



ASIAN DEVELOPMENT BANK

Regional and Sustainable Development Department (RSDD)

Agriculture, Natural Resources and Social Sectors Division (RSAN)

2. **Salient ocean issues in 2002.** The ocean issues in the region in 2002 were similar to the issues during the past decade: (i) destruction of sensitive coastal ecosystems, such as mangroves and coral reefs, through cutting, reclamation, conversion, exploitation, and pollution; (ii) overexploitation of fishery resources and destructive fishing practices; and (iii) pollution and/or siltation of coastal waters from industrial effluents, domestic sewage, and agricultural and surface run-off, and sea traffic operations in selected areas.

3. **Measures that are being taken.** Various measures taken were incorporated in project design of technical assistance (TA) and lending programs to the ADB's developing member countries (DMCs). ADB's TAs and lending programs to the DMCs have been provided within the framework of the ADB's Long-term Strategic Framework (LTSF) with the overarching objective of poverty reduction. The LTSF identifies three core types of interventions to reduce poverty: (i) sustainable economic growth, (ii) inclusive social development, and (iii) governance for effective policies and institutions. These are complemented by three crosscutting themes to (i) promote the private sector's role in development, (ii) support regional cooperation and integration for development, and (iii) ensure environmental sustainability. Therefore, ADB operation in coastal and marine resource management (including coastal/marine, capture and culture, and artisanal and large-scale fisheries operations, coral reef management) and in marine navigation are carried out under the context of the LTSF.

4. ADB's interventions in marine resource management focus on the following areas: (i) supporting the development of a national policy, legal, and institutional framework to implement long-term sustainable fisheries management systems; (ii) supporting capacity building for fisheries development and resource management, including human resources development; (iii) creating and strengthening productive capacity, infrastructure and services; and (iv) building regional cooperation. In marine navigation, the intervention focuses on (i) port and fish port rehabilitation, and (ii) water transport including maritime navigation aids system, and environmental management related to pollution in harbor areas.

5. **Resources/Funding.** Protecting vulnerable marine ecosystems and safety of navigation have normally been incorporated in technical assistance grant program as well as lending operations through direct and indirect interventions. Direct intervention means projects that have protecting vulnerable marine ecosystem or safety of navigation as the project objectives, and indirect intervention if they have them as part of the project components. Please find attached, a table showing ADB assistance in coastal and marine resource management (particularly fisheries sector) (Attachment 1), and some details of selected technical assistance programs and lending operation (Attachment 2). Since 1969, ADB has extended \$1,329.44 million for such projects, and provided \$32.03 million in technical assistance for advisory services and preparation of projects where vulnerable marine ecosystems and safety of navigation is included as one of project components. Most of the interventions cover coastal and marine resource management (particularly fisheries and coral reef) consisting of 103 technical assistance grants and 60 loans, and for marine related infrastructure covers 4 loans and 3 technical assistance grants.

Attachment 1

**ADB Assistance in Coastal and Marine Resource Management (particularly fisheries)
to Developing Member Countries (1969-2002)**

Country	TA Grants	Amount \$ million	Loans	Amount \$ million
Bangladesh	4	0.67	4	77.46
China, People's Republic	5	2.19	1	70.00
Cook Islands	1	0.30	1	0.82
Indonesia	19	6.11	14	478.60
Kiribati	2	0.18	-	-
Korea	1	0.07	2	32.30
Malaysia	8	1.45	4	83.70
Maldives	1	0.49	-	-
Marshall Islands	6	2.15	1	6.95
Micronesia	4	1.65	1	6.50
Myanmar	1	0.07	3	55.80
Pakistan	5	1.38	5	101.23
Papua New Guinea	8	3.32	2	12.20
Philippines	7	2.46	5	164.06
Solomon Islands	7	1.25	2	8.90
Sri Lanka	11	4.46	6	106.07
Taipei, China	-	-	1	10.00
Thailand	4	0.47	3	45.11
Tonga	1	0.77	1	2.40
Tuvalu	2	0.39	1	1.84
Vanuatu	1	0.14	-	-
Viet Nam	5	2.06	3	65.50
TOTAL	103	32.03	60	1,329.44

Attachment 2

ADB Activities Related to Protecting Vulnerable Coastal and Marine Ecosystems and Safety of Navigation

Information on selected ADB activities in Asia and the Pacific region related to coastal and marine resource management and navigation is presented below. The information focused on aspects requested by the Office of the Secretary General of the UN with respect to the two main areas of focus, i.e. (i) protecting vulnerable marine ecosystems, and (ii) safety of navigation. Most of the information is related to ADB activities in the Pacific Region where large number of activities on coastal and marine resource management and ocean transport are undertaken (Section I). Some activities in other developing member countries (DMCs) are briefly presented (Section II).

