

ASIAN DEVELOPMENT BANK

TPA:PRC 23112

TECHNICAL ASSISTANCE PERFORMANCE AUDIT REPORT

ON THE

**FISHERY AND COASTAL MARINE RESOURCES MANAGEMENT
AND DEVELOPMENT IN EAST CHINA SEA
(TA No. 1760-PRC)**

IN THE

PEOPLE'S REPUBLIC OF CHINA

August 1995

CURRENCY EQUIVALENTS

Currency Unit - Yuan (Y)

	At TA Approval	At TA Completion	At TA Evaluation
Y1.00 =	\$0.1845	\$0.1160	\$0.1237
\$1.00 =	Y5.4200	Y8.6200	Y8.0830

ABBREVIATIONS

EA	-	Executing Agency
MOA	-	Ministry of Agriculture
NEPA	-	National Environment Protection Agency
PRC	-	People's Republic of China
PSC	-	Project Steering Committee
SOA	-	State Oceanic Administration
TA	-	Technical Assistance
TCR	-	Technical Assistance Completion Report
TOR	-	Terms of Reference

WEIGHTS AND MEASURE

t	-	ton (metric)
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NOTES

- (i) The fiscal year of the Government ends on 31 December.
- (ii) In this Report, "\$" refers to US dollars.

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BASIC TA DATA
Fishery and Coastal Marine Resources Management and Development
in East China Sea (TA No. 1760-PRC)

TA TITLE	TA NUMBER	IMPLEMENTING DEPARTMENT/DIVISION
Fishery and Coastal Marine Resources Management and Development in East China Sea	1760-PRC	Forestry and Natural Resource Division (AED) (Formerly Agriculture Division 1)

TOTAL TA COST (\$'000)

Item	Estimated Cost			Actual Cost		
	Foreign	Local	Total	Foreign	Local	Total
Bank Contribution	476.6	118.4	595.0	481.1	102.0	583.1
Government Contribution	-	68.0	68.0	-	68.0	68.0
TOTAL	<u>476.6</u>	<u>186.4</u>	<u>663.0</u>	<u>481.1</u>	<u>170.0</u>	<u>651.1</u>

EXECUTING AGENCY Department of Island and Coastal Zone Management
State Oceanic Administration

KEY DATES

	Expected	Actual
Government Request for TA		Feb 1992
President's Approval		30 Sep 1992
Signing of TA Agreement with the Government		15 Feb 1993
Signing of Consultants' Contract		4 Mar 1993
Submission of Consultants' Inception Report	1 May 1993	5 Jul 1993
Submission of Consultants' Interim Report	1 Sep 1993	12 Oct 1993
Submission of Consultants' Draft Final Report	1 Dec 1993	1 Dec 1993
Tripartite Meeting		16-17 Dec 1993
TA Completion	Jan 1994	9 Feb 1994
TCR Completion	Jun 1994	Sep 1994

CONTRACTED CONSULTANT PERSON-MONTHS

	Expertise	Contracted Person-Months	
		Expected	Actual
A.	International		
	Policy Planning/Institution		
	Development (Team Leader)	5.50	6.32
	Fisheries and Coastal Resources		
	Management Specialist	4.00	4.00
	Economics and Marketing Specialist	2.75	3.07
	Environment Specialist	3.00	3.33
	Project Planner (Assisted in Policy Planning)	<u>0.92</u>	<u>0.92</u>
	Subtotal	16.17	17.64
B.	Domestic		
	Social Economists (2)	7.50	6.44
	Coastal Resources Management Specialists (2)	7.00	9.34
	Mariculture Specialists (2)	5.00	3.64
	Environment Specialists (2)	<u>8.00</u>	<u>7.07</u>
	Subtotal	27.50	26.49
	GRAND TOTAL	<u>43.67</u>	<u>44.13</u>

MISSION DATA

Type of Mission	No. of Missions	Date	Person-days
Fact-Finding	1	May 1992	22
TA Administration			
- Review	1	Dec 1993	8
Postevaluation	1	May 1995	9

I. BACKGROUND

A. Introduction

1. One of the long-term goals of the Government of the People's Republic of China (PRC) is to ensure that its natural resources are exploited in a regulated and sustainable manner. The fishing industry is an important sector generating employment and foreign exchange earnings in the PRC. Total fisheries production increased from 3.2 million metric tons (t) in 1970 to 12.4 million t in 1990 and is projected to reach 18 million tons by the year 2000. About one quarter of the population in the coastal provinces are engaged in fishing and related activities. The main thrust of the current Government's economic policy for the fishery sector is to exploit the marine resources in a sustainable manner so that production can meet local demand and generate foreign exchange earnings.

