

Linking Local and Global in the Sustainable Development of Biodiversity Conservation

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When sustainable development became a principal policy paradigm at the end of the 1980s, it thrust together human development needs and environmental protection in a marriage of interests that were previously imagined to be mutually incompatible. The 1992 Rio Earth Summit's vision of Agenda 21 forefronted the planet's diverse set of biomes as needing care, both to prevent climate change and species loss, and to achieve improved livelihoods and social justice. Anthropologists' and other social scientists' contributions to the formation and subsequent life-career of sustainable development have been especially significant in bringing field experiences and case studies to bear on general understandings of the concept, its permutations and transformative potential.

This chapter asks 'how would we recognise sustainable development if we saw it?' I attempt to answer this question by thinking with the place-based resources of an anthropologist's parochial knowledge, and stretching them in new directions to track the evolution and visibility of sustainable development. Knowledge gained about a certain place with its specific cultural-ecological dynamics of sustainability, has suddenly found a new horizon of enquiry, and context of relevance by having set foot in Qatar - as have others from that certain place. Viewing the connections that make parochial sustainable development possible, involves materializing a network that will unlikely be visible to

those in whose hands its fate lies. There are vital sustainable development consequences upstream, in communities where Qatar has become a destination for labour in search of employment.

People are coming for many reasons (Gardner 2011), but many are from communities in South Asia in search of livelihood substitution strategies, where traditional sources of production and consumption have disappeared. If it were not for employment in Qatar, many households would find it extremely difficult to make a living. Recent data mentioned by Gardner from the UN Economic and Social Commission for Western Asia suggest that the Gulf States are the source of remittances of more than \$26 billion in value, which is a higher figure than that for the USA in the global scheme of things (Gardner 2011: 15). Despite this being the case “scholarship and baseline data about the fundamental aspects of these migration flows remain in their infancy” (2011:22).

Poverty, population pressure and conflict are common causes for South Asians to look for work in the Gulf. There is, however, another outcome of the remittance economy, which is to give the biodiversity conservation projects operating in many of the rural migrants’ homelands a greater chance of being sustainable. Remittances from overseas labourers now provide families with a buffer against hunger. In previous generations domestic shortfalls pushed households to take valuable plant and animal materials from South Asian forests to barter and exchange for food.

As someone who in the late 1970s first heard about sustainable development as a novel and radical possibility, the twists and turns through which the concept has travelled are a source of constant surprise. The message of the chapter is to follow connections of sustainable development that are on the move, and to be aware of beneficial and risky

aspects of sustainable development that have mobility as an intrinsic feature. An argument raised in the chapter questions methods for approaching sustainable development, the units and scales standardly brought to bear, and how to make visible the multiple linkages between migration and development processes.

Post-agrarian movements

To provide some theoretical context to the general discussion of migration and development, it is worth looking at assumptions concerning what sustainable processes might look like, and at what scale they might be expected to be visible. This has implications for the empirical case study on the dynamics of sustainability in Nepal that is to follow. One important perspective that challenges deeply held assumptions is expressed by Jonathan Rigg . He asks if investment to support small-scale agricultural production in developing countries makes sense in the context of migrant labour trends, and

“whether the present state of affairs in the Rural South will have any historical resilience. In other words, do the present and the past offer a reasonable guide to the future? ... [N]ot only are non-farm activities becoming central to rural livelihoods but also ... an increasing number of rural households have no commitment to farming whatsoever. It is not, therefore, just a question of weighting and balance, but of a more profound transition from one way of making a living to another.” (2006:181)

Rigg goes on to quote Blaikie, Seddon and Cameron's (2001) study of poverty and development in west central Nepal, based on a longitudinal view of more than 700 households over twenty five years "The original model underestimated the capacity of the global labor market to provide work and remittances to sustain rural life and to stave off a more generalized crisis . . ." (2002: 1268–1269). (Cited in Rigg 2006:182).

The argument in Rigg's article builds by discussing evidence from a number of studies, such as Afsar, (2003), which indicate that in Bangladesh the flow of remittances into rural areas has had positive effects in terms of actual productivity of farming, increased use of machinery, levels of agricultural wages and availability of land for farm tenants. On the back of such evidence Rigg proposes that the population of areas of Asia and Africa where agricultural development has been promoted to reduce poverty, may do better by upping sticks, and joining the mobile labour force. He argues:

"The best means of promoting pro-poor growth in the countryside may have less to do with supporting small-holder farming, whether through land redistribution or policies of agricultural development, and more to do with endowing poor people with the skills so that they can escape from farming and, perhaps, escape from the countryside." (2006:196)

Rigg identifies a powerful normative value among sectors of the development community who give preferential treatment to models of change that keep farming families on the land. In the light of persistently favouring land-based livelihood options, migration is seen as dislocation or deviation from deep-rooted channels of improvement

