<table>
<thead>
<tr>
<th><strong>Project Name</strong></th>
<th>Regional Partnerships for Climate Change Adaptation and Disaster Preparedness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Number</strong></td>
<td>41187-012</td>
</tr>
<tr>
<td><strong>Country / Economy</strong></td>
<td>Regional</td>
</tr>
<tr>
<td><strong>Project Status</strong></td>
<td>Closed</td>
</tr>
<tr>
<td><strong>Project Type / Modality of Assistance</strong></td>
<td>Technical Assistance</td>
</tr>
<tr>
<td><strong>Source of Funding / Amount</strong></td>
<td><strong>TA 6496-REG: Regional Partnerships for Climate Change Adaptation and Disaster Preparedness</strong></td>
</tr>
<tr>
<td></td>
<td>Regional Cooperation and Integration Fund</td>
</tr>
<tr>
<td></td>
<td>US$ 1.00 million</td>
</tr>
</tbody>
</table>

**Strategic Agendas**
- Environmentally sustainable growth
- Inclusive economic growth
- Regional integration

**Drivers of Change**
- Partnerships

**Sector / Subsector**
- Agriculture, natural resources and rural development / Land-based natural resources management

**Gender**
- No gender elements

**Description**
Improved geophysical information system that supports greater resilience to climate impacts and shocks through facilitating government decision-making on hazard exposure and risk minimization.
The Pacific island countries regularly suffer the impacts of natural hazards, including hurricanes, earthquakes, tsunami, and floods. The region has recognized the need to be better placed to respond to the impacts of these events, and adaptation measures are steadily being incorporated in national plans and development schemes with the support of development partners. One gap in mechanisms to cope with natural disasters is the availability of catastrophe insurance. However, sound geophysical information is required as a base for decision making regarding adaptation and also as a basis for an insurance scheme.

The Pacific ROBP 2007-2010 has as one of its three strategic objectives to support the effective provision of regional public goods. More specifically, the ROBP notes the intention to work with international and regional organizations to develop regional partnerships for climate change adaptation and disaster preparedness. A specific activity for this was included in the 2009 non-lending pipeline.

However, the World Bank in 2008 has commenced work to examine the suitability of its Caribbean Catastrophe Insurance Facility for the Pacific. The opportunity to work in partnership with the World Bank has therefore arisen earlier than initially anticipated. The World Bank is an essential partner given their institutional knowledge accumulated in this area in the Caribbean. ADB brings to the task a wider membership among Pacific nations and a larger Pacific portfolio representing many years of practical operations in Pacific developing member countries. It is anticipated that other development partners may become involved in the wider catastrophe insurance project as it develops with opportunities for cooperation on components including parametric modeling, and legal and financial analysis. Building such partnerships are highlighted as a priority within the Pacific ROBP.

The impact of this TA will be a strengthened financial resilience of participating Pacific Island countries to the effects of natural disasters.

The outcome of this TA will be an improved geophysical-information-environment supportive of both government and development partner decision-making regarding hazard exposure and risk minimization, and additionally supportive of the development of a catastrophe insurance scheme.
Data Collection: As of May, 2010 (where the May Progress Report covers it), the RETA has completed data collection in three countries (COO, SOL, and VAN), where around 57,700 features captured by digitizing imagery for which the number of asset data captured with asset attribute is around 33,700. Data collection includes: infrastructure (building; transportation infrastructure such as roads, bridges, etc); power distribution networks; physiographic data such as topography and bathymetry; and population. Data collection on building and infrastructure has been fairly good, but there is difficulties to collect information on the rest. Hazard data on cyclone and earthquakes have been collected by the World Bank.

As of Dec 2010 Data collection has been completed for all eight countries, which was undertaken from February until October 2010. Data gathering includes establishing building footprints by digitizing them from satellite imagery or aerial photos prior to field data collection, followed by ground truth in the field and collecting attribute data of the building and infrastructure. The number of assets surveyed was about 336,400 building footprint and the number of features surveyed was about 82,260. This data collection covers an average of 23% of the countries’ assets (varies from 12% in PNG to 82% in Cook Islands). This has been referred to as the largest exposure database collected in the region.

It is expected that the database will be ready in July 2011. A two-step approach will be taken: (i) presentation of the exposure database for DRM and demonstration of the potential applications for development planning at the 4th Pacific Platform for Disaster Risk Management, and (ii) presentation of the technical proposal on disaster risk financing at a policy session at the FEMM or Leaders' Meeting (both in 2011) to present the potential collaboration in risk financing among the Pacific countries and development partners.

Implementation Progress

The TA will support the development of as many as fourteen (and at least eight) national, and a consolidated regional, Geographic Information Systems (GIS) encompassing hazard and vulnerability data critical to the future development of a Pacific regional catastrophe insurance scheme. The GIS once developed will be important for governments and development partners' decision-making, providing information about the frequency, economic impact and impact on population centers of hurricanes and earthquakes. The TA will further support the analysis of this regional data with respect to the suitability of the Pacific region for catastrophe insurance coverage. Outputs will also include two stakeholder consultation meetings at the regional level. The outputs of the TA will form a component of broader work to develop a catastrophe insurance facility for the Pacific being led by the World Bank. The TA will be undertaken over a 17-month period.
The outputs of the TA will strengthen the exposure database management in the eight countries. It will also form a component of broader work on the feasibility of a catastrophe insurance facility for the Pacific region that is being led by the World Bank. It will also support the work of the Pacific Islands Applied Geoscience Commission (SOPAC) and national organizations in hazard risk management and vulnerability assessment.

