

Working Paper 01 a

# **Watershed Management in the Lower Mekong Basin**

A Component of the Agriculture, Irrigation and Forestry Programme  
of the Mekong River Commission

Volume 1: Main Report

Appraisal Report

Fohren-Linden / Mougins / Eschborn, 20 March 2002



MRC-GTZ Cooperation Programme  
Agriculture, Irrigation and Forestry Programme  
Watershed Management Component



**Watershed Management in the Lower Mekong Basin**  
**Report on the Appraisal Mission**

**Commissioned by**

**Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)**

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**20<sup>th</sup> March 2002**

## **Executive Summary**

This report presents the results of an appraisal mission on a German Technical Co-operation contribution to the Watershed Management Component of the Mekong River Commission's Agriculture, Irrigation and Forestry Programme (AIFP). The appraisal was commissioned by the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) on behalf of the German Federal Ministry of Economic Co-operation and Development (BMZ). A proposal for additional support through German Financial Co-operation in the field of forest rehabilitation in upper watersheds of the Lower Mekong Basin will be subject to a separate appraisal by the Kreditanstalt für Wiederaufbau (KfW).

The appraisal was carried out from 1<sup>st</sup> January to 23<sup>rd</sup> February 2002. It comprised preparatory data collection in the four countries, three regional workshops (Inception, Strategy, Planning), visits to the four riparian countries and intensive discussions with representatives of various institutions. The latter included relevant government and non-government institutions, bi- and multilateral co-operation projects, the MRC Secretariat as well as the GTZ Office and the German Embassy in Phnom Penh.

### Findings of the appraisal mission

The water and land resources of the Lower Mekong Basin (LMB) are the basis for the livelihood of about 60 million inhabitants and provide food for some 300 million people. However, the basin's environment is degrading at a rapid rate from unsustainable practices such as forest exploitation, expansion of agriculture onto steep slopes and water pollution and from negative side-effects of some large-scale infrastructure projects. Particularly in the fragile eco-systems of the upper watersheds in the Mekong Basin, increased pressure on natural resources due to a rapidly increasing population is a major threat to sustainability of the present natural resource-based production potentials and a potential source of future conflicts. The multi-faceted functions of these headwaters call for an integrated and participatory approach to watershed management (WSM) throughout the basin. Sustainable management (planning, implementation and monitoring) needs integrated action of the numerous local and regional stakeholders and demands for dialogue, mediation and co-ordination both, at national and regional level.

The joint efforts to manage a certain geographical area and co-ordinate resource management between people living in the upper and the lower parts of the watersheds needs to be facilitated and institutionalised. Any watershed management approach needs to encompass the variety and interaction between organisations and their respective stakes. Those are village organisations, commune (or tambon) councils and their administration, private sector organisations and their structures, provincial authorities and line departments, and the many non-governmental organisations working in the area.

The rationale for MRC involvement in WSM is its mandate, mission and authorised scope of work based on the 1995 MRC agreement, that finds its expression in the formulation of the Basin Development Plan (BDP), the Water Utilisation Programme (WUP), and the Environment Programme (EP). Moreover, in October 2000 the MRC countries have endorsed the AIFP as an important regional sector programme to address WSM issues.

An analysis of MRC's Strategic Plan 2001-2005 reveals a high degree of accord between the priorities set forth therein and important traits of the relevant concepts and guidelines of the BMZ. Moreover, the Strategic Plan is in line with the objectives and principles provided by international conventions and arrangements pertaining to natural resources. Support to the implementation of AIFP under the framework of the Strategic Plan would, therefore, be well in agreement with German Development Policy.

MRC is the only organisation mandated by the highest political level to address basin-wide issues, to foster inter-country co-operation and to address potential cross-boundary conflicts. On the other hand, MRC's potential of contributing to WSM in the region is yet neither fully exploited nor sufficiently perceived by line agencies, NGOs and donors.

Given Germany's long involvement in sustainable resources management in the region, German Development Co-operation can contribute to enhancing MRC Secretariat's capacity to address the above issues and to assume its envisaged role of a regional "centre of excellence".

Discussions with national stakeholders during the consultants' country visits revealed:

- Watershed Management is a known and relevant concept in all riparian countries with many institutions involved.
- The four countries are at different states of development of Watershed Management policies, strategies, concepts and framework conditions and there is a great potential for sharing experiences and information and for joint learning processes.
- While there are numerous activities in WSM by a multitude of institutions in various catchments and sub-catchments there is yet no "real life example" of a consistent and complete WSM approach in any of these locations.
- Apart from bi-lateral negotiations mainly in the context of large hydro-power projects there is little if any consideration of cross-boundary issues in WSM, yet.

During these discussions, the following major fields of work for Technical Co-operation in the WSM-component of the AIFP were identified:

- to institutionalise integrated WSM planning in selected cross-border and other catchments.
- to support the sharing of knowledge and experience and to facilitate joint learning processes within the region in view of both, national and regional issues in WSM.
- to improve regional data and information management in WSM.

Integrated WSM planning in pilot catchments needs to be followed up by implementation. German Technical Co-operation, with its given mandate and resources, can, however, provide only rather limited support to implementation. Hence the necessity to collaborate with national programmes, NGOs, and projects funded by other donors. Moreover, it appears imperative to link the Technical Co-operation in WSM and the German Financial Co-operation contribution to forest rehabilitation to be provided through KfW.

Major benefits that are expected from of a regional approach as compared to national programmes in WSM comprise:

- intensified exchange of experience and lessons between the countries which may lead to more effective interventions and help to avoid duplication and repetition of ineffective strategies and actions;
- more effective use of available human and financial resources for WSM;
- the possibility to address cross border catchments as entities;
- further improvement of good relations and mutual trust through joint learning, professional interaction and development activities across institutions and countries;
- transparent, fair and amicable resolution of disagreements based on regionally acknowledged principles and agreements on WSM;
- harmonisation of views and potentially joint positioning and negotiations at international fora related to watershed management;
- improved access to international funding.

### Results of the planning workshop

Based on the findings of the appraisal mission the participants of a regional Planning Workshop (Phnom Penh, 21<sup>st</sup> and 22<sup>nd</sup> February 2002) developed the following proposal for an initial phase of three years (starting in December 2002) for the WSM component of the AIFP to enter into a potentially long-term co-operation. The objectives would be as following:

**Direct objective (Purpose):** Relevant institutions in the riparian countries and the MRC Secretariat make use of regional co-operation, information exchange / sharing and improved approaches for sustainable WSM in the Lower Mekong River Basin.

This objective will lead to an enhanced capability of the riparian countries to manage their watersheds sustainably and increasingly in view of regional needs. Eventually this will contribute to the **ultimate objective (Overall Goal):** “The watersheds of the Lower Mekong River Basin fulfil their ecological, economic and social functions and provide a sustainable basis for improved livelihood of the population.”

In order to achieve the Purpose the following Outputs are to be realised within the initial phase:

**Output 1:** WSM approaches in selected (national and cross-border) watersheds are further developed, documented and disseminated

**Output 2:** Mechanisms for analysis and further development of national WSM policies and guidelines in the LMB are established and functioning

**Output 3:** Mechanisms for continuous and effective regional collaboration in WSM are established and functioning

**Output 4:** Regional and national information management on WSM is improved

Main activities to be carried out in order to realise the planned Outputs, Indicators for their achievement and important Assumptions were specified in a Planning Matrix.

The workshop reviewed criteria for the selection of pilot watersheds presented by the consultants and agreed to propose the following locations:

- The cross-border area of the Nam Ou watershed with the Nam Noua sub-catchment in Laos (Mai District of Phongsaly Province) and the Nam Rum sub-catchment in Vietnam (Dien Bien District of Lai Chau Province)
- The Upper Sesan watershed in Cambodia (Ratanakiri Province) with the potential to extend into the Vietnamese part of that watershed in a second phase
- The Mae Nam Suai sub-catchment of the Mae Nam Kok watershed in Thailand (Chiang Rai Province).

The participants agreed, however, to postpone the final selection of the pilot watersheds and to take this decision in the context of the appraisal of the envisaged German Financial Co-operation contribution in order to facilitate the required linkage.

The overall responsibility for implementation will lie with the MRC Secretariat. The National Mekong Committees will act as co-ordinating offices. Lead agencies in the riparian countries have been proposed as follows:

- Cambodia: Ministry of Agriculture, Forestry and Fisheries
- Laos: Ministry of Agriculture and Forestry
- Thailand: Royal Forest Department
- Vietnam: Department of Forest Development in the Ministry of Agriculture and Rural Development

The German contribution to the initial phase of the Programme would comprise the secondment of long-term and short-term experts and auxiliary personnel, the provision of running costs for the seconded experts and material inputs as well as financial contributions to networks and workshops, “off-the job” training measures, implementation of WSM activities in pilot sites, travel costs, the general overheads of the MRC Secretariat and the MRC management costs of the AIFP. The overall costs of the German contributions to the initial phase including overheads are estimated at up to 4.346 million Euro.

The contribution of the MRC would comprise the secondment of professional and auxiliary personnel, the provision of office space and furniture as well as running costs for the offices in Phnom Penh. MRC will assure the secondment of the necessary professional and technical staff in the MRC member countries through the relevant national line agencies. If required, MRC will put the equipment provided by Germany for the Sustainable Management of Resources Project (SMRP) at the unrestricted disposal of the seconded experts for the fulfilment of their tasks.

#### Further steps to be taken

After general approval of this proposal by BMZ, the German side would draft a Document (“Arrangement on Technical Co-operation”), which would provide the legal basis of the envisaged co-operation. This document would be signed by the MRC Chief Executive Officer on behalf of MRC and by the German Ambassador in Phnom Penh on behalf of the German Government. Details of implementation would be specified in an Implementation Agreement between the MRC Secretariat and GTZ.

## TABLE OF CONTENTS

### **VOLUME 1: MAIN REPORT**

#### **Abbreviations and Acronyms**

<b>1</b>	<b>BACKGROUND AND PROCEDURE OF THE APPRAISAL</b>	<b>1</b>
<b>2</b>	<b>SITUATION ANALYSIS</b>	<b>2</b>
2.1	Natural Resources in the Lower Mekong Basin	2
2.2	Watershed Management in the LMB	4
2.2.1	The Watershed Management Concept	4
2.2.2	WSM in Cambodia	5
2.2.3	WSM in Laos	8
2.2.4	WSM in Thailand	10
2.2.5	WSM in Vietnam	12
<b>3</b>	<b>INSTITUTIONAL ANALYSIS OF THE MEKONG RIVER COMMISSION</b>	<b>14</b>
3.1	History and mandate	14
3.2	Organisational structure	16
3.3	Resources	17
3.4	Strategy	18
3.5	MRC programmes and interlinkages	19
3.6	Partnerships with other regional players and civil society	20
<b>4</b>	<b>ANALYSIS AND ASSESSMENT OF THE PROPOSED WATERSHED MANAGEMENT COMPONENT OF THE AIFP</b>	<b>20</b>
4.1	Watershed Management as a component of the MRC Agriculture, Irrigation and Forestry Programme	20
4.2	Request for Technical Assistance for the Implementation of the WSM Component	21
4.3	Proposed Target Sites for Field Implementation	22
4.4	Assessment of the proposal and the baseline documents	22
<b>5</b>	<b>DESIGN OF THE AIFP WATERSHED MANAGEMENT COMPONENT</b>	<b>24</b>
5.1	Objectives	24
5.2	Strategy	25
5.3	Outputs, activities and indicators of success	25
5.4	Target sites	28
5.5	Organisational set-up and national lead agencies	29
5.6	Inputs	30
5.6.1	German contribution	30
5.6.2	Contributions of the MRC and its member countries	30
<b>6</b>	<b>IMPACTS</b>	<b>31</b>
6.1	Environmental impacts	31
6.2	Micro-economic impacts	31
6.3	Macro-economic impacts	32
6.4	Socio-cultural impacts	32
6.5	Institutional impacts	33
6.6	Political impacts at the regional level	33
<b>7</b>	<b>ASSUMPTIONS AND RISKS</b>	<b>33</b>

**Annex:**

- 1 Terms of Reference
- 2 Agreed Minutes
- 3 Proposed Target Areas
- 4 Relevant Programmes and Projects
- 5 Project proposal for German Financial Co-operation contribution to AIFP
- 6 Organogramme of the MRC Secretariat
- 7 Work programme of the mission and people met
- 8 List of Documents used

**VOLUME 2: APPENDICES**

(A) Country Report Cambodia

(B) Country Report Laos

(C) Country Report Thailand

(D) Country Report Vietnam

## ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
AIFP	Agriculture, Irrigation and Forestry Programme
AIT	Asian Institute of Technology
ASEAN	Association of South East Asian Nations
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung
CPMG	Core Programme Management Group
DANIDA	Danish International Development Assistance
DfID	(British) Department for International Development
DFW	Department of Forestry and Wildlife
ECAFE	United Nations Economic Commission for Asia and the Far East
e.g.	example given
EU	European Union
f.e.	for example
FAO	Food and Agriculture Organization of the United Nations
GIS	Geographic Information System
GMS	Greater Mekong Sub-region
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
Ha	Hectare
ICLARM	International Centre for Living Aquatic Resources Management
IMC	Interim Mekong Committee
IUCN	International Union for Conservation of Nature – World Conservation Union
JICA	Japan International Co-operation Agency
KfW	Kreditanstalt für Wiederaufbau
LDD	Land Development Department
LMB	Lower Mekong Basin
M&E	Monitoring and Evaluation
MRC	Mekong River Commission
NCCDC	Nature Conservation and Community Development Centre
NMC	National Mekong Committee
NBCA	National Bio-Diversity Conservation Area
NESDP	National Economic and Social Development Plan
NGO	Non-Government Organisation
NRM	Natural Resource Management
ODA	Official Development Assistance
PDR	People's Democratic Republic
PM	Person Month
RFD	Royal Forest Department
SFM	Sustainable Forest Management
SIDA	Swiss International Development Agency
SMRP	Sustainable Management of Resources in the Lower Mekong Basin Project
UN	United Nations
UNCED	United Nations Conference on Environment and Development (Rio 1992)
UNDP	United Nations Development Programme
WB	World Bank
WSM	Watershed Management
WWF	World Wide Fund for Nature

## 1 BACKGROUND AND PROCEDURE OF THE APPRAISAL

In 2001, Mekong River Commission (MRC) Secretariat and German officials had first talks on potential German contributions to the MRC's Agriculture, Irrigation and Forestry Programme (AIFP). It was agreed that the German Government would consider to provide support to the AIFP through technical co-operation in watershed management (WSM). Following deliberations on both sides it was agreed that the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) should further appraise the proposed co-operation. In August 2001, MRC submitted an official request for technical assistance to Germany.<sup>1</sup>

Consequently, the German Federal Ministry of Economic Co-operation and Development (BMZ) commissioned GTZ/SMRP<sup>2</sup> to field a project appraisal mission on the envisaged Technical Co-operation component. A proposal for complementary support through German Financial Co-operation in the field of forest rehabilitation in upper watersheds of the Lower Mekong Basin will be subject to a separate appraisal by the Kreditanstalt für Wiederaufbau (KfW).<sup>3</sup>

The appraisal was carried out from 1<sup>st</sup> January to 23<sup>rd</sup> February 2002. The mission team consisted of three German consultants who worked in close co-operation with two to three national consultants each from the four riparian countries (Cambodia, Laos, Thailand and Vietnam).

The objectives of the mission were to assess the feasibility of the proposed WSM component as described in the Programme Document of the AIFP<sup>4</sup> and in the request for technical assistance and – provided a positive result of this assessment - to develop a consolidated proposal for implementation. The detailed Terms of Reference of the mission are given in Annex 1.

The appraisal comprised preparatory data collection in the four countries, visits to the four riparian countries and intensive discussions with representatives of various institutions. The latter comprised relevant government and non-government institutions, bi- and multi-lateral co-operation projects, the MRC Secretariat as well as the GTZ Office and the German Embassy in Phnom Penh. A detailed account of the missions itinerary and the individuals and institutions contacted is provided in Annex 7.

In the course of the mission, three regional workshops were held in Phnom Penh. Participants of the workshops were representatives of the MRC Secretariat, National Mekong Committees, relevant national line agencies, GTZ and the consultants.

The first workshop (15<sup>th</sup> and 16<sup>th</sup> January 2002) concentrated on the further clarification of the terms of reference and on the elaboration of the procedure of the mission. In addition, the national consultants presented the results of their preparatory work since 1<sup>st</sup> January 2002. The country reports of the national consultants are contained in Volume 2 of the appraisal report.

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<sup>1</sup> MRC (2001): Request for technical assistance from the Government of the Federal Republic of Germany for the implementation of a Programme Component of the Agriculture, Irrigation and Forestry Programme. MRC Secretariat, Phnom Penh, 2001.

<sup>2</sup> Sustainable Management of Resources Project. SMRP is a MRC-German Technical Co-operation project supported by GTZ.

<sup>3</sup> MRC(2001): Integrated Forest Rehabilitation in the Lower Mekong Basin. A project proposal for an investment programme in the forest sector. MRC Secretariat/SMRP, Phnom Penh, 2001. See Annex 5.

<sup>4</sup> MRC (2000): Agriculture, Irrigation and Forestry Programme for 2001 – 2005. MRC Secretariat, Phnom Penh, December 2000.

During the second workshop (6<sup>th</sup> and 7<sup>th</sup> February 2002) the international consultants presented their findings from the country visits. Based on this, the participants developed the general strategy for the WSM component, agreed on major areas of work, elaborated a draft list of activities and defined major impacts that are expected from of a regional approach as compared to national programmes in WSM. Furthermore, the participants reviewed criteria for the selection of pilot watersheds presented by the consultants.

At the third workshop (21<sup>st</sup> and 22<sup>nd</sup> February 2002), the international consultants presented a draft Planning Matrix which was reviewed and completed by the participants. The organisational set-up was developed and national lead agencies in each country were identified.

Based on the results of the third workshop, the international consultants prepared minutes of the appraisal which were agreed upon and signed by the Chief Executive Officer of the MRC Secretariat and the Director of the GTZ Office Phnom Penh on 23<sup>rd</sup> February 2002.<sup>5</sup>

## 2 SITUATION ANALYSIS

### 2.1 Natural Resources in the Lower Mekong Basin

The Lower Mekong Basin (LMB) covers an area of 61.9 million ha in the four riparian countries of Thailand, Laos, Vietnam and Cambodia. The overall population of these countries is estimated at 156 million people of which 60 million live in the basin.<sup>6</sup>

**Table 1: Population of the Lower Mekong Sub-Region**

Country	Area (km <sup>2</sup> )	Population (million) Estimates 2001	Population growth (%)	Population density (persons/km <sup>2</sup> )
Cambodia	181,040	11.5	2.9	63
Lao PDR	236,800	4.9	2.6	21
Thailand	513,115	62.0	1.2	121
Vietnam	332,000	78.0	1.9	235
Total	1,262,955	156.4	1.7	124

Source: MRC (2000): Strategy Study on the Development of the Watershed Management / Forestry Sector in the Lower Mekong Basin: Strategy and Action Plan.  
Population figures from Reports of national consultants, see Volume 2.

Some of the most common features of the rural areas of the LMB are:

- A high incidence of poverty among the rural population (e.g. in Lao PDR 53% of the rural population are classified as poor);
- A high dependency on the use of natural resources such as forests, water, fish, and land for subsistence and income generation; 85% of the rural population depend primarily on agricultural activities for their livelihood;

<sup>5</sup> Agreed Minutes on the Appraisal Mission of "Watershed Management in the Lower Mekong Basin". A component of the Agriculture, Irrigation and Forestry Programme of the Mekong River Commission. MRC Secretariat/GTZ, Phnom Penh, 23<sup>rd</sup> February 2002. See Annex 2.

<sup>6</sup> MRC (2000): Agriculture, Irrigation and Forestry Programme for 2001 – 2005. MRC Secretariat, Phnom Penh, December 2000.

- Mountain dwellers belong to a multitude of different ethnic groups, many of them practising various forms of swidden agriculture;
- In Laos, Cambodia and Vietnam more than 80% of the total population live in rural areas and population increases among the rural population due to natural growth and in-migration exceed the national averages;
- A lack of infrastructure limiting the accessibility to and within the upland and mountainous parts of the LMB (e.g. in Lao PDR 80% of the total land area is sloping land and mountainous)

In recent years there has been increased pressure on the natural resources of the LMB resulting from economic growth, population increases, unregulated environmental degradation processes, such as illegal logging, land grabbing, and large scale land use conversions. The risk of natural disasters has increased as exemplified in the 2000 and 2001 catastrophic floods in large parts of Cambodia, Southern Laos and the Mekong Delta.

One of the indicators of resource degradation is the reduction of forest cover in the basin. In 1997 a total of 22.2 million ha in the LMB were under forest cover (35.8% of the area).

**Table 2: Forest Cover and Trends in LMB countries, 1975 – 1997**

	1975 (ha)	1993 (ha)	1997 (ha)	% annual change 1975-93	% annual change 1993-97	Forest cover 1997
Thailand	5 292 260	3 052 879	2 990 087	4.25	0.42	16%
Laos	9 864 022	8 771 016	8 544 584	0.73	0.53	40%
Vietnam	1 943 619	1 681 105	1 615 670	1.20	0.81	25%
Cambodia	9 916 343	9 292 119	9 092 093	0.39	0.44	58%

Source: MRC (2000): Strategy Study on the Development of the Watershed Management / Forestry Sector in the Lower Mekong Basin: Strategy and Action Plan.

Although the official figures show a decline of forest cover losses in Thailand, Laos and Vietnam over the past decade, the general trend of forest loss has not yet been halted or reversed despite all efforts undertaken in reforestation. The average deforestation rate is estimated at about 0.5%/year. Contrary to the trends in other riparian countries, deforestation rates in Cambodia seem to have increased in recent years. This is confirmed by the latest forest cover monitoring exercise in Cambodia (based on satellite images of the year 2000) which indicates very high deforestation rates, particularly in the Cardamom Mountains as well as in Ratanakiri and Stung Treng provinces<sup>7</sup>.

The main causes of deforestation and resource degradation in the LMB include:

- expansion of agricultural production areas, land conversions to plantations and general land use changes;
- in-migration and population growth;
- forest fires;
- slash and burn agriculture and insufficient access to suitable land resources;
- insecurity of land and resource use rights;
- logging practices and log transportation;
- fuelwood collection;

<sup>7</sup> Personal communication, Department of Forestry and Wildlife, Cambodia

- over-exploitation of fauna and flora (hunting and collection of non-timber forest products);
- hydropower development;
- infrastructure and commercial development;
- defoliation by chemicals during the war times;
- inadequate institutional capacities;
- profusion of regulatory documents and varying applications or interpretations on the local level.

In an attempt to counteract the general trends in resource degradation, all riparian countries have created a system of national parks and protected areas. In Cambodia, 23 National Parks and Wildlife Sanctuaries have been established by law and are complemented by a number of protected forest areas under each provincial administration. A total of 20 National Bio-diversity Conservation Areas (NBCAs) and numerous protected and conservation forests have been officially created in Lao PDR. Similar forest and wildlife protection measures have been undertaken in Vietnam (National Parks, as well as Protected and Special Use Forests) and Thailand (National Parks and Wildlife Sanctuaries).

Furthermore, in particular the Vietnamese and the Thai Governments are carrying out large-scale reforestation programmes, both in upper watersheds for protection purposes as well as in the form of large timber plantations in less densely populated rural areas.

## **2.2 Watershed Management in the LMB**

### **2.2.1 The Watershed Management Concept**

A watershed is a topographically delineated area from which rainwater drains as surface run-off via a specific river or stream to a common outlet point (e.g. a large river, lake or the sea). Depending on their location and size, various types of watersheds can be distinguished, ranging from micro-catchments and sub-catchments to larger watersheds and river basins. Watersheds are used as planning and implementation entities in connection with natural resources conservation, sustainable water supply for hydropower and irrigation schemes, development and protection of upland areas and for the mitigation of upstream cause and downstream effect relations.

#### **Definition of watershed management:**

Co-ordinated multi-stakeholder management of land, water and other resources within a region (e.g. river basin or sub-catchment), with the objectives of

- conserving or rehabilitating the resource and environment
- ensuring bio-diversity
- minimising land degradation
- achieving specified and agreed land and water management on various levels
- promoting social and economic development

Effective watershed/river basin management needs to be holistic in its coverage and interdisciplinary in its scope. WSM has to consider the natural resources (land, water, forest) as well as the human resources (households, communities, government institutions, private sector) and co-ordinate their management needs and development potentials. Thus, watershed interventions should consider the different stakeholders' interests and aspirations, and include mechanisms of conflict resolution. The cross-cutting issue is to establish pro-

cedures for integrated watershed/river basin management through development and implementation of watershed/river basin management plans, beginning at the village-level plans, which are harmonised into sub-catchment management and development plans. Strong community participation throughout the process is essential. Participatory land use planning and land allocation (for agricultural and forest land) is the foundation of an integrated watershed management approach.

