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August 16, 2001

Ms. Emma Torres
Acting GEF Executive Coordinator
United Nations Development Programme
One United Nations Plaza
304 East 45th St.
FF Bldg., 10th floor
New York, NY 10017

Dear Ms. Torres,

I am pleased to inform you that the request for \$77,000 in supplemental PDF resources for the project proposal *Regional (Lao PDR, Cambodia, Thailand, Vietnam): Mekong River Basin Wetland Biodiversity*, has been approved by the CEO on August 16, 2001. An earlier PDF-B request had been granted for \$347,600 on October 3, 1997.

It is understood (i) that during preparation, the comments of GEF Secretariat, Implementing Agencies, and other organizations will be taken into account to address technical issues and to ensure coordination of activities, and (ii) that when the project is submitted for Work Program inclusion it will be well advanced in preparation and responsive to the general project review criteria as well as to specific comments in the Secretariat's Project Review Sheet.

Please find attached a copy of the project tracking sheet for your records.

Sincerely,

Kenneth King
Assistant Chief Executive Officer

**UNITED NATIONS DEVELOPMENT PROGRAMME
GLOBAL ENVIRONMENT FACILITY (GEF)
Proposal for a PDF Block B Grant**

Project title: Mekong River Basin Wetland Biodiversity
Conservation and Sustainable Use Programme

Region: Mekong River Basin

Countries: Riparian States of the Mekong River Basin and members of the MRC (Vietnam, Cambodia, Lao PDR, Thailand¹)

Focal Area: Biodiversity

Operational Programme: Coastal, marine and freshwater ecosystems

Total costs: \$452,600

GEF Funding requested: \$347,600

Co-financing: UNDP - \$20,000
Bilateral donor - \$85,000
IUCN - \$30,000 (in kind)
Government assistance (in kind)

Requesting Agency: UNDP

Executing Agency: UNOPS

Implementing Agency: IUCN-The World Conservation Union in partnership with Wetlands International

Block: PDF Block B

Block A: Preparatory assistance provided by UNDP, (IUCN and WI - In kind)

Duration of Block B activities: 12 Months from September 1997

Estimated size of project: \$20 million (GEF incremental and baseline costs to be determined during the course of PDF block B)

Brief Description:

The primary objective of this Block B proposal is to develop a full GEF Project Brief for conservation and sustainable management and use of wetland biodiversity in the Mekong Basin downstream of its entry into the Lao Peoples Democratic Republic. The GEF project will have three inter-linked levels of activity involving Lao PDR, Cambodia, Thailand and Vietnam: (a) a chain of demonstration models of participatory management and sustainable use of wetlands in specific sites of high biodiversity value of global significance; (b) policy development and capacity building at national and regional levels; and (c) regional activities including support to the Mekong River Commission in developing a multilateral framework for strategic wetlands action plan, and project specific trans-boundary environmental impact assessment; training, information exchange and sharing of lessons, as well as establishment and strengthening of regional networks. The PDF Block B grant activities will include participatory rapid appraisal studies in potential collaborative management areas in each country; institutional capability and training needs analysis at national and demonstration area level; identification of existing training opportunities and relevant existing regional networks; and formulation of local, national and regional program components; developments of stakeholder participation plans and indicative management plans at project sites, and development of a GEF project brief.

¹ The cost of Thailand's participation will be met from non-GEF resources.

MEKONG RIVER BASIN WETLAND BIODIVERSITY CONSERVATION AND SUSTAINABLE USE PROGRAMME

1 BACKGROUND

The Mekong River

1. The Mekong River begins its 4,200 km journey in the mountains of Tibet, near the sources of the Yangtze and Salween. Starting at an elevation of 5,000 m, the Mekong (known in China as the Lancangjiang) flows south, first into China's Yunnan Province which contains nearly one-quarter of the total length of the river and two-thirds of its Chinese course. In Yunnan the river drops through more than 4,000 m altitude and emerges into an alluvial "delta" in the Xishuangbanna Autonomous Region before becoming the Laos/Myanmar border. It then flows a further 2,400 km through Thailand, Laos, Cambodia and Vietnam, dropping less than 500 m in this distance, to reach the South China Sea just south of Ho Chi Minh City.

2. The Mekong is the longest river in Southeast Asia, and the twelfth longest in the world; its annual run-off (above 475,000 million cu m) places it eighth in the world table of great rivers. The Mekong carries an enormous volume of water during the wet season, resulting in frequent flooding in the fertile floodplains and overflow wetlands of the mainstream and major tributaries. Yet, during the dry season, a significant reduction in flow often leads to salt water intrusion in the coastal plain of the Mekong Delta. **The Mekong River Basin has very rich biodiversity of global significance. See Annexes 1 and 2 for details.**

Human benefits and threats to Mekong Wetlands

3. The Mekong and its tributaries and associated wetlands support millions of people with food, water, aquatic products, and timber and non-timber forest products from its riparian and flooded forests, as well as providing an efficient means of transport. In Vietnam alone, 32 million people depend on the river for food. In 1991, the Mekong delta contained 34% of that country's farmland and provided 40% of its agricultural output.

4. The MRC Diagnostic Study reported that the countries of the Basin are experiencing severe environmental degradation. The Study identified the main environmental issues of the Greater Mekong Subregion as including: deforestation; soil loss and siltation; water pollution; habitat destruction and encroachment; climate change; loss of biodiversity; accumulation of hazardous wastes; and threats to public health. The degradation of wetland biodiversity is most serious in Thailand and Vietnam but trends in all six countries show potential for very rapid deterioration in wetland systems (**Human dependence on Mekong Wetlands and associate threats are detailed in Annex 3**)

The urgency for action

5. The countries in the Mekong Basin are poised for very rapid economic development. However, communities in wetland areas are still able to maintain elements of their traditional resource management regimes. In addition, communities in many areas have shown a readiness to develop new measures where there is both an obvious need and sufficient awareness of the potential impacts of pursuing unsustainable practices.

6. This situation represents a window of opportunity for introducing wetland biodiversity conservation measures at regional and national levels, where they can be incorporated into planning and management, and at community level where they can become part of a sustainable wetland resource use strategy. If intervention is delayed for too long it is certain that: major developments will have been approved without appropriate consideration of wetland biodiversity conservation needs and mitigation measures; rural communities will either have lost their wetland resource base, or resource management issues will have fragmented the social fabric beyond a point at which an agreed sustainable management regime can be introduced; and wetland biodiversity values of global significance will have been lost.

7. **Until now, no co-ordinated regional programme for the conservation and sustainable use of wetland biodiversity resources has been undertaken from the perspective of the integrity of the Mekong River system as a whole. The proposed GEF intervention specifically addresses this critical gap.**

2 SUMMARY DESCRIPTION OF THE PROPOSED GEF PROJECT

Rationale

8. The GEF project seeks to have significant influence on natural resource planning and on the development agenda in the Mekong River Basin. It aims to address the development threats to wetlands in the region, most critically, the many dams proposed for the main river and its tributaries, by supporting the preparation and adoption of a regional wetlands strategy and action plan, through a comprehensive series of regional technical meetings followed by its regional endorsement at a ministerial level meeting through the MRC processes; through demonstration in wetland biodiversity sites of international importance, including those which are transboundary in nature; and by helping

build national and regional wetlands policy frameworks and implementation capacity.

The underlying rationale for the GEF project is that wetland biodiversity conservation will be achieved most effectively in the Basin countries by:

- **providing communities with:**
 - ◊ **the capability for sustainable use of wetland resources;**
 - ◊ **access to resources as a pre-condition to collaborative management with government; and**
 - ◊ **an active role in biodiversity conservation;**
 - ◊ **improving national capacity in collaborative management of wetland biodiversity resources; and,**
 - ◊ **strengthening regional capability and on-going efforts to incorporate consideration of wetland values into regional planning and environmental assessment, and for co-ordinated wetland biodiversity conservation.**

10. The Mekong River Basin has been adopted as the geographic focus of the project because it provides a coherent ecological, physiographic and (emerging) organizational unit.

11. The well known linkage of physical and ecological processes within a single river basin is matched in this instance by the developing connections among the Mekong Basin governments and NGOs. From a wetland point of view, the principal example of this collaboration is the Mekong River Commission, which emerged in 1995 from the previous Mekong Committee founded in 1957. Vietnam, Cambodia, Laos and Thailand are members of the Commission. There are other examples of emerging Mekong Basin fora, such as the International Workshop on Mekong River Basin Development Plans which was held in Bangkok in April 1996; and the Asian Development Bank Greater Mekong Regional Environmental Working Group which had its third meeting in March 1997.

12. The project embraces the existing arrangements in the region for discussing and negotiating agreed positions on development issues affecting the Mekong River Basin. The MRC is a critical institution in nurturing this evolving political and economic cooperation and will provide the institutional framework through which the regional wetlands strategy is prepared and adopted. It is for this reason that Myanmar and China are not formally included in this phase of regional policy development and project demonstrations.²

Why take a regional approach?

The development and environmental challenges confronting the Mekong River Basin will be solved only through a cooperative regional approach involving all the riparian States. Many of the existing threats to biodiversity resources of the river system stem from individual States acting alone without appreciating the cumulative and system wide impacts. The GEF project will take a regional approach because:

- ◊ **The Mekong River is one highly integrated natural system.**
- ◊ **Development actions of one riparian State impacts directly on its neighbours.**
- ◊ **The living resources of the system are shared and, to be sustained, need to be managed cooperatively.**
- ◊ **Flood mitigation and water management anywhere in the system can effect productivity throughout.**
- ◊ **Limited wetland management skills and resources need to be shared.**
- ◊ **Common policy positions for the management of the shared resources are required.**
- ◊ **Regional cooperation on the wise use of wetland biodiversity resources will lead to greater economic benefits for all Mekong countries.**

Annex 4 treats these points in greater detail

² While the two upper riparian states, the People's Republic of China and the Union of Myanmar are not parties to the MRC Agreement at this time, the options remain open. They have been invited as observers to attend official MRC meetings. In addition, they have been designated as official dialogue partners, and the formation of a working group has been suggested. The MRC has established technical contacts with the upper riparians and they have been participating in the MRC meetings. The PDF will explore in collaboration with the MRC Secretariat, additional possibilities for the participation of the upper riparian countries in the future.

As observers in the MRC deliberations, both countries will witness and participate in the various stages of the strategy drafting. The proposed regional wetlands strategy will recognise, that development actions on the Mekong in China could have fundamental impacts on downstream wetland biodiversity resources. The recently approved GEF/UNDP PDF Block B for an in-country China Wetlands Management and Wise Use programme, (expected to start implementation in mid-June 1997), will specifically anticipate and provide in its design and implementation, the proposed Mekong Wetlands project. It is expected, *inter alia*, to include the identification and inclusion of at least one wetland demonstration site in Yunnan Province. Furthermore, given the commonality of technical institution, (Wetlands International), underpinning both the projects, there will be close day to day working relationships between the two projects; to ensure maximum synergy between the upper and lower riparian wetlands programme in the Mekong.

3. OBJECTIVES

4. **The principal objective of the larger GEF project is the conservation and sustainable use of wetland biodiversity in the Mekong River Basin.**

15. This objective is addressed in five operational objectives through which the project will seek:

- in-situ conservation through a regional system of protected areas of different categories both national and transboundary; ✓
- sustainable use of land and wetland resources inside and outside protected areas including buffer zones; ✓
- to balance wetland conservation with economic development, particularly dams and irrigation projects; ✓
- the design and implementation of common policy instruments and programmatic approaches for managing water and wetland biodiversity resources in Mekong countries; and ✓
- build human and institutional capacity in the region in support of wetlands management. ✓

16. **Without prejudging the outcome of the PDF Block B process, the anticipated details of the proposed larger GEF project (scope, approach, project structure and project activities) are set out in Annex 5**

4. DESCRIPTION OF PDF BLOCK B ACTIVITIES BY COMPONENT

17. The primary goal of the Block B phase is the preparation of a full GEF Project Brief. The project objectives will be addressed through a series of activities conducted at regional, national and local levels.

