

## RISK MANAGEMENT NETWORKS OF ETHNIC MINORITIES IN VIET NAM

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*The utilization of informal social networks is an important risk management strategy of vulnerable households in South-East Asia. To gain insight on this issue, a social network analysis (SNA) was implemented to assess risk management networks of ethnic minority farm households in the northern uplands of Viet Nam. The results from the analysis suggest that kinship relations and the level of wealth play an essential role in enabling basic network services to function. This paper also points out that effective networks require investments to fulfil the requested mutual obligations and that subsequently, social networks among poor farmers are relatively limited. The findings of the analysis show, not surprisingly, that networks cannot completely buffer severe shocks. Consequently, policy measures to reduce the costs of investing in social capital of poor farmers as well as improved access to appropriate social security systems are essential. These findings are applicable to other upland areas of South-East Asia.*

### I. INTRODUCTION

Life in the world's poorest countries is plagued by many risks that can result in consumption and income shocks. In addition, households must sometimes incur major expenditures, such as funeral arrangements, of which timing is not always foreseeable. With low livelihood resilience at the best of times, unmitigated income and consumption shocks can have devastating consequences (Fafchamps

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and Lund, 2003). Since access to formal insurance services is rarely available in developing countries, rural farm households have developed alternative risk management strategies. While better-off households often have access to so-called (ex-ante) adaptive risk management strategies, such as the accumulation of savings in cash or kind, which keep the level of vulnerability lower, poorer households have to rely primarily on (ex-post) coping strategies, such as the sale of livestock, which negatively affects their long-term level of vulnerability (Carney and others, 1999).

Little is known, however, about the use of social networks as a means of risk management in the upland areas of South-East Asia, which cover around 50 million hectares, with over 100 million people directly dependent upon them (Pandey, 2000). The region comprises most of the Philippines, Indonesia, Thailand, Myanmar, Cambodia, Lao People's Democratic Republic and Viet Nam, and is inhabited by many different ethnic groups. With few exceptions, the upland regions are economically disadvantaged, and are often politically and institutionally marginalized (Heidhues and Rerkasem 2006; Coxhead, 2003; Zeller and others, 2010).

During the past 20 years, the Government of Viet Nam has achieved some remarkable results in poverty reduction, which were mainly accomplished by the launching of the *Doi Moi* reform process in 1986.<sup>1</sup> Nevertheless, Viet Nam is still one of the poorest countries in the world, with 28.9 per cent of the total population (85 million in 2007) living below the national poverty line (UNDP, 2007). The rural mountainous areas of northern Viet Nam, which are mainly populated by ethnic minorities,<sup>2</sup> such as Black Thai, Tay and Hmong, are particularly underdeveloped. According to the General Statistics Office of Viet Nam, in 2006, the poverty rate in this region was still 49 per cent, by far the highest rate in the country. Poverty and vulnerability are closely interlinked. While poverty is usually defined as economic deprivation (lack of income), vulnerability entails "the relationship between poverty, risk and efforts to manage risk" (Alwang and others, 2001: 1). The vulnerability of rural households in northern Viet Nam is intensified by the lack of a formal agricultural or more general rural insurance market (Vandever, 2001), and by a non-functioning social welfare system. Hence, in the event of idiosyncratic income shocks, upland households have to rely on informal mutual aid schemes within their social networks to cope with the shocks. Literature on social networks in Viet Nam is sparse. While Hoang and others (2006) have researched social networks of farmers in regard to

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<sup>1</sup> The poverty rate, measured as those below the national poverty line, was reduced from 58 per cent in 1993 to 14.7 per cent in 2007.

<sup>2</sup> For more detailed information concerning ethnic minorities in mainland South-East Asia please refer to ADB (2002), Friederichsen and Neef (2010), Michaud (2000); and Rambo and Jamieson (2003).

accessibility to information, and Appold and Phong (2001) has investigated inter-organizational networks in the restructuring process of Viet Nam, only a few publications focus on social networks and risk management, including among them: Beuchelt, 2008; Beuchelt and Fischer, 2006; and Fischer and Beuchelt, 2005.

Social networks or social relations are recognized as an important component of social capital (Stolle and Rochon, 1998), but literature on the subject of social capital in Viet Nam is less sparse (e.g. Chen, 2005; Dalton and others, 2002; Dalton and Ong, 2005; De Silvaa and others, 2006; Ha and others, 2004; Ha and others, 2006; Mutz and Schmidt, 2002; and Van Staveren and Knorringa, 2007). Certain aspects of social capital are important features for the analysis of risk management networks including: it gets stronger with use; it needs to be maintained; and that it does not exist as an attribute of individuals but in the relationship between individuals. Therefore, we include the concept of social capital in our analysis. The amount of social capital and the underlying social networks of a single person or household are seen as an important factor for resilience of poor households to income shocks.

This paper studies how social networks are utilized by farm households in the event of a severe income shock based on an idiosyncratic risk. Traditional agrarian societies are usually founded on family relations. Family ties are, thus, central to social networks. Recent modernization has placed more emphasis on friendship or job-based social networks (Dalton and others, 2002; Ha and others, 2004). However, as modernization has not yet reached the northern uplands of Viet Nam, we hypothesize that risk-sharing networks consist mainly of family members. As most family ties are concentrated within the village, we further hypothesize that risk-sharing networks are mainly village-based. This may change in the future, with family-based social networks increasingly being supplemented by job and friendship-based networks. In addition, migration may disperse networks geographically, as can be seen in Thailand (Clausen, 2002; Korff, 2003). Total network size also affects access to help. For instance, households with more members (especially wealthier members) have a greater ability to use informal insurance (Morduch, 1999b). We, therefore, also hypothesize that richer households have a bigger risk-sharing network.

