

Understanding social networks in rural Thailand

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Background

- The poverty head count of the study village (25 %) & the Gini coefficient (0.55) are above the provincial average
- Households (HHs) are vulnerable to shocks
- Most HHs cannot rely on formal insurance mechanisms
- Few other job opportunities apart from farming in the village, leading to:
 - a high share of off-farm employment
 - a high level of temporary migration
 - a transformation of village families into multi-location HHs &
 - a high dependency ratio

→ Social networks are important for HHs to cope with shocks, to deal with imperfect insurance markets & to obtain information & advice

Research objectives

1. Identify the extent of social exclusion for the selected relation types
2. Analyse the degree of overlap in relationships (multiplexity)
3. Identify factors determining the network formation at the HH & the individual levels (accounting for intra-village ties & ties between migrant household members & villagers)

Data

- **2008:** Village census of 73 HHs of a typical village in Northern Thailand
- **2009:** Collection of changes in income & composition of $N_{HH}=70$ HHs & $N_p=216$ social network interviews with all individuals who were 14 years or older including temporary migrants currently working and/or living elsewhere
- Dyadic analysis for 2 relation types:
 - **SHOCK:** respondents named whom they would ask for help in case of a shock with negative monetary consequences
 - **AGRI:** respondents named from whom they received & to whom they gave advice on agricultural issues (e.g. crop- & livestock management)

Econometric model

We follow the literature on dyadic regressions by Fafchamps & Gubert (2007):

$$Y_{ijk} = \alpha + \beta_{1k}(z_i - z_j) + \beta_{2k}(z_i + z_j) + \gamma_k w_{ij} + u_{ijk}$$

where Y_{ijk} is 1 if "i" receives a tie from "j" for relation type k, w_{ij} denotes a relational attribute of the tie between "i" and "j" and z_i and z_j represent attributes of actor "i" and "j" respectively

Descriptive results

Social exclusion:

- Depending on the relation type, up to 30 % of the HHs are excluded
- "Excluded" HHs are not necessarily the poor but on average smaller, older & with a higher dependency ratio; they also receive their income from off-farm employment rather than from agriculture

Multiplexity:

- Only 5 % of the HHs are connected
- 50 % of these HHs have a tie for more than one relation type

Conclusions

1. High level of social exclusion in the Thai village but unrelated to income poverty
2. High multiplexity among connected HHs which could lead to inefficiency in coping with shocks
3. Kinship & friendship are the major determinants of network formation but the degree of kinship matters
4. Little exchange among income classes, i.e. poor HHs help each other

Econometric results

Table 1: Dyadic regression at the HH level

	SHOCK _{HH}	AGRI _{HH}
Kinship	3.127***	3.472***
Friendship	2.945***	3.303***
Neighbours	0.172	0.510
Same gender of household head	0.043	-0.422
Both in highest 2 income quintiles _(t-1)	1.048**	0.331
Both in lowest income quintile _(t-1)	1.038***	0.694*
Difference in:		
Household size	0.086	0.094
Mean age (years)	-0.010	0.013*
Mean education (years)	-0.060	0.036
Percentage of migrants	-0.030	-0.070
No. of own agriculture	-0.382***	-0.230**
No. of farm labour	-0.029	-0.233***
No. of non-farm labour	-0.273*	-0.125
No. not working	-0.410**	-0.214
No. of village committee members	-0.863***	0.231
In-degree from outside village	0.050	0.184***
Out-degree to outside village	n/a	-0.297***
Sum of:		
Household size	0.001	-0.094*
Mean age (years)	0.000	-0.040***
Mean education (years)	0.034	0.011
constant	-6.401***	-1.432
N_{D,HH}	4,830	4,830

Dependent variable=1 if household "1" cites household "2", 0 otherwise. Estimator is logit. Standard errors corrected for dyadic correlation of errors. *** p<0.01, ** p<0.05, * p<0.1. n/a: variable dropped since this question was not asked.

Table 2: Dyadic regression at the individual level

	SHOCK _p	AGRI _p
Husband/wife	0.677	2.045***
Brother/sister	2.138***	2.671***
Parent/child	3.118***	3.820***
Grandparent/-child	1.878**	2.507***
Friendship	2.921***	2.643***
Same household	1.745***	-0.447
Number of phone calls	0.004**	0.007***
Number of visits	0.003***	0.005***
Same gender	0.409**	0.493***
Both villagers	-0.439	-0.419
Both migrants	-0.350	-0.977**
Both own agriculture	0.304	1.072***
Both farm labour	-0.539	0.274
Both non-farm labour	0.274	0.245
"b" government official	1.445***	1.829*
Difference in:		
Age (years)	-0.010 **	-0.015***
Education (years)	-0.006	0.005
In-degree from outside village	-0.263***	0.074
Out-degree to outside village	n/a	-0.200**
Sum of:		
Age (years)	0.008	-0.004
Education (years)	-0.006	-0.017
constant	-7.733***	-6.428***
N_{D,p}	46,440	46,440

Dependent variable=1 if individual "a" cites individual "b", 0 otherwise. Estimator is logit. Standard errors corrected for dyadic correlation. *** p<0.01, ** p<0.05, * p<0.1. n/a: variable dropped since this question was not asked.

Note: All regressions at the HH & the individual levels are also available for other relation types (e.g. JOB, CREDIT).