

## Innovative Crisis Communication and Disaster Risk Governance to Mitigate the Impact of Climate Change and to Enhance Resilience in Bangladesh's population

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Climate change represents one of the greatest challenges for crisis and disaster risk management of our time. Bangladesh is often considered to be the country most vulnerable to climate change (Maplecroft).<sup>1</sup> Although Bangladesh has always been a disaster prone country, climate change aggravates the critical situation leading to more frequent and/or more severe disasters and reinforces the vulnerability of the population. Among other impacts:

- (i) A strong increase in natural disasters, such as a higher frequency of cyclones, droughts and flooding;
- (ii) A further tightening of the already existing food insecurity are expected and
- (iii) Increased rates of vector-borne infections (infections caused by vectors such as mosquitos, ticks or midges).

Target-specific crisis and disaster risk communication can mitigate these impacts of climate change and is urgently needed to enhance preparedness and to strengthen resilience of affected local communities. This includes the use of innovative information- and communication technology (ICT) solutions.

The objective of this definition project is to set up a strong Bangladesh-German consortium for the development of a research project that addresses the three critical domains listed above to respond to and better manage natural disasters, health disasters and food insecurity issues. The envisaged project will be committed

- to increase resilience by target-specific risk and disaster communication tools that systematically increase risk awareness for the three disasters domains and sensitivity for the future impact of climate change
- to systematically inform all population groups about protective measures, thus enhancing preparedness and an facilitating an adequate response by the affected population
- to develop concepts for particularly vulnerable population groups, such as women, adolescents old people, and people with hearing impairment or blind persons to improve early warning capacity by providing adapted ICT solutions including alerting Apps, and a strategy to combine these tools in an effective manner with non-digital communication alternatives,
- to prevent the outbreak of disasters by strengthening awareness and preparedness
- to analyse previous and/or ongoing case studies to identify best practices for the improvement of future incidents
- to provide concepts for education and training for academia

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<sup>1</sup> The Maplecroft's 2011 Climate Change Vulnerability Index "rates Bangladesh as the country most at risk due to extreme levels of poverty and a high degree of agriculture, whilst its government has the lowest capacity of all countries to adapt to predicted changes in the climate" (<https://maplecroft.com/about/news/ccvi.html>).

## Partners involved and their tasks:

### 1. sine-Institut GmbH (coordinator GER):

An independent institute providing longstanding social scientific expertise in international comparative target-specific and cultural-sensitive risk and crisis communication based on risk perception in the field of natural disasters, vector-borne diseases and food risks. Furthermore, sine provides a theoretical framework, the risk culture concept, to explain and to better understand the framing, blaming and trust in authorities of the population in a disaster-prone country.

### 2. Fraunhofer Institut:

Focus of the institute will provide an alerting app and SMS-based information service to inform the population about climate-related risks, and protective measures. All services will be adapted to needs and requirements (legal, organizational, cultural) in Bangladesh.

### 3. Jade University of Applied Science:

Jade University of Applied Science will perform target-specific crisis communication for particularly vulnerable population groups, in particular adolescents, people with hearing problems and blinds. Furthermore, JADE will develop concepts for academic education and training programmes at the GUB.

### 4. Robert Koch-Institute:

Focus of the Robert Koch-Institute will be to provide expertise in the field of climate change and vector-borne infections, One Health approach.

### 5. German University of Bangladesh, GUB (coordinator BD):

GUB will co-coordinate the definition project for Bangladesh and will provide its expertise on the management of natural disasters, vector-borne disease food security issues in Bangladesh.

### 6. Bangabandhu Skeih Mujib Medical University (BSMMU):

### 7. Arm Forces Medical Institute (AFMI) Dhaka Cantonment:

Disaster Management

### 8. Ministry of Health:

### 9. Institute of Epidemiology, Disease Control and Research (IEDCR):

### 10. Center for Integrated Social Development (CISD):