



Center for Research
on the Epidemiology
of Disasters (CRED)



Integrated Health, Social and Economic Impacts of
Extreme Events: Evidence, Methods and Tools



European Commission

Minutes

Economic Working Group Meeting Kolkata, November 2 – 4, 2007

Objectives of the meeting

The primary objective of the Economic Working Group meeting was to develop an economic conceptual model enabling to assess the impacts of natural disasters at a microeconomic level, and to start reviewing the assessment protocol related to the field surveys and data collection. The second objective of the meeting was to detail research issues and prepare a plan of actions for the upcoming year.

During the opening session, keynotes and presentations were given by Prof. Siddharta Datta (Pro-Vice-Chancellor, Jadavpur University), Prof P. N. Ghosh (Vice-Chancellor, Jadavpur University), Prof. D. Guha-Sapir (University Catholique de Louvain, Director of CRED, Coordinator of MICRODIS), Dr. Andrew Sors (European Commission), Prof. Biswajit Chatterjee (Dean, Faculty of Arts, Co-PI MICRODIS – Jadavpur University) and Dr. Alexandre Borde (Coordinator, Economic Working Group, MICRODIS) – Annex 1.

In the morning of Day 1 of the meeting, interventions and discussion were dedicated to experiences from other institutions by external experts and economists, on:

- “Flood Loss Management in Bangladesh” by Dr. Nabiul Islam from the Bangladesh Institute of Development Studies (BIDS). A paper of his presentation is available in Annex 2.
- “Implementing field surveys using stated preference in Kolkata” by Dr. Susmita Chatterjee from the National Institute of Cholera and Enteric Diseases (Abstract presented in Annex 3).
- “Using households surveys to analyze the impacts of natural disasters: experience from Nicaragua” by Dr. Indhira Santos from the Bruegel Institute (Annex 4).

A Conceptual Model based on a Damage Function: the Impact Pathway Approach

These presentations allowed initiating discussions about the different models than can be developed to measure the economic impacts of natural disasters. Prof. Ståle Navrud (Norwegian University of Life Sciences) presented then the “economic assessment of extreme events using the impact pathway approach – a conceptual framework”. The meeting was a good opportunity to debate about this impact pathway approach and a strong consensus was found to develop the economic conceptual model on the basis of this impact pathway approach (Annex 5). Dr Ivy Das Gupta from the Jadavpur University suggested also “further thoughts on conceptual modelling” (Annex 6).

A literature review on the economic impacts of natural disasters by priority issues

The session on the literature review gave an exhaustive inventory of the different papers and publications that are existing on natural disasters and their economic impacts. Presentations were made by i) Dr. R.P. Sinha (Consultant, MICRODIS – Jadavpur University) on risk and the insurance market – Annex 7 and 8, ii) Dr. Sabari Bandhyopadhyay (Research Associate, MICRODIS – Jadavpur University) on migration – Annex 9, iii) Sayanti Sen (Junior Research Fellow, MICRODIS – Jadavpur University) on the use of GIS – Annex 10, and iv) Debabrata Mitra (Junior Research Fellow, MICRODIS – Jadavpur University) on case studies – Annex 11.

The development of an assessment protocol and review of the draft questionnaire



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At the program of the second day of the meeting was the review of the assessment protocol in relation to the field surveys that will take place in 2008. Dr. Ivy Das Gupta proposed a vulnerability index to identify the sites to be selected for the data collection process. For India, two sites are proposed by Jadavpur University in Orissa and West Bengal (Annex 12). Susmita Chatterjee and Indhira Santos explained the issues encountered when implementing field surveys at households level respectively in Kolkata and Nicaragua.

Dr. Sabari Bandyopadhyay (Research Associate, MICRODIS – Jadavpur University) presented a draft questionnaire for discussion. The questionnaire (Annex 13) is divided into different blocks and sections. While it has a good coverage of all the dimensions of natural disasters, some adaptation depending of the countries where it will be utilized, are required. It has been agreed that written comments and suggestions should be submitted by the participants in the meeting by the end of 2007 to JU in order to have a revised version that should be presented at the Annual Microdis Meeting planned in February in India.