This paper is organized as follows: the theoretical link between social capital, social networks and risk management in northern Viet Nam is summarized in the following section. Next, an overview of the data and methodology of this SNA is provided. Afterwards, the results of the case studies are presented and summarized in the lessons learned section. Finally, conclusions are drawn and policy recommendations are given.

## **II. SOCIAL CAPITAL, SOCIAL NETWORKS AND RISK MANAGEMENT**

Definitions of social capital<sup>3</sup> vary widely, depending, among other things, on the scope of observation, which encompasses the micro level (among individuals), the meso level (among associations) and the macro level (rule of law, the court system). The micro-level definitions that are relevant for this study focus on the importance and the role of social networks and social ties for individuals and communities (Bourdieu, 1986; Putnam, 2000; Stone, 2001). Following Putnam (2000: 19), social capital refers to “connections among individuals – social networks and the norms and reciprocity and trustworthiness that arise from them”. Similarly, Stone (2001: 4) sees social capital “as networks of social relations, which are characterized by norms of trust and reciprocity”. According to Bourdieu (1986: 249) social capital “is the sum of resources, actual and potential, that accrue to an individual or a group by virtue of possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition”.

Informal safety nets are one manifestation of social capital. They involve drawing on social networks for assistance in times of need, with or without expectations of reciprocity. Hence, informal safety nets are considered an important means of risk management (United Kingdom, DFID, 1999; Devereux, 2001; Dercon, 2002). Focusing on social networks, the most basic definition is delivered by Borgatti (1998), who indicates that a network is a set of dyadic ties, all of the same type, among a set of actors who may be persons or organizations for instance. Wassermann and Faust (1994: 18) indicate that the “defining feature of a tie is that it establishes a linkage between a pair of actors”. According to Stahr (2001), social networks consist of individuals who exchange resources on a reciprocal and voluntary basis resources, such as goods and, services, with the aim of maximizing their personal utility.

Even though social networks in developing countries are crucial for many poor and vulnerable households, a number of scholars, such as Dercon, 2002; Fafchamps, 1998; Morduch, 1999a; Platteau, 1991; and Goldstein and others, 2002, conclude that these networks are usually neither able to insure against all kinds of risks nor completely share the risks. Only partial risk sharing exists. The reason is that informal risk-sharing arrangements are based on voluntary participation, which limits the extent of mutual insurance. A better understanding of vulnerability, risk

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<sup>3</sup> Information on “the dark side of social capital” or “wicked social capital” can be found inter alia in Duffhues and others (2006) or Wong (2007).

management and social networks is needed to design appropriate policy interventions (Dercon, 2002).

The types of risks that the poor deal with have not changed much over the past decades. Empirical research by Fischer and Buchenrieder (2010) reveals that death of livestock and sickness of (working and non-working) household members are the top two livelihood risks. In order to deal with livelihood emergencies, rural ethnic minority households in the upland areas of northern Viet Nam mainly apply coping strategies, such as sale of assets or dissaving. Another common coping strategy is the acquisition of informal credits, either from relatives, friends or moneylenders. The short-run effect of these strategies is to ensure minimal levels of essential consumption. However, a person's (future) livelihood status deteriorates with each event in which a coping strategy (contrary to adaptive risk management strategies) is applied. The strategies and effects are certainly similar in other upland areas of South-East Asia.

### **III. DATA AND SOCIAL NETWORK ANALYSIS (SNA)**

The research area<sup>4</sup> comprises seven villages in Yen Chau district, Son La Province, and Ba Be and Pac Nam districts in Bac Kan Province. Both districts are located in the uplands of northern Viet Nam. Five different ethnic minority groups (Black Thai, Hmong, Kho-Mu, Nung and Tay) were surveyed. Households that experienced a severe idiosyncratic income shock during the last year were singled out from a random sample of more than 200. Finally, seven households were chosen for the SNA, based on their affiliation to certain ethnic minority groups, their wealth status and the shock experienced. The heads of these households were interviewed, as well as persons connected to the household head.<sup>5</sup> All in all, quantitative network data were obtained in 33 interviews using a semi-structured questionnaire.

The SNA was supplemented by qualitative research (with 80 female and male respondents) that relied on different participatory rural appraisal (PRA) tools. Gender-sensitive group discussions were conducted on issues of livelihood strategies, risk management and social networks, including issues of labour division, power structures, possession of assets and decision-making processes. In addition, key

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<sup>4</sup> The presented SNA is one part of the overall research of sub-project F2.2 of The Uplands Program (SFB 564), which focuses on vulnerability and risk management of rural farm households in northern Viet Nam.

<sup>5</sup> However, in some cases, interviewing of all social ties was not possible. In cases in which other households lived in a different hamlet, these households could not be interviewed because research permits in Viet Nam are location-specific. A complete network analysis was, therefore, not feasible.

informant interviews with officials of so-called mass organizations, such as the women's union and political cadres at the commune and district level, provided general information on the research region and gave the researchers clues pertaining to the common risks that rural households face. Special emphasis was placed on difficulties concerning livestock, information on access to public services, such as finances, extension,<sup>6</sup> education and health care, and on differences concerning the wealth strata of rural households.

