



MICRODIS

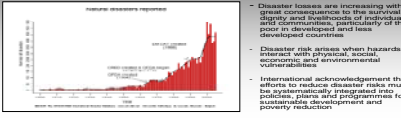


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Why MICRODIS?

In the past two decades, more than 200 million people have been affected, on average, every year by extreme events



- Disaster losses are increasing with great consequences to the survival, dignity and livelihoods of millions of the poor in developed and less developed countries.
- Disaster risk arises when hazards interact with physical, social, economic and environmental vulnerabilities.
- International acknowledgement that efforts to reduce disaster risks must be systematically integrated into policies, plans and programmes for sustainable development and poverty reduction.

What Is MICRODIS?

A multidisciplinary consortium dedicated to a common goal



MICRODIS focuses on the MICRO level of disasters. Health, Social and Economic impacts have been recognized as the key thematic areas in understanding extreme events and their relation to human populations.

Event and Regional Focus

MICRODIS Focuses on three extreme events

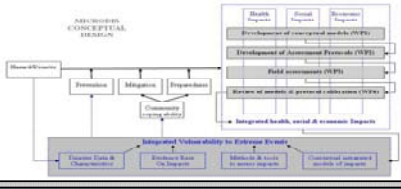
Floods **Windstorms** **Earthquakes**

and two main regions

European Union, associated countries and new accession states

South and Southeast Asia

Conceptual Design



Overall Goal of MICRODIS

To strengthen preparedness, mitigation and prevention strategies in order to reduce the health, social and economic impacts of extreme events on communities



Partners

Partner Name	Partner Country
Université catholique de Louvain	Belgium
University of Greenwich	United Kingdom
University of Northumbria	United Kingdom
Työterveyslaitos Finnish Institute of Occupational Health	Finland
Jadavpur University	India
University of Delhi	India
Hanoi School of Public Health	Vietnam
Universitas Indonesia	Indonesia
Kuwait University	Philippines
United Nations Office for the Coordination of Humanitarian Affairs	U.S.A
EVAPILAN - University of Heidelberg	Germany
Senex Center	Norway
Voluntary Health Association India	India
Citizen's Disaster Response Center	Philippines
Healthnet International	Netherlands
Foruitnet	France

ECONOMIC IMPACTS

Economics is one of three pillars of the links between extreme events and sustainable development. Historically, people have always made investments to obtain, and then to protect, those resources that hold the greatest value for them. This is the principle behind insurance or other efforts to spread risk within a community, including joint ownership or joint responsibility for protecting assets. The concern demonstrated by a farmer to protect his cattle or a fisherman to mend nets in subsistence economies further reinforces the crucial role of economic systems in reducing risk.

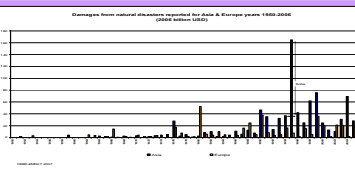
The Main Areas of Focus are:

PROGRESS

- Thematic Meeting in Calcutta, India (Oct.)
- Economic Impacts Conceptual Framework
- Thematic Group Meeting Report
- Detailed Annotated Literature Review

Risk Management Planning

This involves estimation of the impacts of potential disasters on the economy, based on the best available hazard maps, history of impacts and macroeconomic data. These include assessments of the costs of disasters, evaluation of the costs and benefits of disaster reduction and risk transfer measures (including the value of improved forecasting systems) and incentives from the international community that lead towards proactive disaster reduction projects.

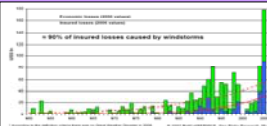


Incentives for Risk Reduction
Economic impacts of provide incentives for banks to integrate risk reduction in their development strategies and to develop innovative forms of financial investments, such as micro-insurance. This is applicable at the household and micro-enterprise level, as well as in national and regional economies.

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Real Costs and Calculation of Losses

Better understanding the real costs of natural disasters is difficult. Major impediments consist of inconsistent definitions of what is being measured. Methodologies employed tend not to be so readily comparable, and approaches to estimating direct or indirect costs or determining the extent of coverage can be inconsistent from place to place. Calculation of losses should take the nature and magnitude of longer-term employment losses into account. Similarly, losses have to be related to households' situation and vulnerability before and after disasters.



Global Insured and Economic Losses (1950-2006) - Source: Munich Re

HEALTH IMPACTS

Health forms the second pillar of the links between extreme events and sustainable development. Main Areas of Focus are:

PROGRESS

- Thematic Meeting in Hanoi, Vietnam (August)
- Health Impacts Conceptual Framework
- Thematic Group Meeting Report
- Detailed Annotated Literature Review

Health Care Systems

Health care systems are vulnerable to extreme events despite being a key sector for both community response and mitigation. This includes hospitals and other health services, both of which are called upon when disasters strike. The 'just in time' management of hospital services, and the amalgamation of hospitals through regional boards are also increasing the vulnerability of health care services. Research needs to focus more on both the long-term and acute health effects of natural disasters and develop policies to better contain impact.

