short of the requisite variety), *pathways and desired states: the dynamics of poverty and social exclusion* (which drew on what we had learned in our interviews about the inadequacies of attempts to foster development by focussing on "the poorest of the poor") and *the dynamics of technology and democracy* (which sought to explain paradoxes such as Nepal having ended up with some of the most expensive electricity in the world when it is ranked number two in the world in terms of hydropower potential).

	SOCIAL PREPAREDNESS STORY	TRIANGULAR INTERPLAY STORY
DEVELOPMENT SURPRISES	<p>DHARMA GONE WRONG</p>	<p>DHARMA RESTORED</p>
PATHWAYS AND DESIRED STATES	<p>SINGLE PATH (Simple System)</p>	<p>MULTIPLE PATHS (Complex System)</p>
TECHNOLOGY AND DEMOCRACY	<p>UNCONTESTED TERRAIN</p> <ul style="list-style-type: none"> • Arun-3 • Melamchi • etc 	<p>CONTESTED TERRAIN</p> <ul style="list-style-type: none"> • Bhattedanda Milkway • Kathmandu electric vehicles • etc

Figure 1: A graphic summary of how we propose to redefine the role of aid.

Development Surprises

The Finnish-funded Bara Forest Management Plan set out to privatize a large tract of forest which, unbeknown to the aid-providers, was already a complex mosaic of property rights: private, public and common-pool (often rather informally established rights, and at small

social scale levels, but rights nonetheless). The idea was that a Finnish private company, in partnership with some Nepali business houses, would be given responsibility for the regeneration of the entire forest, along with near-monopoly rights to its commercial exploitation. The aim, in line with the now defunct Washington consensus, was to introduce radical changes in a sector that had not hitherto been oriented to market-led approaches. From that point on, with surprise following surprise, it was all downhill. With the reality diverging ever further from the expected, the project eventually turned into a disaster so unmitigated and so universally acknowledged that the Finns swore never again to get involved in forestry in Nepal.

To their great credit, however, they commissioned a post-mortem (carried out by three Nepalis and a Finn) which arrived at the following conclusion:

As a villager in Nepal is apt to say, it is the *dharma* of the bureaucracy to regulate, of the markets to innovate and of activist groups to advise caution. The case of Bara was one in which *dharma* had gone wrong – a situation characterised by the bureaucracy assuming the role of the market and vice versa. It further showed that the hierarchic order that has broken down is no instrument for the implementation of radical reforms, without first mending that order and restoring its legitimacy, or as the villager might say, restoring the *dharma*. (Sharma et al 2004, p.241-2)

Dharma, especially in the West, is often equated with fate, but it is much more than that. *Dharma* is "the law" or, more properly, "the righteousness that underlies the law". Hence the emphasis on legitimacy, and the accompanying consequence – breakdown – when that legitimacy is eroded. Legitimacy, moreover, cannot spring from the interaction of just

hierarchies and markets: the only sort of interaction that is entertained by the development paradigm (as, for instance, in the public ownership of the economy's "commanding heights" versus "the Washington consensus" in which markets can, and should, do it all). Legitimacy requires a third form of solidarity (egalitarianism) and it is manifested here as the "activist groups" whose *dharma* it is to advise caution. Fatalism, however, *is* involved, in the sense that the more the *dharma* goes wrong the more likely it is that people will find themselves labouring under what one of our interviewees called "the double burden": increasingly impoverished and increasingly subject to social exclusion (in row 1 of Fig 1 this squeezing out into fatalism is represented by the distorted triangle which offers much less "participatory space" than does the undistorted one).

Our case studies reveal that, on the rare occasions when the policy process *has* encompassed the requisite variety (Nepal's community forests, for instance, which stand in such marked contrast to the Bara fiasco, see Ives 2004, especially chapter 4), we find that each of the three contending voices – from the state, the market and civil society – has (a) been able to make itself heard and (b) has then been responded to by the others (fatalists don't really have a voice; if they had they would not be fatalistic). In this situation – *dharma* restored (see Fig 1) – none of the solidarities undermines its own morality. State actors behave like Edmund Burke's "trustees", focussing on the long-term general interest rather than on opportunistic and narrow claims; market actors are guided by Adam Smith's "hidden hand", and do well only when others also benefit; and civil society actors, like Edmund Burke's "small platoons" and Norway's famous voluntary organisations, are genuinely of the grassroots. But that, thanks to the over-elegant and voice-silencing way in which aid has for the most part been fed in, is not how things are in Nepal.

In "*dharma* gone wrong" (see Fig 1) – typified by Bara – government actors, forgetting all about Burke, direct their energies to what is euphemistically called "rent-seeking"; market actors, thanks to what has been dubbed "licence raj" (or "crony capitalism"), increasingly deal in club goods that only *look* like private goods (in other words, they do well even when others do not benefit); and NGOs, though they may walk and quack like genuinely egalitarian actors, turn out on inspection to be BONGOs, GONGOs, DONGOs and PONGOs (Business-Organised NGOs, Government-Organised NGOs, Donor-Organised NGOs and Party-Organised NGOs, respectively). Historians (eg Schama 1997) can show us that these distortions were largely absent in all those countries that we now label "developed".

Pathways And Desired States: The Dynamics of Poverty And Social Exclusion

According to Nepal's Indigenous Peoples Association, the Gurungs (along with other ethnic groupings) feel excluded by the infringement of their cultural rights (they would like their own language within the school curriculum, for instance) and by the sometimes high-handed behaviour of their government (its appropriation of land for aid-sponsored water-harnessing projects, for instance, along with unsatisfactory compensation arrangements). However, as Harka Gurung (Nepal's most distinguished public scholar, geographer and, for a time, government minister) pointed out to us, the Gurungs, in general, are not poor. So there are four permutations: excluded and poor ("the double burden"), excluded but not poor (many Gurungs), poor but not excluded (a largely un-noticed and un-researched category) and neither poor nor excluded (the elusive goal of all those development projects that are aimed at both poverty alleviation and social inclusion). There are therefore (and as is depicted in column 2, row 2 of Figure 1) three pathways into (and three out of) the desired state – not

poor and not socially excluded – and a further six pathways between the three undesired states.

As Harka Gurung further observed, there are three ways of getting rich in Nepal.

- Through the government: this is the "BCN" – Brahmin, Chhetri, Newar – preference (they make up something like 80% of the civil service).
- Through trade and tourism. This is the Sherpa, Manangbhoti and Tamang preference (these are cow-eating Tibetan Buddhist groups that are little concerned about being on the margins of Nepal's Hindu society).
- Through going out and serving in foreign armies: Britain's and India's for the most part but also Brunei and, increasingly in recent years, private armies in Iraq. This is the Gurung, Pun and Magar preference (the three most populous ethnic groups within the aforementioned Indigenous Peoples Association).

