

“Where the Rain Falls”: Climate Change, Livelihood, food security and Human Mobility

Vietnam Case Study Report



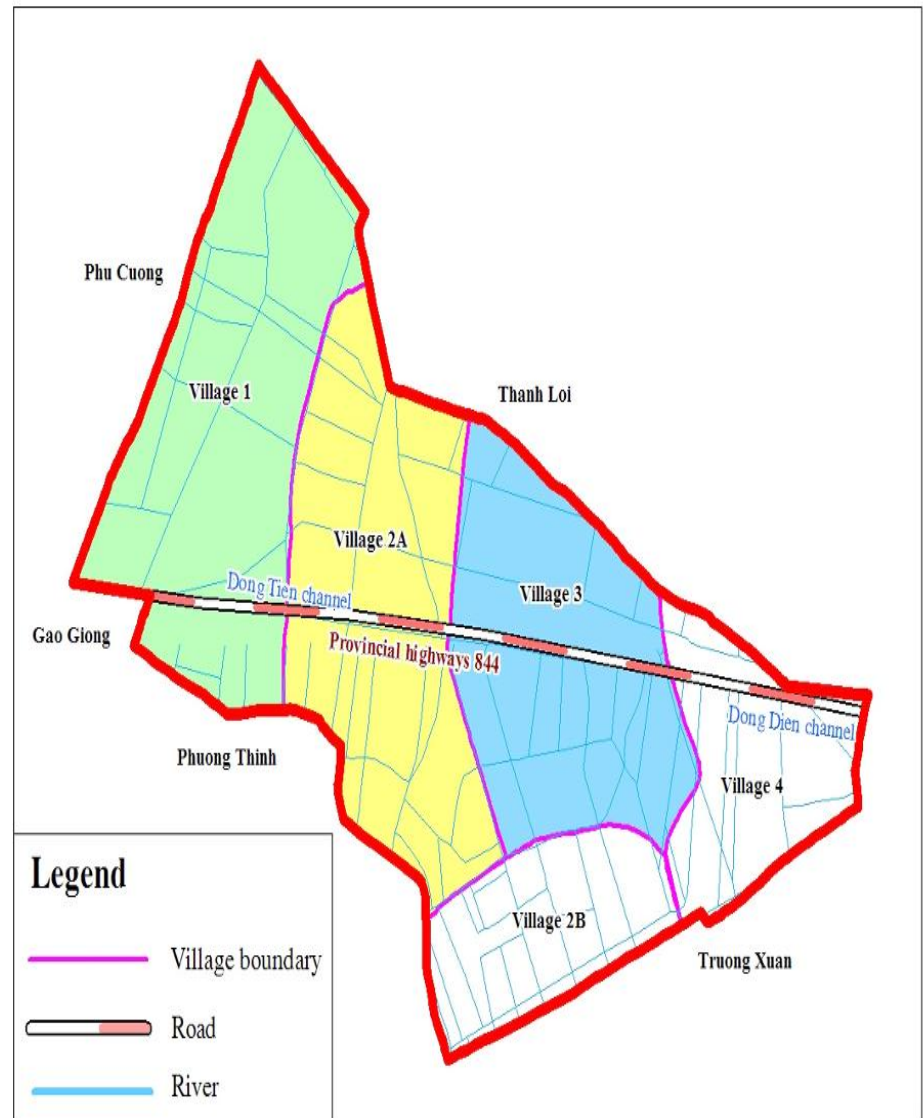
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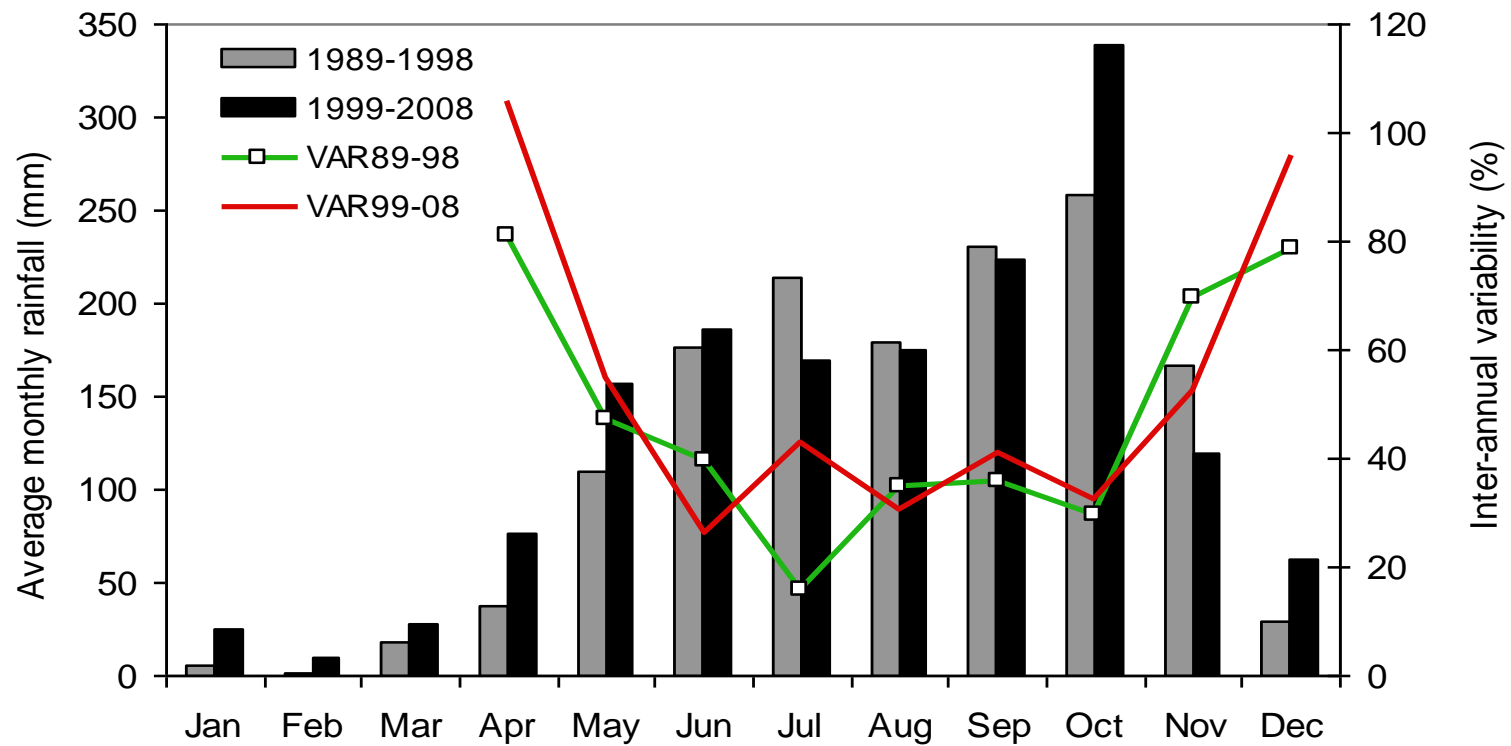


