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Getting stuck, falling behind or moving forward: Rural livelihood movements and persistence in Nepal

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ABSTRACT

Research on household livelihood dynamics is central to rural poverty reduction. In this paper, we adopt a three-wave panel dataset to explore the persistence of and transitions in household livelihoods in three districts of Nepal using duration and dynamic probit models. The results demonstrate that the livelihood strategies of rural households are dynamic: approximately 16 per cent of the sample households transitioned up to high-remunerative livelihood strategies, 10 per cent of the households shifted down to either low- or medium-remunerative livelihood strategies, and 69 per cent remained trapped in low-remunerative livelihood strategies. The major upward transition occurred from medium-remunerative strategies to high-remunerative strategies (14 per cent). Overall, 70 per cent of the households persisted in one of the three livelihood strategies, and the remaining 30 per cent changed their strategy at least once. This dynamic is associated with the households' duration in a particular livelihood strategy and the various characteristics of households and household heads. Understanding livelihood movement, livelihood persistence and the associated covariates and targeting the poor on this basis is crucial to combating rural poverty and dismantling poverty traps. To this end, the present study suggests (i) strengthening physical and financial asset endowments to address low-remunerative strategies, (ii) improving infrastructure connectivity, particularly in remote and inaccessible areas, (iii) insuring against shocks, iv) enhancing opportunities for generating remittances and enabling petty trade, and (v) supporting the establishment of business ventures.

1. Introduction

Most rural households engage in various income-generating activities to sustain or improve their livelihoods (Kandulu et al., 2012; Milgroom and Giller, 2013). Rural households often diversify their livelihoods (Barrett et al., 2001; Davis et al., 2010) based on the desire to spread the risk of anticipated and unanticipated shocks (i.e., weather events) (Gentle and Maraseni, 2012) and on activity synchronism (e.g., households engage in crop production and thus raise livestock, or vice versa) (Walelign, 2016b). Households combine livelihood activities via different methods (in terms of variety and intensity), and each particular combination is considered to be a livelihood strategy (Scoones, 1998; Ellis, 2000). Rural households follow distinct livelihood strategies that are dictated by household asset endowment and exposure to various contexts (e.g., policies, institutions and shocks) (Ellis, 2000; Barrett et al., 2001; Winters et al., 2009). Given its asset endowment and a set of contexts, a household chooses the livelihood strategy that optimises its livelihood outcome, often measured as income (Brown et al., 2006).

The methods for quantitatively identifying livelihood strategy categories and the covariates of the choice of strategy are well studied from a static perspective (e.g., Brown et al., 2006; Ansoms and McKay, 2010; Nielsen et al., 2013). Previous studies defined livelihood clusters using either household asset investment in different livelihood activities, household asset endowment or absolute income/relative income from each livelihood activity. These studies employed either a latent cluster analysis, a combination of agglomerative hierarchical and k-means cluster analyses or other means, and they defined groups by emphasising one income source (e.g., environmental income) or the primary occupation of the household head. The findings of these studies reveal that household assets, household and household head characteristics and village-level contextual factors dictate household livelihood choices. This finding is, however, predicated on a snapshot analysis of rural livelihoods that fails to consider that they are dynamic[1] (de Haan and Zoomers, 2005; Scoones, 2009).

Rural households switch or modify their livelihood strategy in response to changes in their asset endowment (depletion or accumulation), pressure from unexpected shocks, stresses and changing con-

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[1] The other limitations of the livelihood research include a micro-focus and a failure to examine power and political aspects (Scoones, 2009). These issues are, however, beyond the scope of this study.

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textual or mediating factors (Berhanu et al., 2007; van den Berg, 2010; Gentle and Maraseni, 2012). The influence of these changes on household livelihoods varies, and households respond differently to the same changes. Hence, not all households follow the same livelihood trajectory (Ulrich et al., 2012). Some households remain in low-remunerative livelihood categories (livelihood strategies that generate less income than others, e.g., small-holder farming), whereas others persist in high-remunerative livelihood categories (livelihood strategies that generate higher income than others, e.g., business operations, large-scale farming). Similarly, some households move up to high-remunerative livelihood strategies, whereas others drop down to low-remunerative livelihood strategies (van den Berg, 2010). Understanding the nature of these livelihood changes and households' persistence in the various strategies is indispensable to devising pro-poor policies and strategies.

However, few studies have quantitatively examined household livelihood strategies (from a dynamic perspective), with some notable exceptions (e.g., van den Berg, 2010; Walelign et al., 2015, 2017). This lack of information limits our understanding of who enters and exits high- or low-remunerative livelihood activities, who persists in high-remunerative livelihood strategies, who becomes trapped in low-remunerative livelihood strategies and the covariates of both these movements and persistence. This type of analysis involves a dynamic perspective that requires panel datasets with repeated observations of the same households over time. Even with the growing availability of rural panel datasets, dynamic rural livelihood studies are scarce, as much of the academic focus has been on rural poverty incidence, dynamics and traps (e.g., Krishna, 2010; Naschold, 2012; Dhamija and Bhide, 2013). This focus is the result of an assumption that understanding the nature of poverty and poverty movements is pivotal to poverty reduction. However, this assumption is not accurate, as the resulting poverty studies suggest targeting the poor with a uniform policy package even though there is a high degree of heterogeneity among both the rural poor and households trapped in poverty (Ansoms and McKay, 2010).