These three pathways out of poverty map onto our triangular interplay: state, market and civil society (that the last of these strategies in communitarian – neither hierarchical nor individualistic – will be evident to anyone who has seen all the porter-loads of goods – radios, jewellery, clothing etc – brought back by a Gurkha soldier on home-leave disappear, just like that, into his extended kin group). Nor is it just soldiers. This strategy is also shared by many of those who constitute the Nepali diaspora. Something like one in ten Nepali families now have at least one member working outside the country, and remittances from abroad now constitute somewhere between 25 and 40 percent of GDP: comparable, that is, to all the official aid Nepal receives.

The dynamics of poverty and exclusion, in consequence, are inherently *complex*, in the technical sense of that word: indeterminate, unpredictable, non-linear, sensitive to initial

conditions and so on. They are therefore beyond the reach of the current approaches (those appropriate to the diagram in column 1, row 2 of Figure 1) that assume that the underlying system is *simple*: just two possible states – poverty and exclusion on the one hand, affluence and inclusion on the other – and a single path between them, along which people can then be nudged by carefully designed policy.

It is therefore to ecology (and to certain insights from cybernetics, philosophy and technologyology – the study, that is, of technology), and not to the classical mechanics that underlie so much of social science, that we need to look for ways of understanding, and acting sensibly in, these sorts of dynamical systems. Adaptive strategies, requisite variety, essential contestation, resilience... optimal perturbation: these are the sorts of concepts we need, not traditional-to-modern (the social preparedness story, that is), changes at the margin, failing markets giving way to price-setting hierarchies (and *vice versa*), purportedly objective measures of things (like needs, resources and wellbeing) that are in fact socially constructed, and so on.

- *Adaptive strategies* are rooted in plural rationalities: people in identical situations doing remarkably different things and yet all being perfectly rational, as, for instance, is evident in the divergent responses of Nepali villagers whose homes and fields have been struck by extreme climatic events (Moench and Dixit 2004). And, if they are all rational, they must be cleaving to different *social constructions of nature*: different sets of convictions as to how the world is (robust, fragile, stable within limits, etc) and people are (self-seeking, caring and sharing, flawed but redeemable, etc). These divergent social constructions are crucial and integral components of the theory of plural rationality (also called cultural theory) but we hear little mention of them, and they are certainly not theorised in any way, in conversations about development

(unless it be in the form of those deviant "mindsets" that are such obstacles to social preparedness).

- *Requisite variety* is a principle in cybernetics (Ashby 1968): that a control system must itself contain a variety equal to that which exists within that which it seeks to control. Current approaches to poverty and social exclusion that do not take account of all the pathways (see row 2 in Figure 1) lack that requisite variety.
- An *essentially contested* concept, following Gallie (1955), is one that can never be pinned down in a single way but can be clarified only by argument; that is, through discourse. The rich plurality of adaptive strategies and social constructions at the village and household levels that, in the social preparedness story, is a contradictory mess that needs to be cleared away is, we are arguing, an instance of essential contestation. So we need methods for *discourse analysis* (we will come to them in a moment) that will tell us whether some of the voices that emanate from the four solidarities are missing or, if present, not responding to one another.
- *Resilience* is very much more than the ability to "bounce back" after some adverse environmental impact. It has to do with strategy-switching: the plurality of adaptive strategies at the village level, for instance, combined with a degree of *deliberation* sufficient for the villagers to switch some of their transactions from one strategy to another whenever the one they are relying on shows signs of being ineffective (cattle out on communal pastures to stall-feeding, for instance, or teenage goatherds to restaurant waiters in London). Resilience, as originally defined (Holling 1979), is the ability of a system to cycle through a number of different "basins of attraction", but is now seen by many development practitioners (Britain's DfID, for instance) as the ability to remain within a single basin of attraction. This, in Holling's terminology, is brittleness: almost the opposite of resilience.

- Finally, *optimal perturbation* is a consequence of technological "lock-ins" that result from increasing returns to scale (as happens, for instance, when slightly more than 50% of people are driving on one particular side of the road, see Arthur 1989). Increasing returns to scale, though quite common and becoming commoner, are denied by neoclassical economics: the kind of economics long relied on by those who are eager to provide development. Changes at the margin will never effect a shift from a less efficient to a more efficient technology if there is lock-in. A shock sufficient to propel the entire social and technological system over the intervening "hump" – an optimal perturbation – is required.

In other words, we need a whole new toolkit for policy in a complex and plurally perceived world: a toolkit that, as we will explain shortly, is already quite well developed. Picking up that new toolkit is fairly straightforward; it is the putting down of the current one that is the problem!

The Dynamics of Technology and Democracy

Prior to the arrival of democracy in Nepal, in 1990, most technological decision-making took place on an "uncontested terrain", where state actors quietly reached agreement with their clones in the international banks and bi-lateral aid agencies. The result was deep technological lock-in, typified by large dams that, as well as rudely displacing many citizens, generated some of the most expensive electricity in the world – electricity that then had to be moved over long distances, often enough through power-lines high above the roofs of oil-lit villages. After democracy, and with the help of a newly-free press, other voices were able to make themselves heard, most famously in the defeat of the vast and vastly expensive Arun 3

project, and there has now been some movement towards medium-scale "cheap and cheerful" hydro projects, as well as towards very small-scale village installations.

While state actors currently negotiate with one another over the large-scale projected ventures (they usually involve Nepal and India and sometimes Bangladesh as well), the medium-scale are now largely privatized, while micro-hydro as well as other village electrification schemes that together light an ever-increasing number of villages (and have until recently been much regulated by central government) are being "communitized". In this way, each apex of the triangular interplay makes its "restored *dharma*" contribution to the mix, there are multiple "technological trajectories" to choose between, and there is lively public debate as to which ones should be chosen for what purposes. Similar clumsy solutions are evident in relation to other technologies. For instance, the old-style, and elegant, solution to the Kathmandu Valley's water crisis – the Melamchi trans-basin transfer project – is currently being very effectively contested. And, in the transport sector, the relentless march of aid-driven tarmac and fossil fuel has been confronted (in a fairly small way, admittedly) by the new hydro-powered Bhattedanda Milkway,[§] and by the low-tech but ingenious conversion of Kathmandu's taxi fleet to renewable energy. The making flexible of technology and the strengthening of democracy thus proceed hand-in-hand. At any rate, the possibility for such a changed state of affairs now exists: a consequence, we would argue, of the end of the Age of Aid (which ran from Bretton Woods to the collapse of the Soviet Union).

