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Microeconomic Impacts of Institutional Change in Vietnam's Northern Uplands

Empirical Studies on Social Capital, Land and Credit Institutions

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PL ACADEMIC RESEARCH

1. Introduction

1.1 General introduction

Vietnam's economic achievement over the past twenty years constitutes one of the most successful development stories of the last century (Glewwe et al., 2004). Classified among the world's poorest countries at the end of the 1980s, Vietnam is now expecting to join the list of industrialized countries by 2020 (ADB, 2006). After a decade of remarkable success in the 1990s[1], Vietnam has continued to progress in 2000–2010, and is ranked among the fastest growing economies of this decade (with an average annual growth rate of the Gross Domestic Product (GDP) of 7.3% between 2000 and 2012 (World Bank, 2011))[2]. Moreover, economic growth has been pro-poor. The latest estimates from the Vietnam Household Living Standard Survey (VHLSS) indicate a nation-wide poverty incidence in 2008 of 13.1% (share of population living with less than 1.25 US$ in Purchasing Power Parity), a dramatic reduction from 49.7% in 1998 and 63.7% in 1993 (GSO, 2011).

The transformation of institutions has been at the heart of Vietnam's transition strategy, and according to many observers, is a major key to the country's success (Macours and Swinnen, 2002; Cornia and Popov, 2001; Montes, 2001; Rozelle and Swinnen, 2004; Ravallion and van de Walle, 2008b). The *Doi Moi*[3] reform program was enacted in 1986 at the VIth congress of the the communist party to guide the transition from a centrally planned economy to a market-oriented system. Most of the reforms were initially undertaken in the agricultural sector, where in 1981 about 70% of the population was employed. After 28 years of collectivization (1960–1988) the objective of the government was to transform the incentive structure and return small farmers to the center of decision-making. With this perspective, land rights were transferred for most

1 The edited book by Glewwe et al. (2004) provides a good overview and detailed analyses of the results achieved during this decade

2 The Vietnam Development Reports published each year by the World Bank also documents extensively the achieved progress and remaining challenges in Vietnam. The reports of years 2003 and 2006 have focused on poverty reduction and social protection, and those of years 2004 and 2009 have examined institutional advancements.

3 *Doi Moi* is translated in English as renovation.

agricultural land to farmers (since 1988), markets were gradually liberalized, a state-owned agriculture and rural development bank (the VBARD) was created in 1990, and a variety of anti-poverty programs targeted at poor rural households were implemented through the Hunger Eradication and Poverty Reduction program (HEPR, nowadays referred to as National Target Program for Poverty Reduction). The transformations undertaken thus entailed a deep redefinition of the roles of the state, the market and communities in rural areas in regulating resource allocation and organizing rural life.

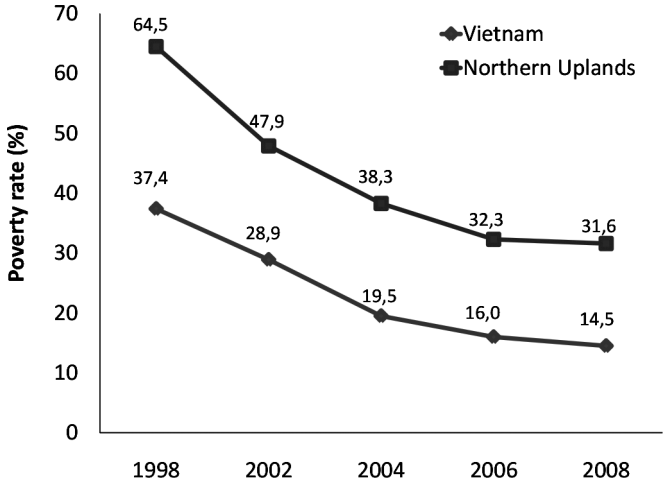
Achievements in the agricultural sector have been spectacular (Macours and Swinnen, 2002; Rozelle and Swinnen, 2004; Kirk and Tuan, 2009). As a striking example, from a situation of extreme poverty and hunger at the start of the reform, Vietnam became within a few years a net rice exporter (since 1988). The country now ranks among the world's top food exporters (second exporter of rice and coffee in the world (FAO, 2011)).

Yet, this success was not experienced on an equal scale accross the country. Nation-level figures hide important disparities between urban and rural populations, upland and delta regions or between ethnic minorities and the Kinh majority. The Northern Uplands region in which this thesis takes place was the poorest region of the country in 2008. Poverty incidence was still twice as large there as in the rest of the country in 2008, and the pace of poverty reduction has also been slower in the past years compared with the rest of the country, as shown in Figure 1.1[4].

