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ASIAN DEVELOPMENT BANK

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**TECHNICAL ASSISTANCE
(JSF-Financed)**

TO THE

KINGDOM OF CAMBODIA

FOR

STRENGTHENING ENVIRONMENTAL IMPACT ASSESSMENT

PROCEDURES AND CAPABILITIES

April 1994

CURRENCY EQUIVALENTS

(as of April 1994)

Currency Unit	-	Riel (R)
R1.00	=	\$0.0004
\$1.00	=	R2,500

ABBREVIATIONS

EIA	-	Environmental Impact Assessment
IDRC	-	International Development Research Centre
TA	-	Technical Assistance

NOTES

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

I. INTRODUCTION

1. The Royal Government of Cambodia has requested the Bank to provide an advisory technical assistance (TA) to strengthen the national environmental impact assessment (EIA) program and to train the staff of the newly established Environment Secretariat in EIA and other environmental planning procedures. A Fact-Finding Mission visited Cambodia in November 1993. This Report is based on the Mission's findings in the field and the understanding reached with the Government on the objectives, scope, cost estimates, financing plan and implementation arrangements for the TA.¹

II. BACKGROUND AND RATIONALE

2. The Government has established an organizational structure for the environment comprising an Interministerial Committee, which is headed by the First Prime Minister; an Environmental Evaluation Commission; and the Environment Secretariat. The Environment Secretariat was established on 1 November 1993 with the broad mandate to establish and guide the implementation of environmental policies and procedures to support sustainable development in Cambodia. The Environment Secretariat has five responsibilities: (i) policy and planning, (ii) natural resource management and protected areas, (iii) EIA and pollution control, (iv) education and communication, and (v) legal affairs. The Environment Secretariat is directed by the Secretary of State for Environment, who reports directly to the Prime Minister, and has a staff of about 250 officials in Phnom Penh and an equal number in the provincial offices. Several of the staff speak basic English, but they do not have the basic environmental skills or training.

3. The Environment Secretariat has established a plan to undertake high priority activities. The plan covers the following elements: personnel management; capacity building; implementation of EIA; reporting on the state of the environment; intersecretariat coordination; public information and education; national water policy; water quality and waste management; wildlife and parks; forestry; air quality and noise; offshore hydrocarbon and mineral exploration; environmentally sensitive economic management; resource management research, control and enforcement; legislation and international conventions. The development of an EIA framework for project as well as for regional planning is given priority as the most urgent action. Some assistance is already being provided to support environmental policy formulation and planning including EIA. The International Development Research Centre (IDRC) has provided a long-term adviser on environmental policy and has established an office at the Environment Secretariat, which serves as an effective focal point for aid coordination on the environment. The IDRC environmental assistance includes a commitment to provide long-term advisory assistance on environmental policy and legislation. IDRC has also taken the lead in aid coordination for environmental assistance and provides routine advice to the Secretary of Environment on liaison and coordination matters, both national and international. The United Nations Development Programme (UNDP) has a Cambodia Environment Advisory Team providing guidance to the Environment Secretariat as well as to other ministries on environmental issues particularly for the development of environmental legislation and enabling regulations, environmental education and public awareness programs, training in protected area management; and the development of a national geographic information system and an environmental management information system.

¹ The TA first appeared in the *ADB Business Opportunities* in January 1994.

4. The Government, in particular the Environment Secretariat, requires assistance to institutionalize an affordable planning system to facilitate sustainable development. Such assistance will build on and complement the existing external assistance. In view of the country's early stage of development and the likelihood that the natural resource base will provide the basis for economic development in the future, implementing planning at a regional level, which has environmental as well as economic objectives, to support planning at the project level will integrate environmental considerations throughout the planning process. The Bank has already approved a regional technical assistance for Coastal and Marine Environmental Management in the South China Sea¹ that will demonstrate regional environmental planning.² The proposed TA will provide the assistance required to develop EIA further and will also promote the institutionalization of regional environmental planning.