“It is when villages are fragmented by modernity, when village production is undermined by industrialization, and when villagers are extracted from their natal homes that things are perceived to go wrong. Farrington et al. term this the “yeoman farmer fallacy” (Farrington, Christoplos, Kidd, & Beckman, 2002, p. 15). (Rigg 2006: 187)

Glick Schiller and Faist (2010) in their reflections on linkages between migration and development similarly point out that “[m]igration has mutated from being a problem for economic development to being a solution...Hopes [for development] are pinned on labour migrants, especially temporary ones, sending financial remittances to their countries and locales of origin.” (2010:7)

Faist notices that commentators who look approvingly on the new positive view of migration for development are at risk of seeing development in aggregate terms of raised income levels, rather than attending to what precise consequences for development are occurring in the sending countries (Faist 2010: 86). This is the key issue that the rest of this paper explores. In the core community focused on in this chapter, there are very significant changes underway in the relationship of the migrant households and their possibilities for sustainable livelihoods. This involves their ability to switch to patterns of consumption that depend on cash exchange for large areas of their domestic needs. This in turn has made possible a viable relationship to ‘participatory’ forms of biodiversity conservation promoted by national parks and protected areas. Cash-acquired food,

clothing and shelter has replaced the previous generation's dependence on growing food supplies, and relying on forest products to barter or sell in exchange for items of need.

Where this chapter takes issue with Rigg is in the singular alignment of remittance-oriented livelihoods with solutions for sustainability in the global south. It concurs with Faist and Glick Schiller in calling for more rigorous examination of migration and development in ethnographic terms that explicitly challenge the drawbacks of 'methodological nationalism' and 'sedentarist bias', so as not to lose sight of the specific differences that are being made on the ground. This has impacts for how projects and processes can be assessed as sustainable or not, in terms of their consequences for the ability of poor households to adjust their livelihood strategies to engage in unprecedented ways with new labour markets, and at the same time continue to struggle for rights, respect and resilience in their own development as communities in their national societies, with much to offer the future prospects for biodiversity conservation that could better incorporate local knowledge and livelihood skills.

The New Remittance Ecology

Nepal has been predominantly imagined as a peasant society stuck in a pre-modern, culture-bound relationship to land and livelihood. Factors of historical mobility were commonly ignored (except migration to join mercenary Gurkha forces or tea plantations) prior to the last decade. Today the scale and impacts of recent migration trends are recognised to be immense. Well over 10% of the population is abroad, and there is no greater contributor to national income than migrant remittances, which now exceed all

other combined sources of income (Graner 2010). The question is whether Nepal is a 'rural' or 'agricultural' society. As Graner notes, village communities where the overall dependence on remittance income means it is "largely inappropriate to refer to these households as agricultural ones" (2010:25). She identifies the mid-1990s collapse of Nepal's carpet industry as a key factor in analysing the circumstances in which overseas migration took hold. She argues for an institutional analysis of migration, that moves beyond methodological individualism for understanding what are mistakenly referred to as 'flows' of labour and capital, (as if similar to some natural process), rather than a distinct conjuncture of dynamic institutional arrangements both within Nepal and globally. After the downfall of the carpet industry and loss of income, Nepalese government and manpower agencies looked for new markets to employ workers (Graner 2010:38).

Looking at the communities of migrant workers from Nepal to Qatar (approx 300,000 in 2009), Bruslé attempts to enquire into their experiences, beyond the headlines in the Nepali press about the workers' 'horrendous conditions', 'indecent treatment' and being considered as 'slaves' (*gulam*) (2010b:155). In the labour camp he studied, most of the people were employed in office and cleaning jobs, rather than in the construction industry, and there was a larger proportion of higher castes among them, than in Nepal's population as a whole. He noted "there is a correlation between caste, wealth and migration to Gulf countries" (2010b:160). At the time of Bruslé's research in 2008, an amount of US\$ 550 – 1,100 was required in order to embark on migration to the Gulf, depending on the commission taken by various handlers. This put Gulf migration beyond

many potential Nepali migrants, for whom Malaysia is a cheaper alternative. In 2008 the basic net salary was US \$ 55 a month, though the average wage in the labour camp was US\$ 98. There is no minimum wage as such in Qatar but the Nepalese embassy rules that it should be US \$77. Bruslé comments there is “[l]ittle or no power to bargain” once the Nepali workers discover the salary they are actually paid does not correspond to what was written on their contracts (2010b:166). The film by Nepali film-maker Kesang Tseten *In Search of the Riyal* includes several interviews with Nepalis who have regularly not been paid on time, and not been given leave to attend funerals. Yet the film confirms that Nepalese labour has a comparative reputation for not complaining about employment conditions. If this were to change, the numbers of Nepalis recruited would probably fall off.

The case study in this chapter considers the relationships between local and global elements of economy and environment, as they have evolved through implementation phases of sustainable development programmes in the context of the Himalayas. These relationships have changed in ways that could not at all have been foreseen at the outset of the sustainable journey. The key themes that emerge concern interconnectedness and movement. Surprising relationships have emerged from historical trends and events that have helped bring about certain sustainable development objectives. These emphasise that field-based knowledge is required to re-invigorate how sustainability is conceived, communicated, and assessed for points of least resilience.