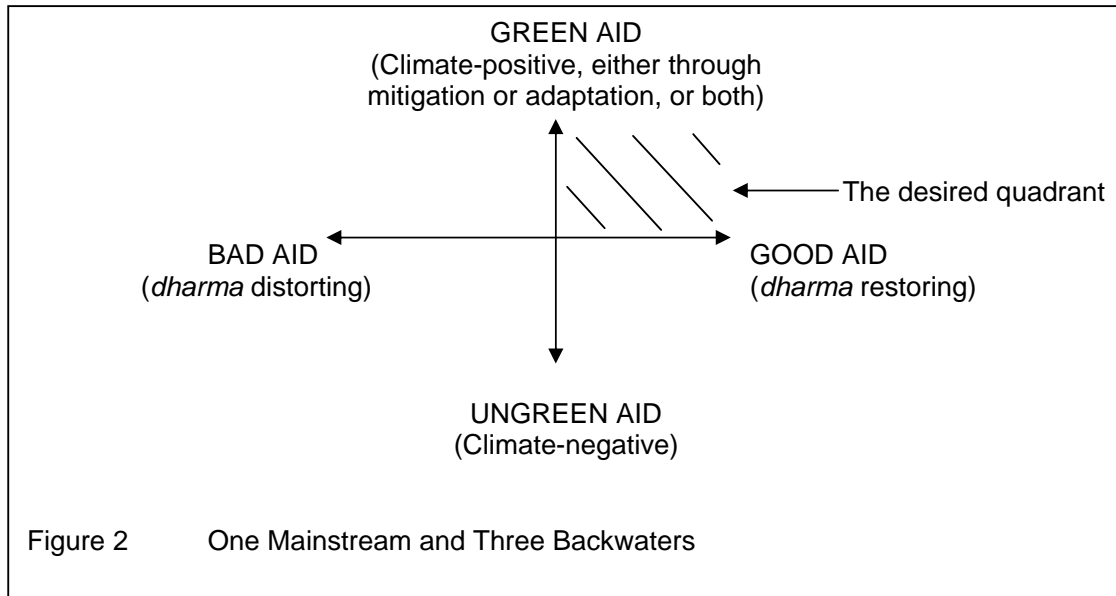
[§] An EU-funded "goods only" ropeway that enables the villagers to get their milk to market in Kathmandu before it goes sour. Previously they had to use precious fuelwood to boil it down into the longer-lasting but less valuable *kuwa*.

This matrix scheme (Figure 1), with its two columns – the social preparedness story we need to get away from and the triangular interplay story we need to move towards – and its three rows – development surprises, pathways and desired states, and the dynamics of technology and democracy – constituted our framing for the workshop. This framing, clearly, is somewhat radical, and so it was important that, as well as pointing our contributors in this sort of direction, we also offered them some tools for the task. These tools, of course, come from the afore-mentioned "toolkit for policy in a complex and plurally perceived world", and they include the *case study method* (eg Verweij and Thompson 2006), *plural rationality-based discourse analysis* (eg Thompson, Rayner and Ney 2000), similarly theory-based *scenario planning* (Ney and Thompson 2000) *indicators of technological inflexibility* (Collingridge 1980) and a template – the *refurbished theory of pluralist democracy* (Ney 2009; Thompson 2008a; this latter is one of three pieces of work, each of which needs to be seen as very much a part of this work package, see Box C) – for assessing policy sub-systems in terms of the extent to which they encompass the requisite variety. However, we will not go into those in any detail here. We mention them in order to make clear that methods, schema and indicators do exist by which this radical approach can be (indeed, already has been) made operational.

For the workshop, however, we proposed a simpler device: a device that is directly related to the notion of mainstreaming, and which we will now explain.

As development surprises build up so the likelihood increases that a specific intervention – an aid project or programme – will actually make things worse than they were to start with. One of the key lessons from Nepal is that counterproductive interventions such as this are far from uncommon, which suggests that we need to find ways of distinguishing between Good Aid

(aid, that is, that is actually aiding development) and Bad Aid (aid that is working in the opposite direction). At the same time, we also need to distinguish between Green Aid (aid that is working so as to increase mitigation and/or adaptation in relation to climate change) and Ungreen Aid (aid that is either doing nothing or actually making things worse on the climate change front). Hydroelectricity, for instance, is clearly Green Aid, but its excessive cost (in the Arun 3 case, for example) means that it is also Bad Aid. So we need to think in terms of four quadrants (Figure 2), just one of which – Good and Green – is the one we want.



Projects and programmes (and, indeed, entire policies) that fall into any of the other three quadrants will, at best, be doing something for development but not for sustainability in general and climate change in particular (bottom right) or *vice versa* (top left). At worst, they will be doing nothing for either (bottom left).

- *Community forests* are very definitely in the desired quadrant, and so too is the Bhattedanda Milkway, especially when, after it had been handed over to the villagers,

it was converted from fossil fuel (diesel) to renewable (hydro-electricity). It also as we have seen, conserves the forest by massively reducing the demand for fuelwood. And as well as being Green it is also Good, in that interviews with the local farmers (conducted, rather informally, in the course of a field trip that was part of the Kathmandu workshop) revealed that they perceived themselves as being around 40% better off than they were before.

- *Arun 3*, in producing renewable energy that is prohibitively expensive, is in the top left quadrant: Green and Bad.
- Ropeways such as Bhattedanda are intended to increase the value of existing roads, rather than being a replacement for them. Indeed, if the road where the ropeway terminates was not there the villagers' milk would not be able to get to market before it went sour. But *road projects, in the absence of ropeways* (and without accompanying biofuel or renewable-generated hydrogen projects) fall into the bottom right quadrant: Good and Ungreen.
- Lastly, *The Bara Forest Management Plan*, being the worst of all worlds, is in the bottom left quadrant: Bad and Ungreen.

The cases that were then examined in the workshop – ropeways, electric vehicles, biogas, small/medium-scale hydro, large-scale hydro, water supply, community forestry and small farmer cooperatives – confirmed that aid projects tend not to be in the desired quadrant, and that when they are it is thanks to other voices having managed to force their way onto what were initially uncontested terrains. These findings raise some serious problems for the conventional idea of mainstreaming.

BOX C: CLUMSINESS AND THE THEORY FROM WHICH IT IS DERIVED

There is a big difference between ensuring that a decision process is sufficiently clumsy and holding a "stakeholder meeting". Nor is a clumsy solution just some sort of compromise between policy actors with different interests; still less a consensus. In a clumsy solution, an argumentative (and far from consensual) engagement between actors from the different solidarities reveals a hitherto un-noticed option that (and this is the counter-intuitive part) results in each solidarity getting more of what it wants (and less of what it does not want) than it would have got if it had managed to achieve hegemony and "go it alone". Of course, if a clumsy solution is not there then you will not find your way to it! So the argument is (a) that clumsy solutions often *are* there, and (b) that you are more likely to find your way to them if you ensure that the decision process is clumsy: each solidarity, that is, (a) able to make itself heard (*accessibility*) and (b) responded to by the others (*responsiveness*).