III. THE TECHNICAL ASSISTANCE

A. Objective

5. The main objective of the TA is to assist the Government to strengthen its institutional and human resource capacity to implement environmental planning and to establish a management framework involving the use of EIA and regional environmental planning. This will be accomplished by providing expert advisory assistance to the Environment Secretariat and on-the-job training and short courses for the Environment Secretariat and other selected Government officials. Two of the potentially serious constraints to effective use of EIA for project planning in Cambodia are the lack of regional environmental planning to guide the selection of specific development options and the limited use of conventional feasibility analysis for planning development projects. One of the underlying objectives of the TA is to facilitate the integration of environmental considerations throughout the improved project planning and implementation cycle.

B. Scope

6. The scope of the TA will include:

- (i) Assistance to the Environment Secretariat in developing and refining the regulations and guidelines for the EIA process in project feasibility analysis, which will be required under the proposed environmental law.
- (ii) Expert advisory assistance on regional environmental planning and EIA related matters to the Environment Secretariat over two-years.

¹ RETA 5552: Coastal and Marine Environmental Management in the South China Sea, for \$2,400,000, approved on 29 October 1993.

² Regional planning, whether environmental or economic development planning, refers to subnational geographic areas either defined by natural conditions such as watersheds or political boundaries such as provinces.

- (iii) Preparation of EIA case studies on five proposed Government or private sector projects in such areas as water resources, transport, power or industry, aquaculture and regional development.
- (iv) Refining, improving and, if required based on experience gained in preparing the case studies, developing further EIA procedural and technical guidelines and manuals to ensure that the EIA process actually enhances project planning practices.
- (v) Using the case studies and other relevant training materials to provide structured on-the-job training for Government counterparts in the central and provincial offices of the Environment Secretariat.
- (vi) Developing and presenting two short courses utilizing case studies prepared under the TA and covering topics such as (a) environmental screening; (b) initial environmental examination (IEE); (c) full-scale EIA including measurement, modelling and prediction techniques; (d) methods to measure uncertainty in EIA projections; (e) preparation of terms of reference for EIA; (f) preparation of critiques of EIA; (g) methods to assure compliance with implementation of environmental management measures as an integral component of project implementation; (h) methods for preparing appropriate monitoring programs; and (i) regional economic and environmental development planning.
- (vii) Organizing an international workshop with participation from key Government decision-makers, representatives of environmental agencies in the region and international assistance agencies to expose Government officials to EIA practices in other countries and to establish a program whereby Government officials may benefit from other countries' experiences in environmental planning, through secondment schemes for on-the-job training or more formal external training programs.
- (viii) Preparation of a five-year environmental human resources development plan for the national EIA program including a feasibility-level analysis of the requirements for training and the associated costs and of proposals to implement a five-year human resources development plan for the environment sector.

C. Cost Estimates and Financing Arrangements

7. The TA is estimated to cost \$600,000, of which foreign exchange cost is estimated at \$468,000 and the local currency cost at \$132,000 equivalent (see Appendix 1). The Government contribution is estimated at US\$50,000 equivalent. The Bank will finance the total foreign exchange cost of \$468,000 and part of the local currency cost of an equivalent of \$82,000 for a total of \$550,000. The TA will be financed by the Bank on a grant basis from the Japan Special Fund.

D. Implementation Arrangements

8. The TA will be implemented through the Environment Secretariat, which will set up a Project Office in Phnom Penh to supervise the TA and liaise with the Bank about the recruitment of consultants, the procurement of equipment, the maintenance of accounts, the organization of the external and local training, and the other administrative tasks. The Environment Secretariat will assign a TA Director who will have overall responsibility for the implementation of the TA and a TA Manager who will be responsible for day-to-day implementation of the TA under the supervision of the TA Director. The Government will provide a minimum of three English-speaking counterparts from Environment Secretariat on a full time basis.