In this paper, we assert that an understanding of livelihood dynamics is equally (perhaps more) important to (than) understanding rural poverty dynamics to reduce rural poverty. The rural poor are a heterogeneous group of people who engage in a variety of livelihood activities and adopt diverse livelihood strategies to maintain or improve their livelihoods (Yaro, 2002; Ansoms and McKay, 2010). Hence, livelihood strategy dynamics studies permit the exploration of livelihood diversity among rural poor households (Ellis, 2000; Scoones, 2009). In this way, rural livelihood dynamics studies help to identify those livelihood strategies that are associated with high welfare and a pathway out of poverty. These studies explore why households move into, out of or remain in these livelihood strategies. Thus, rural livelihood dynamics research is well-suited to supporting the development of better-targeted promotion policies.[2] Livelihood activity-based targeting and intervention is founded on the notion of 'who needs what' rather than simply targeting the poor (e.g., by providing cash transfers) with a uniform policy package (Yaro, 2002; Ansoms and McKay, 2010). Therefore, livelihood dynamics studies provide better solutions for dismantling existing poverty traps and preventing households from moving deeper into and becoming trapped in poverty.

The objective of this paper is therefore to examine (quantitatively) the livelihood movement and the livelihood persistence of rural households in three districts of Nepal. In acknowledging the diversity of rural livelihoods, we identify three broad categories of livelihood strategies at three points in time over a six-year period and examine household entry into, exit from, and persistence in these categories. We also examine aggregate household entry and exit rates for the three categories and identify the determinants (with a focus on the duration of livelihood strategies) of these rates. Finally, we test the presence of state dependence (persistence) in household livelihood choice.

2. Conceptual framework: the livelihood ladder

The conceptual framework developed in this paper – the livelihood ladder – is presented in Fig. 1. This framework illustrates two aspects of rural livelihood dynamics. First, the framework indicates exit from and entry into different livelihood strategies, i.e., high-, medium- and low-remunerative livelihood strategies (known hereafter as HRLS, MRLS, and LRLS, respectively). The LRLS, MRLS and HRLS categories are depicted at the bottom, middle, and top sections of the livelihood ladder, respectively. Not every household enters into a higher remunerative livelihood strategies or exits from a lower remunerative livelihood strategies. These two processes require a relatively higher asset endowment and the accumulation of assets (e.g., land, livestock and productive implements) or the occurrence of positive events (e.g., remittance inflow, finding a salaried job), which reflects the presence of entry and exit barriers (Barrett et al., 2001). Consequently, the livelihood ladder is pyramid-shaped, indicating that the entry rate for the next level decreases as one moves up the livelihood ladder and that it increases as one moves down.

Second, the livelihood ladder also indicates the number of households in each of the livelihood strategies, along with a poverty dimension. Because poor households have fewer livelihood assets (Foster et al., 2011), the majority of poor households adopt LRLS or MRLS because these livelihood strategies are relatively less asset-demanding (Barrett et al., 2001; Bezu et al., 2012). Correspondingly, few households, mostly the non-poor who are privileged in terms of livelihood assets (Foster et al., 2011), adopt HRLS (Stifel, 2010). Given poor households' behavioural preference for more defensive asset portfolios at the expense of profit generation due to risk aversion and subsistence constraints (Zimmerman and Carter, 2003), these households have a low chance of moving. Rich households are well-endowed with assets and interested in higher-yielding portfolios (Zimmerman and Carter, 2003) and have a lower chance of dropping out of the HRLS category, and the associated exit rate is very low unless unexpected negative shocks (e.g., livestock loss, loss of family breadwinner) occur. Hence, the number of households that adopt LRLS is significantly higher than the number of households that adopt HRLS, and the shape of the livelihood ladder is based on the number of households in the MRLS category. If the number of households in the LRLS category is greater than that in MRLS category, the livelihood ladder forms a pyramid shape. If more households move up and join the MRLS and HRLS groups from the LRLS groups following the household's acquisition of additional assets, the base of the pyramid narrows. In addition, the number of households in the MRLS category is greater than that in the LRLS category over time, and the livelihood ladder deviates from a pyramid shape as indicated by the dotted lines.

The livelihood ladder also provides a useful perspective for understanding the nexus between livelihood strategies and poverty when adopting appropriate policies for poverty reduction. LRLS are characterised by an increased level of poverty and low asset endowment, and HRLS are characterised by lower poverty levels and high asset endowment. This perspective helps in the development of asset promotion policies that enable the poor to accumulate the necessary assets to move up the livelihood ladder. For example, a land policy could secure a minimum quantity of land for the poor or enable (poor) households in the LRLS group to accumulate land. These households can subsequently move upward to either the MRLS or HRLS category; hence, the shape of the pyramid in Fig. 1 becomes narrower at the bottom.

[2] Promotion policies are policies that allow poor people to move out of poverty or that put them on a sustainable path to move out of poverty by enabling them to accumulate necessary assets.