Anthropologists working on projects for sustainable development have tried to see what

is happening ‘on the ground’. There tend to be a number of ways in which their understandings of development differ from economists, who normally assume human motivations and perceptions to be universal. The ethnographic concern for local distinctiveness and unpredictability provide methodological entry points for scrutinising ‘off the shelf’ policy prescriptions. Beyond the rhetoric of sustainable development as a generic panacea for all ills, field-based observations of policy implementation, and the effects of local communities’ engagement with the implications of given policies, allow understandings of sustainable solutions to emerge, located in real-world conditions and historical processes.

A key perspective argued in this chapter is that sustainable development projects to improve the relationships between villagers and protected area authorities in the Himalayas have demonstrated a ‘sedentarist’ bias. They have made assumptions about the social and economic characteristics of poor village communities. These imagine a finite number of community members and a finite set of environmental resources of which those community members can be deemed legitimate ‘users’. Sustainable development’s conceptual underpinnings were formed in the debates over poverty and environmental degradation in the late 1980s. At this time the notion of common property resources management offered a notable alternative to the bleakness of individual self-interest assumed in to the ‘tragedy of the commons’ thesis. The common property resources approach used rational choice theory combined with calculations of carrying capacity to argue the case for local governance of the commons, backed up by numerous ethnographic case studies. However, this did not adequately recognise the fluidity of the

social fabric interweaving mountain communities' mutual dependence with regards to forests and pastures. Ironically, it is migration to foreign labour markets, such as the Gulf countries, that has provided the conditions in which the sedentarist model has managed to have some viability. With this new global context, the realities of rural society in the developing world, and especially in South Asia, were to transform dramatically over two decades, as communities once thought of as 'peasantries' tied to the soil, became participants in global migrant networks.

What difference did sustainable development make in policies for biodiversity conservation?

Many national parks and protected areas were originally based on the principle of 'minimal human interference'. In the 1870s, the US national parks and the colonial Indian Forest Department were formed to provide a defence against the uncontrolled use of timber and forest lands for development (Grove 1993, Tucker 1991, Saberwal 1999, Campbell 2005).

The model of protecting authentic, pure nature devoid of human presence may have been viable for Yellowstone Park, but not for developing world countries with numerous rural poor, resentful that local forests became inaccessible (Stevens 1997). In the post World War II era of development, national economies increased growth by exploiting environmental resources (rivers and forest soils) to boost agricultural production, but

concerns expressed by wildlife organizations regarding disappearing species like rhinos and tigers led to the creation of pockets of nature protection. With the perceived threats of population explosion uppermost in the 1970s (Ives and Messerli 1989), a band of national parks were created in the Himalayas to hold back the pressure of demographic growth on natural environments. The consequences for local communities of parks policed by the military were severe. Nature protection did not prove popular, and became associated with coercive, unjust and poverty-exacerbating policies. In this era, the brute alternatives of either promoting economic growth or protecting nature were too inflexible for the many thousands of households that happened to find their villages within national parks. The unsustainability of coercive conservation, and the need to find alternatives that would reconcile environmental protection with legitimate subsistence needs of the poor led to a significant policy rethink. Similar processes were at work internationally after the 1982 Venezuela meeting of the IUCN.

In Nepal, the wisdom of taking use rights away from local communities and imposing central bureaucratic control over forests had been significantly questioned in a number of interventions by anthropologists, among whom the work of Fürer-Haimendorf was prominent. He had observed that the arrival of the forest department in district capitals had displaced local management structures. Among the Sherpas of the Everest region, he argued the indigenous institution of *shing ki nawa* had provided a local figure with responsibility for monitoring timber use, overseeing arbitration of disputes and administering fines for misdemeanors (Fürer-Haimendorf 1975). According to Stevens (1993), Fürer-Haimendorf in fact lumped together a number of distinct institutions, roles

and responsibilities into the category of *shing ki nawa*, and what needs to be taken into account is the remarkable diversity of categories of forest and local arrangements for their management, even if the modern-style idea of conservation (with an indigenous equivalent of a forest protection officer) was not exactly the principle behind them. Be that as it may, the reality of a relatively weak state, and the hard to access remote mountain regions made it propitious to favour indigenous institutions of community forestry (Springate-Baginski and Blaikie 2007). By 1978, Nepal had some of the most progressive legislation in the world for initiating community based natural resource management. However, when the suggestion was being mooted in the early 1980s to create yet another national park in the Annapurna region, where a huge number of tourists come each year (approx 60,000), the local community feared the consequences of state administration backed by a military presence, and made a case for a novel approach to protected areas in the form of the Annapurna Conservation Area Project (ACAP), that would rely on community grassroots development in conjunction with environmental protection.

