Abstract
Drawing on a local study on Nepal’s Terai, this paper explores the nature of livelihood exposure to shocks and stresses amongst rural households in two Village Development Committees in Sunsari District. The primary data are derived from a 117 household survey supplemented by 19 purposefully sampled follow-up interviews. The paper opens with a discussion of the changing nature of exposure in the global South, distinguishing between inherited vulnerability and produced precarity. We then provide background to the research site and the research methods. In the core empirical part of the paper we unravel and distinguish between the livelihood threats and opportunities faced by households in the area and use these to reflect on the nature of ‘exposure’, its historical origins and contemporary (re)production. The final part of the paper uses the Nepal case to build a more general argument, proposing that if we are to understand the puzzle of continued livelihood exposure and uncertainty in the context of aggregate economic expansion we need to identify and interrogate the processes that may, at the same time, produce wealth and reduce vulnerability, while also generating precarity.

Keywords: Nepal, livelihoods, vulnerability, precarity, resilience

1. Introduction
Central to the sustainable livelihoods approach is vulnerability (Chambers and Conway, 1991; Chambers, 1988, Ashley and Carney, 1999). Development, particularly in rural areas of the global South, has been predicated on the assumption that poor households are poor at least in part because they are vulnerable (Wisner et al., 2004). If people – or rather, households – are vulnerable then their livelihoods cannot be regarded as sustainable (Scoones, 2009). Vulnerability is, in turn, seen to be associated with political and social marginalisation, physical
and environmental exposure, spatial isolation, limited human and social capital, and inadequate physical (especially land) and financial assets (Wisner et al., 2004). Poverty is a state of being, usually assessed at the household level according to some money-metric measure, and usually determined according to a poverty ‘line’. Vulnerability, on the other hand, has a forward-looking and predictive quality. It highlights why individuals or households might be prone to poverty. Vulnerable individuals or households need not be poor, although the poor are invariably vulnerable. Development interventions help address one or more of these facets of vulnerability whether through, for example, micro-credit schemes, investments in schools and training initiatives, programmes of empowerment, rural road building and access schemes, or land titling. In these ways, ‘development’ helps to reduce the vulnerability of marginal and (potentially) poor groups, thereby contributing to achieving sustainable livelihoods.

The aspects of vulnerability that are addressed by such mainstream development interventions are not infrequently seen to be inheritances of the past. Poverty, therefore is, in a real sense, ‘old’ (Rigg, 2005). It lies in a set of inherited conditions and tendencies which development interventions can address whether through education, roads, technology, money or training. The underpinning logic here is the need to bring people into the mainstream and, more particularly, to connect them to the market (Rigg and Oven, 2015). Vulnerability, therefore, tends to be viewed as a reflection of a pre-existing state of marginality or exposure, whether social (e.g. caste or gender relations), physical (e.g. isolation), environmental (e.g. unimproved land or water resources) or economic (e.g. lack of market engagement or access to financial resources). Mainstream development tends not to pay great attention to the ways in which contemporary processes of development may themselves be marginalising.

This paper explores the intersections between inherited ‘old’ poverty and produced ‘new’ poverty among households on southern Nepal’s lowland Terai (Illustration 1). It proposes that economic expansion generates new forms of livelihood risk. The fact that aggregate economic growth is not neatly and equally translated into resilient and more sustainable livelihoods is well known, but this is usually put down to the unequal distribution of the benefits of growth, thus requiring that more attention be paid to strategies of ‘pro-poor’, ‘inclusive’ or ‘shared’ growth (Best, 2013). Here we suggest that there is a further complication to the idée fixe of growth: that it also produces new forms and manifestations of vulnerability and, therefore, the non-achievement of sustainable livelihoods may lie in how contemporary processes of growth becoming imprinted, in livelihood terms, at the individual, household and settlement levels.

[ILLUSTRATION 1 ABOUT HERE]

The Nepal development context
Nepal has experienced significant development gains since 1951, when the development ‘project’ was first set in train and development assistance began. There has been, for example, a dramatic decline in under-five mortality from 323 to 36 deaths per 1,000 between 1960 and 2013, and a near doubling of life expectancy from 35 to 68 years over the same period. Adult literacy has improved from 21 per cent of the adult population in 1980 to 60 per cent in 2010. Set against such indicators of improvement, however, can be arrayed a good deal of evidence to suggest that, overall, the successes in comparative terms have been modest, even disappointing. Nepal remains one of the world’s 48 ‘least’ developed countries, and 37 per cent of the population live on less than $1.51 a day (ADB, 2014), even after more than sixty years of ‘development’.

Households in rural Nepal face numerous challenges to building sustainable and resilient livelihoods. Social inequality based on caste and ethnicity remain severe (Sunam and McCarthy,
spatial inequalities – which were one of the main causes of the decade-long civil conflict – are considerable (von Einsiedel et al., 2012); the geography and physical environment of Nepal present numerous challenges, both local and national (Blakie et al., 1980); and geophysical and hydro-meteorological hazards including earthquakes, landslides and floods pose significant threats, as the recent 2015 Gorkha earthquake and the 2008 Koshi floods exemplify. Such is the paucity of local opportunities for income generation in the country that international labour migration has become key to sustaining livelihoods (Seddon et al. 2000; Blakie et al., 2002; Shakya, 2013; Sunam, 2014). In 2009 around one-third of households had a member living in another country and some 15 per cent of working age males were working overseas in 2003–4, mostly in one of the Gulf States and Malaysia (Maharjan et al., 2012). In 2013, personal remittances were equivalent to almost 30 per cent of GDP (World Bank data),¹ almost double the value of the country’s exports (World Bank, 2014).

Development interventions in Nepal have generally been based on the development gaps and absences, and the underpinning logics, set out above (Pigg, 1993). They have sought, in other words, to address identified geographies of dearth related to physical isolation, inadequate service provision, low incomes and in some fields limited (or low quality) human capital, and which have, in turn, been instrumental in perpetuating vulnerability and shaping people’s meagre living. Such approaches to development have been fairly universal, with critics arguing that development often “tailor[s] its description of a country’s problems to fit the measurement of the solutions it has to offer” (Pigg, 1993: 47; see also Ferguson, 1990). There is a (often backward-looking) normative logic to development policies, where identified interventions are related to predetermined development problems that, in turn, are linked at a higher level to ideological framings that are close to dogma. In contemporary critical analyses these are often seen to be tied to ‘neoliberal’ perspectives that shape the framing of problems and their solution but in the past there were equally influential alternatives, not least models of state-led development. There is, in other words, a degree of wishful thinking in each development decade’s identification of the problem and the solution, with the latter often preceding the former.