I. PACIFIC REGION

A. Protecting Vulnerable Marine Ecosystems

1. Regional technical assistance (RETA): TA No. 5815-REG) for the *Development of an International Fisheries Agreement for the Conservation and Management of the Tuna Resources in the Western and Central Pacific Region* was approved in 1998. The TA was successful in providing PDMCs an understanding of the various management options that could be followed to implement the convention. The RETA was particularly successful in: (i) raising countries awareness on their EEZs fisheries management issues and implications for tuna management arrangements that may be adopted in the future; (ii) identifying and analyzing dimensions having long-term benefits; (iii) learning and providing tuna management lessons to other parts of the world; and (iv) building consensus among the PDMCs on how to manage Tuna resources.
2. TA No. 5896-REG on *Strengthening the Live Reef Fish Trade Management in the Pacific Developing Member Countries* was approved in 1999. This RETA aimed to: (i) strengthen the South Pacific Community secretariat to provide technical and policy advices to PDMC governments on sustainable management of the LRFT; (ii) train field staff and middle management government staff in related fields, and strengthen regional cooperation; and (iii) engage local communities in LRFT management planning and development as a sustainable local business opportunity. So far, the TA has accomplished the following: (i) Field assessments and baseline studies for Kiribati, Papua New Guinea, Fiji, Vanuatu, Marshall Islands, and Tonga have been carried out with active participation of local fisheries agencies officials, (ii) production of awareness materials and best practice manuals are being prepared in close collaboration with the International Marine Alliance. Posters and identification cards have been printed; (iii) a regional workshop to discuss specific management plans was held in Suva in July 2002 and (iv) a publication on live reef fish industry is being prepared.
3. TA 6064-REG for *Climate Change Adaptation for the Pacific Islands (CLIMAP)* was approved in November 2002. The goal of the project is to assist ADB's Pacific Developing member countries to work toward integrating climate change and variability adaptation measures into their development programs and projects through "a risk reduction approach". Two pilot pacific island countries will be selected for CLIMAP implementation. The "adaptation through risk reduction" (AtRR) approach will also be undertaken at the ADB departmental level with the aim of incorporating adaptation in selected ADB Pacific operations. The project is coordinated by the ADB Pacific Department and is now under implementation.

4. **Cook Islands.** TA on *Lagoon Ecology Monitoring and Management* (TA No. 2144-COO) approved in 1994 has satisfactorily accomplished its target outputs of: (i) undertaking of population dynamics and modeling study of black-lipped oysters in the lagoon area; (ii) measurement and recording of water column parameters, regular plankton sampling, examination, and identification of species; (iii) identification and promotion of environmentally sound pearl farming practices; (iv) establishing cooperation and liaison with other research agencies; (v) conducting of on-the-job training of counterpart staff; and (vi) coordination of lagoon ecological management activities, both by the government and the private sector. This TA has improved the awareness of the pearl farmers on the need to manage the lagoons to ensure their long-term productivity, and enhanced farmers' knowledge on proper maintenance of the lagoon's ecology.

5. An advisory TA for *Outer Islands Marine Resources Management Training* (TA No. 2322-COO) was approved in 1995. The TA was successful in establishing an in-house capability in operating and maintaining the pearl farm research facility and hatchery facilities, as well as in undertaking lagoon monitoring and management activities. The project also made the concerned government staff capable in designing pearl farm research trials, doing extension activities on cultured pearl farming system, and in imparting environmental awareness among island communities.

6. LOAN No. 1309-COO for *Pearl Industry Development* was approved in 1994 and implemented over a four-year period. The project aimed to help the Government in establishing the Cook Island Pearl Authority (CIPA) to improve the efficiency and ecological stability of the pearl culture industry, as well as support the private sector development by strengthening farmer associations, improving support services, and facilitating marketing. CIPA was later replaced by the Pearl Federation of Cook Islands (PFCI) as the implementing agency in 1997. Despite of some implementation problems, however, the project was able to bring international recognition to the black pearl industry. This somehow helped in propelling the growth of black pearl industry.