The example of ACAP fed into policy thinking around the Rio Earth Summit. Sustainable development approaches to biodiversity conservation implied recognition that local communities should receive tangible benefits from environmental protection, and that conservation had to be with local *consent* (Brandon and Wells 1992). Turning around the coercive approach previously characteristic of national parks would involve modifying villagers' rights regarding access to resources in buffer zones in national parks such as Sagarmatha (Everest), Chitwan and Langtang. The UNDP's People and Parks program

set about creating buffer zones in which villagers would have legitimate use rights, and monitor their resource use within a user group committee structure, according to a constitution approved by the national park. In return for compliance with the buffer zone committee system, villagers could then apply for funds for small development projects, claiming a share of between 30-50% of the park's income (from tourist entry permits, harvesting licenses, fines etc). The buffer zone concept, implemented in Nepal's national parks from 1996 onwards, mediated the classic conflict of interests between development and biodiversity concerns. It gave recognition to local governance and decision-making, and provided a collaborative platform for village user group leadership to enter productive dialogue with state officials. The civility and mutual benefit between people and park was markedly different from the intimidating, militaristic, and largely prohibitive face presented by the national parks prior to the buffer zone era.

Beneficiaries of buffer zone development funds, that funded equipment and training for making a local cheese known as *durga*



When I started fieldwork in Nepal at the end of the 1980s, the villagers' relationship to the park authorities was characterised by considerable suspicion, concealment, and fear of reprisal from the national park for routine provisioning for livelihood needs from their forest environment. The area for the Langtang National Park was selected with the aim of conserving a representative section of Nepal's central Himalayan chain, including an altitudinal range from subtropical to alpine, containing rare stands of forest with Himalayan larch, and populations of musk deer and red panda. The park was also justified in the 1970s to protect the upstream watershed of a hydro-electric plant, and as a support to a tourist trekking route up to Langtang village (Borradaile *et al.* 1977, IUCN 1993). When villagers told me of how, prior to the advent of the park, they used to move their cattle and water buffaloes collectively in coordination with those of the village headman, they spoke of a system which saw to the common interests of all households. This system of public regulation of local livestock movements applied a pasture-fee levy for the transit of animals from other villages, that was channelled through tribute offered to a place-deity, and protected pastures and field crops according to seasonal access cycles. Perhaps this was somewhat nostalgically idealised, but a key principle of this local management system was that in return for tribute and respect shown to the headman (several days of labour every year, and the head of any animal killed), the villagers in turn were entitled to meet their subsistence needs from the forest (clearing swiddens to grow potatoes, taking timber and bamboo to sell or barter for grain). In this sense there

was a ‘moral ecology’ at work, that provided a safety net for livelihoods, which the arrival of the national park undermined.

Market alternatives to forest wealth

As mentioned above, the Annapurna Conservation Area Project provided a model for thinking about more politically and economically sustainable relationships to protected areas in Nepal. Direct income from tourism, and development funds distributed by ACAP for village communities to broaden their small income generation enterprises would help to ease villagers off their traditional dependence on forest resources. In retrospect, it appears that the Annapurna area was an exception, rather than a norm to hold up for other protected areas to emulate. Tourism numbers in Nepal have not recovered to the levels of the mid-1990s (one of the reasons for so many rural Nepalis to go to the Gulf for work). The expectation of ACAP that tourism would provide for communities a cash alternative to forest depletion has not been a generalisable strategy to follow for communities in other protected areas.

ACAP’s much-vaunted international reputation as an example of successful grassroots environmental protection depended significantly on cash income from its convenient location near popular trekking routes, and also on overseas remittance wages, for effective substitution of non-forest resources in villagers’ livelihood and consumption patterns. Sacareau (2003) has argued that ACAP has for the most part succeeded in delivering development outcomes in return for forest protection management, where numbers of tourists are significantly higher. It is therefore vulnerable to any changes in

the characteristics of the trekking tourism industry. Indeed, in the east of Nepal, in Makalu Barun, the community conservation area was so desperate for tourists to come to its newly built hotels, that the Village Development Committee chairman I met was threatening to interrupt helicopter flights heading for the base camp, by ambushing them at landing pads (Campbell 2005b).

The tie-up of sustainable biodiversity conservation with resource substitution and alternative livelihoods marks a particular direction for strategies to achieve sustainable development. It helps to see these historically, as products of events located in distinct political and economic times. For consideration of future choices of strategies, and in order to apprehend the range of possible outcomes that chosen strategies can lead towards, it is worth contemplating alternative scenarios. These could support communities in ways that are not founded to the same extent on looking for external income sources. They could include pro-active management of the park, such as productive vegetational succession, or investing in training the local villagers in skills and knowledge about biodiversity, or medicinal herb processing. Villagers could be included as co-managers of conservation areas, assisting in environmental restoration, landslide prevention, education programmes, and contributing to people's pride in their locality as a world biodiversity hotspot. Local community members are often present and aware of forest conditions in more locations within protected areas than staff from outside, who are unfamiliar with the environment. Villagers could be involved in participatory ecological monitoring and apply their skilled labour in holding back

invasive species or offering community support for scientific research as field guides and assistants.

