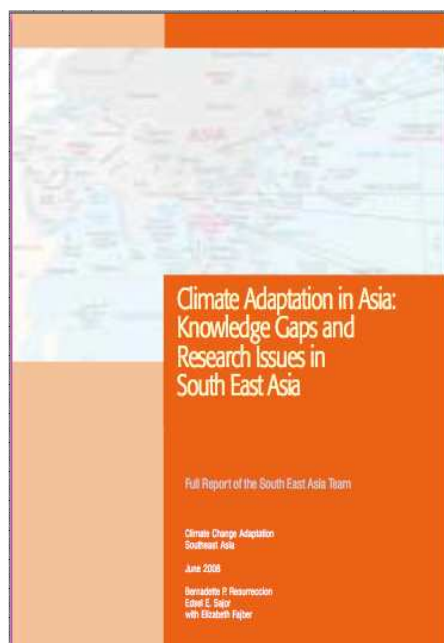


CLIMATE CHANGE ADAPTATION

The Challenge for Gender-responsiveness in Southeast Asia




Gaps Analysis Study on Climate Change Adaptation for DFID-IDRC

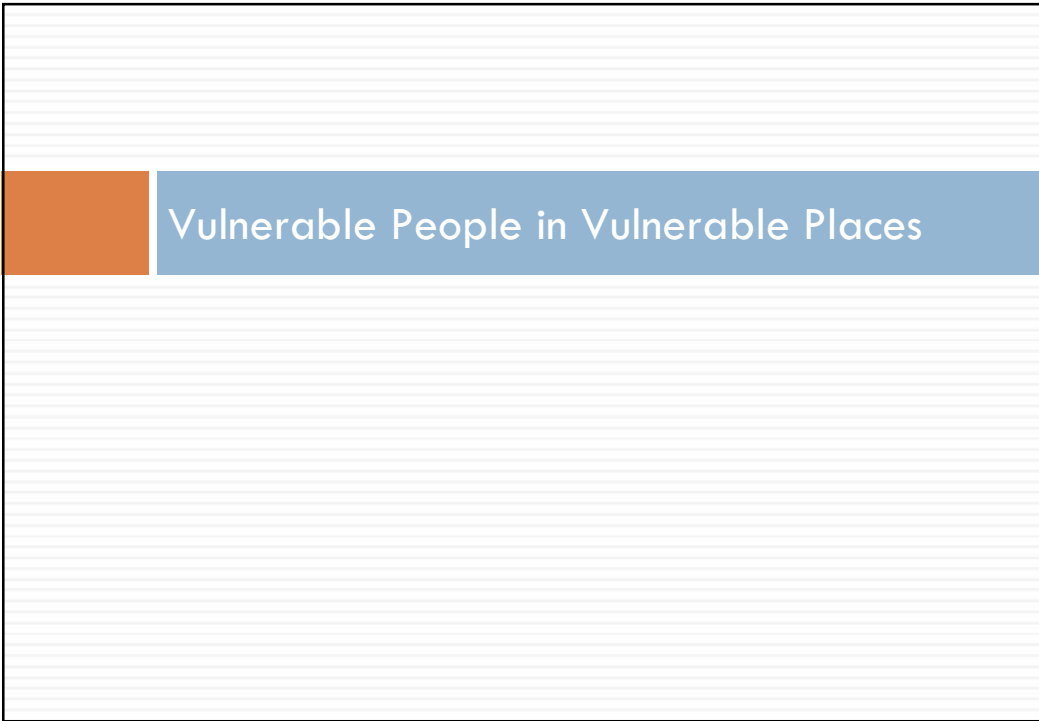
What are people and groups doing with respect to planned and autonomous adaptation to CC?

What are the major gaps in knowledge regarding CC adaptation?

- 76 Interviews in Thailand, Indonesia, Malaysia, Cambodia, Philippines, Vietnam, Lao PDR
- 3 Roundtable Consultations (Hanoi, November 2007; Manila, January 2008; Bangkok, May 2008)
- Literature Review
- Collaborative effort with two other teams in South Asia and China



Initiatives in Climate Change Adaptation



Vulnerable People in Vulnerable Places

Climate change in Southeast Asia: General characteristics

- Fairly moderate temperature increase
- Increasing variability/extremes in rainfall patterns
- Sea level rise
- More intense tropical cyclonic systems
- Increased flooding, salt water intrusion especially in Vietnam
- Drought or near-drought conditions (Indonesia during ENSO; Laos, Cambodia, Philippines, Vietnam after ENSO)
- Lao PDR, Thailand & Cambodia: long dry spells (drought) and increased flooding
- Philippines, Indonesia & Vietnam: heavier rainfall, storm surges and stronger cyclones, long dry spells, increased flooding, atmospheric haze due to increased forest fires in Indonesia during droughts

Vulnerable people in vulnerable places

1. Mekong Basin: Floodplains, delta and basins

- 55 million people rely on the Mekong River for livelihoods and food; low social equity
- Hydropower: alters hydrology, flow of the river; disturbs fisheries, agricultural cultivation and flood-pulse systems; highly political and interest-laden; power trade among countries
 - Flow: downstream-upstream issues due to diversion (competition between Thailand NE and VN Mekong Delta) – long droughts may intensify this
- Floods: both positive (nourish wetlands [10% of basin], fisheries, biodiversity) and negative; flood management critical for VN & Cambodia during wet season and more cyclones can worsen flooding beyond adequate control