2. The importance of fisheries resources management and marine environmental conservation for sustainable economic development and natural resources conservation in the East China Sea has received special focus in the development planning of the Government since the 1980s. The East China Sea is the most important fishing area in the PRC, covering 570,000 square kilometers. Annual output from the East China Sea totals about 2.78 million t, accounting for over half of the total marine fish catch in the country. Its waters, however, are overexploited and marine resources are rapidly degrading. To help arrest further depletion of marine resources and recognizing the urgent need to formulate a strategy and an action plan for sound resource management and conservation, the Government in February 1992 requested the Bank to provide a technical assistance (TA) to study the management and development of fisheries and coastal marine resources in the East China Sea. A Bank Fact-Finding Mission visited the PRC in May 1992 to formulate an advisory TA to assist the Government in its effort to develop and manage in a sustainable manner the Zhoushan fishing ground located in the East China Sea. The TA grant in the amount of \$595,000 was approved by the Bank on 30 September 1992.

B. Rationale, Objectives, and Scope

3. The Zhoushan fishing ground is one of the 14 fishing grounds in the East China Sea located in the continental coastline off the northeast coast of Zhejiang Province. It is the largest and the most economically important one in the country. Over the past 20 years, traditional fish stocks in the Zhoushan fishing ground have steadily declined¹ and there is serious deterioration of marine resources. The provision of a TA for the Fishery and Coastal Marine Resources Management and Development in the East China Sea (TA No. 1760-PRC) was consistent with the Bank's operational strategy in the PRC in assisting the Government to strengthen and improve its planning and management capacity. It was also consistent with the Government's policy to formulate a sound strategy for developing and managing fishery resources in the East China Sea.

4. The long-term goal of the Project was to regenerate and conserve the fishery and coastal marine resources in the Zhoushan fishing ground through proper resource management and environmental control. The major objectives were to (i) develop a strategy and an action plan for the management and development of the marine resources, including measures for

¹ For instance, the total catch of yellow croaker declined from 133,000 tons in 1970 to only 65 tons in 1991, and the famous *daijuyang* large yellow croaker has virtually disappeared.

environmental and ecological protection; (ii) strengthen Government agencies and institutions responsible for marine resources management and development in the Project area; and (iii) identify potential projects or programs for investment in marine resources development that may also provide alternative livelihood opportunities for inshore fishermen and their families.

5. The Project comprised (i) a resource and ecological survey and assessment to prepare a resource and ecological profile and maps; (ii) a socioeconomic survey to give a profile of the socioeconomic conditions of the people in the Project area; (iii) an environmental survey and assessment to examine water pollution, its sources and effects on marine resources in the Project area; (iv) an assessment of the institutional capabilities at all levels of Government agencies concerned with the management of marine resources in the Project area; (v) a 14 person-months overseas training in coastal resources management for selected staff of implementing agencies; and (vi) a review of the Government existing policies, laws, and regulations to develop a strategy and action plan for marine resources management, rehabilitation, and development in the Project area.

II. ASSESSMENT OF IMPLEMENTATION PERFORMANCE

A. Design of Technical Assistance

1. Appropriateness of Concepts and Approaches

6. The TA was designed to meet the need of the Zhoushan municipal government and the central Government to have a comprehensive strategy and action plan for marine aquatic resources management and to improve the efficiency of the environmental control and rehabilitation and regeneration of the marine aquatic resources. The TA concept was well conceived and was in line with the Bank's overall medium-term strategic objectives and the Government's strategy in rehabilitating degraded marine resources.