An unforeseeable set of political and market circumstances occurred from the mid-1990s that makes the ongoing chances for successful participatory biodiversity conservation heavily dependent on non-local economic circumstances. The progress of biodiversity conservation are most unlikely to be visible in the far-off places where the people who once took what they needed from the Himalayan forests are now earning wages on top of construction cranes in Doha, or in furniture factories in Kuala Lumpur. What we see in those places is cheap labour. The complex domestic rationales for migration are not apparent, nor are the institutional hierarchies that enable people to arrive in distant lands for work. Even less visible will be the fact that the fate of the forests back home now lies in the search for foreign earnings. The heavy dependence on cash-income to provide alternative resources for domestic consumption, rather than finding help to re-invigorate local subsistence and renewable energy technologies led to livelihood solutions being sought externally to the village economy in market exchange. (The main exception in this respect has been the spread of trout farms, but these do rely on imported feeds and materials). Residents of the Langtang National Park became increasingly reliant on migrant employment in India for seasonal work outside the village economy.

Subsequently from the early 2000s the Gulf and Malaysia offered better prospects as destinations for non-agricultural earnings. The civil war in Nepal intensified this out-migration as the conflict deepened after 2001. (Graner (2010) writes that it is very hard to gauge how many people migrated from villages as a consequence of the conflict. She

mentions estimates from 10,000 to 600,000). The civil unrest put on hold the national park's buffer zone initiatives for several years. This militated against progressive scenarios for biodiversity conservation. Effective cooperation on local ecological and community relationships, promoting resilience in agro-pastoral practices for village food security, could have provided a tangible defence against economic fluctuations, promoting both local income generation and conservation values.

The focus from the early 1990s on looking to the international labour market to provide alternative resources for the support of household livelihoods, diminishing the pressure of harvesting on forests and thereby protecting biodiversity, has forced much of the male workforce in particular to join the flow of migrant labour. The stories that Gardner (n.d.) reports of migrants regularly being underpaid, or having pay deferred (in his chapter 'Why do they keep coming?') are confirmed by the level of uncertainty expressed by villagers back home, struggling to make ends meet. It is not only irregularity of cash flow that is to the detriment of the quality of lives of the women, children and elderly. They are left to cope with feeding themselves with less available labour. The chart below demonstrates the extent of involvement in labour migration to various destinations in 2009 among households in the village of Tengu in the Langtang National Park. Graner's (2010:37) figure for districts of origin of migrants to the Gulf and Malaysia indicate that far heavier rates of outmigration are recorded from East Nepal. For the year 2008, Graner discusses the variable reliability of different sources of statistics, but puts the probable figure of remittances from Qatar and Saudi Arabia combines, as between 60-90 billion rupees (in the region of US\$ 1 billion). World Bank data gave remittances as 12% of

Nepal's GDP in 2005 (WB 2007: 11). The same report showed 19% of households in Nepal to have received remittances in the previous twelve months and there was a higher proportion in rural areas and among the poor (WB 2007:75).

The shift from occasional short-distance seasonal migration to long-term, long-distance migration has resulted in many returning migrants considering themselves outside the subsistence labour economy. They do not join in with domestic production in the fields when they are back home, and plan for further migratory moves. This impacts severely on the remaining domestic workforce, particularly on the ability to participate in the rounds of reciprocal exchange labour by which the most intensive phases of the agricultural cycle have been conventionally managed (Campbell 1994). By 2011 it was clear that the same emphasis was not put on growing finger millet as during the twentieth century decades of subsistence cropping intensification. Finger millet had been the crop which yielded more harvest by input of transplanting labour in the early monsoon rains. It can be either intercropped with maize up to an altitude of roughly 1,500 metres, or grown as a single crop up to 2,000 metres. Calculations of the cash value of labour increasingly affect subsistence decision-making, such that today the return for every 3,000 rupees spent on labour groups in cultivating finger millet is hardly 1,000 rupees worth of harvested crop.

Rethinking sustainability in a migrant universe.

The way that sustainability entered mainstream development paradigms from the late 1980s followed the predominant neo-liberal approach (Woodhouse 2002). It was assumed the environment would only be given value in the world of the globalising economy by appealing to the logics of marginal utility maximisers. The route to halting environmental degradation was to find sources of cash to replace the income and barter value previously derived from forest products and territories, that were now either prohibited, or accessed by payments for licenses. Twenty years on we can see the consequences of this particular channelling of livelihood options. The market has not simply behaved as a mechanism for allocating prices for environmental services based on scarcity, or for transacting one kind of valued service or good for the value and functional equivalence of another. The park takes a thousand rupees from each tourist coming to experience the trekking holiday of a lifetime, and tells the villagers that if they cannot pay the licence fees for harvesting fir tree roofing shingles, bamboo and plants such as *Daphne nepaulensis* (for local paper making), they will have to buy alternatives in the bazaar. The effects have been far-reaching in putting village labour into the global orbit of West and East Asia's growing economies. Villagers are propelled into taking leave of the village economy for periods of two years or more to seek in temporary foreign migration an answer to the mismatch between ends and means back home. One Tamang woman coined a phrase to sound like a real (Tamang) place name to summon up the sense of 'a place as far away as anyone could imagine' (*Kana tang-tang*). Villagers have to go wherever they can as the forest is increasingly hard to use legitimately, which was previously their safety net against poverty in the pre-park dispensation of people's deep-rooted environmental entitlements. They now have to budget monetarily for consumption

