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A review on the link between nonfarm activities, land and rural livelihoods in Vietnam and developing countries[▼]

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Abstract: Although there has been much empirical evidence on the link between nonfarm employment, land and rural livelihoods, few studies have reviewed this relationship, given the context of land shrinking due to urbanisation and industrialisation in developing countries and Vietnam. Thus, this paper reviewed recently empirical evidence on this link in the context of increasing land loss to urbanisation and industrialisation in some developing countries and Vietnam. It was found that while land is of great importance to a number of countries, it seems to be less important to others. Land shortage can be a positive factor encouraging rural households' participation in nonfarm activities and improving their welfare in countries in which non-farm job opportunities are available to a large part of the population. Nevertheless, this can negatively affect rural household livelihoods in countries lacking such non-farm jobs. In the case of Vietnam, both farmland and nonfarm activities provided vital sources of livelihoods for rural households. In addition, in Vietnam's peri-urban areas where more and more farmland has been lost to rapid urbanisation and industrialisation, nonfarm employment was found to help households reduce their livelihood dependence on farmland and improve their welfare.

Keywords: Rural livelihoods, nonfarm activities, land loss, land shortage and livelihood diversification.

JEL: Q150, Q 190

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1. Introduction

In the poor world, where most people rely largely on agricultural production, land becomes the crucial livelihood asset. In almost developing countries, agricultural production plays a crucial role in growth, employment and livelihoods (DFID, 2002b). Therefore, land and rural livelihood have been topics of interest for researchers and development practitioners. As concluded by Deininger and Feder (1999, p. 1): “In agrarian societies land serves as the main means for not only generating livelihood but often also for accumulating wealth and transferring it between generations.” For this reason, land continues to play a key role in the livelihood strategies of rural people and land change will result in significant impacts on their livelihoods.

In a consultation document regarding the role of land in poverty eradication, DFID (2002b) asserts that land is a basic livelihood asset since it provides shelter and food and all other livelihood activities rely on it. The document also states that the contribution of land to sustainable economic growth is through the productivity and efficiency of land use in agriculture, industries and services. Furthermore, this resource helps achieve higher equality by improving the access of the poor to land security and mitigating vulnerability for the poor by securing their rights to land. Moreover, for farmers, land and their investment in it becomes the most valuable unique asset. The ability to use their land in many ways, not only for farming but also selling or leasing, provides a safety net for those who are unable to cultivate the land themselves (DFID, 2002b).

However, evidence from developing countries shows an important role of non-farm activities in the income-generation of rural households (Carletto, Covarrubias, Davis, B., Krausova, Stamoulis and Winters, 2007) and the role of land has gradually decreased in rural livelihoods and poverty (Rigg, 2006). Other econometric evidence also indicates that land shortage has driven many households into non-farm participation and therefore leads them to pursue this way of enhancing their welfare in Vietnam and other developing countries (Winters, Davis, Carletto, Covarrubias, Quiñones and Zezza, 2009). To the best of my knowledge, few studies have reviewed the link between land, nonfarm employment and rural livelihoods in the context of land shrinking due to urbanisation and industrialisation in developing countries and Vietnam. By reviewing this relationship, the current paper provides a better understanding about the importance of land and nonfarm

activities in rural livelihoods through which useful policy implications can be drawn for Vietnam, given the country's context of farmland shrinking due to rapid urbanisation and industrialisation.

2. Land, nonfarm activities and rural household livelihoods in developing countries

Due to the importance of land to rural livelihoods, a huge number of studies have investigated the relationship between land and rural livelihoods in developing countries (e.g., Bryceson, 1996; DFID, 2002b; Griffin, Khan, and Ickowitz, 2002; Jansen, Pender, Damon, Wielemaker, and Schipper, 2006; Mattingly, 2009; Rigg, 2006; Shackleton, Shackleton, Buiten, and Bird, 2007; Shackleton, Shackleton, and Cousins, 2001; Soini, 2005). A large-scale study of many African countries indicated in past decades, urbanisation and the underperforming industrial sector growth, have been unable to absorb the surplus rural labour available. Meanwhile the increasing population density in rural areas has led to a rapid decrease in farmland size per household, posing severe challenges to rural livelihoods in this continent (Bryceson, 1996). Soini (2005) examined the interactions between land use change and livelihoods in the Chaga farming system on the slopes of Mt. Kilimanjaro, Tanzania. They showed that due to increased population and global climate change, farm size had declined at an alarming rate, which induced farmers to expand cultivation to the lowlands to support their living. Simultaneously, farmers adapted to new circumstances by intensifying farm production and diversifying their livelihood. Unfortunately, due to a lack of skills and adequate support, not all households were able to equally access attractive non-farm employment. Additionally, the absence of supportive factors such as credit and markets has considerably restricted farmers from farm production diversification and intensification.