Integrated watershed management planning is the attempt to involve all relevant stakeholders in a process of defining present constraints and potentials and developing priorities, strategies and objectives in a given watershed situation.

Co-ordinated implementation of such a plan will lead to improved management of watershed resources, which can be expected to produce a range of both on-site and downstream economic, social and environmental benefits through the promotion of suitable land uses and appropriate land management practices. In summary, WSM aims at

- Creation of a holistic and integrated view on natural resources management;
- Widespread protection of the natural resources in upper catchment areas by forest management, reforestation and soil conservation;
- Mitigation of negative impacts in downstream areas;
- Establishment of fruitful co-operation among existing projects/programmes (IO/NGO) in an area-based planning and implementation approach;
- Increased security of land tenure through a land allocation process with wide area coverage in the watershed;
- Contributions to poverty alleviation through sustainable land use and community based management of natural resources.

While there is generally a wide-spread consensus on the validity and potential benefits of the WSM concept, its application faces a number of difficulties:

- WSM requires the involvement of many line agencies and stakeholders which implies high co-ordination needs, integration and joint responsibilities. This is not easy to achieve in view of the sectoral set-up and thinking in most Government institutions.
- The present national planning procedures and guidelines are not reflecting the WSM approach. Institutions at all levels plan and act within the framework of administrative boundaries and not in terms of physiographic boundaries.
- Many of the relevant institutions in the riparian countries are understaffed and lack expertise in WSM. Moreover, the dominant working attitude of the majority of Government staff still is rather prescriptive than participatory.

### **2.2.2 WSM in Cambodia**

#### Policy and legal framework

WSM is a fairly new concept in Cambodia and policies and strategies for its implementation are only emerging. A Royal Decree on watershed management has been issued in December 1998, outlining the importance of protecting natural resources in watershed areas and instructing the Government to prepare further sub-decrees and instructions on watershed management. However, the further development of a comprehensive national policy or strategy on WSM is complicated by overlapping mandates of various institutions:

- The Department of Water Resource Management and Conservation in the Ministry of Water Resources and Meteorology has elaborated a draft sub-decree on watershed management focussing on the water supply function of watersheds.
- The Department of Forestry and Wildlife in the Ministry of Agriculture and Forestry intends to prepare another draft sub-decree on WSM. .
- Moreover, the national policies on rural development, decentralisation, natural resources management and poverty reduction contain important implications for a watershed management concept.

Important parts of the legal framework for watershed and natural resources management in Cambodia have been established in the recent past. Others are currently under preparation e.g. the Forestry Law, the Sub-decree on Community Forestry and the Water Resources Management Law. But even after these will have been endorsed there will remain the massive task of translating the general framework into effective regulations and practical guidelines

<b>Major legal and policy documents pertaining to WSM in Cambodia:</b>
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| <ul style="list-style-type: none"><li>• Land Law, endorsed in August 2001</li><li>• Law on Commune Administration Management, endorsed in August 2000</li><li>• Law on environmental protection and natural resource management – endorsed in November 1996</li><li>• Forestry law, submitted to Council of Ministers in July 2001, not yet passed</li><li>• Sub-decree on Community Forest Management, final draft elaborated February 2002.</li><li>• Sub-decree on forest concession management, signed by the Prime Minister in February 2002</li><li>• Law on water resources management – exists in draft form</li><li>• Decentralisation and Devolution Policy of the Ministry of Interior</li><li>• Five-year Socio-Economic Development Plan (2001-2005); particularly relevant on poverty alleviation</li><li>• Interim Poverty Reduction Strategy Paper</li><li>• Agricultural Development Plan (2001-2005)</li><li>• Action Programme for the Development of Agriculture in Cambodia 2001-2010</li><li>• Government Action Plan 2001, which includes a section specifically dealing with natural resources management</li><li>• Draft Policy for Ethnic Minority Peoples' Development, also called "Highland Policy" (Sept. 1997) (not yet ratified by the Council of Ministers)</li><li>• Forest Policy – currently being drafted by a national working group</li></ul> |
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The Government of Cambodia has started to implement its policy of decentralisation with the establishment of village and commune development councils. A major task of these councils will be the establishment and implementation of participatory development plans which are supposed to be aggregated to district and provincial plans. This planning process and the institutions involved will be of critical importance in any watershed management planning.

### Institutions

There is a multitude of government institutions in Cambodia that are relevant to WSM. The most important ones are the Ministry of Agriculture, Forestry and Fishery and the Ministry of Land Management, Urban Planning and Construction.

**Government institutions in Cambodia involved in WSM:**

- Department of Forestry and Wildlife (DFW) - Ministry of Agriculture, Forestry and Fishery
- Department of Agronomy and Agricultural Land Improvement (DAALI) – Ministry of Agriculture, Forestry and Fishery
- Planning and International Co-operation Division - Ministry of Agriculture, Forestry and Fishery
- General Department of Land Management and Urban Planning and General Department of Cadastre and Geography - Ministry of Land Management, Urban Planning and Construction (MLMUPC)
- Department of Water Resources Management and Conservation - Ministry of Water Resources Management and Meteorology (MoWRM)
- Department of Nature Conservation and Protection - Ministry of Environment (MoE)
- SEILA Programme
- Ministry of Rural Development (MRD)
- Cambodian National Mekong Committee (CNMC)
- Council for the Development of Cambodia (CDC) – takes decisions regarding rehabilitation, development and investment projects in the country
- Inter-ministerial council to oversee ethnic minority development  
(see further details in the report of national consultants in Volume 2)

Programmes and projects<sup>8</sup>

There is a multitude of projects or programmes in Cambodia promoting participatory planning approaches, which attempt to integrate natural resources management (NRM) issues in a local planning process. There are numerous examples of community-based NRM, such as community forests and fishery schemes managed by local committees, while participatory land use planning and land allocation according to the new land law has just started. As many of these projects are supported by international and local NGOs, most of them are on a small scale, covering from 5 to 20 villages. More widespread and more holistic approaches to NRM can only be found in Siem Reap (FAO-supported), in Ratanakiri (SIDA-supported) and in Kampong Thom (GTZ-supported). Yet, none of these projects has a watershed perspective.

In November 2001, the national SEILA Task Force has prepared a project proposal to DANIDA for a watershed management project in the Stung Pursat and Mongkol Borey areas (Provinces of Pursat, Battambang and Banteay Meanchey). The idea behind this proposal is to combine watershed management activities with the existing decentralised planning and implementation mechanisms created by the SEILA system in line with the NRM Mainstreaming Strategy of SEILA (Nov. 2001). The expected outputs and activities of this project have numerous similarities to the output 3 (WSM planning and implementation on the local level) of the AIFP WSM component, but within the framework of a bilateral project. Due to present budget restrictions it is doubtful whether DANIDA will be in a position to start funding the bilateral WSM project within the coming 2 years.

<sup>8</sup> A list of national and donor-funded programmes and projects in the four riparian countries is given in Annex 4.

### 2.2.3 WSM in Laos

#### Policy and legal framework

The watershed perspective is a common feature in policy and planning documents in Laos. The Government is committed to a programme of integrated area based development centred on watersheds and river basins. Several essential laws with relevance to WSM have been promulgated in recent years. Nevertheless, the legal and regulatory framework for effective WSM is still in a transitory phase. A consistent concept of integrated watershed management in Lao PDR is expected to be developed by the Lao-DANIDA Natural Resources and Environment Programme until October 2002, but the present situation is characterised by the absence of adequate guidelines on the operational level.

<b>Major legal and policy documents pertaining to WSM in Laos:</b>
<ul style="list-style-type: none"> <li>• Water and Water Resources Law (1996)</li> <li>• Decree on the Implementation of the Water and Water Resources Law (2001)</li> <li>• Land Law (1997)</li> <li>• Forest Law (1996)</li> <li>• Environmental Protection Law (1999)</li> <li>• Electricity Law (1997)</li> <li>• National Environment Action Plan (STEA 2000)</li> <li>• Strategic Vision for the Agricultural Sector (Dec.1999)</li> <li>• National Poverty Alleviation Strategy</li> <li>• National Socio-Economic Development Plan (NSED) (1996-2000)</li> <li>• National Rural Development Programme (1996-2000) (by the National Leading Committee for Rural Development (NLCRD) and the State Planning Committee)</li> <li>• National Water Supply and Environmental Health Programme (1997)</li> <li>• Human Resource Development Programme (1997-2000)</li> <li>• Lao PDR National Environmental Strategy until year 2010</li> </ul>



The “Strategic Vision for the Agricultural Sector” lists participatory planning and upland development among its key thematic approaches. The envisaged strategy for the uplands provides for decentralised development with an area-based approach focussing on watersheds and entire river basins. Emphasis is put on the stabilisation of shifting cultivation including participatory land use planning, land allocation and land use occupancy entitlement as well as community management of natural resources. The institutional framework for decentralised planning has been established in most provinces, bottom-up planning is, however, not yet really operational. The recent move towards decentralisation will eventually give local authorities greater authority in issues relating to natural resources management. At present, decision making is, however, still predominantly reserved for the central and provincial level.

#### Institutions

There is as yet no focal policy agency for WSM in the Lao Government. Responsibility for WSM related issues is shared among several government institutions of which the Ministry of Agriculture and Forestry is most strongly involved in the development of a national WSM concept.

**Government institutions in Laos involved in WSM:**

- Planning Division - Ministry of Agriculture and Forestry (MAF)
- National Agriculture and Forestry Research Institute (NAFRI)
- Water Resources Co-ordination Committee - Science Technology and Environment Agency (STEA)
- Department of Land Use Planning and Land Allocation
- SPC – State Planning Committee and CPC – Committee for Planning and Co-operation
- Lao National Mekong Committee (LNMC)
- National Leading Committee for Rural Development (NLCRD)
- Ethnic Minority Department

The role of international NGOs in Laos has seen gradual growth and development. However, the extent to which they contribute towards environmental management is still limited. NGO activities are typically focussing on small-scale “on-the-ground” projects in remote rural communities. The only NGO with a programme at national level is IUCN which is involved in policy development for bio-diversity ecosystems and conservation.

Programmes and projects

Since 1995 a number of bilateral WSM projects have been implemented in Lao PDR. The most prominent among these are the ADB-funded Nam Ngum Watershed Study, the JICA-funded Watershed Management for Forest Conservation in the Vangvieng area, the UNDP-funded Nam Niam Watershed Management Project and the Nam Ngum Watershed Management and Conservation Project supported by GTZ. Most of these projects have included local situation appraisal and data collection, local level development planning, land use planning and land allocation, development of sustainable upland agricultural practices, village forestry and water resources management through local user groups in their fields of activities.

The development of consistent national WSM concepts and practices for Lao PDR is promoted by the Lao-DANIDA Natural Resources and Environment Programme with a National Capacity Building Project (Phase I until Oct. 2002) in particular. National concepts are developed in close relation to and field tested by the Integrated Watershed Management Project in Huaphan and Xieng Khouang, which is funded under the same Programme structure by DANIDA. The National Capacity Building Project has been successful in establishing good collaboration in this methodological development process with several of the above-mentioned area-based projects as well as with relevant national institutions. It was planned to continue the National Capacity Building Project after October 2002 in a second phase, which now seems doubtful due to budget cuts by the Danish Government. A continuation of the started conceptual developments and the testing of WSM concepts, such as the integrated watershed planning, on the local level could be important activities of the AIFP WSM component in Lao PDR.

Two potentially very important WSM projects are in the planning stage: a WWF funded Nam Ou Watershed Management Project focussing on natural forest restoration and an ADB-funded RETA 5771 (Phase III) ‘WSM Project in Nam Ou’ (based on the final report elaborated at the end of an ADB funded 18-month study-phase).

Since 1996 a National Land Use Planning and Allocation Programme has been formulated, distinguishing a process of 8 main steps. Partly with donor support, partly with

Government funds this programme is implemented in all provinces. Although the original programme documents describe a robust approach, varying standards and instructions from one province to the other, insufficient funding and low staff capacities have led to a simplified approach to reduce costs. In particular the tools to encourage community participation and decision making have been modified or discarded altogether. At present, the major outcome of the landuse planning (LUP) process is land zonation according to general land use categories (agricultural land - forest land) and forest classification (protection, conservation, production, regeneration and degraded forest). In theory, the zonation and land use planning process should prepare the ground for land allocation (LA) to individual households, but again due to staff and budget restrictions this is often delayed. In recent surveys there are some indications that the LUP/LA Programme as it is carried out at present can contribute to increased poverty among swidden agriculturists and ethnic minorities. (see: Participatory Poverty Assessment Lao PDR, 2001).

#### 2.2.4 WSM in Thailand

Watershed management in Thailand has a long history. It was initiated in 1953 under the Royal Forestry Department. The principles of WSM in Thailand were developed and a standardised watershed classification system for the entire country was developed in 1979 on the basis of 5 parameters (slope, elevation, landform, geology and soil).

Nevertheless, no explicit government policy or national strategy on watershed management in Thailand has been formulated until today. The overall framework is set by the National Economic and Social Development Plans (NESDP) No.8 and 9 (2002-2006). These plans introduce the concept of sustainable development and natural resources management. In order to achieve effective administration and management of natural resources and the environment, the specified national programmes should include management of water resources according to watershed areas, land use zonation and planning according to land capability and watershed classification. An integrated approach is emphasised which requires co-operation in design, implementation and evaluation of the programmes by all relevant agencies.

In the latest NESDP (No.9) the main focus is on local planning, human development, strengthening of community organisations and public participation. At the same time a target is set of conserving and rehabilitating protected forests on 30% of the national territory.

<b>Major legal and policy documents pertaining to WSM in Thailand:</b>
<ul style="list-style-type: none"> <li>• Thai Constitution (1997)</li> <li>• National Forest Reserve Act (1964)</li> <li>• National Park Act (1961)</li> <li>• Agricultural Land Consolidation Act (1974)</li> <li>• Agricultural Land Reform Act (1975)</li> <li>• Enhancement and Conservation of National Environmental Quality Act (1992)</li> <li>• Cabinet Resolution on Watershed Classification</li> <li>• Cabinet Resolution on Settlements and Farming in Protected Areas (1998)</li> <li>• Tambon Administration Act (1992)</li> <li>• Forest Policy 1995</li> <li>• Policy and Prospective Plan for Enhancement and Conservation of National Environmental Quality 1997-2016</li> </ul>

Similar to the neighbouring countries, Thailand has embarked on a major decentralisation process with increased planning responsibilities as well as funds channelled to Tambon, District and Province level. Based on the Tambon Administration Act (1992) newly elected Tambon Councils and Tambon Administration Offices with representatives from each village have been created in the past three years.

### Institutions

In total, 38 Government departments are active in watershed related activities. The Royal Forestry Department (RFD) and the Land Development Department (LDD) are playing particularly important roles, but none of them has the sole responsibility for WSM. Furthermore, there is number of co-ordinating bodies with relevance to WSM. As a consequence, activities tend to be somewhat uncoordinated and disconnected. In the very near future, a new Ministry of Environment and NRM will be created, which will absorb parts of RFD, possibly LDD and other departments under the Ministry of Agriculture and Co-operatives.

#### **Government institutions in Thailand involved in WSM:**

- Royal Forestry Department (RFD) with 1 WSM Division on the national level, 3 WSM Sub-Divisions in the regions, 19 Watershed Management Centres in the provinces and 189 Watershed Management Units
- Land Development Department (LDD) with 12 Regional Offices of Land Development and 65 Land Development Stations
- Office for Environmental Planning and Policy (OEPP)
- Thai National Mekong Committee (TNMC)
- Hill-tribe Welfare Division (Department of Public Welfare)
- National Economic and Social Development Board (NESDB)
- National Environment Board (NEB)
- National Water Resources Council (NWRC)
- National Forestry Policy Board (NFPB)
- Committee for Solving National Security Problems Concerning Hill-tribe Population and Narcotics Plants
- Local and Regional Prosperity Distribution Committee

### Programmes and projects

There are four main Government Programmes with relevance to WSM:

- The National Rural Development Programme,
- The Programmes of the Ministry of Agriculture and Co-operatives line agencies,
- The Highland Community Development and Narcotics Control Programme,
- The Bottom-up Planning Programme.

The RFD, NGOs and several ODA projects have been particularly successful in establishing watershed network organisations in upland areas as a result of participatory land-use planning exercises. Each village in a particular micro-watershed thereby sends representatives to the local watershed network committee or peoples' forum<sup>9</sup>. By 2001 a total of 1284 villages, most of them participating in watershed networks, received technical support by the watershed management units of RFD.

<sup>9</sup> The role of these committees is further described in the report of the Thai national consultants.

One of the most relevant project for the conceptual development and exemplary field implementation is the Upper Nan Watershed Management Project (supported by DANCED) in Nan Province of North Thailand.

### 2.2.5 WSM in Vietnam

The Government of Vietnam has not yet formulated a comprehensive policy or strategy on watershed management or catchment protection. Nevertheless, a series of policies with regard to land use planning, land allocation, forest protection and sustainable management as well as water resources protection have been promulgated.

Major legal and policy documents pertaining to WSM in Vietnam:
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| <ul style="list-style-type: none"><li>• Land Law (1993/ revised 1998)</li><li>• Law on Forest Land Protection and Development (1991)</li><li>• Law on Water Resource Use and Management (2000)</li><li>• Law on Agricultural Co-operatives</li><li>• Decree No.525 on Mountain Area Development</li><li>• Decision No. 02 CP and Decision No. 163 on (Forest) Land Allocation</li><li>• Decision No. 264 CP on Credit for Forest Planting</li><li>• Decision No. 08 CP on the Management of 3 Forest Categories</li><li>• Draft Forestry Development Strategy 2001-2010 (Sept. 2001)</li></ul> |
|--|

The national programmes of land use planning and forest land allocation are of particular relevance for watershed management in Vietnam. Since 1993 large areas of land and forest resources in the entire country have been allocated to households, local organisations and communities for protection and management for time periods between 20 and 50 years. This term will be automatically extended if the user doesn't violate the regulations. Maximal area to be allocated for each household is limited in accordance to land resource availability in each province. Not more than 30 ha of forest land can be allocated to each household. The five fundamental rights to land use include: transfer, exchange, inheritance, lease and use as collateral. Households and communities receive official land-use certificates for the allocated forest areas.

#### Institutions

Vietnam has a plethora of government institutions that deal with WSM; each with their own and often overlapping mandate. The principal agency is the Ministry of Agriculture and Rural Development. Other important institutions are the General Department of Land Administration and the Land Cadastral Department.

**Government institutions in Vietnam involved in WSM:**

- Ministry of Agriculture and Rural Development (MARD)
  - Forest Protection Department
  - Forest Development Department
  - Department of Water and Irrigation Constructions
  - 5 million ha of Reforestation Project
  - Forest Inventory and Planning Institute (FIPI)
  - Forest Science Institute of Vietnam (FSIV)
  - National Institute of Agriculture Planning and Projection (NIAPP)
  - Institute of Water Planning and Projection (IWPP)
- Ministry of Science, Technology and Environment (MOSTE)
- General Department for Land Administration
- Land Cadastral Department
- Committee for Ethnic Minority and Mountain Areas (CEMMA)
- Ministry of Planning and Investment (MPI)
- General Department for Meteorology and Hydrology
- National Water Resources Council,
- Institute for Water Resources Planning
- Vietnam National Mekong Committee (VNMC)

A large number of NGOs are involved in NRM. Many of these run small projects in comparatively restricted areas focussing on participatory planning and development. International NGOs with larger programmes are IUCN and WWF.

Programmes and projects

A system of national programmes, have had widespread impacts in terms of reforested areas, clearly identified management responsibilities for forest protection, improved security of tenure and some contributions to poverty alleviation. Major national programmes are:

- 5million ha reforestation (1998-2010) – reforestation of 5 million ha (2 million ha protection and special use forest, 3 million ha production forest) in view of increasing forest cover to 40%, protection of existing forests
- Programme 133: Hunger eradication and poverty alleviation (started 1998) – employment generation, rural credit with no or low interest rates (Bank for the Poor), subsidies for crops, livestock and aquaculture, partly subsidies for health care, education etc.
- Programme 135: Socio-economic Development Programme for particularly difficult communes in the remote areas (started 1998) – 2200 communes in 2001, each commune receiving the equivalent of US\$ 2,700 per year, which is mainly used for infrastructure development
- Resettlement Projects – 500 projects have been conducted, resettling 1.9 million people in 26 provinces
- Water Sector support Programme

Important projects on WSM and NRM supported by bi- and multilateral donors include:

- Reforestation through local credit schemes in the provinces of Ha Tinh, Quang Binh and Quang Tri (German Financial Co-operation through KfW)
- Forestation in Quang Ninh, Bac Giang and Lang Son (German Financial Co-operation through KfW )

- Community-based Watershed Rehabilitation and Management (in 4 provinces) (ADB-funded)
- Song Da Social Forestry Development Project (German Technical Co-operation through GTZ)
- Lai Chau – Son La Rural Development Project (EU)
- Forestry Sector Project (ADB)
- Northern Mountain Poverty Reduction Project (WB/DfID)

### 3 INSTITUTIONAL ANALYSIS OF THE MEKONG RIVER COMMISSION

#### 3.1 History and mandate

The **Committee for Co-ordination of Investigations of the Lower Mekong (Mekong Committee)** was established in September 1957, based on a study performed by the United Nations Economic Commission for Asia and the Far East (ECAFE). The Mekong Committee comprised representatives of the four countries of the lower Mekong (Cambodia, Laos, Thailand and South Vietnam) and received input and support from the United Nations. The ECAFE study noted that harnessing the main stem of the Mekong would allow hydropower production, expansion of irrigated land, a reduction of the threat of flooding in the delta region, and the extension of navigability of the river. The ECAFE report emphasised the need for comprehensive development of the river and close co-operation between the riparian countries in co-ordinating efforts for projects and management.

The Committee was composed of “plenipotentiary” representatives of the four countries, meaning that they had the authority to speak for their country. The committee was authorised to “promote, co-ordinate, supervise, and control the planning and investigation of water resources development projects in the Lower Mekong Basin”. With rapid agreement between the riparian countries came extensive international support for the work of the Committee<sup>10</sup>. By 1961, The Committee’s resources came to \$ 14 million, more than enough to fund field surveys, which had been agreed upon as priority projects. By the end of 1965, twenty countries, eleven international agencies, and several private organisations had pledged a total of more than \$100 million (the Secretariat itself was funded by a special \$2.5 million grant made by UNDP).

The early years were the most productive for the Mekong Committee. Networks of hydrology and meteorology stations were established and continued to function despite hostilities in the region, and navigation improved along the main stream. The work of the Committee helped also to overcome political suspicion through increased integration. In 1965, Thailand and Laos signed an agreement on developing the power potential of the Nam Ngum River, a Mekong tributary inside Laos and despite hostilities between the two countries the mutual flow of electricity between Laos and Thailand was never interrupted.

By the 1970’s the early momentum of the Mekong Committee began to erode. Firstly, the political and financial obstacles necessary to move from data gathering and feasibility studies to concrete development projects often were too great to overcome. An Indicative Basin Plan in 1970 set out a basin development framework for the following thirty years marking a potential shift between planning and large-scale implementation towards more integrative approaches. In 1975, the riparian countries refined the Committee’s objectives and principles in support of the Plan in a “Joint Declaration on Principles”. This includes the first (and so far only) precise definition of “reasonable and equitable use” (based on the

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<sup>10</sup> Wolf A.T. (2001): Transboundary Waters: Sharing Benefits, Lessons Learned. Thematic Background Paper for the International Conference on Freshwater, Bonn, 2001.

1966 Helsinki Rules) ever used in an international agreement. Despite these efforts, the plan was only implemented along the tributaries within single countries avoiding concrete trans-boundary co-operation and agreement.

Secondly, political obstacles did heavily influence the Committee's work. From 1975-77 the Committee remained inactive and became a three-member "Interim Committee" in 1978 without representation of Cambodia. Cambodia rejoined the committee as a full participant in 1991, although the Committee still retained its "interim" status until 1995.