7. The TA's five-phase approach over the nine-month implementation period is considered appropriate in that it provided the consultants and Project office staff with sufficient time in each phase to conduct the required work. Phasing constituted an appropriate design criterion for the Project. Although regular meetings were conducted at the end of each phasing to review and assess the need for strengthening the TA design, some of the phase reports were not sent to the concerned agencies in time for comments. The result was a less than satisfactory process of reviewing the report at the end of each phase. Neither were output indicators given at the end of each phasing. The TA would have been more responsive to changing circumstances during its implementation if a thorough assessment had been made at the end of each phase. In addition, the TA design did not provide midterm review and assessment as well as a feedback mechanism during the post-Project phase.¹ The TA could have been more effective if reviews and adjustments to specific key output indicators were made regularly and if the comments were disseminated widely. Preparation of a Project framework (logframe) during the design phase would have been useful.

8. It was also noted that timing of fielding the consultants provided little opportunity

¹ Although the minutes of the Staff Review Committee meeting dated 3 September specifically stated that the TA document should require the Government to provide a feedback report on the progress of implementation of TA recommendations one year after the submission of the final TA report, this was not included in the TA Agreement.

for interaction between the international and domestic consultants in the final phases of report preparation. The international consultants finalized the report during the final stage (phase 4 and 5) based on information collected by the domestic consultants during phase 2 (data collection and investigation) and phase 3 (data analysis and processing). Greater overlapping between the international and domestic consultants' inputs in the final stages would have provided better interaction and further refined the output.

2. Recipient Agency Involvement and Support

9. The executing agency (EA) was the State Oceanic Administration (SOA), which is based in Beijing. Its functional responsibilities include general administration of the country's territorial waters; monitoring, protection, and conservation of the marine environment; interagency coordination in the sound exploitation, research, and development of marine resources; and oceanological surveys. The Director of the Island and Coastal Zone Management Department within SOA was directly responsible for the overall execution of the TA. Close cooperation among SOA and the Fishery Department of the Ministry of Agriculture (MOA), the National Environment Protection Agency (NEPA), and the municipal government of Zhoushan was the key to the smooth implementation of the TA. A Project Steering Committee (PSC) comprising the concerned agencies (SOA, MOA, NEPA, and Zhoushan Planning Commission) met frequently to provide the necessary coordination and direction to the SOA Project office staff and the consulting team. Counterpart staff, logistic support, and office space were made available to the consultants. Overall, the concerned agencies were helpful and forthright in their participation and support, both in terms of active contribution (ideas, suggestions, and comments) in Project preparation, report finalization, and provision of logistic support.

B. Engagement of Consultants

1. Engagement

10. A team of 13 international and domestic consultants was recruited in April 1993 to implement the TA. Their recruitment was carried out efficiently according to the Bank's *Guidelines on the Use of Consultants*. The consultants were fielded within the agreed time frame (3 April 1993).

2. Inputs Provided

11. Expertise for the TA was provided by five international and eight domestic consultants for a total of about 45 person-months: about 18 person-months of international consulting services and about 27 person-months of domestic consulting services. This slightly exceeded the original 44 person months (16 person months for international and 28 person months for domestic consultants) as envisaged in the TA Paper because of the need to translate the report into Chinese. The international consultants were familiar with local culture and cooperated well with the local consultants and staff of SOA in implementing the TA.

3. Terms of Reference

12. The terms of reference (TOR) (see Appendix 1) prepared for the consultants were consistent with the purpose and objectives of the TA and contained the necessary sector and policy orientation in line with Government policies and plans. The TOR for each specialist's input were comprehensive, clear, and detailed. However, the TOR contained no provision for reviewing

outputs and suggesting changes in inputs. This left little room for flexibility, which is an essential element for incorporating a "process" approach in the implementation of the TA. Comments on the performance of the consultants are given in para. 27.

C. Organization and Management

13. Discussions with concerned Bank staff, local consultants in the PRC and SOA Project office staff in Beijing and Zhoushan showed that the support provided by SOA was adequate and TA implementation was carried out without major problems. The Project office in Zhoushan was well organized and local counterpart staff were adequate. Good logistic support was also provided from both the provincial and municipal governments and the SOA provincial bureau. Although the local Project staff lacked English language skills (except the interpreter), the EA's organizational, administrative, and operational capacity coupled with the enthusiastic spirit of the provincial agencies were key to the success of the Project.