Research location:
Hung Thanh Commune
Thap Muoi District
Dong Thap Province

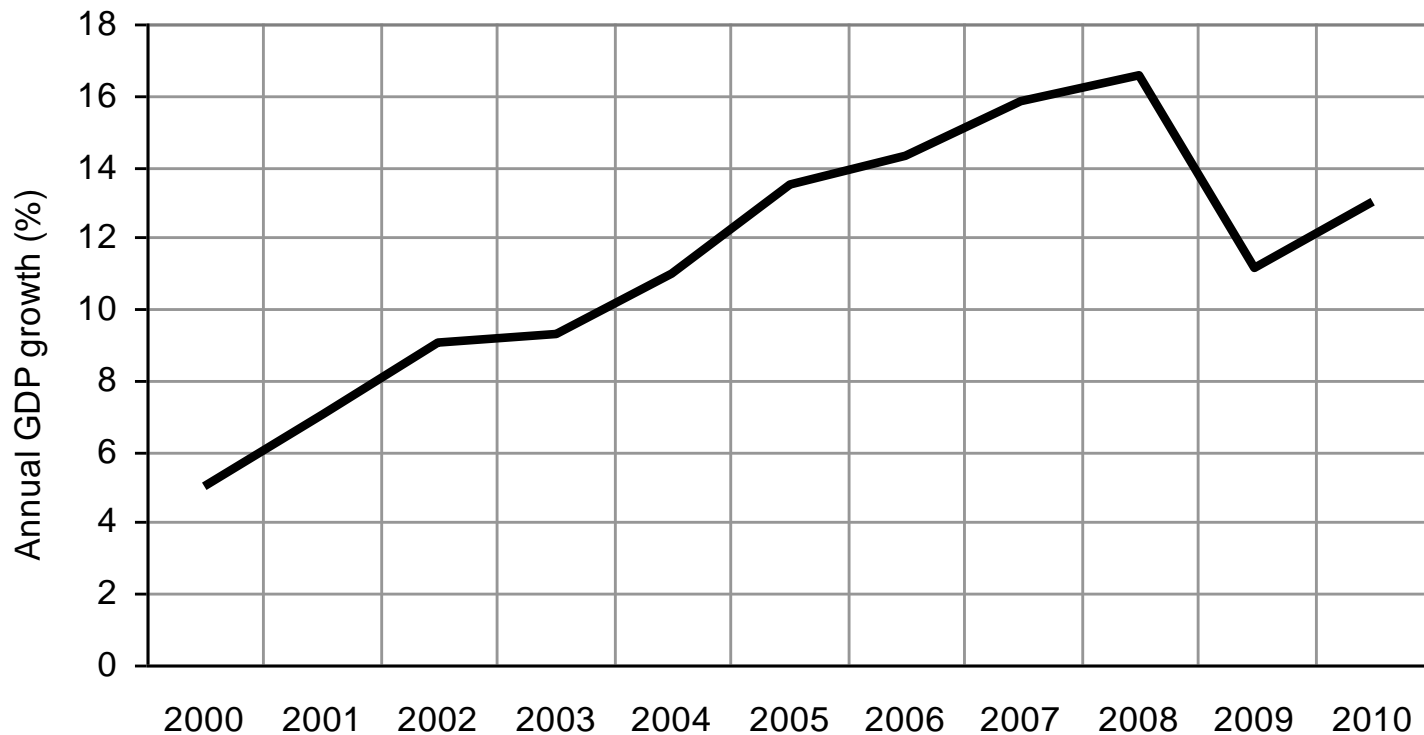




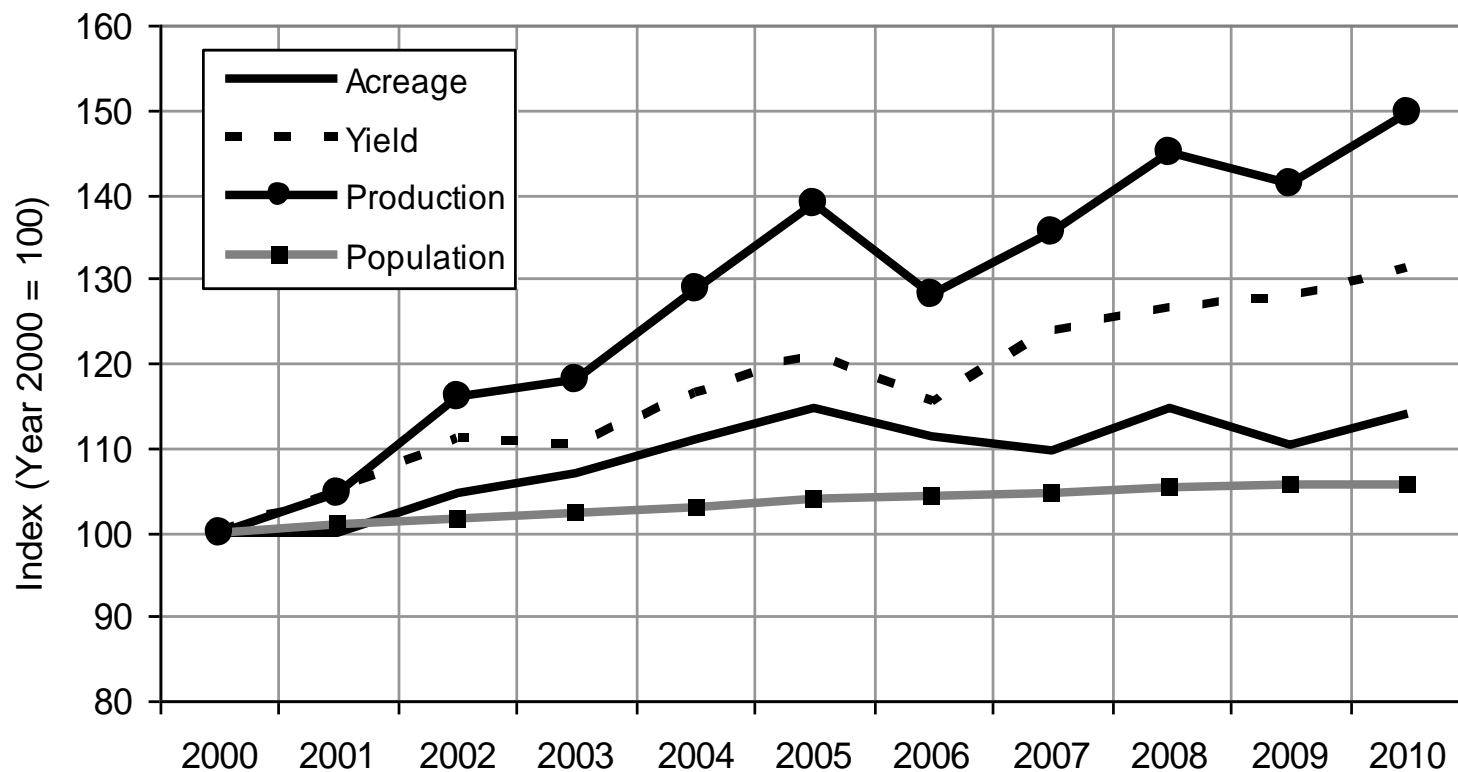