After the Paris Peace Agreement in 1991 Cambodia requested the reactivation of the Mekong Committee culminating in a new agreement, the "Agreement on Co-operation for the Sustainable Development of the Mekong River Basin", signed in April 1995. Through a supplementary protocol the Mekong Committee became the **Mekong River Commission**. The Mekong Agreement closely followed the provision of customary international law on trans-boundary water management, as given in subsequent conventions, in particular the Helsinki Rules on the Uses of International Rivers and the UN Convention on the Law of the Non-Navigational Uses of International Watercourses prepared by the International Law Commission and adopted for ratification by the United Nations General Assembly in 1997.

The 1995 Agreement spells out areas of co-operation and defines the mandate of the MRC. The Agreement elaborates on the key elements of the UN Conventions:

- to optimise the multiple-use of the river and mutual benefits of all riparian countries and minimise the harmful effects that might result from natural occurrences and man-made activities (*principle of reasonable and equitable utilisation*);
- to promote and co-ordinate the development of the full potential of sustainable benefits to all riparian countries states with emphasis and preference on joint and/or basin-wide development projects through the formulation of a basin development plan (*duty to co-operate*);
- to utilise the waters of the Mekong River system in a reasonable and equitable manner in their respective territories (*principle of prior notification and negotiation on planned measures*);
- to make every effort to avoid, minimise and mitigate harmful effects that might occur to the environment (*obligation not to cause significant harm*).<sup>11</sup>

After 1995 and until 1999, MRC activities mainly aimed at addressing national development issues with limited cross-boundary implications. This was and still is basically due to strong national development interests and international funding fostering a donor-driven project approach. With the development of a Strategic Plan for 1999-2003 and new leadership a change process has been initiated which focuses strongly on co-operation in a regional context. The change process aims at reorientation from a predominantly sectoral project approach to a multi-sectoral and basin-wide programme approach. Structurally, this process is still hampered by the fact that Myanmar and China are not party to the agreement, effectively precluding integrated basin management. An open invitation to participate has yet to be accepted. Instead both China and Myanmar are engaged as „dialogue partners“ attending meetings of the Joint Committee as observers.

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<sup>11</sup> Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin. 5 April 1995.  
and  
Transboundary Water Management as an International Public Good. Prepared for the Ministry for Foreign Affairs, Sweden by ODI and ARCADIS Euroconsult. Stockholm 2001.

Although the Mekong Agreement is acknowledged to represent international „best practice“ its true effectiveness will only be proven through application and enforcement. In the absence of detailed water utilisation and notification rules, the implementation of the provision on prior notice and consent has been incomplete.

### 3.2 Organisational structure

In origin and operation, the Mekong River Commission and its predecessors have been an „intergovernmental“ agency. The MRC currently consists of three permanent bodies:

- *Council*: A political decision making body consisting of one member from each state at the Ministerial and Cabinet level who is empowered to make policy decisions on behalf of his/her government. Chairmanship of the Council rotates every year.
- *Joint Committee*: A technical decision-making and management body, which consists of one member from each country at department head level. The joint committee takes care of the implementation of decisions and of the Council and supervises the Secretariat. Chairmanship of the Joint Committee also rotates every year.
- *The Secretariat*: Provides technical and administrative services to the Council and Joint Committee. The Secretariat is headed by the Chief Executive Officer (CEO), who is not from one of the riparian countries and is appointed for a term of three years at a time.

In February 2002, the Secretariat employed a total of 107 riparian and international professional and general service staff. In the past, riparian staff were usually nominated by their respective country with the nomination often being based on political considerations rather than profession qualification. At present, there is an effort to recruit professionals more on performance basis and limit the duration of the contracts to three years. Obviously, compromises are necessary which results in a situation where not all staff match the required professional standards.

In July 2000, a new organisational structure was introduced in the Secretariat. Former sectoral divisions have been replaced by a new structure along functional lines. The new structure contains four inter-dependent divisions and three supportive sections with cross-cutting function. The Divisions are the Natural Resources Development Planning Division, the Technical Support Division, the Environment Division and the Operations Division<sup>12</sup>. Together with the Human Resource Section, the Programme Co-ordination Section and Finance and Administration Section they form the so-called Core Programmes Management Group (CPMG). The CPMG is the main link for co-ordination between the MRC Secretariat's organisational structure and the National Mekong Committees.

Recently, working groups have been established to ensure effective collaboration across sectors, programmes and organisational units and to allow the formation of ad-hoc working groups as required. The three permanent Working Groups are:

- Working Group on Basin Modelling and Knowledge Base;
- Working Group on Environmental and Trans-boundary Issues;
- Working Group on Basin Development Planning and Socio-Economic Issues..<sup>13</sup>

Every riparian country has a National Mekong Committee (NMC) which is the official entry point for the MRC in that country. The Committees are expected to formulate national policies and to provide co-ordination between and among national line agencies and MRC

<sup>12</sup> For an organogramme of the MRC Secretariat see Annex 6.

<sup>13</sup> Source: MRC-S internal document on Working Groups.

projects. Their structure and strength varies from country to country, but the general arrangement is to have an inter-ministerial policy-making body, a management group of key governmental departments and a secretariat to support the NMC.

### 3.3 Resources

The MRC and the bodies that preceded it, have been mainly funded from bilateral grants, particularly from Japan and South Korea, the Nordic Countries, Switzerland, the Netherlands, Belgium, Australia, and New Zealand. The MRC has an **annual core budget** of approximately \$ 2 million which derives from three main sources:

- Contributions from the four member countries (\$ 195,000 each in 2000);
- Donor grants – some of it „in kind“, i.e. through deputation of international staff – from a subgroup of the donors funding programme activities (Sweden, Denmark, Switzerland). To keep this mechanism manageable the preference has been to maintain a small group of donors for the core budget;
- An 11% surcharge on the donor-funded projects implemented by MRC.

Donors have indicated that they would like to see greater ownership by the riparian countries. Recently, the MRC States have decided to raise their contributions in order to phase out donor inputs to core funding within a period of 15 years. The contribution formula has also been changed from an equal share to a weighted share based on catchment area, average flow, irrigated area, population and GDP.

In contrast to the MRC Secretariat, the NMCs are financed entirely from national budgets. These budgets are fairly low resulting in insufficient operational funds and difficulty in retaining high-calibre staff. The NMCs do not have a programme budget of their own. Some, but no all, of the MRC programme funding for national components is channelled through the National Committees.

The **MRC Programme Budget** - \$ 15-20 million annually – is funded almost exclusively from international and bilateral grant sources. The nominal contribution of the MRC countries is expressed in staff time. Donor funding has come from a wide range of sources<sup>14</sup>. Acknowledging the organisational and programmatic changes since 1998, donor contribution has shown a constant increase since.

The MRC programme traditionally reflects the strong donor environment in which the MRC has been nurtured. The Interim Mekong Committee and the new Mekong River Commission engaged in a large number of bilateral and sectoral projects, many of them studies, producing background information but little translation into action or policy. Over time the IMC and then the MRC became increasingly „donor driven“. Strongly supported by the donor core group (Sweden, Denmark, Switzerland) the Committee has now developed a programme approach. Within each programme, „components“ are defined and offered to donors for funding.

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<sup>14</sup> Funding in 2000 from the governments of Australia, Belgium Denmark, France Finland, Germany, Japan, New Zealand, South Korea, Sweden, Switzerland and the U.K., UNDP, UNEP and GEF.

### 3.4 Strategy

The basis for the shift from a sectoral project approach to a multi-sectoral and basin-wide programme approach is the Strategic Plan 1999-2003 which was approved by the Council in 1998. After a refinement in late 2000, four goals were identified:

1. To establish and implement “rules” for water utilisation and inter-basin diversions;
2. To establish a dynamic basin development planning process as a framework for natural resource management and sustainable development, and to plan and execute corresponding priority sector programmes and projects;
3. To establish and promote MRC environmental and socio-economic management systems, recommendations, and policy guidelines;
4. To establish an effective organisation, capable to promote in partnership with other institutions, basin-wide development and co-ordination.

The vision for MRC is to become a “world class, financially secure, international river basin organisation” and “to promote and co-ordinate sustainable management and development of water and related resources for the countries’ mutual benefit and the people’s well-being by implementing strategic programs and activities and providing scientific information and policy advice”<sup>15</sup>. Recently, MRC is increasingly focussing on its potential role as mediator in trans-boundary conflict resolution in the LMB.

In order to remain distinct from country-based programmes or projects, while being complementary to them, MRC initiatives are intended to conform to the following criteria:

- promote the sharing and/or joint management of resources;
- be trans-boundary in nature;
- contribute to or promote regional institutions, norms and policies;
- foster research than cannot be adequately or effectively undertaken nationally;
- create or sustain networks or contacts among governmental or non-governmental organisations in different member countries.

It is quite obvious that the organisational change process in MRC has yielded visible positive effects. Division boundaries within the Secretariat have been lowered and cross-divisional team work has increased. MRC partners are reporting much more openness for information sharing and co-operation. Nevertheless, there is still some way to go for the MRC to become the envisioned “Regional Centre of Excellence”. The main challenge will probably be to get effectively engaged in dialogue and collaboration with relevant government and other agencies as well as civil society organisations (multi-stakeholder approach). The role of the National Mekong Committees in this context is to support networking and policy development. While the latter is fully acknowledged, the NMCs should avoid to strive for the role of all embracing planning bodies as this might establish parallel bureaucracies. Besides, many national line agencies would probably resist such a role of the NMCs which would seriously hamper co-operation and programme implementation.

Due to political concerns of the riparian countries, the regional role of the MRC is in many respects still not fully operationalised. This might foster the tendency to again concentrate on data collection and internal organisational development. It remains to be seen if the new programme approach will be effective in generating tangible benefits for the individual countries. The key to “ownership” by the riparian countries is probably a good balance of national and regional interests in the programme concepts.

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<sup>15</sup> MRC (2001): Work Programme 2002. MRC Secretariat, Phnom Penh.

### 3.5 MRC programmes and interlinkages between AIFP/WSM component and other programmes

The MRC has three types of programmes: **core, support and sector programmes**<sup>16</sup>. The Core Programmes are those central to the purpose of the Commission, and are to remain in the long term. They are addressing central issues of the 1995 Agreement in line with the Strategic Plan. The activities under these programmes are, in the long term, to be funded by the contributions of the member countries, thus ensuring sustainability. The core programmes are:

- Basin Development Plan (BDP)
- Water Utilisation Programme (WUP)
- Environmental Programme (EP)

The Support Programme addresses the capacity building needs of the MRC Secretariat and of the riparian countries. The Sector Programmes are focussing on important sectoral issues in the basin. They are supposed to have a regional focus and to address development needs from a basin-wide perspective, complementing and supporting national and bilateral development initiatives. The current or planned Sector Programmes are:

- Fisheries Programme (under implementation)
- Water Resources and Hydrology Programme (partially under implementation)
- Navigation Programme (in preparation)
- Tourism Programme (to be prepared)
- Agriculture, Irrigation and Forestry Programme (under preparation)

The Agriculture, Irrigation and Forestry Programme comprises three components: Water Use Efficiency, Capacity Building and Watershed Management. While the WSM component is subject of this appraisal, negotiations with donors regards the funding of the other two components have not yet yielded tangible results.

During the appraisal, a detailed analysis on the interlinkages and complementarities between AIFP and the other core and sector programmes has been undertaken showing a clear need for close co-ordination and co-operation. BDP, WUP, EP and the Fisheries Programme (amongst others) could provide information and assist in the selection of critical watersheds. On the other hand, the AIFP-Watershed component could substantially contribute to the development scenarios the BDP is intending to generate by demonstrating the economic and social impacts of technical and institutional interventions in watersheds and identifying strategies and approaches in watershed management which influence national policies. A particularly strong linkage needs to be established between the WSM Component and the Fisheries Programme as they will partly work in the same geographical areas.

Overall, the WSM Component with its inter-sectoral focus will help to operationalise MRC's regional role and will link MRC activities with ongoing activities at national and sub-national level. It has the potential to support the development of feasible multi-stakeholder-approaches at the regional level on the basis of national initiatives.

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<sup>16</sup> For more detailed information on the programmes see MRC Work Programme 2001.

### **3.6 Partnerships with other regional players and civil society**

The key regional vehicle for greater integration, ASEAN, has become an increasingly important forum for regional co-operation and has established the Fund for Mekong Region Development. ASEAN's plans closely overlap with the Greater Mekong Sub-region plan (GMS), initiated by the Asian Development Bank in 1992. At present, the focus of the GMS programme is on trans-boundary roads, railways, telecommunications infrastructure and HIV/AIDS prevention including– unlike ASEAN – also the Yunnan region in China.

These developments are placing the MRC as a regional player in a larger and expanding regional framework. Nevertheless, there has been a tendency for the GMS and MRC to move in different directions and at different speeds. As a matter of fact, ADB has been funding water investments outside the MRC framework. To avoid future mismatches, a partnership agreement was signed in 2000 between ADB and MRC which expresses the willingness to exchange information and to co-ordinate activities.<sup>17</sup>

The role of the non-government sector has been comparatively small in the lower Mekong region. In contrast to other basins, „second track“ diplomacy by civil society has not played much of a role in the LMB. For long time, the political climate has not been conducive to the development of a strong regional NGO sector. Only recently have NGOs started operating regionally. Resistance against the construction of dams in recent years and the criticism of the MRC as being a „closed shop“ led to the necessity and the opportunity for MRC to engage more actively in dialogue with the civil society. The MRC and the national committees have underlined the principle of participation in a policy paper, but this is still to be translated into practice, particularly in the preparation of the Basin Development Plan.

## **4 ANALYSIS AND ASSESSMENT OF THE PROPOSED WATERSHED MANAGEMENT COMPONENT OF THE AIFP**

### **4.1 Watershed Management as a component of the MRC Agriculture, Irrigation and Forestry Programme**

The Agriculture, Irrigation and Forestry Programme (AIFP) of the MRC is one of five Technical Programmes listed in MRC's Strategic Plan 2001 to 2005<sup>18</sup>. The programme document for the AIFP<sup>19</sup>, endorsed in 2001, specifies three programme components:

- The Water Use Efficiency Component aiming at improved approaches to utilise and share water resources in agriculture, principally in irrigation;
- The Catchment (or Watershed)<sup>20</sup> Management Component aiming at improved approaches in the management of critical watersheds;
- The Capacity Building Component aiming at an enhanced capacity of MRC (including the National Mekong Committees and concerned line agencies) to facilitate sustainable use of land and water for agriculture and forestry.

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<sup>17</sup> Other partnership agreements exist with ICLARM, AIT, IUCN.

<sup>18</sup> The other Technical Programmes are: The Navigation Programme, the Water Resources Programme, the Fisheries Programme and the Tourism Programme

<sup>19</sup> MRC(2000): Agriculture, Irrigation and Forestry Programme for 2001 – 2005. MRC Secretariat, Phnom Penh, December 2000.

<sup>20</sup> Watershed Management and Catchment Management are virtually synonymous terms. In order to avoid potential confusion, the term WSM will be used throughout this report.

Forestry does not appear in the AIFP as a component in itself but is included in the Watershed Management Component. The importance that MRC is placing on forestry in the context of WSM is highlighted in a strategy and action plan on WSM and forestry<sup>21</sup>.

The Programme Document defines the objective of the WSM component as the “Institutionalisation of a process of WSM planning in selected LMB cross-border areas and where resource use in one domain is creating stress to users of a sub-basin.” The proposed strategy is “to facilitate collaborative planning (learning) for actual development or amelioration activities in sensitive cross-border areas and other areas where the interest of the basin as a whole are impacted or potentially impacted by lack of an institutional capacity to undertake interdisciplinary planning and action”. In order to provide an incentive and focus for local planning and “learning by doing” it is proposed to associate the WSM component with a small community grants scheme to implement necessary small and medium scale action and to develop links to lending institutions. Major activities are proposed as following:

- Establishment of trans-border or trans sub-basin local government resource planning committees;
- Scheduling of an agreed programme of trans-border planning meetings;
- Undertaking of study tours and exchanges with other WSM groups within the basin;
- Establishment of digitised maps showing sub-basin agriculture, forests, fisheries, natural species resources and services, including development activities planned by others;
- The formulation of WSM plans;
- Facilitation of community and other stakeholders access to funding;
- Establishment of a capacity to monitor resource use and trade;
- Implementation of a responsive monitoring and evaluation programme in accordance with the requirement of funding bodies;
- Study of land, water and forest use rights.

#### **4.2 Request for Technical Assistance for the Implementation of the WSM Component**

In February 2001, the MRC Secretariat formulated a request for technical assistance to the German Government to support the WSM component of the AIFP along the lines set out in the programme document. The request defines six major outputs to be achieved:

- An institutional capacity to undertake trans-border and inter-sectoral planning for watershed management in some trans-border and environmentally sensitive areas has been established;
- An improved user-oriented database of ecological, socio-economic, human and other resources in fragile areas is available for meso- and macro-planning;
- The capacity to mobilise funds and resources at local level for economic development and environmental protection activities has increased;
- A better understanding and knowledge of necessary and effective institutional and political processes essential for negotiating, planning and monitoring watershed management has been created in critical, trans-border areas of the Mekong Basin;
- Guidelines for working cross-border have been established on topics such as data/information/knowledge sharing and management, development and harmonising standards/definitions, cross-border stakeholder analysis, linkages and partnerships

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<sup>21</sup> MRC (2000): Strategy study on the development of the WSM/Forestry Sector in the Lower Mekong Basin. Strategy and Action Plan. MRC Secretariat, Phnom Penh, January 2000.

between local governments, awareness and use of global conventions and “rules of conduct”;

- Tested, disseminated and endorsed documentation is available on land use planning, land allocation procedures and the institutionalisation of economic and social impact assessments (upstream – downstream).

The main expected benefits of the WSM component are described as

- More sustainable and long-term oriented management of natural resources;
- Building of trust and capacity for dialogue and conflict resolution amongst stakeholders at local level;
- Development in sensitive border areas;
- Improved information and knowledge about the links between secure use rights and sustainability of resource use;
- Further development of avenues for strategic co-operation with national programmes, multinationals and projects in the selected areas and a new window for co-operation with international organisations such as WWF and IUCN.

A direct link to the three core programmes of MRC (i.e. Basin Development Plan, Water Utilisation Programme, Environment Programme) is mentioned in the request, but without further explanations or details. The cost estimate is US\$ 3 million over a time period of 3 years (Phase I).

#### **4.3 Proposed Target Sites for Field Implementation**

The Programme Document and the Request for Technical Assistance propose the following sites for field implementation:

- The Dien Bien /Meuang Mai border area between Vietnam and Laos (Nam Ou watershed) with a focus on poverty alleviation and food security through upper watershed erosion control among ethnic minorities, bank stability and flood control, irrigation modernisation, crop diversification and fishery development in valley bottoms and lower slopes.
- The Sesan / Srepok river basin between Cambodia and Vietnam with a focus on community-based planning for balanced resource use between forestry, agriculture, fisheries and energy generation with particular attention to poverty alleviation and food security.
- The Se Bang Hien river basin between Vietnam and Laos with a focus on poverty alleviation and food security with the view of funding small scale agriculture, irrigation and forest activities.
- The Theun Hinboun hydro-scheme area in Laos with a focus on irrigation and fisheries.
- The Tonle Sap Great Lake region and /or the Stung Pursat region of Cambodia in particular with a focus on integrated WSM planning to safeguard the integrity of the Lake as a whole.

#### **4.4 Assessment of the proposal and the baseline documents**

An analysis of MRC’s Strategic Plan 2001-2005 reveals a high degree of accord between the priorities set forth therein and important traits of the relevant concepts and guidelines of the BMZ (sustainable development, poverty reduction, prevention and resolution of potential conflicts, promotion of regional associations). The AIFP is in line with the objectives and principles provided by Agenda 21 (in particular: chapters 3, 8, 9, 11, 13, 15 and 18)

and by international conventions and arrangements pertaining to natural resources (in particular: Framework Convention on Climatic Change, Convention on Bio-Diversity, International Arrangement on Forests). Support to the implementation of AIFP under the framework of the Strategic Plan would, therefore, be well in agreement with German Development Policy.

Given Germany's long involvement in sustainable resources management in the region, German Development Co-operation can contribute to enhancing the MRC Secretariat's capacity to address the above issues and to assume its envisaged role of a regional "centre of excellence". MRC's "Strategy study on the development of the watershed management / forestry sector in the LMB" provides a convincing outline of how MRC can best realise this objective in a regional WSM/forestry programme by

- adopting a "client focussed", "service-oriented", "demand driven" approach to working in WSM and forestry;
- engaging in dialogue and collaboration with relevant national stakeholders to identify and document issues and constraints facing these sectors;
- collaborating with national and international programmes and projects in addressing these issues and constraints;
- concentrating on activities which complement and build upon the achievements of past and current activities like the "Forest Cover Monitoring Project", the "Watershed Classification Project" and the "Sustainable Management of Natural Resources Project";
- concentrating on facilitation and promotion of co-operation between stakeholders involved in WSM/forestry issues of basin-wide significance.

The proposed strategies, expected outputs and benefits outlined in the AIFP Programme Document reflect a comprehensive but very challenging and ambitious approach. In particular the following aspects raise some concerns:

- Working in cross-border locations requires a high degree of readiness for co-operation on the part of the respective countries which cannot be taken for granted. Border regions are quite often sensitive areas in political and security terms. In view of the difficulties encountered in establishing multi-stakeholder and cross-sectoral co-operation even within one single province, the facilitation of collaboration across national borders is a difficult endeavour. Moreover, cross-border catchments represent only a very small area of the entire Lower Mekong Basin (less than 5%) and have a limited potential to serve as "basin-wide" examples. It would, therefore, appear prudent not to put "all eggs into one basket" i.e. not to work exclusively in cross-border catchments but also in critical "national" catchments as long as they have cross-boundary implications. The latter would apply to those catchments with particular importance to down-stream areas in neighbouring countries as well as to those that would provide significant examples for a large number of other locations in the LMB.
- The description of focal areas of work in the proposed watersheds draws the picture of a very broad rural development approach based on integrated WSM planning<sup>22</sup>. Issues to be dealt with include not only erosion and flood control, bank stabilisation, agriculture (in particular irrigation infrastructure and crop-diversification), fisheries, and forestry but also health, infrastructure and water supplies. While the need for an integrated planning approach is fully appreciated it would appear extremely difficult - if at all possible - to address such a wide array of topics through one single project. In view of the limited funds available on one hand and the specific experience of GTZ on

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<sup>22</sup> See: MRC (2000): Agriculture, Irrigation and Forestry Programme for 2001 – 2005. MRC Secretariat, Phnom Penh, December 2000. Page 42.

the other, a concentration on natural resources management would appear necessary, particularly when it comes to supporting the implementation of WSM plans.

The particular benefits of a regional approach to WSM as compared to several national projects comprise

- intensified exchange of experience and lessons learnt between the countries which may lead to more effective interventions and help to avoid duplication and repetition of ineffective strategies and actions;
- more effective use of available human and financial resources for WSM;
- the possibility to address cross-border catchments as entities;
- further improvement of good relations and mutual trust through joint learning, professional interaction and development activities across institutions and countries;
- transparent, fair and amicable resolution of disagreements based on regionally acknowledged principles and agreements on WSM;
- harmonisation of views and potentially joint positioning and negotiations at international fora related to watershed management;
- improved access to international funding.

## 5 DESIGN OF THE AIFP WATERSHED MANAGEMENT COMPONENT

Based on the findings of the appraisal mission and the results of the strategy workshop, the participants of the regional Planning Workshop (Phnom Penh, 21<sup>st</sup> and 23<sup>rd</sup> February 2002) developed the following concept for an initial phase of three years (starting in December 2002) for the WSM component of the AIFP to enter into a potentially long-term co-operation.

### 5.1 Objectives

**Direct objective (Purpose)** of the WSM component of the AIFP is that “Relevant institutions in the riparian countries and the MRC Secretariat make use of regional co-operation, information exchange and improved approaches for sustainable WSM in the Lower Mekong River Basin”.