14. The provision of TA equipment such as the underwater quantum meter, water sampling and analysis equipment, microcomputers, office equipment, and a four-wheel drive vehicle has strengthened the research capability of the provincial Zhoushan Oceanic Bureau and the Zhoushan experimental farm of Zhejiang Provincial Marine Fisheries Research Institute. These facilities were procured promptly by the EA through direct purchase in accordance with the Bank's *Guidelines for Procurement* and were fully utilized during TA implementation. They are currently well-maintained and used by EA in the follow-up activities.

D. Implementation Schedule and Financing Arrangements

15. The TA was implemented from 3 April 1993 to 9 February 1994, and the consultants completed the Project in line with its original scope without any major problem. The TA implementation duration (ten months) was slightly beyond the time frame envisaged. It was extended one month because of the need to conduct workshops/seminars and to translate the report into Chinese.

16. The actual cost of the TA was \$651,100 which was within the original estimate of \$663,000. About \$583,000 was financed by the Bank. This is about \$12,000 below the original estimate of \$595,000. The Government contributed \$68,000 equivalent to cover local currency cost as originally envisaged. During TA implementation, several contract variations were made to accommodate the need for additional work for field surveys, data analysis, workshops/seminars, and report translation. The advance payment facility established for the EA under the Bank's *Guidelines for Disbursement of Technical Assistance Grants* was useful and facilitated payments and timely delivery of TA equipment. It also enabled the overseas training program to be carried out smoothly.

E. Supervision

17. In the course of implementation, the Bank fielded one review mission toward the end of TA implementation (December 1993) and attended the final tripartite meeting. No inception or midterm evaluation was carried out by the Bank to review the implementation of the Project and to identify areas to strengthen the objectives as well as to take mitigating measures where necessary. It was felt that the Project output could have been substantially strengthened if effective Bank supervision had been provided during inception and midterm stages to review input, assess each phase output, and provide guidance and advice to the consulting team and

PSC.

18. The Technical Assistance Completion Report (TCR) was prepared by the former Agriculture Department and circulated in September 1994.¹ The TCR was a good quality document and contained detailed information on various aspects of TA implementation. However, it was (i) overoptimistic in its assessment pertaining to the results of institutional strengthening (see para. 25), and (ii) silent on poor socioeconomic consultants' performance (see para. 27), and the appropriateness of the action plan (see para. 23).

III. EVALUATION OF OUTPUTS AND IMPACT

A. Adequacy and Quality of Reports

19. In the absence of quantifiable parameters for the TA output, evaluation of how well the TA has achieved its objectives would be largely subjective. The following assessment is based mainly on a review of all TA reports and files, and discussions with concerned Bank staff, Government officials, and consultants.

20. The major outputs of the TA were (i) a Zhoushan strategy and action plan that provided a detailed description of policies and strategies, and a comprehensive investment plan for adoption by the Government; (ii) a comprehensive stock of information pertaining to Zhoushan marine fishery and mariculture resources; a socioeconomic overview of Zhoushan region; an ecological and environment survey of the Zhoushan fishing ground; (iii) a seminar on marine fishery resources and mariculture; and (iv) overseas training program comprising two six-member teams of senior officials, each visiting marine resources management and research institutes in North America and Europe, and two three-member teams of senior officials who participated in short training courses on special management of the coastal environment in the Philippines.

21. Under the TA, a comprehensive report was prepared covering policy and regulatory issues; problems and constraints confronting coastal marine resources management and environmental control; ecological and marine resources survey; overview of Zhoushan socioeconomic conditions; environmental survey and assessment; and a set of development strategies and an action plan. The Report has been a useful document to both the municipal government and the central Government in developing the Zhoushan fishery and coastal marine resources. The marine resources and regulatory policies² outlined in the Report were being used as reference by both the Bank and the Government in the development of other coastal marine fishing areas of the PRC, such as in the North and South China Sea development planning. The consultants' report was well received by the central Government and the provincial and municipal governments.

