MICRODIS
Assessing the impact of disaster
Funded by the European Community’s Sixth Framework Programme
In response to the lack of evidence-based micro-level research on extreme events to date, the MICRODIS project is taking steps to develop an integrated knowledge platform and a common global approach to reduce the health, social and economic impacts of natural disasters on the affected communities.
Our partners can tell you that the process has been very challenging, especially when trying to satisfy all disciplinary requirements and needs, but the outputs of integrated assessment protocols and interdisciplinary scientific publications prove that this massive obstacle can be tackled on various different levels.

**SCIENTIFIC AND POLICY ADVANCES**

The innovative approach adopted by MICRODIS is manifest in its special emphasis on guaranteeing the European and international policy take up of its findings, by making the connection to long-term institutional mechanisms for sustainable development and decreased vulnerability to disaster. The project’s stated objectives include the following:

- A new level of European-Asian cooperation
- A multidisciplinary yet uniquely integrated research approach
- Incorporating previously neglected social sectors
- A robust evidence base and methodology
- A harmonized model and tool for measuring extreme event impact
- A unique dissemination approach to facilitate policy take-up and the identification of user needs
- Development of MICRODIS Central Data Hub for field survey data
- Capacity building and training opportunities

The scientifically sound research and data collection underpinning the project centres around 9 integrated field surveys at sites affected by floods, windstorms and earthquakes in the EU, South, and South-East Asia. These findings will be utilised to formulate comparable datasets, vulnerability assessments, models, and tools to strengthen the capacity of decision makers, the humanitarian community and populations across the globe to cope with natural disasters. Moreover, while a broad-based strategy for the global management of extreme events is vital, the MICRODIS platform is intended to be a baseline which can be adapted to local situations, in line with their very specific geographic, climatic, and socio-economic circumstances. The team have identified and explored a range of social and cultural factors that impinge on disaster strategies, including the socio-political structures of a region, its power relations, conflicts, and issues surrounding class, ethnicity and gender – these conditions may preclude, for political or logistical reasons, actions such as the relocation of vulnerable communities, however scientifically desirable this approach might be. Helping to enhance disaster response strategies from a health care perspective, the project has assessed the demographic, climatic, clinical and epidemiological characteristics of disease, as well as the mental health impacts of such events. Another vital component of the integrated approach espoused by the project is its exploration of macroeconomic data to calculate the true cost of disasters.

**COLLABORATIONS AND DELIVERABLES**

The MICRODIS consortium has benefitted from the support of government agencies and local charitable organizations, who have assisted in data provision and collection, as well as outreach work for the project field studies. Such associations are crucial to the success of the initiative, as Guha-Sapir explains: “Many partnerships have been made in the MICRODIS project, including collaboration with UNDP, Plan International, GEOSS, NEDIES, the Red Cross, as well as the various networks of the Citizen’s Disaster Response Centre in the Philippines and the Voluntary Health Association of India. As these aforementioned two partners are grassroots organizations, they regularly work with such agencies before and after disasters occur.” Consolidating the surveys’ findings, the dissemination output from the project includes reports, literature reviews, scientific papers, workshops and policy briefs, most of which are replicated on the MICRODIS website for public use. The encouraging feedback so far bodes very well for the project in terms of the achievement of its societal objectives, summed up in its executive summary as ‘sustainable development, social and territorial cohesion and improved quality of life both in Europe and Asia’. Therefore, while an increase in natural disasters may be unavoidable, the implementation of a swift, effective and specially adapted strategic response represents a significant step towards minimising their negative impacts.
CASE STUDY

Bahraich India

PROFESSOR PC JOSHI at the University of Delhi leads the MICRODIS research on one site in India, a country which, due to its geographical and climatic circumstances, is particularly prone to natural disasters. Close to 200 villages were affected by devastating flooding in the Bahraich district in recent times, and consequently, the region was selected as one of the MICRODIS project’s focal areas. Systematically designed studies for MICRODIS sites such as Bahraich have highlighted that although the primary concern of communities affected by floods is always the physical impacts - damage, loss of wages, food, fuel and livelihood – the non-economic domains such as mental health, social cohesion, social capital and physical health can be significantly altered in the aftermath of disaster, and these factors must be considered by disaster response teams. Through close collaboration with the Indian government, bodies such as the recently established National Disaster Management Authority committee and the National Institute of Disaster Management, alongside the research community, charitable organizations and outreach workers, Joshi illustrates that “the project is generating knowledge which is of a practical nature, grounded deeply in the existing field realities of the country, with important methodological and policy implications”. Due to the seriousness with which India now looks at disasters, delegating required powers and resources to local bodies so that they enjoy requisite authority and flexibility in their disaster response operations, the institutional framework endorsed by MICRODIS has been extended to the level of village council and municipal ward in the country, and moreover, is being seen as an exemplar of good practice for crisis management in the region. “The recovery status of Gujarat earthquake and subsequently the Tsunami speaks of the maturity with which India has handled these disasters not only by rebuilding itself, but also supporting neighbouring countries such as Sri Lanka, Myanmar, and Indonesia in their recovery efforts,” outlines Joshi.

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