The book *Organising and Disorganising* takes up the twin tasks of explaining as clearly as possible just what clumsiness is, and then explaining as clearly as possible the theory from which the concept of clumsiness is derived: cultural theory/theory of plural rationality. Since clumsiness, from the very outset has been one of the key objectives in our ADAM Project, these twin tasks cannot be neglected. The conventional distinction between theory and application, with enterprises such as the ADAM Project falling very much into the application camp, is simply not valid, in that the ADAM Project has had to proceed on both fronts (and with a lively exchange between them). Moreover, the theory that underlies the notion of clumsiness, unsurprisingly, is also counter-intuitive, not least in its rejection of the prevalent assumption within social science that the individual is the "fundamental particle". Not so, says cultural theory. If the individual is *inherently relational* – that is, if our individuality in large part comes from our involvement with others – then it is the form of solidarity that is the unit of analysis.

For all that, *Organising and Disorganising* has a number of substantive chapters that bring these conceptual and theoretical concerns down to our development-and-climate-change earth.

- Chapter 1 answers the big question – "Why, if clumsy solutions are so marvellous, do we keep on and on saddling ourselves with the deeply unsatisfactory elegant solutions?" – by re-visiting the story of Nepal's 50 years of aid-dependency that is set out in *Uncertainty on a Himalayan Scale* (and its new introduction).
- Chapter 6 – "Man and Nature As A Single But Complex System" – sets out, with the help of analyses of Himalayan and Alpine villagers' transactional strategies, the synthesis of anthropological and ecological critiques of the current orthodoxies in relation to social and natural systems. In doing this, it provides the underlying argument for the shift away from classical mechanics (eg changes at the margin, poverty as simply the absence of affluence and so on) and towards the sorts of concepts (adaptive strategies, requisite variety, essential contestation, optimal perturbation and so on) that is urged in this deliverable.

Source: Michael Thompson (2008) *Organising and Disorganising: A Dynamic And Non-Linear Theory of Institutional Emergence And Its Implications*. Axminster: Triarchy Press.

The conventional assumption has been that, because it is called "development aid", it is aiding development, in which case all that is needed is the "tweaking" of that aid so that it also does something positive on the climate change front. But there is not much point in tweaking a project in this way if it is not even doing anything for development! In other words, before you can do anything sensible, you have to determine which of the four quadrants the projects you are interested in are in. On top of that, the complexity of the underlying dynamics, along with the process of technological lock-in, render the "gradualist" idea of applying incentives and penalties so as to ease those projects that are in the wrong quadrants across into the right one a non-starter. Those projects will have to be "jolted" – subjected, that is, to an optimal perturbation – and those optimal perturbations will vary dramatically as we go from one of the three wrong quadrants to another. That, of course, is why we need this diagram, and why we need concepts and methods that will enable us to determine just which quadrant any particular project is in. The normative implications of this, though perhaps alarming, are straightforward.

- Only those projects, programmes and policies that are revealed to be in the desired quadrant – Good and Green – will be aiding development and sustainability.
- Those that are revealed to be in any of the other three quadrants will need to be radically re-designed so that they are "bumped across" into the desired quadrant (ie a step-change – a non-linearity, an optimal perturbation – is required; incremental changes – "changes at the margin" – will not do).
- Those that cannot be re-designed – cannot be bumped across – should be cancelled.

STAGE 2

From our Nepal workshop, with its case studies and its framing paper, it is clear that there *are* four quadrants and that many aid projects, programmes and even entire policies are not in the desired one. However, we should expect that the relative proportions within the four quadrants will vary from country to country (and also from sector to sector within any one country).** Our second workshop (in London, 8 Sept 2007) was therefore designed to explore the wider validity of our "lessons from Nepal", for both developing countries and developed countries. Participants were chosen with those aims in mind (see Appendix D).

The lessons from Nepal were outlined by Dipak Gyawali and Michael Thompson, with the more general approach in terms of clumsiness/requisite variety being sketched by Joanne Bayer. Presentations on recent (and largely successful) projects in China and Colombia confirmed the general validity of the lessons from Nepal. Some of the developed world's most challenging development problems were then explored by way of the difficulties in escaping from fossil fuel lock-in, compounded by the possibility that "peak oil" is imminent (or already here). And finally, the need to move from elegant to clumsy solutions – from the social preparedness story to the triangular interplay story – was scrutinized from the perspectives of a Belgium-based international business consultancy and a France-based multinational.

- *China's Loess Plateau* – an area the size of France – was once the immensely fertile heart of Chinese civilization but, over the millennia, its exploitation has led to severe erosion, denudation, loss of biodiversity and climatic change. It is now one of the poorest regions of China, its once-expansive plains scarred by deep and steep-sided

** Which is already covered by our range of case studies.

gullies, and its hydrology so extreme and erratic as to render agriculture and animal husbandry remarkably precarious and unrewarding activities. Hence the current restoration project, jointly funded by the World Bank and the Chinese government. The initial plan (as might be expected, given the hierarchical nature of the leading actors) was both large-scale and technocratic: a blanket ban on the free-ranging of goats, along with a blanket formula whereby all slopes above a specified angle were designated as "ecological land": land to be restored to forest and with no farming exploitation whatsoever.

However, as was clear from the film made by John Liu, these hierarchical plans ran head-on into an egalitarian opposition, in the shape of a charismatic and not-to-be-messed-with farmer who angrily declared "You can't eat trees!" Since there was no chance of the project succeeding if the local populace was not on-side, this prompted a major re-think: essentially that if the project was to succeed then the productivity of the remaining land – the "non-ecological land" – would have to be increased by a percentage greater than the percentage of land designated as "ecological". Though there are still certain problems related to the extensive new terracing and its high retaining walls, this goal has been achieved by a considerable margin. The result (as with the Bhattedanda Milkway in Nepal) is that the farming systems have moved from a precarious subsistence to something more like market gardening. This has led to a demand for access to markets capable of absorbing this increasing production-above-subsistence. Again, while there are still problems, access to markets has proved possible. In this way, an initially elegant (single voice – hierarchy) solution has rapidly moved to a constructively clumsy one in which all three "active" voices – hierarchy, egalitarianism and individualism – are clearly evident, and where much of

the fatalism that was so pronounced at the outset (the free-ranging of goats, for instance, with its "tragedy of the commons") has ebbed away.

- A broadly similar story holds for the restoration of *Colombia's Las Gaviotas*: a vast area of what had once been tropical rainforest that had degraded, through excessive and inappropriate exploitation, into savannah. Interestingly, the main actor here is not an aid donor but a commercial bank: an individualistic actor, with a global scope, that has spotted a potentially profitable opportunity (essentially through land-improvement). Hierarchy, however, is also involved, with the land, during the early years of the project, being in government ownership. Egalitarianism too is crucial, in the form of the local residents, who have carried out the restoration work and to whom rights in usufruct (and eventually ultimate title) have been transferred.