7. **East Timor.** In 2001, ADB approved a grant worth US\$ 1 million to finance the *Rehabilitation of Hera Port Fisheries Facilities* (GRANT No. 8190-ETM). The main goal of the grant was to improve and sustain food security for the East Timorese while at the same time achieving more responsible fisheries management by promoting offshore pelagic fisheries and thus reducing pressure on inshore fisheries. Detailed design and construction workplans have been prepared with actual rehabilitation works now in progress. Physical completion of the project is expected in 2003.

8. **Republic of Marshall Islands (RMI).** An advisory TA for the *Preparation of the National Fisheries Development Plan (NFDP)* (AOTA No. 2349-RMI) approved in 1995. The plan contained recommendations on policy and development initiatives affecting coastal fisheries, the oceanic fisheries and institutional arrangements. Some of these recommendations were implemented prior to completion of the TA. In view of the results achieved, the Government requested ADB for another assistance to implement the remaining recommendations. The TA for *Fisheries Management* (AOTA No. 2854-RMI) was the continuation of this process as laid down in the NFDP. It met its objective of building the capability of Marshall Islands Marine Resource Authority (MIMRA). A related advisory TA *Community Based Coastal Marine Resources Development* (AOTA No. 3522-RMI), approved in 2000, aiming at poverty reduction in the outer islands and atoll communities, was also completed, although with limited success, as market research activities concluded that no economically viable small-scale marine resource-based activities exist in RMI.

9. **Federated States of Micronesia (FSM).** The *Marine Resources Management and Conservation TA (AOTA No.1965-FSM, piggybacked to Loan No. 1257-FSM)*, aimed at assisting the Government and the private sector in developing a national commercial fishing industry. The TA was able to establish the Model State Fisheries Law that addressed, among others, the protection of marine resources in the four States of Micronesia. The TA also resulted in the approval of another marine resource management loan from ADB. The loan (*Loan 1257-FSM: Fisheries Development*) aimed to increase the harvest of sashimi-grade tuna through privately owned longline fishing vessels. It also aimed to strengthen the country's capabilities in managing and conserving its marine resources as well as in identifying, formulating, preparing, and evaluating fisheries projects for investment purposes. A related TA (*AOTA No. 2832-FSM*) on *Fisheries Management and Development* was likewise implemented in 1997 and supported tuna resources management improvements in the country.

10. **Papua New Guinea.** *AOTA No. 1990-PNG - Environmentally Sustainable Management of Coastal and Marine Resources*, approved in 1993, has provided the PNG Department of Environment and Conservation (DEC) skills and technical knowledge in preparing, reviewing, and administering IEEs and EIAs of investment projects, and in monitoring key environmental parameters that are significant for the conservation of marine and coastal resources in the country. The public information component of the TA, including video productions, proved to be an excellent tool in putting across the environmental message to its target clientele. Enforcement of environmental rules and guidelines on a practical level was also another key training area. Success in this area, however, was limited due to various reasons, including those that relate to local tenure, customs and traditions.

11. *AOTA No. 2022-PNG - Institutional Strengthening of Department of Fisheries and Marine Resources (DFMR)* – approved in 1993, had limited success due various problems affecting the Executing Agency including the dispersed location of its offices. The volcanic eruption in Rabaul also slowed down implementation at the provincial level. One of the lessons learned though TA implementation was that community-based fisheries projects should not be supported in the future unless the institutional setting is adequate, as community and social dimensions normally require an efficient, or at least sufficiently functional, institutional support framework.

12. A *Fisheries Management preparatory TA (PPTA No. 2258-PNG)* approved in 1994 (and later supplemented in 1996) developed a loan proposal with the main objective to increase the economic contribution by the fisheries industry to the PNG economy on a sustainable basis, with special focus on the commercial sector. This project (*LOAN No. 1656-PNG: Fisheries Development*, approved on 11 December 1998, progressed quite well, particularly the policy development component. The project was able to complete all its target activities and the loan was formally closed on August 9, 2002.

