### **Funding Requirements:**

The implementation of the project in 4 years covering 10,000 hectares is estimated to cost US\$ 7.4 Million.

#### **Government Counterpart:**

The Philippine government will cover the 30% of the total fund requirement in the amount of US\$ 2.2 Million

Targets and Activities	Target Budget US\$
1.Mangrove Governance	350
2.Mangrove Rehabilitation and Protection	5.348
3.Mangrove-friendly livelihood activities	1.162
4.Social Development	582
TOTAL	7.442

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# Climate Change Adaptation and Mitigation

A Convergence Approach to National Greening Program for Mangrove Rehabilitation

(2013-2016)

Department of Environment and Natural Resources
Protected Areas and Wildlife Bureau
Coastal and Marine Management Office
Philippines



Mangrove trees sequester carbon dioxide from the air and protect the coastal areas from storm surges extenuating the impacts of climate change. Recognizing the significance of mangrove forests to build up resiliency for climate change adaptation and mitigation, the government intensified efforts on mangrove management and protection through the National Greening Program. The destruction of mangrove forests has since been lessened but the environmental damage can be seen in all parts of the country today.

The conversion of portions of the mangrove areas into fishponds has proliferated in the second half of the 20th century. Presidential Decree (PD) No. 704 (Fisheries Reform Code) which was issued in the 1970s called for the rapid expansion and development of the fisheries and aquaculture industries. The Bureau of Fisheries and Aquatic Resources was given the authority to issue Fishpond Lease Agreements (FLAs) which also covered the conversion of mangrove areas into fishponds. As of September 2002, there were about 4,742 FLAs issued covering approximately 62,834 hectares.

During the 1920s, the mangrove forests in the country stood at 450,000 hectares (Brown and Fischer 1918). Almost a century later, the area covered by the mangroves is down to an estimated 117,000 hectares or roughly less than 30% of the original extent (Melana et al. 2000).

In order to arrest further degradation of the country's remaining mangrove stands, immediate and effective interventions need to be properly put into place. The DENR will take the lead in planning, implementation and monitoring in collaboration with other

government agencies, local government units (LGUs) and stakeholders.

The target areas for rehabilitation are abandoned, unutilized and undeveloped (AUUs) fishpond lease agreements (FLAs) covering 10, 000 hectares. As a component of the National Greening Program of the DENR for coastal and marine sector, the reversion of these areas into protection and productive mangroves is envisioned to promote resource sustainability and build up resiliency of coastal areas for climate change impacts in the future.



This project is consistent with the CTI National Plan of Action for the Philippines under the Action of Goal #3 which is to rehabilitate and manage mangrove forests. Specific commitments to action outlined in the CTI-NPOA specifically calls for strict enforcement of Republic Act 8550 and Presidential Declaration 705 regarding reversion of abandoned fishponds.

### **Project Objectives:**

To mitigate climate change in the coastal areas through the reversion of abandoned, unutilized and undeveloped fishponds into protection and productive mangrove forests.

### **Project Components:**

- a. Mangrove Governance integrates policy, strategic, and scientific knowledge for the sustainable management of mangrove forests. The provision of appropriate tenurial instruments is included in this component.
- Mangrove Rehabilitation and Protection covers the demonstration, planting, and maintenance activities of the project.
- c. Mangrove-friendly livelihood activities socio-economic activities of the coastal communities, both on and offmangrove sites.
- d. Social Development development and strengthening of coastal communities into viable organizations.