Activity 1: Regional Project Inception Workshop

A regional project inception workshop will be conducted early in the Block B phase. The participants of the workshop will include experts from the MRC regional and national agencies concerned with wetlands management and wise use, national, regional and international experts from the IUCN/WI specialist network. Prior to the workshop, each national delegation will prepare a wetland policy review paper which includes suggested principles and provisions for a wetlands regional strategy.

The objectives of the inception workshop are:

- to familiarise relevant government agencies and regional bodies with the long term goals of the project and with the objectives of the Block B Phase activities;
- to review relevant national policy and programme initiatives as a foundation for the regional wetlands strategy, including the adequacy of existing protected areas systems;
- to develop detailed work plans for undertaking the Block B activities;
- to develop and formalise criteria for selection of the demonstration sites and finalisation of the lists of candidate sites to be investigated;
- to confirm regional and national counterpart arrangements.

Outputs:

Workshop report including work plans, institutional arrangements, final lists of candidate sites and formal demonstration site selection criteria. An initial framework of principles and policies for the regional wetlands strategy.

Activity 2: Appraisal of candidate demonstration sites

Consultations during the Block B proposal formulation led to the identification of several in-country and transboundary project sites as candidates for the demonstration projects (**Annex 2**). The sites are variously identified in national wetland inventories; Biodiversity Action Plans; national wetland plans; and the *Directory of Asian Wetlands*. The initial selection process involved consultation with Government agencies and local community representatives and experts. These lists are not all inclusive but indicative and the candidate list will be reviewed as a first step in the Block B phase. A final candidate list is to be defined at the project inception workshop. The next step will involve working closely with the national and regional project counterparts to assess each candidate site against the selection criteria to determine the final demonstration. Among important criteria for selection of project sites, would be the global biological significance of project site; the interest of local communities, and the potential to be affected by planned construction of dams on the Mekong and its tributaries.

Outputs:

Based on the formal criteria developed during the inception workshop, current information on all candidate sites will be reviewed and analysed, and four or more demonstration sites will be selected.

Activity 3: Problem analysis and synthesis for each of the selected demonstration sites

Participatory appraisal/feasibility studies at the demonstration wetland biodiversity co-management site(s) in each of the participating countries will be conducted with the national project counterparts and local user groups.

Outside economic and technical forces often have an influential role in shaping the development of resources within the Mekong Basin region. The vital contribution of local communities to development decisions and even of technical experts from the Basin countries is too frequently overlooked. The GEF project seeks to enhance the participation of these local and national groups in decisions affecting the management and sustainable use of wetland biodiversity - it does this by introducing tools; procedures and policies which promote their views and interests in the development process.

At community level, the testing of collaborative management approaches aim to bring greater control over resources to those who rely on them. Methods of participatory appraisal, local monitoring and evaluation, and participatory planning will enable communities to directly influence how their wetlands are used. Environmental and sustainable use guidelines which communities have supported in defining, will help minimise the negative effects of large development on their local areas. The lessons in demonstrating these approaches in important wetland sites will be built into the regional strategy giving involved communities a voice in setting regional policy and action plans.

The Block B participatory appraisal studies will:

- confirm the biodiversity value of the site and assess the significance of any degradation of those values that has occurred;
- identify influences likely to further degrade biodiversity values and the feasibility of halting or mitigating those influences;
- identify the management structure (government and community) currently in place and the degree of interaction between communities and wetland biodiversity values;

Outputs:

A report on each demonstration site setting out a preliminary assessment of biodiversity values, levels and sources of threat; and an initial framework for developing co-management regimes which has been defined in consultation with affected local communities.

Activity 4: Determination of socio-economic values of biodiversity resources at each site

A key component of the site assessments will be participatory appraisals and consultations specifically targeting the socio-economic situation and needs of the local communities living in and around the demonstration sites. The consultations with local communities will result in:

- the description of user groups;
- exploration of sustainable livelihood options; and,
- definition of the potential for co-management for sustainable biodiversity conservation and wise use, through willingness of local government agencies and communities to introduce sustainable co-management practices; and of the feasibility of addressing degrading factors through the project

Outputs:

Guidelines for socio-economic needs which must be met during wetland conservation, management and development at each demonstration site. Guidelines on human and institutional resource potential for co-management of those sites. Development of a stakeholder participation plan.

Activity 5: Development of indicative management frameworks

Using the results of the participatory appraisal studies, community development proposals will be outlined that will be likely to meet integrated conservation and development objectives with regard to wetland biodiversity conservation and wise use. These outline proposals will be used for project design and costing purposes but will be subject to further elaboration and revision during detailed participatory planning activities as part of GEF Project implementation.

Outputs:

An initial outline of an indicative management plan including community development/sustainable livelihood options for each demonstration site

Activity 6: Establishment of coordinating and consultative mechanisms within each country and in the region

Mechanisms to allow effective communications and decision-making between the project implementers and other sectors will need to be established at all levels. There will be an overall project regional steering committee involving members from the participating governments, Mekong River Commission and all three GEF Implementing Agencies. The project will seek to establish national steering committees in each country. The committees will comprise Government, NGOs and technical specialists, and be chaired by the GEF focal point Ministry as the main collaborating agency. The consultative and coordinating mechanisms set in place during the Block B phase will ensure the GEF

project complements and is linked to other wetland initiatives in the region.

On the project activity level, national project counterparts will need to be confirmed to help plan and implement the Block B activities; to be the focus of capacity building; and, ultimately, to be the main driving force behind implementation of the GEF project. It is envisaged that these counterparts will be selected from staff within appropriate line ministries, the GEF focal point Ministry and the national Mekong River Committees.

Once the demonstration sites have been designated, expert consultative groups will be identified for each country. These groups will draw on the wetlands expert networks established through the MRC with inputs when required from IUCN/WI specialist network members. The consultative groups will bring in local expertise in aspects of wetlands management including sustainable use; resource assessment; economics and wetlands functioning.

Outputs:

The following coordinating, implementing and consultative structures will be established: The regional project steering committee; national project steering committees and the national and regional project counterparts. Linkages with other wetland initiatives in the region will be defined. The implementation and executing modality and operational partners for the full-scale projects will be determined.

Activity 7: Wetland management training needs, capacities assessment and technology transfer

A key objective of the GEF Project will be the establishment of mechanisms for technology transfer to other areas, countries and agencies involved in the project, and the building of wetlands management skills. An institutional and training needs analysis will be undertaken during the Block B phase which will guide in the definition of appropriate institutional strengthening and skills enhancement components, and the most useful forms of technology transfer. The needs analysis will involve:

- identifying policy, administrative and management weaknesses and possible methods and approaches to overcoming them;
- identifying management agencies at the local (co-management sites) and national levels and carrying out training needs analyses and capability assessments with regard to wetland management; and,
- identifying existing training opportunities in the region and assessing their potential to contribute to the project goal of developing national and regional competence in wetland biodiversity conservation and sustainable use.

Outputs:

A training needs assessment and strategy

Activity 8: Development of baseline and incremental cost analysis

Based on the work undertaken by the GEF Secretariat, baseline and incremental costs will be calculated for all components of the project. This activity is an integrated part of the design of the full proposal, and will be undertaken as part of all the activities.

Outputs:

Estimates of baseline and incremental costs for the development of a regional wetland strategy and conservation and management of wetland biodiversity resources of each demonstration site. Partners and co-financiers will be identified. A co-financing strategy will be defined and implemented to obtain firm expressions of interest from interested national bilateral and multilateral partners.

Activity 9: Definition of regional exchange, information systems, and networking components of GEF project

Many of the skills enhancement activities, information systems, sharing of expertise and management methods are best undertaken on a regional basis. The PDF will undertake a thorough assessment of existing opportunities and resources. Specifically it will:

- identify relevant existing regional networks, evaluate their potential to contribute to wetland biodiversity conservation and their wise use and develop regional project components to assist in the realisation of that potential;
- identify relevant existing and planned activities in the region which are likely to contribute to wetland biodiversity conservation and their wise use, and develop approaches for building on, and increasing the effectiveness of these activities;
- define specific transboundary wetlands conservation issues which might form the basis of bilateral or multilateral training and policy development exercises; and,
- assess the adequacy of existing information systems on wetlands biodiversity resources in the region and define ways of building on these systems for more effective usage.

Outputs:

Assessments of regional wetlands biodiversity information system, networks, activities and exchange programmes, and of their adequacy in fulfilling the needs

Activity 10: Development of Full GEF Project Brief

A detailed GEF Project Brief will be prepared drawing from all Block B activities. It will be initiated in parallel with Activities 1 to 9 and will be completed in months 10 to 12, including circulating and revising the draft GEF Project Brief and other outputs, in line with comments from relevant agencies.

Outputs:

Draft GEF Project Brief

Activity 11: Regional workshop to finalise GEF Project Brief

A regional workshop to finalise the GEF Project Brief involving the representatives of the national and regional project steering committees and other relevant experts. The objective of the workshop would be to formally report on the Block B phase activities, to finally review the GEF Project Brief, and to receive in principle endorsement for the project from all participating countries.

Outputs:

The full GEF Project Brief will be submitted to GEF/UNDP in August 1998.

In summary, the expected outputs of the PDF phase will be:

- Full GEF project brief and draft project document
- Identification of priority demonstration project sites
- An assessment of biodiversity values of each site and associated threats
- Determination of socio-economic and cultural values of the wetlands, needs of local communities and evaluation of project impact on local communities
- Development of stakeholder participation plan for local communities
- Determining costing and co-financing mechanisms and partners
- Incremental cost analysis for the identified project sites and other components of the project
- Indicative management frameworks for the demonstration sites
- Definition of initial framework of principles and policies for the regional wetlands strategy
- A training needs assessment and strategy
- Implementing/executing modality and project partners determined

Activities 1 to 9 will be implemented in the first 10 months of the PDF block B phase. The results of these activities will contribute to Activity 11 during the last 2 months of the preparatory project.

5. EXECUTING AND IMPLEMENTING ARRANGEMENTS FOR THE PDF BLOCK B ACTIVITIES

18. The PDF Block B activities will be executed by UNOPS. The preparatory phase will be implemented by IUCN and Wetlands International, with IUCN as the lead agency, under the guidance of a Regional Project Steering Committee. The regional steering committee will be comprised of the MRC Secretariat personnel, riparian governments and GEF IA members. An IUCN/WI regional technical team will be formed to work with national teams in Vietnam, Thailand, Cambodia and Lao PDR. The project will be undertaken in collaboration with the Mekong River Commission and, in each country, with the Biodiversity Convention focal point Ministry, the GEF focal points, and National Mekong River Committee or its equivalent.

19. Where necessary, the national project teams will include a full time project co-ordinator working with the IUCN/WI national offices in each country with part time inputs from local experts of the collaborating agencies. In Vietnam, the National Mekong Committee has established an inter-sectoral Wetlands Team which will be a key resource group in the Block B phase. Similar MRC networks in the other Mekong countries will provide important sources of expert advice and input.

6. EXPECTED DATE OF COMPLETION OF PROJECT PREPARATION

20. The PDF Block B phase is scheduled to begin September 1997, to run for 12 months with submission of the Full GEF Project Brief in October 1998.

7. CURRENT RELATED ACTIVITIES

21. The proposed project will fit within a web of current and planned natural resource management and conservation initiatives within the Mekong countries. Annex 6 sets out the current related activities of the Mekong River Commission and of other organisations with wetlands projects in the region.

22. The MRC has a long standing wetlands management programme in its four member countries and is a principle regional partner in this project. Basin development planning has always been accorded priority within the programme of Mekong cooperation. In 1995, a technical

Sub-Committee was established to assist in monitoring and formulation of a "Basin Development Plan" (BDP), a general planning tool to identify and set priorities for basin wide programmes and projects for sustainable development of Mekong River Basin resources. **The GEF project will work with the MRC to support integration of environment and wetland biodiversity concerns into the BDP.**

23. Other international organisations with wetlands activities in the Mekong Basin include the Asian Development Bank, the World Bank, UNEP, WWF, IUCN, WI, ASEAN, FAO and a range of environmental and community development NGOs.