#### **Indicators for the achievement of the direct objective (Purpose):**

- A regional plan of action on co-operation in Watershed Management is drafted by 12/2004 and endorsed by MRC and the relevant national authorities by 12/2005.
- Interviews with a representative sample of people from Government and Non-government Organisations involved in Watershed Management in the LMB yield the following results:
  - x% of interviewed persons consider regional co-operation activities of the AIFP as „worthwhile“ and beneficial;
  - y% of interviewed persons give a valid example how regional co-operation activities had a direct positive effect on their work;
  - z% of interviewed persons state that improved WSM information contributes to better decision making in their particular field of work.(x, y, z to be specified during operational planning)

Intensive discussions during the appraisal were focussing on the question whether or not to formulate an indicator (at the Purpose level) pertaining to the establishment of regionally acknowledged "standards", guidelines or principles for sustainable WSM. Such principles could potentially serve as a basis for the assessment of future project proposals and for decisions on investment into WSM and might on the long run lead to a regional convention on WSM. During the discussions it became, however, evident that the feasibility and practicability of such principles at the regional level is not sufficiently clear in view of different legal, political and bio-physical conditions in the riparian countries. Hence the decision to further study this issue during the first phase and to formulate an indicator thereto at the Output level (see Indicator 3.3 below).

The achievement of the direct objective will lead to an enhanced capability of the riparian countries to manage their watersheds sustainably and increasingly in view of regional needs. Eventually this will contribute to the **ultimate objective (Overall Goal)**: "The watersheds of the Lower Mekong River Basin fulfil their ecological, economic and social functions and provide a sustainable basis for improved livelihood of the population."

## 5.2 Strategy

The general strategy is derived from the direct objective, i.e. to facilitate collaboration and joint learning among the riparian countries. This pertains to the development of improved approaches to WSM at the local level in selected target areas, to the development of national policies and guidelines, to the harmonisation of policies and strategies at the regional level and to improving information management.

Representatives of virtually all relevant institutions and the participants of the three regional workshops underlined the necessity that WSM planning in pilot catchments needs to be followed up by implementation. German Technical Co-operation, with its given mandate and resources, can, however, provide only rather limited support to implementation. Hence the necessity to collaborate with national programmes, NGOs, and projects funded by other donors. Moreover, it appears imperative to link the Technical Co-operation in WSM and the proposed German Financial Co-operation contribution to forest rehabilitation to be provided through KfW.

## 5.3 Outputs, activities and indicators of success

In order to achieve the Purpose, the following four Outputs are to be realised within the initial phase:

- Output 1:** WSM approaches in selected (national and cross-border) watersheds are further developed, documented and disseminated.
- Output 2:** Mechanisms for analysis and further development of national WSM policies and guidelines in the LMB are established and functioning.
- Output 3:** Mechanisms for continuous and effective regional collaboration in WSM are established and functioning.
- Output 4:** Regional and national information management on WSM is improved.

Activities to be carried out in order to realise these Outputs and objectively verifiable indicators for the achievement of the Outputs are presented and briefly discussed in the following paragraphs.

**Output 1:** WSM approaches in selected (national and cross-border) watersheds are further developed, documented and disseminated.

There are numerous projects and programmes in the region that have been or are presently dealing with different aspects and elements of WSM. As a matter of fact, with the possible exception of adequate financing mechanisms, virtually all methodological elements of WSM have been developed and are available somewhere. However, there is - to the best knowledge of the consultants – no example in the LMB yet where the full approach to WSM (i.e. integrated planning followed by co-ordinated implementation of the plans) is put into practice. The rationale for this Output is, therefore, not to test and develop additional elements of WSM but to make use of existing methodologies and to establish "real life" examples of integrated WSM in selected target areas which can be multiplied through investment programmes at a larger scale. An issue of particular interest is cross-border co-operation in trans-boundary areas.

**Activities:**

- 1.1 Participate in feasibility study and project appraisal for German Financial Co-operation contribution including the final selection of target areas
- 1.2 Support integrated WSM planning at district and province level and develop mechanisms for cross-border co-ordination
- 1.3 Support the development of incentive and subsidy schemes and financing mechanisms for sustainable NRM within WSM
- 1.4 Support local actors in accessing funds for NRM implementation
- 1.5 Facilitate and participate in networking on NRM relevant topics at local, province and national level
- 1.6 Provide training in WSM relevant topics at local and sub-national level

**Indicators:**

- 1.1 The institutional arrangements for integrated WSM planning are in place in two watersheds by 06/2003 and a trans-border WSM committee is established and functioning in at least 1 cross-border watershed by 12/2003.
- 1.2 Integrated WSM plans for two watersheds with an area of at least 400 km<sup>2</sup> each are available and submitted to relevant authorities for approval by 06/2004. The multi-sectoral plans are based on the principles of participation, gender equality and sustainable management of natural resources. The plans describe the methodologies and instruments used, the activities to be implemented, the necessary financing mechanisms and the tasks, responsibilities and contributions of the major stakeholders.
- 1.3 Experience from and products of integrated WSM planning in the pilot areas are fed-back to the relevant national and regional institutions, programmes and working groups.

**Output 2:** Mechanisms for analysis and further development of national WSM policies and guidelines in the LMB are established and functioning.

WSM concepts in the riparian countries are in different stages of development, but none of the countries has a coherent policy yet. There is, however, a lot of experience in each country that may be useful for policy development in other countries. For example, Vietnam is far advanced in participatory landuse planning and land allocation as compared to the other countries. Thailand has a country-wide system of Watershed Management Centres and Units and Land Development Stations that may serve as an example to the neighbouring countries. In Cambodia, the SEILA programme has provided substantial experience with decentralised planning and implementation mechanisms which may be useful for the other LMB states. The Lao-DANIDA Natural Resources and Environment Programme can provide valuable lessons through its National Capacity Building Project. The

emphasis under Output 2 is to facilitate the use of regionally available knowledge for national policy development.

**Activities:**

- 2.1 Identify major national stakeholders in the development of WSM policies, strategies, systems, methodologies
- 2.2 Establish and support national working groups (or similar arrangements) on identification and documentation of best practices in WSM
- 2.3 Establish and support national working groups (or similar arrangements) on analysis and further development of policies and guidelines
- 2.4 Facilitate documentation of work results and dissemination at national and regional level (incl. feed-back mechanisms into activities 2.2 and 2.3 in other countries and into activity 3.3)

**Indicators:**

- 2.1 An annotated regional inventory of national WSM policies and guidelines is available by 12/2004. The inventory considers gender aspects in a systematic way.
- 2.2 An annotated regional compilation of "best practices" in WSM is available by 12/2004. The inventory considers gender aspects in a systematic way.
- 2.3 National working groups on WSM policy and guidelines development are established in two countries by 12/2004 and work according to clearly defined terms of reference.

**Output 3:** Mechanisms for continuous and effective regional collaboration in WSM are established and functioning.

Output 3 aims at the regional harmonisation of WSM policies and at the establishment of the capacity to deal with those issues that require regional consultation and negotiation. Moreover, the potential of the development of regionally acknowledged principles of WSM and eventually a regional convention on WSM are to be explored.

**Activities:**

- 3.1 Analyse relevant international conventions and agreements on NR in view of their relevance to WSM
- 3.2 Facilitate identification of priority issues for regional co-operation in WSM and feed-back into BDP, WUP and EP
- 3.3 Facilitate regional exchange of experiences and co-operation on defined priority issues
- 3.4 Support regional human resources development in WSM relevant topics

**Indicators:**

- 3.1 A regional committee on WSM with clearly defined terms of reference is in place by 12/2003.
- 3.2 At least 3 regional working groups or partnerships on defined priority issues are established and functional by 12/2003. (Examples: forest land allocation, funding mechanisms, etc.)
- 3.3 A report with recommendations for (regionally acknowledged) principles of sustainable WSM as a basis for decision-making on regional investment in WSM is available by 12/2004.

**Output 4:** Regional and national information management on WSM is improved.

There is a plethora of institutions that collect and compile data and information on WSM but little of this is accessible to other institutions even in the same country. As a result, there is a lot of duplication and redundancy on one hand and a lack of data and informa-

tion on the other. Output 4 aims at improving data and information exchange and accessibility. A major issue in this context is the question in how far MRC should assume the role of a custodian of information and in how far this would be better organised through a decentralised system.

**Activities:**

- 4.1 Assess data and information needs of AIFP and partner organisations
  - 4.2 Co-ordinate data and information management with other MRC Programmes and relevant other stakeholders in WSM
  - 4.3 Compile and generate data and information needed for AIFP and not available from other sources
  - 4.4 Support data and information exchange through WUP / TC agreements between countries based on defined standards (formats, quality, meta-data)
  - 4.5 Facilitate public access to AIFP data and information (through Mekong Info, Web, meta-data bases, etc.)
  - 4.6 Contribute to capacity building for partner organisations in AIFP-related data and information management
- (Links between this output and all other outputs need to be established.)

**Indicators:**

- 4.1 A consolidated concept for improved regional WSM information and data management is available by 12/2003 and partly implemented. (Milestones for implementation are to be defined when the concept has become available.)
- 4.2 The concept provides for the integration of WSM information into the core programmes of MRC.
- 4.3 AIFP-data are disaggregated according to gender wherever this is appropriate and feasible

**5.4 Target sites**

The sites identified in the Programme Document and one additional site proposed by Thailand were analysed and compared in order to identify watersheds that are (a) in a critical condition and (b) relevant and feasible<sup>23</sup>. Two sets of criteria were applied:

Criteria for critical watersheds:

- High elevation range, steep slopes;
- Current or previous high rates of deforestation;
- High rate of land use changes and land conflicts;
- High population increases (internal growth or in-migration);
- Poverty-induced pressure on natural resources.

Relevance and feasibility criteria:

- Cross-border situation or basin-wide relevance;
- Expressed political will and preparedness for cross-border dialogue;
- Accessibility to and within the area;
- Accordance with national development priorities;

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<sup>23</sup> A summary description of all potential pilot sites is presented in Annex 3.

- Good opportunities for partnerships due to presence of potential partners for planning and implementation (GO, NGO, ODA);
- Largest possible overlap between administrative and physiographic boundaries;
- Potential for “visible“ impact on the short run and strategic development opportunities;
- Security aspects.

Based on these criteria, three catchments are considered to be the most suitable target areas for the development of improved approaches to WSM. These are:

- a) The cross-border area of the Nam Ou watershed with the Nam Noua sub-catchment in Laos (Mai District of Phongsaly Province) and the Nam Rum sub-catchment in Vietnam (Dien Bien District of Lai Chau Province);
- b) The Upper Sesan watershed in Cambodia (Ratanakiri Province) with the potential to extend into the Vietnamese part of that watershed in a second phase;
- c) The Mae Nam Suai sub-catchment of the Mae Nam Kok watershed in Thailand (Chiang Rai Province).

The participants of the planning workshop agreed, however, to postpone the final selection of the pilot watersheds and to take this decision in the context of the appraisal of the envisaged German Financial Co-operation contribution in order to ensure the necessary linkage with the latter.

## 5.5 Organisational set-up and national lead agencies

The overall responsibility for implementation will lie with the MRC Secretariat where the main office for the WSM component of the AIFP will be established. In general, the MRC will facilitate national line agencies to undertake the activities in the riparian countries.

In all countries, the National Mekong Committees (NMCs) will play a co-ordinating and supervising role at the national level. Their tasks will include the establishment of links to line agencies, existing committees and co-ordinating bodies at the national level, support to the creation of additional technical working groups and steering committees as well as the organisation of national and regional meetings. The NMCs should not be directly involved in the planning and implementation of WSM activities at the sub-national level, but remain informed through regular reporting by the lead agencies and participate in the monitoring of overall work progress through appointed focal persons in the NMCs.

National lead agency in Cambodia will be the Ministry of Agriculture, Forestry and Fishery. At province and district level, all relevant line agencies need to be represented in the Provincial and District Rural Development Committees as the most important co-ordinating bodies.

National line agency in Laos will be the Ministry of Agriculture and Forestry. At the sub-national level, the Provincial Rural Development Committee as well as the Provincial and District Agriculture and Forestry Offices will become the main implementing partners.

In Thailand, the lead agency will be the Royal Forest Department with a close co-operation with the Land Development Department<sup>24</sup>. At the local level, Watershed Management Centres and Units will be involved, as well as Land Development Stations, which could contribute to the creation of the planned Agricultural Technical Centres at Tambon level.

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<sup>24</sup> This situation could be changed by the creation of the new ministry mentioned in chapter 2.2.4.

National lead agency in Vietnam will be the Ministry of Agriculture and Rural Development, particularly its Departments of Forest Protection and Forest Development. The Support Group for the 5 Million ha Reforestation Programme and the member institutions of the National Working Group on Community Forestry will play an important role. At the local level the WSM component will fall under the responsibility of the Provincial and District People's Committee.

## 5.6 Inputs

### 5.6.1 German contribution

The German contribution to the initial phase of the Programme should comprise the secondment of

- 1 international long-term expert on WSM Policy (German Teamleader) for up to 36 person-months (PM),
- 1 international long-term expert on WSM for up to 36 PM
- 1 international long-term expert on information and knowledge management for up to 18 PM,
- 1 international long-term expert on geographical information systems and data management for up to 18 PM,
- 1 regional long-term expert in WSM (from one of the riparian countries) for up to 36 PM,
- international and regional short-term experts in various fields for up to 72 PM,
- auxiliary personnel;

the provision of

- running costs for the seconded experts;
- the provision of material inputs, in particular
- up to 3 vehicles,
  - computers, printers and other office equipment,
  - miscellaneous equipment;

financial contributions to

- networks and workshops,
- "off-the job" training measures,
- implementation of WSM activities in pilot sites,
- travel costs,
- the general overheads of the MRC Secretariat amounting to 11% of the calculated costs of seconded and locally recruited long-term and short-term staff, training, material and equipment;
- the MRC management costs of the AIFP amounting to 60,000 Euro per annum.

The overall costs of the German contributions to the initial phase including overheads are estimated at up to 4.346 million Euro.

### 5.6.2 Contributions of the MRC and its member countries

The contribution of the MRC should comprise the secondment of

- 1 Project Officer (at MRC Secretariat),
- 1 Secretary (at MRC Secretariat);
- 1 Driver (at MRC Secretariat),

the provision of

- adequate office space and furniture for the seconded experts,
- running costs for offices in Phnom Penh (telephone, electricity, office materials, etc.).

MRC will assure the secondment of the necessary professional and technical staff in the MRC member countries through the relevant national line agencies. In particular:

- 4 national Project Directors,
- 4 national co-ordinators,
- staff to collect and process data and for selected implementation activities in the MRC member countries concerned.

If required, MRC will put the equipment provided by Germany for the Sustainable Management of Resources Project (SMRP) at the unrestricted disposal of the seconded experts for the fulfilment of their tasks.

## **6 IMPACTS**

The WSM component of the AIFP is geared at strengthening the capacity of the riparian countries to manage critical watersheds sustainably and increasingly in a regional perspective. This capacity will materialise predominantly at the level of national line agencies and their sub-national units. Direct impacts at the level of the target groups i.e. the population of the LMB will be restricted to the pilot watersheds and therefore cover only a small areas of the basin. Indirect impacts at target group level will materialise only on the long run as an effect of improved national policies and strategies and through the replication of improved WSM approaches by national programmes and donor-funded projects.

### **6.1 Environmental impacts**

Improving WSM aims directly at sustainable utilisation of natural resources. Major levers in this respect are forestry, agriculture and consultative mechanisms for infrastructure development. Reforestation and sustainable management of existing forests particularly in the steep headwater areas will contribute to reduced soil erosion and water run-off, to improved water quality and water availability, to conserving bio-diversity and to carbon-dioxide fixation. Sustainable agriculture aims at improving livelihood while preserving and improving soil-fertility and reducing unwanted side effects ranging from erosion to misuse of agro-chemicals. Mutually acknowledged procedures and standards in the environmental impact assessment of dams and irrigation schemes will help to reduce negative impacts on down-stream areas.

### **6.2 Micro-economic impacts**

As agriculture is the basis of the livelihood for the majority of the rural population in the LMB, major micro-economic impacts at target group level will derive from changes in this sector. This pertains to improved agricultural technologies, crop diversification and irriga-

tion. An important factor for the latter is a better availability of water through the reduction of water run-off. Fisheries, an important source of food and income along rivers and lakes will benefit from improved water quality and – particularly in the greater Tonle Sap area - from reduced siltation. Reforestation and sustainable forest management through local communities contribute to stabilising and improving wood supplies for fuel and construction, can provide income from timber sales and improve availability of and access to non-timber forest products.

An important aspect is the development of sustainable financing mechanisms for WSM in the headwaters of the river systems. The transfer of resources into remote and poor areas will not only contribute to the provision of “public goods” (water quality and quantity, prevention of flash floods, clean air, bio-diversity, etc.) down-stream but also to socio-economic development in the up-stream areas.

### **6.3 Macro-economic impacts**

The sum of the micro-economic impacts described under the previous section will result in a contribution to macro-economic development and growth. The conservation of the natural resource base for the livelihood of the rural poor will contribute to poverty alleviation and to employment in rural areas. Sustainable primary production will also secure jobs in the processing industry and support its long-term viability and its effects on growth and foreign exchange balance.

Considerable macro-economic costs can also be saved by avoiding environmental damage. Erosion and siltation are major threats to large-scale investment into hydro-power. The expected life-span of the Hoa Binh Dam f.e., Vietnam biggest source of hydro-power, will be drastically reduced if current sedimentation levels cannot be curbed. Large- and medium-scale irrigation systems are affected by salinisation due to insufficient water availability. Water pollution – if unchecked - will result in increasing costs for water purification and in serious health problems of the population.

### **6.4 Socio-cultural impacts**

Integrated WSM is defined as a multi-stakeholder process with an intensive participation of these stakeholders in both, planning and implementation. This includes participatory land-use planning and land allocation, participatory village and commune development planning including resource allocation and a fair and transparent harmonisation of the lower level plans with national and provincial framework planning.

An important impact of these approaches is the strengthening of the self-help capacity of local communities i.e. the capacity to plan, implement and evaluate own development activities, to make use of support offers and to access external resources. This will not only result in a general increase of self-confidence and self-determination of the communities, particularly if they belong to ethnic minorities, but – to some extent – also to a changing interaction between the communities and the local administration.

Based on MRC's gender policy and strategy, the WSM component of the AIFP will be geared at gender equality and gender-balanced development. Traditional roles of men and women, legal rights, religion and other socio-cultural parameters are, however, likely to constrain equal benefits for men and women. Against this background it would not appear realistic to expect major changes in the social and economic status of women from one single project even in a few locations. What can be done, however, is to continuously pursue gender issues at all levels. This would include

- to screen WSM policy documents, guidelines and approaches systematically and continuously for gender issues;
- to increase awareness and skills of staff and line agency officials in considering the social differences between men and women when designing, implementing, monitoring and evaluating programmes;
- to ensure that planning and implementation in the target areas take care of the specific needs and potentials of women;
- to generally disaggregate data by gender wherever this is feasible and useful.

## **6.5 Institutional impacts**

As mentioned above, the WSM component of the AIFP aims at strengthening the capacity of national line agencies and their sub-national units to manage critical watersheds sustainably and increasingly in a regional perspective. Regional exchange of experience, training and improved access to information will increase competence and capabilities of staff and institutions to accomplish their tasks.

Regional exchange and dialogue may also lead to reflections on current mandates, organisational set-ups and procedures within the concerned institutions. Furthermore, co-operative links between relevant institutions within one country and between similar institutions in different countries will be intensified.

MRC is mandated by the highest political level to address basin-wide issues, to foster inter-country co-operation and to address potential cross-boundary conflicts. However, MRC's potential of contributing to development in the region is yet neither fully exploited nor sufficiently perceived by line agencies, NGOs and donors. The WSM component of the AIFP can contribute to improving both, MRC's capacities and its reputation as a regional centre of excellence.

## **6.6 Political impacts at the regional level**

Regional co-operation will further improve good relations and mutual trust through joint learning, professional interaction and development activities across institutions and countries. It will facilitate the harmonisation of views and potentially joint positioning and negotiations at international fora related to watershed management. It also harbours the potential for transparent, fair and amicable resolution of disagreements in WSM and may help to solve or to avoid future conflicts on resource use. If the idea of regionally acknowledged principles of WSM proves feasible, they may eventually lead to a regional convention on WSM.

## **7 ASSUMPTIONS AND RISKS**

An important assumption for success is the continued political will for an intensified regional co-operation in WSM. A general risk of regional programmes is, that national egoism dominates over regional interests. A key issue in this respect will be, whether or not the national stakeholders perceive this co-operation as beneficial for their field of work and for their countries in general.

Another risk of regional programmes is a lack of ownership on the part of the national stakeholders. This is exacerbated by the fact that a high number of institutions have to be involved in integrated WSM. In order to strengthen ownership, MRC will have to work

strictly with and through national stakeholders and avoid the creation of any parallel structures.

Another assumption pertains to a further improvement or at least stabilisation of the economic situation in Southeast Asia. Sustainable use of resources, particularly forests, requires to forego short-term profit and revenue maximisation in favour of sustainable future benefits. This is unlikely to occur in times of economic crises.

An assumption at the political level is the continuation or intensification of the current decentralisation and democratisation policies in the riparian countries. This is a precondition for a truly participatory approach to resource management. Of particular importance are the legal frameworks for community forestry, land allocation and budget allocation to sub-national and local levels.

An important assumption for the work in the target areas is the interest and preparedness of national and donor-funded programmes to enter into a co-operation and to fund implementation. The result of the appraisal of the envisaged German Financial Contribution to the forest sector will be of particular relevance in this context.

An assumption pertaining to the improvement of data and information exchange is that the national governments and the relevant institutions are prepared to share data. This is particularly relevant in border areas where issues of national security may be involved.

**TOR for International Consultants for the Appraisal of the Planned Contribution of the German Donor to the MRC-Based Agriculture/ Irrigation/ Forestry Program (Sustainable Land and Water Use Program)**

**1. The Mekong River Basin: Institutional and Political Components on Regional level**

- Examination of the AIFP as an agreement and political commitments for cooperation between riparian countries, capacities/ procedures of negotiation between unequal partners (political systems, history, economic status, good governance)
- Assessment of the role and importance of international conventions and their potential implications for the River Basin Agreement implementation
- Options for a future role of the Mekong River Commission as a regional platform for organizing and facilitating sector investments

**2. Conceptual and institutional issues on national level for watershed management**

- Applicability of the watershed management concept for a regional project: cooperation between sector line agencies and institutions in countries and between countries as an agenda for addressing regional planning in watersheds
- Needs and utility for Basin wide development of standards of “good” watershed management
- Regional Planning: watershed development planning as a geographic reference for selected sub catchments: horizontal and vertical integration of institutional cooperation
- National policies and their implication for institutional involvement for watershed management on provincial and sub-provincial level (decentralization, devolution, governance, civil society)
- National policies and key sector organizations relevant to watershed management on national level. Possibilities for pragmatic and strategic interaction for concept development and implementation

**3. Conceptual and institutional issues at the level of sub-catchments of the Mekong River**

- Assessment of institutional capacity on provincial and sub-provincial level for watershed management, (GO-NGO, knowledge, skills, budgets, structures, decision making) in selected sub-catchments
- Land and water resource use planning for natural resources management in selected sub-catchments
- Livelihood systems, poverty levels, resource dependencies, alternative production and income possibilities
- Social groups, ethnic minorities, their level of social integration, importance and prevalence of traditional practices,

- Existing and acknowledged usufruct rights, common property issues and dimensions
- Production vs. conservation as principle of orientations for natural resources utilization in watersheds
- Provincial/ sub-provincial financial investment for watershed development

## **TOR for National Experts on the Appraisal Mission: Sustainable Land and Water Use Program of the MRC**

### **1. Rationale**

The Mekong River Commission MRC has received from the German donor the indications for support for the Sustainable Land and Water Use Program SLWUP, which has been formulated and endorsed by the governments of all 4 countries of the Lower Mekong Basin in 2000.

The contribution from the German donor has so far envisaged the support to the program component Catchment area management particularly for trans-boundary (critical watersheds) in the Lower Mekong Basin in combination with capacity building components and the development of regional standards and a broader common understanding and practice of sound watershed management in the river basin.