The top five sectors receiving development assistance in Nepal in 2011/12 were education, local development, road transportation, electricity and health (Ministry of Finance 2013). The UK Department for International Development’s (DFID’s) operational plan for the period 2011-15² identifies the need to address the ongoing political instability which is considered key to the success of its wealth creation programmes. Emphasis is placed on supporting the private sector with programmes in agriculture and tourism, including skills training and enterprise financing. The number of jobs created and the length of roads built or maintained are seen as indicators of wealth creation and thus of development success. Similarly, Asian Development Bank (ADB) projects have focused on roads to strengthen domestic and regional connectivity, linking remote villages to schools and hospitals and providing farmers with access to markets.³ The World Bank is likewise supporting economic growth by, amongst other things, enhancing

¹ Data accessed from http://data.worldbank.org/indicator/BX.TRF.PWKR.DT.GD.ZS.


transport connectivity and improving the business environment. These patterns of concern and interest and the development interventions that result are not peculiar to Nepal; they are repeated across the global South and reflect the received (often predetermined) wisdom of where the development ‘gaps’ lie.

Such interventions may well be, overall and in aggregate economic terms, developmental. Money-metric poverty rates in Nepal, for example, have fallen markedly and this must be counted a considerable achievement (Figure 1). However there are three important wrinkles to this generalisation and the assumed links between intervention and outcome which this paper explores. First of all, such interventions have differential effects on societal groups – on men versus women, on the old versus the young, and on minority groups versus the majority, for instance. In some instances they may even be harmful for some groups (see, on Nepal, Sunam and McCarthy, 2016). Second, while such interventions may indeed address some aspects of vulnerability, in so doing they change the texture of livelihoods. In other words, they alter not just the amount of production, income or return, but also the means and methods by which these are generated and their social distribution and environmental consequences. This then leads to a third wrinkle: in reducing vulnerability, interventions sometimes also have the effect of introducing or increasing ‘precarity’. The result may be that in addressing old poverty, interventions may generate new forms and articulations of poverty. It is with respect to this third issue that the paper pays particular attention.

[FIGURE 1 ABOUT HERE]

2. Framing vulnerability and precarity

The vulnerability of rural households in many poor countries to environmental, social, political and/or economic change has become a leitmotif of livelihood studies. This scholarship can be sub-divided into three slightly different strands of work: studies that focus on vulnerability, politics, violence and security (e.g. Korf, 2004); work that pays special attention to vulnerability, environmental change and natural hazards (e.g. Wisner et al., 2004, Adger, 2006, Cannon et al., 2003); and, finally, research that examines the socio-economic (including historical) roots of vulnerability (e.g. Bankoff, 2001, Hickey and du Toit, 2007, Ambinakudige, 2009). Arising from this desire to build an understanding of livelihood vulnerability, is the corollary wish to identify strategies of ‘coping’ (Ellis, 1998). Cross-cutting all these three strands of work, scholarship on livelihoods in the global South also sometimes examines the gendered (Francis, 2002), generational (Bounthong et al., 2004), spatial (Agergaard et al., 2010) and sectoral (Ellis, 2000) permutations that comprise making a living. What, we argue, is more rarely undertaken is an interrogation of the changing roots of vulnerability and the different processes through which vulnerability is produced and reproduced. As we develop in the discussion that follows, the argument we make is that vulnerability is not merely accentuated or ameliorated over time, but is re-worked because the causes, dynamics and texture of vulnerability also changes. We frame and highlight these changes by drawing a distinction between vulnerability and precarity.

In most livelihood studies, rural people, as it were, are the dependent variable and change is foisted on them either by events (earthquakes, floods), processes (soil erosion, marketization), states (land settlement), or society (dispossession, social exclusion). To put it another way, rural

---

4 World Bank Group Partnership Strategy for Nepal – Unlocking constraints to growth:
people are the victims of external or imposed processes, whether these are economic, social, political or environmental.

The influential sustainable livelihoods approach (SLA) or framework (SLF), for example, has the ‘vulnerability context’ as the starting point for understanding rural people, their conditions and potentials. This is not to suggest that populations in the global South are caught in a structural web of threats and constraints, over which they have little control or influence. The poor have a degree of agency and the ability to shape and direct outcomes in particular ways (Moser 1998, Bohle 2007). Indeed, the SLF emerged out of dissatisfaction with structurally-ordained interpretations of people’s living conditions and their assumed limited scope for change (Chambers and Conway, 1991; Ashley and Carney, 1999; Scoones, 2009). More widely, the participatory turn in development from the 1980s was given impetus by an analogous frustration with expert-led, technology-driven and top-down interventions that ignored the priorities and concerns of the subjects of development, namely poor women and men.

The ability to cope with (absorb) and recover from stresses and shocks or, on the other hand, to adapt and adjust in the face of such stresses and shocks are essential qualities of sustainable or resilient livelihoods. Some scholars have paid attention to “the agency that poor people possess to live with vulnerability… highlight[ing] the capabilities of the vulnerable to secure their livelihoods rather than their weaknesses and failures to do so” (Bohle, 2007: 9). It is, however, when human systems (or livelihoods) cannot either cope with and recover or adapt and adjust that they can be viewed, ex post facto, as vulnerable (Scoones, 1998: 6; Bohle, 2007). Scoones (2009) in his rural livelihoods review paper states that “sustainability and resilience thus cannot always emerge through local adaptation in conditions of extreme vulnerability. … [requiring] more dramatic reconfigurations of livelihoods” in response. Existing livelihood practices and systems may not be sufficient to address emerging challenges – household and individual adaptive capacities may be inadequate – thus requiring either intervention by external actors or livelihood transformation (rather than livelihood adaptation). There are limits to human agency.