24. While much work is being undertaken in the basin related to maintaining environment conditions of the Mekong River Basin area, it is only going part way in addressing the needs. **For example, the gaps that the GEF project intends to address, include:**

- **the lack of an agreed regional strategic framework of policies and actions which guide and shape investment decisions affecting wetland biodiversity resources;**
- **lack of support to governments in defining national wetland policies affecting actions across all sectors;**
- **limited understanding of the nature and extent of wetland biodiversity sites of international importance, their uses and economic values;**
- **the lack of a representative system of protected areas;**
- **limited tools and skills needed to understand the transboundary implications of development proposals and how to mitigate negative affects; and,**
- **limited experience in collaborative management approaches and limited sharing of lessons.**

25. **The proposed GEF project will be the only one taking a regional wetland biodiversity conservation approach, and will be the only one with a major objective of sharing wetland information, expertise and lessons among the Basin countries.**

8. NATIONAL LEVEL SUPPORT

26. All of the riparian states have adopted various forms of national environment and sustainable development strategies which give priority to biodiversity conservation and its uses. A number have developed national wetlands action plans. **These national level initiatives are detailed in Annex 7.** Support is now needed to implement high priority strategies and activities.

9. ORIGIN OF PROJECT AND CONSULTATIVE PROCESS

7. The GEF project builds on and is expected to implement priority actions identified in the national Biodiversity Action Plans, national wetlands plans and other related national environment strategies of the Mekong countries and the emerging Basin Development Plan. **These are described in detail in Annexes, 6, 7 and 8.** The preparation of the PDF block B proposal was funded by the Regional Bureau for Asia/Pacific, UNDP as part of its long standing support to MRC and its predecessor organisation, over the past 38 years. The preparatory work carried out by IUCN and Wetlands International involved detailed consultations and workshops with the riparian countries, including China, and the MRC Secretariat from August 1996 to August 1997. The proposal has been subjected to peer review within IUCN and WI.

28. Insofar as GEF inter-agency collaboration is concerned, both the Bank and UNEP participated in the MRC Basin Development Plan meeting of April 1996 funded by UNDP. Consultations in the context of the BDP meeting in Thailand determined a two pronged programme approach to GEF intervention in the Mekong. Building on UNEP's Diagnostic Study, the World Bank and UNDP agreed to work in two key areas - the Bank on issues of Water Quality and Quantity and UNDP on Wetlands Management and Sustainable Utilisation. This proposal has been in the UNDP/GEF pipeline for the last three years and, in this context, has been discussed with the GEF Secretariat, the World Bank and UNEP.

10. JUSTIFICATION FOR PDF B GRANT

29. The PDF Block B Grant is necessary for carrying out project design activities which are crucial to the success of project implementation and which could not be done within the budget available for the preliminary work done to date. These include, *inter alia*: initial participatory rapid appraisal/feasibility studies with stakeholders at the potential wetland biodiversity co-management sites to confirm their biodiversity values and to determine their suitability for implementation of a co-management regime and ICAD type activities; carrying out capability and training needs assessments of relevant environmental, planning and sectoral agencies which will become stakeholders and beneficiaries in the project; identifying and assessing training opportunities in the region and building them into the project design; and identifying relevant regional co-ordination bodies and working with them to determine how the project will work with them to enhance wetland biodiversity conservation in the region.

11. GLOBAL BENEFITS OF GEF PROJECT

• **Annex 1 and 2 describe the global significance of the biodiversity of the Mekong River Basin wetlands.**

31. **International conservation agreements:** The GEF project seeks to assist riparian States implement the substantive provisions of the Convention on Biodiversity, particularly Article 5 (Cooperation); Article 7 (identification and monitoring); Article 8 (in situ conservation);

Article 10 (sustainable use of biodiversity); Article 11 (incentive measures); Article 12 (research and training); and, Article 13 (education and awareness).

32. Governments will be assisted in implementing other international conservation conventions through the project, including the Convention on Wetlands of International Importance (Ramsar Convention), particularly its provisions relating to sustainable use of wetland resources, the wise management of internationally important wetland sites, and the formulation of national wetlands strategies; the Convention on Trade in Endangered Species (CITES), particularly through better understanding the extent of trade in endangered species associated with internationally important wetland sites and by facilitating international cooperation in its control; and the World Heritage Convention, where it applies to existing or potential wetland sites of world heritage status.

COP/Ramsar Guidance

33. The proposed project directly addresses all thirteen of the programme priorities defined in "Policy, Strategy, Programme Priorities" guidelines provided by the Conference of the Parties to the Biodiversity Convention. In particular, the project will: strengthen conservation management and sustainable use of ecosystems and habitats; strengthen the involvement of local communities through innovative measures including economic incentives; and, strengthen capacity to prepare and implement national strategies for integrated and co-ordinated efforts to conserve biological diversity and wetland ecosystems. Similarly, the proposed project directly feeds into RAMSAR priorities and the plan of action for wetlands conservation and its wise use.

34. In summary, the GEF project will provide a range of global benefits, including:

- a) reduced risk of global biodiversity loss;
- b) enhanced protection of biodiversity rich systems;
- c) increased sustainability in the use of wetland biodiversity resources; and
- d) enhanced regional and global cooperation on wetland biodiversity conservation, particularly concerning sites of international importance.

35. These benefits will be achieved through:

- a modified development agenda for countries of the region which better integrates the values and benefits of wetland biodiversity conservation into investment plans,
- a regional approach to wetland biodiversity conservation expressed through a comprehensive regional strategy and action plan,
- modified development strategies of the key international organisations operating in the region to better reflect wetland biodiversity conservation values
- increased awareness of wetland biodiversity values among a range of entities, including: regional co-ordination bodies such as the MRC; national planning, environmental and sectoral agencies; and local government agencies and communities in the demonstration sites;
- development, in identified high wetland biodiversity value areas, of a range of models for co-management of wetland biodiversity resources that can be applied throughout the region and elsewhere;
- increased human and institutional capability for taking wetland biodiversity values into account among regional, national and local bodies; and,
- establishment of a regional network of individuals and agencies with expertise in, and awareness of, wetland biodiversity conservation from a variety of perspectives; this will be achieved in a variety of ways, including building on the IUCN/WI network of individuals working on wetland conservation in Asia; in addition it will strengthen practical working links between government agencies, programmes, NGOs and regional bodies.

12. ELIGIBILITY CRITERIA

International agreements

36. Five of the six Mekong River Basin countries have ratified the Biodiversity Convention and Thailand is in the process of doing so. Two of the riparian states (Vietnam and China) have ratified the Ramsar Convention and all others except Myanmar are in the process of joining.

| Country | Ramsar | Biodiversity |
|----------|----------------|-------------------------|
| China | March 1992 | January 1992 |
| Myanmar | | November 1994 |
| Laos | in process | November 1995 |
| Cambodia | in process | February 1995 |
| Thailand | in process | in process ³ |
| Vietnam | September 1988 | November 1994 |

³ Because Thailand has not yet become a party to the Biodiversity Convention, financing for Thailand's participation in the program will to be found from sources outside the GEF, such as bilateral donors.

GEF operational strategy

17. The project adopts the framework of priority strategies and principles delineated by the Biodiversity Convention and GEF Operational Strategy, particularly: the importance of promoting regional cooperation among states; the need to integrate sustainable use with biodiversity conservation; the need to promote the protection of ecosystems, natural habitats and maintenance of viable populations of species in natural surroundings; the need to integrate consideration of the conservation and sustainable use of biological resources into national decision-making; and the need to promote international/regional scientific cooperation in the fields of conservation and sustainable use of biodiversity.

38. **The project fits into the GEF operational window - "Coastal, Marine and Freshwater Ecosystems" and its identified priority in the Mekong region.**

39.

BUDGET FOR PDF BLOCK B PHASE (US\$)

| ITEM | PDF GRANT | CO-FINANCING | TOTAL |
|---|----------------|----------------|----------------|
| Activity | | | |
| 1. Inception Workshop | 29,000 | 9,000 | 38,000 |
| 2. Appraisal of candidate demonstration sites | 32,000 | 9,000 | 41,000 |
| 3. Problem analysis for demonstration sites | 46,000 | 13,000 | 39,000 |
| 4. Determination of socio-economic values/stakeholder consultations/plans | 26,000 | 14,000 | 60,000 |
| 5. Development of indicative management frameworks at sites | 37,000 | 5,000 | 31,000 |
| 6. Establishment of coordinating and consultative mechanisms | 26,000 | 10,000 | 47,000 |
| 7. Wetland management training needs assessment | 13,000 | 3,000 | 16,000 |
| 8. Incremental cost analysis | 16,000 | 6,000 | 22,000 |
| 9. Definition of information systems, and networking components | 12,000 | 3,000 | 15,000 |
| 10. Development of Full GEF Project Brief | 35,000 | 11,000 | 46,000 |
| 11. Regional workshop to finalise GEF Project Brief | 29,000 | 8,000 | 37,000 |
| 12. Project support services | 31,600 | 9,000 | 40,600 |
| 13. Contingency | 15,000 | 5,000 | 20,000 |
| Total | 347,600 | 105,000 | 452,600 |

ANNEXES

1. **Global Significance of the Mekong River Basin Wetlands**
2. **Candidate demonstration sites and their biological diversity**
3. **Human Benefits and Threats to Mekong Wetlands**
4. **Why Take a Regional Approach?**
5. **Framework for the Proposed GEF Project**
6. **Current Related Activities in the Mekong River Basin**
7. **National Level Support**
8. **Origin of the Proposal and GEF inter-agency collaboration**
9. **Mekong River Basin Map**

LETTERS OF ENDORSEMENT

1. **Cambodia**
2. **Lao PDR**
3. **Vietnam**
4. **Thailand**
5. **Mekong River Commission**

ANNEX 1: GLOBAL SIGNIFICANCE OF THE MEKONG RIVER BASIN WETLANDS

Wetland biodiversity resources of international importance

1. The Mekong River Basin has a very rich biodiversity. Yet many of the rare and endemic wildlife species which once were widespread over vast areas of particular habitats are now restricted to minor and isolated patches as a result of human pressures such as habitat conversion and hunting.
2. The recorded endemic plant species in the Mekong Basin countries exceed 30,000 and these are linked in a rich tapestry of habitat types which support high endemism and species diversity. Yunnan Province has the largest variety of flora in China and some very rare and primitive fauna. Myanmar has a diverse flora and fauna ranging from Himalayan species to those which occur on the Malay Peninsula.
3. Laos, Cambodia and Vietnam have rich flora and fauna, with particularly diverse associations of aquatic vegetation in different wetlands and flooded forests. Flooded forests extend from southern Laos to Vietnam, but have their greatest extent around Tonle Sap in Cambodia. In Vietnam the mangrove and Melaleuca habitats are particularly productive and diverse. In Yunnan the many altitudinal zones lead to a wide range of riparian and aquatic habitats from the alpine mountain gorges where the river leaves the Qinghai-Tibet Plateau in the north to the tropical "delta" country where the river valley widens on entering the lowlands of the Xishuangbanna Autonomous Region in the south. The biodiversity of these Chinese habitats has been little studied, apart from very limited surveys of waterbirds.
4. The lower Mekong supports one of the world's largest inland fisheries as well as having a highly diverse fauna in fish, mollusc, amphibian and reptile groups. Over 800 species of freshwater fish are known from Cambodia alone. The dry season fish fauna is dominated by species of Carp (Cyprinidae) - 54%; Catfish (Siluridae), Clariidae, Schilberidae, Bagridae, Sisoridae and Akysidae - 19%; and Channidae - 8%. The remaining 19 percent consists of featherbacks (Notopteridae), herring (Clupeidae), climbing perch and gouramis (Anabantidae) and other miscellaneous groups. There is a high level of endemism in different parts of the system, though at this stage the fish faunas of most tributaries between northern Cambodia and the Yunnan/Tibet border have not been surveyed.
5. At least 185 species of waterbirds have been recorded in the Basin. They include high altitude species such as the Ibisbill that breeds only in the mountainous regions of China; forest river/stream specialists like the White-winged Duck, Malayan Night Heron, Wood Snipe and Giant Ibis; shallow and open water feeding grebes, ducks, and cormorants; and specialists of the wet muddy edges of rivers and marshes such as shorebirds and herons.
6. In Yunnan 116 species of waterbirds have been recorded (44.5% of the total for the whole of China). Of these, eight species have not been recorded from elsewhere in the country. While the lack of surveys does not allow an accurate assessment of how many of these 116 waterbird species depend on the Mekong Basin wetlands, on the basis of the great length of the river in that province and the diversity of habitats represented in the range of altitudinal zones, lakes and swamps, it seems likely that the majority of these species would be found in Mekong wetlands in Yunnan.
7. The Basin as a whole is important to a large number of restricted range waterbird species, many of which are threatened or critically endangered. At least five species of large waterbirds depend for their survival on conservation measures which need to be taken within the Basin, while 24 species have a substantial part of their world population in the region. To some extent the full significance of the avian biodiversity of Mekong Basin wetlands is not yet known. Previously unknown populations of threatened and endangered waterbirds are being regularly discovered associated with Mekong tributaries and their wetlands. Examples include White-winged Duck on the Nam Theun in Khammouane Province of Laos and Giant Ibis and White-shouldered Ibis on the Xe Kong wetlands in Attapeu Province, all of these populations were first found in the last three years. Conservation actions in the countries of the Lower Mekong Basin are particularly important because of the large tracts of intact wetland habitats which remain within their borders.

