Climate Forecast Applications for Disaster Mitigation in Vietnam

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Climate-related shocks, such as droughts, floods and typhoons, routinely disrupt livelihood systems for large numbers of people in Vietnam, resulting in frequent disasters. The consequences of climate shocks are strongest in sectors that do not have in-built buffering mechanisms, such as small farm rain-fed agriculture.

The Asian Disaster Preparedness Center (http://www.adpc.net), in collaboration with the International Research Institute on Climate Prediction (http://iri.columbia.edu), has evolved a program on Climate Forecast Applications (CFA) for Disaster Mitigation in Vietnam. The goal is to establish sustainable end-to-end institutional systems that demonstrate improvements in the performance of climate-sensitive sectors at the community level, with a capacity to achieve similar success nationally in other locations. The program intends to develop locally appropriate climate information tools, and capacity to apply and use them to mitigate the impacts of droughts and floods. The program employs two distinct, but interconnected, approaches:

- carrying out targeted demonstration projects to explore and refine methods, and
- identifying and stimulating national capacities to scale up the application of the methods so that they can be applied elsewhere in the country.

The current phase of implementation, funded by NOAA-OGP, has the following components:

1) Investigation of the nature and contours of climate related problems, and their impacts on community livelihood systems, in specific locations. Ongoing research is at the provincial district and commune levels in order to understand the relevance of forecast information for decision-making.

2) Investigation of the institutional and policy landscape governing climate risk management in agriculture and water resources sectors at the provincial level.

   Through focused group discussions, surveys and participatory rural appraisal, resource management practices and decision calendars (critical lead times) of key institutions involved in the management and provision of resources in agriculture and water resource management will be identified. National and sub-national working groups will play a critical role in shaping and applying climate information, and in building capacity.

3) Development of downscaled climate forecasts to generate locally usable downscaled climate information products.

   Research on climate downscaling will be undertaken at specific demonstration sites in collaboration with national and provincial agencies, along with the involvement of national and sub-national working groups.

4) Capacity building is integrated throughout project activities through the involvement of national and sub-national working groups that have been formulated specifically for the project.

All aspects of the project – from investigating climate-related problems to the development of downscaled climate information – will be undertaken in the Can Tho and Quang Tri provinces of Vietnam. Can Tho province is exposed to flooding followed by droughts, which seriously undermine the crop paddy production, not only damaging local production but also seriously impacting the ability of Vietnam to meet its National export targets. Quang Tri province in North Central Vietnam is one of the poorest in the country exposed to natural hazards.