Mountain people in Vietnam and elsewhere in South East Asia regions are among their countries' poorest populations (Blyth et al., 2002; Zeller et al., 2010; Akramov et al., 2010). The reasons for this development gap lie principally in disadvantageous geographic and political conditions. Greater remoteness, lower endowments in arable land, and ecological fragility cause mountain people to have limited access to markets, infrastructure and technologies, and subject them to more economic risks. Those living in the mountains are not only put at a geographic disadvandage, but are politically marginalized. In these regions, the dissected landscape has caused complex settlement patterns overtime, resulting in a rich cultural and linguistic diversity (Blyth et al., 2002, p. 20). Cultural barriers coupled with geographical remoteness cause mountain ethnic minorities to be less politically organized than their urban and lowland counterparts. They are less likely than other groups to influence public choice. As a consequence, policies designed in faraway urban centers by people of different socio-cultural

4 This figure shows expenditure poverty rates using the World bank and GSO poverty line (280 Thousand VND/month/capita in 2008).

Fig. 1.1: Poverty rate in Vietnam and Northern Uplands (1998–2008)



Source: GSO (2011)

backgrounds do not often address adequately their economic, cultural and ecological concerns (Jamieson et al., 1998; Akramov et al., 2010). As stated by Platteau (2000, p. xxii), "*The fact that tribal communities of Asia and Latin America are typically embedded in national entities ruled and dominated by societies with opposite background characteristics is bound to affect their economic and other performances (in terms of wealth, education, etc.) in a different way from what would obtain more homogeneous tribal societies.*"

Yet, as this introduction will show, public intervention is needed to address the complex linkages between environmental, economic and social conditions characterizing mountainous areas in South East Asia (Zeller et al., 2010). Achieving sustainable development in the Upland regions is important, not only from a human and economic perspective, but also because mountain ecosystems provide invaluable services to the rest of the country, which include clean water, food, energy, biodiversity, recreation and protection from environmental disasters (such as floods or landslides) (Blyth et al., 2002; Ahlheim et al., 2009).

The rapid population growth in the uplands of Vietnam over the last 15 years, combined with the intensification and expansion of agricultural systems into fragile areas, has contributed to accentuating the pressure on natural resources. In the northwest region, the population increased by 34% between 1995 and 2010, while it grew only by 20.3% in the rest of the country (18.6% if we exclude the Central Highlands) (GSO, 2011). The scarcity of natural resources has increased

the risk that the economy get trapped in a vicious circle whereby poverty and environmental degradation mutually reinforce each other and durably undermine economic development. The existence of strong linkages between livelihoods and environmental protection in the presence of resource scarcity implies that in fragile areas poverty reduction, economic growth, and environmental conservation are complementary goals that must be jointly addressed (Reardon and Vosti, 1995; Duraiappah, 1998; Holden and Binswanger, 1998; Dasgupta et al., 2005). Economic organizations[5], such as the state, markets and local communities and the resulting institutional framework play an essential role in addressing these objectives (Dasgupta and Mäler, 1995; Duraiappah, 1998; Holden and Binswanger, 1998).

This thesis investigates to what extent the institutional framework currently in place in mountainous areas addresses the poverty-environment nexus (PEN), that is, the set of complex linkages between poverty and the environment. Drawing on a conceptual framework that underlines the role of institutions and resulting incentive structure in addressing the nexus, the thesis examines the functioning and impact of three institutional dimensions – land institutions, financial markets, and social capital – that play a critical role in and are particularly relevant to the current context of Vietnam's uplands.

The rest of the introduction is structured as follows: Section 1.2 describes the conceptual framework used in this thesis, and is followed by Section 1.3 which provides background information on Vietnam's land reform and the rural finance policy. Section 1.4 details the specific objectives and reveals the research hypotheses tested research. The outline of the thesis is detailed in Section 1.5.

1.2 Conceptual framework: institutions, poverty and the environment

This section provides the conceptual framework that has guided the elaboration of research questions and the research hypotheses explored in this thesis. The following subsections describe linkages between poverty (equity) and the environment in the agricultural sector (in 1.2.1); define institutions, demonstrate their predominant

5 The distinction between organizations and institutions is often confusing in the literature. According to Hayami (2001, p. 221), an organization is defined as a "*functional body organized by a set of rules*" while institutions are the "*set of rules to organize people into the functional body*".

role in the PEN, and explain why they often fail to address it (in 1.2.2). Finally, the last subsection 1.2.3 details the role of land institutions, financial markets and social capital play in this framework shows how the state, market and communities interplay in their definition.

