



Rural-urban migration and climate change: evidence from Southeast Asia

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Motivation

Exponential increase in domestic migration in Thailand & Vietnam

- But migration history differs
- Economic performance differs (GDP per capita; role of agriculture)

Literature on determinants and welfare impacts of rural-urban migration is sparse and inconclusive

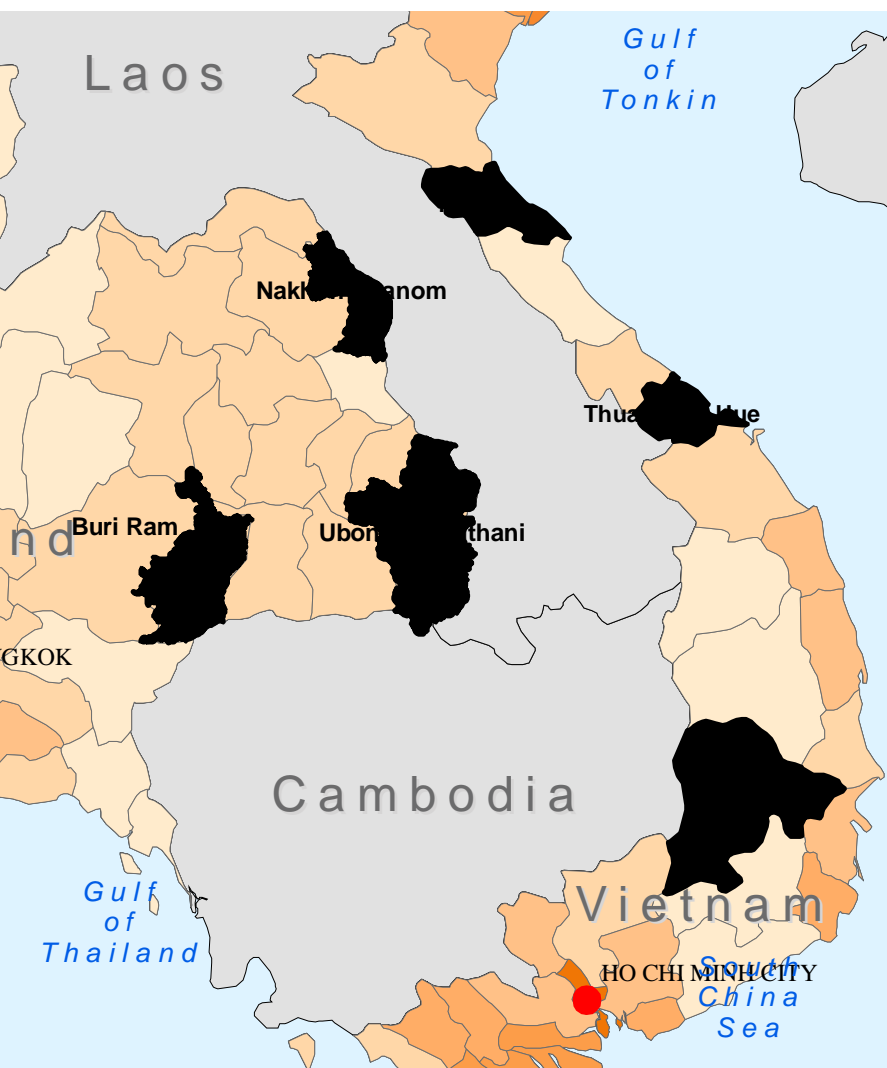
Research on migration faces data constraints

- Thailand: official UN statistics suggest that only 20% of the Thai population live in urban areas in 2000 - migrants did not change their official civil registration status (Yap 2002)
- Vietnam: VHLSS underestimates the number of migrants (Pincus & Sender 2008)

Research Questions

1. Which factors motivate rural household members to move to urban areas?
2. Are migrants in the new urban settings better off in terms of working conditions and quality of life?
3. What is the effect of migration on rural household's income growth?

Data and survey sites



DFG Household data set

- panel data of around 4,000 households
- (2007), 2008 and 2010

DFG Migrant tracking data

- 650 migrants from Bangkok and 299 migrants from HCMC areas in 2010

Source: see www.TVSEP.org

1. Which factors motivate rural household members to move to urban areas?

Main reason for migration

	Thailand	Vietnam
	Percent	
Job opportunity	47	59
Education (schooling, study)	11	33
Followed the family	18	2
Lack of money / food / debt	12	-
Other reasons	12	6
Total	100	100