Social networks can be classified into various types. We use the definition of an ego-centred network, which "consists of a focal person or respondent (ego), a set of "alters"<sup>7</sup> (people) who have ties to [the] ego, and measurements on the ties from ego to alters and on the ties between alters" (Wassermann and Faust, 1994: 53). Accordingly, the ego-centred analysis includes all persons mentioned by the interviewees (not only the ego household), even if they could not be interviewed due to logistical problems.

The network data were analysed using the software UCINET,<sup>8</sup> which facilitates the statistical evaluation of specific structures of networks. The quantitative UCINET results served as a basis to analyse the data descriptively as well as to visualize the networks as sociograms.<sup>9</sup> Wassermann and Faust (1994: 12) point out that visual displays, including sociograms, are widely used in network research. Figures 1 to 5 below represent the sociograms of five household cases that are presented in this article. The sociograms are based on the analysis of different network parameters, including kinship, income classification, size and density of the network, the network ties and their reciprocity and the degree centrality of the different actors. These figures determine the position of network members in the sociograms and their relationships to each other.

The size of a network is determined by the number of possible relationships between all network members. It is considered an important measurement as it "is critical for the structure of social relations because of the limited resources and capacities that each actor has for building and maintaining ties" (Hanneman and

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<sup>6</sup> Dissemination of useful and practical information mainly on agriculture and health by the public sector.

<sup>7</sup> "Alters" are persons who are connected to the "ego" because they either provided or received help from each other.

<sup>8</sup> Borgatti, S.P., Everett, M.G., and L.C. Freeman (2000): *Ucinet for Windows: Software for Social Network Analysis*. (1. Version 1999) Harvard, MA: Analytic Technologies.

<sup>9</sup> A sociogram is a graphic representation of social links that a person has at a specific point in time. It shows the structure and patterns of group interactions and can be drawn on the basis of many different criteria including social relations, channels of influence and lines of communication.

Riddle, 2005: 41). The degree centrality of the ego-centred network presents the out-degree and in-degree, which indicate how many people received help from and provided help to the ego household, respectively. Following Scott (1991), relational data can be either undirected or directed, and either binary or valued. Undirected data indicate the mere existence of a relationship between two actors. As experienced in the interviews and discussions, support is traditionally based on reciprocity. We were interested in the question of whether this reciprocity would also be present in households, which had experienced an income shock. Therefore, the study collected directed data that gave information on whether an actor was giving or receiving help. Valued data were gathered about the actors helping most within the personal networks in order to identify the “backbones” of the networks. Table 1 summarizes some key data of the analysed social networks of the five presented case studies.

According to our hypotheses, the network members display three different attributes: wealth; place of residence; and kinship (table 1). Wealth: In Viet Nam, the Government classifies households once a year according to their living standard into one of five classes: “hungry”; “poor”; “average”; “better off”; or “rich”.

The ranking is based on the household’s monthly cash income. In the paper, this classification is used as an indicator for the wealth of the household.

Place of residence: The places of residence of the network members are classified into two groups: (1) living in the same village as the ego household; and (2) living in another village.

Kinship: A wide spectrum of kinship relations exists. They are grouped into three classes to avoid confusion that would result if their exact representation were placed in the sociograms. The arrangement follows the authors’ own research findings that immediate kin are the most important network actors. The grouping is as follow: (1) Immediate kin – comprising the siblings of the family head and his wife, their parents and the in-laws. The latter are also included as the emphasis is on the household and not on the household head or its spouse. (2) Extended kin – listing nieces and nephews, cousins, aunts and uncles. (3) Friends and neighbours – representing all non-kinship relations. Furthermore, institutions, such as unions, banks or moneylenders are named directly.

**Table 1. Key data of poor farm households in the social network analysis**

Case study	Figure no.	Ethnic group*	Wealth ranking*	Livelihood crisis*	Who helped the most**?	Kind of support*	Network size	No of network members/ (linked to ego household)	Degree centrality*	
									Out-degree	In-degree
A	1	Black Thai/ Kho-Mu	poor	- Illness/death of family member	Immediate kin Money-lender	Rice, clothing Credit	132	12 (4)	1	4
B	2	Tay	poor	- Illness of family member - Livestock loss	Immediate kin	Credit, accommodation of sick person	90	10 (5)	2	5
C	3	Black Thai	poor	- Illness/death of family member - Lack of labour - Livestock loss	Immediate kin	Credit, support on the farm (manpower + buffalo)	992	32 (6)	2	6
D	4	Tay	average	- Livestock loss	Wife's immediate kin	Credit	380	20 (9)	2	8
E	5	Black Thai	average	- Illness of family member	Immediate kin	Farm work	812	29 (9)	3	7

Source: Own data based on interviews carried out in Viet Nam on the purpose to conduct this SNA (see page 6/7).

Note: \* Concerning ego household.



#### **IV. RISK MANAGEMENT VIA SOCIAL NETWORKS – RESULTS OF THE SNA**

Before turning to the detailed discussion of the five selected case studies, some general findings are presented that are relevant for interpreting the results of the SNA.

Our empirical research reveals that the household's level of wealth is an important and influential factor as regard to the formation and size of its network. Poorer households are usually disadvantaged when it comes to utilization of social networks. They purposely refrain from asking for help from their sparse networks because they fear being unable to reciprocate later in the event of their (often well off) alters being in a crisis. Besides insufficient endowment with natural, physical and financial resources, the poor usually possess little social and human capital. As Cleaver (2005) and Hickson (2001) point out, the chronic poor often possess only human capital in the form of their ability to work. They are often structurally excluded from social networks due to their high level of poverty as being involved in social networks may also imply certain costs. Consequently, they lack access to fruitful relationships with powerful allies. As stated by Thorp and others (2005), destitution leaves little space for networking.