needs such as paying for building materials by sending sons abroad, rather than take timber from the forest, or by acquiring food through bartering bamboo products during the annual hungry gap in subsistence consumption, as villagers used to do.

This is not how recent history inevitably had to turn out. There could have been other means for protecting biodiversity that need not have relied to such an extent on economising the non-human environment, through a pricing regime that put routine and potentially sustainable use practices beyond the budget of local communities (O'Neill 2007, Martinez-Alier 2002). Alternative scenarios might have focused on the power relations of forest-dependent communities, and the areas where lack of power translated into ecologically destructive activities (by villagers, by forest security personnel, and by the acts of a variety of persons excluded from legitimate use rights). More focused engagement of local community interests to protect biodiversity, with investment in the skills and training of youth to bring them into participatory alignment with the purpose and running of the park, and attract their commitment for the greater future value of a participatory protected area of which local communities could see their children as beneficiaries –could have promoted a project of shared dialogues on the local science and practice of ecologically-sound livelihoods.

Subsistence value in the forest

photos

Temperate bamboo (fodder, baskets)

Abies spectabilis (building timber, roofing shingles)

Yak-cow hybrids (diary herds)

Daphne nepaulensis (paper-making)

Overlapping solidarities between user group areas

The global effect of labour migration has been to alter significantly the conditions for sustainable development as regards biodiversity conservation. Considerable responsibility for the successful continuity of forest protection regimes now lies with the economies of countries such as Qatar. It is unlikely that employers of Nepalese village labour in other countries have any awareness or interest in the unintended consequences of their hiring practices. Whatever the long-term durability of employment relations between Nepal's villages and Qatar's construction industry in and Malaysia's furniture factories, the linking of participatory programmes to market logics of alternative livelihoods has made the forest biodiversity of the Himalayas hostage to the fortunes of far-off decisions about manpower levels, and perceptions of risks and advantages in hiring labour from one country rather than another. A check and balance of ecological value should be considered for future rethinking of sustainable development, as a counter to the periodic up- and down-turns of market exchange value. Economics as if people and environment mattered might be too utopian to expect soon, in which case ecological value needs to be recognised methodically through alternative criteria of value. Some examples would include participatory mapping of environmental wellbeing, to implement active

monitoring and remedial measures against landslides, invasive species and climate change effects, with direct benefit demonstrable for both biodiversity and villagers.

A New Mobility Paradigm for Sustainable Environmental Protection.

The effects of migration and mobility need to be brought into thinking about sustainable development not only in terms of Rigg's arguments over the positive impacts on rural poverty in South Asia in the opening section of this chapter, and the linkage drawn through the analysis presented here between conservation management in Nepal and global labour markets. The integration of mobility also needs to happen at a more fundamental level at multiple scales for ecological processes and human activity over time and space to be realistically aligned. This includes the local scale, where sustainable use of natural resources is often attempted by first restricting mobility. Sustainability of people and resources has tended to be thought of in terms of fixity. There is a 'sedentarist' bias in the conception of fixed territories with environments of certain carrying capacities to protect, and communities of beneficiaries to include in devolved governance regimes observing sustainable harvesting levels. As yet, there have been surprisingly few studies that explore the connections between sustainable biodiversity conservation and migrant labour. This is despite several authors having worked on both themes within Nepal (Graner 1997, Graner and Seddon 2004, Kollmair et al. 2003). Thieme & Müller-Böcker (2010) refer to the major reasons for (male) migration out of northwest Nepal as: "[p]overty, unemployment, a scarcity of natural resources, and the only recently ended Maoist insurgency" (2010:107). This out-migration leaves women

behind to keep households going by livelihood strategies that include “illegal gathering of products from the nearby Khaptad National Park” (2010:112).

