

## Monirul Mirza Adaptation and Impacts Research Group Environment Canada Canada

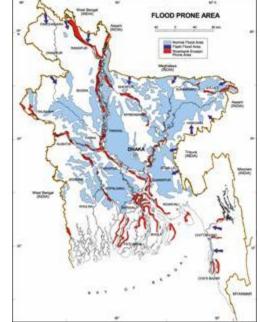
"We don't need to look at millions of indicators to develop sustainable adaptation measures. Rather, we need to look a few key indicators to figure out what is happening and to begin to build capacity where it is needed."

Dr. Monirul Mirza's presentation, "Accounting of adaptation to flood hazard in Bangladesh," brought to light several points about the sustainability of adaptation measures, ongoing

since the 1960s in Bangladesh (<u>www.esdevaluation.org/images/Adaptation - Mirza.ppt</u>). Mirza produced substantial evidence to support his conclusion that adaptation measures are not working. In a country where 80% of the rain falls within a four-month window and where rains and floods have been increasing continuously and pouring into the country from India, Nepal, and Bhutan as well, something more must be done.

Mirza stresses that a more comprehensive approach is needed to evaluate climate change and anticipate what he called "black swans" — natural disasters that are unpredictable, have a potentially large impact, and are an increasing possibility under the climate change regime. He suggests that any evaluation should really look at three key issues, "whether: vulnerability has decreased, impacts have been reduced, and livelihoods of the most vulnerable people have risen." However, he says, "This cannot be achieved within a short period of time. A long-term monitoring plan must be in place as an essential component of any adaptation project."

He recommends the use of planning and design criteria to address unforeseen shocks. "There are



approximately 55 million people living below the poverty line in Bangladesh today. They have no resources and when disaster strikes they are pulled down even further into poverty."



He emphasizes that planning and evaluation have to be continuous and that what has been done in the past cannot be abandoned if progress is to be continuous. He also points out the importance of people's psychological responses to local conditions. For example, "When people feel safe they respond to potential threats with less vigilance than they might otherwise. People see a levee and feel safe, even if the infrastructure is anything but."

He continues by stressing the need to evaluate climate risk in adaptation design. "Any future adaptation plan should take lessons from the current situation and build plans from them." Mirza states that a risk-based approach has been largely overlooked in the case of adaptation in Bangladesh.

He comments on the absence of baseline data to evaluate projects as well. According to Mirza, "Whether gaps have increased or not can be measured easily — if you have a baseline. After any extreme weather event, say, a flood, one can conduct a solid survey in the affected area at the grassroots level and calculate the difference." On the other hand, if there is no baseline, there is nothing against which to compare results and evaluate improvement. Mirza believes that Global Environment Facility projects should require a baseline to fill this gap. He advises that, "There are measurable socioeconomic and environmental indicators which can be used to set up the baseline but it has to be at the micro level, because macro-level indicators usually mask vulnerability-related information."

Mirza comments on the "lack of evolution in natural disaster responses based on past experience" and the need for greater aid for disaster recovery long after the initial impact or event. He also stresses the importance of assessing and evaluating changing vulnerability, especially in the face of looming black swans, to prepare for future crises. This process involves the continuation of efforts, such as ongoing monitoring, community-based assessments, and continual evaluation of climatic conditions and their impacts on the most vulnerable to climate change. This will allow for an assessment of present circumstances that can be used to inform planning efforts in the future.