22. While the overall quality of the TA Report is considered good, the socioeconomic and the action plan sections were weak. The socioeconomic section provided only an overview of the Zhoushan socioeconomic conditions, using mainly secondary information. It lacked specifics on the social and economic characteristics of potential beneficiaries. The Report provided no

¹ The preliminary draft of the TCR was prepared by the Project Office at Zhoushan.

² Regulatory policies include the initiation of the Zhoushan coastal conservation program, institutional reform in units concerning coastal fisheries, establishing the coastal area permit program, introducing the shareholding system to state-owned commercial enterprises, and a diversification program for deep-sea fishing.

description of field survey results to ascertain the level and sources of fishermen's income, employment, nutrition, consumption, as well as the approaches for enhanced income and saving. The priorities of fishermen with respect to the proposed program of action plan were also not ascertained.

23. The action plan contained investment proposals, but no priority or time-bound schedules were attached to each proposal for subsequent implementation. The salient features of the action plan are given in Appendix 2. A \$230 million investment plan was formulated, but few details on funding priority were provided. Although privatization of public facilities was encouraged, the issue of public vs private funding was not discussed. There was also no indicative time-bound action schedule and clear indication of the concerned agencies' responsibilities in implementing the action plan. Thus the action plan lacks clarity to enable decision makers at the central and provincial levels to proceed with implementation of the recommendations. The Zhoushan Planning Commission and the Project office staff are currently revising and refining the action plan to determine the feasibility of the proposed investment projects that are more practical and adaptable to local conditions. So far, two investment projects have been finalized and submitted to the National Planning Commission of the central Government for consideration.

B. Institution Building

24. Institutional strengthening was accomplished through (i) overseas training of senior officials from SOA, NEPA, MOA, and provincial and municipal governments; (ii) local training through workshops and seminars on fisheries, marine resources, and environment management; and (iii) transfer of technology from international and domestic consultants to Project staff.

25. The effectiveness of the training component is difficult to evaluate because its long-term results are yet to be seen. Eighteen officials went abroad and received intensive training on various aspects of fishery and marine resources development. Over 40 local officials and Project staff were trained locally through workshops and seminars. The study tour programs to North America and Europe (13 days each for the 12 senior officials) were useful, but the duration seemed too short and time for field visits was insufficient for an insight into the practical aspects of the advanced technologies (such as allocate adequate time and more field visits to processing factories and fishing grounds). The two-week intensive training program in the Philippines for six senior technical staff was appropriate and broadened the trainees' technical knowledge significantly.

26. The trainees have, in general, broadened their outlook on the fishery sector, and their knowledge on fishery and marine resources management and development has been strengthened substantially since the training program. They have been able to view problems of fishery and marine resources related issues from a broader perspective. To a certain degree, the training has helped them to tackle issues more effectively. The Project office staff benefited from the international consultants through transfer of knowledge in the area of survey methodology, different ways of solving issues, fishery and marine resources management and development, microcomputer usage and relevant software programs, and through the introduction to overseas sources of information on marine resources and environment-related technology. The majority of the trainees are now working in Government agencies related to fishery and coastal marine resources management and development, thus forming one of the significant outputs of the TA currently contributing to fishery development.

C. Performance of Consultants

27. Both the international and domestic consultants were well qualified and experienced to perform the tasks required under the TA. They were well versed with current macro and micro issues concerning management and development of fishery and marine resources. The consultants cooperated well with the local counterpart staff and Government officials, which resulted in smooth implementation and completion of the TA. The overall performance of the consultants is considered satisfactory. However, the socioeconomic survey aspect of the TA, which required the preparation of a socioeconomic profile following the Bank's *Guidelines for Social Analysis of Development Projects*, was not adequately covered by the socioeconomic consultants (see also para. 22). As mentioned in para. 8, the insufficient interaction between the international and domestic consultants was the major factor contributing to the weak performance of the socioeconomic consultants. The domestic consultants were not familiar with the Bank requirement on social analysis. Also, the international socioeconomic consultant was replaced with a substitute after phase one, contributing to the weakness of this component's output. The input of the replaced international consultant on socioeconomics was considered marginal.

