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Vulnerability & Adaptation Assessment: examples of methodologies used in Viet Nam

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1. Introduction (a)



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- Need to understand vulnerabilities and best cc adaptation actions, over time
- Need to understand impacts of projects
- Many methodologies, in climate change adaptation and the Disaster Risk Management communities of practice
- These communities of practice are working together – e.g. IPCC's SREX
- SERX : **Disaster Risk** is a function of **Weather and Climate Events** (hazards), **Vulnerability**, and **Exposure**
- The communities of practice produce a lot of specific and relevant guidance; UNDP is active in this too

1. Introduction (b)



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- This presentation: usefulness of various methodologies applied in three examples in VN.
- Our analysis should inform also the SREX-Viet Nam
- Part 2 is about Vulnerability Reduction Assessment (VRA) for M&E in the SGP-GEF CBA program in VN
- For research we applied “mixed methodologies”, with elements from different approaches : Part 3 on gender & CC; Part 4 on Migration, resettlement & CC
- Part 5 gives summary of conclusions e.g. re the need to adjust methodologies to the specific aims of the exercises; and resource limitations

2. CBA projects in Viet Nam: VRA and the H-form (a)



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- Vulnerability Reduction Assessment (VRA) is applied in GEF-SGP CBA projects, through project lifetimes
- Designed *“to measure the changing climate vulnerabilities of communities, and to be comparable across vastly different projects, regions, and contexts, making it possible to determine if a given project is successful or unsuccessful in reducing climate change risks”*.
- Four fixed indicators:
 1. Vulnerability of livelihood/welfare to existing climate change /climate variability
 2. Vulnerability of livelihood/welfare to developing climate change risks
 3. Magnitude of (policy, technological, financial) barriers to adaptation
 4. Ability and willingness of community to sustain project intervention
- Each indicator is addressed with key questions that need to be discussed and scored.
- This is summarised on the “H-Form”:

2. CBA projects in Viet Nam: VRA and the H-form (b)



Reasons for negative response	Question written here	Reasons for positive response
<p>Reason</p>	<p>Unfavourable score</p> <p>Very Bad Bad Moderate Good Very Good</p> <p>1 2 3 4 5</p> <p>Favourable score</p>	<p>Reason</p>
<p>Reason</p>	<p>How could this score be improved?</p> <p>Comment</p> <p>Comment</p>	<p>Reason</p>
<p>Reason</p>		<p>Reason</p>

2. CBA projects in Viet Nam: VRA and the H-form (c)



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- The first VRA meetings preceded by CC awareness raising. Scientific knowledge is combined with perceptions, to “remove biases”
- The baseline scores of local perceptions of project effectiveness in the first VRA is followed by 3-4 VRAs over the lifetime of a project. Scores should “be a reflection of the previous discussions”, with the same informants.

Analysis of practice in Viet Nam, and critique on VRA

- Individual CBA projects need M&E, and data from all projects must be aggregated for analysing trends over wider geographic areas
- However, without experienced external facilitation the H-form is perceived as complex by local stakeholders.
- Communities in VN without substantial external facilitation were confused about the numerical data required, i.e. the scores on the H-form
- Furthermore, fully eliminating biases that influence the scores is impossible. Biases are different per individual and group, and different moments.

2. CBA projects in Viet Nam: VRA and the H-form (d)



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- Ranking of data may be easier to do without skilled facilitation and may produce more trustworthy data. Ranking can be applied to compare the properties of different indicators (variables) at a certain time, and the property of single indicators (variables) at different moments.
- Ranking data can also be quantified across geographies for aggregation of results of projects:
 - Indicator **x** shows a positive trend over time (ranking of different moments shows it is ranked progressively higher at the later dates), in **m** projects
 - Indicator **y** ranks highest amongst all indicators (most improvement as a result of the project) in post-project assessments compared to other indicators, in **n** projects
- Concepts: is exposure part of vulnerability or essentially a separate factor (as in SREX)? The answer changes the main aim (towards: have climate risks reduced over the lifetime of a project?) and predetermined indicators (look separately at changes in vulnerability and exposure of men & women, households, communities, infrastructure, ...).

3. Gender and climate change field research in Quang Tri province (a)



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- Commune in a coastal district and in upland ethnic minority district
- Hypothesis: *Climate change impacts and responses ... may enhance gender inequalities ..., and ... failing to ... improve the status, livelihood opportunities and resilience of women and girl children.*
- Experienced researchers, with trained local facilitators
- Collection of (local) secondary data
- Use of matrix-tools , self-assessment of gendered vulnerabilities and resilience, including “retrospective ranking” of households
- Focus group discussions (FGDs) at commune, district and province
- Household semi-structured interviews (SSIs) on climatic disasters experience; and on gendered vulnerabilities and resilience
- FGDs and SSIs preceded by presentation of potential CC impacts in order to discuss perceived future impacts and possible adaptation actions
- Cross checks between results of FGDs, SSIs and secondary information
- Scale. One FGD in province, districts , communes (total 150 participants); 2 schools (40 children). 63 household SSIs

3. Gender and climate change field research in Quang Tri province (b)



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Analysis of practice in this study, and critique

- Focused on cc-gender links, not project M&E. But data give baseline of perceptions of vulnerabilities and adaptation options
- Used hypothesis and analytical framework to guide questions
- Indicators of vulnerability and resilience not pre-determined but came out
 - Household vulnerability correlates with quality of housing
 - Livelihood vulnerability b/c of lack of labour, tools, capital, land; & dependency rate
 - Location determines risks, or vulnerabilities & resilience
 - Not all vulnerable households are poor, but poor households more vulnerable
 - Resilience increases with social capital and disaster experience. Divorced women have low resilience - often get limited social support
 - Gender stereotypes may be reinforced by DRM actions.
 - Women's representation still low and CCA programs often "gender blind". To undertake typical male responsibilities increases resilience but also workload