2.1 From vulnerability to precarity
In this paper we propose, drawing on the case of Nepal, that market integration has re-worked the nature of vulnerability for many rural-based households. In doing so, we make links between the three strands of work in livelihood studies identified above. It is not so much that households, with development, have escaped their prior condition of vulnerability, with an accompanying strengthening of their resilience in the form of ‘sustainable’ livelihoods; rather, resilient or sustainable livelihoods need to be seen in a triangular relationship with (possibly) declining vulnerability on the one hand and (possibly) growing precarity on the other. For example, rural-based households may benefit in the short-term from development interventions promoting debt-financed cash crop production but this may leave them open to market shocks in the medium and long-term, thereby raising the possibility of foreclosure and accentuating their precarity (Rigg and Oven, 2015). The challenge, then, is to identify the causalities, structural as well as stochastic, that might account for declining vulnerability alongside increasing precarity. This, we argue, has relevance across the global South.

Precarity is a word that has come into increasing use in the global North, in connection with the marginal working conditions that have emerged under conditions of late capitalism. For Guy Standing, a new class has emerged, the precariat, which:

“...consists of people who have minimal trust relationships with capital or the state, making it quite unlike the salariat. And it has none of the social contract relationships of the proletariat, whereby labour securities were provided in exchange for subordination and
contingent loyalty, the unwritten deal underpinning welfare states” (Standing, 2013: 2 and see Standing, 2008, 2011, 2012).

Some scholars (e.g. Munck, 2013) have objected to the use of precarity and the precariat in the context of the global South, where marginality, informality and social exclusion are seen to more accurately describe the nature of class relations and class-making. Even so, scholars have begun to appropriate ideas of precarity and apply them to countries and contexts in the global South. For example, in his work on rural India, Breman (2007) refers to the precarious nature of non-farm employment which often involves migration and which has produced new forms of poverty, marginalisation or precarity for individuals and households. Wood (2000) highlights the challenges faced by poor people searching for livelihood security who are forced to invest in short-term livelihood strategies that create negative social capital as opposed to longer-term strategic planning. That said, there remain few examples of studies that apply notions of precarity in the global South, including in the case of Nepal. One exception is Sunam and McCarthy’s (2016) study which uses the term in an examination of the impacts of foreign labour migration on the rural labour force and thus on poverty and which highlights the contradictory nature of migration as a livelihood strategy.

Notions of precarity are linked to two other threads of literature: that on ‘adverse incorporation’ on the one hand, and ‘immiserising growth’ on the other. Both pay attention to the means by which the extension of market relations can harm (as well as assist) certain groups and individuals. Hickey and du Toit (2007: 4), for example, seek to understand how “localised livelihood strategies are enabled and constrained by economic, social and political relations over both time and space”. Importantly, such effects are not seen as haphazard, but structurally linked to the operation of the market economy; as Mosse puts it, “the poverty of certain categories of people is not just unimproved by growth or integration into (global) markets, but deepened by it” (2010: 1161). We use the vulnerability/precarity diptych because it provide us with the opportunity to consider how processes and structures rooted in different times and spaces intersect in the construction and sustainability of contemporary livelihoods on Nepal’s Terai.

In the context of this paper, then, we are not simply using precarity in a geographical context – Nepal – where, hitherto, it has rarely been employed. Rather, we use precarity as a means to distinguish between two forms of livelihood exposure in the context of a range of shocks and stresses, be they environmental (e.g. earthquakes), political (e.g. the blockade of the Nepal-India border), economic (e.g. declining returns to farming), or social (e.g. multi-sited households). We use the term vulnerability to refer to inherited or traditional forms of livelihood exposure; and precarity to denote produced or modern forms of such exposure (Table 1). Thus the former addresses the causes of old poverty noted above, while the latter pays attention to new poverty, created by processes of development. Both, however, have implications for building sustainable livelihoods. Vulnerability in the guise of physical isolation, for example, may limit access to state services; while precarity in the form of market dependency or high levels of debt, may expose households to the loss of their land. We do not

---

5 See, for example, two special issues of the American Behavioral Scientist (57[3] and 57[4] 2013) on precarious work in East, South and Southeast Asia.

6 Pande’s (2014) paper on international domestic labour migrants in the Lebanon also employs notions of precarity and some of her interviewees were from Nepal.
suggest there has been a simple sequencing from a former situation of vulnerability to a latter day context of precarity, under conditions of socio-economic transformation (or development). While the direction of movement may be taking that path (i.e. towards greater relative precarity in the context of generally declining vulnerability), it is quite conceivable for households and sites to exhibit continuing vulnerability even while precarity also grows, so they are doubly exposed. Furthermore, households in individual settlements will not be equally vulnerable or precarious and we also recognise that the distinction between vulnerability and precarity is, in practice, far from clear-cut. The utility of distinguishing between the two, we suggest, is that each pays attention to rather different causal processes and thereby encourages an appreciation of the contradictory livelihood effects of growth/development strategies that emphasise the market imperative and tend to measure success in terms of aggregate economic outcomes without paying due heed to how these economic process come to rest in people lives and their livelihoods.

The nature of livelihood exposure engendered by vulnerability and/or precarity is seen to be different, and different across a range of explanatory contexts: their geographical and sectoral location; the historical processes that reproduce each; and the social groups (ethnic, caste, gender and generational) that are specifically affected, for example. Table 1 sets out how significantly different processes underpin the sorts of livelihood exposures that emerge under each set of conditions and how, therefore, the production and reproduction of ‘old’ and ‘new’ poverty are, similarly, different.

3. Research sites and methods
The field research on which this paper draws focused on two Village Development Committees (VDCs) in Sunsari District in the Koshi Region in Eastern Nepal: Aurabani and Prakashpur (Figure 2).

In Aurabani the population was predominantly Tharu, an ethnic group indigenous to the Terai, with smaller numbers of high caste hill-Brahmin. Householders relied largely on subsistence agriculture, farming the land of absentee landlords either through sharecropping arrangements or wage labouring. This was supplemented by day-wage labour including house construction, transporting goods and factory work in the nearby urban centres of Ithari, Inaruwa and Biratnagar. A number of households also had family members working overseas, mainly in Qatar and Malaysia. In terms of the hazards context, the research site was near to the Main Boundary Thrust fault capable of generating magnitude 8 earthquakes. However, the flat terrain and single story adobe buildings reduce the risk. In the past, waterlogging posed a notable threat to crops but the construction of a drainage system has largely addressed this problem.