Changes in monthly rainfall and inter-annual variability in Cao Lanh (1989-2008)



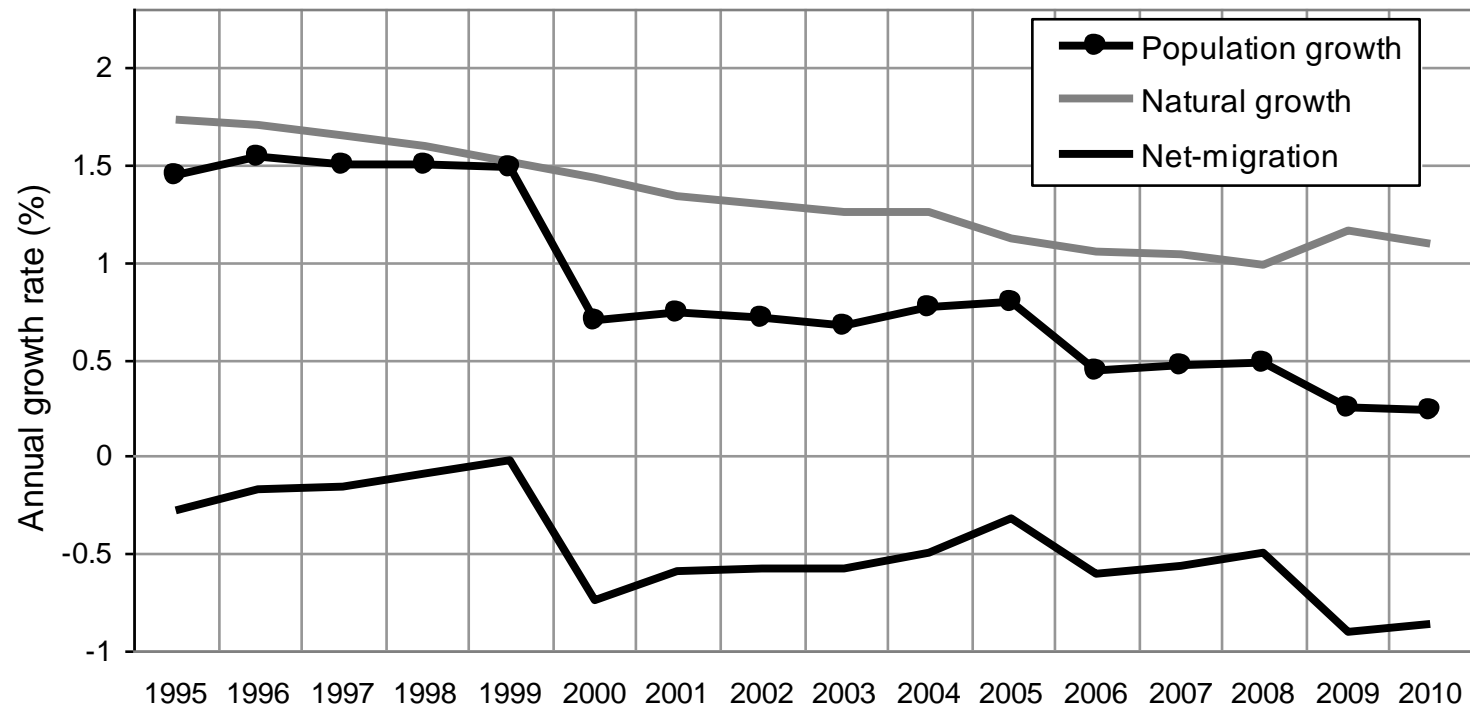
Annual GDP growth in Dong Thap Province at constant prices (2000—2010)