### **2. Procedure**

During the time period January and February 2002 an appraisal for the formulation of the forthcoming program on national /regional level is planned, which has following major events:

<u>Phases, events</u>	<b>Location</b>	<b>Date</b>	<u>Participants</u>	<b>Expected results</b>
<b>Phase I</b> <u>Data and Information collection</u>	Cambodia	Jan 01- 14	<ul style="list-style-type: none"> <li>• National Mekong Committees</li> <li>• National and provincial line Agencies</li> <li>• Sector Experts</li> </ul>	Data and information for national inventory of watershed relevant institutions, areas, documents, laws, etc
	Vietnam	Jan 01- 14		
	Lao PDR	Jan 01- 14		
	Thailand	Jan 01 -14		
<b>Phase II</b> <u>TOR workshop</u>	Phnom Penh	Jan 15- 16	<ul style="list-style-type: none"> <li>• MRC Secretariat</li> <li>• Natl &amp; Interntl consultants</li> <li>• SMRP Team</li> </ul>	All natl and internatl consultants have clarified their TOR and the planning for processes in the various countries
<b>Phase III</b> Country meetings	Cambodia	Jan 17- 19	<ul style="list-style-type: none"> <li>• National Mekong Committees</li> <li>• Natl &amp; Interntl consultants</li> <li>• National Line Agencies</li> <li>• Provincial Offices</li> </ul>	The participation o each country in the SLWUP has been conceptualized and possible strategies have been formulated for program implementation
	Vietnam	Jan 21- 28		
	Lao PDR	Jan 21- 28		
	Thailand	Jan 30- F 2		
<b>Phase IV</b> Concept workshop	Phnom Penh	Feb 5- 6	<ul style="list-style-type: none"> <li>• National Mekong Committees</li> <li>• MRC Secretariat</li> <li>• Natl &amp; Interntl consultants</li> <li>• SMRP Team</li> </ul>	Strategies form all 4 countries are consolidated in a regional approach. Missing data and info for final adjustments have been identified

<u>Phases, events</u>	<b>Location</b>	<b>Date</b>	<b><u>Participants</u></b>	<b>Expected results</b>
<b>Phase V</b> Country meetings	Cambodia	Feb 7- 18	<ul style="list-style-type: none"> <li>• National Mekong Committees</li> <li>• Natl &amp; Interntl consultants</li> <li>• National Line Agencies</li> <li>• Provincial Offices</li> </ul>	Missing information and data has been collected and fed into further strategy discussions on regional level
	Vietnam	Feb 7- 18		
	Lao PDR	Feb 7- 18		
	Thailand	Feb 7- 18		
<b>Phase VI</b> Final workshop  (Participation optional)	Phnom Penh	Feb 21- 22	<ul style="list-style-type: none"> <li>• Selected national line agencies</li> <li>• National Mekong Committees</li> <li>• MRC Secretariat</li> <li>• Natl and interntl consultants</li> <li>• SMRP Team</li> </ul>	The Project Planning Matrix is established with development goal, objectives, outputs, major activities and necessary inputs

### 3. Detailed Steps of the Appraisal:

<p><b>Phase I: January 1 to January 14</b></p> <p>With support from SMRP Offices in the countries:</p> <ol style="list-style-type: none"> <li><b>1. Collect documents relevant to Watershed Management like policy documents, relevant reports, Laws and sub-decrees on</b> <ul style="list-style-type: none"> <li>• Forestry, Land use planning</li> <li>• Decentralization, local governance</li> <li>• Poverty alleviation</li> <li>• Minority issues</li> </ul> </li> <li><b>2. List organizations relevant to Watershed Management and develop an organizational landscape of Line organizations, Administration, Projects and NGOs with</b> <ul style="list-style-type: none"> <li>• Contacts, addresses</li> <li>• Mandate</li> <li>• Implementation capacity</li> </ul> </li> <li><b>3. Produce an inventory of relevant watersheds</b> <ul style="list-style-type: none"> <li>• Biophysical properties</li> <li>• Population, land use</li> <li>• Institutions, services</li> <li>• Major concerns and major felt problems</li> </ul> </li> <li><b>4. prioritize most relevant organizations and collected info/ data</b></li> </ol>	<p>Time allocation</p> <p>7 working days each</p>
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<p><b>Phase II : January 15 to January 16</b></p> <p>Participate in the first regional workshop, Phnom Penh:</p> <ul style="list-style-type: none"> <li>• Provide a short overview of collected information</li> <li>• In collaboration with other participants in the meeting finalize TOR and procedures for the next phase</li> <li>• Develop a schedule for meetings in each country for the next phase along with international consultants</li> </ul>	<p>Time allocation</p> <p>2 working days each</p>
<p><b>Phase III: January 17 to February 02</b></p> <p>In collaboration with international consultants and with support from SMRP offices in all countries:</p> <ol style="list-style-type: none"> <li>1. Arrange for and conduct meetings/ interviews with relevant organizations on national level on the basis of collected information</li> <li>2. Follow up on interviews/ discussions with additional selected persons/ organization</li> <li>3. Document minutes of meetings</li> <li>4. Visit scheduled provinces where watersheds for implementation have been proposed for             <ul style="list-style-type: none"> <li>• Explaining intended programs</li> <li>• Check/ elaborate on preferences, felt needs of admin and line departments/offices</li> <li>• Develop/outline first possible scenarios for strategies of program implementation</li> </ul> </li> </ol>	<p>Time allocation</p> <p>6 working days each</p>
<p><b>Phase IV: February 04 to February 06</b></p> <p>Participate in the second regional workshop for concept development, Phnom Penh:</p> <ul style="list-style-type: none"> <li>• Share information and date with other participants by presentation and discussion</li> <li>• Participate in discussions to review existing available knowledge</li> <li>• Help identify gaps, missing data and information</li> <li>• Participate in concept development and program strategy development for an overall regional level</li> <li>• Develop schedule/appointments for a second round of information/ data collection in the countries</li> </ul>	<p>Time allocation</p> <p>3 working days each</p>
<p><b>Phase V: February 7 to February 14</b></p> <p>In collaboration with international consultants and with support from SMRP offices in all countries:</p> <ol style="list-style-type: none"> <li>1. Visit selected organizations/ sector experts for specific questions and gaps as identified in the regional meeting</li> <li>2. Document minutes of meetings and produce a short report</li> </ol>	<p>Time allocation</p> <p>3 working days each</p>

<p><b>Phase VI: February 21 to February 22</b> (participation optional)</p> <p>Participate in the third regional workshop for final project design, Phnom Penh:</p> <ul style="list-style-type: none"> <li>• Share information and date with other participants by presentation and discussion</li> <li>• Participate in discussions to finalize program strategy and outputs</li> <li>• Develop jointly with other participants the program planning matrix</li> </ul>	<p>Time allocation</p> <p>3 working days</p>
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### 3. Organizational arrangements

#### 1 Selection of National Consultants

In each country of the Lower Mekong Basin the National Mekong Committees will nominate two sector experts to be members of the national consultant team.

The SMRP will nominate a third member to the national consultant team in those countries, where it is expected that the work load is going to be higher.

#### 2 Accountabilities

The National Consultants will report to the team leader of the appraisal mission Dr. Fred Brandl or his deputy.

#### 3 Attached documents

Following documents will be made available to the national consultants:

1. Diagrams and flow charts showing the schedule and time lines for the mission
2. Overview of the sector in each country as developed by the project review of SMRP in 2000
3. Country evaluation reports of SMRP 2001
4. Original project proposal for the Sustainable Land and Water Use Program, as submitted by the MRC Secretariat in March 2001 to the German donor
5. Proposed components for the SLWUP, as jointly developed by the MRC Secretariat and SMRP during 2001
6. TOR for the international consultants
7. Check list of general questions to watershed management policies, institutions, and agendas on national level
8. Proposed structure for data/information collection in Phase I of the mission
9. Proposed table of contents for the first short report of Phase I of the mission

**M R C - G E R M A N T E C H N I C A L C O - O P E R A T I O N**

**Agreed Minutes  
on the  
Appraisal Mission  
of**

**Watershed Management in the Lower Mekong  
Basin**

**A component of the Agriculture, Irrigation and Forestry Programme of the  
Mekong River Commission**

**Phnom Penh, 23<sup>rd</sup> February 2002**

## **(A) PREFACE**

(1) Representatives of the Secretariat of the Mekong River Commission (MRC-S) and the "Deutsche Gesellschaft für Technische Zusammenarbeit" (GTZ) held a meeting at the MRC Secretariat in Phnom Penh on 23<sup>rd</sup> February, 2002 on the appraisal of the Watershed Management Component of MRC's Agriculture, Irrigation and Forestry Programme, proposed to be supported by Germany. This appraisal covers German Technical Co-operation only. A proposal for additional support through German Financial Co-operation in the field of forest rehabilitation in upper watersheds of the Lower Mekong Basin will be subject to a separate appraisal by the Kreditanstalt für Wiederaufbau (KfW).

(2) These minutes summarise the results of the appraisal and the conclusions drawn during that meeting. The minutes do not constitute a legally binding document, but the proposals endorsed by the signatories are subject to official agreement by the relevant German authorities.

## **(B) BACKGROUND AND PROCEDURE OF THE APPRAISAL**

(3) In 2001, MRC Secretariat and German officials had first talks on potential German contributions to the MRC's Agriculture, Irrigation and Forestry Programme (AIFP). It was agreed that the German Government would consider to provide support to the AIFP through technical co-operation in watershed management. Following deliberations on both sides it was agreed to further appraise the proposed co-operation and the German Federal Ministry of Economic Co-operation and Development (BMZ) commissioned GTZ/SMRP<sup>25</sup> to field a project appraisal mission on the envisaged technical co-operation component.

(4) The appraisal was carried out from 1<sup>st</sup> January to 22<sup>nd</sup> February 2002. The mission team consisted of three German consultants who worked in close co-operation with two national consultants each from the four riparian countries (Cambodia, Laos, Thailand and Vietnam). The appraisal comprised preparatory data collection in the four countries, three regional workshops (Inception, Strategy, Planning), visits to the four riparian countries and intensive discussions with representatives of various institutions. The latter comprised relevant government and non-government institutions, bi- and multilateral co-operation projects, the MRC Secretariat as well as the GTZ Office and the German Embassy in Phnom Penh.

## **(C) RATIONALE**

(5) The water and land resources of the Lower Mekong Basin (LMB) are the basis for the livelihood of about 60 million inhabitants and provide food for some 300 million people. However, the basin's environment is degrading at a rapid rate from unsustainable practices such as forest exploitation, expansion of agriculture onto steep slopes and water pollution and from negative side-effects of some large-scale infrastructure projects. Particularly in the fragile eco-systems of the upper watersheds in the Mekong Basin, increased pressure on natural resources due to a rapidly increasing population is a major threat to sustainability of the present natural resource-based production potentials and a potential source of future conflicts. The multi-faceted functions of these headwaters call for an integrated and participatory approach to watershed management throughout the basin. Sustainable management (planning, implementation and monitoring) needs integrated action of the numerous local and regional stakeholders and demands for dialogue, mediation and co-ordination both, at national and regional level.

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<sup>25</sup> Sustainable Management of Resources Project

(6) The joint efforts to manage a certain geographical area and co-ordinate resource management between people living in the upper and the lower parts of the watersheds needs to be facilitated and institutionalised. Any watershed management approach needs to encompass the variety and interaction between organisations and their respective stakes. Those are village organisations, commune (or tambon) councils and their administration, private sector organisations and their structures, provincial authorities and line departments, and the many non-governmental organisations working in the area.

(7) The rationale for MRC involvement is its mandate, mission and authorised scope of work based on the 1995 MRC agreement, that finds its expression in the formulation of the Basin Development Plan (BDP), the Water Utilisation Programme (WUP), and the Environment Programme (EP). Moreover, in October 2000 the MRC countries have endorsed the AIFP as an important regional sector programme to address WSM issues.

#### **(D) FINDINGS OF THE APPRAISAL MISSION**

(8) An analysis of MRC's Strategic Plan 2001-2005 reveals a high degree of accord between the priorities set forth therein and important traits of the relevant concepts and guidelines of the BMZ. Moreover, the Strategic Plan is in line with the objectives and principles provided by international conventions and arrangements pertaining to natural resources. Support to the implementation of AIFP under the framework of the Strategic Plan would, therefore, be well in agreement with German Development Policy.

(9) MRC is the only organisation mandated by the highest political level to address basin-wide issues, to foster inter-country co-operation and to address potential cross-boundary conflicts. On the other hand, MRC's potential of contributing to WSM in the region is yet neither fully exploited nor sufficiently perceived by line agencies, NGOs and donors.

(10) Given Germany's long involvement in sustainable resources management in the region, German Development Co-operation can contribute to enhancing MRC-S's capacity to address the above issues and to assume its envisaged role of a regional "centre of excellence".

(11) MRC's "Strategy study on the development of the watershed management / forestry sector in the LMB" provides a convincing outline of how MRC can best realise this objective in a regional WSM/forestry programme by

- adopting a "client focussed", "service-oriented", "demand driven" approach to working in WSM and forestry;
- engaging in dialogue and collaboration with relevant national stakeholders to identify and document issues and constraints facing these sectors;
- collaborating with national and international programmes and projects in addressing these issues and constraints;
- concentrating on activities which complement and build upon the achievements of past and current activities like the "Forest Cover Monitoring Project", the "Watershed Classification Project" and the "Sustainable Management of Natural Resources Project";
- concentrating on facilitation and promotion of co-operation between stakeholders involved in WSM/forestry issues of basin-wide significance.

(12) Discussions with national stakeholders during the consultants' country visits revealed:

- Watershed Management is a known and relevant concept in all riparian countries with many institutions involved.

- The four countries are at different states of development of Watershed Management policies, strategies, concepts and framework conditions and there is a great potential for sharing experiences and information and for joint learning processes.
- While there are numerous activities in WSM by a multitude of institutions in various catchments and sub-catchments there is yet no “real life example” of a consistent and complete WSM approach in any of these locations.
- Apart from bi-lateral negotiations mainly in the context of large hydro-power projects there is little if any consideration of cross-boundary issues in WSM, yet.

(13) During these discussions, the following major fields of work for Technical Co-operation in the WSM-component of the AIFP were identified and proposed by the consultants:

- (a) to institutionalise integrated WSM planning in selected cross-border and other catchments.
- (b) to support the sharing of knowledge and experience and to facilitate joint learning processes within the region in view of both, national and regional issues in WSM.
- (c) to improve regional data and information management in WSM.

## **(E) RESULTS OF THE STRATEGY WORKSHOP**

(14) The participants of the second Regional Workshop (Phnom Penh, 6th and 7th February 2002) confirmed the major areas of work as proposed by the consultants, developed a draft list of activities and defined major impacts that are expected from a regional approach as compared to national programmes in WSM. The latter comprise

- intensified exchange of experience and lessons between the countries which may lead to more effective interventions and help to avoid duplication and repetition of ineffective strategies and actions;
- more effective use of available human and financial resources for WSM;
- the possibility to address cross border catchments as entities;
- further improvement of good relations and mutual trust through joint learning, professional interaction and development activities across institutions and countries;
- transparent, fair and amicable resolution of disagreements based on regionally acknowledged principles and agreements on WSM;
- harmonisation of views and potentially joint positioning and negotiations at international fora related to watershed management;
- improved access to international funding.

(15) The participants reviewed criteria for the selection of pilot watersheds presented by the consultants and agreed to propose the following locations:

- (a) The cross-border area of the Nam Ou watershed with the Nam Noua sub-catchment in Laos (Mai District of Phongsaly Province) and the Nam Rum sub-catchment in Vietnam (Dien Bien District of Lai Chau Province)
- (b) The Upper Sesan watershed in Cambodia (Ratanakiri Province) with the potential to extend into the Vietnamese part of that watershed in a second phase
- (c) The Mae Nam Suai sub-catchment of the Mae Nam Kok watershed in Thailand (Chiang Rai Province).

(16) The workshop underlined the necessity that WSM planning in pilot catchments needs to be followed up by implementation. German Technical Co-operation, with its given mandate and resources, can, however, provide only rather limited support to implementation. Hence the necessity to collaborate with national programmes, NGOs, and projects funded by other donors. Moreover, it is envisaged to link the Technical Co-operation in WSM and the German Financial Co-operation contribution to forest rehabilitation to be provided through KfW. In view of the fact that the latter will be subject to

a separate appraisal, the workshop agreed to postpone the final selection of the pilot watersheds and to take this decision in the context of the appraisal of the Financial Co-operation contribution.

## **(F) RESULTS OF THE PLANNING WORKSHOP**

(17)Based on the findings of the appraisal mission and the results of the strategy workshop, the participants of the regional Planning Workshop (Phnom Penh, 21<sup>st</sup> and 22<sup>nd</sup> February 2002) developed the following recommendations for an initial phase of three years (starting in December 2002) for the WSM component of the AIFP to enter into a potentially long-term co-operation. The objectives would be as following:

(18)**Direct objective (Purpose):** Relevant institutions in the riparian countries and the MRC Secretariat make use of regional co-operation, information exchange / sharing and improved approaches for sustainable WSM in the Lower Mekong River Basin.

(19)This objective will lead to an enhanced capability of the riparian countries to manage their watersheds sustainably and increasingly in view of regional needs. Eventually this will contribute to the **ultimate objective (Overall Goal):** "The watersheds of the Lower Mekong River Basin fulfil their ecological, economic and social functions" and provide a sustainable basis for improved livelihood of the population."

(20)In order to achieve the Purpose the following Outputs are to be realised within the initial phase:

**Output 1:** WSM approaches in selected (national and cross-border) watersheds are further developed, documented and disseminated

**Output 2:** Mechanisms for analysis and further development of national WSM policies and guidelines in the LMB are established and functioning

**Output 3:** Mechanisms for continuous and effective regional collaboration in WSM are established and functioning

**Output 4:** Regional and national information management on WSM is improved

(21)Main activities to be carried out in order to realise the planned Outputs, Indicators for their achievement and important Assumptions are specified in the attached Planning Matrix.

(22)The overall responsibility for implementation lies with the MRC Secretariat. The National Mekong Committees will act as co-ordinating offices. Lead agencies in the riparian countries have been proposed as follows:

- Cambodia: Ministry of Agriculture, Forestry and Fisheries
- Laos: Ministry of Agriculture and Forestry
- Thailand: Royal Forest Department
- Vietnam: Department of Forest Development in the Ministry of Agriculture and Rural Development

(23)In accordance with the principles and standard procedures of German Technical Co-operation, the implementation of the German contribution to the Programme would be the responsibility of the German Senior Technical Adviser. German funds would be managed by the GTZ Office Phnom Penh.

(24)The German contribution to the initial phase of the Programme should comprise the secondment of

- 1 international long-term expert on WSM Policy (German Teamleader) for up to 36 person-months (PM),

- 1 international long-term expert on WSM for up to 36 PM
  - 1 international long-term expert on information and knowledge management for up to 18 PM,
  - 1 international long-term expert on geographical information systems and data management for up to 18 PM,
  - 1 regional long-term expert in WSM (from one of the riparian countries) for up to 36 PM,
  - international and regional short-term experts in various fields for up to 30 PM,
  - auxiliary personnel;
- the provision of
- running costs for the seconded experts;
- the provision of material inputs, in particular
- up to 3 vehicles,
  - computers, printers and other office equipment,
  - miscellaneous equipment;
- financial contributions to
- networks and workshops,
  - “off-the job” training measures,
  - implementation of WSM activities in pilot sites,
  - travel costs,
  - the general overheads of the MRC-S amounting to 11% of the calculated costs of seconded and locally recruited long-term and short-term staff, training, material and equipment;
  - the MRC management costs of the AIFP amounting to 60,000 Euro per annum.

(25) The overall costs of the German contributions to the initial phase including overheads are estimated at up to 4.346 million Euro.

(26) The contribution of the MRC should comprise the secondment of

- 1 Project Officer (at MRC-S),
- 1 Secretary (at MRC-S);
- 1 Driver (at MRC-S),

the provision of

- adequate office space and furniture for the seconded experts,
- running costs for offices in Phnom Penh (telephone, electricity, office materials, etc.).

MRC will assure the secondment of the necessary professional and technical staff in the MRC member countries through the relevant national line agencies. In particular:

- 4 national Project Directors,
- 4 national co-ordinators
- staff to collect and process data and for selected implementation activities in the MRC member countries concerned.

If required, MRC will put the equipment provided by Germany for the Sustainable Management of Resources Project (SMRP) at the unrestricted disposal of the seconded experts for the fulfilment of their tasks.

## **(G) FURTHER STEPS TO BE TAKEN**

(27) On the German side, GTZ will submit these minutes for approval to BMZ. After general approval and after receipt of the official request, BMZ would commission GTZ to implement the German Technical Co-operation contribution.

(28) The German side would draft a Document (“Arrangement on Technical Co-operation”), which would provide the legal basis of the envisaged co-operation. This document would be signed by the MRC Chief Executive Officer on behalf of MRC and by the German Ambassador in Phnom Penh on behalf of the German Government. Details of implementation will be specified in an Implementation Agreement between MRC Secretariat and GTZ.

## **(H) CONCLUSION**

In view of

- the findings of the appraisal mission,  
and
- the results of the planning workshop

the signatories agree to implement the co-operation as outlined under No. (F) of these minutes.

.....  
Joern Kristensen  
Chief Executive Officer  
of the  
Mekong River Commission

.....  
Dr. Thomas Engelhardt  
Director, GTZ Office Phnom Penh  
Deutsche Gesellschaft für  
Technische Zusammenarbeit (GTZ)

**Annex:**

**Draft Programme Planning Matrix for the MRC AIFP WSM Component**

(Prepared during planning Workshop on 21<sup>st</sup> and 22<sup>nd</sup> February 2002)

**Ultimate objective (Overall Goal):**

The watersheds of the Lower Mekong River Basin fulfil their ecological, economic and social functions and provide a sustainable basis for improved livelihood of the population.

**Direct objective (Purpose):**

Relevant institutions in the riparian countries and the MRC Secretariat make use of regional co-operation, information exchange / sharing and improved approaches for sustainable WSM in the Lower Mekong River Basin.

**Indicators for the achievement of the direct objective (Purpose):**

- A regional plan of action on co-operation in Watershed Management is drafted by 12/2004 and endorsed by MRC and the relevant national authorities by 12/2005.
- Interviews with a representative sample of people from Government and Non-government Organisations involved in Watershed Management in the LMB yield the following results:

**X% of interviewed persons consider regional co-operation activities of the AIFP as „worthwhile“ and beneficial;**

Y% of interviewed persons give a valid example how regional co-operation activities had a direct positive effect on their work;

Z% of interviewed persons state that improved WSM information contributes to better decision making in their particular field of work.

(x, y, z to be specified)

**Output 1:**

WSM approaches in selected (national and cross-border) watersheds are further developed, documented and disseminated

**Activities to be carried out in order to achieve Output 1:**

- 1.1 Participate in feasibility study and project appraisal for German Financial Co-operation contribution including the final selection of pilot watersheds
- 1.2 Support integrated WSM planning at district and province level and develop mechanisms for cross-border coordination
- 1.3 Support local actors in accessing funds for NRM implementation
- 1.4 Support the development of incentive and subsidy schemes and financing mechanisms for sustainable NRM within WSM
- 1.5 Facilitate and participate in networking on NRM relevant topics at local, province and national level
- 1.6 Provide training in WSM relevant topics at local and sub-national level

**Indicators for the achievement of Output 1:**

- 1.4 The institutional arrangements for integrated WSM planning are in place in two watersheds by 06/2003 and a trans-border WSM committee is established and functioning in at least 1 cross-border watershed by 12/2003.
- 1.5 Integrated WSM plans for two watersheds with an area of at least 400 km<sup>2</sup> each are available and submitted to relevant authorities for approval by 06/2004. The multi-sectoral plans are based on the principles of participation and sustainable management of natural resources. The plans describe the methodologies and instruments used, the activities to be implemented, the necessary financing

mechanisms and the tasks, responsibilities and contributions of the major stakeholders.

- 1.6 Experience from and products of integrated WSM planning in the pilot areas are fed-back to the relevant national and regional institutions, programmes and working groups.

**Output 2:**

Mechanisms for analysis and further development of national WSM policies and guidelines in the LMB are established and functioning

**Activities to be carried out in order to achieve Output 2:**

- 2.1 Identify major national stakeholders in the development of WSM policies, strategies, systems, methodologies
- 2.2 Establish and support national working groups (or similar arrangements) on identification and documentation of best practices in WSM
- 2.3 Establish and support national working groups (or similar arrangements) on analysis and further development of policies and guidelines
- 2.4 Facilitate documentation of work results and dissemination at national and regional level (incl. feed-back mechanisms into activities 2.2 and 2.3 in other countries and into activity 3.3)

**Indicators for the achievement of Output 2:**

- 2.3 An annotated regional inventory of national WSM policies and guidelines is available by (to be specified)
- 2.4 An annotated regional compilation of "best practices" in WSM is available by (to be specified).