4 to 5 Research Issues on the Agenda

The meeting was also the opportunity to discuss the priority research issues that should be addressed by the WG. A discussion took place after the presentations made by Prof. Chakraborty (Principal Investigator, MICRODIS – Jadavpur University), Prof. Chatterjee (Co-PI, MICRODIS – Jadavpur University) and Prof. Das (Consultant, MICRODIS – Jadavpur University). Based on their proposals, a form will be circulated by Alexandre Borde to the participants to further describe the interest of the participants in these research issues. The impact pathway approach will be the overall framework in which these research issues will be developed.

Preparing the Annual Microdis Meeting in February 2008

Prof. PC Joshi (Department of Anthropology, Delhi University, President, Society for Indian Medical Anthropology, Coordinator, Asian Partners, MICRODIS) presented the agenda leading to the Annual Microdis Meeting planned in February 2008 in India. It was been suggested to have sessions for the different thematic working groups to meet as well as a plenary session. The preparation of the Annual Meeting will be followed up by Prof. PC Joshi in conjunction with Prof. Guha-Sapir (University Catholique de Louvain, Director of CREDE, Coordinator of MICRODIS).

Linking with the Integration Process

The last day of the meeting was dedicated to presentations on the integration process, during which Prof. Patrick Pigeon (University of Savoie) pointed the fact that it is important to have an identification by the integration team of the relations between the most relevant indicators developed in each WG (Annex 14). In the same idea, the analysis of risks of industrial development in hazard prone areas by Dr. Marita Luotamo (Finnish Institute of Occupational Health) is a good example of a transversal study to all the WG (Annex 15).

Conclusions

The EWG meeting enabled to summarize the activities of the year one of the Microdis project with respect to the measurement of the economic impacts of natural disasters. Among the recommendations and actions to be taken are:

1. the finalization and submission of the various deliverables:
 - a. Economic conceptual model (the impact pathway approach) by end of 2007 – lead: SWECO
 - b. The review of economic valuation of non marketed goods by end of 2007 – lead: SWECO – this deliverable could be merged with the previous one
 - c. The assessment protocols by end of 2007 – lead: JU
 - d. The literature review by end of 2007 – lead: UPS
2. the preparation of the EWG inputs to the Microdis Annual Meeting:
 - a. Proposal of sites using for instance the vulnerability index developed by JU by end of January 2008 – all the EWG partners



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- b. The questionnaire to be revised, by end of 2007 – all the EWG partners
- c. The content of the identified research issues by beginning of 2008 – all the EWG partners

List of participants

- **Dr. Sabari Bandhyopadhyay**, Research Associate, MICRODIS – Jadavpur University
- **Dr. Alexandre Borde**, Senior Economist, Coordinator, Economic Working Group, MICRODIS
- **Prof. Debesh Chakraborty**, Principal Investigator, MICRODIS – Jadavpur University
- **Prof. Biswajit Chatterjee**, Dean, Faculty of Arts, Co-PI MICRODIS - Jadavpur University
- **Dr. Susmita Chatterjee**, National Institute of Cholera and Enteric Diseases, India
- **Prof. Tuhin Das**, Department of Economics, Jadavpur University and Consultant, MICRODIS – Jadavpur University
- **Dr. Ivy Das Gupta**, Research Associate, MICRODIS – Jadavpur University
- **Prof. Siddharta Datta**, Pro-Vice-Chancellor, Jadavpur University
- **Prof P. N. Ghosh**, Vice-Chancellor, Jadavpur University
- **Prof. D. Guha-Sapir**, University Catholique de Louvain, Director of CRED, Coordinator of MICRODIS
- **Dr. K. M. Nabiul Islam**, Senior Research Fellow, Project Director, Bangladesh Institute of Development Studies (BIDS), Bangladesh
- **Prof. P. C. Joshi**, Department of Anthropology, Delhi University, President, Society for Indian Medical Anthropology, Coordinator, Asian Partners, MICRODIS
- **Dr. Marita Luotamo**, Finnish Institute of Occupational Health, Finland
- **Debabrata Mitra**, Junior Research Fellow, MICRODIS – Jadavpur University
- **Prof. Ståle Navrud**, Associate Professor of Environmental Resource, Economics Department of Economics and Resource Management, Norwegian University of Life Sciences, Norway
- **Prof. Nguyen Thi Kim Chuc**, Associate Professor, Director of Health Economics Department, Hanoi Medical University, Vietnam
- **Prof. Patrick Pigeon**, University of Savoie, France
- **Dr. Indhira Santos**, Research Fellow and Consulting Editor, Belgium
- **Sayanti Sen**, Junior Research Fellow, MICRODIS – Jadavpur University
- **Dr. R.P. Sinha**, Consultant, MICRODIS – Jadavpur University
- **Dr. Andrew Sors**, European Union