1.2.1 Linkages between poverty and the environment in agriculture

Small farmers in developing countries derive most of their livelihoods from the exploitation of natural resources such as soils, water and vegetation. While most of these resources are regenerative or renewable, an inappropriate use (or overuse) leads to their degradation and depletion until their exhaustion.

The causal link between environmental degradation and poverty is evident. In a context of growing population and increasing scarcity of natural resource, and when technologies are not available, the depletion of one of farmers' main livelihood resources has a direct negative impact on their wealth. In fragile ecosystems, natural resource degradation often causes and exacerbates the occurrence of natural disasters: soil erosion and deforestation for instance increase the likelihood and accentuate negative consequences of floods and landslides on livelihoods. Added to climatic and market-related risks, these natural disaster reinforce risks and uncertainty in fragile areas. When insurance mechanisms or credit markets are imperfect or missing, these risks and uncertainties threaten livelihoods of vulnerable farmers and undermine their decision making capacity. The potentially negative consequences of water pollution on health constitutes a further threat on livelihoods, not only for local populations but also at a larger scale. Finally, as the availability of essential natural resources shrinks, competition for resources will increase raising risks of conflicts.

Poverty is also pointed as a source of environmental degradation. Farmers make decisions intertemporarilly regarding resource use, depending on the resources available today and those that will be left tomorrow given the impact of today's behavior. Therefore an important element of resource-related decision making is the discount rate, defined as the intertemporal marginal rate of substitution between the farmer's present and future utility (Pender, 1996). Poor farmers lacking financial and physical capital, typically face high discount rates (Pender, 1996; Holden et al., 1998). Their utility of future consumption is only weakly weighted compared to the utility of today's consumption needs, inducing them to (over)exploit resources today without considering the impact on

tomorrow's resource availability. Small farmers lacking access to capital also lack investment capacities to diversify their activity away from farming, and are doomed to rely heavily on the exploitation of low access-cost primary resources such as natural resources. Many conservation technologies, require initial investments or incur high opportunity costs in the short term. Farmers lacking investment capacities are unlikely to undertake such investment (Holden and Binswanger, 1998).

However, as pointed by Reardon and Vosti (1995); Duraiappah (1998) and Scherr (2000) focusing on poverty as a main cause of environmental degradation is misleading. Empirical evidence indeed shows that environmental degradation linked to agriculture occurs as well in wealthy environment. The inverted U-shaped environmental Kuznets curve, empirically documented in the 1992 World Bank development report (World Bank, 1991), even predicts environmental degradation to increase along with the level of economic development but to decrease beyond a certain certain level. Scherr (2000) cites case studies showing how small farmers have been able to adapt environmental degradation through cheap and ingenious technologies (for instance, the contour stone bunding in Burkina Faso (Dutilly-Diané et al., 2003)). To others, the extent to which poverty induces environmental degradation appear to depend much on the type of poverty considered – where "type" refers to the asset categories in which households are poor, to the distribution of poverty across households in a society, and to the type of environment problem that takes place (Reardon and Vosti, 1995). In the same line, other authors have distinguish between exogenous and endogenous and by such, argue that extent to which environment and poverty interplay depends in fact on other factors, such as market and other institutional failure. Poverty that results from market and institutional failure affects the environmental sustainability (Duraiappah, 1998). These controversies imply that wealth-enhancing policies while necessary will not be sufficient to address the nexus. Successful interventions will thus address the sources of poverty rather than its consequences, address institutional aspects reinforcing the linkages between poverty and the environment and will often be context-specific.

The important synergies between households' livelihood and environment resources imply that poverty reduction, economic growth and environmental sustainability can no longer be treated as separate objectives but must be jointly addressed in rural development strategies. These three objectives constitute the critical triangle of sustainable development described by Vosti and Reardon (1997).

1.2.2 The role of institutions

Institutions are defined by North (1990, p. 3) as "*the rules of the game or more formally, the humanly devised constraints that shape human interaction*", and refer to the formal (such as laws) and informal rules (such as customs) that regulate human relationships in an economy.