Rice cultivation in Dong Thap Province (2000-2010)



Population growth and migration in Dong Thap Province (1995-2010)



Research questions:

- **Under what circumstances do households use migration as a risk management strategy in relation to increasing rainfall variability and food insecurity?**
- Under what scenarios do rainfall variability and food security have the potential to become a significant driver of human mobility in particular regions of the world in the next 2 to 3 decades?
- In the context of climate change, what combination of policies can increase the likelihood that human mobility remains a matter of choice among a broader range of measures to manage risks associated with changing climatic conditions, rather than “merely” a survival strategy after other pathways have been exhausted. The project will explore such policy alternatives in hotspot areas of the world.

Objectives:

- 1) to understand how rainfall variability, food and livelihood security, and migration interact today
- 2) to understand how these factors might interact in coming decades as the impacts of climate change begin to be felt more strongly
- 3) to work with communities to identify ways to manage rainfall variability, food and livelihood security, and migration.

Research tools

Household survey

	Village 1	Village 2A	Village 3	Total
Households interviewed	33	58	59	150
Female headed households	2	4	4	10
Female interviewees	16	27	24	67
Average age of the interviewees	44.9	45.1	43.5	44.4
Average household size (persons)	4.1	4.3	4.1	4.2
Average years of schooling of HH-head	5.0	4.2	5.8	5.2
Average years of schooling of HH-members aged 14+	6.0	6.3	7.1	6.7
Average monthly income/cap	53 US\$	60 US\$	70 US\$	62 US\$
Households below poverty line:				
• National (350,000 VND/cap/month)	7 (25%)	11 (19%)	6 (12%)	24 (17.5%)
• International (1US\$/cap/day)	12 (42%)	23 (40%)	17 (33%)	52 (38%)
Number of landless HH	11 (33%)	18 (31%)	17 (29%)	46 (31%)
Number of land-scarce HH (0.1-1.0 ha)	11 (33%)	14 (24%)	14 (24%)	39 (26%)
Household average farm land holding (ha)*	1.5	2.5	2.9	2.4
Households with migrants**	18 (55%)	39 (67%)	33 (56%)	90 (60%)
Proportion economic migrants	81%	74%	57%	70%

PRA

Number of sessions	33
Total participants	264
Poor (%)	37
Average age	41
Female	134
Farmers	244



Expert interviews

- 2 at national level
- 3 at provincial level
- 5 at district level
- 5 at commune level

Primary findings



People's perception of rain fall

1. the rainy season comes earlier and lasts longer
2. total rainfall has increased
3. there are more extreme weather events now
4. the climate has become less predictable.