List of Annexes (available on request)

- **Annex 1**, Introduction EWG Meeting, Alexandre Borde
- **Annex 2**, Flood Loss Management: experience from Bangladesh, Dr. K. M. Nabiul Islam
- **Annex 3**, Implementing field surveys using stated preference in Kolkata, Susmita Chatterjee
- **Annex 4**, Using households surveys to analyze the impacts of natural disasters: experience from Nicaragua, Indhira Santos
- **Annex 5**, Economic assessment of extreme events using the impact pathway approach – a conceptual framework, Kristin Magnussen and Ståle Navrud
- **Annex 6**, Some further Thoughts on Conceptual Modeling, Ivy Das Gupta
- **Annex 7 and 8**, Natural Disaster, Risk and Insurance – a Review, Biswajit Chatterjee and Ram Pratap Sinha
- **Annex 9**, Review of Literature on the Impacts of Extreme Events on Migration
- **Annex 10**, Geographical Information System and Remote Sensing application on the Study of Extreme Events – A literature review, Sayanti Sen
- **Annex 11**, Impact of Extreme Events- Case Studies, Debabrata Mitra
- **Annex 12**, Development of Field Protocol, Ivy Das Gupta
- **Annex 13**, Draft Questionnaire for discussion, Sabari Bandyopadhyay
- **Annex 14**, Presentation Integration, Patrick Pigeon
- **Annex 15**, Analysis of risks of industrial development in hazard prone areas, Marita Luotamo
- **Annex 16**, Agenda of the EWG meeting



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– Annex 17, Preparatory document of the EWG meeting

**MICRODIS (Integrated Health Social and Economic Impacts of Extreme Events:
Evidence, Methods and Tools) Integrated Project Funded by the European Commission's
Sixth Framework Programme of Research**

ECONOMIC WORKING GROUP MEETING

Kolkata: November 2 - 4, 2007-10-10

Department of Economic, Jadavpur University, Kolkata - 700032, India

Program

Day 1: Friday November 2nd, 2007

9:45 - 10:00 am **Registration**

10:00 - 11:00 am **Opening Session**

Chairperson: Prof. Siddharta Datta, Pro-VC, Jadavpur University

**Inauguration by Vice-Chancellor/Pro. Vice-Chancellor,
Jadavpur University**

- Prof. Guha-Sapir, University Catholique de Louvain, Director of CRED, Coordinator of MICRODIS
- Prof. Biswajit Chatterjee, Dean, Faculty of Arts, Co-PI MICRODIS - JU
- Dr. Alexandre Borde, Senior Economist, CRED, Coordinator, Economic Working Group, MICRODIS
- Dr. Andrew Sors, European Union, India
- Dr. Tapas Paul, World Bank, India

11:00 - 11:15 am *Coffee Break*

11:15 am - 12:45 pm **Experiences of other Institutions**

**Chairperson: Prof. Tuhin Das, Economics Department,
Jadavpur University**

Presentation by

- Dr. K. M. Nabiul Islam, Senior Research Fellow, BIDS, and Project Director, Benefit Monitoring and Evaluation of Small Scale Water Resources Sector Project - II, LGED Bangladesh Institute of Development Studies (BIDS)