Proposal for a Block B Grant

8. Wetland mammals are a significant part of the biodiversity of the Basin, including the smooth-coated otter, the fishing cat, and three species of dolphin - the Irrawaddy dolphin (the only species known to occur upstream of the Khone Falls on the Lao/Cambodian border), the Chinese white dolphin, and the black finless porpoise. Other aquatic vertebrates found in wetlands of the Mekong Basin include: Siamese crocodiles (thought to be near extinct until the discovery of numerous populations in Laos and Cambodia); a range of tortoise and turtle species, including several soft-shelled turtles; freshwater snakes; and a wide range of amphibians. At least two species of freshwater stingrays are known from the Mekong and its tributaries.

9. A range of terrestrial animals such as tiger, elephant, gaur, kouprey, and wild dog, are dependent on Mekong Basin wetlands, particularly during the dry season.

10. Most wetland species have economic value for local communities and some play a significant part in local economies. Most markets in the Mekong Basin will have some wetland species for sale. Some species, such as the Malayan snail-eating turtle *Malayemys subtrijuga*, are an important source of income and are traded across national borders.

ANNEX 2: CANDIDATE DEMONSTRATION WETLAND AREAS AND THEIR BIOLOGICAL DIVERSITY

1. There are many sites of international wetland biodiversity significance in the Mekong Basin. In Yunnan, Laos, Cambodia, Vietnam and Thailand, IUCN and WI, in full consultation with national institutions and experts, have identified more than 20 sites which are of special significance. Some of these wetland sites are in the process of being nominated as Ramsar sites.
2. In identifying possible demonstration sites for this project, those sites which are already the focus of other projects have been omitted from this indicative list. Yet, the block B assessment process may find that there are overriding advantages in identifying a site for demonstration which is already the focus of an assistance project, for example, the flooded forests of Tonle Sap in Cambodia, where an incremental GEF component could result in conservation of significant biological diversity.

Site selection criteria

3. The criteria used for identifying potential demonstration sites are sites which:
 - have globally significant wetland biodiversity values;
 - have protected area status or can be managed in a manner which will provide more or less equivalent protection;
 - will enhance the representativeness of a regional protected areas system;
 - are not immediately or significantly threatened by a dam project or other major development;
 - have one or more communities closely involved with the wetland and dependent to some degree on its values and benefits;
 - have potential for achieving biodiversity conservation through co-management initiative;
4. A further important criteria will be added in reviewing the sites during the block B activities i.e., sites which cross national boundaries or whose management has important transnational implications.
5. The following candidate sites are among those which will be investigated during the PDF B activities for their suitability regional demonstration sites. The *Directory of Asian Wetlands* and the more recent national wetlands inventories completed, for example, for Lao PDR, will continue to be key guiding sources in the final site selection.

MEKONG MAINSTREAM: the system linking the demonstration sites

6. The Mekong mainstream will be an important focus of the project as the central natural feature linking the sites in one system. The Mekong mainstream has significant biodiversity values, particularly for the many species of migratory fish, and other animals such as dolphins, turtles, birds, otters and frogs. These biodiversity values are not limited to the water body in the main channel, but extend to the riparian forests and nearby overflow wetlands. In places the mainstream supports elements of non-wetland biodiversity through providing a supply of water to forest animals.
7. The Mekong mainstream directly affects the lives of many people - through such benefits as:
 - food (e.g. fish, turtles, frogs, plants - i.e. biodiversity resources);
 - domestic, agricultural and industrial water supply;
 - travel;
 - income from tourism (e.g. through biodiversity, landscape and cultural values); and,
 - habitat (i.e. sites for homes on banks and floating houses)
8. In addition it is perhaps the most visible part of the Mekong system, because more people have direct contact with it. So the mainstream has considerable potential as an ongoing example of biodiversity conservation in action depending how it is managed.
9. For these reasons the Mekong Mainstream will be a specific focus of the project. It is here where the regional imperative for managing the Mekong wetland biodiversity resources as part of an integrated system are most obvious.

The focus might consist of identification and description of biodiversity values of the mainstream, and then on the basis of these values, development of:

- a system of protected areas along the mainstream;
- a shared database of mainstream biodiversity values which would provide information relevant to wetland management across the region;
- standard approaches among riparian countries to development control and protection of important mainstream biodiversity - particularly as the mainstream is so often the border between countries;
- a programme of awareness raising aimed at both the general public and government agencies with responsibilities affecting the mainstream;
- a register of the types of threats to mainstream biodiversity and ongoing regional efforts to address these developments; common standards of discharge control into the mainstream aimed at protecting biodiversity, but taking into account human, agricultural and industrial needs; and,
- development of an agreed common monitoring programme for mainstream biodiversity.

10. The Block B activities could review current knowledge of mainstream biodiversity values and examine each these activities to determine their feasibility and priority. It is likely that a number of these proposed mainstream activities would provide regional frameworks for outputs of activities at specific wetland sites.

CAMBODIA

11. Almost 90% of the area of Cambodia lies within the Mekong Basin. At least three sites have been identified as suitable for demonstration sites. These will be investigated in the Block B activities:

12. **Bassac Marshes:** South of Phnom Penh the Mekong divides to form the Mekong and the Bassac, the two major channels of the Mekong Delta which extends into Vietnam. Nearly one- third of the delta lies in Cambodia. The Bassac Marshes are an extensive area of seasonally-inundated herbaceous, shrub and savanna swamp lying in the Cambodian portion of the delta, between Bassac and Mekong Rivers in Kandal Province. No studies of groups other than birds have been undertaken in the Marshes in recent times. Even for avifauna, the information is fragmentary. Yet, the recorded presence of 80 black-winged stilts is very close to the criterion for international importance and easily exceeds the staging criterion (25) necessary for the site to qualify as part of the new East Asia/Australasian Shorebird Reserve Network. It is also the highest number counted for any site in Cambodia to date. The extent of the Bassac Marshes suggests that they are likely to be of great importance to waterbirds.

13. Much of the area of the Marshes is inundated for seven months of the year. Fishing is a major activity of the communities there, though they also traditionally practice flood-recession rice and have recently begun to expand areas of dry season rice farming. Waterbird hunting is a significant management problem, though clearing of the remnant forest both for fuel (for local families and for sale outside the wetland area) and to create agricultural land is a more serious problem that may be increasing. Pressures on the area come from a wide region, and currently, there is little or no control over resource use. While the area is relatively close to Phnom Penh, and therefore are ideal for a demonstration site, access for law enforcement is difficult due to the prolonged inundation. Community resource management is the only practicable option for sustainable management. Additional survey work is expected to be carried out in the area in 1997-98 by the UNDP Environmental Technical Assistance Project (ETAP) and this will lay the groundwork for the use of the area as a possible demonstration site.

14. **Prek Toal:** This site comprises extensive areas of flooded forest on the northwestern shores of Tonle Sap Lake, in Battambang Province. The forest is characterised by savanna forest with an almost complete ground cover of *Sesbania javanica* with groups and isolated trees of mainly *Barringtonia* (Freshwater Mangrove). There are some narrow rivers and small, isolated pools of open water.

15. This forest supports internationally important colonies of a number of globally threatened waterbirds. These include a notable breeding colony of Spot-billed Pelicans, which is presently the only known breeding colony in Southeast Asia.

The site also holds one of the most significant populations of breeding Greater Adjutant in the world, as well as the first confirmed breeding site of the White-winged Duck in Cambodia.

16. Prek Toal also supports a small breeding population of Milky Stork (the first confirmed breeding site of this species in Cambodia), as well as the largest known colony of Oriental Darter in Southeast Asia. The same forest sustains notable breeding populations of breeding Lesser Adjutant, Asian Openbill, Black-headed Ibis and Grey-headed Fish Eagle, as well as Painted Stork and Glossy Ibis.

17. The site may also support wild populations of the highly endangered Siamese Crocodile, as well as a number of freshwater turtle species. The forest also forms the breeding area for a number of sedentary and migratory fish species, many of which are of high economic value. The flooded forest and its waterbird colonies are presently under consideration as a national park by the Ministry of the Environment as the pre-eminent freshwater wetland in the country.

18. **Boeng Chhma and Moat Khla:** This site is located on the central, eastern shore of Tonle Sap. Boeng Chhma is an extensive, seasonally flooded waterbody covering 4,000 ha. Immediately to the Northwest, a maze of creeks and channels runs parallel to the shoreline of the main lake through the flooded forest. During the dry season these wetlands are no deeper than two metres, however during the floods the water level is reported to rise at least 4-5 metres.

19. Colonies of Greater Adjutant and Black-headed Ibis are reported to be present close to the fishing village of Moat Khla, while the site may represent the most important breeding area for the highly endangered White-winged Duck. Boeng Chhma is predominantly a feeding area for waterbirds during the dry season. The site is being nominated as one of the country's first Ramsar sites.

LAO PDR

20. A large number of important wetlands is found in Laos, particularly in the south. These are rich in biodiversity and also play important roles in the lives and economies of local communities.

21. **Xe Kong Plains:** A complex of wetlands (rivers, freshwater marsh, freshwater lake, freshwater pond) in the plains north of the Xe Kong, with the Xe Pian as the northern boundary. The 350 square kilometre area containing the wetlands extends across the border between Champasack and Attapeu Provinces. Many small ponds and marshes occur in the dry dipterocarp forest on the plains, and these, taken together with the channels, pools, meanders and adjacent wetlands of the major rivers, form an extensive and relatively pristine lowland riverine ecosystem. This is extremely rare in Southeast Asia where population pressures and development have severely degraded most similar areas.

22. Important species recorded in association with the wetlands include: Giant Ibis (not recorded for 20 years before it was sighted here in early 1993); White-shouldered Ibis (recorded in the recent past only from one marsh in southern Vietnam and from one river in Borneo); Lesser Adjutant; Woolly-necked Stork; Sarus Crane; Lesser Fish-Eagle; Gray-headed Fish-Eagle; Green Peafowl; Masked Finfoot; Gaur (likely to depend on wetlands for dry season water); Dhole (recorded near river and likely to depend on dry season water); otter. Siamese Crocodile populations are likely to occur in the area.

23. Pools on the margins of rivers and in some seasonal wetlands are used for agriculture, buffalo grazing, and for mammal and waterbird hunting. Otters are hunted using wicker traps and there is opportunistic hunting of tortoises and snakes.

24. The western part of the area is within the Xe Pian National Biodiversity Conservation Area, though most of the wetlands in this complex are currently outside the protected area. Alternative or additional sites on a Mekong tributary with endangered fish species will be explored.