Reliable supplies of high quality fresh water have been among the first products from this project. Another product (and the same holds for the Loess Plateau) is a major change in the local climate: a change that, being counter to those associated with global warming, is very much in the direction of both adaptation and mitigation. And (as with the Loess Plateau and the Bhattedanda Milkway) this clumsy solution, along with the dramatic increase in household incomes, has put fatalism very much into retreat.

- The business participants in the workshop were particularly taken by this Colombian story, pointing out that it could be seen as "a whole new way of doing development". They then went on to list a number of key features of this new way. First, it involved none of the actors who, throughout the Age of Aid, have been seen as essential to development. Second, there was the vital role played by "social entrepreneurs" (in this case Katherina and Gunther de Pauli from the ZERI Foundation) who were able to do the "going-between" that eventually linked the bank, the Colombian government

and the local residents. Third, there was the clumsiness that stands in such marked contrast to the elegance that has characterised the aid industry, on the one hand, and, on the other, the "neo-liberal" (or "Anglo-Saxon") business model.

If these business participants are right, and there *is* now a "whole new way of doing development", then this is an insight that needs to be brought to bear on the ADAM Project in general and on the efforts to mainstream climate change into EU development policy in particular.

- The aid industry actors, clearly, are far from absent.
- There is no recognized role for social entrepreneurs.
- There is little evidence of the sort of noisy, contentious and argumentative engagement that is the hallmark of clumsiness.

This – our second workshop, together with the above conclusions – completed our original work-plan. However, since there was still a little money left in the kitty (the Maoist insurgency having forced a change of venue, from out-of-town Dulikhel to a hotel in Kathmandu, together with some lastminute cancellations by participants from the remoter corners of Nepal) we decided to embark on a Stage 3: some interviews that would enable us to investigate a concern that had emerged in the course of the workshops and thereby help integrate our findings with the list of concerns that had been raised by our P3b colleagues. So our Stage 3 is an "extra": an extra that explores something – the divergence of views, both within Nepal and between Nepal and its EU aid-providers, on the nature and importance of climate change – that was not much of a consideration at the outset.

STAGE 3

In our summary of our P3b efforts (in chapter 12 of the draft book edited by Mike Hulme) we list a number of "concerns" about the current approaches to mainstreaming climate change into development policy.

- There is the risk that mainstreaming may provide a backdoor escape route from current commitments to provide new and additional resources for development.
- There is the risk that mainstreaming will become new source of both tied aid and conditionality.
- If ODA (Official Development Aid) does not reach the poorest of the poor then mainstreaming may end up promoting development that is not sustainable.
- If ODA distorts markets then mainstreaming will do the same.
- Mainstreaming climate change may simply exacerbate already existing problems of aid-dependency.
- Mainstreaming climate change may do nothing to increase the likelihood of *sustainable* development. That is, if the "development paradigm" is deeply flawed then it will have to be fixed before going ahead with mainstreaming.

A further concern, which gradually built up in the course of our interviews and workshops, is that there seems to be a major mismatch in perceptions of what the problem *is* as we go from the aid-providing end (the EU and its member states) to the aid-receiving end (Nepal and other developing countries). For instance, climate change, as we have already mentioned, seems to be barely on the radar in the Himalayan Region. If this is indeed the case then it is a major cause for concern. Getting people – government ministers, civil servants, business leaders, teachers, farmers, householders and so on – to do all the various things they need to do if a country is to cope effectively with the problem of climate change is going to be a truly

uphill task if they do not even see climate change as a problem. Nor, to compound the difficulties, is there perceptual unanimity at the EU end.

So, in this "extra" (and still on-going) stage of our research, we set out to pin down these perceptual mismatches: at the aid-providing end, at the aid-receiving end, and between those two ends. A first step towards sorting all that out is to quickly summarise the perceptual mismatches that we already know exist at the EU end (drawing on a non-technical article – Douglas, Thompson and Verweij 2003 – that summarises the findings from a number of more technical studies). The different perceptions, of course, are rooted in the different "voices" that, according to the clumsiness hypothesis, need to be both heard and responded to by the others.

- Those who bind themselves into *egalitarian* settings – often radical environmental groups such as Earth First! – are convinced that corporate greed and power lust are already unleashing catastrophic climate change, and that we must drastically alter our behaviour now, before it is too late. Compromise, for these "deep ecologists", is therefore out of the question :

To avoid co-option, we feel it is necessary to avoid the corporate organizational structure so readily embraced by many environmental groups. Earth First! is a movement, not an organization. Our structure is non-hierarchical. We have no highly-paid "professional staff" or formal leadership. (Earth First! 2002)

The conviction that the problem is serious, imminent, and – if not dealt with quickly – irreversible, supports this egalitarian mode of organization:

... our activities are now beginning to have fundamental, systemic effects upon the entire life-support system of the planet – upsetting the world's climate, poisoning the oceans, destroying the ozone layer which protects us from excessive ultraviolet radiation, changing the CO₂ ratio in the atmosphere, and spreading acid rain, radioactive fallout, pesticides and industrial contamination throughout the biosphere. We – this generation of humans – are at our most important juncture since we came out of the trees six million years ago. It is our decision, ours today, whether Earth continues to be a marvellously living, diverse oasis in the blackness of space, or whether the charismatic megafauna of the future will consist of Norway rats and cockroaches. (Earth First! 2002)

Here (as in Steve Rayner's classic 1982 study of the Workers' Institute of Marxism-Leninism Mao Xedong Thought, in London's Brixton) past, present and future are compressed in a way that is typical of the egalitarian form of solidarity. All of the past – in this case, six million years of it – has been but a build-up to our present situation; never before have our actions so threatened the viability of the planet on which we depend. Our current choices, moreover, are decisive for all time to come. Make the right decision today – at this "our most important juncture" – and eternal bliss – "a marvellously living, diverse oasis in the blackness of space" – will be our reward. Fail to make that decision and there will be no eternity, save for the "Norway rats and cockroaches".

- Those who belong to organizations of a more *individualistic* bent – the United States' Cato Institute, for instance, and Britain's Institute of Economic Affairs – see it all very differently. They are sceptical of the diagnosis itself and they are convinced that, even

if it is correct, the consequences will be neither catastrophic nor uniformly negative. Far from being at a six-million-year juncture, we are, they assert, where we have always been: faced with uncertainties and challenges that, if tackled boldly by a diversity of competing agents, can be transformed into opportunities from which all can benefit. The long-term holds no fears for them, because this optimistic short-term bubble, as it moves along, will take care of it all. For that to happen and go on happening, of course, there must be no junctures; at the very least, they must be far enough out into the future for us to not need to worry about them.

