Household Level Adaptation: Saline Intrusion and Migration in the Mekong Delta, Vietnam

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PhD Research Questions

1. Does environmental change (salinity intrusion and its impacts) cause migration and displacement? If so, what circumstances trigger a migration decision?

2. What patterns of migration and displacement are generated?

3. Is migration an adaptation strategy, a failure to adapt or the combination of both in the face of environmental change?
Climate Change Context: Mekong Delta

Studies show that by 2030 the impacts of Climate Change on the Mekong region could be:

- increase of temperature mean at about 0.8°C,
- more severe drought and flood,
- sea level rise in the river delta area in southern Vietnam.

Source: MRC 2010
Cai Nuoc District, Ca Mau Province
Land Use Change in Cai Nuoc District: 1968 – 2003

- **1968**
- **1992**
- **1997**
- **2003**

**Legend:**
- Agriculture
- Rural settlement
- Waste land
- Water bodies
- Mangrove Forest
- Mixed mangrove + shrimp
- Shrimp monoculture

**Source:** Binh et al. 2004
Methodology to address migratory response to environmental change

Qualitative component (hamlet scale):

Household interviews based on livelihoods approach to compare between:

1. Households with some migrants
2. Households without migrants
3. Whole households that have migrated.

Quantitative component (district/hamlet scale):

Map demographic and migration data over time against environmental change parameters, land use changes, incidence of natural disasters, agricultural productivity & market prices (after van der Geest 2009 & Gray 2008)

VAN DER GEEST, K. 2009. Migration and natural resources scarcity in Ghana: Ghana Case Study Report for the EACH-FOR Project
Two Farmers & Neighbours, Nha Phan Hamlet

Whole household migrated

Household didn’t migrate
Definitions of adaptation suitable for migration?

“the process of developing or enhancing structural, physiological and/or behavioural characteristics that improve chances for survival and reproduction in a given environment” (Oliver-Smith 2009:11)

Migration = movement, therefore origin/reference point is useful for assessing successful or failed adaptation.

Migration = behavioural characteristics

For survival of ?? – requires unit/scale for effective analysis e.g. household, community.
Definitions of adaptation suitable for migration?

- “Adaptive strategies” are patterns formed by the many separate adjustments that people devise to obtain and use resources and solve immediate problems (coping behaviour, immediate problem solving and decision-making)”

- “Adaptive processes” are changes introduced over long periods of time by repeated use of particular strategies that have become part of the fund of general knowledge and practice in a culture”

( Oliver-Smith 2009:13 citing John Bennett 1996, an ecological anthropologist)
Using these definitions to interpret different types of household migration – preliminary thoughts

- Adaptation: develop behaviour to improve chances for survival in given environment
- Adaptive strategies = coping (not adaptation); Adaptive processes = adaptation

<table>
<thead>
<tr>
<th>Household Migration Outcome in response to environmental change</th>
<th>Adaptation/not adaptation?</th>
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<tbody>
<tr>
<td>No migration</td>
<td>Adaptation</td>
</tr>
<tr>
<td>Whole household migrates</td>
<td>Failure to adapt (not adaptation)</td>
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<tr>
<td>Some household members migrate:</td>
<td>Coping or adaptation:</td>
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<tr>
<td>a) long term cultural practice and norms e.g. seasonal migration for off-farm work, younger adults migrate to urban areas for education and/or work</td>
<td>a) Adaptive processes = adaptation</td>
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<tr>
<td>b) Last resort migration e.g. household members become involved in unsafe migration such as human trafficking</td>
<td>b) Adaptive strategies = coping (not adaptation)</td>
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<tr>
<td>Resettlement</td>
<td>Not adaptation (failure to survive in a given environment/location)</td>
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