CC changes can potentially exacerbate existing social, political, economic, food security and ecological conditions



2 Coastal, deltaic low lying areas

- ▣ 42 million people in Indonesia live less than 10 meters above the average sea level – located in many low lying urban areas vulnerable to flooding and storm surges (other examples: Jakarta; Semarang; Cavite, Philippines)
- ▣ Huge migrant populations in fragile coastal areas; concentrations of informal slum settlements
- ▣ Flood-prone deltaic areas used for multiple livelihoods and multiple water uses that lead to increasingly saline environments



3. Coastal and upland areas of eastern Philippines and Vietnam

- ▣ In rural low lying volcanic areas such as in Albay, Philippines – cyclones and flooding inundate villages and people
- ▣ Home to ethnic minorities
- ▣ ENSO-related dry spells: disrupts agricultural practices on fragile lands (e.g. terraces and paddy embankments) and rainfed farmlands
- ▣ Frequent and most ferocious cyclones: lead to severe landslides in deforested areas, flooding thus disrupting livelihoods and people's mobility and trade



Adaptation in SEA

- Gendered impacts of climate change
- Gendered adaptation strategies
 - Planned and autonomous
 - Constraints and enabling factors

The impacts of climate change

- Cut across agriculture, water, fisheries, coastal, health and infrastructure
- Will exacerbate existing food insecurity, malnutrition, disease, and vulnerable rural livelihoods
- Compounded by other non-climatic stresses: globalization, political insecurity, weak institutions and poverty
- Economic and livelihood systems, access to physical infrastructure, social and gender barriers, political institutions, even personal attributes all influence who will be affected by climate change and how they will be affected

Adaptation

- The **actions** that people take in response to, or in anticipation of, projected or actual changes in climate to adjust to and cope with impacts, moderate damages and take advantage of opportunities (IPCC).

Adaptation

- **Reactive:** Those explicitly directed at remedying climate change impacts and vulnerabilities to climatic stressors
- **Anticipatory:** Those that enhance overall adaptive capacity and reduce general vulnerability of systems, people, and society in climate change-affected areas

Adaptation Strategies

- Planned or unplanned
- Strategies may be differentiated according to:
 - Gender, age, class, ethnicity
 - Spatial scale
 - Ecological zones

Types of adaptation strategies

Role of gender in climate change adaptation

- Gender influences who will be most affected by climate change effects

- Gender may differentiate the types of adaptation strategies of women and men

- Gender also enables or constrains the adaptation strategies of people

SEA: Planned and Autonomous Adaptation and their Enabling and Constraining Factors

Policy and research initiatives around climate change adaptation in Southeast Asia (planned national adaptation)

1. National efforts to meet obligations of the UNFCCC (FNCs and NAPAs)
2. Conducted vulnerability assessments by national governments of ecological or production sectors, or of human populations, such as – programs on water resources and agriculture, poverty alleviation, disaster preparedness, weather monitoring and forecasting, and environmental sustainability; there is some recognition of gender
3. Community-based adaptation & integrated approaches
4. Disaster risk reduction and coping strategies

Planned local adaptation: sidestepping gender

- Two types of driver-actors:
 - ▣ Local government
 - ▣ NGOs
- Characteristics of locally planned adaptation
 - ▣ Level of knowledge, awareness, and initiative on CC impact, mitigation and adaptation among local officials are generally low
 - ▣ Most concerns and initiatives of local governments fall under mandate of disaster preparedness, relief and rehabilitation.
 - ▣ Propensity of local government officials – with support from national governments – to emphasize purely technical or infrastructural fix
 - ▣ Some local governments also employ 'soft technologies' in handling disaster preparedness (e.g. community-based programs) but where gender is marginal
 - ▣ International and domestic NGOs, in partnerships with local people or governments, have been drivers of planned adaptation programs focused on vulnerability reduction and strengthening adaptive capacities of households and village communities – **but still few, and there is hardly anything on gender**

Inter/Intra household and individual autonomous adaptation: Some manifestations from the literature

1. innovation of infrastructure;
2. retreat actions;
3. cropping alterations;
4. diversification of livelihood sources;
5. buying insurance;
6. resort to credit and borrowing;
7. receiving gifts and aid from kin/kith;
8. labor migration;
9. claim-making vis-à-vis public agencies;
10. information and knowledge acquisition;
11. reducing consumption

Constraining and enabling factors (1)

- a. Global climate change issues spark **inter-ministry competition** and **turf wars** posing unnecessary delays and obstacles.
- b. Traditional **bureaucratic rigidities** and **administrative separatism** tend to stymie the needed flexible and integrated approach to framing, planning, and implementing, and problem solving in adaptation
- c. Dominant **style of governance** in SEA tends to militate against developing quality partnerships and synergies between state and societal actors, including women and women's groups made more compelling by climate change adaptation tasks
- d. **Women's groups and organizations are not a traditional 'constituency' in environment and disaster-related programs.** They are much more visible in agriculture, water or food security or 'integrated', community-based programs.