In order to gain further insights, the PRAs address issues related to the households' wealth strata, including reasons why a household might rise/fall from one stratum to another. Idiosyncratic shocks, such as illness or death of a working family member, loss of livestock or loss of the farm due to fire, are considered a major risk for all households, and one that could put a household into a lower wealth stratum.

Reading agricultural manuals and gathering know-how (on crop production and animal husbandry) from richer farmers are mentioned as basic preconditions for improving one's situation, alongside access to financial capital (to buy land and livestock). The participants agree with one party's statement that "it is very hard work to become richer, but very easy to become poor".

When discussing financial capital, informal credit and transfers are seen as crucial for managing shocks within social networks. There are several explanations for this. Barslund and Tarp (2008) state that formal loans in Viet Nam are almost entirely for production and asset accumulation. A complex administrative system and language difficulties are further constraints in accessing funds, particularly by members of ethnic minority groups, especially women members. Moneylenders play only a small role in the informal financial sector and most loans are given by relatives or friends, and are interest-free. The main reasons why formal finance is

rarely used to ease shocks, however, is that it takes time to apply for a loan and households are locally screened.

Furthermore, transfer programmes previously initiated by the Government of Viet Nam,<sup>10</sup> such as health insurance,<sup>11</sup> are limited to a few groups (ILO, 2004). All other households have to rely on suboptimal coping strategies in the event of a crisis, dependent on their endowment with and access to resources and capital assets (often provided by members of their social network). Usually, immediate and extended kin provide material and financial help and/or inexpensive farm labour. This is in line with the findings of Dalton and others (2002), who show that the family plays a vital role within the social networks as well as in daily social life.

Finally, research suggests that among the observed ethnic minorities, a woman becomes fully integrated into her husband's network once they marry and that the wife's kin is liberated from mutual family obligations. Hence, risk management strategies hardly vary between men and women. During a livelihood emergency, the couple refers to the husband's immediate kin. However, if the husband dies, neither kin feels a strong social responsibility to support the widow (see case study A). Irrespective of affiliation with a particular ethnic minority group, kinship relations are a major factor in the composition of networks.

The following five case studies exemplify common livelihood shocks and coping strategies applied by different households. The network structure and flows of help are displayed in the relevant graphs (Figures 1 to 5). Normal help flows (representing a common exchange of goods or services) are represented by thin lines while strong flows of help<sup>12</sup> are represented by thicker lines. The direction of help is indicated by the arrowhead. Those alters that were not interviewed are clearly visible as they have no further connection besides that to the respective ego household (see "A" in figure 1). The networks depicted reflect the major share of the household's total network; the pictured situation may differ slightly from the picture that would have emerged if all network members had been interviewed and

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<sup>10</sup> The Government of Viet Nam has a series of programmes, which transfer resources to specific population groups. Households can benefit under the Hunger Eradication and Poverty Reduction (HEPR) programme, while commune-level investments are made under the so-called Program 135.

<sup>11</sup> Our research reveals that even if people possess health insurance cards, they usually face additional expenses including costs for transport, special treatment and medication. People staying in a hospital must cover the expenses for a second family member accompanying the sick to provide for the basic needs of the sick and themselves. For more detailed information concerning health and access to social security in Viet Nam, please refer to Fischer and Salehin (2009) and Tuan (2004).

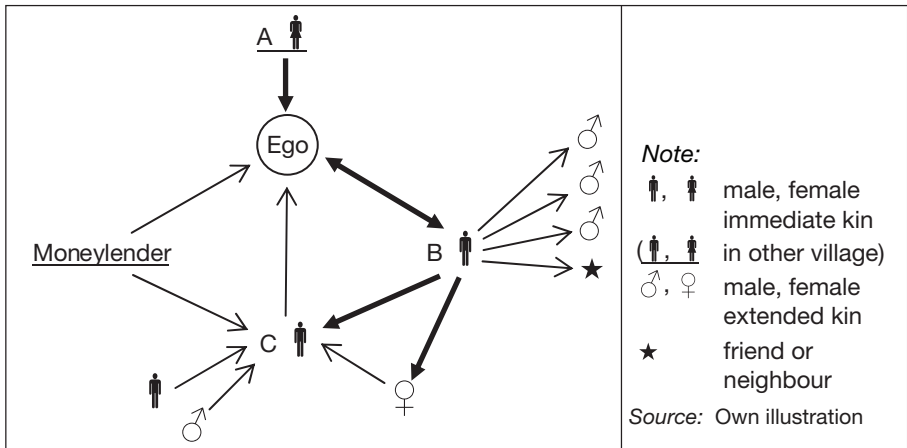
<sup>12</sup> A strong help flow exists whenever ego or alter named a person, who contributed most of all to the risk management of the affected household.

analysed. While case studies A-C display the networks of “poor” households, case studies D-E show the networks of households with “average” wealth.

**Case study A: A poor, female headed Black Thai household**

Figure 1 shows the network of He Thi G,<sup>13</sup> a Black Thai widow who lives in a Kho-Mu village. He Thi G originates from another village. Since the death of her Kho-Mu husband a year ago (following an illness that lasted three years), she has been the head of a poor household and has had to sustain herself and her four children.

**Figure 1. Social network of a poor, female-headed Black Thai household (Case study A)**



The total costs of her husband’s medical treatment and the funeral expenses (5.5 million Viet Nam dong (₫)<sup>14</sup> were much higher than her annual house income (₫ < 1 million). In addition, she had to rebuild her run-down house, and one of her sons had a serious leg problem. Since the household did not have enough money to buy medicine for him, they had to do without his labour. Her sister (displayed as “A” in figure 1) helped her with rice, clothes and farm work. He Thi G stated that she received the most help from her husband’s ‘rich’ brother (displayed as “B” in

<sup>13</sup> All names have been changed by the authors.