**Output 3:**

Mechanisms for continuous and effective regional collaboration in WSM are established and functioning

**Activities to be carried out in order to achieve Output 3:**

- 3.1 Analyse relevant international conventions and agreements on NR in view of their relevance to WSM
- 3.2 Facilitate identification of priority issues for regional co-operation in WSM and feed-back into BDP, WUP and EP
- 3.3 Facilitate regional exchange of experiences and co-operation on defined priority issues
- 3.5 Support regional HRD in WSM relevant topics

**Indicators for the achievement of Output 3:**

- 3.4 A regional committee on WSM with clearly defined TOR is in place by 12/2003.
- 3.5 At least 3 regional working groups or partnerships on defined priority issues are established and functional by 12/2003 (Examples: forest land allocation, funding mechanisms, etc.)
- 3.6 A report with recommendations for (regionally acknowledged) principles of sustainable WSM as a basis for decision-making on regional investment in WSM is available by 12/2004.

**Output 4:**

Regional and national information management on WSM is improved

**Activities to be carried out in order to achieve Output 4:**

- 4.1 Assess data and information needs of AIFP and partner organisations
  - 4.2 Coordinate data / information management with other MRC Programmes and relevant other stakeholders in WSM
  - 4.3 Compile / generate data / information needed for AIFP and not available from other sources
  - 4.4 Support data / information exchange through WUP / TC agreements between countries based on defined standards (formats, quality, meta-data)
  - 4.5 Facilitate public access to AIFP information / data (through Mekong Info, Web, Meta Data Bases, etc.)
  - 4.6 Contribute to capacity building for partner organisations in AIFP-related data and information management
- (Links between this output and all other outputs need to be established.)

**Indicators for the achievement of Output 4:**

- 4.4 A consolidated concept for improved regional WSM information and data management is available by 12/2003 and partly implemented. (Milestones for implementation are to be defined when the concept has become available.)
- 4.5 The concept provides for the integration of WSM information into the core programmes of MRC.

**Important Assumptions:**

- A proposal for WSM components to be supported through Financial Co-operation is available by 06/2003 and approved by 12/2003.
- To be completed.

**DESCRIPTION OF POSSIBLE PILOT SITES**

<b>Name of Pilot Site:</b>	<b>Nam Ou Watershed Nam Noua/ Rum Sub-catchment</b>	<b>Se Bang Hiang Watershed</b>	<b>Sekong Watershed</b>	<b>Upper Sesan Watershed</b>	<b>Srepok Watershed</b>	<b>Mae Nam Kok Watershed Mae Nam Suai Sub-catchment</b>	<b>Tonle Sap/ Mongkol Borey Watershed</b>
<b>Countries concerned:</b>	Vietnam Laos	Vietnam Laos	Vietnam Laos Cambodia	Vietnam Cambodia	Vietnam Cambodia	Thailand	Thailand Cambodia
<b>Provinces concerned:</b>	Lai Chau (V) Phongsaly (L)	Quang Tri (V) Savannakhet (L)	Thua T. Hue, Kontum (V) Sekong, Attapeu L	Kontum, Gia Lai (V) Ratanakiri(C)	Dac Lac (V) Monduliri (C)	Chiang Rai	Sa Kaew (T) Battambang (C)
<b>Districts</b>	1 V / 1 L	1 V / 1 L				1 T	2-3 T / 2-3 C
<b>Area (km<sup>2</sup>)</b>	1395 V / 1900 L	735 V / 2000 L	688 V / 17.000 L	11.260 V / 6.725 C	13.600 V / 6.640 C	437	4.038 T / 4.504 C
<b>Elevation range (m asl) Slopes &gt; 30%</b>	2000 – 250 58,6%	2000 – 100 12,8%	2100 – 80 27%	2300 – 80 20,1%	2300 – 80 7,2%	1685 – 463 91%	1500 – 30 2,6%
<b>Watershed Classes I&amp;II Critical areas</b>	87,3% 71,2%	19,2% 8,5%	40,6% 10,9%	33,3% 10,6%	10,8% 3,2%	91% 37%	3,8% 0,6%
<b>Forest Cover 1997 Changes 93-97</b>	17% - 7%	57% -8%	70% -9%	54% -11%	63% -9%	18% -6%	40% -12%
<b>Population ('000) Population density (P/km<sup>2</sup>) Ethnic minorities</b>	+/-70.000 10 > 85% L	+/-90.000 20 50% L	197.090 (95) 7 > 75% L	57.695 (95) 3 > 75% C	61.443 (95) 2 > 80% C	46.376 (96) 30 > 40%	281.900 (96) 46 Hardly any
<b>Poverty</b>	Medium(V)/high (L)	Medium	High	High	High	Medium	Medium
<b>Presence of potential partners (national programs, ODA, NGOs)</b>	Very good (V) Hardly any (L)	Hardly any (V) Few (L)	(V)? (C)? Several (L)	Some (V) Many (C)	Several (V) Hardly any (C)	Good	Some (T) Several (C)

<b>Name of Pilot Site:</b>	<b>Nam Ou Watershed Nam Noua/ Rum Sub-catchment</b>	<b>Se Bang Hiang Watershed</b>	<b>Sekong Watershed</b>	<b>Upper Sesan Watershed</b>	<b>Srepok Watershed</b>	<b>Mae Nam Kok Watershed Mae Nam Suai Sub-catchment</b>	<b>Tonle Sap/ Mongkol Borey Watershed</b>
<b>Access to the area</b>	Good(V) / difficult (L)	Good	Diff.(V), Good	Good	Good (V),	Very good	Good
<b>Access within the area</b>	Very difficult	Difficult	Difficult	Medium	Difficult (C)	Good	Difficult
<b>Illegal logging</b>	Some	Heavy (L)	Very heavy (L)	Very heavy (C)	Heavy (C)	Some	Heavy
<b>Large-scale plantations or concessions</b>	Few - None	Some (V) Few (L)	Some (V) Many (L)	Many (V) Many (C)	Many (V) Few (C)	Few	? ?
<b>Land encroachment, in-migration</b>	Hardly any	Strong (V)(L)	Strong (L)	Very strong	Some	Some	Strong
<b>Shifting Cultivation</b>	Frequent	Some	Frequent	Frequent	Frequent (C)	Some	Some
<b>Hydropower schemes</b>	None	Downstream	Several	Yali (V)	None	2 small res.	None
<b>Security aspects</b>	Good	Good	Quite insecure	Quite insecure	Average	Mines, traffick.	Very insecure
<b>Particular Opportunities</b>	-Cooperation with GO/NGOs (V) -Critical WS -Dialogue V-L	-Deforestation	-Heavy deforest. -Triangular dev. -Border dialogue -3 countries	-Heavy deforest. -Triangular dev. -Many partners in C.		-Critical WS -Partners avail.	
<b>Particular Constraints</b>	-Remoteness -Hardly any partners and staff (L)	-Plateau area -No partners (V)	-Remoteness -Security?	-Low pop. Dens. - Remoteness	-Very low pop. Density - Remoteness	-Security?	-Very insecure -Not critical -Border conflicts

**RELEVANT PROJECTS/PROGRAMMES AND NATIONAL NETWORKS IN  
NATURAL RESOURCES MANAGEMENT OR WATERSHED MANAGEMENT  
IN THE FOUR RIPARIAN COUNTRIES OF THE LMB**

## **1 CAMBODIA**

In general:

- Participatory NRM in the Tonle Sap Region (FAO/Belgian Government)
- Community Forestry Programme - CONCERN Worldwide
- Provincial Development Program-Kampong Thom and Kampot – NRM Components (GTZ)
- Cambodian-German Forestry Project (CGFP) (GTZ)
- Community Forestry Research Project in Cambodia (IDRC/RECOFTC)
- Land Management Project (LMP) (GTZ)
- Cambodian Sustainable Forest Management Project (ADB)
- Environment and Natural Resources Management in Coastal and Wetland Areas (DANIDA)
- Watershed Management in Stung Pursat and Mongkol Borey (DANIDA) (planned)

Networks:

- NGO Forum – over 60 active Cambodian and international NGOs, advocacy on issues of concern to the Cambodian people and coordination among the NGOs working in Cambodia
- Community Forestry Working Group
- Working Group on Natural Resources Management (Donor Forum)

In Ratanakiri:

- Biodiversity Conservation in Virachey National Park (World Bank)
- Community-based NRM (SIDA)
- Community-based NRM (CARERE/IDRC)
- NTFP – Cambodian NGO focusing on the management of natural resources in Ratanakiri Province, started Oct. 1996 with financial support by Oxfam
- Ratanakiri Integrated Community Development Programme (CIDSE)
- World Concern
- Oxfam America
- Local NGO Network (12 members)

## **2 LAOS**

In general:

- Lao-DANIDA Natural Resources and Environment Programme – National Capacity Building Project Phase I&II (DANIDA)
- Integrated Watershed Management in Huaphan and Xieng Khouang – NIWMAP (DANIDA)
- Nam Ngum Watershed Planning (ADB TA 2734)
- Nam Ngum Watershed Management and Conservation Project – NAWACOP (GTZ)
- Nam Niam Watershed Management (UNDP)

- Watershed Management Plan for Forest Conservation in Vang Vieng District (JICA/JAFTA)
- Dong Dok Forestry College Project (GTZ)
- Industrial Tree Plantation Project (ADB)
- Integrated Upland Agricultural Research Project (IUARP)

In Phongsaly:

- Phongsaly Forest Conservation and Rural Development Project (EU)
- Phongsaly Rural Development Project (CCL –French Gvmt.)
- German Agro Action
- WWF – Nam Ou Watershed Management Project (planned for end of 2002)
- ADB – RETA 5771 (Phase III) Nam Ou Watershed Management (planned based on existing study from Phase II)

### **3 THAILAND**

In general:

- Upper Nan Watershed Management Project (DANCED)

In Chiang Rai (Mae Nam Suai):

- Local NGOs and Peoples Organisations
- German NGO (?) in Mae Nam Suai area

### **4 VIETNAM**

In general:

- Re-afforestation through local credit schemes in the provinces of Ha Tinh, Quang Binh and Quang Tri (KfW funded)
- Forestation in Quang Ninh, Bac Giang and Lang Son (KfW funded)
- Community-based Watershed Rehabilitation and Management (in 4 provinces) (ADB-funded)
- Denmark-Vietnam Water Program Support

Networks:

- Community Forestry Working Group
- Support Group for the 5 Million ha Reforestation Program

In Lai Chau Province:

- Social Forestry Development Project – SFDP (GTZ)
- Lai Chau – Song La Rural Development Project (EU)
- Action Aid
- SNV

# **Integrated Forest Rehabilitation in the Lower Mekong Basin**

## **A Project Proposal for an Investment Program in the Forest Sector**

**Complementary to the MRC-Based Sustainable Land and Water Use Program**

**Submitted by the Mekong River Commission Secretariat to the  
Bundesministerium fuer Wirtschaftliche Entwicklung und Zusammenarbeit  
(BMZ)**

**Mr. L. Zimmer  
Director South-East Asia Division**

Developed jointly by the Mekong River Commission Secretariat and the  
Sustainable Management of Resources in the Lower Mekong Basin Project  
(SMRP)

<b>Table of Contents</b>	<b>Page</b>
<b>1. Short description of the project and the German contribution</b>	<b>3</b>
<b>2. Objective and Justification</b>	<b>4</b>
<b>2.1. Problem Analysis</b>	<b>4</b>
<b>2.2. Project Objective, Target Groups, Relevance to Development Policies</b>	<b>7</b>
<b>3. Project Proposal</b>	<b>8</b>
<b>3.1. Measures until now, and their Interaction/ Connection to the Proposed Project</b>	<b>8</b>
<b>3.2. Project Activities and Expected Results</b>	<b>9</b>
<b>3.3. Proposed Implementation</b>	<b>11</b>
<b>3.4. Ways of maintenance and utilization</b>	<b>15</b>
<b>4. Description of the Receiver and Project Implementing Organization</b>	<b>17</b>
<b>4.1. Description of the Receiver of Funding</b>	<b>17</b>
<b>4.2. Description of the Project Implementing Organization</b>	<b>18</b>
<b>5. Total Costs and Means of Financing</b>	<b>19</b>
<b>5.1. Total Costs</b>	<b>19</b>
<b>5.2. Means of Financing</b>	<b>21</b>
<b>6. Project Impact</b>	<b>21</b>
<b>6.1. Description of Micro-economic and Macro-economic Benefits</b>	<b>21</b>
<b>6.2. Description of Socio-economic and Socio –cultural Benefits</b>	<b>22</b>
<b>6.3. Description of Ecological Benefits</b>	<b>22</b>
<b>Quantities and Unit Cost Calculations</b>	<b>24</b>

## 1. Short description of the project and the German contribution

The project proposal describes an investment of DM ten million in the forest sector for integrated participatory watershed rehabilitation in selected watersheds of the Lower Mekong Basin.

The project addresses the regional problem of watershed degradation through forest degradation and deforestation in upland watersheds in the Lower Mekong Basin due to expanding agriculture, population growth, prevailing non-sustainable land use systems and other factors.

The target groups are local people living in the selected watersheds and also staff of local administration, line departments, and national governments. The project proposal is closely connected to past and ongoing projects and programs on the forest sector, natural resources management of the MRC in the Mekong basin. In particular the project planning, implementation, and monitoring needs to be closely linked with the Sustainable Land and Water Use Program of the MRC. The project considers and is built on national policies towards poverty alleviation and rehabilitation of natural resources of all 4 Mekong countries.

The five result areas of the project are

- Participatory land use planning
- Watershed rehabilitation through re-planting and enrichment planting
- Agroforestry through community forestry
- Small scale infrastructure like check dams
- Training centers

The implementation considers different capacities and agendas in each country and composes a relevant package for each country. The program packages are designed in a way, that follow up costs and maintenance costs can fully be incorporated by the recipients/ beneficiaries of the programs.

The receiving organization of the proposed funds is the Mekong River Commission Secretariat, which involves competent national sector line agencies in each country. Those national line agencies use provincial level implementing organizations.

The total costs of the proposal is DM 10 million.

The expected benefits are primarily ecological benefits with sub-national, national and regional dimensions. Further expected benefits are socio-cultural and economic benefits.

## **2. Objective and Justificatio**

### **2.1. Problem Analysis**

For the ecological and socio-economic health of the Lower Mekong Basin the ecological functions of the water catchment areas in the Mekong Basin are decisive. As clearly expressed in the objective statement of the Sustainable Land and Water Use Program of the Mekong River Commission (MRC) in December 2000, the sustainable development of water resources is crucial for poverty alleviation and food security in the river basin. Any major disturbances of the very important ecological functions of sub-watersheds has direct implications not only for the particular country, but for the region as a whole.

The sub-watersheds of the Mekong in the 4 countries of the Lower Mekong Basin experience deforestation and forest degradation at an increasing rate. Particularly in upland watersheds deforestation and forest degradation has become a serious problem during the last 2 decades. The average deforestation rate for these countries between 1990 and 1995 was 1.6% per annum, higher than any other region in the world. In addition to this rapid loss of forest cover, extensive areas of forests have been severely degraded in terms of their structure and composition, through various forms of exploitation and exposure to fires and other destructive factors.

Extensive deforestation and wide-spread loss in forest quality have resulted in a number of serious environmental and socio-economic problems for most countries in the Lower Mekong Basin. Such problems include loss of ecosystem function, reduction in supply of timber and non-timber forest products and decline in spiritual, cultural and recreational values.

The predominant inhabitants of those watersheds are ethnic groups of various origin, which practiced and still practice shifting cultivation, while facing diminishing resources due to population increase, degradation of natural resources, and reduced possibilities for mobility.

Several programs have responded to these problems by implementing massive plantation and forest restoration programs. Many of those could not yet sufficiently address the problems sufficiently for reasons of being non participatory, or centralized approached, which did not take sufficient note of locally available resources and limitations. On the other hand it has become evident that decentralized and well planned and implemented forest restoration programs particularly in upland watersheds can provide a wide range of environmental and socio-economic benefits including bio-diversity conservation, improved ecosystem functioning, income, forest goods and services and recreational opportunities.

In the recent past in some countries of the Lower Mekong Basin forest rehabilitation in upland watersheds has become increasingly important for national and provincial governments.

The program " Forest Investment in the Lower Mekong Basin" will concentrate on areas of mainly ethnic minority population. Land use planning and forestry activities will directly involve local poor farmers in all locations.. Recent societal problems in this area were mainly based on land tenure and land use issues and are presently addressed by the

GOV. Improving the college's infrastructure for technical teaching as well participatory teaching methods in the areas of land use planning, forest management techniques, monitoring and quality control of nursery production, etc. are the main support themes. The provision of improved teaching facilities will allow more members of the mainly ethnic minority population to be technically trained to provide technical forestry services to their communities.

Thailand has faced in the last 40 years a tremendous loss of forest coverage. Whereas in 1961 the forest cover was 53%, it decreased to only 26% in 1995. In many areas of the country, particularly in the upland watersheds of the Northern Areas, the trend is still continuing.

The reasons for deforestation are manifold: conversion of forest land to agriculture land as a result of increasing population density, conversion of areas of shifting cultivation to permanent cropping, mostly commercial crops with high inputs of chemicals. Parallel to changing land uses wide spread forest fire caused loss of forests and subsequent loss of ground cover and soil erosion. Other main causes of deforestation were over grazing, mining, logging for commercial purposes and road construction (as well as widespread illegal logging), which eventually forced the government to impose a logging ban in 1989.

The Royal Forest Department of the Ministry of Agriculture and Cooperatives started since 1965 reforestation activities for watershed rehabilitation particularly in head watersheds of the Northern and North Eastern parts of Thailand, and has in the recent past introduced additional technical programs to complement reforestation.

Many of those programs have been launched successfully in a number of watersheds earlier, but so far not in an integrated way. Ideas and strategies for a more comprehensive approach have been developed only in the recent past. Based on the new constitution, which emphasizes local decision making for natural resources management at the Tambon Administration level, community forestry as a community based approach to forest management found legal and procedural recognition by the Royal Government. The Royal Forest Department and their decentralized structures in upland watersheds have taken steps to change from a centrally organized hierarchical approach to more decentralized participatory ways of forest management. Now, with the legal basis for community based forest management, the Royal Forest Department has the first time an opportunity to implement forest rehabilitation programs in a participatory integrated manner in upland watersheds. While technical expertise, organizational capacity, and procedures seem to be in place, the Watershed Management Division as the relevant Sector Organization for forest rehabilitation in upland watersheds will not be able to receive sufficient funding from government to address the issues of progressing deforestation and forest degradation sufficiently and timely.

#### In Viet Nam

Over 60% of Viet Nam's land area, some 19 million ha, is classified as forest land, and most of this is in the upland and mountainous areas located in the west and north of the country. About 24 million people live in or around forests and derive a substantial part of their food and income from the forest and forestland.

Viet Nam has suffered deforestation and forest degradation during the past 40 years, and annual forest loss has been of the order of 100-140,000 hectares (ha). Rapidly expanding populations and migration into forest areas are among the major reasons why pressures remain to clear forests to provide additional agricultural land. Poverty is widespread in rural areas, and people are essentially forced to use forest resources for subsistence and market purposes. State forest enterprises have also contributed to forest degradation by engaging in unsustainable harvesting to meet production quotas set by central government. It is estimated that there are about 9.7 million ha of land that is potentially available for rehabilitation. The Government has recognized the need to rehabilitate the large areas of degraded forestland, and has established ambitious programs

The experiences with reforestation are mixed. The early plantings showed poor results due to the use of poor quality seed and seedlings, poor technique and poor species-site matching. The Government has become aware of the problems with the country's forests and is keen to redress them by embarking on ambitious forest rehabilitation programs. The single most important and famous one is the 5 Mio ha program, which aims at establishing five million ha of forest by natural and artificial regeneration, thereby increasing national forest cover to 43%. This 5 Mio ha program additionally will create jobs for local people and contributes to the national programs of hunger eradication and poverty reduction.

#### In Laos

The general problems of degradation and deforestation of watersheds is most significant in the northern parts of the country, where shifting cultivation has resulted to the loss of almost all large forested areas, even though the country in the north is populated with only 10 to 15 persons per sq.km. Ambiguities over tenure, particularly regarding access and use rights, have created difficulties in dealing with ethnic groups living in watershed areas. The government is attempting to ban or at least curtail shifting cultivation, but to date there are no livelihood alternatives so far proven that shifting cultivators can adopt with confidence. Land allocation and community based land use planning are currently on trial throughout the country, but progress is inevitably slow. Most communities in watersheds are impoverished and their primary concern is with food security. Any development program to deal with forest rehabilitation in the upland areas need to integrate rehabilitation activities with overall development.

#### Cambodia

In Cambodia the loss of forest cover and forest quality in forested areas during the last 20 years shows the highest rate in the Lower Mekong Basin. This can largely be attributed to the long lasting periods of unrest and political instabilities, partly to expanding population and construction of new roads into forested areas for forest harvesting by private concessionaires, which created a sudden access to so far non accessible huge resources. Illegal logging could be controlled to a large extent only very recently. Forests today still play a significant role for the majority of rural population. Particularly in the watersheds of the north eastern parts of Cambodia forests are the basis for people's

livelihoods and provide a variety of products and functions to local communities beyond the ecological functions.

Community based natural resources management has been an important agenda of many development agencies in the north eastern parts of Cambodia, not only by international and local NGOs, but also by government and projects in the province of Ratanakkiri. Concepts and practices for community involvement in planning and monitoring of resources utilization have been developed over the past years, and succeeded in a comparative high level of technical skills, communication systems, and effective cooperation between various stakeholder groups and provincial government structures. Procedures for participatory land use planning and collaborative community forest management practices have been established. However, larger applications for a more substantial coverage of watershed areas, where forests and people live in co-existence, are not yet in place, since this part of Cambodia never has been in the main focus of government or donor attention.

## **2.2. Project objective, target groups, relevance to development policies**

The project objective is to improve ecological functions of upland watershed in a participatory way through integrated forest rehabilitation programs in selected watersheds of the Lower Mekong Basin.

This objective addresses not only particular areas of the four member counties of the Mekong River Commission, but the Mekong Basin as a whole. The significance of the objective for the health of the Mekong Basin is further expressed by way of selection of watersheds under this proposal. Since the proposed project is small in size in comparison to the magnitude of the problem, particularly those watersheds will be chosen for the project implementation, which are critical from a regional angle.

This objective addresses as well peoples' livelihood and socio-economic development in target areas.

It is further envisaged that the project produces a model for participatory integrated watershed rehabilitation for other watersheds in the countries or the region. The necessary instrument for ensuring these pilot functions is the creation of mechanisms for scaling up and training for replication within the given resources of the implementing government organizations. Both aspects will become an integral part of the project design and project implementation.

The target groups of this project are both, local people living in upland watersheds from agricultural and forest resources, as well as local organizations like commune, district and provincial administration, non government organizations, and relevant line agencies in target areas. Additional indirect target groups are administration and line organizations working in other parts of the Lower Mekong Basin, and can learn from experiences from target areas through exposure visits or formal training courses. Finally target groups are sector specialists in national and regional organizations, who will take the opportunity to make use of available experiences and incorporate those in their own organizations.

Throughout the Lower Mekong Basin the government policies welcome concepts and programs which help to implement practical ways for decentralized decision making and

peoples' participation on the one hand and focus on protection and rehabilitation of natural resources on the other hand. This expresses itself in the new constitutions, immobile property laws, forest laws, community forestry sub decrees and community bills throughout the Mekong Basin. During the last 2 years governments of all 4 member countries of the MRC took either efforts in supporting broad public consultation processes for the formulation of policies and guidelines (Thailand, Cambodia) or established the first steps for those processes (Lao PDR, Viet Nam).

### **3. Project proposal**

#### **3.1. Measures until now, and their interaction/ connection to the proposed project**

The proposed project draws on available data, information products, and experiences of two MRC based projects, which were supported by the German and the Swiss donors:

- The Forest Cover Monitoring Project FCMP, which ended in the year 1999 and has significantly contributed to the development of techniques and skills for building up geographic information systems and maps
- The Watershed Classification Project WCP, which ends in December 2001 and leaves behind a huge data base on bio-physical properties of all watersheds in the Lower Mekong Basin
- The Sustainable Resources in the Lower Mekong Project SMRP, which shall operate until the end of 2002 and has built up information systems for collaborative forest management, strategic partnerships in countries and beyond countries and contributed to policy formulation for the forest sector in the basin.

The successor program of the SMRP will be the Sustainable Land and water Use Program SLWUP of the MRC, which is considered to be a strategic partner and facilitator for the proposed project.