THAILAND

25. Despite great development pressure, two natural wetlands in north-eastern Thailand have been identified at this stage as having maintained international wetland biodiversity conservation significance. These are:

26. Beung Kong Long: Beung Kong Long is a wetland Non-Hunting Area of 600 ha located in Seka District, Nong Khai Province, which drains into the Mai Nam Songkhram. The wetland is located 15 km west of the Mekong River. It has extended northwards since 1982 when a dam and sluice were built at its southern extremity. The area is characterised by innumerable floating and rooted masses of aquatic vegetation, usually formed around fallen trees, tree stumps, and scrub drowned by the rising water level. The wetland supports an important local fishery, is a major source of vegetable products and firewood, and the northern periphery serves as a grazing ground for cattle. The wetland has a high conservation value as it supports a substantial population of both resident and migratory waterbirds. The remaining woodland of about 200 ha supports a relict population of forest bird species and has a rich butterfly fauna. The wetland is also rich in aquatic flora and fauna, including a large variety of fish species. The wetland is surrounded by recently settled poor farmers, who have brought the wetland under heavy pressure through activities related to fishing, firewood collection and conversion of forest and other available land.

27. Nong Han Kumphawapi: The Nong Han Kumphawapi, in Udon Thani Province, contains a large freshwater wetland of about 1,000 ha which is encircled by a broad margin of marshland. It is the second largest natural wetland in north-eastern Thailand. The wetland is silting up rapidly as it receives sedimentation from Huai Phai Chan Yai River and a number of other seasonal streams. It is very shallow, not exceeding one metre in depth, and is surrounded by vast reed beds, except for a 500 metre strip, and supports an extremely productive and diverse submerged flora. The wetland also has one of the most diverse resident and migratory bird populations in the region. It is rich in amphibian and fish species and supports some species of small mammals. The wetland is of high value to the local people for agriculture, grazing, fishing, and collecting aquatic plants, invertebrates, amphibians, and small mammals. This has also been an important site for livestock grazing and firewood collecting. The site is threatened by the plans to transfer a substantial volume of water from the Mekong River to the Chi and Mun Rivers. The intensification of agriculture also poses a threat to the wetland ecosystem.

VIETNAM

28. Consultation with relevant government agencies and experts in Vietnam, particularly from the National Mekong Committee, has produced the following list of potential demonstration sites. The most suitable site will be identified as a part of the Block B program development activities. The potentially suitable sites include:

29. The Tram Chim National Wetlands Reserve Buffer Zone/ Plain of Reeds (Dong Thap and Long An Provinces): Tram Chim National Reserve (Dong Thap) covers 7668 ha and is representative of the ecosystem which originally covered the Plain - seasonally flooding Melaleuca forest and grassland. Outside the Reserve, uncultivated wetlands are being rapidly converted to rice agriculture. Melaleuca covers 32,000 ha in the plain (mostly in Long An). The grasslands, perhaps more important as a biodiversity resource, are less known. The Plain of Reeds is a distinctive ecosystem type and justify priority attention to ensure effective conservation of remnants. Species of note include the grassland and waterbirds, especially E. Sarus Crane and Bengal Florican. The presence of many bird species most likely depends on interchange with other sites, some in Cambodia. The Reserve is threatened by fire (often intentionally started by locals) and poaching. Continuous hydrological management is needed together with community development activities in the buffer zone to ensure the survival of the Reserve.

30. Melaleuca Wetland Forest Areas in U Minh, Ca Mau Peninsula (Kien Giang and Minh Hai Provinces): This area includes two important peatland remnants: U Minh Thuong and U Minh Ha, each encompassing a protected area of forest and grassland (U.M Thuong and Vo Doi, respectively). In between is an extensive area of Melaleuca State farms. U Minh includes the oldest forest stands in the Mekong Delta, including the last mixed peat swamp forest in Vietnam. The condition of the mixed forest is not documented and it's survival must be in question. Important waterbird colonies are present but for rare species confirmation in required. The threats to these important habitats are similar to those found in the Plain of Reeds. For unprotected areas, conversion to aquaculture as well as agriculture may be a threat. Fire spreads rapidly through the peat.

31. Other sites will be explored for their suitability as demonstration areas within the **Mekong Estuary Wetlands.**

ANNEX 3: HUMAN BENEFITS AND THREATS TO MEKONG WETLANDS

1. The Mekong and its tributaries and associated wetlands support millions of people with food, water, aquatic products, and timber and non-timber forest products from its riparian and flooded forests, as well as providing an efficient means of transport. In Vietnam alone, 32 million people depend on the river for food. In 1991, the Mekong delta contained 34% of that country's farmland and provided 40% of its agricultural output.
2. Throughout lowland Laos and Cambodia and the Vietnamese part of the Basin, wetland products, particularly fish (but including stingrays, frogs, turtles, shrimp, molluscs, water beetles and other insects) are key sources of dietary protein for a large proportion of the population. These items generally form a significant component of protein intake for most of the remainder of the population. In many lowland communities wetland products are eaten at every meal. Even in the upper parts of the Mekong tributaries, wetland products are often important in the local economy.
3. Apart from their direct contribution to protein intake, wetland products - both animal and plant - play a key role in generating cash income for the purchase of rice in years when the rice crops fail due to floods and droughts. In Laos and Cambodia rice crops are lost or severely reduced on average between one year in four and one year in eight, depending on the location.
4. The Basin's wetlands assist in sediment, nutrient and toxicant retention. They also assist in flood control by retaining excess water in the high rainfall season, and in regulating the release of stored water during the dry season. Some seasonally flooded wetlands provide significant biomass export into the main river system, partly through their role as the breeding and nursery site for a significant proportion of the Basin's fish stocks.
5. In Vietnam the clearing of wetlands and bordering forests for agriculture has been found to be a major contributing factor in the fluctuation of rice production from year to year.

Destruction of habitat

6. The MRC Diagnostic Study reported that the countries of the Basin are experiencing severe environmental degradation. The Study identified the main environmental issues of the Greater Mekong Sub-region as including: deforestation; soil loss and sedimentation; water pollution; habitat destruction and encroachment; climate change; loss of biodiversity; accumulation of hazardous wastes; and threats to public health. The degradation of wetland biodiversity is most serious in Thailand and Vietnam but trends in all six countries show potential for very rapid deterioration in wetland systems.
7. Habitat loss leads to extinction of wildlife species. Wholesale wetland drainage and conversion to agricultural land is the most significant threat. Without the maintenance of adequate areas of the various habitat types within the Basin, populations of locally extinct species cannot be re-established.

Hunting

8. Particularly in Laos and Cambodia, where hunting by the rural population is a ubiquitous and constant activity, but also in the other riparian countries, many wetland wildlife species are being rapidly reduced by hunting pressure. In general this is done to supplement food supplies, and for this reason (among others mentioned elsewhere in this proposal) local authorities are reluctant to impose strict controls on hunting. The result of this constant hunting pressure is that many wetland species, particularly waterbirds, are now found only in remote and less densely settled wetland areas.

Increasing development pressure

9. There is spreading overuse of wetland resources as improved roads and developing markets (through population increases and establishment of infrastructure project towns) provide opportunities for increased short-term returns on these products. Traditional resource management regimes are breaking down under these pressures. Already a number of previously abundant fish species are close to extinction as a result of over harvesting. These include: *Pangasianodon gigas* (the Mekong Giant Catfish); *Pangasius sanitwongsei*; and *Probarbus jullieni*.

10. The MRC study found that development throughout the Basin is rapidly increasing. In the next decade, several dams, irrigation systems, land reclamation, agriculture, forestry, infrastructure and industrial projects will be implemented. These activities will have localised as well as transboundary effects on the wetlands and biodiversity resources - the implications for biodiversity are global.

Capacity lacking to manage wetland resources

11. Management of the natural resource base on the principles of sustainable development has not been possible due to: a lack of knowledge of the ecology of many of the resources affected; a lack of appropriate models; too few adequately trained staff; inadequate legislation and regulations; and a need for greater enforcement capability. Generally low levels of development, low income levels and poverty in the region have resulted in heavy exploitation of wetlands for food and income. Local communities remain uninformed and unsupported in shifting to sustainable use patterns appropriate to the changing economic circumstances.

12. All countries show weakness in integrated natural resource planning and management, in environmental assessment of major projects, and lack effective models of wetland biodiversity use which take into account current and future population and development pressures.

Poor information base

13. Biological information base

The biodiversity of aquatic habitats is virtually unstudied away from the main Mekong channel, and even there studies have been intermittent and uncoordinated, confined largely to the economically significant fish species. In fact, even in the main Mekong channel new fish species have been discovered in the past three years. These recent discoveries are not of small or insignificant species - some grow to several tens of kilograms, emphasising how far we are from even an understanding of the populations that occur in this habitat. Knowledge of community dynamics, essential for long-term sustainable management, is virtually nil at present, and even the understanding of the life-cycles of important commercial fish species such as the Giant Mekong Catfish is inadequate.

14. The Mekong environment is simply very poorly known. A wide variety of flora and fauna is still undocumented. For example, up to 20% of all fish species in the Mekong system may not have been identified scientifically. The situation is probably not significantly better for reptiles, amphibians, molluscs and crustaceans.

15. The wetlands of the Mekong Basin support a large variety of threatened and endangered birds, for example, the Giant Ibis, Sarus Crane and Greater Adjutant. Yet their habitats are not well identified.

16. In addition to specialised inventories, communities within the demonstration areas will be involved in the identification of species, their habitats and life-cycles. This will not only make an important contribution to the knowledge base for biodiversity conservation and sustainable use, it will also help to increase the recognition among government agencies of the capability of local communities to manage biodiversity resources.

Biophysical information base

17. The Mekong passes through a wide variety of biophysical environments determined primarily by differences in latitude and topography. For example, there is a large variation in annual precipitation, ranging from 250 mm/year near the headwaters to over 4,000 mm/year in southern Laos. Also within the lower Basin there are substantial differences in surface runoff. These biophysical and hydrological environments are not well understood. The PDF B activities will examine how the project can make a useful contribution to these important fields.

Socio-economic and resource management information base

18. Very little information is available about the socio-economic relationships between communities in the Basin and wetland resources. Such aspects as levels of dependence, harvest practices, perceptions and attitudes towards conservation, and willingness to modify behaviour or pursue other income generating activities are virtually unknown.

19. Statistics on capture fisheries are either completely lacking or of suspect quality. The role of aquatic resources (apart from some fish products from the Mekong main stream) in family, local and regional economies has not been studied. Even the importance of aquatic protein in rural diets has not been quantified anywhere in the region. Statistics that are quoted for some countries have no basis in scientific studies of household consumption, and in any case completely ignore aquatic protein sources other than fish.

20. Similarly, traditional wetland resource management regimes are virtually undocumented and no attempt has been made to determine their relevance to present day situations. The communities themselves are sometimes adapting these regimes to observed changes, though this is generally piecemeal and lacking in any holistic overview of the sustainability of the situation. Once documented and assessed, these emerging management controls, together with the surviving elements of traditional regimes, have the potential to form a basis for sustainable wetland biodiversity management.

The urgency for action: why the GEF project should be a high priority

21. After decades of war and political tensions in which economic development in the greater part of the Mekong River Basin was inhibited, the floodgates are opening and billions of dollars of investments are in progress or planned, urged on by the multi-lateral banks and international companies. The Asian Development Bank's program director, Noritada Morita, recently described the economic growth potential of the six Mekong countries as "an aeroplane taking off with six powerful engines".

22. The proposed hydropower schemes alone would totally transform the Mekong environment. More than 200 possible dam sites have been identified for tributaries of the Mekong, mainly flowing from the highlands of Laos, Cambodia and Vietnam. Since 1993, Laos alone has reached some 20 agreements with international companies to build hydropower dams on almost all major rivers in the country, mainly for generating electricity to export to Thailand. Currently, more than 50 dam projects are mooted for the country, many located adjacent to, or within, established protected areas.

23. Also, since the 1970s, plans for the construction of a series of dams on the Mekong mainstream have been debated. As this is the largest river in Southeast Asia and one of the largest in the world, these proposals are of global significance for biodiversity conservation. A 1994 "Mekong cascade" plan envisages 11 mainstream dams with reservoirs requiring the displacement of 60,000 people.

24. In addition, large scale developments are planned or under way in the fields of forestry, agro-business and tourism. All of these have the potential to impact wetland biodiversity, directly or indirectly. Of special relevance to this proposed project, multilateral approaches to integrating environmental considerations into major development proposals from the earliest stages, including joint environmental assessment exercises involving all affected states, are lacking. An encouraging initiative in this respect is the regional approach to environmental impact assessment procedures now being prepared at the MRC.