3. Gender and climate change field research in Quang Tri province (c)



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- The methodology was related to VRA, but no H-form, no pre-set indicators, no scoring. Comparing with other situations only qualitative
- To help participants relate aspects of their lives and livelihoods to impacts of climate change, an introduction to climate change effects on locality was given. This reduces biases (as in VRA) and enabled local analysis of future CCA actions, but that cannot be only basis for CCA actions.
- The aim of the research and limited resources available had a strong effect on the methodology and scope.
- The locations were typical for certain climate change impacts and social economic conditions, but the data can only be extrapolated to similar situations and not to all situations in Viet Nam. Conclusions from the limited number of communities and interviewees must be qualified.
- The findings are evidence in addition to other studies, and provide conclusions on linkages between gender relations and climate change stresses as well as climate change responses.

4. Climate change, migration & resettlement in the Mekong Delta (a)



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- Communes in up-stream Mekong Delta (Long An and Dong Thap provinces), with flood and erosion risks; & with resettlement sites. Migrant-receiving areas in Ho Chi Minh City and Can Tho City.
- Objectives: examine household migration strategies in response to environmental stress and how they affect resilience; identify ways to strengthen resilience of communities under environmental stress, improve resettlement, and minimize barriers to migration
- Research questions included:
 - What is the interaction between environmental stress and vulnerability, and what are adaptation strategies?
 - To what extent is migration a coping and adaptation strategy for households exposed to environmental stress?
 - How do resettlement programs for flood and disaster-prone areas affect resilience of livelihoods, well-being?

4. Climate change, migration & resettlement in the Mekong Delta (b)



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- Methods included: (a) structured surveys; (b) in-depth interviews (IDI); (c) focus group discussions (FGD); and (d) key informant interviews (KII). Quantitative data from the surveys were used, and other data used to understand relationships between survey variables.
- Scale. 188 survey-interviews in rural sites, 200 in resettlement sites, 200 in cities. 36 IDIs in resettlement sites, and 18 each in rural areas and cities. Six FGDs in resettlement sites, and four each in rural areas and cities.
- Questions (survey, FGDs, IDIs, KIIs) based on an analytical framework
- Focus on poor and near-poor households, who are most vulnerable to the environmental stress.

Analysis of practice in this study, and critique

- Random sampling was not fully possible in the surveys; purposive sampling for IDIs and FGDs.
- OK scale but only extrapolate findings to very comparable situations
- The different research methods could not be pre-tested

4. Climate change, migration & resettlement in the Mekong Delta (c)



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- Thematic research not related to project M&E or baseline for projects but is related to a large scale (Government) resettlement program
- No fixed or pre-determined indicators, but research questions, survey and interview questions based on an analytical framework
- Findings on certain variables can be assessed in other situations:
 - The main drivers for migration were lack of employment and low income
 - Environmental stress affects livelihoods and can be a driver in itself
 - Owners of land or housing less inclined to migrate, more likely to return
 - Early Warning systems are in place in rural areas, and aid after disasters
 - Living conditions in resettlement sites better than former rural areas. But resettlement left poor and near-poor households often in debt
 - Process of resettlement lacks community participation and transparency
 - Social networks in sending and receiving areas are vital to migration
 - Remittances to sending areas, also financial assistance to migrants
 - The standard of living in the cities is better, but migrants have less access to services

4. Climate change, migration & resettlement in the Mekong Delta (d)



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- The methodology was related to VRA, but no H-form, no pre-set indicators, no scoring. Qualitative comparing with other situations
- The aim of the research and limited resources available had a strong effect on the methodology and scope
- No introduction to climate change effects to localities, no attempts to reduce biases or study local perceptions of future CCA. The focus was on “environmental stresses”; links between climate change, migration and resettlement can only be inferred from expert analysis
- Used an analytical framework that guided questions but e.g. questions about women and men’s influence over decisions were not prominent – the focus was on drivers of migration of households, women and men.
- Reasonable scale and some data can be analysed for comparisons of quantified variables. But not a large survey or fully random samples so cannot extrapolate to significantly different situations, regarding linkages between environmental stresses, vulnerability and mobility.
- The findings from the field work are evidence in addition to other studies

5. Conclusions (a)



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- The aim of research or M&E affects the methodology. Generating insights in causal relations is different from generating data for justification of project activities.
- Project M&E demands standardisation of indicators between projects with similar aims, and over project lifecycles. Analytical frameworks guide research questions and analysis of data in thematic research, often leading to non-standardised indicators/variables. However, the latter can often be related to and qualitatively compared with similar research in other realities.
- Local conditions affect the methodology. For example random sampling may not fit local realities; urban migrants are difficult to meet; language barriers with ethnic minorities. In particular, local (M&E) data with limited external facilitation must use straightforward methods.

5. Conclusions (b)



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- The need to draw conclusions over larger geographic areas and project portfolios demands comparability of indicators. However, numerical representation of trends in projects and over project portfolios does not strictly require scoring of qualitative properties, which is affected by informant biases. Ranking-data may be less affected by (changing, different) biases of informants and can also be aggregated.
- E.g. “retrospective ranking” of household vulnerabilities and resilience / capacities can be a powerful tool in both thematic research and project M&E.
- Forward looking assessment of adaptation options is needed, and facilitated by external inputs re climate change effects. This is not strictly speaking research or project M&E, but valuable
- Research and M&E aims, methodology and scope are limited by human and financial resources, and time. Because of resource limitations knowledge must be built up as part of wider efforts to assess, evaluate, research certain phenomena and program or project results. Perfection is not possible and it is important to settle for approximate understanding

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