Perception of climatic changes over the last 10-20 years [1]

	More drought/dry spells?	More flood?	More heavy rain?	More extreme weather events?
Yes, a lot more	10	5	5	14
Yes, more	76	123	124	115
Same as before	33	11	14	3
No, less than before	5	3	1	1
Not existed at all	17	0	0	0
NA	4	4	3	12
DK	5	4	3	5
Total	150	150	150	150

Perception of climatic changes over the last 10-20 years [2]

Rainfall change	Yes
Longer rainy seasons	92
Shorter rainy seasons	2
More rains	120
Longer dry spells	22
Shorter dry spells	3
More dry spells	1
Other	24



Floods

Before 2000

Flood time came
earlier, usually late
May

Flood time ended
earlier, usually in
October

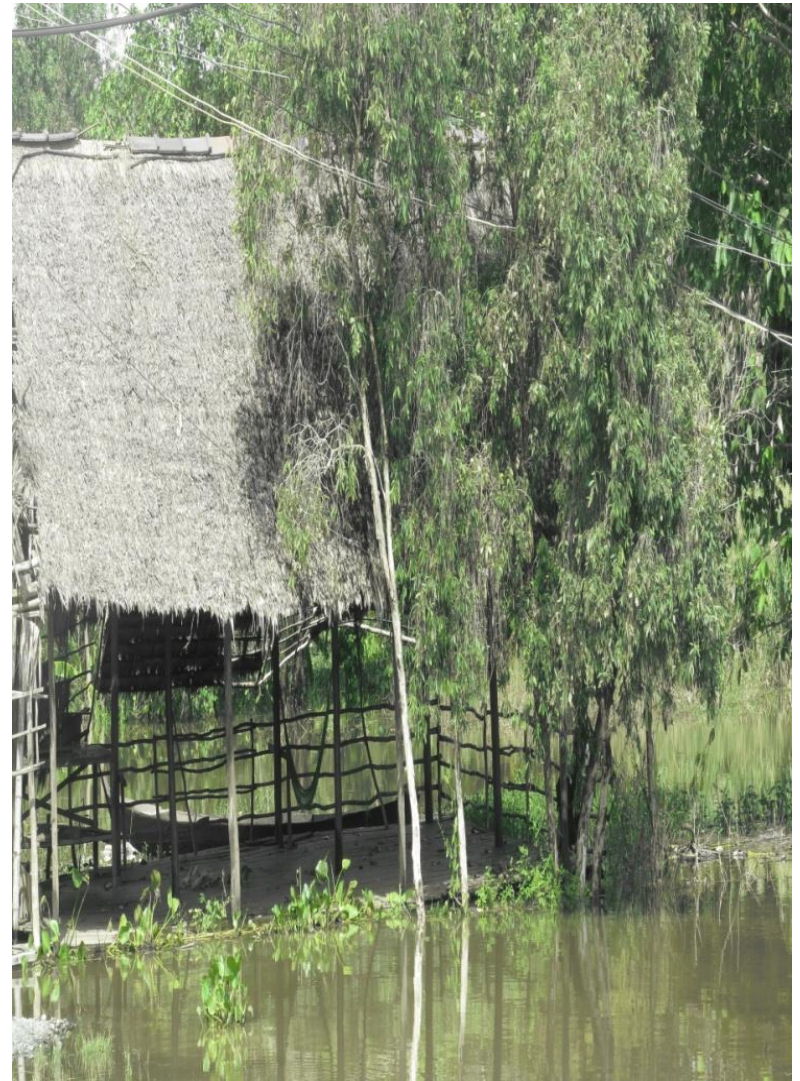
Peak flood level was
usually reached in
September

From 2000-2011

Flood time comes
later, usually early
June

Flood time ends
about 15 days later,
early November

Peak flood level
usually occurs in late
October



Note 1: Each households could mention up to three income sources

Note 2: one missing value for ‘income sources 10 years ago’