Like Aurabani, Prakashpur is close to the Main Boundary Thrust and is therefore exposed to earthquake hazard. It is also, however, bisected by the Koshi River (Figure 2), and several wards were seriously affected by the 2008 Koshi flood disaster. Compared to Aurabani, Prakashpur is wealthier, and in-migrants from Udaypur, Khotang and other hill districts come here for the employment opportunities that are available locally, at least compared to more remote locations, and the better access to state services and amenities. Resident households rely largely on subsistence agriculture and the failure of farming to meet household needs leads to significant flows of international migrants, largely of men to Malaysia and Qatar.
Earthquakes are considered by local people in both VDCs as an important hazard, but not as a priority risk. Floods are a much more immediate threat, especially in Prakashpur. With just two per cent of houses in the VDC built of brick and cement, and the remainder made of traditional adobe constructions (Illustration 2), people feel safe, even should the area experience a major earthquake. Since the 1970s, the Koshi Region of Eastern Nepal has been the target of development assistance by the Government of Nepal and international donors. In line with the high level development narrative set out above, roads have been constructed to provide access to markets and reduce transport costs, and agricultural programmes have supported the introduction of cash crops and the commercialisation of forest products.\(^7\) In addition to these market-led development interventions, remittance income associated with overseas migration has also contributed significantly to the region’s economy and to local residents’ spending power and material prosperity.

The research was undertaken over two main field visits in 2014 and 2015. The first visit involved a survey of 117 households, 58 in Aurabani VDC and 59 in Prakashpur VDC to gather baseline information about the respondent households including their livelihoods and their perceptions of, and responses to, earthquake hazard and risk. The questionnaire was designed as a collaboration between scholars in the UK and a local NGO in Nepal, the National Society for Earthquake Technology-Nepal (NSET).\(^8\) The households surveyed were systematically selected across all nine wards in each VDC to minimise sampling bias. Following the survey questionnaire, 19 households (10 in Aurabani and 9 in Prakashpur) were purposively selected from the survey household roster for detailed follow-up interviews. Criteria used to select the households included their geographical location, caste/ethnicity and economic status including landownership and sources of income. The interview topics were used to situate, expand and explain the survey data, focusing on four areas of discussion: (i) the economic/livelihoods context of the household including livelihood diversity and sustainability, as well as household assets and consumption; (ii) the social context of the household including the extent to which family members supported and helped each other; (iii) the physical context, encompassing the exposure of the household to geophysical hazards as well as their access to markets; and (iv) the wider state context including local services and amenities available at the community level and the presence of the other development actors and organisations.

The survey households were mixed in terms of their caste and ethnicity,\(^9\) but subsistence and semi-subsistence farming, complemented by non-farm work, dominated as livelihood activities

---


9 David Gellner (2007) provides a summary of caste, ethnicity and inequality in Nepal. According to Gellner, Nepal’s caste system can be traced back to the autocratic Rana regime (1846-1951) when society was ordered according to orthodox Hindu notions with high caste groups (landowners, priests, administrators and policemen) and low caste, untouchable artisans (Dalits). The present day hill ethnic or
and as sources of income (Table 2). Few household heads were educated past secondary level, and over 60 per cent either had no education or were educated only to primary level. That said, relatively few self-defined themselves as ‘very’ poor, although most regarded themselves as of only ‘middling’ status in socio-economic terms.

[TABLE 2 ABOUT HERE]

4. DISCUSSION

4.1 Patterns of living and livelihoods

Livelihoods in the two research VDCs, as they are in many parts of the global South, are increasingly multi-stranded and multi-sited (Table 3). Not one of our interviewed households relied on a single activity to meet their livelihood needs, whether that was farming or labouring, or working as a migrant or teacher. Security was delivered through managing a diversity of activities, and household livelihoods comprised an average of three elements, ranging from two to five. While farming remained important, in terms of simple number of activities, non-farming dominated livelihoods, making up over two-thirds of the total. Furthermore, while close to half of these elements (43 per cent) were home-based (whether farm or non-farm), 19 per cent involved daily work beyond the village, 6 per cent work in another area of Nepal, and 26 per cent work overseas. In terms of raw numbers, therefore, well over half of our respondents’ livelihoods were focused outside their village of residence. There has been a considerable delocalisation of livelihoods.

[TABLE 3 ABOUT HERE]

4.2 Vulnerability

The population of the research sites, in general, were vulnerable in livelihood terms. The environment was not a rich one, landholdings were small and declining, and natural hazards including both floods and earthquakes were real threats in the area. In addition, caste and gender inequalities exerted their influence, limiting opportunities for the lower castes and for women, while cultural norms such as wedding customs placed a significant burden on some poor and middle households. These vulnerabilities, while they were not set in stone, were persistent and long-standing. Perhaps reflecting the enduring nature of these constraints to building in situ sustainable livelihoods, migration to work in other places was a strategy that households have long had to entertain. While not all households were equally able to take advantage of such non-local opportunities, and the poor found it particularly hard to access the funds to finance international labour migration, the search for work beyond the village was an enduring theme in the area. Some of these inherited vulnerabilities were reflected in our survey and interviews.