9. The Bank will engage the services of IDRC, which will provide two international environment specialists, a senior EIA expert with three periodic inputs of two to three months each and one junior EIA technical assistant for 24 person-months, to provide the consulting services. IDRC will be required to identify and contract local specialists to assist in the preparation of the case studies, and the preparation and conduct of the training courses. The local specialists will serve as resource persons in EIA, water quality management, natural resource and watershed management, environmental health, public participation and socioeconomics. The IDRC consultants, under the guidance of the TA Director, will be responsible for the supervision and output of the local specialists. The terms of reference for the IDRC consultants are in Appendix 2.

10. The Government requested the Bank to channel the assistance through the ongoing IDRC Environment Assistance Project Office in the Environment Secretariat in Phnom Penh. The proposal to select IDRC in this special case is justified because of the limited absorptive capacity of the new Environment Secretariat in Cambodia and because IDRC has a long-term environment advisory assistance project including a full-time Project Manager at the Secretariat of Environment. If the Bank follows its normal consultant recruitment and administrative procedures, there is a risk the absorptive capacity of the Government will be exceeded. The principal reason for direct appointment of IDRC is that this will ensure more effective implementation, have a greater direct policy impact and achieve the human resource development objectives. This is the result of IDRC's unique capacity to implement projects in Cambodia rather than its expertise in the subject area. The services will be administered by and linked organizationally as well as functionally with other ongoing IDRC projects and project support systems already in Phnom Penh and thereby draw on what little environmental expertise that exists in Cambodia and avoid exceeding the local absorptive capacity in terms of administration of the TA and utilization of advisory inputs. In addition, much of the work, particularly training, must be carefully translated and presented in Cambodian language. IDRC is the only institution to have this specialized capability for the environment sector at the present time. The IDRC will be required to submit technical and financial proposals together with biodata of the two international environment specialists and local specialists for the Bank's review and approval. The IDRC consultants will be responsible to the Secretary of State for Environment and will also be supervised on a day-to-day basis by the IDRC Environment Project Manager. The Bank-financed TA will not fund existing employees of IDRC for work on the TA.

11. The procurement of equipment will be carried out by IDRC on behalf of the Government in accordance with arrangements satisfactory to the Bank. The equipment and

supplies purchased through the TA will be for the use of the IDRC consultants for the duration of the TA and will be retained by the Environment Secretariat upon completion of the TA. The equipment to be procured includes five sets of computers and supplies; necessary furnishings for the TA project office, library and computer room; field sampling and analytical equipment required for the case studies and training; and a low-cost sanitation demonstration project to be built at the Environment Secretariat.¹

12. The TA will be implemented over a period of 24 months. The IDRC consultants will be responsible for submitting the following reports: (i) inception report - six weeks following mobilization; (ii) quarterly progress reports - including EIA guidelines, case study reports and training evaluations; (iii) draft final report - including the human resource development plan for the national EIA program to be submitted at the end of month 22; and (iv) final report - within three weeks of final tripartite review and incorporating comments from the Government and the Bank. The Government, the Bank and the IDRC consultants will discuss the inception, four quarterly and draft final reports within two weeks of their submission.

IV. THE PRESIDENT'S DECISION

13. The President, acting under the authority delegated to him by the Board, has approved the provision of technical assistance, on a grant basis, to the Kingdom of Cambodia in an amount not exceeding the equivalent of \$550,000 for the purpose of Strengthening Environmental Impact Assessment Procedures and Capabilities, and hereby reports his action to the Board.

¹ The present unsatisfactory sanitation conditions at the Environment Secretariat compound are representative of many government buildings throughout the country. The installation of a low-cost sanitation facility will eliminate the existing public health risk at the Environment Secretariat and will provide a demonstration prototype for replication elsewhere.