The pervasive ‘sedentarist visions’ (Bruslé 2010a, citing Sheller and Urry 2006) concerning rural societies in the developing world need to be questioned. Kearney (1996) reflected on the effects of labour globalisation on the societies of rural Mexico. He addressed the ‘polybian’ (adapted to multiple locations and subject positions) migrant behaviour patterns of people often known as ‘peasants’. Given the labour destinations of Mexican migrants in the US agricultural sector, he characterised the notion of sustainable development (projects of persuading poor communities into ever deeper dependence on sedentarised, land-based subsistence economy) as running counter to rural Mexicans adventurous quest for improved livelihoods by moving between diverse locations. Sustainable development programmes as characterised by Kearney, would consign rural communities to live in poverty, compliantly stuck in place, with their livelihoods homeostatically dependent on the natural yield potential of particular local ecologies. Such a negative view of sustainability is not necessary if mobility becomes a flexible dimension of the paradigm for sustainable thinking, and the final section of this chapter will attempt to sketch out certain ways this can come about.

Vertically Sustainable Livelihoods

A livelihood perspective is required in looking at the complexity of a variety of kinds of movement in operation. It means not simply privileging techno-managerial visions of utility with respect to natural carrying capacity as determining sustainable outcomes.

Evoking 'livelihood' should not put out of view elements of social life that link up communities of different scales in ritual or symbolic networks as well as in more directly material exchanges. These are often not attributed use value in their lived practice, as forms of social relations, but occasions do occur when being able to call on someone as belonging to a network of trust can prove useful. Connections through ritual kinship are one such example of locally sanctioned social capital. Idioms of 'classificatory' connection to a common hearth, an ancestral clan, or personal histories spent working in different communities can further contribute to livelihood opportunities enabled by social networks that actively include people and kinds of exchange across territorial or ethnic boundary edges. Mountain communities survive by being able to call on other communities' locational advantage. Village communities are not self-sufficient nor harmonious units, and are through internal conflicts and interests to make alliance with external others. Mobility as a feature and solution to many livelihood problems opens up not only international and 'internal' migrations (from hills to lowlands), but also the responses of households, neighbourhoods and regional societies to adapt, channel, and keep available a range of livelihood pathways. Such ridge top perspectives for livelihoods in upland Asia has recently been presented as characteristic of 'Zomia' by James Scott (2009), referring to the historical scatter zone societies on the margins of the valley-based power centres of India and China, reliant on strategically diverse small scale trade, swiddening, pastoralism, and forest environments rather than surplus grain production.

The Tamang-speaking people, for example, talk about seeking their livelihood between the ecological extent of the juniper at the tree line, and the palm in the valley bottom.

This necessarily entails mobile agro-pastoral subsistence practices, as resources are not found in one location (as with consolidated irrigated rice farming). Livelihood opportunities are distributed in times and places, that require relocating every two weeks to a month, moving animals to new pastures, or planting, weeding or harvesting crops scattered in different locations and varied crop rotations. Livelihoods are taken care of by keeping on the move, being conscious of what priorities most need seeing to. And today they include calculating whether it is more worthwhile to keep a household member in the village subsistence orbit or encourage him or her to leave to join siblings, cousins or friends working elsewhere in migrant labour, for a couple of months or a couple of years.

Verticality has its own specialist literature in anthropology and geography. The Andes and Himalayas frequently inspire comparative reflection, and Murra's (1972) typology for the economic and social interdependence of vertically distributed ecological niches have prompted a number of Himalayan counterparts (Molnar 1982, Orlove and Guillet 1985, Stevens 1993). Fürer-Haimendorf (1975) famously argued that the propensity to trade among higher altitude dwellers was necessary to supplement their inadequate subsistence base, and that the produce from different zones was managed on the basis of an ecological complementarity of needs and affordances. The northern 'adventurous traders' had skills, networks, and beasts of burden to join up supply and demand between communities in different locations. Many of them descended to the lower hills every winter. English (1985) more specifically linked long-distance transhimalayan trading patterns and political systems, emphasising the connections with profits and the locations of fortress kingdoms on given routes. Van Spengen (1999) likens the Tibetan margins to

Braudel's characterisation of the Mediterranean 'économie monde' that brought diverse shores and their mountain hinterlands into communication. Van Spengen tracked the movements of the Manangba after World War II, and subsequently the fall-off of the salt trade to Tibet, who followed opportunities in India, and southeast Asia. Rhoades, combining experience from both Andes and Himalayas, proposes the powerful notion of mountain peoples' interdependent 'politics of location' (1997: 27), arguing that sustainable development in mountains has to address the specificities of locatedness and the connections to other people in other places. Locatedness brings certain advantages and disadvantages, and problems of integration. Himalayan anthropology has recorded a host of responses to altitude factors in subsistence strategies, ranging from transhumant livestock patterns, diverse agricultural cropping systems, and social institutions of ritual kinship linking people in differently located communities. Movement between places over seasons, and transporting what is high-value low-volume from top to bottom, has been a vital way of keeping livelihood connections open. When community forest regulations in west Nepal prevented sheep and goats from passing through (in the name of sustainable development!) in the 1980s, and the flocks were given up, famine followed in subsequent years due to lack of transport. The World Food Organisation still pays helicopter flights to keep the uplanders fed, who once had a low carbon transport system (Kathmandu Post September 24th 2011).