Physical Injuries

Some research and actions are needed to develop a culture of injury prevention during and after natural disasters. Epidemiology of trauma and injury patterns will lead to more effective disaster impact prevention.

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Public Health and Epidemiology

Chronic and infectious diseases, mechanisms for the control and surveillance and enhanced training within the higher education partner institutions.

Jakarta Field Study

- 1) demographic, climatic, clinical and epidemiological characteristics in relation with floods occurred in the city of Jakarta, Indonesia, February 2007.
- 2) demographic, climatic and epidemiological characteristics of dengue hemorrhagic fever in relation with climate variability over years and floods.



Mental Health

Impacts will cover ways to better recognize and deal with the mental health, impacts of disasters. A shift in research focus is needed to address these profound community-wide effects of disasters, in addition to addressing physical injury and trauma. Empirically informed guidelines are required for adequate planning of immediate and longer-term community mental health responses to disasters.

Infectious Diseases

Natural disasters change habitats and vector behaviour bringing about change in disease patterns. This aspect is especially important in view of the increase in climate related disasters.

INTEGRATION

The goal of the integration exercise is to bring the Health, Social and Economic Impact areas together as effectively as possible

Although this task presents a high level of difficulty, we expect to achieve some degree of success through the MICRODIS Project in producing an integrated approach to vulnerability assessment through the analysis of data collected in each thematic area of focus

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SOCIAL IMPACTS

Social impacts form the third pillar of the links between extreme events and sustainable development. Main Areas of Focus are:

PROGRESS

- Thematic Meeting in Newcastle, UK (Sept.)
- Social Impacts Conceptual Framework
- Thematic Group Meeting Report
- Detailed Annotated Literature Review

Psycho-Social

Psycho-social aspects form an important component of the impact of extreme events. This component straddles both health and social presenting a text-book case for the need for integrated approaches.

Culture and Socio-Political Structures

Common sense solutions in one cultural setting are often contrary to what may be common sense in another. Local socio-political structures and cultural norms, customs, traditions, customary rights, community and family networks and systems of leadership persist during disasters. It is important these are not undermined. Traditional practices must be examined critically as cultural norms and family structures may increase the vulnerability groups, as girls and women, to disasters.

Social Group Contact

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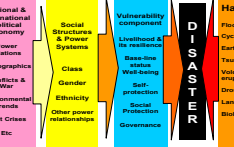
Gender Issues

Gender specific dependencies and vulnerabilities based on reproductive differences are relevant in disasters as is the respective ability of women and men to participate fully in household, community and national decision-making about hazard and risk management. Differing needs, roles and societal power of each sex in various social contexts need to be taken into account. In many cultures, attachment to place is a critically important element and decisions to move people must be made carefully and in a participative and consultative manner.

Relocated Communities

Relocation of communities at risk may be scientifically the most attractive and seemingly reasonable prevention measure but it can be contrary to cultural norms. In many cases people are unwilling to leave a house in which they have invested most of their time and money, and in which they earn income and care for family members. Some people report feeling even more afraid and at risk when relocated.

Pressure and Release (PAR) model



OUTPUTS

- An evidence-base on impacts, field methodologies and tools for data compilation
- Impact models for each thematic group
- Integrated vulnerability assessments

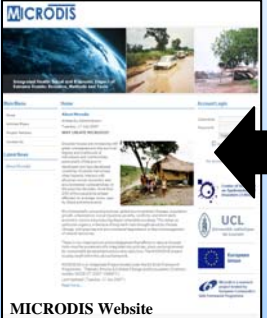
In addition the MICRODIS Project will produce or include participation in the following:

- A project website (above)
- A searchable survey database
- Peer-reviewed journal articles
- Policy briefings
- Meetings with EU officials
- Annual project workshops
- Participation in external conferences and seminars
- Press conferences
- An Asia-EU conference on Health, Social and Economic Impact of Extreme Events
- The publication of a technical series at end of the project.

The MICRODIS Project will also strengthen standardized data collection of extreme events and their impacts at local, regional and global levels.

TIMEFRAME

- Overall Duration:** 36 months
- Start Date:** February 1st, 2007
- End Date:** January 31st, 2010
- Phase 1 - Feb. 1 - 2007 - July 30, 2008 (18 months)**
- Work Package 1:** Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development
- Work Package 2:** Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development
- Work Package 3:** Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development
- Work Package 4:** Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development
- Work Package 5:** Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development, Conceptual Framework Development



MICRODIS Website