13. There are now two preparatory TAs under implementation in relation to marine and coastal resources management. *PPTA No. 3615-PNG - Community Water Transport Project* – approved in 2000, in particular, aims to improve the low-traffic maritime transport conditions and safety, and give remote maritime communities access to employment and marketing opportunities in the mainstream market of PNG. Expected output of the TA is a feasibility study for an investment program for installation of minor port and marine infrastructure and identification of policy and institutional frameworks to ensure sustainability of the investment strategy. The other TA (*PPTA No. 3604-PNG: Coastal Fisheries Management*), approved in 2000, on the other hand, aims to prepare a project for the sustainable management and development of the coastal fisheries sector, thereby promoting opportunities for small-scale coastal fishers and dwellers to engage in income-generating activities.

14. **Solomon Islands.** ADB supported the Government of Solomon Islands through a technical assistance (*PPTA No. 3237-SOL*) to prepare a fisheries management and development loan. In particular, the TA addressed the (i) restructuring of Department of Fisheries (DOF) with clear priority settings of short and medium-term goals, (ii) infrastructure requirements for consolidation and possible expansion of the domestically-based fisheries, (iii) promotion of labor intensive fishing methods such as pole-and-line fishery, and (iv) promotion of emerging opportunities for private sector-led marine aquaculture.

15. **Tuvalu.** *AOTA No. 1992-TUV: Fisheries Sector Study*, approved in 1993 was implemented to evaluate existing constraints to and opportunities for further development of fisheries activities, especially commercial, export oriented enterprises. Main output of the TA was the *Comprehensive Fisheries Action Plan* that defines the constraints and the corresponding recommendations/action programs to address them.

B. Safety of navigation

16. **Papua New Guinea.** ADB has approved a loan (*Loan 1754-PNG: Rehabilitation of the Maritime Navigation Aids System*) to build capacity within PNG to (i) manage its own hydrographic survey data and to commission production of navigation charts and release of navigational electronic data, (ii) reestablish the utility of the navigation aids through a comprehensive rehabilitation project, and (iii) establish the maritime safety operations under an autonomous maritime safety authority, approved in principle by the National Executive Council in November 2002.

17. **Fiji.** The ADB's *Country Strategy and Program Mission* is currently discussing possible ADB support to review and upgrade navigational conditions including how to determine the state and extent of needed improvement in the release of hydrographic survey data, production of charts, and improvement of navigation aids in tandem with upgrading of outer island maritime landing facilities. A draft technical assistance paper has been prepared, but has not been approved yet.

18. Under *Loan 1902-FIJ: Ports Development Project*, ADB is supporting the government with its program to upgrade port services and to implement MARPOL conditions at the two main international ports.

19. ADB is preparing region-wide assistance in surveying the impact of transport conditions, transport provider market, and facilities including infrastructure such as navigational facilities on the terms of trade for the Pacific DMCs.

II. OTHER DMCs

20. **India, Maldives, Pakistan, and Sri Lanka.** *RETA 5974: Coastal and Marine Resources Management and Poverty Reduction in South Asia (Oct 2001 – Dec 2003)*. Coastal and marine ecosystems in these countries have been affected by increased levels of domestic and transboundary marine pollution (mainly from land-based activities, maritime shipping, and transport); coral bleaching; unregulated tourism; siltation; and unsustainable extraction of marine and coastal resources, including mangroves. The objective of the TA is to promote regional cooperation among the participating countries in strengthening management of environmentally sensitive coastal and marine resources using ICZM approaches. The RETA covers the development of a regional strategic plan including recommendations for regional cooperation and collaboration, mechanisms for information exchange, database development

and management, and capacity building using institutions of excellence within the region. This RETA addresses the recommendations made by the 57th Assembly in its draft resolution A/57/L.49 with respect to (i) capacity building (para 35), (ii) interagency coordination (para 63) and (iii) information exchange (para 65).

21. **People's Republic of China.** *Loan 1411-PRC: Second Yantai Ports, closed in 2002; and Loan 1584-PRC: Xiamen Port, to be closed in 2003.* These projects have similar scopes comprising civil works for improved physical port facilities, equipment for improved cargo handling, and consulting services for project implementation.

22. **Bangladesh.** *TA 3357-BAN: Oil Spill and Response Management Program.* The objective of the TA was to improve the institutional capacity of Mongla Port Authority in Bangladesh to handle environmental management within its port area. This TA was completed in 2002, and will be replicated in the environmental management component of a proposed TA for BAN: Chittagong Port Trade Facilitation Project.