Source: DFG Bangkok and HCMC Migrant Surveys, 2010

1. Which factors motivate rural household members to move to urban areas? (probit regression)

	Thailand	Vietnam
Household characteristics in 2007		
Demographic shocks (1-Yes, 0-No)	-0.15** (0.06)	0.108 (0.08)
Social shocks (1-Yes, 0-No)	-0.02 (0.06)	0.096 (0.18)
Environmental / agriculture shocks	0.04 (0.07)	0.146* (0.09)
Economic shocks (1-Yes, 0-No)		0.273* (0.16)
Female headed HH (1-Yes, 0-No)	0.09 (0.07)	-0.146 (0.12)
Age of HH head (years)	-0.30*** (0.03)	0.016*** (0.00)
Dependency ratio	-0.09*** (0.03)	-1.553*** (0.22)
HH members w/ secondary school	0.05*** (0.00)	0.178*** (0.04)
w/ high school/professional educa.	0.09*** (0.02)	0.041 (0.04)
Member political/social organization		0.187* (0.11)
Log HH p.c. income (PPP \$ in 2005)	-0.05*** (0.02)	0.042 (0.05)
Off-farm activities (1-Yes, 0-No)		-0.073 (0.09)
Log of land per capita (hectare)	-0.03 (0.04)	-0.091*** (0.03)
HH is indebted (1-Yes, 0-No)	-0.01 (0.08)	0.032 (0.10)

Propensity of migration

- Increases with environmental/ agriculture/ economic shocks in Vietnam
- Decreases with demographic shocks in Thailand
- Increases with education
- Decreases with dependency ratio and welfare indicators

1. Which factors motivate rural household members to move to urban areas? (cont.)

	Thailand	Vietnam
Village road condition (1-Good condition, 0-Bad condition)		-0.143 (0.11)
Time to reach market	-0.23* (0.13)	
Log distance from village to district headquarter (km)		-0.209*** (0.05)
Distance to other public infrastructure	-0.27*** (0.09)	
Ubon province	0.09 (0.10)	
Buriram province	-0.05* (0.03)	
Ha Tinh province		0.535*** (0.14)
Thua Thien Hue province		0.253 (0.15)
Constant	-0.38 (0.61)	-1.836*** (0.31)
Observations	2,096	1,432
Wald chi2 (19)		272
Prob>chi2		0.000
R2 / Pseudo R2	0.18	0.16
Log likelihood/Log pseudolikelihood	-1,178.54	-582.86

Propensity of migration

- Decreases with the distance / time to reach market
- Increases for households from selected provinces

2. Are migrants in the new urban settings better off in terms of working conditions and quality of life?

<i>Employment Quality Index (EQI)</i>	Thailand	Vietnam
Subjective assessments		
Income is stable	60	71
Working conditions have improved since last job	80	71
Living conditions have improved since having left the rural area	76	86
Average	72	76
Objective assessments		
Share of migrants with accumulated savings	80	42
Share of migrants with above average income	40	52
Share of migrants with written employment contract	24	51
Average	48	48

Source: Based on Amare et al. (2012) and Nguyen et al. (2013)

3. What is the effect of migration on rural household's income growth? (DID)

Outcome variable	Treatment	Control	Difference in average outcome ATT
Thailand			
Income growth (Kernel)	1.28	1.10	0.17*** (2.87)
Income growth (NNH)	1.28	1.06	0.22*** (2.88)
Vietnam			
Income growth (Kernel)	0.56	0.36	0.20* (0.09)
Income growth (NNH)	0.55	0.28	0.27* (0.11)

Source: Based on Amare et al. (2012) and Nguyen et al. (2013)

⇒ **Positive & significant effect of migration on rural household's income growth**

3. What is the effect of migration on rural household's income growth? (cont.)

Outcome variable	Treatment	Control	Difference in average outcome ATT
By province categories (Kernel)			
Thailand			
Ubon province (Kernel)	1.90	1.43	0.47** (2.15)
Buriram province (Kernel)	1.02	0.67	0.35 (1.52)
Nakhon Phanom	0.61	0.26	0.35 (1.52)
Vietnam			
Ha Tinh province	0.88	0.54	0.34* (0.14)
Thua Thien Hue province	0.40	0.28	0.12(0.14)
Dak Lak province	0.17	0.08	0.09 (0.15)

Source: Based on Amare et al. (2012) and Nguyen et al. (2013)

⇒ **But not for all provinces...**

Summary

- Migration is a livelihood support strategy for households experiencing climate change-related shocks in Vietnam.
- In Vietnam, education is also a major reason for migration, while in Thailand, many household members migrate because they want to follow their family or due to debts.
- Probability of migration decreases with the employment opportunities in the village.
- 50 - 60% of all migrants look for job opportunities in the cities.
- Migrants perceive themselves to be better off at in the cities.
- Rural migrant households directly benefit from migration through positive income growth effects.

Conclusion

In rural areas:

- Promotion of quality schooling
- Providing more employment opportunities



In urban areas:

- Call for improved social protection for migrants



In the long run, any coping strategy will remain ineffective if there is no effort in combating the climate change itself.



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Anmeldung: www.volkswagenstiftung.de



TVSEP - Thailand Vietnam Socio Economic Panel

www.tvsep.de



Foto: Frank Neubacher