Constraining and enabling factors (2)

- f. **Disjuncture** between broad-scale national level discussions, and local level realities in adaptation, and the need to **bridge macro-scale** analyses of climate change impact to **local** and '**more practical**' scales
- g. Adaptation is understood primarily **as a technical means** with which to reduce/minimize CC impacts rather than a complex set of responses to factors that contribute to people's vulnerability
 - 'silo' approach:
 - identify impact → identify vulnerability → plan adaptation
 - Sector-driven and sector-focused; national ministry mandate-driven (e.g., Ministry of Agriculture → develop crop-resilient varieties or improve irrigation facilities)
 - Counterpoint: people and their climate and non-climate related *gendered* vulnerabilities should be at the center of analysis; there is also need to detect unevenness in people's adaptive capacities

Constraining and enabling factors (4)

h. Within SEA research, adaptation is adjustment within *natural systems* adaptive practices

Country

CAMBODIA
Ministry of Environment
(2005)

Adaptation of farmers in P. watershed

	Adaptation Options
Low land farms	Late sowing use of short term varieties (early varieties) shift to drought resistant crops use of adaptable species supplemental watering Early sowing installation of SWP
Upland farms	Use of appropriate variety of planting materials Shift to more tolerant crops Use of drought resistant crops Use of prescribed fungicides/pesticides Installation of fire lines strict implementation of forest laws Adoption of modern method of farming suited for upland (eg SHLT) Visibility of enforcement agencies to the area Delay of planting

Gender Gaps and Points of Entry for Research and Policy to Enable Adaptation and Resilience

1: Mobility and credit as autonomous adaptation strategies and the systems that support them

Major Gap

Diversifying livelihoods through short and long term migration where women increasingly are on the move

Gender Dimensions

Research:

- Who migrates? How climatic impacts amplify and affect who migrates;
- Women and men's access to institutions and systems that support mobility: transport, conduits for remittances (e.g., banks), informal trans-local and trans-national social networks
- Whether women have equal access to informal and formal credit institutions; Insurance and micro finance program for savings, the formation of savings and finance cooperatives

Policy:

- Provide women and men equal information on jobs and capacity building services to upgrade skills in order to enable their livelihood diversification
- Ensure equal access of women and men to networks of support (gov't and welfare agencies)
- Provide credit facilities equally to women and men - a critical strategy for strengthening resilience

2: Livelihood security of small-scale subsistence and fisher folk and farmers

Major Gap

The threats that undermine small-scale livelihoods when exacerbated by climate change impacts

The mechanisms that could strengthen their adaptive capacity and resilience that includes research on agriculture and fisheries particularly in increasingly saline environments alongside mechanisms for tenure security

Linking climate information to local scales for access by marginal groups

Livelihood transitions and needs for skills enhancement

The effects of mitigation measures on people's livelihoods and well-being (e.g., forest conservation for carbon sequestration)

Factors and conditions that undermine and exclude the voices of small-scale producers

Gender Gap

Research:

- Whose livelihoods are most affected? Those of women or men, rich or poor, specific ethnic groups? (impact)
- Who has better access? (access to enabling mechanisms)
- Whose voices are least heard? (representation and claim-making)

Policy:

- Ensure proper representation of women and men coming from different classes and ethnic groups
- Provide accessible scale-relevant information on climate change equally to women and men who are affected
- Ensure and explore win win scenarios for local people – including women – who rely on forest resources for livelihoods and mitigation efforts

3: Resilience to health-related impacts

Major Gap

Work so far: measures for water & sanitation in climate-induced disaster situations

Health systems to anticipate and address changing disease vectors such as active surveillance of breeding areas

Planning of water and sanitation systems and urban drainage to strengthen resilience to urban flooding and resulting health problems

Gender Gap

Policy:

Development of gender-responsive and accessible health systems that reach the poorest populations, which therefore addresses particular health needs of women and men throughout their entire life cycles

Policy:

Engage affected women and men in the planning of water and sanitation systems to avoid breeding areas for disease vectors

Build pathways for women and men to strengthen their claim making abilities for better health systems

4: Governance of adaptation across scales

Major Gap

Disjunctures between **sectors** (environment, social development, economic) and between national and local scales that impede holistic planning and remain uninformed by autonomous adaptive strategies

Lack of effective intermediate **level of governance** where possible area-based integrative management of resources, systems and services

Trans-boundary governance of resources (e.g., water resources): constraints and enabling factors for developing equitable water allocation during drought and flooding periods

Serious capacity deficits at various levels of governance

Gender Gap

Research:

- People-centered research on adaptation strategies
- Mechanisms of social and gender exclusion

Policy:

- Equal representation of women and men at the intermediate levels of governance and in consultations regarding trans-boundary water governance during droughts and floods
- Holistic planning that considers women and men's autonomous adaptation strategies
- Capacity building of both women and men to take up leadership roles at the intermediate level of governance and in transboundary water governance



Thank you.

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