<sup>14</sup> At the time of the survey, ₫ 1 million was equivalent to \$40. A household. A monthly income of At the time of the survey, ₫ 1 million was equivalent to \$40. A household. A monthly income of < ₫ 80,000 is considered poor by the Government of Viet Nam.

figure 1). She also received a little bit of help on the farm from her husband's other brother (displayed as "† C" in figure 1).

It is clearly visible that the social network of He Thi G is very thin. She is only directly linked to four other people; three of them are immediate kin. Interestingly, the fourth link is to a moneylender because her husband's family (including the rich brother) refused to give her a loan, fearing repayment failure. This shows that the family of the husband does not assume full responsibility for taking care of the widow in the event of an emergency. Loans from moneylenders are usually much more costly than family credit. He Thi G is, therefore, likely to be worse off after repaying the moneylender's loan than if she had obtained credit from family members. This example pinpoints the vulnerability of poor women and highlights the limitations of informal social networks for risk management.

### **Case study B: A poor, male-headed Tay household**

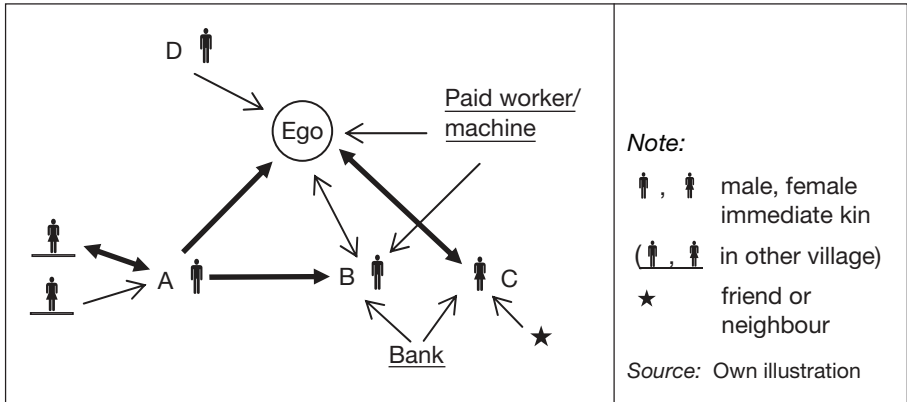
The second example of a poor household is the network of Quang Van Q, a poor Tay farmer in Bac Kan Province. Quang Van Q's livelihood has been under constant severe pressure, as his first wife suffers from mental illness. The sick woman now lives in the house next door in the household of their married daughter, Quang Thi S (displayed as "† C" in figure 2; also classified as a poor household).

Quang Van Q's family has been short of food for many years and, compounding the situation, three of the households' cows were killed in a road accident last year. The total cost of this shock (₫ 5 million) was almost five times the family's annual income (₫ < 1 million). Quang Van Q is directly linked to five other people (see figure 2); four of them are immediate kin. The fifth link is a hired labourer with a plough, who helped with the farm work. Quang Van Q stated that he received the most help from his brother (the village headman,<sup>15</sup> displayed as "† A" in figure 2; classified as an average household), who gave him an informal loan. The second person providing considerable support to Quang Van Q is his daughter Quang Thi S, mentioned above, who takes care of his sick ex-wife. In return, Quang Van Q helps her with farm work. He also works at his other brother's farm (displayed as "† B" in figure 2) in return for rice.

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<sup>15</sup> In the SNA interview, the village headman states that he has not had any difficulties in the past year. Hence, he has not required any help – which explains his rudimentary network. An additional expert interview with the village headman reveals that he is in charge of compiling a list of those (vulnerable) villagers who are eligible to receive a loan from the Social Policy Bank. The village headman is also responsible for the proper repayment of the credit to the bank. Consequently, he selects villagers that are able to repay in time. However, the hungry and the poor (who are excluded from formal credit) may be able to get an informal loan from relatives who are on the list.

**Figure 2. Social network of a poor, male-headed Tay household (Case study B)**



This case study is a good example of the finding that only immediate kin provides assistance (besides the hired labourer, who is paid by Quang Van Q’s brother). Through his family ties, and especially his well-off brother, Quang Van Q is better “insured” through his social network than poor widow He Thi G of case study A. Nevertheless, Quang Van Q’s shock could not be completely offset, which highlights once again that needy households with limited assets and resources do not request all the support they need in order to cope with a crisis. The fear of over-straining relationships is a common feature in social networks, so a household carefully considers whether it will be able to return the help provided when payback day comes.

