



MICRODIS



D4.3.3
ECONOMIC WORKING GROUP REPORT
FROM THE REVIEW AND MODIFICATION
MEETING FOR ASIA AND EUROPE

Hue College of Economics

Sweco Grøner

Depok, Indonesia – October 10-11, 2009

TABLE OF CONTENTS

PARTICIPANTS	3
OUTPUTS.....	3
1. PROGRESS UPDATE	3
2.1 ACTIVITIES COMPLETED BY HCE	4
2.2 QUESTIONNAIRE ADAPTATION BY HCE TEAM.....	4
3. ANALYTICAL ANALYSIS FOR ECONOMIC CORE THEMES.....	5
4.1. VALUATION OF DAMAGES CAUSED BY THE EVENT	5
4.2. TEMPORARY DISPLACEMENT & MIGRATION.....	6
4.3. IMPACT ON MONTHLY INCOME AND EXPENDITURE	7
4.4 WTP QUESTIONS.....	7
5. ADDITIONAL ANALYSIS.....	9
6. EXPERIENCE & LESSONS LEARNS.....	10
7. BACKGROUND INFORMATION FOR ECONOMIC CORE QUESTIONNAIRE.....	11
8. DISSEMINATION SCHEME	11

D4.3.3 – Economic Working Group report from the review and modification meeting for Asia and Europe

PARTICIPANTS

Introducing member of economic group

+ Tran Huu Tuan (HCE)

+ Bui Dung The (HCE)

+ Bui Duc Tinh (HCE)

+ Orlando San Martin (SWECO)

OUTPUTS

During the meetings, the EWG's participants discussed the following issues/ topics:

- (1) PROGRESS UPDATE
- (2) QUESTIONNAIRE ADAPTATION BY HUE TEAM
- (3) ANALYTICAL ANALYSIS FOR ECONOMIC CORE THEMES
- (4) EXPERIENCE & LESSONS LEARNS
- (5) BACKGROUND INFORMATION FOR ECONOMIC CORE QUESTIONNAIRE
- (6) DISSEMINATION SCHEME

1. PROGRESS UPDATE

1. Sharing the progress of economic data/report from other partners of MICRODIS family
2. All partners completed data
3. SWECO completed Economic Conceptual Framework

2.1 ACTIVITIES COMPLETED BY HCE

	Date completed	Outputs
1. Study design: research objectives & questions, hypotheses, site selection, sampling design	June, 2009	Final Study Design for both MICRODIS Integrated Questionnaires
2. Development of questionnaires a) Finalize MICRODIS integrated questionnaire b) Development of economic questionnaires c) Translation of questionnaires into Vietnamese	June, 2009	Final version of MIQ and EAS (English and Vietnamese)
3. Pre-test surveys, FGDs, KIIs	June, 2009	9 FGDs and 20 KII Pre-tested MIQ and EAS questionnaires
4. Enumerators' recruitment and training	June, 2009	14 enumerators
5. Main surveys	Sept, 2009	708 MIQ and 510 EAS
6. Data entry	Sept to early Oct, 2009	E-data in SPSS
7. Data Cleaning	Oct, 2009	In progress

2.2 QUESTIONNAIRE ADAPTATION BY HCE TEAM

First, the HCE Team adopted the MIQ which was adapted and translated by Hanoi HSPH team.

Questionnaires were then validated through meetings; FGDs and the pilot survey, and then revised for the final survey.

Many questions in the economic core from 4.1.1 to 4.1.7 about economic damages to households were adapted to the local context as following reasons:

1. For example, question 4.1.1. **Damages to Residential House** and 4.1.2 **Damages on Household Goods/Documents**. It is recognized that to recover damages, local people will use their materials and family labor (in-kind cost), and will buy/hire from market if they do not have enough (in cash-cost). If you raise questions like that, the respondents will just give the cost in cash but not the cost in kind (main cost).