In all countries of the Lower Mekong Basin forest rehabilitation has been an important national agenda in general, ever since an historically unprecedented speed of forest degradation due to logging, rapid expansion of agricultural production, and other reasons caused drastic losses of forest cover. Some of the countries are responding to problems by planning and implementing massive plantation and forest rehabilitation schemes. Viet Nam has started implementing a large program involving the rehabilitation of some 5,000,000 ha of degraded lands over a period of fifteen years. If fully implemented, the program in Viet Nam would nearly double the nation's current area of forest. Thailand has recently launched a 5 year program to reforest 800,000 ha. Lao PDR has plans to establish 500,000 ha of plantations and to rehabilitate 2,000,000 ha of degraded forests by the year 2020.

Forest rehabilitation programs generally contribute to numerous goals of conservation and development such as the conservation of biological diversity, the sustainable development of natural resources, poverty alleviation, the building of rural institutions, and the sequestration of carbon from the atmosphere. However, specific concrete and comprehensive programs for the rehabilitation of upland watersheds are not yet in place except for a few scattered activities in Northern Thailand.

Outcomes of successful forest rehabilitation schemes in upland watersheds depend on how such schemes are conceived, planned, implemented, monitored and evaluated. For this reason, it is desirable for forest rehabilitation to be based on;

- a sound understanding of experience of forest rehabilitation schemes compared to expectations;
- policies that prescribe principles and criteria for achieving ecologically and socio-economically sound forest rehabilitation; and,
- institutional capacity to extend and support the application of these policies and practical approaches in the field.

In the majority of the countries of the Lower Mekong Basin, those desirable conditions are at least partly in place. However, an integrated and participatory approach to forest rehabilitation programs in upland watersheds is a new concept, that involves a multiple stakeholder approach and the implementation of multiple tasks in an often to bureaucrats unknown territories. Predominantly ethnic groups different to the low land people live in watersheds with practices of land and water use, which is occasionally considered harmful by governments. Implementing them is sometimes complicated and complex. The proposed technical packages are developed and widely used, their integration and wider application finds limited pre-existing experience. Insofar the proposed project contributes to the development of procedures and mechanisms for scaling up and integrating existing knowledge and skills.

This proposed project “ Forest Investment in the Lower Mekong Basin” will concentrate on areas of mainly ethnic minority population. Land use planning and forestry activities will directly involve local poor farmers in all locations. Recent societal problems in some of the watershed areas close to borders were mainly based on land tenure and land use issues and are presently addressed by the government of Vietnam.

### **3.2. Project activities and expected results**

The proposed project activities will not be uniform across countries, since marked differences in administration, organizational capacity, and available experiences have to be considered. The common feature of project activities is the combination of

- Participatory land use planning
- Re-planting (forest plantation) and enrichment planting in critical (1A) watersheds
- Community forestry programs in less critical watersheds
- Training and scaling up of workable practices

1.

Result Area 1: Participatory land use planning is carried out in selected areas close to and around critical (1A) watershed areas

- Select project areas and inventorise locally available community based organizations
- Determine present forms of land use and their causes
- Clarify legal situation (state claims), usufruct rights, NRM access rights and traditional ways of conflict resolution
- Facilitate negotiation processes for improved land use systems according to claims and rights, capacities and limitations of natural resources, land and people
- Document, map and communicate new land use plans on communal, district and provincial level

2. Result Area 2: Critical watersheds are rehabilitated through re-planting and enrichment planting

- Identify critical watershed areas for re-planting (denuded areas) and enrichment planting (degraded areas)
- Develop management scheme for re-planting and enrichment planting for 7 years
- Produce seedlings for indigenous trees and provide planting material
- Organize land preparation and planting with participation of local people

3. Result Area 3: Forest food bank programs (agro-forestry programs) are established through community forestry

- Identify forest land suitable for community forestry/ agro-forestry programs
- Develop production and maintenance schemes with community based organizations (CBOs) and local administration offices
- Supply seed material for selected plants (herbal, medicinal, fruit trees, etc.) and organize supply of other necessary inputs for planting and production
- Provide technical assistance and managerial support for establishing village nurseries and other necessary village based technical infrastructure

4. Result area 4: Check dams are established and maintained

- select suitable locations in identified areas in collaboration with CBOs and local administration
- develop construction and maintenance schemes through established village based committees and organize supply of material
- construct dams of various sizes according to suitability and requirements of slope, water flow, soil and land use
- identify organizational and technical possibilities for increased agricultural and forest production

5.

Result area 5: A national/ regional training center for participatory forest rehabilitation in upland watersheds has been built and is functioning

- Select suitable location and design training center, keeping in mind all necessary facilities for 50 trainees
- Construct / build up training center
- Develop maintenance schedule
- Develop training modules for target groups from within the countries and from neighbour countries
- Conduct training courses

### **3.3. Proposed implementation**

The proposed project will be implemented in close co-operation with and partly through the MRC based “Sustainable Land and Water Use Program (SLWUP)”, which is envisaged to start in late 2002. By its nature the proposed project is an investment project for the forest sector and thus takes a complementary role to the SLWUP, which takes into consideration not only forestry, but the whole range of sectors and disciplines relevant to watershed management. The proposed project will, therefore, also be implemented in the trans-boundary context characterizing the SLWUP.

Particularly in the two smaller LMB countries Cambodia and Lao PDR, a certain level of technical, administrative, and managerial integration of the country components of the proposed project into the implementation structures of the forthcoming SLWUP will be a pre-requisite to guarantee effectiveness of investment programs and sustainability of the benefits to target groups and institutions. It is proposed to use technical know-how, planning and monitoring capacity as well as implementation capacity of the SLWUP to ensure highest possible standards of project performance and project impact.

The proposed implementation does not foresee an equal allocation of funds to each country, since

- The absorption capacity of administration and target groups in villages differs largely from country to country, whereby relatively high capacity will be found in Thailand and to some extent in Viet Nam, and comparatively low capacity is available in Cambodia and Lao PDR.
- The forthcoming implementation programs under the SLWUP already foresee a higher financial contribution to countries to Lao PDR and Cambodia in comparison to Thailand and Viet Nam.

The implementation of programs also differ from country to country with regards to various combinations of result areas. All of them have in common that any field work for forest rehabilitation of agro-forestry program implementation through community forestry needs to build on the results of a participatory land use planning exercise, which involves all important stakeholders in the respective areas and which is built on existing government policies and legal frameworks.

### Thailand

In Thailand result areas 1, 2, 3, 4, 5 will be implemented. The implementing organization is the Watershed Management Division of the Natural Resources Conservation Office, Royal Forest Department. The Watershed Management Division (WMD) operates through Watershed Management Centers and their attached Watershed Management Units. Each Watershed Management Center is equipped with one office and necessary mobility.

For the program implementation, the sub-watersheds of the rivers Kok and Ing are selected. They are situated in North-East Thailand and both drain into the Mekong. The respective provinces are Chiang Rai, Chiang Mai and Phao province.

The Watershed management Centers for the watersheds of the rivers Kok and Ing are the Watershed Management Centers 8, 9, and 10 of the WMD. They comprise a total of 19 Watershed Management Units with 233 attached villages and around 90.000 people.

The result areas 1, 2, 3, 4, 5 will be implemented in the following way:

Result area	No of units	Implemented by	Involved groups
Participatory Land Use Pl.	120 villages	WMD	CBOs <sup>26</sup> , TAO <sup>27</sup>
Forest rehabilitation	3000 ha	WMD	Farmers, labourers
Community Forestry	120 villages <sup>28</sup>	CBOs	WMD, TAO
Check dams	1200	WMD and CBOs	TAO
Training Center	1	WMD	TAO

### Viet Nam

In Vietnam it is envisaged to implement results 1, 2 and 5. The implementation organizations are provincial Departments of Agriculture and Rural Development (DARD) und the Ministry of Agriculture and Rural Development. DARD has provincial as well as district offices.

The two locations, Lai Chau Province, Dien Bien Phu District and Gia Lai Province, Pleiku, for programme implementation in Vietnam are located in the Lower Mekong Basin. Lai Chau is situated in the northern part of Vietnam bordering Laos. Pleiku, Gia Lai is located in the central highlands of Vietnam, the largest part of its area within the Lower Mekong Basin. Gia Lai shares its border with Ratanakiri Province in Cambodia.

In addition to field programs for watershed rehabilitation, the program will support the existing Tay Nguyen Agriculture and Forestry College, which provides vocational training for all three provinces of the Central Highlands

<sup>26</sup> CBO= Community Based Organization

<sup>27</sup> TAO= Tambon Administration Office

<sup>28</sup> each village will have an average of about 40 Ha forest land for development of agro forestry programs

The result areas 1, 2 and 5 will implemented as follows:

#### Lai Chau Province

Result area	No of units	Implemented by	Involved group
Participatory land use and forest resource planning	1500 ha	Lai Chau DARD	Lai Chau Department of land management
Replanting (incl. deposit accounts)	1200 ha	Lai Chau DARD	Lai Chau Forest Protection Department
Enrichment planting (incl. deposit accounts)	300 ha	Lai Chau DARD	Lai Chau Forest Protection Department

#### Gia Lai Province

Result area	No of units	Implemented by	Involved group
Participatory land use and forest resource planning	2300 ha	Gia Lai DARD	Gia Lai Department of land management Gia Lai forest protection department
Replanting (incl. deposit accounts)	300 ha	Gia Lai DARD	Gia Lai forest protection department Gia Lai Bank for Agriculture
Enrichment planting (incl. deposit accounts)	2000 ha	Gia Lai DARD	Gia Lai forest protection department Gia Lai Bank for Agriculture
Vocational training centre	1	DARD	Tay Nguyen Agriculture & Forestry Training Centre

#### Laos

In Laos result areas 1, 2, 3, will be implemented. The implementing organization is the Ministry of Agriculture and Forestry on national level and the Provincial Planning Office on provincial level. The Provincial Planning Office operates through line offices on provincial level and their field staff.

The program will be implemented in the watershed of the Moug Mai river, which drains into the Mekong and forms the lower part of the Dien Bien/ Moug Mai watershed. This area is situated at the north-eastern part of Laos and borders Vietnam.

The result areas 1, 2, 3, will be implemented in the following way:

Result area	No of units	Implemented by	Involved groups
Participatory Land Use Pl.	30 villages	Prov. Planning Unit	CBOs, local admin, PFO
Forest rehabilitation through terraces, contour lines	800 ha	Prov. Planning Unit, PFO, CBOs	Farmers, labourers
Community Forestry for agro-forestry + enrichment planting	450 ha 1500 ha	CBOs, PFO	Farmers, labourers

### Cambodia

In Cambodia the result areas 1, 2, 3, will be implemented. The implementing organization is the Provincial Rural Development Committee (PRDC) under the provincial governor. The PRDC operates through the government organization "Partnership for Local Governance" (PLG), which is a UN supported development program in the majority of Cambodia's provinces today. The PRDC would oversee resources utilization, coordination with other important government structures in the province and also with NGOs. The single most important partner for technical advice, planning and monitoring will be the Provincial Forest Office (PFO). For the program implementation, the sub-watersheds of the rivers Sesan and Sepok, which have their origin in the central highlands of Viet Nam, and are already marked as target areas for the SLWUP of the MRC. Both rivers drain into the Mekong. The respective province is Ratanakkiri. Province.

The implementation level for the Cambodia components will be the Commune. Since after the forthcoming local elections in Feb 2002 the commune level will be considerably strengthened administratively and politically, the proposed project can play a significant role in building up a model for decentralized community forestry in watershed areas in Cambodia.

The Result Areas 1, 2, 3 will be implemented in the following way:

Result area	No of units	Implemented by	Involved groups
Participatory Land Use Pl.	50 villages	PRDC / PLG, PFO, NGOs	NGOs, CBOs, Communes
Forest rehabilitation	2000 ha	PRDC / PLG, PFO, NGOs	PFO, Farmers, Communes, CBOs
Community Forestry	50 villages	PRDC/ PLG, PFO, NGOs,	PFO, Communes, farmers, CBOs

### 3.4. Ways of maintenance and utilization

Principally the project is designed in a way that maintenance costs would be fully taken over by either government line agencies, local administration, NGOs, Communes, or village based communities.

#### Thailand:

During and after the implementation of the project, organization and costs of maintenance of built up infrastructure will be shared in the following way:

Result area	No of units	Responsible for maintenance	Participating in maintenance
Part. Land Use Planning	120 villages	CBO	WMD, LDD <sup>29</sup>
Forest rehabilitation	4300 ha	WMD	TAO, farmers
Community Forestry	120 villages	CBOs	
Check dams	1200	CBOs	WMD, TAO
Training Center	1	WMD	

#### Viet Nam

During and after the implementation of the project, organization and costs of maintenance of built up infrastructure will be shared in the following way:

##### a) Lai Chau Province

Result area	No of units	Responsible for maintenance	Participating
Participatory land use and forest resource planning	1500 ha	Lai Chau DARD	Lai Chau Department of land management
Replanting (incl. deposit accounts)	1000 ha	Lai Chau DARD	Lai Chau Forest Protection Department
Enrichment planting (incl. deposit accounts)	500 ha	Lai Chau DARD	Lai Chau Forest Protection Department

##### b) Gia Lai Province

Result area	No of units	Responsible for maintenance	Participating
Participatory land use and forest resource planning	2500 ha	Gia Lai DARD	Gia Lai Department of land management Gia Lai forest protection department

<sup>29</sup> LDD = Land Development Department. This department is responsible for cadastral services

Replanting (incl. deposit accounts)	750 ha	Gia Lai DARD	Gia Lai forest protection department Gia Lai Bank for Agriculture
Enrichment planting (incl. deposit accounts)	1750 ha	Gia Lai DARD	Gia Lai forest protection department Gia Lai Bank for Agriculture
Vocational training centre	1	DARD	Tay Nguyen Agriculture & Forestry Training Centre

### Laos

The maintenance of infrastructure such as contour lines, plantations, enrichment planting, fruit trees, village based nurseries, etc, will entirely be taken over by communities through their CBOs:

Result area	No of units	Responsible for maintenance	Participating in maintenance
Part. Land Use Planning	30 villages	CBO	
Forest rehabilitation through terraces, contour lines	600 ha	CBO	PFO, Prov, Planning Unit
Community Forestry for agro-forestry + enrichment planting	450 ha 1500 ha	CBO	PFO, Prov. Planning Unit

### Cambodia

During and after the implementation of the project, organization and costs of maintenance of built up infrastructure will be shared in the following way:

Result area	No of units	Responsible for maintenance	Participating in maintenance
Part. Land Use Planning	50 villages	CBO, Commune	PFO, PLG
Forest rehabilitation	2000 ha	Commune	PFO, PLG
Community Forestry	50 villages	Commune, CBO	PFO, PLG

#### **4. Description of the receiver and project implementing organization**

##### **4.1. Description of the Receiver of Funding**

The receiver of the funds is the Mekong River Commission Secretariat, Phnom Penh.

The Mekong River Commission (MRC) was established on 5 April 1995. The MRC member countries are Cambodia, Lao PDR, Thailand and Viet Nam. MRC maintains regular dialogue with the two upper states of the Mekong River Basin, China and Myanmar.

##### Legal Form, Tasks and Responsibilities

The MRC member countries agree to co-operate in all fields of sustainable development, utilisation, management and conservation of the water and related resources of the Mekong River Basin, such as navigation, flood control, fisheries, agriculture, hydropower and environmental protection.

The MRC consists of three permanent bodies: The Council, the Joint Committee (JC) and the Secretariat.

National Mekong Committees (NMCs) act as focal points for the Commission in each of the member countries and are served by the respective National Mekong Committee Secretariats.

The Council, which meets once a year, consists of one member from each country at ministerial or cabinet level. The Council makes policy decisions and provides other necessary guidance concerning the promotion, support, co-operation and co-ordination of joint activities and programmes in order to implement the 1995 Agreement.

The Joint Committee consists of one member from each country at no less than Head of Department level. The Joint Committee is responsible for the implementation of the policies and decisions of the Council and supervises the activities of the Mekong River Commission Secretariat.

The MRC Secretariat is the operational arm of the MRC. It provides technical and administrative services to the Council and the Joint Committee. Under the supervision of the Joint Committee, the Chief Executive Officer is responsible for the day-to-day operations of more than 100 professional and general support staff. The main counterparts for MRC activities in the four member countries are the National Mekong Committees (NMCs).

The MRC defines its main objective of the cooperation between the riparian countries as follows:

"To cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin (...) in a manner to optimise the multiple use and mutual benefits of all riparians and to minimise the harmful effects that might result from occurrences and man-made activities".

The 1995 agreement defines in 42 articles the principles of sustainable use of the Mekong River system and it constitutes a binding institutional framework for sustainable cooperation.

#### **4.2. Description of the Project Implementing Organization**

The Project Implementing Organizations in the 4 member countries of the MRC are described here only on national level. The actual implementation shall take place in selected provinces in all 4 countries, and their exact description would go beyond the format of this proposal. The Implementing Organizations on National Level are those, which will be directly accountable to the MRC Secretariat for the implementation of programs in their respective country.

##### Thailand

The Project Implementation Organization in Thailand will be the Royal Forest Department (RFD). The RFD was established in 1892. It had the function to oversee timber harvesting and regularize tax revenues in the 19<sup>th</sup> and also major parts of the 20<sup>th</sup> century. During the recent years the RFD has embarked on a series of initiatives to encourage protection of the remaining forests and to encourage participation of local people in the development of sustainable programs for forest protection and forest rehabilitation. The RFD operates in watersheds through the Natural Resources Conservation Office, which has the Watershed Management Division as one of their 5 divisions. The Watershed Management Division implements programs through Watershed Centers, which are located in watersheds and Watershed Units o each Center.

##### Viet Nam

The Ministry of Agriculture and Rural Development (MARD) was created in 1995 combining the former ministries of agriculture, forestry and water resources. The creation of the MARD allows for the integration of three major sub-sectors dealing with natural resource management serving the objectives of rural development. MARD is represented on provincial and district levels county-wide and mostly well staffed in terms of numbers. However, skills of the staff to support the nation-wide processes in decentralisation and devolution, putting communities into decision-making positions are still limited. There is a clear need for training in participatory methods and technical skills for forest management.

##### Lao PDR

In Lao PDR the program component would be implemented through the Ministry of Agriculture and Forestry (MAF). The MAF has since 1976 demonstrated interest in stabilizing shifting cultivation by encouraging upland communities to adopt sedentary agricultural practices. The year 1989 marked a shift from exploitation based forestry to the preservation, planting, and development of forests, and resulted in the Tropical Forestry Action Plan for Lao PDR (TFAP). Recent development decided to allocate forest land to individuals and communities, which is also clearly expressed in the new Forestry Law in 1996. The last year experienced a major shift from sectoral orientation to a more comprehensive rural development orientation for poverty alleviation, during which the MAF was reorganized into 2 major departments: Research and Extension. The general policy in

Lao PDR is decentralization of planning and implementation of watershed and forest rehabilitation to provincial authorities, whereby the Provincial Planning Office has the coordination and monitoring role.

### Cambodia

The Cambodia National Mekong Committee (CNMC) has been established some 40 years ago, primarily for the concerns of navigation and flood control. After the formation of the today's Mekong River Commission in 1995 and with the formulation of the basin Development Plan BDP, the CNMC added more subject matters to their themes of interest. As a result, the implementation of the Sustainable Land and Water Use Program (SLWUP), which was endorsed by the governments in the year 2000, is going to be coordinated by the CNMC. For reasons of technical expertise the coordination will consider the involvement of the Department of Forestry & Wildlife in the first place. The Department of Forestry & Wildlife (DF&W), Ministry of Agriculture, Forestry & Fisheries, has been established after the end of the Khmer Rouge Period during the subsequent ten years of occupation by the neighbor Viet Nam in the mid eighties. Only during the last few years the DF&W started conceptualizing community involvement in forest protection and forest management and entered a broad consultative and transparent process for the formulation of the community forestry sub-decree in the year 2001. On provincial or sub-provincial level the DF&W still has very limited capacity for the implementation of community based forest rehabilitation in watersheds. Hence the Provincial Rural Development Committee under the provincial governor will be the main partner for practical implementation in the selected watersheds in Cambodia.

## **5. Total Costs and Means of Financing**

### **5.1. Total Costs**

The total costs of the project are estimated at 10 Million DM. The costs of the program components are summarized in the following table:

<b>Component</b>	<b>Costs in USD</b>	<b>Costs in DM</b>	<b>Remarks</b>
Thailand	1.232.000	2.710.000	Starting in the beginning
Viet Nam	1.232.000	2.710.000	Starting in the beginning
Lao PDR	0.741.000	1.630.000	Starting with 1 year delay
Cambodia	0.741.000	1.630.000	Starting with 1 year delay
Overheads KfW	0.300.000	0.660.000	Estimated
Overheads MRC	0.300.000	0.660.000	Estimated
<b>Total</b>	<b>4.546.000</b>	<b>10.000.000</b>	

The costs for each country component and years are summarized in the table below<sup>30</sup>:

<b>Thailand costs in DM</b>						
Year	Result 1	Result 2	Result 3	Result 4	Result 5	Total
1	30.000		50.000	100.000	50.000	230.000
2	40.000	200.000	70.000	150.000	300.000	760.000
3	40.000	250.000	80.000	150.000	90.000	610.000
4	40.000	300.000	60.000	150.000		550.000
5	30.000	340.000	40.000	150.000		560.000
Total	180.000	1.090.000	300.000	700.000	440.000	2.710.000
<b>Viet Nam costs in DM</b>						
Year	Result 1	Result 2	Result 3	Result 4	Result 5	Total
1	20.000					20.000
2	30.000	160.000			300.000	490.000
3	30.000	350.000			450.000	830.000
4	10.000	600.000			151.200	761.200
5	8.800	600.000				608.800
Total	98.800	1.710.000			901.200	2.710.000
<b>Lao PDR costs in DM</b>						
Year	Result 1	Result 2	Result 3	Result 4	Result 5	Total
1						
2	10.000	120.000	80.000			210.000
3	6.000	200.000	150.000			356.000
4	8.000	300.000	200.000			508.000
5	6.000	300.000	250.000			556.000
Total	30.000	920.000	680.000			1.630.000

<sup>30</sup> those costs are based on calculated units costs and quantities, as prescribed in detail on p. 24 ff.

<b>Cambodia costs in DM</b>						
<b>Year</b>	<b>Result 1</b>	<b>Result 2</b>	<b>Result 3</b>	<b>Result 4</b>	<b>Result 5</b>	<b>Total</b>
1						
2	8.000	60.000	240.000			308.000
3	10.000	80.000	250.000			340.000
4	10.000	110.000	330.000			450.000
5	12.000	120.000	400.000			532.000
<b>Total</b>	<b>40.000</b>	<b>370.000</b>	<b>1.220.000</b>			<b>1.630.000</b>

## **5.2. Means of financing**

The financial contributions will be made available to the MRC Secretariat, Phnom Penh. The Secretariat will establish all necessary infrastructure and technical expertise to allow for transparency, regular reporting and required levels of accountability to the German donor.

The MRC Secretariat will further disburse the funds according to laid down and agreed investment plans in all 4 countries to identified direct partners. Those direct partners will be in all cases government institutions, which work either in close collaboration with sector organizations in the forest sector or are sector organizations. The proposed partners in the four members countries of the MRC are

- For Viet Nam           the Ministry of Agriculture and Rural Development
- For Thailand       the Royal Forest Department
- For Lao PDR       the Ministry of Agriculture and Forestry
- For Cambodia       the Cambodia National Mekong Committee.

Details of financial flow, monitoring and accounts systems and reporting systems between those direct partners and their collaborative partners for project implementation will be established at a later stage.

## **6. Project Impact**

### **6.1. Description of micro-economic and macro-economic benefits**

#### **Micro-economic benefits**

The project components on community forestry/ agro-forestry directly benefit rural households with supply of food items, which can be consumed by the households or which can be marketed within the village or to nearby town centers. It is envisaged that the returns to investment per ha will be substantial beyond year 3 and 4 after planting, when fruit trees and other perennial tree crops start yielding. For annual crops from community

forestry activities such as medicinal plants, rattan, firewood, poles, herbal plants, etc., the returns can be expected at an earlier stage.

The project component on enrichment planting and re-planting yields direct economic returns to rural households in all those cases, where rural labor will be employed by the implementing organizations for that work (Thailand, Viet Nam, Laos). This component further produces micro-economic benefits to selected village households, which establish tree nurseries either on communal agreement or on contract basis with the implementing organizations. This activity also supports micro-economic entrepreneurship and entrepreneurial behavior and skills in villages.

The project component on check dams generates employment and paid wage labor to participants from villages either as a result of directly hired labor or as a result of work organization by village based organizations.

