ALLIANCE

INTERNATIONAL ALLIANCE TO
COMBAT OCEAN ACIDIFICATION

ACTION PLAN

ACTION #4

PROTECT THE ENVIRONMENT AND COASTAL COMMUNITIES

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PROTECT THE ENVIRONMENT AND COASTAL COMMUNITIES FROM CLIMATE-OCEAN IMPACTS THROUGH ADAPTATION AND RESILIENCE BUILDING STRATEGIES.

- **Remediate or ameliorate the impacts of coastal acidification**
  - Conduct pilot projects to determine how submerged aquatic vegetation—like sea grass, kelp or mangroves—can absorb or sequester CO_2 in the water column and protect nearby calcifying organisms like coral reefs or shellfish.
  - Build local capacity to preserve, protect, and restore submerged aquatic vegetation like mangroves, seagrass, kelp and saltmarsh.
  - Identify and protect refuges for OA-vulnerable organisms.
  - Manage resources and human activities to reduce co-occurring stressors that exacerbate ecosystem vulnerability. This could include precautionary fisheries policies and catch limits or establishing and enforcing Marine Protected Areas or Locally Managed Marine Areas.
- **Increase adaptation capacity and enhance species biological resilience**
  - Support techniques to adapt to OA impacts at shellfish hatcheries, such as buffering seawater, applying aeration strategies, or adding shell to marine waters.
  - Maintain and enhance genetic diversity of native species including conservation hatchery techniques or selective breeding for tolerance and resilience.
  - Develop hatchery and grow-out systems of freshwater pond aquaculture.
  - Diversify catches of coastal demersal fisheries to match changes in species composition due to a) local increases in abundance due to changes in distribution; b) increase in herbivorous species.
  - Pursue and support projects for coastal restoration in partnership with Tribal leaders, village chiefs, NGOs, local universities and other researchers.

Practice adaptive management to enhance community and economic resilience

- Develop methods to incorporate OA and ocean warming into existing short- and long-term resource management plans and adaptive management actions for species at varying scales.

- Support fisheries stock assessments designed to alert managers of climate related changing ocean conditions and resulting impacts. As applicable, transfer some fishing effort from coral reefs to oceanic species by installing fish aggregating devices close to the coast that will increase access for some communities.

- Develop alternative income options for fishing and other ocean resource dependent jobs and provide direct support for affected industries and communities. Establish funding sources and regional networks of financial aid for this purpose.