A study by Shackleton, Shackleton, and Cousins. (2001) in South Africa indicates that arable land resource plays a key role in rural livelihoods. Farmers pursued different land-based livelihood strategies such as arable farming and livestock husbandry. The study concluded that income from farm activities is probably greater than the total of other income sources, including transfers from formal employment and state pensions. Furthermore, various studies have pointed out the role of land in rural poverty eradication, and that the small and declining farm size is a severe constraint that the majority of rural

households have already confronted in Malawi (Ellis, Kutengule, and Nyasulu, 2003), Tanzania (Ellis and Mdoe, 2003), and Uganda (Ellis and Bahiigwa, 2003). A similar reality can be seen in Central America where households with small landholdings and landless farm workers have become the most vulnerable group among the rural poor (Siegel, 2005).

Hanstad, Nielsen, and Brown (2004) applied the rural sustainable livelihood framework to examine the role of land in rural livelihoods in India. They stated that land plays a central role in Indian rural lives. It holds inherent value, and it forms value. A parcel of land can be utilised as a physical or financial asset, and it can be a source of food security and income for a household. In addition, land determines identity and social position within a family and community. Finally, land can also be a basis for political force. For such a strategic role of land in rural livelihoods, the authors proposed some policy implications for securing land rights for the Indian rural poor.

International experience indicates that rapid urbanisation and economic growth coincide with conversion of land from the agricultural sector to industry, infrastructure and residential uses (Ramankutty, Foley, and Olejniczak, 2002). In the context of rapid urbanisation in large countries such as China and India, many studies of farmland loss and rural livelihoods can be found in the recent literature. In China, the most populous country, urbanisation has been encroaching upon a considerable area of farmland and such encroachment raises special concerns about food security and rural livelihoods (Chen, 2007; Deng, Huang, Rozelle, and Uchida, 2006; Wei, Declan, Erda, Yinlong, Hui and Jinhe, 2009; Xie, Mei, Guangjin, and Xuerong, 2005). Farmland shrinking due to urbanisation has significantly affected the livelihoods of rural dwellers. Tan, Li, Xie, and Lu (2005) indicated that from 1987 to 2000, an area of cultivated land equivalent to around 10 million hectares was converted for urban development or devastated by natural disasters and about 74 percent of total urban land was converted from arable land in the country. Every year, this process caused 1.5 million farmers who lived in the populous suburban areas to lose their cultivated land. Tsering, Bjonness, and Guo (2007) examined the relationship between farmland conservation and the livelihoods of urban farmers in the Tibet autonomous region of China. Their study found that the arable resource is the most important asset because of its scarcity and this valuable resource is declining on a large scale in this area. They also concluded that land is actually essential for the food security of households and local sustainable development in the future. However, the authors noted

that for achieving better livelihood outcomes in the future, farmers should be well-educated and well-equipped with labour skills to mitigate their livelihood dependence on farmland.

Indian rural household livelihoods have also faced the challenge of farmland loss on a large scale. Between 1955 and 1985, approximately 1.5 million hectares of farmland were converted for urban sprawl in India (Fazal, 2000). This process resulted in huge impacts on rural livelihoods. The scenario seems to be more severe in India because its large population places great pressure on food supply. To cope with this hardship, technological advances are likely to push up agricultural productivity. Such an increase, however, may be offset by cropland shrinking and the increasing population in this country. In addition, due to the decline in agricultural land, job generation for rural labour is a great challenge for the country, with around 67 percent of its total workforce engaging in the agriculture sector and about two thirds of the total population living in rural areas (Fazal, 2001).