_tribal groups were situated between the two. While the caste system has officially been abolished, de facto it continues to prevail and shape societal structures and interactions._

_Sunam and McCarthy (2016) note how much harder it is for the poor to access the considerable amounts needed to fund international labour migration, and the increase costs they incur and risks they face. They also, however, note that even poorer households find ways to work abroad._
Perhaps most notable were the effects of personal immobility, which continued to shape and limit opportunities for some households and individuals. In comparison to the hill districts, Aurabani and Prakashpur have good road connections to nearby urban centres but for the landless and land poor who relied on wage labouring to meet their basic needs, and families with caring responsibilities or where the de facto head was female, the issues of personal isolation and immobility were very real. Without a secure in situ livelihood delivered through ownership of, or access to land, such households often had little choice – particularly when local work opportunities were scarce – but to seek work away from the local area. Of the 19 households that we interviewed in detail, ten usually met their immediate staple food needs from own-account production and six were chronically food insecure in terms of own-account production.\(^{11}\)

Aarati (Interview code #2-2) belonged to just such a food insecure household in Aurabani. She and her husband had four children, and no land. They were reliant on day labouring work to survive and during the winter when local farm work was hard to come by they were forced to look further afield. Aarati’s husband sometimes travelled to the town of Biratnagar 30 km away to seek work and this meant that he could be absent for 10 days or more. While factory work was available locally around the town of Duhabi (10 km from Aurabani) and along the road to Biratnagar he would have struggled to make it to the factory early enough in the day to clock in, and the pay was too meagre to make it worthwhile staying away overnight from home.\(^{12}\)

Given the scarcity of land, the general increase in the number of households with sub-livelihood plots, and the growing pressure to earn cash to meet essential needs, the implications of relative personal immobility had grown. This is not to say that landlessness was a new condition in the area; some of our interviewee families had been landless for generations. What does seem to have occurred, however, is a shift from sharecropping to wage labouring as the primary means by which the landless made a living, at least locally. In the past, the landless would establish long-term relationships with a landowner and secure sharecropping rights to land. Today, sharecropping agreements – usually 50/50 in our research sites – were renewed each year and increasingly landowners were choosing to hire daily wage labour to work their land rather than enter into more permanent sharecropping agreements, because of a fear that sharecroppers might be awarded ownership rights. This increased the need for those without land to find income-earning opportunities beyond the local area.

While the community obligations of the past – reflected in share-cropping agreements – may have partially unravelled, working against this trend was an increase in village farm labouring opportunities. The absence of so many villagers, whether as migrants overseas or as local workers, left some households short of labour. Kali (Interview code #9-11), a member of the Chaudhary caste and one of the larger landowners in the area with 6 bighas (3.6 ha) of land, struggled to manage his farm with all his children engaged in off-farm employment. He used a tractor to prepare his land but even so he said that finding labour was a struggle because so

\(^{11}\) It is worth emphasizing, however, that households required a significant surplus to earn an income to meet the burgeoning cost of other essentials beyond food. This, more often than not, could not be secured through land-based production alone.

\(^{12}\) Farm labour and house construction in the Aurabani pays more, up to Rs 500/day, as opposed to Rs 318/day for factory work.
many Aurabani villagers preferred to work in local factories rather than on the fields. The result was that wage rates had risen, tilting local power relations a small way in favour of labour as they negotiated with larger land owners over work.

The role of traditional social support networks played out in other ways too. It was common for whole villages to move from the hills to the Terai together, taking their social support systems with them. A Dalit\textsuperscript{13} from the damai (tailor) caste explained that the high caste Brahmin households from his hill village in Khotang district moved first and given the good relations between the Dalits and Brahmins they decided to follow. These good relations continued with the Brahmin households supporting the Dalit tailor and his family by giving them work and social support, in effect a replication of relations as they formerly operated in Khotang. The head of the household interviewed felt that this traditional patronage relationship, known as bista,\textsuperscript{14} offered some social protection to vulnerable households (Interview code #9-15). It is important to note, however, that while there are elements of inherited social protection within these traditional systems, they are also associated with extreme social discrimination including untouchability which has contributed to social vulnerability and poverty amongst particular caste groups, not least by limiting their livelihood opportunities (see, for example, Cameron, 1998 and Sunam, 2014).

The ultimate off-farm opportunity for men in the area – and in Nepal – was international labour migration. Among the small sample of households who we interviewed in detail, there were members working in Afghanistan, India, Malaysia, Qatar, Saudi Arabia and South Korea. Households without an adult male to be the de facto head in the absence of a (male) migrant were, however, constrained in their scope to engage in such migration. Several times we were told of the difficulties that female-headed households had to face as they struggled to manage in a man’s world, and the security concerns with which they had to contend (e.g. household #5-5).

While physical isolation and relative immobility remained a problem for some households – for economic and social reasons – the general story in the area was one of more transport infrastructure, improved access, and better services and facilities. Pushkar (Interview code #8-7), the head of a relatively wealthy high caste hill Brahmin household who moved to Prakashpur in around 1980 from the hill district of Khotang noted how roads, clinics and schools had all proliferated in the area since his arrival (Illustration 3). Previously they were dependent on the town of Inaruwa for even basic services; now many of these were closer to hand.

[ILLUSTRATION 3 ABOUT HERE]

\textsuperscript{13} A low-caste group formerly considered “untouchable” (Gellner 2007).

\textsuperscript{14} The term bista is used when a higher caste household or individual provides protection, social support or pay for annual services offered by a lower caste household or individual (for example, a tailor, blacksmith or shoe maker). A tailor, for instance, might be paid a fixed amount of food grain to provide tailoring services for the year to the higher caste bista family.
The area is susceptible to earthquakes, and risk perceptions will have been amplified following the Gorkha and Kodari earthquakes of April and May 2015, just a few months after our field research.\textsuperscript{15} It is significant, however, that earthquake risk was far down households’ lists of priorities and concerns when we undertook our survey in November 2014 and interviews in January 2015 (also see Sudmeier-Rieux et al., 2013).\textsuperscript{16} Of far greater concern to households was the risk of flooding from the Koshi River, particularly for interviewees in Prakashpur VDC which straddled the river.\textsuperscript{17} The 2008 Koshi floods affected much of Sunsari District (of which Prakashpur is a part). An embankment built and maintained by the Indian government now notionally protects the area but, even so, some respondents told us that they were actively seeking ways to leave the area such was their sense of exposure and level of concern.\textsuperscript{18}

In these ways, established vulnerabilities did find their continuing presence in contemporary livelihoods in our field sites: lack of land and the struggle to meet basic, existential needs; isolation, limited mobility and continuing difficulties in accessing services and amenities, at least for some households; and flood risk and, at the time of our research, the more distant threat posed by earthquakes. In that sense, some of the insecurities that households faced can be seen as long-standing inheritances of the past. It was also the case that development interventions had played a significant role in easing their severity. Most notably, improved transport infrastructure had widened households’ ability to connect with more distant places and to engage with work in such places. A degree of development in the local vicinity had also led to the growth of local employment opportunities. Moreover health, educational and service (power, water) provision had all markedly improved, notwithstanding Nepal’s evident and well-established development failures.