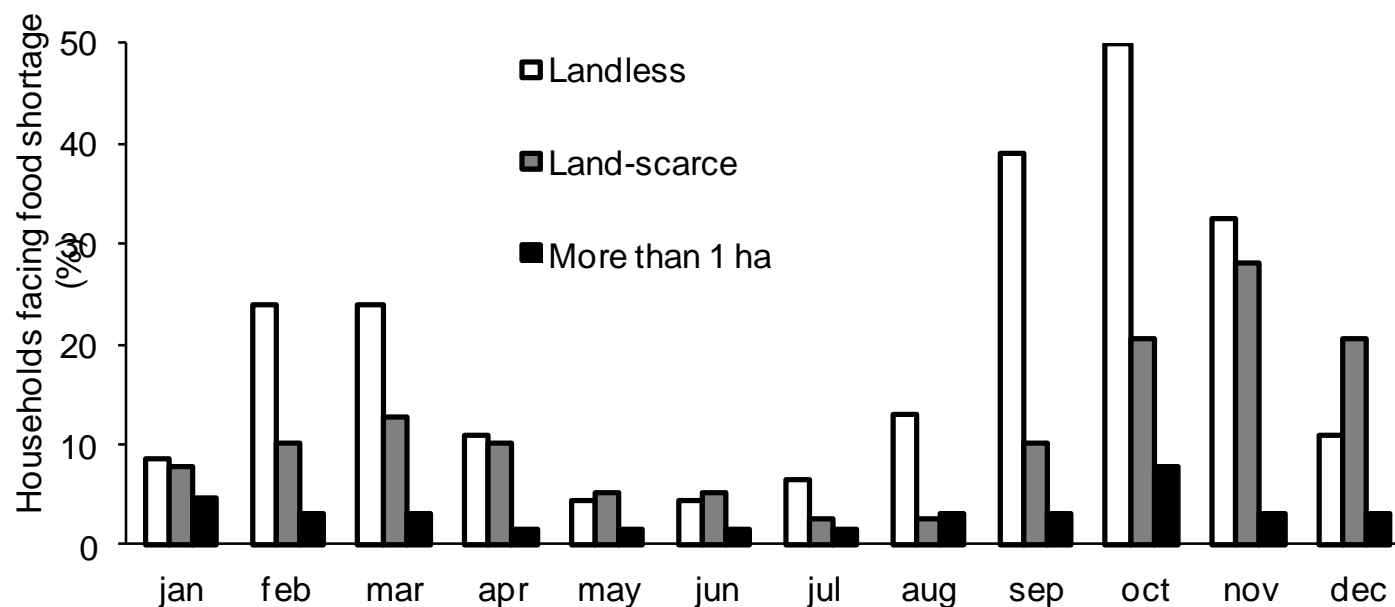
Impacts on livelihood

N = 150	Source of income now (households)	%	Source of income 10 years ago (households)	%	Change (%)
Agriculture	97	64.7	110	73.8	-9.2
Farm labour	67	44.7	72	48.3	-3.7
Fishing	48	32.0	55	36.9	-4.9
Livestock	37	24.7	46	30.9	-6.2
Trade/business	31	20.7	23	15.4	5.2
Remittances	26	17.3	4	2.7	14.6
Renting out land	13	8.7	0	0.0	8.7
Salary	8	5.3	4	2.7	2.6
Aquaculture	7	4.7	3	2.0	2.7
Factory labourer	5	3.3	2	1.3	2.0

Proportion of households facing food shortage by period and land holding

Food shortage in the...	Landless (%) N = 46	Land-scarce (%) N = 39	Owning > 1 ha (%) N = 65	Total (%) N = 150
... past 7 days*	50.0	25.6	4.6	24.0
... past year	80.4	51.3	10.9	43.0
... past 5-10 years	89.1	82.9	30.4	66.1
Inadequate food intake in the...				
... past year	41.3	15.4	3.1	18.0
... past 5-10 years	52.2	23.1	3.1	23.3

Households 'regularly' facing food shortage per month and by land holding



People explanations

[in descending order of importance]

- Landlessness or land shortage (not enough land to meet food needs);
- **Not enough demand for farm labour in the flood season;**
- **Crop failure due to insect plagues, crop diseases or unexpected flooding;**
- Unemployment or irregular income and low wages;
- **Reduced income from trade and non-farm activities due to flooding;**
- Reduced demand for labour due to mechanization
- Pregnancy and having small children to take care of (high dependency);
- Illness or death of a household member (less time to work, more medical and funeral costs);
- Increasing expenditures on education, healthcare and education

Occupational characteristics of local people and in-immigrants [aged 15-64]

Note 1: Only present household members were taken into account

Note 2: More than one occupation could be mentioned for each household member.