Using secondary data gathered from various published documents in India, Mahapatra (2007) examined how landlessness affected livelihood choices in rural Orissa, India. The study revealed that about one third of landless households adopted a livelihood strategy which absolutely relied on wage employment. Due to not having sufficient land for cultivation, many rural labourers were compelled to sell their labour. This sometimes can put them at a disadvantage because of fluctuations in the labour market. Furthermore the decline in available arable land lowered households' consumption and income in this rural area. Not only influencing livelihood outcomes and strategies, landlessness has also become the main cause of social conflicts which significantly affect the vulnerability context in Indian rural areas (Mahapatra, 2007). Accordingly, the most recent conflicts in India stemmed from land and jobs. The Indian northeast area is a typical case of land shortage causing ethnic conflicts (Fernandes, 2011). Such conflicts are an inevitable consequence of land deficiency and lack of job opportunities which have also been witnessed in other areas such as Rwanda and Kosovo (Ohlsson, 2000).

Because of the importance of land to rural livelihoods, many nations have carried out agrarian policy reforms in order to improve rural livelihoods. Such reforms often focus on land distribution and ensuring farmers' land ownership (Bokermann, 1975; Bradstock, 2006; Griffin., Khan, and Ickowitz, 2002). Agrarian reform programs notably succeeded in Japan and South Korea, parts of West Asia (DFID, 2002b) and in Egypt (DFID, 2002a). In

Japan, South Korea and Taiwan, land reforms were extremely successfully implemented by securing private ownership of land for small farmers (Keliang and Prosterman, 2007). Land policy reforms have also been implemented in several developing countries such as South Africa (Bradstock, 2006), Ethiopia (Kebede, 2008), Brazil (Quan, 2005), and other Latin American countries (DFID, 2002b).

On the other hand, there are arguments that in certain situations, the rising landless level or land shrinking should be seen as a positive trend because this creates opportunities for diversifying livelihood strategies and mitigating dependence on farmland (e.g., Bouahom, Douangsavanh, and Rigg, 2004; Davis, 2006; Deshingkar, 2005; Koczberski and Curry, 2005; Rigg, 2006). Ellis (1998) and Barrett, Reardon, and Webb (2001) distinguished pull and push factors that determine rural livelihood diversification. Land scarcity was categorised as one of the push factors which induces rural households to diversify their livelihood in response to the adverse livelihood contexts. Koczberski and Curry (2005) investigated the relationship between farmland size decline and change in livelihood strategies among oil palm settlers in Papua New Guinea. Their findings indicated such settlers successfully responded to the farmland shrinking by adopting non-farm livelihood strategies and intensifying farm production. A similar finding could be found in a study by Jansen, Pender, Damon, Wielemaker, and Schipper. (2006), who utilised econometric methods for investigating the determinants of livelihood strategies and outcomes of households in the hillside areas of Honduras. Their findings revealed that land is not the key constraint prohibiting the potential for higher incomes, and more land does not lead to higher per capita income of households. Households possessing less land tend to gain higher productivity or to engage in non-farm activities. Other econometric evidence in several developing countries provided by Winters, Davis, Carletto, Covarrubias, Quiñones and Zezza, (2009) also showed that land-limited households are driven into agricultural and non-agricultural wage activities and thus households are encouraged to follow, on average, this way to raise household welfare. The authors, therefore, confirm the important role of rural non-farm activities in the livelihood strategies of rural households. The above discussion implies that landlessness or land shortage could be regarded as a positive determinant of rural livelihood diversification.