While the move from overpopulated hills to areas of available cultivable land in Nepal's lowlands has been a theme of the last fifty years, it has remained the case that mobility has tended to be seen by the development community, and social scientists as something

to remedy, as almost pathological Bruslé (2010a). The presumption of sedentary peasant fixity to land was scripted perhaps unconsciously into the notion of legitimate resource users in participatory conservation projects. If mobility is to be discussed now, it is important not to over-generalise but note variation, where with the ingenuity and inventiveness in the last two decades with which people have responded to livelihood challenges by different strategies of accumulation and shifting residence. Ian FitzPatrick (2010) recounts how in east Nepal the discovery of profitable cardamom growing in the hills led to subsequent reinvestment of capital in external migration, via new lowland settlements that acted as a springboard to employment opportunities elsewhere.

Conclusion: the Sustainable Challenge

If commentators of the developing world in the twentieth century were fired up over ‘the peasant question’, how might this change with the environmentally reconfigured horizon of sustainable development? And to repeat the question raised in the opening of this chapter, how would we recognise sustainability if we saw it? Sanderson (2005) provides some reflections on the first of these questions. He bemoans the fate of ‘development economics’ that once attended to the specific characteristics of the global south, but was bulldozed out of any distinct identity by the force of neo-classical orthodoxy. He makes a number of observations about the invisibility to what he calls ‘monoeconomics’ of human experiences of poverty in places where biodiversity issues are critical. He argues that once the problems of developing countries were given no special consideration by economic orthodoxy for their particular historical, cultural and geographical

circumstances, and the claim for universal economic validity pushed aside state-led interventions, “the set of implementation tools that went along with that claim never showed itself to be compatible or even very interested in the special problems of development, much less sustainability” (2005:327). He advocates by contrast a strong focus on local conditions rather than allowing perceptions of value by markets to dominate. However, he concludes in his advocacy of the value of local knowledge of empirical conditions that “[a]lleviating poverty and conserving biodiversity will take place in the most difficult settings, places of extreme ecological vulnerability, very low population densities and no state presence.” (2005:331). Nowhere in his article is the word ‘migration’ mentioned, except in reference to songbirds, antelopes and Monarch butterflies. It is a case of the missing migrants. The peasant question has shifted, with peasants themselves relocating their terms of engagement with livelihood issues. Some may have been helped on their way by excessively protectionist biodiversity conservation, or at least, less than pro-active agro-ecological management options within protected areas.

The result for protected areas is in many ways unfortunate, as the ecologically-skilled and relatively cheap resident workforce available till a decade ago to assist with ecological restoration, soil erosion measures, biodiversity monitoring, invasive weed control, re-forestation is now adjusting to a different set of livelihood parameters. The message given out by ‘fortress conservation’ was inadequately tempered by more moderate and less misanthropic versions of how environmental protection could be a pro-poor strategy for communities often neglected by development. There might be nostalgia for days

when ‘development economics’ referenced local contextualization and case-specific non-sectorial analysis, but the expanding phenomenon of remittance economies has put the conventional distinctions aside. There needs to be some stock-taking of the full impact of the market in places where the proposal to remedy poverty and ecological decline by turning the attention of the poor away from local environments towards enterprise and cost-benefit accounting in foreign labour markets, has gambled the future of local environments by placing a massive stake on the fortunes of distant centres of commercial activity. Rigg’s sound arguments about benefits accruing to areas of poverty in rural Asia from migration as a general phenomenon are accepted, but there is an invisibility within this aggregate picture of the impact that migration has on the possibilities for progressive change in the negotiations between indigenous communities and biodiversity authorities over rights of forest use and the inclusiveness of perspectives that are needed for long term forest care. This scenario calls for research, especially to further understanding of the implications of different approaches to agro-ecological livelihood development. On the migration end of the spectrum, as Bruslé admits, the information is thin: “[a]lthough the Gulf countries have emerged as a major destination since 2000, scientific studies about Nepalese migrants in the Middle East are non-existent” (2010b:1154). It is necessary to connect up the increasingly distant interdependent points that have emerged regarding the sustainability of human-environmental relationships, and reveal to decision-makers the points of vulnerability with livelihoods and life-diversity that global economic changes are likely to bring about.

Jobs provided in Qatar and other Gulf countries help environments in distant places, where the success of projects protecting biodiversity with sustainable development benefits now rely on incomes to villagers from remittances. This should be more widely appreciated. Experience since Rio '92 indicates that uncertainty in reliable forecasting behaviour is common, and underlines the need to think of people in local and global interactions as *mobile citizens* whose behaviour needs to be geared to a sustainable planet. Sustainability implies reflecting on the environmental consequences of livelihood choices, and *making visible emerging patterns* stemming from interventions to promote development, sustainable and otherwise. There have been lost opportunities of community participation in active management of protected areas using local skills and knowledge – contributions that bureaucratic forms of environmental governance cannot make. It is time that projects made a difference by using local common sense, in this case adopting migrant-aware practices of environmental governance.

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