25. At the same time, as mentioned elsewhere in this proposal, many rural communities are reacting to expanding markets and improved access to markets by dramatically increasing the level of exploitation of wetland biodiversity resources. Anecdotal evidence strongly suggests that this increased pressure is already at unsustainable levels in some locations.

ANNEX 4: WHY TAKE A REGIONAL APPROACH?

1. The development and environmental challenges confronting the Mekong River Basin will be solved only through a cooperative regional approach involving all the riparian States. Many of the existing threats to biodiversity resources of the river system stem from individual States acting alone without appreciating the cumulative and system wide impacts. The GEF project will take a regional approach because:
2. *The Mekong River is one highly integrated natural system:* The Mekong River, including its tributaries and associated wetlands, essentially function as one highly integrated natural system. Altering one component can have direct effects on many others.
3. *Development actions of one riparian State impacts directly on its neighbours:* Because so little is known about the ecology of this dynamic system, development at any point within it may be found at some future time to have had unexpected and unwanted impacts on the sustainability of the Basin's biodiversity resources overall.
4. *The living resources of the system are shared and, to be sustained, need to be managed cooperatively:* Apart from the more obvious sharing of water and soil resources among the Mekong's riparian countries, the movement of animals and plants via the river system ensures a sharing of its species and genetic biodiversity. Unless management of wetland biodiversity resources is tackled on a regional scale, initiatives in one country are liable to be rendered ineffective by continuing unsustainable practices in another. Such unsustainable practices embrace a very wide range of activities, including: unsustainable fish harvesting techniques; changes to the water regime through power generation, irrigation, water supply, and flood control; deforestation and resultant changes in run-off and increased sedimentation; and water pollution from industry, agriculture and domestic wastes. With the rapid rates of development in all the riparian countries these activities might occur anywhere in the Basin.
5. Almost any resource use within the Mekong system can have transboundary implications, Fish stocks, for example, are generally migratory, and much of the fish stock in the Basin is shared among two or more countries. Though the exact details of the life cycles of most species are unknown the movement of fish through the Khone Falls on the Lao-Cambodian border provides an example of the size of the migrations. During one of the breeding migrations in the wet season of mid-1993, two of the many wing fish traps in one channel of the Falls caught 4,000 kg of fish in just two weeks.
6. In addition, in the Mekong system a significant proportion of the fish stocks migrate laterally out of the main channels into seasonally flooded areas to breed. These areas then function as nursery grounds for the next generation, which migrates back to the main channels as flood waters recede.
7. Conversely, another significant proportion of the Mekong fish populations undertakes "vertical" migrations up and down the main channels. Dams which prevent this migration will potentially have an impact on upstream fisheries. This is one more example of the interconnectedness which makes a regional wetland biodiversity conservation approach the only viable option for ensuring the maintenance of global biodiversity values in the Mekong system.
8. *Flood mitigation and water management anywhere in the system can effect productivity throughout:* The construction of dams well illustrates the interdependency among neighbouring countries. Dams change the downstream flow regime, and lowering of flood heights is one of the most common results of dam construction and operation. This might be seen as a welcome flood mitigation effect. However it has the potential to impact significantly on agriculture and fisheries. The annual floods not only recharge the soil for agriculture with fresh deposits of sediment, they also form the basis of the flood-recession rice culture practised in parts of the Basin. Preventing floods will impact on both of these benefits to agriculture. Also, preventing flooding by constructing dams will be likely to have a significant impact on downstream fish stocks and on the nutritional health and lifestyles of the populations which depend on them.
9. *Limited wetland management skills and resources need to be shared:* The benefits of a regional approach to sharing resources and skills for management of wetland biodiversity resources will become increasingly apparent to the Mekong countries as these resources become scarcer as a result of piecemeal development. Collaborative action in addressing shared

problems will lead to optimal use and conservation of resources. A regional GEF project will encourage exchange of experience and methods and greater consultation in matters affecting wetland biodiversity, and will lead to a fuller appreciation of the mutual benefits in managing the Mekong as one natural system.

10. *Common policy positions for the management of the shared resources are required:* National strategies for wetland conservation need to be based on mutually agreed principles of wise use defined with neighbouring States. To be effective, these principles and approaches must evolve collaboratively through joint field testing and demonstration. They would be based on enhanced shared information and understanding of the way the river works, its limits and sensitivities. To have greatest effect, these common policy positions and approaches need to be embraced by the Mekong States in a regional agreement.

11. *Regional cooperation on the wise use of wetland biodiversity resources will lead to greater economic benefits for all Mekong countries:* Underlying all other imperatives requiring a regional approach to the conservation of the Mekong's biodiversity resources are the shared economic benefits to be gained. These benefits can be expressed, for example, in terms of sustained harvesting of living resources at optimal levels; greater equity in access and use of resources among Mekong communities; and, more decisive development actions because regional agreement is based on a more complete appreciation of the options and their long term impacts.

ANNEX 5 FRAMEWORK FOR PROPOSED GEF PROJECT

THE PROPOSED MEKONG RIVER BASIN WETLAND BIODIVERSITY CONSERVATION AND SUSTAINABLE USE PROGRAMME

Scope

1. The GEF project will take a regional approach, based on the Mekong River Basin as one integrated natural, economic and political system. The project is to nurture the view of the Basin as a regional economic area with shared resources which need to be managed strategically through regional measures as well as linked activities in each of the Basin countries. The emphasis will be on developing regional and national capability and approaches from the community level through to regional institutions, culminating in the adoption of a major regional agreement on wetlands. There will be on the ground management of priority wetland sites demonstrating effective participatory conservation and management methodologies and wise use of wetland resources.

Approach

2. National capacity building and policy development: A significant proportion of the country-level activities will focus on strengthening national and regional capability in wetland management and wise use. In particular, the project will reinforce existing initiatives to prepare national wetland strategies and their linkage to regional policy. Special attention will be given to providing practical experience in environmental and economic cost - benefit analysis and natural resource accounting techniques; participatory appraisal and community resource management analysis; simplified sustainability indicators development and use; and GIS - bases models to estimate the economic and environmental costs and benefits of large-scale infrastructure development. All this work will focus on the project demonstration areas and other significant wetlands of the Mekong River Basin, particularly those which cross national boundaries. It would also be closely linked with the MRC's proposed basin-wide modelling activities.
3. Project design will avoid duplication of, and overlap with, existing and planned development assistance initiatives and GEF activities - complementary and collaborative activities will be emphasised.
4. *Regional policy, exchange and coordination:* The project's capacity building and institutional strengthening activities at regional level will revolve around and feed the preparation of a regional wetlands strategy and action plan. The strategy would be developed by the governments of the region and linked to the national environment and wetlands policy frameworks in each country.
5. Joint technical exercises and exchanges will involve national teams in a range of site specific integrated planning; transboundary environmental assessment (building on the ongoing MRC work on ELA procedures); wetland biodiversity inventory; study tours of demonstration sites; and specific training events on innovative wetland management approaches. These activities would build on the existing national wetland teams established during 1990-96 in the four lower basin countries through the MRC's wetlands programme. The project would have a supportive role in strengthening on-going efforts to enhance skills in the assessment of potential cumulative and transboundary affects of development projects on significant wetland biodiversity areas, including the demonstration sites. The training exercises would result in a tool kit of practical methods and information for wetland management.
6. The regional activities will also contribute to ensuring wetland biodiversity conservation perspectives to the development strategy formulation processes of regional bodies such as the Mekong River Commission, the Asian Development Bank and the World Bank.
7. The project will build on the existing IUCN/WI network of wetland and biodiversity specialists working on the Mekong River Basin, and provide a wetland information clearing house service. This function would include information gathering and analysis through collation of available surveys, field studies and inventories on biological, biophysical and socio-economic parameters of wetlands.

8. This latter function will contribute to a regional review of wetlands within protected areas in the Mekong Basin which will examine issues of completeness of coverage, representativeness, viability, and provision for sustainable wetland resource use within protected areas. The review component will make recommendations to Basin countries in relation to wetland protected areas.
9. Each of these regional activities will contribute to the formulation of the regional wetlands agreement; transboundary environmental impact assessment pollution control; regional planning and development; wetland and protected area management; and the definition and monitoring of critical and fragile habitats.
10. **Demonstration activities:** The project activities will include the development of model collaborative management regime(s) in selected demonstration site(s) which will be wetland complexes having internationally significant biodiversity values. The initial list of wetland complexes which will be investigated during Block B activities are described in Annex 2, together with the criteria for their selection. These sites have been identified through the PDR block B processes and in consultation with staff of basin country agencies. They are drawn from priority sites identified in Biodiversity Action Plans, national wetland plans and inventories, and the Directory of Asian Wetlands. Emphasis will be given to "transboundary" sites, and on bilateral cooperation in their management.
11. The Mekong mainstream will be an important focus of the project. As the linking system in the Mekong catchment, the mainstream has fundamental significance for the ecology of the whole region. Its conservation is therefore crucial to biodiversity conservation in the catchment wetlands. The Mekong mainstream has its own separate biodiversity values, particularly for the many species of migratory fish, but also for a range of organisms including dolphins, turtles, birds, otters and frogs. These biodiversity values are not limited to the water body in the main channel, but extend to the riparian forest and nearby overflow wetlands.
12. Part of the demonstration value of the project will lie in the types of arrangement that are evolved between government and communities for conservation and sustainable use. The term "co-management" is used in the sense of a cooperative management regime in which the community and relevant government agencies collaborate to achieve agreed goals. The nature and degree of sharing of responsibilities in the co-management arrangement will depend on the local situation and will evolve through participatory processes supported by the project. In effect, co-management represents a spectrum of levels of community involvement in resource management, with consultation of the community on major issues at one end and delegation of management responsibility to the community at the other.
13. At local level, the project will take an integrated conservation and development (ICAD) approach, linking project-assisted development initiatives strongly with biodiversity conservation commitments by the communities. Emphasis will be placed on the way the shared responsibility for resource management and implementation of relevant biodiversity-related development can make a significant contribution to achieving local, national and global biodiversity conservation objectives.
14. An integral component of the demonstration projects will be a significant period of awareness raising among the communities and policy makers of the need for sustainable management and wetland biodiversity conservation. This activity can be expected to develop a range of awareness raising approaches and materials that will be able to be much more widely used throughout the country. This objective of producing outputs which have an ongoing benefit will be a theme of the demonstration activities. The lessons learned from effective management at the sites will be channelled into national and regional policy making decisions, including the proposed regional wetland strategy.
15. A second major objective of the demonstration sites will be to document, in clear socio-economic terms, the benefits that arise from sustainable management of wetland biodiversity. This documentation will be aimed at convincing government at all levels, and entrepreneurs that sustainable management and biodiversity conservation produce long-term social and economic benefits.
16. **Community Participation:** Outside economic and technical forces often have an influential role in shaping the development of resources within the Mekong Basin region. The vital contribution of local communities to development decisions and even of technical experts from the Basin countries is too frequently overlooked. The GEF project seeks to enhance the participation of these local and national groups in decisions affecting the management and sustainable use of

wetland biodiversity - it does this by introducing tools, procedures and policies which promote their views and interests in the development process.

17. At community level, the testing of collaborative management approaches aim to bring greater control over resources to those who rely on them. Methods of participatory appraisal, local monitoring and evaluation, and participatory planning will enable communities to directly influence how their wetlands are used. Environmental and sustainable use guidelines which communities have supported in defining, will help minimise the negative effects of large development on their local areas. The lessons in demonstrating these approaches in important wetland sites will be built into the regional strategy giving involved communities a voice in setting regional policy and action plans.

18. Enhanced participation will also come from nurturing sustainable livelihood options, which more fully involve selected communities in economic development and markets within their area.

19. Wider participation of national technical staff in setting the development agenda nationally and region wide is also a key concern of the project. Their role is promoted in three ways: by improving skills and the 'tool box' which they can use in day to day work; by providing them with greater access to information and supporting them in technical analysis and assessment; and thirdly, by facilitating a process of priority setting and policy formulation in which they take lead.