**Case study C: A poor, male-headed Black Thai household**

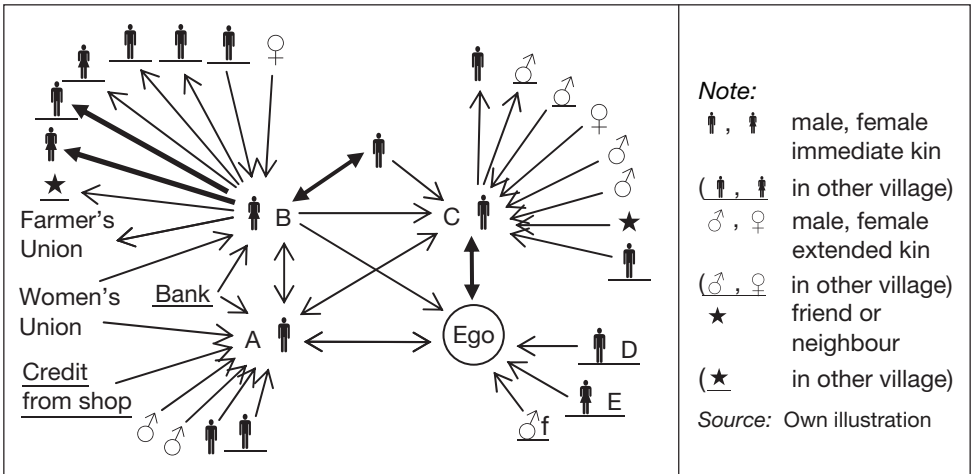
A poor Black Thai family (annual income  $\text{đ} < 1$  million), lacking money, labour and food, characterized the household used for the third network analysis.<sup>16</sup> In the twelve months prior to the interview, the household’s animals perished (representing a loss of  $\text{đ} 5$  million). In addition, the father of the family head, Ha Van C, died (cost:  $\text{đ} 1$  million) and Ha Van C had been hospitalized for a while, entailing considerable expenditure. Moreover, the family had to finance the wedding (cost of  $\text{đ} 6$  million) of one of their sons. At the time of the interview, one of Ha Van

<sup>16</sup> The family has mentioned three people from the same village and three more people from another village who have provided help. Only those living in the same village have been interviewed, as in Viet Nam, research permits are location-specific and cannot easily be extended to cover other areas.

C's sons had been living at the home of his wife's parents for more than one year while the other son was serving in the military, so no children were living at home. This created a severe lack of labour. In order to cope with the crisis, the family had previously sold livestock and received an informal loan and help with the farm and housework from their immediate kin. Additionally, the household was able to borrow a draft animal for the farm work from one of Ha Van C's brothers.

The sociogram of Ha Van C's household is displayed in figure 3. The three other network members interviewed are ranked in different wealth strata. His brother "A" is also poor, his sister "B" is average, and his other brother "C", who is also the village head, is classified as better-off. As in case study B, it is remarkable that Ha Van C's social network consists mainly of actors with very strong family ties, his immediate kin. However, Ha Van C says that the help received was not sufficient to cope with the situation, especially with regard to the farm work. He says the people who did help were very busy with their own farm work. As the family is poor, it would not dare ask for more help out of fear of not being able to return the assistance at a later stage. This again indicates the importance of mutuality.

**Figure 3. Social network of a poor, male-headed Black Thai household (Case study C)**



**Case study D: An average Tay household**

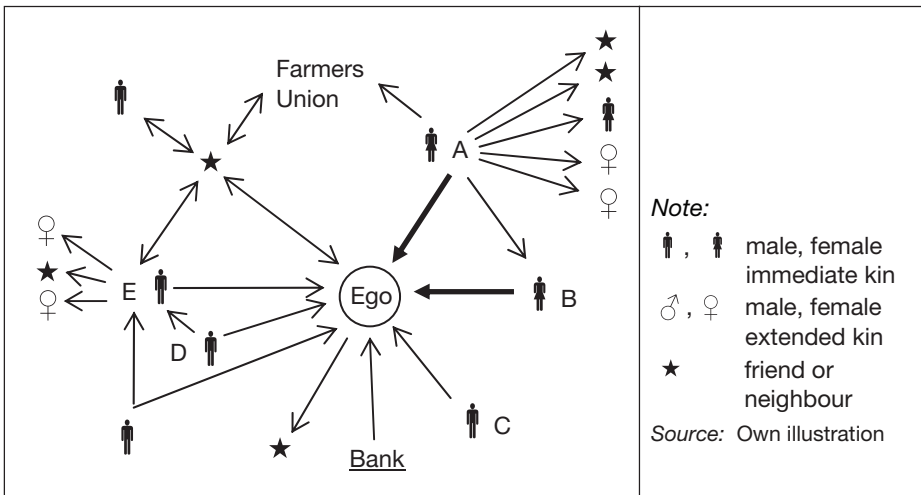
The network of Ca Van C, an average farmer of the Tay ethnic minority group, is displayed in figure 4. Ca Van C's family (annual income of 4 million)

has endured livestock loss (₫ 4.7 million), including the thief of a cow and two young buffaloes, and the death of a pig. The household is directly linked with eight other households, including six immediate kin and two neighbours, and with the bank.

In contrast to the other networks presented here, the wife’s immediate kin provides most of the support, including informal credit. It is noteworthy that the two households that are providing the most help are both classified as better-off households. Regarding degree centrality, Ca Van C receives help from eight alters, but only provides help to two alters, which is a ratio that is more common for poor households.

Although Ca Van C received substantial help and was granted a loan (₫ 5 million) from the Viet Nam Bank for Agricultural and Rural Development (VBARD), he claims that the help has not been sufficient, as the amount of funds received does not cover the cost to replace the lost livestock. When compared to the other case studies, however, this statement may also be interpreted as “complaining from a position of relative comfort”.

