

Mangroves for Climate Change Adaptation: The Case of Thua Thien Hue, Vietnam

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Responding to climate change is currently a high priority on the political program of Vietnam.

With a coastline of more than 127 km long, the province of Thua Thien Hue in Central Vietnam is expected to be affected by rising sea levels. This region experiences natural disasters which are projected to occur with increasing frequency and intensity.

Every two to three years, Hue and its adjacent areas suffer from big floods. Although building an embankment system around the city and the historical sites has been proposed, this is not an option as this does not preserve the landscape of Hue City and its coastal tourist areas.



Flooding in Hue City

Erosion in coast of Thuan An town, Thua Thien Hue



Local Initiatives

Using the framework Adapt to Climate Change and Water Resource Management at Community level (ADAPTS), local residents



near the coast work together to reduce the effects of climate change. This project is being implemented in six river basins around the world. Projects with a three-year duration are being carried out in Ethiopia, Ghana and Peru; while those with a one-year duration are being carried out in Botswana, Brazil and Vietnam.

In Vietnam, the Centre for Social Research and Development (CSR D) implements the project.

CSR D signed a Memorandum of Understanding with the government's Environmental Protection Agency (EPA), assigning the center to draft a part of the provincial action plan on climate change adaptation and take charge in mangrove planting activities. EPA supports the provincial Department of Natural Resources and Environment (DONRE) in the implementation of state management such as environmental monitoring and inspection, pollution prevention, improvement of environmental quality, climate change



Community members started planting in January 2010. By September that year, the mangroves have grown well, with a survival rate of about 90 percent.

Fifty percent of the plants are 1.2 m high and the roots have come out from the ground.

adaptation, conservation of biological diversity, development and application of environmental technology, and raising environmental awareness of the community.

The main objectives of ADAPTS in Vietnam are: 1) to take climate change adaptation into account when working with local communities; 2) to support selected local adaptation measures, and; 3) to play a leading role in facilitating dialogue between communities, researchers, and government authorities.

The role of mangroves

Mangroves provide important shoreline protection. According to the United Nations Environment Programme (UNEP), wave energy may

be reduced by 75 percent during a wave's passage through 200 meters of mangrove forest. Aside from protecting the coast against flood and erosion, mangroves provide habitat for species such as fish, mussels, oysters, shrimps, and crabs that thrive in the mangrove ecosystem. Given the projected increase in frequency and intensity of climate related disasters, this seems to be a promising adaptation measure.

Together with the EPA of the Provincial DONRE, CSRD organized mangrove planting activities on the shore of Con Te in Thua Thien Hue province.

In the pilot step, more than 4000 *Kandelia*, *Sonneretia caseolaris*, and

Thespesia populnea mangrove species were planted on the shore.

Community participation

To take care of the mangrove forest, EPA helped set up a management system under the Veteran Association. According to the residents, the project is very encouraging because they have learned to protect and maintain the forest in the right way. They also deem the project successful, so far.

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The Agriculture and Development Notes - Climate Change Adaptation (ADN-CCA) Series showcases climate change adaptation efforts and mechanisms in Southeast Asian countries in agriculture and rural development.

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Local people planting seedlings of *Kandelia* mangrove



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