Given this social construction of time, individualistically organized outfits prefer a two-pronged approach: the dismantling of junctures within the short-term bubble, and adaptation to any that may exist beyond that bubble. They therefore focus on the *lacunae* in current climate-change science:

- Clouds, whose formation is poorly understood but which are expected to be more prevalent in a warmer world, would likely reflect more sunlight back into space before it reached the earth's surface.
- Human sources of greenhouse gases are dwarfed by natural sources (volcanoes, for instance, and termites and other wood-digesting creatures) – which means that it is impossible in the short-run to say whether any warming (if it is happening) is man-made.
- The climate models that are being used to predict future changes cannot even accurately chart changes that have already occurred.

Looking beyond the short-term bubble, they point out that a carbon-rich climate would increase agricultural productivity, and that, even if the negative impacts did outweigh the positive ones, we would still need to compare the costs of preventing global warming now to the costs of adapting to higher temperatures a few decades

hence. Money not spent on preventing climate change, they point out, could be used to tackle other, more pressing environmental and social ills.

On top of all that, individualistic organizations, thanks to their myopic construction of time, are open to the view that technological progress and the unpredictable forces of "creative destruction" may soon render today's fuss over climate change irrelevant. The production costs of renewable energy, they point out, have fallen dramatically over the last few decades, and these new technologies – wind, hydro, geothermal, and solar – are rapidly becoming (indeed, in some instances, have already become) competitive with the old technologies of fossil fuels. Their prescriptions, in consequence, dramatically differ from those of the deep ecologists. As Roger Bate, Director of the Environment Unit of the Institute of Economic Affairs, concludes:

On the whole, society's problems and challenges are best dealt with by people and companies interacting with each other freely without interference from politicians and the state.

We do not know whether the world is definitively warming, given recent satellite data. If the world is warming, we do not know what is causing the change – man or nature. We do not know whether a warmer world would be a good thing or a bad thing.

[The scientific evidence] does not suggest that immediate action for significant limitation on energy consumption is urgently required... Until the science of climate change is better understood, no government action should be undertaken beyond the elimination of subsidies and other distortions of the market. (Bate 2001)

- This business-as-usual strategy is anathema to the members of the numerous *hierarchical* organizations that have dominated the global warming debate. They are appalled by its short-termism and its accompanying assumption that the myriad and uncoordinated actions of firms and consumers will inevitably be beneficial for the totality. Worse still when this assumption is made across time as well as space – because, hierarchical actors insist, the long-term is never simply the continuation of the short-term. And they are also dismissive of the egalitarian claim that, if only we make the right (and radical) choice today – at this "our most important juncture" – all will be fine for evermore.

In the hierarchical view, each single contribution that households, companies, and even whole countries make to the build-up of greenhouse gases is so small as to be insignificant to these undiscerning actors. Moreover, the consequences lie far into the future and spread across the entire globe: way beyond their temporal and spatial ken. It therefore makes no sense for any household or firm or country to unilaterally reduce its emissions. What we are faced with, therefore, is a "tragedy of the global commons" – and the only conceivable remedy is for all the governments and parliaments of the world to formally agree on the extent to which future emissions should be cut, which countries should do so, how, and when. States should then impose these intergovernmental agreements on the multitude of consumers and producers within their borders.

This is the logic behind the 1997 Kyoto Protocol to the UN Framework Convention on Climate Change. It is espoused by almost all the governments of the world, by UN agencies and the World Bank, as well as by the large mainstream environmental organizations (the ones of which Earth First! is so disparaging). Implicit in their shared commitment is the belief that we can, and should, steer

ourselves, in a planned and orderly way, to a rather precisely defined and timed future. The computer models built by the Intergovernmental Panel on Climate Change (and by other proponents of "wise guidance"/"global stewardship") have been churning out scenarios that supposedly show a variety of future global emissions of greenhouse gases, along with their worldwide ecological and economic impacts, and the costs of attaining these future states. Their business-as-usual scenarios, however, typically account for little rapid technological change (and certainly for no out-of-the-blue, Schumpeterian gales of creative destruction). Other projections that are free of imminent discontinuities – ocean currents changing direction, for instance, or ice caps collapsing catastrophically – reveal that the radical and immediate action advocated by the deep ecologists would be extremely costly and disruptive.

The scenarios, as a result, reproduce the models' hierarchical temporal assumptions as their conclusions: only a gradual and orderly phasing out of greenhouse gas emissions, undertaken by governments and spread out over the next fifty or so years, will see us through. And, as the language in which these conclusions are couched makes clear, these things should be left to the experts:

Studies show that the costs of stabilizing carbon dioxide concentrations in the atmosphere (carbon dioxide being the main greenhouse gas) increase as the concentration stabilization level declines. While there is a moderate increase in the costs when passing from a 750 to a 550 ppm concentration stabilization level, there is a larger increase in costs passing from a 550 to a 440 ppm unless the emissions in the baseline scenario are very low.

(Intergovernmental Panel on Climate Change 2001, 28).

In other words, global climate change policy should go neither too fast (as the deep ecologists would have it) nor too slow (as the individualistic actors would have it). Instead, only those bureaucratic organizations that are both long-lived and farsighted can determine what that pace should be, and then get all the world's nations to march in step to it.

No prizes, then, for guessing which of these three perceptions goes with the ADAM Project's brief, and with the whole idea of mainstreaming!

But perhaps that is a little unfair, in that some of our P3b "concerns" – the one about aid distorting the market, for instance – are clearly not from the hierarchical perspective. Also, in recent years, these hierarchical climate change actors have begun to give more credence to "non-linearities" – tipping points such as the runaway melting of icecaps and frozen tundra, and the switching-off of ocean currents – thereby moving themselves a little closer to the egalitarian perspective (and to the distinctive construction of time that goes with that perspective). But, that said, there has been no consideration given to what mainstreaming, as conceived of from the egalitarian and individualist perspectives, might look like. Perceptual unanimity at the aid-providing end is therefore illusory, having been achieved by the simple expedient of excluding from the conversation all those who see things differently.

It is not possible to repeat this analysis of climate change perceptions at the aid-receiving end because (as we have already suggested) climate change is not yet an issue in Nepal.