2. For damages to agricultural production, in the context of poor communities, households often try to make use of the damaged products (selling or consumption). In other words, the recovery value should be counted as it exists in reality. Thus, net total damaged value of agricultural products should be minus "recovery value" of damaged products.
3. We also specified agricultural crops into main crops and minor crops. Minor crops are often very small, so we asked households to estimate total damage values.
4. For the question of total personal income of each family member, we adapted by total **personal income/12 months** before and after the disaster instead of **personal income/month**. This might help to see changes in individual income due to event impact.

3. ANALYTICAL ANALYSIS FOR ECONOMIC CORE THEMES

EWG members discussed the ways of how to analyze and demonstrate thematic core data. However, as the HCE team has just completed data entry and under the process of data cleaning, no real data is available for demonstration. The participants agreed to prepare some analytical analysis guidelines for economic core questions. Below are the guidelines:

4.1. VALUATION OF DAMAGES CAUSED BY THE EVENT

- 4.1.1 Damages on Residential House and Amenities
- 4.1.2 Damages on Household Goods/Documents/Assets
- 4.1.3 Damages on Agriculture, Horticulture, and Forestry production?
- 4.1.4 Damages on Livestock
- 4.1.5 Damages on Household based Industry and Small-scale Industry/ Commercial Activities
- 4.1.6 Damage on public infrastructure and its impact on your household
- 4.1.7. Damages on Aquaculture/Pisciculture

The following information is needed:

Categories of damages	HH affected		Average damages/HH	
	frequency	%	\$	%
4.1.1 Damages on Residential House and Amenities				
4.1.2 Damages on Household Goods/assets				
4.1.3 Damages on Agriculture, Horticulture, and Forestry production				
4.1.4 Damages on Livestock				
4.1.5 Damages on Household based Industry and Small-scale Industry				
4.1.6 Damage on public infrastructure and its impact on your household				
4.1.7. Damages on Aquaculture/Pisciculture				
Total				

4.2. TEMPORARY DISPLACEMENT & MIGRATION

- 4.2.1 Have you or anyone else in your household been temporarily displaced /migrated due to the 2007 flood?
- 4.2.2 If yes, please give details about the displacement/migration of the household members

Optional I: Comparison of Costs and Income impacts, by migration category

	HHs with migrant/displaced members		% HHs reported reduction in incomes	Cost of displacement/migration (e.g. transportation/traveling cost) (,000 VND)
	Freq.	%		
Migrated=M/				
Temporarily Displaced=TD				

Optional II: Comparison of Costs and Income impacts, by migration destination

	Freq .	%	Cost of displacement/ migration (e.g. transportation/ traveling cost) (,000 VND)	% HHs reported reduction in incomes
Nearby school building/ /safe shelter				
Nearby Town/precinct of the same district				
Nearby commune of the same district				
Town/precinct of other province				
Commune of other province				

4.3. IMPACT ON MONTHLY INCOME AND EXPENDITURE

Summary Table: Expenditure Pattern

Items of Expenditure	Before the most recently experienced natural disaster		After the most recently experienced natural disaster	
	\$	%	\$	%
Food				
Clothing				
Fuel				
Electricity				
Medical				
Education				
Transport				
Communication (Telephone, internet, postal expenses)				
House Rent				
Tax payment				
Repayment of loan				
Others (Please mention)				
Total				

4.4 WTP QUESTIONS

4.3.3. Would your household be willing to contribute labor to that program?

- Frequency & percentage of HHs/ respondents who are willing to contribute labors
- (yes, no & don't know).

Reasons	Freq	%
<p>1. I cannot afford to pay</p> <p>2. Other things are more important than avoiding floods.</p> <p>3. The government should pay for this.</p> <p>4. I do not believe that the government will implement this plan.</p> <p>5. I do not believe flood defense measures will avoid flooding in the future.</p> <p>6. I do not believe I am at risk of being flooded</p> <p>88. Other, specify.....</p>		

From these results, we identify real “cero” or no-response & protest responses.

All those with reason other than 1, 2 and 6 are considered as “protest” response.

4.3.4 If yes: What is the highest number of person-days your household would be willing to contribute per year

_____ *NO. OF PERSON-DAYS PER YEAR*

Average/ mean & median - standard deviation of person-days (& money in question 4.3.5) that households are willing to contribute.