In developing countries, land beyond the urban fringe is in huge demand for various purposes, including the construction of public infrastructure, factories, commercial centres

and housing. These demands for peri-urban land can bring about considerable changes in peri-urban livelihoods, for better or worse (Mattingly, 2009). According to Gregory and Mattingly (2009), urbanisation on the one hand leads to intense competition for land, deterioration and loss of access to natural resources, and these in turn have a detrimental effect on natural resource-based livelihoods. On the other hand, urbanisation offers a great choice of jobs, better transport availability to markets, an expansion of services and trade, and the competitive advantage of proximity for fruit and vegetable products. These factors can help peri-urban households diversify their livelihoods and mitigate their dependence on natural resources (Gregory and Mattingly, 2009). In China, a large share of high value farm production was made in urban and peri-urban areas (Xie, Mei, Guangjin and Xuerong, 2005). Furthermore, farmland shrinking due to urbanisation is often accompanied by economic space expansion to rural areas, offering farmers wide choices of non-farm employment. Rapid expansion of township and village enterprise development resulted in new non-farm livelihood opportunities for Chinese farmers (Chen, 1998; Parish, Zhe, and Li, 1995). It was estimated that nearly 100 million new jobs were created by township and village enterprises in China between 1985 and 2002 (Johnson, 2002). A study in Bangladesh showed that despite a vast amount of farmland being converted for urban expansion, a wide portfolio of new non-farm employment was created for farmers. Many landless farmers are likely to pursue non-farm livelihood strategies and for the time being, human capital such as skills and education are emerging as crucial livelihood assets to take advantage of new job opportunities (Toufique and Turton, 2002).

Rigg (2006) reviewed the links between land, farming, poverty and livelihoods in the rural areas of southern countries. Using the evidence from several studies in Asian and African countries, the author demonstrated that livelihoods and poverty have become less related to land while remittances play an increasing role in livelihood outcomes, and that rural livelihoods are diversifying. His main argument is that non-farm activities are rapidly emerging as the crucial components of rural livelihoods in many developing countries. The Deagrarianization and Rural Employment (DARE) research program conducted in six African countries (Ethiopia, Nigeria, Tanzania, Malawi, Zimbabwe and South Africa) in the period 1996-1998 revealed that non-farm income contributed from 60-80 percent of total household income in these countries (Bryceson, 2002).¹ Especially in some African and Southeast Asian countries, farmers abandoned their farmland to take up more lucrative non-farm employment in urban areas (Benayas, Martins, Nicolau, and Schulz, 2007; Ellis,

2000; Kabeer and Tran, 2000; Kato, 1994). Therefore, this suggests that land has lost its crucial role in shaping rural livelihood and its role has been gradually replaced by other factors such as education, skills, and networks. This implies that land distribution policy should not be regarded as a main approach to rural poverty eradication.

3. Land, nonfarm activities and rural livelihoods in Vietnam

In Vietnam, land reform and the process of decollectivisation have been performed as part of the economic renovation policies (Đổi Mới) of the country (Kirk and Nguyen, 2009). Since the Land Law that was enacted in 1993, farmers' long-term and stable use of agricultural land has been secured (Nguyen, 2012), and this law was implemented by granting land titles (or Land-Use Certificates (LUC)) to all households (Do and Iyer, 2008). Together with land reform, the liberalisation of agricultural markets was also implemented. In part, such policies stimulated the intensification of rice cultivation, and diversification into new and high value crops such as coffee, which resulted in a considerable improvement in rural household incomes, food security and nutritional state, partially due to increases in rice production (Kirk and Nguyen, 2009).

Land reform actively stimulates buying, selling and renting activities in the land market and thereby agricultural land can be transferred to and accumulated by more efficient farmers. It may, however, result in the rise of a landless class because some rural poor households may be forced to sell their land in times of urgency (Kirk and Nguyen, 2009). This phenomenon has led to a number of censures that land reform has worsened enduring poverty by increasing the number of landless rural households (Ravallion and Van de Walle, 2008). Nevertheless, using the household panel data from various Vietnamese Household Living Standard Surveys (VHLSS), Ravallion and Van de Walle (2008) provide econometric evidence to reject the hypothesis that in general, increasing landlessness has led to an increase in poverty in rural Vietnam. In addition, the authors found that rates of poverty reduction among the landless are the same as (or even greater than) those with land. Therefore, they suggest that the rise in the number of landless rural households has been a positive factor in the process of overall poverty alleviation, as farm households have seized new job opportunities, especially paid jobs.