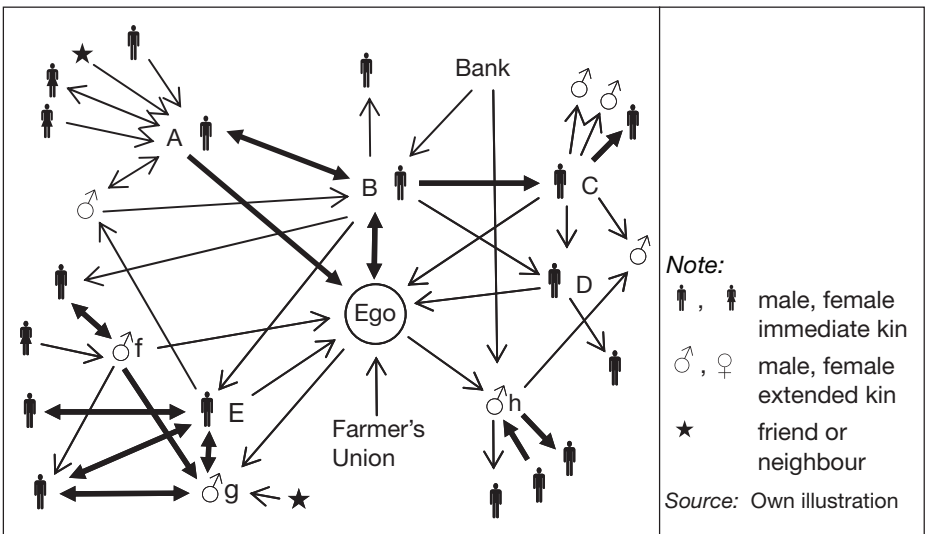
**Figure 4. Social network of an average-income Tay household (Case study D)**



**Case study E: A prosperous average income Black Thai household**

Hu Van H (figure 5) is the male head of a Black Thai household officially ranked as average. The household earns an income (₫ 6 million per year) from farm work and a waged job, as Hu Van H is the village headman. However, taking into consideration his wife’s salary as a teacher (₫ 800,000 per month), the household could also be classified as better-off. Recently, Hu Van H had to finance medical expenses (cost: ₫ 6 million) and a funeral (cost: ₫ 3 million). Hu Van H’s father had been sick for many years and had undergone surgery several times within the twelve months before he died. The mother of Hu Van H was also sick and hospitalized (cost: ₫ 1 million) during the past year. The family had no health insurance.

**Figure 5. Social network of a prosperous average-income Black Thai household (Case study E)**



Hu Van H has received help from seven persons or households: five immediate kin and two extended kin. In addition, he has received help from the Farmers’ Union, a public association of farmers. It is noticeable that there are hardly any actors from other villages in this entire network. Additionally, most actors are immediate kin of each other. These two facts are quite interesting as they differ considerably from most of the other networks presented. This case study, thus, highlights once again the importance of kinship relations and mutuality of help.



**Lessons learned<sup>17</sup>**

It is often assumed that households that are members of a certain group, such as a village or an extended family, will form a single network. De Weerd (2002) considers this unlikely to be true as there are many factors influencing the formation of insurance networks, such as smooth information flows, norms, trust, the ability to punish, group size and potential gains from cooperation. Field research in northern Viet Nam confirms that informal risk-sharing networks do not necessarily include all village inhabitants nor all members of the extended family. The networks are usually comparatively small and predominately based within the village boundaries. Poor families, in general, tend to have less insurance potential as they have difficulties forming ties with other households, tend to be excluded from internally cohesive subgroups and belong to relatively more isolated subgroups and subgroups with lower wealth. As a consequence, poor households remain vulnerable to adverse shocks, despite the presence of the informal insurance system (De Weerd and Van de Gaer, 2003). This is not only true in Viet Nam but seems also to apply to other upland areas of South-East Asia.

The case studies confirm the hypotheses that poorer households have smaller networks than richer households. Furthermore, poorer households are more likely to belong to resource-poor networks and help is usually only exchanged between immediate kin. In contrast, richer households that are endowed with a broader asset portfolio, also extend aid to extended kin and occasionally to neighbours. Hence, households with more friends (especially wealthier friends) have a greater ability to use informal insurance.

The limited size of the networks of poor people in the uplands of South-East Asia may be due to this segment of the population's possible inability to guarantee mutual help. In the case of Viet Nam, mutuality is of utmost significance and when not guaranteed or anticipated, support is very limited, even within a person's own family. Nevertheless, the wealth-related limitation may be eased if the social networks include people in higher income groups or someone of high reputation, such as the village headman (see case study B). Another striking feature was that the relatively richer households (see case studies D and E) had more formal actors such as banks and mass organizations in their social risk-sharing network. This again supports the hypothesis that the poorest households as well as members of certain ethnic minorities, such as the Hmong or the Dao, who live in the very remote and most degraded areas, are often excluded from formal institutions even if these claim to exactly serve this population.

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<sup>17</sup> Lessons learned are summarizing results gained from the above presented and additional case studies, as well as own qualitative data collected in preparation as well as parallel to this SNA.

Another interesting result from the comparison of the different sociograms is that almost all of the ego as well as the alter households that experienced a shock were not only receiving help but also giving it. The need for conscious reciprocity is rather astonishing as one would anticipate that those households would be exempted from giving it for the time being. However, in terms of the social capital metaphor, risk-sharing networks not only impose maintenance costs for the household, such as in the form of long-term reciprocity, but clearly also impose current costs in the form of reciprocity even in the event of a crisis. Social capital needs maintenance, and maintenance is costly as it requires the investment among other things. Poorer households generally lack the means to invest in social capital. Hence, they are often structurally excluded from social capital, as being engaged in social networks may also imply certain costs (Cleaver, 2005). Destitution leaves little space for networking (Thorp and others, 2005). Women and the ultra-poor, in particular, face constrained access to gift exchanges, informal credit and assets sales to mitigate risks, because they have weak social networks and lack tradable assets, including labour.