Authors of the New Institutional Economics (NIE) perspective argue that the economic importance of institutions and of organizations lie on the presence of important transaction costs in the economy (Williamson, 1979; Bardhan, 1989). Imperfect information has focused much attention. Because of the occurrence of opportunistic behaviors and bounded rationality in the economy, information asymmetries are source of important transaction costs which impede the functioning of markets (Akerlof, 1970). Transaction costs arise from the need to screen and to monitor transaction partners and from costs needed to enforce property rights. This framework has been used to explain the emergence and persistence of important institutional failure in rural areas of developing countries, such as credit rationing (Stiglitz and Weiss, 1981) or sharecropping (Stiglitz, 1989), and in general to explain why many markets fail[6] or are even missing in these areas.

Market and institutional failures incur important costs for the economy. When property rights are incompletely specified or imperfectly enforced, markets for environmental resources do not emerge. As a consequence, the negative externalities related to the misuse of natural resources are not accounted for creating no incentives for their user to protect them (Dasgupta and Mäler, 1995). de Janvry et al. (1991) show moreover how market failure undermine production efficiency, but also the reactivity of farmers to economic policies – such as subsidization – and thus contribute to increase the inefficiency of public intervention in the agricultural sector.

1.2.3 The role of land institutions, financial markets and communities

Institutional and market failures are the source of important inefficiencies in the economy and tend to reinforce the PEN in the agricultural sector. In this thesis

6 Markets are said to fail when they induce an allocation of resources which that is suboptimal in the sense of Pareto, that is when the welfare of some could be improved without deteriorating the welfare of others.

we focus on three institutional dimensions: land institutions, rural finance institutions, and social capital. The following paragraphs explain below why these institutions are critical, why they often fail in rural contexts, and how these failures can be addressed.

Land institutions

It is widely acknowledged that well-defined land property rights encourage the natural resource management, yield positive efficiency effects and have the potential to reduce poverty (Meinzen-Dick and Knox, 2001; Deininger and Feder, 2001).

First, well-defined and enforceable land rights, by ensuring the right-holder to reap the future benefits of today's investments, and letting him bear the consequences of his mismanagements, create incentives for investment and natural resource management. Second, well-defined property rights allow land markets to develop and enable the transfer of land from the less productive to the more productive farmers, generating important efficiency gains in the rural economy. Finally, land constitutes with labor the main resource small farmers can use to ensure their livelihoods. Well-defined and secure land rights also enhance farmers' livelihood, by securing small farmers' access to land resources, enabling them to sell this resource at market price, or to use it as a collateral in credit transactions.

As the competition for resources increases, defining and enforcing property rights becomes more costly. As explained by Platteau (2000, chapter 3 and 4), these costs can be so prohibitive that they have prevented the natural emergence of efficient land institutions in many developing countries. Public intervention is needed to assume these important costs. Land registration and titling policies have appeared in this perspective as the most efficient intervention and have been promoted likewise in many developing countries. The issuance of titles offer land users an incontestable mean to claim and enforce their use rights on a defined land area, and thereby increase tenure security, and enable land transactions. Land titles enable small farmers to use land as collateral in formal banks (Feder and Akihiko, 1999; Deininger and Feder, 2001; Deininger, 2003)[7].

7 There are nowadays important discussions in the development sphere about land titling policies, which are on the one hand very costly, and on the other hand not always successful in creating tenure security, particularly in Africa areas where traditional land tenure systems are very complex. On this question, see Atwood (1990), Bromley (2009) and Meinzen-Dick and Mwangi (2009).

Rural financial markets

Many decisions in farming activities require intertemporal decision making, i.e. decisions that are made in the present and entail future outcomes. In ecologically fragile and populated areas, the availability of future resources strongly depends on today's actions. Moreover risk and uncertainties are predominant features of economic lives. The functioning of financial markets (which encompass markets for saving, insurance and credit services) – sometimes referred to as 'intertemporal markets' – enabling farmers to make intertemporal decisions has strong implications for the PEN.

The access to financial services enable farmers to bear risks and to smooth consumptions over seasons and, as such, has direct positive effects on welfare (Zeller and Sharma, 2000). Second, a better access to financial services, credit in particular, reduces opportunity costs of capital, and thereby encourage technical progress and the use of labor-saving technologies (Diagne et al., 2000). Finally, well-functioning markets are likely to encourage environmentally sustainable practices, by enabling farmers to make intertemporal investments and reducing their discount rates[8].

In rural areas of developing countries, information asymmetries, the covariance of income and saving behaviors, and the high level of uncertainty cause financial markets to fail. The risks of loan default, which arise with moral hazard and adverse selection, incur for the lender important screening, monitoring and enforcement costs. These costs induce informal lenders to raise interest rates up to prohibitive levels, or to ration poor borrowers based on their perceived creditworthiness (Stiglitz and Weiss, 1981). Formal banks, as a way to screen borrowers and reduce default risks, require the deposit of collateral as guarantee causing small farmers lacking adequate collateral to be excluded.