In further fieldwork undertaken since the 2015 earthquakes it was quite clear that residents in the field sites were far more conscious of earthquake risk. They were interested to find out more about earthquake preparedness, thought this should be part of the school curriculum even at primary level, and also wished for masons’ training in earthquake resistant construction practices.

The previous earthquake mentioned to us occurred in 1988, which only caused minor damage.

Although we only surveyed and interviewed households on the left bank of the Koshi – the closest bridge is some way downstream.

One interviewee said that the fact that the Indian government maintained the embankment was reassuring; had the Government of Nepal constructed the embankment then, he told us, it would have failed many years back.
4.3 Precarity
One of the greatest puzzles – and challenges – of the development process is that the evidently most successful path to faster economic growth, higher incomes and lower income poverty, namely through foregrounding the market imperative, also bestows new forms of vulnerability on marginal groups and poorer households in the global South. We term such new forms of vulnerability, precarity, to distinguish them from established and inherited vulnerabilities, as discussed above. In what ways, then, can households in Aurabani and Prakashpur be considered ‘precarious’ and how have these been produced against a backdrop of (slowly) improving conditions?

The first area where we identify elements of precarity is in the changes that have been wrought to agriculture and farm systems, and the accompanying social relations of production. These occur in different ways, for different groups. Land owners complained of declining and unstable returns to farming, and rising costs while sharecroppers were worried that their long-standing relations with landowners were being eroded. In particular, when land was sold to outsiders this unsettled established norms of obligation and reciprocity, permitting the new owner a degree of latitude in managing the land either by farming it themselves or through engaging others as wage labourers. 

Farming, in other words, was changing from a way of life, with imbrications of social obligation, to a business where the profit motive was ascendant. Budh Narayan Yadav (Interview code #9-2), the head of a comparatively wealthy, landed household owning 3 bighas of rice land or around 2 ha explained the scissor effect that farming households like his were facing. Yields were, he told us, declining, which he put down to the effects of deforestation on water availability. To counteract the worsening environmental conditions (as he saw them), he was investing in chemical inputs – fertilizers and pesticides. While in the past he could produce enough without chemical inputs, now they were essential if he was to maintain production. He was caught, as it were, on a treadmill of declining yields demanding additional chemical inputs, requiring more cash, necessitating a larger surplus to recoup the investment in the crop, in turn needing greater production.

While none of our respondents sought to explain it in this manner, this farming squeeze is, to a considerable extent, policy-induced. Decisions taken in Kathmandu regarding the nature and degree of farm support (price support for outputs, subsidisation of inputs, investment in irrigation), the character of agricultural extension (promotion of new seeds, fertilisers and other chemical inputs), and land policies with regard to tenancy, public land and sharecropping, all these become inscribed in the manner and form that farming took in the area. The views that were recounted to us about agriculture, then, including the risks and returns to farming, are reflective not just of the operation of the market but of a market shaped by a particular policy environment.

Farming, in this way, was becoming riskier even for those few households with good-sized holdings. This was a key reason why people were looking to opportunities outside farming and beyond the local area. Farming was gradually losing its ability to deliver the income to support a socially acceptable level of subsistence; it was, in effect, becoming sub-livelihood not just because costs were rising and production declining, but because needs dictated by local custom were also growing. In addition, however, as many households reflected on the
low social status of farming as a profession as commented on the economic problems they faced.\textsuperscript{19}

Santidevi (Interview code #4-1) explained to us why her son’s future was not that of a farmer. The younger generation, she told us, are not strong enough for the hard work of farming, and that having acquired a degree of education to waste that on farming would make little sense. In this way, education not only extends childhood into early adulthood but also makes people less suitable for a farming life and less enamoured of such a life. No one, Santidevi told us, wants to be a ‘finger print man’ or aautha chap (औंठा छाप) (i.e. one who cannot write his own name). It is through education that people can access non-farm work which can, in turn, she thought, secure their future. Eight of our interviewees specifically commented on the importance of education for livelihood security and parents struggled to find ways to better educate their children. The reality in the area, however, was that schools were poor, and that applied even to local private or ‘boarding’ schools. Furthermore, local opportunities for those with education were distinctly limited; education could only really be cashed in by leaving the area, whether for Kathmandu or overseas.

The best means to do this in the view of most households – and, seemingly, a large proportion of the population of Nepal – is through international contract labour migration. In Aurabani’s Ward 5, 35 households were reported to have members working overseas at time of our field research, comprising around one-in-four households. Local work, while it might secure existential survival, generated too meagre a return to lever poor households into the category of non-poor, and the non-poor into the status of comfortably off. It was not, in other words, a strategy of accumulation. During one interview (Interview code #5-7), a group of villagers were of one voice in telling us that with local non-farm work it was a case of ‘earn today, spend today’ (aajai kamaune, ajjai kha [आजै कमाउने, आजै खाने]), or living from ‘hand-to-mouth’. By comparison to most local non-farm work, overseas employment not only permitted a degree of income accumulation, it also bestowed other advantages which can be set against the disadvantages of farming. When men returned from abroad, we were told by the same group of villagers, they looked good; they were strong physically and had a certain presence and confidence that came from living, working and being successful overseas. Overseas labour migration also, however, embodies certain risks and contributes to precarity.

Most obviously, there are considerable up-front costs that have to be met: agents’ fees and flight and other associated (passport, health check) costs which characteristically amounted to Rp 150,000 (US$1,500). At times these costs were guaranteed against land and for our interviewees it took between 10 (Interview code #6-3) and 12 months (Interview code #6-4) to repay these debts – before the process of accumulation could even begin. Some borrowed funds from relatives to fund their sojourn overseas (Interview code #9-15), others had to resort to private money lenders where the rate of interest ranged from 3 per cent per month with collateral (a compound annual interest rate of 43 per cent) to 5 per cent per month without collateral (a compound rate of interest of 80 per cent). While the large majority of our respondents reported successful overseas migration forays, at least in economic terms (we did not focus on the emotional and social tensions that arise during absence and on return), there was one failed migration experience to Qatar (Interview code #6-4). While the household concerned managed to weather this failure, there are ample examples from

\textsuperscript{19} In other, more remote areas of Nepal there has occurred large-scale land abandonment (see Paudel et al. 2014).
studies in Nepal and other countries reporting on the sometimes disastrous long-term livelihood effects of failed overseas migration forays (see Hewage et al. 2010, Sunam and McCarthy 2016).