COST ESTIMATES AND FINANCING PLAN
(US\$'000)

Amount

I. FINANCED BY THE BANK

A. Foreign Exchange Cost

1.	Consultant remuneration	253,000
2.	International per diem	76,000
3.	International travel	20,000
4.	International communications	3,000
5.	Equipment	60,000
6.	Library and training materials	6,000
7.	Short course training	6,000
8.	International workshop for decision-makers	5,000
9.	Contract negotiations	3,000
10.	Contingencies	<u>36,000</u>

Subtotal (A) **468,000**

B. Local Currency Cost

1.	Per diem for case studies	7,000
2.	Local transportation	7,000
3.	Local consultant/administration	8,000
4.	Training courses	10,000
5.	Case study preparation	30,000
6.	Contingencies	<u>20,000</u>

Subtotal (B) **82,000**

TOTAL (I) **550,000**

II. FINANCED BY THE GOVERNMENT (Local Currency Cost)

1.	Per diem for workshop	5,000
2.	Local transportation	10,000
3.	Local consultant/administration	15,000
4.	Training courses	10,000
5.	Case study preparation	<u>10,000</u>

TOTAL (II) **50,000**

GRAND TOTAL (I & II) **600,000**

(Reference in text: page 3, para. 7)

TERMS OF REFERENCE

I. SCOPE AND WORK PROGRAM

1. Under the technical assistance (TA), the consultants' activities for strengthening environmental impact assessment (EIA) procedures and capabilities will cover, but not be limited to, three major areas: training, planning and institutional development. The consultant will also design and supervise the installation of a sanitation demonstration project at the Environment Secretariat headquarters. These terms of reference cover the activities of both international consultants, the senior EIA expert and the EIA technical assistant. The senior EIA expert will be responsible for preparation of a detailed work plan, which will be updated during each of his/her three work periods.

A. Training

2. The consultants will provide on-the-job training to their counterparts in the following subject areas: environmental screening of development projects; preparation of an EIA study; review of EIA reports submitted by project proponents; monitoring the implementation of EIA recommendations during both the construction and the operational phases of the projects; integration of EIA with development planning at the project, sectoral, provincial, and regional levels; and management and administration of EIA. In addition, the consultant will be required to conduct two in-house short courses to complement the on-the-job training. These short courses, one on EIA and the other on regional environmental planning, are expected to be of six to eight week duration and to be presented over a period of about sixteen weeks with about 30 participants. The training will be concluded in both English and Khmer.

B. Planning

3. The consultants will prepare for the Environment Secretariat a plan to develop its environmental planning and management capability, as well as its operational programs for EIA and regional environmental planning, for training and for institutional support such as management information systems.

C. Institutional Development

4. The consultants will assist the Environment Secretariat in the development of the institutional arrangements to implement EIA and other environmental regulations including the arrangements for interagency coordination and cooperation to ensure the EIA program is effective.

II. SPECIFIC TASKS

5. The initial task of the consultants will be to develop a specific work plan which will be the basis for the inception report.

(Reference in text: page 4, para. 9)

A. EIA Training

6. The specific tasks of the consultants will involve, but not be limited to, the following:

- (i) providing training on-the-job and short-course training in the following methodologies: environmental screening of projects, including the use of the initial environmental evaluation process to determine the need for detailed EIA;
- (ii) preparing an EIA study including preparing the terms of reference, identifying required expertise, estimating the inputs required as well as the international expertise required to ensure acceptable results, and planning its implementation;
- (iii) preparing critiques of draft EIA reports, to ensure that the needed environmental management measures are included in the EIA and in the project feasibility study;
- (iv) planning the environmental management measures that will be observed and complied with during the construction period;
- (v) preparing cost effective environmental monitoring programs to be implemented following project construction (during the operations period), including justification based on benefit and cost analysis and delineating the monitoring to be done by the project proponents and by the Government, including the procedures for reporting and distributing the monitoring results so that the concerned agencies will be informed and the necessary corrective measures will be undertaken by the appropriate authorities.