Nevertheless, in times of crisis, the networks usually grant minimum access to the resources that are lacking, be it food, labour or an informal loan. Support is usually sufficient to fulfil the most basic food requirements. These statements are in line with Tapsell and others (2007), who state that in-built community-level survival strategies, such as neighbourly assistance, can provide a level of resilience, but without support from the civil society, the plight of the rural poor may never improve.

Finally, concerning the place of residence, the case studies suggest that the majority of help flows remain within the village. Occasionally, help flows come from or are given to the women's village of origin. In this case, the helping household is usually better off than the one receiving help.

## **V. CONCLUSION AND POLICY RECOMMENDATIONS**

In South-East Asia, poor and near-poor households endure considerable livelihood vulnerability due to income and consumption shocks. To buffer these shocks, households apply various risk management strategies, based on their available capital assets. As formal safety nets are non-existent, the formation, maintenance and use of social networks is one of the most important risk management strategies of ethnic minority farm households.

## **Conclusion**

Our Viet Nam country case study provides fundamental insight as it is one of the few, if any, analyses of risk management networks in the uplands of South-East Asia. The results of this study have been validated by triangulation of different qualitative and quantitative research methods. The sociograms depict the composition and utilization of informal risk-sharing networks of vulnerable farm households. All in all, our research provides evidence that risk management strategies hardly vary between men and women or among different ethnic groups. In the event of a crisis, the household, as a whole, makes use of the available resources and the existing social network and not individual household members. Since the household couple traditionally has to rely on the husband's network, women are usually worse off than men when the spouse dies. Kinship and wealth are the major influential factors concerning the formation and size of social networks.

Social networks, as one part of the household's social capital assets, are able to provide basic support, but are not sufficient enough to completely buffer a major crisis. The networks of poor households are, on average, smaller than those of wealthier households, and it is considered beneficial if people in higher income groups or someone of high repute is included in a poor household's social network. Mutuality of help is crucial. Therefore, needy households with limited resource endowment reach their network threshold earlier than wealthier households. Hence, poor households and especially households headed by women remain vulnerable to shocks despite the presence of an informal insurance system. These households are still forced to sell assets, primarily livestock, in the event of a livelihood emergency. The situation becomes even more acute where a household loses a credit-financed animal. In such cases, the household's vulnerability increases. It substantially limits the household's long-term livelihood strategies and very often directly consolidates poverty or makes the household slip into poverty.

However, if women's access to certain assets, especially knowledge and credit, is increased, their social position improves. Women have begun to socialize more and are increasingly exchanging in activities related to farming knowledge, raising the potential to improve the women's, and in the long-run, the whole household's capabilities of using scarce natural resources more efficiently. This is an efficient risk management strategy which has the potential to decrease the vulnerability of a household in the long-term.

## **Policy recommendations**

From the social capital point of view, the networks are small because poor farmers do not have the means to invest in social capital, as they are usually unable

to cover the current and future costs of reciprocity. This point offers some leverage for policies. Poor farmers would be able to extend their networks if their costs of investing in social capital were to be reduced. Reducing transport costs for poor farmers by issuing a card that grants them free access to public transport could be one way to cut their overall costs. Another approach could be to reduce communication costs by extending mobile telephone networks into rural areas.<sup>18</sup> The latter surely points in the direction of general infrastructure improvements, which are traditionally a top priority in remote areas like the northern uplands of Viet Nam.

Another shortcoming, particular to poorer and female headed households, is that their networks are rather isolated. One way to improve this could be through voluntary mentoring by important and skilled members of the community. This would generate links to powerful allies as well as increase the farmer's knowledge. However, such schemes must be carefully designed to avoid inequalities at the lowest end of the wealth ladder, making those who have no outside support, such as "godparent", through bad luck or are of the "wrong" ethnicity, even more vulnerable. In addition, it would be recommended to not only encourage poor households and women to participate in agricultural training, but to combine it with a special credit programme, such as a women's credit programme.

Furthermore, the combination of credit and insurance, especially loans that are taken to purchase livestock, might help rural farm households decrease their vulnerability and save them from slipping into poverty, now or later. Such a policy measure would, nevertheless, only help households that were able to get the credit in the first place, thus excluding the poorest of the poor. The very poor households can only be reached either by means of a general social security scheme, or by an improved village-based mutual aid scheme, such as a rotating credit scheme.

To date, however, no functioning comprehensive social security system has existed in the uplands of South-East Asia for most of the poor, ethnic minority households. According to Hu and Stewart (2009), various old-age social assistance programmes have previously been initiated in developing countries, but the gained amount is often not believed to be sufficient to meet all basic needs. Hence, the majority of the poor are still relying on family support. Consequently, governments should consider introducing a so-called "zero pillar" pension, which aims to guarantee an appropriate retirement income to all of the older population, people more than 60 years old of age. Following Willmore (2006, cited in Hu and Stewart 2009: 4), such a scheme would not be prohibitively expensive for developing countries – with

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<sup>18</sup> Examples can be found in the uplands in northern Thailand and Bangladesh ([http://www.grameen-info.org/index.php?option=com\\_content&task=view&id=9&Itemid=199](http://www.grameen-info.org/index.php?option=com_content&task=view&id=9&Itemid=199)).

the International Labour Organization (ILO) estimating the cost at a few per cent of GDP, 0.005 per cent for Thailand and 0.5 per cent for Viet Nam. In addition, an efficient and accessible health-care system could serve as an important aspect for securing livelihoods, as the majority of the interviewed households have problems with the high cost to treat illness.

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