20. *Involvement of national agencies and experts:* There will be the greatest possible involvement of national agencies and experts in project activities. All policy formulation at regional and national levels, for example, will be undertaken by task forces of national experts through inductive learning and field exercises. The management and review of demonstration activities and the definition of lessons for national and regional application will also be the function of national expert teams. The specific nature and extent of this involvement will be determined during the Block B project development activities.

The GEF project structure and activities

21. The principal objective of the larger GEF project is the conservation and sustainable use of wetland biodiversity in the Mekong River Basin.

GEF project structure

22. It is envisaged that the overall project implementation process will be guided by an inter-agency Regional Steering Committee involving the Mekong River Commission, representatives from each riparian country and all three GEF Implementing Agencies. It is expected that through this process (and others to be delineated in the course of the block b) that close operational co-ordination will be maintained with the GEF/WB preparatory project (being implemented by the MRC) on Water Quality and Quantity MRC and the ADB programmes. In each country, the project will be guided by a purpose-convened National Steering Committee or by adopting an existing co-ordinating and steering structure where a suitable body is already in place, such as the National Mekong Committees.

23. The project is expected to be co-ordinated by a Chief Technical Advisor (CTA), preferably based within an appropriate regional institution. The CTA's role will include overall project management, regional co-ordination, initiation, and where appropriate conduct, of regional activities and making appropriate inputs to the programmes and activities or relevant regional bodies, particularly the MRC.

24. In-country Technical Advisors in Viet Nam, Lao PDR and Cambodia could be appointed, as determined by selection of project demonstration sites. Their time will be divided between supporting the establishment of models of co-management of wetland biodiversity resources and institutional strengthening and development at national and regional levels. In addition there will be substantial use of international, regional and national experts in various fields for short term inputs.

25. The final project management structure will be determined through the PDF Block B processes. These will ensure that the most cost effective operational framework is put in place which builds on existing mechanisms and which maximises coordination with the MRC and other regional and national wetlands programmes.

Anticipated GEF project activities

26. This section on anticipated GEF project activities is not intended to pre-empt or predetermine the project formulation process to be undertaken during the Block B phase. It is provided as a guiding framework for discussions and as a record of the ideas and needs which have been defined in consultations to date.

Activity 1: Support a process for the finalization and adoption of a comprehensive regional wetlands strategy and action plan

Background technical reviews

27. Building on the work done during the Block B phase to define an initial regional wetlands strategy framework, provide technical backing to the design and preparation of a series of regional and country specific technical reviews relating to the status and management of Mekong River Basin wetland biodiversity in four riparian States through interdisciplinary working groups in each country

28. One regional review would be of the adequacy, representativeness and long-term viability of wetland biodiversity conservation through existing protected area systems. It would lead to the definition of strategies for the maximum feasible contribution to wetland biodiversity conservation by these protected area systems; including proposals for additional protected areas, changes to boundaries of existing areas, the adoption of new categories of protected areas to take into account the high level of dependence on wetland resources, or changes to management of areas to provide better protection to wetland biodiversity values.

Regional technical meetings to define strategy and action plan

29. Convene and facilitate a number of technical meetings of national experts to consider the reviews and to define strategies and proposals for action to address the issues they raise. Lessons learned from the demonstration activities will be fed into the process.

30. Support a small regional task force of experts from each country in the drafting of a synthesis wetlands strategy for consideration by individual governments

National review of strategy drafts

31. Facilitate the effective cross sectoral review of the draft regional strategy by policy makers in government agencies and affected groups and organisations in each of the four riparian states.

Adoption of regional wetland strategy and action plan

32. Once the review and redrafting process has led to a draft strategy and action plan acceptable to the MRC member countries, seek endorsement of it through the MRC Council.

33. The process of preparing the regional strategy and building the capacity to implement it will involve:

- Review existing institutional arrangements, and policy and legislative frameworks as they relate to wetland biodiversity conservation; identify gaps; and work on needed innovations and changes.
- Review coordination and integration mechanisms and structures for resource use, management and conservation as they relate to wetland biodiversity conservation; identify deficiencies; and, define needed improvements.
- Support environment, planning and sectoral agencies in clearly linking the different strategic initiatives likely to affect wetland biodiversity conservation (e.g. National Conservation Strategies; National Environment Action Plans; Biodiversity Action Plans; National Wetland Plans; and relevant sectoral master plans) so as to achieve a cross-sectoral and integrated approach to wetland resource management and conservation.
- Support national agencies in linking their obligations under international agreements such as the Biodiversity Convention, Ramsar and World Heritage Conventions to their emerging regional environmental responsibilities as defined, for example, through the MRC and ASEAN, and under the regional wetlands strategy to be developed through the project.

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- Engage and assist the National Mekong Committees, where these exist, in the wetland biodiversity policy development, inventory and demonstration activities.
- As part of the coordinated regional training and policy development programme, provide training in transboundary environmental assessment, modelling, monitoring and management relating to significant wetland sites.
- Support national governments and expert teams in actively participating in the process of background technical reviews, policy drafting and final endorsement of the regional wetlands strategy and action plan.

Activity 2: Develop and demonstrate nationally/regionally relevant co-management models of biodiversity conservation and sustainable use of wetland resources in areas of high wetland biodiversity value with a view to expanding and ensuring the effective management of the protected areas system

- Identify existing models of co-management of natural resources, and prepare case studies which will reveal lessons relevant to the establishment of co-management of wetland biodiversity resources; use the lessons in these case studies to develop the model wetland biodiversity co-management regime. and disseminate relevant material in training and awareness raising programmes to foster establishment of further sustainable regimes.
- Finalise and implement the indicative management plans; participation plan and sustainable livelihood options developed during the Block B phase.
- Assist communities and relevant government agencies connected with the target wetland biodiversity areas to develop and implement co-management regimes which include, *inter alia*:
 - ◊ a common agreement on government and community roles in wetland biodiversity management;
 - ◊ a system of management of natural resource use which: conserves significant wetland biodiversity values; incorporates a meaningful role for the community; is acceptable to the community; and meets government policies and objectives; and,
 - ◊ any necessary development elements that will contribute to the long-term conservation of wetland biodiversity values.

Activity 3: Assist in the extraction, dissemination and application of regionally relevant lessons from these co-management models

- Provide TA to assist communities to determine sustainable use methods and levels for wetland resources - expertise and results will be shared regionally to achieve maximum cost-effectiveness.
 - Building on and strengthening existing local planning processes, and utilizing appropriate participatory planning techniques, facilitate the preparation and implementation of an integrated conservation and development plan for the demonstration areas,
 - Undertake baseline survey and inventory in the demonstration sites to enhance biodiversity conservation aspects of the co-management regime; in particular, inventories and baseline studies will contribute to: the preparation of the integrated conservation and development plans; design and implementation of monitoring and evaluation programmes for the sites; placing of the demonstration area in a regional wetland biodiversity values context.
 - Organise regular national and regional workshops for sharing experiences and lessons on wetland biodiversity conservation, ensuring feedback into national and regional policy documents (such as the regional wetlands strategy)
- Organise regular consultative meetings and workshops for policy makers so that the results of the project can feed into the MRC Basin Development Plan and into regional and national development planning processes.

Activity 4: Enhance regional expertise in integrated regional planning and wetland management

34. A programme of regional training activities targeting the project demonstration sites and major proposed developments in the region which will affect those sites. The programme would seek to develop skills and a tool kit of practical field methods for transboundary environmental impact assessment; environmental and economic cost-benefit analysis; participatory appraisal; monitoring; and modelling relating to the affects of large-scale infrastructure development on wetland biodiversity.

35. Two training and policy analysis activities of special importance will be:

- Building on the on-going work of the MRC, a strategic transboundary environmental impact assessment of the cumulative and transboundary affects of key development projects planned for the Mekong River Basin over the next decade on the most significant wetland biodiversity areas, including the project's demonstration sites; and
- a critical review of the development strategy formulation processes of regional bodies such as the Mekong River Commission, the Asian Development Bank and the World Bank from the perspectives of wetlands biodiversity; basin wide impacts and effective consultation.

36. The project would support regional working groups of national experts in these activities which would all have practical policy outputs seeking to influence and help shape current development policy in the Basin.

Activity 5: Increase levels of awareness and capability of relevant regional organisations with regard to wetland biodiversity conservation

- Strengthen the role and awareness of the MRC with respect to wetland biodiversity conservation and sustainable resource use.
- Provide advice to the MRC and other regional coordinating bodies on regional policies and strategies for wetland biodiversity conservation.
- Help to ensure that programme development and implementation of the MRC, the Asian Development Bank and other regional and international bodies takes into account wetland biodiversity values and the dependence of communities on wetland biodiversity resources.
- Identify and convey regional issues and priorities in wetland biodiversity conservation to the MRC and other regional coordinating bodies.

Activity 6: Facilitate the regional exchange of information, expertise and experiences with regard to wetland biodiversity values

- Arrange shared technical advice on issues such as inventory and baseline studies, monitoring and evaluation, sustainable use of wetland resources and design of integrated conservation and development activities so as to achieve maximum sharing of information, expertise and cost effectiveness
- Facilitate exchange between the national project teams including study tours and joint workshops and policy development sessions on issues of mutual concern
- Develop a regional network of individuals and institutions involved in wetland biodiversity conservation

ANNEX 6: CURRENT RELATED ACTIVITIES IN THE MEKONG RIVER BASIN

1. The proposed project will fit within a web of current and planned natural resource management and conservation initiatives within the Mekong countries.

The Mekong River Commission is a principle regional partner in this project.

2. The Commission has a long standing project of wetlands management activities which this GEF project is intended to complement and reinforce. The GEF initiative complements many of the broad objectives and fields of activity with the MRC project which is entitled "Inventory and Management of Wetlands in the Lower Mekong Basin". In 1990, phase I began work in Vietnam, Lao PDR and Thailand "to formulate ecologically sound management plans that will permit the productive use of basin wetlands on a sustainable basis while conserving their natural ecological and socio-economic functions". The MRC reports that the project has made good progress in " i) strengthening wetland management institutions; ii) delineating and classifying basin wetlands; iii) conducting intensive surveys, monitoring and assessing selected priority wetlands; iv) promoting the application of GIS in wetland management; v) developing guidelines for managing wetlands, vi) strengthening basin wide international cooperation, collaboration and co-ordination in wetland management; and, vii) formulating themes of required actions for ecologically sound management". The project focused on better understanding wetlands 500 metres either side of the Mekong mainstream. A second phase supported by Sida and Danida, is expected to start in mid 1997, and will give greater emphasis to community management of wetlands, clarifying types of wetland resources, the maintenance of water availability, and to studying the impact of upstream development proposals on selected communities dependent on wetlands.

3. The MRC is managing two related projects in Cambodia, both focusing on Tonle Sap. One, a two year project running to February 1998 and supported by UNDP, is concerned with the formulation of a development strategy for the water and related resources of the Tonle Sap area, and capacity building for co-ordination of development and management of the lake. The second, an "Inventory and Management of Cambodian Wetlands", to begin mid 1997 with Danida funding, seeks to enhance involvement of selected communities in sustainable wetland use, conservation and innovative management methods, in addition to developing tools for predicting impacts of upstream developments on the water dynamics of the lake.

4. Other major MRC programmes relate to sustainable fish production; hydrometeorological data collection; and water quality. Each of these fields has included detailed survey, assessments and training of immediate relevance to the effective management of wetlands. The MRC's basin wide Environment Programme is of special significance to the GEF project. It seeks to define procedures for environmental planning, screening and impact assessment of development of the Mekong River's water and water related resources. The Programme is also concerned with river basin monitoring; with the development of a co-ordinated environmental and natural resources database system, water quality monitoring and environmental status assessment and reporting. Site and subject specific studies focus on geographical areas, emerging environmental issues and ecosystems which are especially sensitive to development.

5. Finally, basin development planning has always been accorded priority within the programme of Mekong cooperation. In 1995, a technical Sub-Committee was established to assist in monitoring and formulation of a "Basin Development Plan" (BDP), a general planning tool to identify and set priorities for basin wide programmes and projects for sustainable development of Mekong River Basin resources. **The GEF project will work with the MRC to support integration of environment and wetland biodiversity concerns into the BDP.**

6. The MRC is a critical actor in the GEF project. It is envisaged that the project would be consistent with the MRC's framework approach to sustainable development of the Basin. The project would be well integrated with the MRC's Water Utilisation Programme; the proposed GEF project on Water Quality/Quantity, the Basin Development Planning process; and, all the supporting activities of the MRC Environment Unit.