The negative consequences caused by failures on financial markets, in terms of equity, efficiency and environmental sustainability require external intervention. Models of interventions have varied through time and across countries. Repressive interventions (e.g. through interest rates ceilings) and subsidization which dominated interventions up to the 1980s have been mostly unsuccessful in addressing market failure and rural poverty (Conning and Udry, 2005). This lead to the emergence of a new paradigm advocating for institutional innovations enabling lenders

8 The relation between poverty, credit access and discount rates has been studied and put in evidence by Pender (1996) in India, and by (Holden et al., 1998) in Ethiopia and Zambia.

to overcome information asymmetry and enforcement problems (Zeller, 2003). The success of the microfinance 'revolution' demonstrated that through institutional innovations, the access of poor households to financial services can be enhanced, while ensuring financial sustainability of institutions. The role of government in this paradigm is subject to different interpretations. While some see the financial sector mostly as a private sector, others highlight the public good character of financial innovations and insist on the necessity for the state to support emerging institutions in this sector (Lapenu, 2000).

The role of communities and social capital

As seen above, information asymmetries, and the lack of enforcement mechanisms are two major factors causing institutional and market failures. Public intervention is then required to enhance the functionning of the economy, for instance by defining formal rules that can reduce transaction costs, or, by substituting the market in the allocation of public goods. Yet, the government may not always succeed to address market failure, in particular when imperfect information and enforcement problems are the main factors causing markets to fail. Remote public agents may not do better than the local traders (or lenders) in accessing information or enforcing rules.

Communities, in comparison, have a comparative advantage both in information access and in their capacity to enforce rule through social sanctions. For these reasons, they provide according to Hayami (2001, p. 286), "*a principle of organization critically needed to correct the failures of the market and the state, and, thereby, to support modern economic development.*" This observation have led many development organizations and government to allocate an increasing role to communities in the design and implementation of development projects – particularly in the field of natural resource management projects – through the so-called community-driven development projects.

Yet, considering that communities are all uniform in their ability to enforce rules and to share information is misleading. Social capital, defined by Putnam (1995, p. 664) as the "*features of social life – networks, norms and trust – that enable participants to act together more effectively to pursue shared objectives*" has appeared in this perspective as a powerful concept to capture the features that enable community members to exchange information, enforce rules and to act collectively. As explained later in this thesis (section 6.2) social capital remains difficult to define and to capture as a as a single tangible concept. It is best seen as a multifaceted concept, that encompass both cognitive and structural aspects,

and has both a community and an individual outcomes (such as social networks) (Woolcock and Narayan, 2000).

Theoretical work and empirical evidence suggest that the level of social capital in a given community is – at least partly – endogenously determined. Individuals decide whether to join a group, to cooperate, based on the economic, social or institutional conditions they face (Woolcock and Narayan, 2000). Community feature, such as income inequality, ethnic diversity, geography, the pre-existence of clear cooperation rules are all potentially important factors to explain why people cooperate better or form social networks faster in some areas than others. Empirical research on the formation of social capital remains, up to date, very scarce. Theoretical evidence however suggests ethnicity and identity to play an important role on social capital formation. In particular, ethnic heterogeneity is seen as a factor inhibiting social interactions due to linguistic and cultural barrier, social sanction effects, and preference mechanisms[9].

To sum up, this section showed that institutions define the incentive structure in the economy and, as such, play a critical role in the poverty-environment nexus in mountainous areas, by inducing small farmers to choose (or not) sustainable livelihood strategies. Drawing on the sustainable livelihood conceptual framework (Scoones, 1998), and based on theories detailed above, Figure 1.2 summarizes the conceptual framework of this thesis and presents its outline.

1.3 Background information

This section briefly describes the land reform and rural credit policy of Vietnam's government. Both policies are described in more details within the chapters of this thesis, in sections 3.2 for the land reform, and 5.1 for the credit policy.

1.3.1 The land reform

Vietnam's land reform has induced a quasi-privatization of land access. In this system, the land officially belongs to the Vietnamese people and is managed by the state on its behalf, land users are transferred income and control rights for a delimited time period. The reform began officially in 1988, year at which the resolution 10 enacted the end of collective farming, and transferred use and control rights to

9 A review of the literature on this issue is provided in chapter 6, section 6.2.