However, we do know (from a household survey aimed at discovering which sorts of policies would be most effective in achieving a shift to energy-saving lightbulbs) that, when it comes to issues that Nepalis *are* concerned about, their perceptions are pluralized along lines that are

broadly similar to those at the aid-providing end. Some householders would be persuaded to shift by assurances, from trusted government officials, that the more expensive but longer-lasting bulbs would be more economical (hierarchy), others would heed the advice from friends and business colleagues (individualism), and still others would only be swayed by genuinely grassroots activist groups (egalitarianism). From this we can deduce that, when and if climate change becomes an issue, Nepali perceptions will be pluralized in much the same way as they currently are at the aid-providing end. We should also note that the behaviour change that has now been achieved by the clumsy policy on lightbulbs is very much in the direction that aid-providers who are concerned about climate change are intent on. Another instance, therefore, of mainstreaming being what you get when you are looking for something else: clumsiness.

We can also deduce (from, in particular, research on the Gabčíkovo Dam on the Danube: see Vari and Linnerooth-Bayer 2001) that hierarchical (say) Nepali actors will have more in common with their EU counterparts than they will with their fellow-Nepalis who are of an individualist or egalitarian persuasion. The same, of course, holds for the aid-providing end, where a representative of (say) the International Rivers Network will have more in common with the members of the Ganga Mukti Andolan (The Ganges Liberation Campaign) than either will have with their national hydrocracy (see Dixit 1997; Thompson and Gyawali 2007). In other words, taking nations as the units of analysis (as, for instance, in the prevalent efforts to identify a country's "development needs", or its vulnerability to climate change) will obscure considerably more than it reveals.

We therefore designed a questionnaire to investigate the extent to which climate change is on the radar in Nepal: among what might be called "elite" actors (eg senior civil servants,

university vice-chancellors, government ministers) and also among more ordinary folk (eg schoolteachers, shopkeepers, farmers). And we included some questions about the perceived fairness of certain features of climate change/development policies, knowing (from earlier research on the siting of hazardous waste facilities in Austria: see Thompson 1998) that those who speak with the different voices have very different, and mutually irreconcilable, ideas of what is fair and unfair.

The Questionnaire

- Are you aware of the climate change dangers Nepal may be facing?
- If yes, which do you think are the most serious:
 - changed precipitation patterns (eg timing and intensity of the monsoon)
 - melting glaciers
 - increased frequency and severity of extreme events (eg cloudbursts, GLOFs [Glacier Lake Outburst Floods], droughts, landslides, floods)?
- And which of these, if any, do you think are most likely to actually happen?
- Should present government and aid donor efforts be re-focussed so that they give priority to mitigating and/or adapting to these climate change risks?
- What do you think ordinary Nepalis need to do if they are to cope with these risks?
- And what, if anything, can/should their government do to help them cope?
- And what role do you see NGOs – both homegrown and international – playing?
- Some advocates have always argued that "richer is safer": that conventional economic development (eg industrialisation, scientific research, education, healthcare) will do more to enable people to cope with whatever materialises than will spending the

money on lessening those problems that are anticipated (or on lessening their impacts).

Do you agree?

- And, if different "actors" anticipate different problems, which ones should we pay attention to: government-appointed experts, successful individuals or those who speak on behalf of NGOs?
- Some argue that the threat of climate change, and the whole idea of sustainable development, is a plot by those in the developed countries to keep those in the poorer countries from catching up with them. Do you think that there is any truth in that?
- And, if you think there is some truth in it, how would you like your government to respond (eg reject aid altogether, resist all attempts to tie that aid to climate change/sustainable development, etc)?
- Assuming that climate change *is* happening, who do you think is mostly to blame: people in the rich countries with their high consumption of fossil fuels, or people in countries such as Brazil and Indonesia who are removing large areas of forest, or people in Nepal with their methane-emitting rice-fields and domestic animals?
- Nepal's carbon footprints are among the smallest in the world yet, on most expert predictions, Nepal will be one of the countries worst hit by climate change. Is that fair?
- If it is not fair, what should be done (in a perfect world) to make things fairer?
- If we count the cost of the carbon involved (using the EU's current carbon trading price) then a hectare of tropical rain forest with its trees is worth 90 times more than without its trees. The figure is perhaps half that for Nepal's semi-tropical and temperate forests which, in contrast to what is happening in so much of the developing world, have been increasing in both area and density (thanks to the institutional arrangements that support community forests, and also to the detensification of

agriculture as a result of migration to cities and towns and migrant labour in places like the Gulf States). Do you think it is fair that, at present, Nepal receives no compensation of any kind for all that carbon it has tucked away?

- And, if you think that this is unfair, what do you think should be done to make things fairer (eg a global system of personal carbon allowances with Nepali citizens then being able to sell their large surpluses on the world market, or a global carbon tax collected by the World Bank, say, that would redistribute from the governments of the deforesting and/or carbon-intensive nations to the re-foresting and/or carbon-meagre nations)? Or is there really nothing that can be done, things being the way they are because that is the way they are?

This particular kind of questionnaire does not generate direct answers. Rather, it enables what are called *informal guided interviews*: interviews that call for highly skilled interviewers. The questions, once they have been translated into Nepali, are often not asked directly; instead, the interviewer guides the conversation until he or she judges that the answers have been given (or sometimes that they are not going to be given). Quantification and statistical treatment of the results is therefore inappropriate: a careful and qualitative pulling-together of the findings, for each of the two groups, is what is called for. Since the interviews are not yet completed (mostly because ministers keep cancelling appointments, and then being dismissed or re-shuffled) we can only give preliminary findings.^{††}

^{††} They are now complete (25 June 2009) but not yet analysed.

At the "Popular" Level

- Climate, weather and season (of which there are six in Nepal) are all the same word in Nepali: *mausam*. The same is also true of Urdu, which means that this inability to single out climate (and therefore climate change) extends across the entire Himalayan Region.
- On top of that, there is very little understanding of climate change and, when there is some understanding, there is very little concern about it.
- Most concern turns out to be about "weather": this year's winter drought (the usual light winter rains did not materialise) and the associated shortage of drinking water. All this comes under the heading of "*mausam* change", and raises the question of whether climate change, if it is there, will be noticed. However, we think that this is not really a problem, since climate change, if it is happening, is never directly apprehended (even if you have a separate word for climate). Rather, climate change is picked up through the persistent patterning of climate variability (indeed, prior to the Villach Conference, where the IPCC was founded, the preferred term was "climate variability" not "climate change"). All of which suggests that policies that are justified in relation to climate variability will fare much better in Nepal than if they are tied to climate change (as they will have to be if climate change has been mainstreamed into development policy).

At the "Elite" Level

- Unsurprisingly, there is more understanding of climate change at this level, but much the same lack of concern about it.

- Interestingly, all those interviewed gave some credence to the suggestion that climate change is just a conspiracy by the rich world to keep the poor world poor. The most polite respondent was a university vice-chancellor who said "Well, not every donor is crooked!" The rest all took positions that were more jaundiced than this.
- The minister of the environment, whilst not wholly convinced that it was a Northern conspiracy, was unenthusiastic about the mainstreaming of climate change. Climate change, in his estimation, is just "a great distraction from doing good development".