7. *The Asian Development Bank:* The ADB has a number of important regional environmental management projects in the pipeline. One two year project, to provide training in EIA and integrated planning methods and scheduled to begin in early 1997, will establish a useful momentum in these fields on which the GEF project will build. Another proposed technical assistance project, aims to prepare an environmental strategy for the ADB's Greater Mekong Sub-Region development

programme with emphasis on the transport and energy sectors. Funding for the \$1 million project has yet to be identified.

8. Another ADB project - **“Protection and Management of Tonle Sap and Critical Wetlands in the Lower Mekong Basin”** addresses the issue of unsustainable development of critical wetlands in the lower Mekong Basin, (\$4) especially in regard to Tonle Sap, with emphasis on fisheries, forestry and agriculture. The proposal also focuses on strengthening the capacity of the Governments of Cambodia, Lao PDR and Viet Nam, and their National Mekong Committees, to coordinate and integrate research, protection and development activities in critical wetlands, including the Tonle Sap.
9. The proposed project will strengthen the ability of the Technical Coordination Unit for the Tonle Sap and Cambodia National Mekong Committee to coordinate various research and development activities through the development of an Environmental Management Information System, strengthening the existing administrative system, and staff training. The project will additionally focus more on the technical side by undertaking morphological and hydrological studies of the system to better understand the dynamics of sedimentation and erosion both in the Great Lake and in the Tonle Sap River, from erosion in the Tonle Sap watershed and from Mekong River inflows. Based on the above work, various pre-feasibility studies will be made on required river dredging and training works, fisheries forestry, agriculture and infrastructure projects within the framework of an integrated development plan for the Tonle Sap. They will probably also provide assistance for studies or pilot projects at other Mekong wetlands of regional importance that will sustain the flood protection, fisheries, and other economic and environmental benefits they provide.
10. Where as the ADB proposal is focussed on the Tonle Sap and preparation of technical studies, the proposed GEF proposal covers the overall regional policy development and capacity enhancement at national and regional levels, including through demonstration of management methodologies and sustainable utilisation of wetlands in priority selected sites.
11. **UNEP:** The PDF block b will draw on the UNEP's recently concluded Diagnostic Study on the Mekong River Basin which provides a detailed review and analysis of the river basin.
12. **World Bank:** The Wetlands PDF operational mechanism will work very closely with the MRC/World Bank/GEF team working on developing a proposal on Water Quality and Quantity, determining mechanisms to implement the rules for water utilisation (water quality and quantity) and inter-basin diversion.
13. **ASEAN:** The recently established ASEAN Mekong Trust Fund has the potential to support projects for integrated rural development and the conservation of biodiversity resources.
14. There are projects at national level in each Mekong country which will contribute to overall conservation objectives. The MRC and UNDP supported projects on Tonle Sap, mentioned previously, aim to define the key issues in the management of the lake and the opportunities for development of the natural resources of the area. FAO and Denmark also have relevant projects focusing on Tonle Sap. The FAO participatory resource management project is seeking to identify current uses of the lake's flooded forests and related agricultural land in Siam Reap on the north-west shore. It will propose community-based models for managing the floodplain. The MRC is also supporting an integrated study of the freshwater fisheries of Cambodia with special reference to Tonle Sap. The goal is to build capacity in the Fisheries Department for sustainable management of inland fisheries. IUCN and WI are continuing their support for a programme of water bird surveys of the lake and associated sustainable livelihoods for local communities.
15. A similar variety of projects impinge on Mekong habitats in each country, though no other country has projects comparable to those associated with Tonle Sap for their focus on aspects of wetland environments and resources. In general relevant projects in other countries have a more general biodiversity focus, such as the World Bank GEF project in Laos to implement management in four major protected areas.
16. **While much work is being undertaken in the basin related to maintaining environment conditions of the Mekong River Basin area, it is only going part way in addressing the needs. For example, the gaps that the GEF project intends to address, include:**

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- **the lack of an agreed regional strategic framework of policies and actions which guide and shape investment decisions affecting wetland biodiversity resources;**
- **lack of support to governments in defining national wetland policies affecting actions across all sectors;**
- **limited understanding of the nature and extent of wetland biodiversity sites of international importance, their uses and economic values;**
- **the lack of a representative system of protected areas;**
- **limited tools and skills needed to understand the transboundary implications of development proposals and how to mitigate negative affects; and,**
- **limited experience in collaborative management approaches and limited sharing of lessons.**

ANNEX 7: NATIONAL LEVEL SUPPORT

1. All of the riparian states have adopted various forms of national environment and sustainable development strategies which give priority to biodiversity conservation and which they need support in implementing.
2. China has established a National Agenda 21 Secretariat with responsibilities to promote implementation of the National Environment Action Plan for the decade to the year 2000, including its provisions on the conservation of wetlands, biodiversity and natural habitats. It has adopted a Biodiversity Action Plan and, during the past two years, seventeen national level agencies have been involved in the preparation of a National Wetland Action Plan under a Leading Group headed by the Ministry of Forestry.
3. In Vietnam, the Ministry of Science, Technology and Environment is currently reviewing the 1984 National Conservation Strategy and is taking the first steps to mount a national wetlands programme. The wetlands initiative is in response to the Biodiversity Action Plan which the Government adopted in December 1995.
4. In Cambodia, the Ministry of Environment is drafting a Biodiversity Prospectus with the aim of presenting it this year to the Council of Ministers for adoption. Stemming from this work and the current National Environment Action Plan preparation process, the Government has drafted a National Wetland Action Plan, establishing an inter-sectoral consultative committee for the purpose. In 1993, Cambodia defined a national system of protected areas including some major wetlands of international significance.
5. Also in 1993, Laos adopted a National Environmental Action Plan which identified priority actions for the conservation of wetland biodiversity, and in the same year established a national system of protected areas which includes the majority of the country's significant wetlands. In 1991, Laos prepared a National Forestry Action Plan which emphasised the wise use of wetland and biodiversity resources. In 1996, a national wetland inventory was completed and published and a commitment was made to preparing a National Wetland Action Plan.
6. Thailand has completed but not yet published a National Biodiversity Country Study, and has made substantial progress in the formulation of a National Wetland Policy. Since 1993, it has been working on management plans for its Ramsar sites and an inventory of wetlands of the country is under way. Thailand has attended all of the Conferences of the Parties of both the Ramsar Convention and the Biodiversity Convention (though it has not ratified the latter).
7. Myanmar does not have a national environment strategy but is committed to preparing a Biodiversity Action Plan.

ANNEX 8: ORIGIN OF THE PROPOSAL AND GEF INTER-AGENCY COLLABORATION

1. As indicated in Annexes 6 and 7, Governments of the region have been steadily accumulating information on the status of wetland biodiversity in the Mekong River Basin. This work has been part of programmes to undertake wetland inventories, embark on national wetland planning processes as a basis for promoting the sustainable use of wetland biodiversity resources.
2. The proposed project is an expression of the governments' will to implement priority wetland conservation initiatives identified in their national action plans and strategies. The proposal has also arisen out of a growing realisation by the Mekong riparian countries of the need for a Basin-wide approach, and as a logical step in to view their wetland conservation management issues within an ecosystem context, even where this means taking a trans-boundary approach.
3. The preparation of the PDF block B proposal was funded by the Regional Bureau for Asia/Pacific, UNDP as part of its long standing support to MRC and its predecessor organisation, over the past 38 years. The preparatory work carried out by IUCN and Wetlands International involved detailed consultations and workshops with the riparian countries, including China, and the MRC Secretariat from August 1996 to August 1997.
4. Insofar as GEF inter-agency collaboration is concerned, both the Bank and UNEP participated in the MRC Basin Development Plan meeting of April 1996 funded by UNDP. Consultations in the context of the BDP meeting in Thailand determined a two pronged programme approach to GEF intervention in the Mekong. Building on the Diagnostic Study of UNEP, the World Bank and UNDP agreed to work in two key areas - the Bank on issues of Water Quality and Quantity and UNDP on Wetlands Management and Sustainable Utilisation. This proposal has been in the UNDP/GEF pipeline for the last three years and, in this context, has been discussed with the GEF Secretariat, World Bank and UNEP.
5. There have been extensive consultations associated with the national wetland programme initiatives in Cambodia, Vietnam, Lao PDR and China which led to the definition of the Mekong River Basin Wetland Biodiversity Conservation and Sustainable Use Programme concept and which guided the formulation of this PDF Block B proposal. Important contributions stemmed from the work of Mekong River Commission "Inventory and Management of the Wetlands of the Lower Mekong Basin" undertaken during 1990 to 1995 in Lao PDR, Vietnam and Thailand. Key elements of the consultative process within each country included the following:
 6. *National wetlands inventory and survey work:* The development of national wetlands inventories by relevant agencies in Lao PDR, Cambodia and China. In Vietnam, this work was undertaken as part of the National Biodiversity Action Plan preparations. In most cases, these activities involved consultations with a wide range of sectoral agencies; with research institutes and universities; and, often, with communities living in the vicinity of wetlands. The inventories and surveys helped local authorities determine the status of wetland systems and identify the kinds of management and technical supports needed to conserve them.
 7. *National wetlands strategies:* More recently, IUCN and WI have been assisting Lao PDR, Cambodia, China and Vietnam to develop national plans for addressing the management of wetlands in a systematic way. In each case, this process has involved national technical workshops to review the issue and next steps. In China and Cambodia, for example, it led to the preparation of national wetlands action plans with the involvement of all key government resource management agencies and non government institutions.
 8. *Definition of priority sites:* Some 60 wetlands of importance are listed in Vietnam's Biodiversity Action Plan. Similarly, in Cambodia, Lao PDR, China and Thailand, lists of priority sites have been defined. In the early stages of discussions on the GEF project concept, those sites lying within the Mekong River Basin were reviewed with local expert teams and short lists were drawn up which became the candidate lists for demonstration sites included in this proposal.
 9. *Round of national consultations on first draft of Block B proposal:* Building on the above and the Basin Development Plan of the MRC, the UNDP, Asia and Pacific Programme provided resources for the preparation of a PDF Block B proposal.

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The discussions included national workshops, small technical group discussions, the receipt of written comments and, in all cases, meetings with the national biodiversity and Mekong River Commission focal points in each country (Vietnam, Lao PDR, Thailand, Cambodia and China).

10. In **China**, special emphasis was given to consultations with the Yunnan Provincial agencies, in addition to the national environment and natural resource management agencies participating in the wetlands action plan preparations.
11. In **Vietnam**, a national workshop to review the draft Block B proposal involved the Ministry of Planning and Investment, Ministry of Fisheries, the Ministry of Science, Technology and Environment, the National Environment Agency, the National Mekong Committee, the Vietnamese Association for Conservation of Nature and Environment, the Embassies of Switzerland, Denmark and Netherlands, in addition to representatives of UNDP, IUCN and the World Wide Fund for Nature.
12. In **Cambodia**, discussions were held with the Minister of Environment (who is both the national Biodiversity Convention and MRC focal point) and his advisors, with a follow-up technical meeting with IUCN, WI and government wetlands experts to run through the draft Block B proposal in detail.
13. In **Thailand**, the proposal was distributed for comment to the MRC, the Royal Forest Department, the Land Department, MOSTE and to experts at Mahidol University with follow-up meetings to discuss the project. The present text reflects the comments and suggestions provided by them. Consultative meetings were held with the Thai National Mekong Committee and with the MRC Environment Unit which was especially helpful in providing detailed comments on the proposal all of which have been incorporated into this final version.
14. As part of the normal peer review process within IUCN, the draft was subject to technical review by the IUCN/WI working group established for the purpose of formulating the proposal. The present document, which has gone through several re-iterations, responds to comprehensive written comments provided by various experts within UNDP, IUCN, WI and the GEF Secretariat.

The Mekong River Basin

Area: 795,000 km²
Length of mainstream: 4,800 km
Average discharge: 15,000 m³/s

□ Upper Mekong Basin
▨ Lower Mekong Basin