4.3.5 If No or Don't know: What is the highest amount your household would be willing to contribute per yearVND/year (if not willing to contribute, write 0)

Average/ mean & median - standard deviation of cash that households are willing to contribute

4.3.6 If 'No' in 4.3.4 and '0' in 4.3.5:

Why would your household not contribute?

Reasons	Numbers	%
1. I cannot afford to pay*. 2. Other things are more important than avoiding floods. 3. The government should pay for this. 4. I do not believe that the government will implement this plan. 5. I do not believe flood defense measures will avoid flooding in the future. 6. I do not believe I am at risk of being flooded. 88. Other, specify.....		

Calculation of Mean WTPx

Typically, one would have an individual's response as WTP_i , and the sample mean would be

$$\text{Mean WTPx} = \frac{\sum WTP_i}{T_i}$$

- WTP: "willingness to pay" (in kind or cash)
- For T_i there are several options:
 - X1: consider dont know as = no
 - X2: drop dont knows
 - X3: drop "protest" cases

4.3.8 If your damages will be compensated what is the minimum amount of money that would compensate your household for the damages due to the recent flood? _____,000 VND

Average & median - standard deviations of minimum compensation claims

5. ADDITIONAL ANALYSIS

Please see the correlation/association between mean corrected-WTP, mean Compensation claim, and estimation of values of physical damages.

Determinants of WTP, two ways of analysis

Descriptive analysis: Cross-tabulations & compare mean of socio-economic & demographic characteristics among three group of households (i.e. yes/ no/ don't know groups) to see how socio-economic & demographic characteristics vary among them

Multivariate analysis: this model is estimated as a censored model because $WTP_i \geq 0$ (ie.Tobit model). Zi may include socio-economic characteristics (education, income, age...); perception/ attitudes...

6. EXPERIENCE & LESSONS LEARNS

The participants also discussed experiences and lessons learned from the implementation of MICRODIS integrated questionnaires. They are as follows:

1. Institutional arrangement with local authorities in the study site: clearly stated objectives of the project
2. Pre-testing survey instruments is a fundamental step to improve and adapt "best" instrument for survey
3. Careful recruiting and training of enumerators
4. Monitoring the process of the survey
5. Avoiding bias occurring due to over-stated damage values, as they think they might get more compensation from project or government. Enumerators were advised to start this section with very detail introduction before questioning.
6. For long questionnaire surveys like the MIQ, we should focus the introduction with the direct purposes of survey, length of time for interviews needed and incentive.
7. Each partner should have FGDs as part of preliminary data analysis to validate the findings
8. Time of economic survey - we conducted the survey over 1 year after the occurrence of disaster. It is very time-consuming to ask local respondents to recall the facts.
9. For any kind of instruments for the use across countries, we should have the opening part for each team to adapt to their own context.

10. It would be good if we are able to have the common codebook earlier than the process of questionnaire adaptation, and final survey conduction.

7. BACKGROUND INFORMATION FOR ECONOMIC CORE QUESTIONNAIRE

As requested by the coordination team, each thematic working group needs to provide background information for their core questions.

During the meetings, EWG members discussed and assigned each member/partner to prepare this. More particularly, the HCE team will prepare the background for the ***Valuation of damages section*** of the questionnaire. SWECO will prepare three sections of the economic core questionnaire including ***Migration and displacement; Incomes and expenditures; and Willingness to contribute.***

8. DISSEMINATION SCHEME

1. Preparing case studies and materials for teaching purpose in HCE and others in MICRODIS Family
2. Developing final reports and compile papers/articles for publications
3. Organizing seminars and workshops in universities
4. Participating in regional and international conferences for presentations

Papers for publication

- (1) WTP for flood risk mitigation in Asia: Cross-Country Analysis
- (2) Assessment of Economic Damage of Climate Change Extreme Event: Practical and Methodological Issues
- (3) Adaptation Options for Floods: Cross-Country Analysis