While young men from many of the landless and land poor households in the area sought to secure overseas work, partly because they could see little future in farm work with its poor returns and low status, the attractions of owning land, paradoxically, remained quite high. For many, if they were in a position to buy land, they would – although it was priced out of the reach of most and the traditional land tenure systems which continues to dominate works against the poor and marginalised. A distinction needs to be made between farming as an activity and the ownership of land – which might be physically worked by others. Land not only bestows prestige and has social transfer value, it is an investment, can be used as collateral (not least to fund overseas labour migration), and is a source of security in the context of uncertainty. The puzzling persistence of the small (sub-livelihood) landholding in contexts of sometimes deep and rapid economic transformation has been noted across Asia (Rigg et al., 2016).

Krishna (2010) in his work on India argues that the poor and near-poor are often ‘just one illness’ away from livelihood calamity. The development project, by making medical care a possibility but without, in most poor countries, providing universal health insurance to make that a risk-free reality has made the process of accessing medical care for some household’s deeply troubling. Krishna (2010: 87-95) terms this the ‘health-poverty trap’, when medical costs can be so far beyond a household’s capacity to pay that the effects are catastrophic for the future of the household.

Santidevi (Interview code #4-1) was a 50 year-old wife, mother and de facto household head, a role that came her way when her husband, a respected secondary school teacher, suffered a brain haemorrhage in December 2013, leaving him paralysed and bed-ridden. To finance his medical care the family – formerly quite affluent in village terms – borrowed Rp 1 million (US$10,000). Half of this came from a bank, which demanded their land as collateral, and half from a money lender. From being very comfortably off and seemingly secure, the future of Santidevi’s family was, at the time of our interview, precarious. They had a large debt guaranteed against their one asset – their land – and the prospect that they might lose this land if they could not keep up with the payments. As Santidevi told us, she was worried about the future. Her husband used to handle everything; now she had to take on the role of household head, managing finances and the farm, and dealing with the hiring of labour. She was inexperienced in such matters, worried whether she could manage, and was fearful of what the future might hold.

4. Conclusion: between a rock and a hard place
In this paper we have sought to distinguish between two forms of livelihood exposure, namely vulnerability and precarity. Both are forward-looking and predictive: they do not record a current state of being, but foretell what might – or could – be. We see the first, however, as reflecting back on the vulnerabilities that have long been a feature of living in this area of Nepal – indeed in many parts of the rural global South. Development, mainly in the guise of market integration albeit with some valuable interventions on the part of the Government of Nepal, has ameliorated some of these sometimes long established vulnerabilities but they nonetheless

---

20 The possibility of spending large sum on medical bills was also explicitly mentioned by two other interviewees (Interview codes #9-2 and #9-12).
continue to be a feature of life and living in Aurabani and Prakashpur. Despite these vulnerability 'successes', this does not mean that households and individuals are necessarily more secure in terms of their futures, an essential element in the achievement of a sustainable livelihood. This is because there is a second approach to thinking about livelihood exposure, namely through the lens of precarity. This is ‘new’ in the sense that it derives from contemporary processes, some market-induced and some policy-induced.  

Taking this discussion away from our field sites and from Nepal, Table 1 provides a listing of the kinds of exposure factors that lead to vulnerability on the one hand, and precarity on the other. The former, as noted earlier, we see as ‘inherited’ and the latter as ‘produced’. This distinction should not be seen as absolute, although we do think that it is a valuable one to make because it encourages a reflection on the causes of vulnerability/precarity and the consequences of the interventions that drive the development-as-modernisation agenda. Furthermore, while we have allocated factors to one or the other of the two columns, some cross over. Dispossession of land, for example, is hardly new, although there is a strong argument that accumulation by dispossession has intensified in the modern period in countries such as the Lao PDR (Kenney-Lazar, 2012) and Ecuador (Veuthey and Gerber, 2012), and is closely tied to modernisation processes and the insinuation of capitalist relations into the countryside as land and coastal resources are capitalised. 

There are dynamic links between vulnerability and precarity and the manner of their association with wider development processes. For example, and referring back to our Nepal case:

→ In the past, physical isolation and relative immobility in Nepal were important barriers to livelihood improvement;
→ road construction and improving public and private transport and heightened levels of personal mobility have enabled households to engage with the world beyond the local area and the opportunities to be found there; and
→ this has raised incomes, reduced inherited vulnerabilities and bolstered livelihoods.

But, at the same time, these development interventions and effects have:

→ Commoditised land, raising its value and therefore making it harder for the young, land poor and landless to secure a land-based livelihood;
→ encouraged new land owners to change the basis of long-standing tenancy or sharecropping arrangements;
→ exposed international labour migrants to the risk of migration failure and high levels of debt; and;
→ thereby injected a degree of precariousness into livelihood profiles.

There are specificities to this Nepal case, as there would be with any such study. We also believe, however, that it speaks to a wider set of issues.