Note 3: The total number of household members aged 15-64 was 459.

Occupation	Born in commune	%	In-migrant	%	Total	%
Agriculture	128	36.6	73	40.6	201	37.9
Farm labour	83	23.7	41	22.8	124	23.4
Fisherman	36	10.3	18	10.0	54	10.2
Trade/Non-farm income	27	7.7	17	9.4	44	8.3
Student	26	7.4	2	1.1	28	5.3
Factory labourer	12	3.4	2	1.1	14	2.6
Livestock	7	2.0	13	7.2	20	3.8
Others	31	8.9	14	7.8	45	8.5
	350	100.0	180	100.0	530	100.0

Coping strategies

Coping strategy	Frequency
External Help	71
Reduce food consumption	43
Increase income	32
Reduce expenditure	23
Migration of members	20
Selling assets	4
Modify food production	3



Migration indicators in the villages

Indicators	Village 1	Village 2A	Village 3	Total
Households with migration experience	18	39	33	90
Total number of migrants	32	83	53	168
Economic migrants	26	61	30	117
Educational migrants	3	11	16	30
Gender of migrants				
- Male	18	53	35	106
- Female	14	30	18	62
Average age of migrants	28	29	26	
Education level of migrants	6.4	6.9	9.5	
Marital status of migrants				
- Single	17	45	35	97
- Married	13	35	18	66
- Other	2	3	0	5
Type of migration				
- Temporal*	17	50	40	107
- Seasonal	15	33	13	61
Migration status				
- Current	13	35	36	84
- Returned	19	48	17	84

Migrant destinations

<i>Destination type</i>	<i>Frequency</i>	<i>Valid %</i>
Within Dong Thap Province	44	26,7
Other Province in the Mekong Delta Region	41	24,8
Elsewhere in the country	75	45,5
Abroad	5	3,0
Missing values	3	-
<i>Total</i>	<i>168</i>	<i>100.0</i>

Reasons to migrate

Reasons to migrate	Very important	Important	Not important	Score *
Floods	29	9	63	67
No land available for farming	13	40	48	66
No land available for grazing	11	15	74	37
Heavy rainfall events	17	3	81	37
Shifted seasonal rainfalls	12	6	83	30
Less animal production for sale	13	3	85	29
Storms	12	4	85	28
Longer drought periods	9	3	89	21
Increase in drought frequency	8	3	90	19
Poor water quality	8	2	91	18
Water shortage	7	3	91	17

Migration and land ownership

Land holding	Frequency	Economic migrants in HH	Educational migrants in HH
Landless	46	31 (67%)	4 (9%)
Owning 0.1 to 1.0 ha	39	16 (41%)	5 (13%)
Owning > 1 ha	65	21 (32%)	15 (23%)
Total	150	68 (45%)	24 (16%)

Conclusions

1. Landless HHs tend to be impacted most
2. Selling labor is the main strategies
3. Food security is perceived differently between local leaders and local peoples
4. Migrations for income is popular in the poor, while migration for education is popular within the wealthy

Questions for future

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- A photograph showing a flooded rural landscape. In the center, two people are wading through murky, knee-deep water. One person is wearing a bright pink shirt and a white conical hat, while the other is in a purple shirt. They appear to be carrying something on their heads. The background is filled with dense green trees and vegetation, partially obscured by the misty or rainy atmosphere. The water reflects the surrounding greenery.
1. Should we have climate change component in all socio-economic development programs from local level?
 2. Should we pay more attentions on land accumulation and two trends of migration in the region?
 3. What are the roles of informal traditional institutions in maintaining sustainable adaptation strategies?
 4. What are responsibilities of upstream communities toward downstream local people?

Thank You for your attention!