The relationship between land and rural livelihood has been mentioned in some studies of the role of rural non-farm activities in Vietnam's poverty reduction (e.g., Pham, Bui, and

Dao, 2010; Van de Walle and Cratty, 2004). Both these studies provide econometric evidence of the negative effect of farmland on participation in non-farm activities, meaning that households with more farmland tend to less actively engage in non-farm activities. Van de Walle and Cratty (2004) found that although access to land tends to considerably increase household wellbeing, the probability of falling into poverty is substantially higher among households who do not participate in non-farm self-employment activities. The authors indicate that there is a relationship between diversification out of agriculture and poverty reduction, which could lead to a substantial expectation that the emerging non-farm sector will be a motive power for rural poverty alleviation. Therefore, promoting rural non-farm activities, together with support for improving the access of the poor to these, are important factors in rural poverty alleviation in Vietnam (Pham, Bui and Dao, 2010; Van de Walle and Cratty, 2004).

In the context of the rising loss of agricultural land due to urbanisation and industrialisation in many peripheries of large cities, Vietnamese researchers have attempted to seek an answer to how farmland loss has affected rural household livelihoods, mostly using either qualitative or descriptive statistical methods. Using secondary data gathered from various published documents in Vietnam, Nguyen, McGrath, and Pamela (2006) found that over the previous decades, Vietnam had experienced rapid urbanization and industrialization in peri-urban areas. One outcome of this process was that a large number of rural households had lost their farmland for the development of industrial zones and urban areas, and many among them had fallen in poverty. However, some case studies in peri-urban areas of Ho Chi Minh City and Hanoi reveal mixed impacts of farmland acquisition on the livelihoods of local people. When investigating a case study in a peri-urban village of Hanoi where two thirds of the agricultural land was lost due to urbanisation between 1998 and 2007, Nguyen (2009) found that many households have benefited from their proximity to universities and urban centres. Income from renting out boarding houses to students and migrant workers has emerged as the most important income source for the majority of households. However, a number of households faced insecure livelihoods because they did not have rooms for renting out and many landless farmers became jobless, particularly elderly and less well educated farmers. Another case study in a village of Hanoi by Do (2006) indicates that farmland loss caused a loss of arable land, food supply and agricultural income sources. Many land-losing households actively adapted to the new circumstance by diversifying their labour in manual labour jobs. Consequently, a high but

unstable income from casual wage work became the main income source for many households. In the case of a peri-urban commune in Ho Chi Minh City where most agrarian land was taken for non-agricultural land uses such as industrial zones or residential land, Vo (2006) found that farmers there actively switched from rice cultivation to animal husbandry and horticulture. Moreover, non-farm job opportunities also increased with rapid urbanisation and industrialisation, making young rural workers less interested in agricultural jobs.

In a study conducted by Nguyen, Nguyen, Nguyen, Pham, and Nguyen. (2005), mixed effects of farmland loss on local rural households were also mentioned. While a number of land-losing farmers who resided close to newly urbanised areas earned a higher cash income than for farm work; other land-losing farmers, particularly those with low levels of education, became jobless and impoverished. Some evidence based on survey results also indicates that farmland loss exerts different effects on households. It was estimated that about two thirds of land-losing households benefited from higher job opportunities and upgraded infrastructure; for the rest, land loss resulted in serious economic interruption, particularly if all productive land was acquired, or family members did not attain suitable education or vocational skills to switch to new jobs (ADB, 2007). Moreover, the results from a large-scale survey in eight developed cities and provinces with the highest level of farmland loss, provides a quite detailed picture of both positive and negative effects of farmland loss on household livelihood outcomes. On average, while about half of land-losing households reported suffering from a significant decline in farm income, almost half among them earned a higher income from other non-farm sources after losing land. Regarding the total income that households earned after farmland loss, 25 percent of land-losing households obtained a higher level, while 44.5 percent maintained the same level and 30.5 percent experienced a decline (Le, 2007).