If climate change is a "great distraction" then that suggests that it is the individualist perception that is uppermost: no need to add the word "sustainable", for the simple reason that *all* development (all "good" development, anyway) is sustainable. And if climate change is a conspiracy, and not just a distraction, then the chances of getting anywhere with mainstreamed EU development policy become vanishingly small.

This conspiracy question, we should explain, was really an afterthought, in that it came about by our asking ourselves whether, having included "active" voice questions, there was any way of tapping into the fatalist perception. In the EU, this conspiracy view of climate change is promoted by a radical Marxist fringe that has allied itself with a libertarian and rabidly pro-market faction and, in consequence, has great difficulty in making itself heard (and the label "climate change denial" ensures that, if it does make itself heard, it will certainly not be responded to). So it comes as something of a shock to discover that it is pretty much the mainstream in Nepal! But, as Rudyard Kipling once observed:

The wildest dreams of Kew
 Are the norm in Kathmandu.

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Appendix A

DEVELOPMENT, CLIMATE CHANGE AND CLUMSINESS

The Lessons From Nepal

Edited by: Michael Thompson
Dipak Gyawali
Marco Verweij

PART I: A FRAMEWORK FOR RELATING DEVELOPMENT AND CLIMATE CHANGE

- Chapter 1 Ditching The Development Paradigm
(Michael Thompson, Dipak Gyawali and Marco Verweij)
- Chapter 2 Forget Mainstreaming; Restore The Dharma Instead
(Dipak Gyawali and Michael Thompson)
- Chapter 3 Technology And Democracy: What Is The Connection And What Can We Do About It?
(Michael Thompson)
- Chapter 4 Climate Change And International Cooperation
(Marco Verweij)
- Chapter 5 Half A Century's Worth Of Foreign Aid In Nepal
(Sudhindra Sharma)

PART II: CASE STUDIES: INTO THE MAINSTREAM (OR, MORE OFTEN, NOT)

- Chapter 6 The Bhattedanda Milkway
(Madukar Upadya)
- Chapter 7 Electric Vehicles
(Ashok Raj Pandey)
- Chapter 8 Biogas

- (Saroj Rai)
- Chapter 9 Hydro-Entrepreneurs And Their Problems
(Hari Bairagi Dahal)
- Chapter 10 Large-Scale Hydro And Its Woes
(Ratna Sansar Shresta)
- Chapter 11 Water Supply: From Elegant To Clumsy
(Anil Pokhrel)
- Chapter 12 Community Forestry In Chitwan
(Arup Rajouria)
- Chapter 13 Look No Aid: Small Farmer's Cooperatives
(Bihari Shresta)
- PART III: BEYOND THE AGE OF AID**
- Chapter 14 Nepal's Exerience Of Foreign Aid, And How To Kick The Habit
(Prakash Chandra Lohani)
- Chapter 15 The Lessons From Nepal
(Michael Thompson, Dipak Gyawali and Marco Verweij)

Appendix B

Interviewees and Roundtable Participants

ORGANISATION	NAME	DESIGNATION
Acharya Foundation	Dr Mina Acharya	Secretary
Asian Development Bank	Ms Kathie M Julian	Deputy County Director
Asian Development Bank	Ms Kavita Sherchan	External Relations and Civil Society Liaison Officer
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Canadian Embassy Canadian Cooperation Officer (CCO)	Ms Carla Hogan	First Secretary (Development) and Consul, CIDA Representative
CARE	Mr Robin Needham	Country Director
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Central Department of Sociology and Anthropology, TU	Dr Krishna B Bhattachan	Sociologist
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Danida/HUGOU	Dr Jit Bahadur Gurung	Advisor
Danida/HUGOU	Mr Murari Shavikoti	Senior Programme Consultant
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DEVA Pvt Ltd	Dr Suresh P Sharma	Director
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East Consult	Ishowr Onta	
Friedrich Ebert Stiftung	Dr Dev Raj Dahal	Consultant
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ILO	Ms Leyla Techmo-Reddy	Director
ILO	Ms Nita Neupane	National Project Co-ordinator
INHURED International	Ms Anjana Shakya	Chairperson
Institute for Integrated Development Studies (IIDS)	Dr Dwarika Nath Dhungel	Executive Director
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ORGANISATION	NAME	DESIGNATION
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Kathmandu School of Law, Centre for Legal Research and Resource Development (CeLRRd)	Mr Yubaraj Sangroula	Director
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Media Services International (MSI)	Mr Bharat D Koirala	Chairman, Board of Directors
Media Services International (MSI)	Mr Vinaya Kumar Kasjoo	Managing Director
Ministry of Water Resources, Physical Planning and Public Works	Honourable Dipak Gyawali	Minister of Water Resources, Physical Planning and Public Works
Nari Chetna Kendra Nepal (WACN)	Mrs Prativa Subedi	President
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Nepal Federation of Nationalities (NEFEN)	Mr Yam Bahadur Jhedi Magar	Secretary
Nepal Federation of Nationalities (NEFEN)	Mr Balkrishna Mabuhnag Limbu	Secretary
Nepal Foundation for Advanced Studies (NEFAS) Nepal Water Conservation Foundation	Mr Ajaya Dixit	Director
New Era	Dr Harka Gurung	Board Member
NPC	Dr Shankar Sharma	Vice-Chairman
Panos South Asia	Ms Saneeya Hussain	Director
Pro Public	Mr Kedar Khadka	Director (Good Governance Project)
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SAPROS	Mr Narendra Bdr KC	Executive Director
SCN	Mr Valter Tinderholt	Resident Representative
SNV/Nepal	Mr Jan de Witte	Director
SNV/Nepal	Mr Arun Dhoj Adhkari	Governance Advisor
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Social Welfare Council	Ms Prabha Thakar	Member Secretary
SURF/UNDP	Mr Henrik Fredborg Larsen	Policy Advisor Decentralisation and Local Governance
World Bank	Dr Lynn Bennett	Lead Social Scientist

Roundtable with NGOs:

ORGANISATION	NAME	DESIGNATION
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DEPROSC	Dr Pitambar Acharya	
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INSEC	Mr Subodh Pyakural	Director
Nepal South Asia Centre	Mr Anil Bhattarai	
Panos South Asia	Ms Saneeya Hussain	Director
Pro Public	Mr Kedar Khadka	Director
Rural Reconstruction Nepal	Dr Ajun K Karki	Director

Roundtable with Researchers:

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Appendix C

MAIN WORKSHOP (Kathmandu, 22-25 March 2007)

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Former Secretary, Ministry of Urban Planning

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Chairman, Social Science Baha ("forum" or "centre")

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Appendix D

FOLLOW-UP WORKSHOP (London, 8 September 2007)

PARTICIPANTS

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