There is often a tendency to speak of ‘vulnerability’ as if it is a condition with common roots and manifestations. Just as Amartya Sen (1981) emphasised the need to think of the poor not as a singular army, but as a differentiated population with very different resource endowments, exposures and potentials, so too with the vulnerable and, therefore, vulnerability. Here we set

21 We accept however that markets are shaped by policies.

22 This is part of the ‘land grabbing’ debate.
out a simple distinction between vulnerability and precarity to draw attention to just one facet of such difference; the complexities go much further. Our concern is to direct attention to the ways in which mainstream development interventions can have contradictory effects. In taking advantage of the new opportunities that have arisen through development interventions based on the growth-generating logics of market integration, some of our households were becoming exposed in new ways. They were caught between, so to speak, the rock of vulnerability and the hard place of precarity.
Acknowledgements

This paper draws on fieldwork funded through the Earthquakes without Frontiers project supported by NERC and the ESRC (http://ewf.nerc.ac.uk/) under the ‘Increasing Resilience to Natural Hazards Programme’ (grant number: NE/J01995X/1). The paper has also benefitted from discussions connected with the Singapore MOE Tier-2 grant on Governing Compound Disasters in Urbanizing Asia (MOE2014-T2-1-017). We thank the National Society for Earthquake Technology-Nepal (NSET), as our collaborative partner, and the Nepal Risk Reduction Consortium – in particular Flagship 4 partners – who have helped shape our thinking on livelihoods, disasters and development. Finally, we acknowledge the willing engagement of villagers in our two research sites, and thank them for their time and for welcoming us into their homes.
References
Table 1: Drawing a line between vulnerability and precarity

<table>
<thead>
<tr>
<th>Character of Exposure</th>
<th>Vulnerability (inherited exposure)</th>
<th>Precarity (produced exposure)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental</strong></td>
<td>- Occupation of marginal, hazard-prone land</td>
<td>- Dispossession of (and from) land</td>
</tr>
<tr>
<td></td>
<td>- Small landholdings</td>
<td>- Commercial logging and associated soil degradation</td>
</tr>
<tr>
<td></td>
<td>- Steep, poor quality land in the hills which limits agricultural productivity</td>
<td>- Resettlement on marginal lands</td>
</tr>
<tr>
<td></td>
<td>- Absence of irrigation technologies</td>
<td>- Chemicalisation of agriculture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Loss of biodiversity</td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td>- High dependency on agriculture</td>
<td>- Unsustainable levels of debt</td>
</tr>
<tr>
<td></td>
<td>- Lack of access to credit</td>
<td>- Market dependencies</td>
</tr>
<tr>
<td></td>
<td>- Lack of access to markets</td>
<td>- Growing inequalities between rich and poor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Out-migration</td>
</tr>
<tr>
<td><strong>Political and socio-cultural</strong></td>
<td>- Caste system and associated marginalisation</td>
<td>- Erosion of the community covenant (moral economy)</td>
</tr>
<tr>
<td></td>
<td>- Gender divisions in society</td>
<td>- Falling fertility rates, ageing population</td>
</tr>
<tr>
<td></td>
<td>- Participatory exclusions</td>
<td>- Emergence of multi-sited households and crisis of care for elderly</td>
</tr>
<tr>
<td></td>
<td>- Lack of empowerment</td>
<td>- Left-behind children</td>
</tr>
<tr>
<td></td>
<td>- Feudalism, lack of land reform</td>
<td></td>
</tr>
<tr>
<td><strong>Poverty</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Old poverty</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>New poverty</strong></td>
<td></td>
</tr>
</tbody>
</table>
Table 2: Survey household profiles, Prakashpur and Aurabani (2014)

<table>
<thead>
<tr>
<th></th>
<th>Prakashpur</th>
<th>Aurabani</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Caste and ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High caste</td>
<td>28.8</td>
<td>6.9</td>
<td>17.9</td>
</tr>
<tr>
<td>Middle caste</td>
<td>13.6</td>
<td>22.4</td>
<td>17.9</td>
</tr>
<tr>
<td>Low caste</td>
<td>30.5</td>
<td>50.0</td>
<td>40.2</td>
</tr>
<tr>
<td>Hill-ethnic</td>
<td>27.1</td>
<td>20.7</td>
<td>23.9</td>
</tr>
<tr>
<td><strong>Education of household head</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>22.0</td>
<td>22.4</td>
<td>22.2</td>
</tr>
<tr>
<td>Literate</td>
<td>33.9</td>
<td>31.0</td>
<td>32.5</td>
</tr>
<tr>
<td>Primary level</td>
<td>6.8</td>
<td>10.3</td>
<td>8.5</td>
</tr>
<tr>
<td>Lower secondary level</td>
<td>23.7</td>
<td>13.8</td>
<td>18.8</td>
</tr>
<tr>
<td>Upper secondary level</td>
<td>11.9</td>
<td>13.8</td>
<td>12.8</td>
</tr>
<tr>
<td>University level</td>
<td>1.7</td>
<td>8.6</td>
<td>5.1</td>
</tr>
<tr>
<td><strong>Income sources (%)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsistence farming</td>
<td>76.3</td>
<td>28.8</td>
<td>67.2</td>
</tr>
<tr>
<td>Day wage labouring</td>
<td>10.2</td>
<td>6.8</td>
<td>19.0</td>
</tr>
<tr>
<td>Formal employment</td>
<td>1.7</td>
<td>3.4</td>
<td>8.6</td>
</tr>
<tr>
<td>Own business</td>
<td>6.8</td>
<td>11.9</td>
<td>1.7</td>
</tr>
<tr>
<td>Other work</td>
<td>5.1</td>
<td>22.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Other</td>
<td>0.0</td>
<td>27.1</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: survey, 2014

Note: examples of caste groups represented among our interviewees were: low caste: Rishidev (or Mushar) and Uranw; Middle caste: Chaudhary (Tharu) and Yadav; high caste: Brahmin and Chhetri.
### Table 3: The elements that make up livelihoods in Aurabani and Prakashpur

<table>
<thead>
<tr>
<th></th>
<th>Home</th>
<th>Village</th>
<th>Local</th>
<th>National (non-local)</th>
<th>International</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td>Non-farm</td>
<td>6</td>
<td>3</td>
<td>9</td>
<td>2</td>
<td>12</td>
<td>32</td>
<td>68</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>3</td>
<td>9</td>
<td>2</td>
<td>12</td>
<td>47</td>
<td>100</td>
</tr>
<tr>
<td>%</td>
<td>43</td>
<td>6</td>
<td>19</td>
<td>6</td>
<td>26</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** this table records the number of separate elements that comprised household livelihoods among the interviewed households. Non-local work is only included here if it involves remittances to the natal household.
Figure 1: Poverty in Nepal, 1985-2010

Figure 2: Sunsari District and the research sites of Aurabani and Prakashpur
Illustration 1: Sunsari District
Illustration 2: Traditional housing in Aurabani
Illustration 3: A daily market at the roadside between Aurabani and Duhabi