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- Dr. Susmita Chatterjee, NICED
- Prof. Santosh Kumar, NIDM, India
- Prof Paul Appaswamy, Madras School of Economics, Chennai, India

12:45 - 13:30 pm *Lunch*

13:30 - 15:15 pm **Development of Conceptual Modelling**

Chairperson: Dr. Debesh Chakraborty, PI, MICRODIS - JU

- Prof. Stale Navrud, Associate Professor of Environmental Resource, Economics Department of Economics and Resource Management, Norwegian University of Life Sciences
- Dr. Alexandre Borde, Senior Economist, CRED Coordinator, Economic Working Group, MICRODIS
- Dr. Ivy Das Gupta, Research Associate, MICRODIS – JU
- Discussions

15: 15 - 15:30 pm *Coffee Break*

15: 30 - 17: 30 pm **Discussions on Literature Review of Economic Issues of Natural Disasters**

Chairperson: Dr. Alexandre Borde, Coordinator, Economic Working Group, MICRODIS

- Risk and Insurance: Prof. Biswajit Chatterjee, Co-PI, MICRODIS - JU
- Migration: Dr. Sabari Bandhyapadhyaya, Research Associate, MICRODIS - JU
- GIS: Sayanti Sen, Junior Research Fellow, MICRODIS - JU
- Case Studies: Debabrata Mitra, Junior Research Fellow, MICRODIS – JU
- Discussions

19:00 pm *Dinner*



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Day 2: Saturday November 3rd, 2007

9:30 - 10:30 am **Field Protocol: Presentation and Discussion**

**Chairperson: Prof. Biswajit Chatterjee, Dean, Faculty of Arts,
Jadavpur University and Co- PI, MICRODIS - JU**

- Initiation: Dr. Ivy Das Gupta, Research Associate, MICRODIS - JU
- Discussion

10:30 - 10:45 am *Coffee Break*

10: 45am - 12:45pm **Questionnaire: Presentation and Discussions**

**Chairperson: Prof. Stale Navrud, Associate Professor of Environmental
Resource, Economics Department of Economics and Resource Management,
Norwegian University of Life Sciences**

- Initiation: Dr. Sabari Bandyopadhyay, Research Associate, MICRODIS – JU
- Discussions

12:45 – 13:30pm *Lunch*

13:30 – 14:30pm **Discussion on the Blue Book**

**Chairperson: Prof. Guha-Sapir, University Catholique de Louvain,
Director of CRED, Coordinator of MICRODIS**

- Dr. Alexandre Borde, Coordinator, Economic Working Group, MICRODIS
- Dr. Indhira Santos, Research Fellow, BRUEGEL

14:30 – 14:45pm *Coffee Break*

14:45 – 15:45pm **Coordination with Health and Social Group**

**Chairperson: Prof. Nguyen Thi Kim Chuc, Associate Professor, Director
of Health Economics Department, Hanoi Medical University, Vietnam**

- Discussion

15:45 - 17:45pm **Inputs from the EWG to the Annual Meeting of**



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MICRODIS in February, 2008

Chairperson: Prof. P. C. Joshi, President, Society for Indian Medical Anthropology Department of Anthropology, Delhi University, Coordinator, Asian Partners, MICRODIS

- Discussion by the members of EWG

19:00pm

Dinner

3rd Day: Sunday November 4th, 2007

9:30 - 11:30am

Sum up and Future Work Plan

Chairperson: Prof. Guha-Sapir, University Catholique de Louvain, Director of CRED, Coordinator of MICRODIS

- Dr. Alexandre Borde, Senior Economist, CRED, Coordinator, Economic Working Group, MICRODIS
- **Prof. Stale Navrud**, Associate Professor of Environmental Resource, Economics Department of Economics and Resource Management, Norwegian University of Life Sciences
- Prof. Debesh Chakraborty, PI, MICRODIS - JU

11:30 - 11:45am

Coffee Break

11:45 am Onwards:

Social Trip

1:30pm

Lunch Break