B. Regional Environmental Development Planning Training

7. The consultant will provide training to counterparts through on-the-job training during the preparation of a regional planning case study and through short-courses on:

- (i) preparing an inventory of environmental resources using an appropriate classification system that indicates the importance of each environmental resource, including its past and current condition, trends in degradation, and probable future condition without remedial environmental protection measures;
- (ii) documenting the existing conditions and trends and presenting the projections based on the preferred or planned economic development scenario; alternative strategies to achieve acceptable environmental quality should be developed and the preferred strategy determined; the preferred strategy should lead to a series of realistic and affordable policies to achieve desirable targets (including quality standards) and ultimately outline the range of measures necessary to implement those policies; the strategy should also address, as required, water quality management, solid waste management, air quality management, watershed

management, forest/wildlife management, coastal management, legal and institutional development and coordination, environmental monitoring, and economic linkages;

- (iii) analysis of economic and social factors such as population growth, income disparities, spatial variations in development, resource demands, etc., projected for the plan period;
- (iv) assigning priorities to proposed environmental improvement projects and, for a sample project, analyze to the prefeasibility level and subject to an initial environmental examination; and
- (v) planning a follow-up environmental monitoring program for the sample environmental improvement project to provide decision makers with feedback on the achievement of objectives, (the monitoring program must be cost-effective.)

C. Institutional Development

8. The consultant will provide advisory assistance to the Secretary of State for Environment and other key counterparts on the following:

- (i) coordination of the TA inputs to meet the overall needs of the Government including line agencies;
- (ii) preparation of an appropriate system for grading and evaluating the EIA capabilities of private sector firms and for licensing of firms considered qualified to carry out EIA studies;
- (iii) development of methodology to relate EIA studies to ongoing or planned regional environmental development planning projects;
- (iv) review and assessment of the present environmental staff, organization, and financial and budgetary requirements;
- (v) design of the most appropriate institutional arrangements to implement the EIA program with particular attention to the organizational efficiency;
- (vi) identification of the technical and managerial skills that will be required by the Environment Secretariat to conduct an effective EIA program after assessing the existing staff capabilities;
- (vii) identification of the training needs and formulation of a training plan including short-term overseas training and on-the-job training; and

- (viii) development of an effective approach to strengthen the EIA capabilities of related agencies including implementing agencies, academic institutions, and private sector consulting firms.

D. Institutional Planning

9. The consultant will work closely with the Secretary of Environment to develop recommendations for institutional capacity building. These tasks will include:

- (i) assessing the needs for academic and practical training for environmental staff of the Environment Secretariat with particular focus on training in EIA technology;
- (ii) assisting in the planning to establish an environmental library for the Environment Secretariat including suggestions on practicable ways to purchase pertinent reference materials;
- (iii) preparing detailed sectoral EIA manuals appropriate for use by the Government line agencies;
- (iv) assisting the Environment Secretariat in appraisal of the EIA program implementation capabilities of the environment staff to make optimal use of the personnel and for the career development; and
- (v) assisting in the development of an EIA information and networking system that takes into account how development strategies are affected by EIA decisions, what activities should be subject to EIA, which types of sectoral issues such as forestry management and coastal resource management are rightfully in the domain of EIA, or whether these issues should be considered as regional planning issues, and, if so, the relationship between the administrative structures.

E. Environment Sector Human Resources Development Planning

10. The consultants will prepare a human resources development (HRD) plan, in consultation with Secretary of Environment which will include a feasibility-level strategy to develop environmental planning and management capability within the Government. The human resources development plan will:

- (i) include a clear statement of objectives and goals for the next five years to address manpower needs within the field of environment among sectoral and multisectoral agencies of government;
- (ii) assess the constraints to HRD for the environment sector taking account of the current state of environmental affairs in the Government including major sectoral problem areas, areas of critical geographical concern, administrative institutions and interrelationships among agencies, and the Government budgetary resources available for environmental protection issues;

- (iii) include specific time bound targets for the next ten years, to determine the degree to which objectives are met;
- (iv) identify the immediate needs and inputs to implement Environment HRD Plan including the necessary facilities for performing specific environmental functions such as monitoring, and data base management as well as working budgets; and
- (v) identify critical manpower requirements to be filled in the short-term and medium-term and material resources required for both manpower training.