The TA implementation experience some delay because the need for Change in Scope of the TA, and coordination with World Bank for TA implementation. The TA started in September 2009.

Next steps: (i) Following PNG data collection that has been done in June, the rest of the countries (FIJ, SAM, TON, TUV) will be completed in October, 2010; (ii) consolidating the data base into GIS format to be installed in each country and in SOPAC, and training of country counterpart agencies; and (iii) to feed in the exposure data to the the World Bank’s Catastrophe Risk Insurance model. The World Bank and ADB work in partnership in preparing exposure database that will be the basis for preparing the disaster risk financing facility. The Midterm Review Meeting in December 2010 discussed the achievements to date, further coordination, and way forward. The work has been closely coordinated and teamwork will be crucial for the successful preparation of the disaster risk financing. The targets are presentation of the exposure database in the Pacific Regional Disaster Risk Management Meeting for Pacific CEOs of Finance/Planning and Disaster Management, and presentation of the proposed risk financing facility in higher forum (FEMM or Leaders' Meeting) in 2011.

<table>
<thead>
<tr>
<th>Status of Implementation Progress (Outputs, Activities, and Issues)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The TA will strengthen the exposure database management in the eight countries. It will also form a component of broader work on the feasibility of a catastrophe insurance facility for the Pacific region that is being led by the World Bank. It will also support the work of the Pacific Islands Applied Geoscience Commission (SOPAC) and national organizations in hazard risk management and vulnerability assessment. The TA implementation experience some delay because the need for Change in Scope of the TA, and coordination with World Bank for TA implementation. The TA started in September 2009. Next steps: (i) Following PNG data collection that has been done in June, the rest of the countries (FIJ, SAM, TON, TUV) will be completed in October, 2010; (ii) consolidating the data base into GIS format to be installed in each country and in SOPAC, and training of country counterpart agencies; and (iii) to feed in the exposure data to the the World Bank’s Catastrophe Risk Insurance model. The World Bank and ADB work in partnership in preparing exposure database that will be the basis for preparing the disaster risk financing facility. The Midterm Review Meeting in December 2010 discussed the achievements to date, further coordination, and way forward. The work has been closely coordinated and teamwork will be crucial for the successful preparation of the disaster risk financing. The targets are presentation of the exposure database in the Pacific Regional Disaster Risk Management Meeting for Pacific CEOs of Finance/Planning and Disaster Management, and presentation of the proposed risk financing facility in higher forum (FEMM or Leaders' Meeting) in 2011.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geographical Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional</td>
</tr>
</tbody>
</table>

### Summary of Environmental and Social Aspects

#### Environmental Aspects

- Involuntary Resettlement
- Indigenous Peoples

#### Stakeholder Communication, Participation, and Consultation

**During Project Design**

Database development will be conducted through national stakeholder consultations in each participating PDMC to build an understanding and awareness of the objectives of the TA and to assess the baseline situation in-country with regard to the compilation and use of hazard and risk information.

**During Project Implementation**

During implementation of the TA, regular consultations with stakeholders, including PDMCs will be undertaken through various national and sub-regional meetings to be financed by the TA and from other sources.

#### Business Opportunities
The TA requires an estimated 25 person-months of international consulting services to be recruited through a firm by ADB using quality- and cost-based selection (with a simplified technical proposal), using an 80/20 weight for quality and cost. The team will comprise a team leader (risk assessment specialist (10 person-months), geoscientist (10 person-months), and a GIS specialist (5 person-months), all of whom will provide services intermittently. The consultants will be engaged in accordance with ADB’s Guidelines on the Use of Consultants (2007, as amended from time to time).

The team of consultants will work in close coordination with World Bank as the repository of the information collected during its initial catastrophe insurance feasibility study, and with SOPAC as the key repository of geophysical data in the region and potential home of the regional database. Coordination with SPC will also be important as SPC has established GIS platforms in all participating PDMCs as part of its demography and statistics program. Ensuring compatibility with existing systems will promote sustained system use.

All consultant requirements under this TA have been recruited and fielded.

Responsible ADB Officer: Woodruff, Allison
Responsible ADB Department: Pacific Department
Responsible ADB Division: Transport, Energy and Natural Resources Division, PARD
Executing Agencies: Asian Development Bank

**Timetable**

- **Concept Clearance**: 20 Feb 2008
- **Fact Finding**: 23 May 2008 to 23 May 2008
- **MRM**: -
- **Approval**: 27 Oct 2008
- **Last Review Mission**: -
- **PDS Creation Date**: 05 May 2008
- **Last PDS Update**: 01 Mar 2011

**TA 6496-REG**

**Milestones**

<table>
<thead>
<tr>
<th>Approval</th>
<th>Signing Date</th>
<th>Effectivity Date</th>
<th>Closing Original</th>
<th>Revised</th>
<th>Actual</th>
</tr>
</thead>
</table>

**Financing Plan/TA Utilization**

<table>
<thead>
<tr>
<th>ADB</th>
<th>Cofinancing</th>
<th>Counterpart</th>
<th>Beneficiaries</th>
<th>Project Sponsor</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000,000.00</td>
<td>0.00</td>
<td>120,000.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1,120,000.00</td>
</tr>
</tbody>
</table>

**Cumulative Disbursements**

- Date: 17 Jun 2022
- Amount: 871,030.71