IV. CONCLUSIONS

A. Key Issues

28. While the TA objectives were in line with the Bank's operational strategy for the PRC, the Bank has no long-term plan or program beyond this TA to further support the implementation of the action plan recommended for the Zhoushan fishing ground. Some of the strategies and policies outlined in the TA report are currently being used for a policy dialogue between the Bank and the Government in the formulation of the North China Marine Culture and Coastal Resources Project. The TA also provided no feedback mechanism after its completion to ensure that the outputs of the TA are utilized effectively. Although the provincial government continues to refine the action plan, its resources are thin and under the present national policy of provincial self-funding, there is no indication that the central Government will provide the necessary funding to implement the action plan. In providing an appropriate advisory TA for the Zhoushan fishing ground, the Bank should ensure that its output and timing fit into a longer term strategy in that sector and that the plan will provide for the necessary follow-up activities and fundings soon after the completion of the TA.

29. The TA focused mainly on consultants' inputs. One main problem in evaluating this TA is the lack of verifiable indicators to evaluate the achievement of the Project objectives. No criteria were provided to judge the outputs and to clarify certain risks and assumptions. Thus, it is difficult to establish the linkages between TA inputs and TA outputs and to objectively determine how the TA outputs achieved the TA objectives. A Project framework analysis conducted during the design stage would have greatly facilitated monitoring and provided the basis for evaluation.

30. The training component needs to be clearly defined and narrowly focused in the design of the TA. Institutions and weak areas targeted for strengthening should be identified and criteria for trainee selection provided so that qualified trainees are selected for training in specialized areas. The training program should be carefully formulated in terms of its content and duration to ensure its effectivity.

B. Overall Assessment

31. The TA was formulated and designed with strong support from the EA and provincial and municipal governments. The overall TA concept and approach is considered appropriate. However, the TA design provided little or no opportunity to review and assess the outcome at the end of each phasing and to revise the input for the next phase. There was also insufficient interaction between international and domestic consultants during the final phase of report preparation. No post-Project feedback mechanism was provided in the TA design.

32. The main Report on the policies, strategies, and the action plan was comprehensive and provided the basis for adopting a set of policy decisions that are essential in the management and development of the fishery and marine resources in the Zhoushan fishing ground. The Report covered diverse policy issues that were useful in the formulation of a set of comprehensive strategies covering all aspects of fishery and marine resources management and development in the Zhoushan fishing ground. The section on socioeconomics is considered weak. The recommended action plan, which contained the investment proposals, needs further refinement in terms of providing time-bound action schedules and indicating agencies' responsibilities for implementing specific components of the plan. The study tour program could have been strengthened further if the program had provided longer time in each stop and given greater emphasis to the applied aspects of technology.

33. Although the outputs had been satisfactory, the design and approach of the TA could have been further strengthened had greater Bank supervision in the inception and midterm stages been provided. The Borrower and EA had provided appropriate and adequate staff and logistic support for implementation. Overall, the TA has achieved its objectives and is considered to have been generally successful.

C. Lessons Learned

34. The lessons that can be drawn from this TPAR are summarized below:

- (i) the TA evaluation confirmed that a project framework approach is essential during the TA design stage so that verifiable input and output indicators could be specified and monitored. Such approach will also assist in TA implementation, supervision, and evaluation; and
- (ii) the TOR for the TA should provide some degree of flexibility to enable midterm modification of project design and approach, if necessary. In this respect, Bank supervision missions to provide guidance and advice to the consulting team during the inception and midterm stages are crucial for effective TA output.

D. Follow-Up Actions and Recommendations

35. Follow-up actions include the following:

- (i) there is a need to provide a post-Project feedback report to the Bank on the progress of implementation of the recommended actions. SOA indicated that the Zhoushan municipal government will provide a post-Project feedback report within six months of the postevaluation mission;
- (ii) the Zhoushan Planning Commission needs to continue reviewing and refining the recommended strategies and action plan so that reform measures can be adopted

in the Zhoushan fishing ground; and

- (iii) the Bank needs to continue a policy dialogue with the Government on policy issues and institutional reforms in the fisheries and marine resources management sector, and to devise a plan to provide follow-up support on institutional strengthening and investment projects in the Zhoushan fisheries sector as proposed by the TA recommendations.