Nguyen, Vu, and Philippe (2011) investigated livelihood adaptation and social differentiation among land-losing households in some communes of Hung Yen, a neighbouring province of Hanoi where the farmland of communes in the study declined by 70 percent due to farmland conversion for industrial zones and clusters in the period 2001-2006. They found that diversification in both farm and non-farm activities emerged as the most common livelihood strategy among land-losing households. It was followed by a livelihood strategy based on non-farm paid work and self-employment and finally by an

agricultural intensification strategy. Despite the low return from agriculture and more opportunities for lucrative non-farm jobs, households maintained farming activities not only for their basic and secure livelihood but also for cultural identity. In addition, among land-losing households, those with a farming background tend to be at a disadvantage in taking up high-return activities. Finally, the difference in returns with different livelihood strategies was one of the main causes of increasing social stratification.

Using a quantitative livelihood approach to investigate the impact of farmland loss (due to urbanisation) on households livelihoods in Hanoi's peri-urban areas, our study (Tuyen, Lim, Cameron, and Huong, 2014) provided the first econometric evidence that while farmland loss has a negative effect on the farm income source of households, it exerts a positive impact on the non-farm participation of households, notably manual labour jobs in Hanoi's peri-urban areas. Such low-skilled jobs are relatively easily accessible to many land-losing households, which might allow them to supplement their income shortage due to the loss of farmland. This study also found that education and a prime location for doing business are important factors that can help households pursue lucrative non-farm activities. Based on the empirical findings, Tuyen et al. (2014) suggested that providing land-losing households with a plot of land in prime location can help them take up non-farm household businesses such as opening a shop or a workshop or for rental purposes. In addition, encouraging parents' investment in their children's education may be a way to obtain well-paid jobs for the next generation. Finally, improvement in local infrastructure and setting up new local markets have proven to be an effective way to create more non-farm job opportunities for land-losing farmers, especially elderly landless farmers (Bich Ngoc, 2004).

4. Conclusion and policy implications

In sum, the topic of land and rural livelihoods remains highly controversial, meaning that the importance of land to rural livelihoods is very different between countries. In some countries, land is essential for rural livelihoods possibly because of the limited opportunities for farmers to engage in non-farm activities. In such countries, farming is the only opportunity open to farmers and thus land shrinking severely threatens rural livelihoods. In other countries, land is becoming less important in terms of determining rural livelihood; most likely because people there have more chances to participate in non-

farm economic activities. The above discussion implies that land is not an equally important determinant of rural livelihoods in all agrarian countries.

Regarding the relationship between farmland loss (due to urbanisation and industrialisation) and rural livelihoods, the literature review for both Vietnam and other countries indicates that farmland loss has mixed impacts on rural household livelihoods. It is necessary to distinguish the overall influences of farmland loss at the local level and its specific impacts on land-losing households. On the one hand, at the household level, farmland loss functions as a push factor that forces land-losing households to find alternative livelihoods. As a result, farmland loss might be a shock for households whose livelihood largely or entirely depended on farming. On the other hand, at the community level, farmland loss has resulted in the construction of industrial zones, new urban areas and improved local infrastructure, which in turn has benefited local dwellers by creating a wide range of non-farm job opportunities. Therefore farmland loss has both negative and positive effects on local people. This suggests that new lucrative occupations will be available for households with better educational backgrounds or vocational skills, while such opportunities may not be accessible to those with limited endowments of human capital.

The conversion of agricultural to non-agricultural land uses for urbanisation and industrialisation is an almost inevitable tendency during phases of economic development and population growth (Tan, Beckmann, Van Den Berg, and Qu, 2009). This implies that in Vietnam, the loss of a huge area of agricultural land will be unavoidable without stopping farmland conversion for industrialisation and urbanisation. As a result, a large number of farm households might be negatively affected by farmland loss in the near future. The literature review in Vietnam shows that even though farmland has retained an important role in determining household livelihoods in Vietnam's rural areas, non-farm based-livelihoods have gained increasing importance. As previously discussed, non-farm activities have several advantages, especially for land-losing households. This is because these income-generation activities help land-limited households reduce their dependence on farmland and improve their income. As a result, policy intervention in improving the access of households to lucrative non-farm activities should be of practical use.

Endnotes

¹ “Deagrarianization is defined as a process of: (i) economic activity reorientation (livelihood), (ii) occupational adjustment (work activity), and (iii) spatial realignment of human settlement (residence) away from agrarian patterns” (Bryceson, 1996, p. 99).

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