### **Macro-economic benefits**

The project produces substantial benefits on a macro-economic level as a result of improved watershed management, which is a better distribution of water flow from upcountry areas as well as better quality of water. Better distribution and quality are fundamental pre-requisites for agricultural irrigation, domestic use, and also commercial use more downstream.

Additional benefits derive from supply of high value timber as a result of forest rehabilitation programs to government.

## **6.2. Description of Socio-economic and Socio –cultural Benefits**

Inhabitants of upland watersheds in the Lower Mekong basin are predominantly ethnic groups, which have been mostly mobile in earlier days, practiced shifting cultivation and became permanent settlers on either side of national borders only recently. They have been, in the best case, never been in the main focus of development programming by any government so far, in the worst case they were identified as having been collaborating with the US forces in the Vietnam war, which resulted in sometimes extreme forms of marginalization by governments. Today nearly all ethnic groups in upland watersheds have an average income far below national averages, hardly access to government social services, and very little access to business activities of the private sector, which would contribute to economic development. They largely depend with their livelihood on cultivation of rain fed crops on marginal soils without much support by modern agricultural inputs, which is available mostly to low land people and on forest products.

The programs described in this project benefit first of all those ethnic groups not only economically, but also socially and culturally. Particularly programs for forest rehabilitation and agro-forestry through community involvement are able to restore the basis of livelihood also in a cultural and spiritual sense, and may contribute to new forms of social integration.

### **6.3. Description of ecological benefits**

Ecological benefits are by far the most significant and the most important ones.

The proposed project forms strategically an important complementary part to the forthcoming Sustainable Land and Water Use Program (SLWUP) of the MRC, which addresses besides watershed rehabilitation also the agenda of consultation and negotiation between countries of the Lower Mekong basin for development of standards for sustainable watershed management, and a common understanding of the importance of the watershed issue in each country for the health of the Mekong basin.

The SLWUP will be implemented in the same geographical areas which have been proposed for the project as well in order to guarantee the fullest possible integration of the financial contributions under this project.

All selected watersheds under this project proposal are critical watersheds. They are either

- Deforested watersheds or watersheds that carry highly degraded forests
- Important watersheds for flood control in the Lower Mekong basin
- Watersheds, that go across borders and have a significant area in 2 countries

Thus the ecological benefits are first of all to be seen in a regional context. The basin wide complex problems of soil erosion due to degraded watersheds will be aimed at in three ways:

- By rehabilitating watersheds, which are classified as critical watershed
- By building up replicable models for integrated participatory watershed management
- By installing mechanisms and opportunities for regional exposure and training in two training centers Vietnam and Thailand for sector experts and practitioners throughout the Mekong basin.

## Quantities and Unit Cost Calculations

### 1. Viet Nam

Program	Unit costs USD	Unit costs DM	Quantities	Total costs DM
Replanting	4.9 mio	700 / ha	1500 ha	1.860.000
Enrichment planting	2.45 mio	350 / ha	2300 ha	
Vocational Training centre		910,000	1	901.200
PLUP and forest resource planning	182.000	26 / ha	3.800	98.800

### 2. Thailand

Program	Unit costs ThB	Unit costs DM	Quantities	Total costs DM
Enrichment planting	3.600	185 / ha	702 ha	1.090.000
Re-planting	16.000	800 / ha	1.200 ha	
Village food banks through community forestry	5.000 / ha	250 / ha	1.200 ha 10 ha/ village 120 villages	300.000
Small check dams	6.000 / ha	300 / ha	7 / village	700.000
Large check dams	25.000 / ha	1.250 / ha	3 / village 120 villages	
Training centre	8.800.000	440.000	1	440.000
PLUP	30.000 / village	1.500/ village	120 villages	180.000

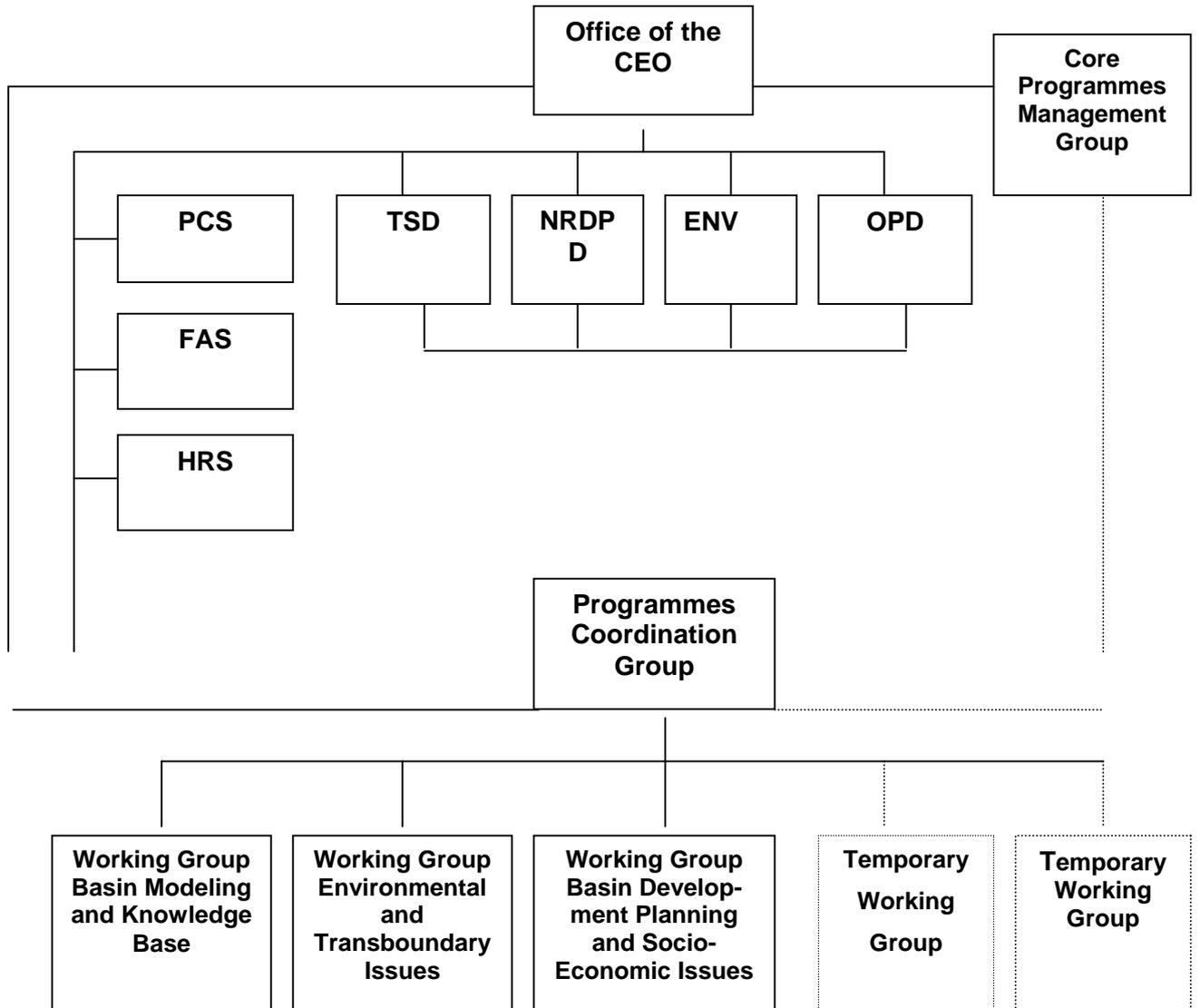
**3. Lao PDR**

<b>Program</b>	<b>Unit costs USD</b>	<b>Unit costs DM</b>	<b>quantities</b>	<b>Total costs DM</b>
Replanting Enrichment planting	523 / ha	1150 / ha	800 ha	920.000
Community forestry Agro-forestry Enrichment planting	264 / ha 127 / ha	580 / ha 280 / ha	450 ha 1500 ha	680.000
PLUP	455/ village	1000/ village	30 villages	30.000

**4. Cambodia**

<b>Program</b>	<b>Unit costs USD</b>	<b>Unit costs DM</b>	<b>quantities</b>	<b>Total costs DM</b>
Enrichment planting	84 / ha	185 / ha	2.000 ha	370.000
Agro-forestry through community forestry	444 / ha	976 / ha	1.250 ha 25 ha/ village 50 villages	1.220.000
PLUP	364 / village	800 / village	50 villages	40.000

### Organogramme of the MRC Secretariat



- ENV- Environment Division
- FAS – Finance and Administration
- HRD – Human Resource Division
- NRDPD – Natural Resource Development Planning Division
- OPD – Operations Division
- PCS – Programme Coordination Section
- TSD – Technical Support Division

## WORK PROGRAMME OF THE MISSION AND PEOPLE MET

### Monday, 14-01-2002

Arrival of national and international consultants in Phnom Penh (except S. Preuss)

### Tuesday, 15-01-2001 and Wednesday 16-01-2002

Start-up workshop for the mission (Clarification of TOR, work and travel planning)

### Thursday, 17-01-2002

Departure of national consultants from Laos, Thailand and Vietnam

National consultants from Cambodia and international consultants: Discussions with representatives of relevant institutions in Cambodia (in 2 groups)

Institution	People met
Cambodia National Mekong Committee Secretariat	Mr. Pich Dun, Director, Projects Dept. Mr. An Pich Hatda, BDP Focal Point Mr. Watt Bokosal, Focal Point for SMRP
Ministry of Interior	Mr. Leng Vy, Director, Dept. of Local Administration
Ministry of Planning	Mr. Hoy Sythikun, Dep. Director, Dept. of Economic Planning
UNDP Cambodia	Cancelled, as relevant UNDP representatives were not available
Ministry of Agriculture, Forestry and Fisheries: Department of Wildlife and Forestry	Mr. Ty Sokhun, Director of Dept. of Forestry and Wildlife Mr. Tieng Sokhom, Chief of GIS Office
Ministry of Agriculture, Forestry and Fisheries: Department of Agronomy and Agricultural Land Improvement	Mr. Mak Soeung, Chief of Technical Office
SEILA	Mr. Scott Leiper, Programme Manager Mrs. Joanne Morrison, Operations Adviser Mr. Julian Abrams, Infrastructure Adviser
GTZ Office Cambodia	Dr. Thomas Engelhardt, Director

**Friday, 18-01-2002**

National consultants from Cambodia and international consultants: Discussions with representatives of relevant institutions in Cambodia (in 2 groups)

<b>Institution</b>	<b>People met</b>
Ministry of Land Management, Urban Planning and Production	Dr. Duch Wontito, Gen. Director, General Dept. of Land Management and Urban Planning Mr. Prak Angkeara, Dep. Director, Dept. of Research and Regulation
Ministry of Rural Development	Mr. Nhep Phan, Dep. Director, Dept. of Planning and Public Relations
CDC-DANIDA Natural Resources and Environmental Programme	Mr. Lars Lund, Programme Co-ordinator Mr. Loeung Kesaro, Programme Officer
Asian Development Bank	Cancelled, as relevant ADB representatives were not available
Ministry of Water Resources and Meteorology	Mr. Am Norinn, Dep. Director, Dept. of Water Conservation and Management
Ministry of Industry, Mines and Energy	Dr. Bun Narith, Director, Hydroelectricity Dept.
Ministry of Environment	Dr. Neov Bonheur, Dep. Director, Secretariat of Tonle Sap Biodiversity Mr. Meng Monirak, Officer Mrs. Phum Vicheth, CTA, World Bank Project „Biodiversity Conservation in Virachey National Park“
Worldwide Fund for Nature Cambodia Conservation Project	Mr. Toby Carson, CBNRM Specialist Mr. Marc Guichot, Co-ordinator of Strategical Mekong Partnership
Oxfam America	Mr. Michael Ounsted, Regional Director South-East Asia Mia Hyun, Senior Programme Officer

**Saturday, 19-01-2002**

National consultants from Cambodia and international consultants: Discussions with representatives of relevant institutions in Cambodia

<b>Institution</b>	<b>People met</b>
Concern	Mr. Pissad, CFM Coordinator Ms. Danny Harvey, Community Forestry Adviser
MRC-GTZ Sustainable Management of Resources Project	Dr. Hans Helmrich, Chief Technical Adviser Mr. Michael Glück, Information Management Adviser Mr. Christoph Fedkötter, GIS Adviser
MRC-AFIP	Mr. John Leak, Consultant

**Sunday, 20-01-2002**

International consultants: Study of documents, departure to Bangkok

**Monday, 21-01-2002**

National consultants from Thailand and international consultants: Internal discussions and discussions with representatives of relevant institutions in Thailand

<b>Institution</b>	<b>People met</b>
Ministry of Agriculture and Forestry, Royal Forestry Department	Mr. Suwat Dulyapach, Dep. Director General, RFD Mr. Korkiat Kaysornsiri, Director, Watershed Management Division Mr. Udhai Thongmee, Chief of Wazershed Promotion and Development Subdivision (National Consultant) Mr. Chuen Boonao, Chief of Watershed Management Subdivision No. 1 Mr. Warin Jirasuktaveekul, Chief of Watershed Management Research Subdivision Nr. Ruang Janmahatansien, Technical Officer 7
Royal Forestry Department, Watershed Management Division	Mr. Korkiat Kaysornsiri, Director, Watershed Management Division Mr. Udhai Thongmee, Chief of Wazershed Promotion and Development Subdivision (National Consultant)

**Tuesday, 22-01-2002**

National consultants from Thailand and international consultants: Internal discussions and discussions with representatives of relevant institutions in Thailand

<b>Institution</b>	<b>People met</b>
Ministry of Science, Technology and Environment, Office of Environmental Policy and Planning	Dr. Wanee Samphantharak, Dep. Secretary General, OEPP Ms. Duangmal Sinthuvanich, Director, Natural Resources and Environmental Management Co-ordination Division (NRMECD) of OEPP Mr. Somchai Tasingsa, Chief of Watershed resources Subdivision (WSRS) of NREMCD Mr. Intanin Inchayanunth, Senior Environment Officer, WSRS Mr. Chartree Panuves, Senior Environment Officer, WSRS Ms. Oraprapim Channual, Senior Environment Officer, WSRS Ms. Warintorn Manosittisak, Senior Environment Officer, WSRS Ms. Pakawan Chufamane, Chief of Water Resource, Energy and Mineral Subdivision (WREMS) of NREMCD Ms. Sukanya Wisan, Senior Environment Officer, WREMS
Kasetsart University, Faculty of Forestry	Vice-Dean of Faculty

**Wednesday, 23-01-2002**

National consultants from Thailand and international consultants: Internal discussions and discussions with representatives of relevant institutions in Thailand

<b>Institution</b>	<b>People met</b>
Ministry of Agriculture and Forestry, Land Development Department	Mr. Chaiyasit Anaksaiphan, Dep. Director General, LDD Ms. Promsit Tragcondit, Land Use Planning Division, LDD Ms. Waraporn Boonsorn, Planning Division, LDD Mr. Kamron Saiphuk, Director, Coastal Management Dept., LDD Mr. Sunun Kunaporn, Soil Survey and Classification Division, LDD Mr. Sutham Paladsongkhram, Director, Soil and Water Conservation Division (SWCD) of LDD Mr. Amoon Pongkanjana, SWCD Mr. Sathaporn Jaiarree, SWCD
Thailand National Mekong Committee Secretariat	Dr. Suphot Tovichakchaikul, Acting Director, Office of Energy Co-operation Mr. Burachat Buasuwan, Senior Hydrologist, Focal Point for BDP Mr. Trirong Santimetvisul, Senior Policy and Planning Analyst, Focal Point for AIFP Ms. Kobkul Rungsijarog, Senior Policy and Planning Analyst, Focal Point for AIFP Ms. Rinnapa Paneetapalin, Policy and Planning Analyst

**Thursday, 24-01-2002**

Departure of international consultants to Vientiane (F. Rock) and Hanoi (F.E. Brandl), respectively

**Vietnam team (Boi, Brandl, Siem):**

**Thursday, 24-01-2002**

Arrival of F. E. Brandl in Hanoi  
 Afternoon: Internal meeting of national and international consultant (TOR, Finalisation of work and travel planning in Vietnam)

**Friday, 25-01-2002**

National consultants from Vietnam and international consultant: Discussions with representatives of relevant institutions in Vietnam

<b>Institution</b>	<b>People met</b>
Committee for Ethnic Minorities and Mountainous Areas	Mr. Trinh Cong Khanh, Dep. Director, Dept. of Mountainous Areas Policies Ms. Ho Thi Thanh Truc, International Co-operation Department
MARD-DANIDA Water Sector Programme Support	Mr. Lars Skov Andersen, Programme Co-ordinator
National Environment Agency	Dr. Truong Manh Tien, Deputy Director General

**Saturday, 26-01-2002**

National consultants from Vietnam and international consultant: Study of documents and discussions with representatives of relevant institutions in Vietnam

<b>Institution</b>	<b>People met</b>
Ministry of Agriculture and Rural Development	Dr. Nguyen Hong Quan, Deputy Director, Department of Forest Development
Vietnam National Mekong Committee Secretariat	Dr. Do Manh Hung

**Sunday, 27-01-2002**

Flight to Hue and drive to Dong Ha, Quang Tri Province (Brandl, Siem)

**Monday, 28-01-2002**

Discussions with Government Institutions and field visit to Huong Hoa District

<b>Institution</b>	<b>People met</b>
Huong Hoa District People's Committee, Khe Sanh	Mr. Vo Xuan Keng, Vice-Chairman, DPC Mr. Le Van Thieu, Chief of District Administration
Tan Long Commune	Mr. Truong Duc Thi, Secretary of Communist Party Mr. Do Van Hoa, Chairman, Commune Committee Mr. Do Van Kha, Vice-Chairman, Commune Committee
Department of Agriculture and Rural Development, Quang Tri Province	Mr. Truong Van Khanh, Deputy Director Mr. Truong Dinh Cuoc, Head of Forestry Section Mr. Huong Van Thien, Planning Officer

**Tuesday, 29-01-2002**

Drive to Hue and flight to Hanoi

Afternoon: Discussions with representatives of relevant institutions in Vietnam

<b>Institution</b>	<b>People met</b>
Institute for Water Resources Planning	Dr. Le Van Hoc, Director, IWRP Mr. Tran Van Nau, Head of Division of Water Planning of IWRP Ms. Phi Thi Thu, Director, Project for Water Planning, Dien Bien District (Project completed)
Song Da Social Forest Development Project	Dr. Elke Förster, Chief Technical Adviser Dr. Ulrich Apel, formerly Forestry Adviser

**Wednesday, 30-01-2002**

National consultants from Vietnam and international consultant: Discussions with representatives of relevant institutions in Vietnam

<b>Institution</b>	<b>People met</b>
Department of Water Resources and Hydraulic Works Management (MARD), River Basin Organisation Boards: Song Hong, Dong Nai, Mekong	Dr. Pham Xuan Su, Director General of DWRHWM and Vice-Chairman of RBO Boards
IUCN, Vietnam Office	Mr. Nguyen Minh Thong, Country Representative Ms. Nguyen Thi Yen, Forest Programme Officer
Forest Inventory and Planning Institute (MARD)	Dr. Nguyen Huy Phon, Deputy Director Dr. Hoang Sy Dong, Head, International Co-operation Division and Focal Point of MRC BDP

**Thursday, 31-01-2002**

National consultants from Vietnam and international consultant: Discussions with representatives of relevant institutions in Vietnam

<b>Institution</b>	<b>People met</b>
Vietnam National University Hanoi, Centre for Natural Resources and Environmental Studies (CRES)	Prof. Dr. Truong Quang Hoc, Director of CRES Prof. Dr. Pham Binh Quyen, Ecologist-Entomologist Dr. Le Dien Duc, Director of Wetland Restoration Programme
Vietnam National Mekong River Committee,	Dr. Nguyen Nhan Quang, Dep. Secretary General of VNMRC Dr. Do Manh Hung, VNMRC Dr. Nguyen Hong Quan, Deputy Director, Department of Forest Development, MARD Dr. Pham Quang Minh, DFD
Worldwide Fund for Nature	Mr. Hoang Thanh, Manager, Vietnam Conservation Programme Mr. Michael C. Baltzer, Ecoregion Action Conservation Co-ordinator Mr. Martin Geiger, Forestry Co-ordinator

**Friday, 01-02-2002**

Departure of F.E. Brandl to Phnom Penh

**Laos team (Douangsavanh, Rock, Viravongsa):**

**Thursday, 24-01-2002**

Arrival of F. Rock in Vientiane

National consultants from Laos and international consultant: Discussions with representatives of relevant institutions in Laos

<b>Institution</b>	<b>People met</b>
NAFRI – National Agriculture and Forestry Research Institute	Dr. Ty Phommasack, Director General
WWF	Mr. Roland Eve, Country Director
Department of Forestry Division of Forest Resource Conservation	Mr. Soulisack Detphachanh, Deputy Director
Department of National Land Use Planning and Development	Mr. Phoumy Vongleck, Director General

**Friday, 25-01-2002**

National consultants from Laos and international consultant: Discussions with representatives of relevant institutions in Laos

<b>Institution</b>	<b>People met</b>
Lao National Mekong Committee	Mr. Boriboun Sanapsisane, Director General Mr. Oudomsack Philavong, AIFP Focal Point
ADB Resident Mission	Mrs. Arouny Anne Sakulku, Senior Project Implementation Officer
WB Vientiane Office	Mrs. Linda Schneider, Chief of Office
MAF Cabinet	Mr. Thongphou Vongsiphansom, Deputy Director
Water Resources Coordination Committee	Mr. Phonechaleun Nonthaxay, Chairman
STEA – Science, Technology and Environment Agency	Mrs. Keobang A Keola, Deputy Director General of Cabinet

**Saturday, 26-01-2002**

National consultants from Laos and international consultant: Drive to Louang Prabang

**Sunday, 27-01-2002**

National consultants from Laos and international consultant: Drive to Phongsaly

**Monday, 28-01-2002**

National consultants from Laos and international consultant: Discussions with representatives of relevant institutions in Laos

<b>Institution</b>	<b>People met</b>
Phongsaly Forest Conservation and Rural Development Project (EU)	Mr. Thorkild Q. Frandsen, Forestry Advisor
Provincial Agriculture and Forestry Office Phongsaly	Mr. Bounay Nounouannavong, Director

**Tuesday, 29-01-2002**

National consultants from Laos and international consultant: Field visit to Mai District, Phongsaly Province

<b>Institution</b>	<b>People met</b>
Mai District Government Phongsaly	Mr. Bounmay, District Gouvernor

**Wednesday, 30-01-2002**

National consultants from Laos and international consultant: Drive to Louang Prabang

**Thursday, 31-01-2002**

National consultants from Laos and international consultant: Flight to Vientiane  
Discussions with representatives of relevant institutions in Laos

<b>Institution</b>	<b>People met</b>
Department of Housing and Land Management	Mr. Bounyo, Deputy Director
National Capacity Building Project - MAF (DANIDA)	Mr. Peter Qwist-Hoffmann, Advisor
IUCN	Mrs. Latsamay Sylavong, Senior Programme Officer
Rural Development Project Muang Sing (GTZ)	Mr. Guenther Kohl, German Teamleader Mrs. Brigitte Sugiono, Administrator
MAF	Mr. Phoun Parisack, Vice-Secretary General, Head of Planning and Cooperation Department
Swedish Embassy Vientiane	Mrs. Lisbet Bostrand, First Secretary

**Friday, 01-02-2002**

National consultants from Laos and international consultant: Discussions with representatives of relevant institutions in Laos

<b>Institution</b>	<b>People met</b>
Wrap-up Meeting	Dr. Bounthong, Vice-Director, NAFRI Mr. Khamphone Sysanhouth, Project Coordinator, National Capacity Building Project (MAF) Mrs. Chandavanh Dethrasavong, Chief of Water Resources, LNMC – Operations Division Mr. Oudomsack Philavong, AIFP – Focal Point, LNMC – Operations Division Mr. Soulisack Detphachanh, Deputy Director, DoF – Division of Forest Resource Conservation Mr. Phonechaleun Nonthaxay, Chairman, Water Resources Coordination Committee

Departure of international consultant to Phnom Penh

**Saturday, 02-02-2002**

Compilation of findings from country visits  
Arrival of International Consultant S. Preuss in Phnom Penh

**Sunday, 03-02-2002**

Briefing of GTZ representatives on country visits

**Monday, 04-02-2002**

Internal meeting of GTZ representatives and consultants

**Tuesday, 05-02-2002**

<b>Institution</b>	<b>People met</b>
German Embassy	Dr. Frank Rückert, First Secretary

Preparation of Strategy Workshop on 06 and 07-02-2002  
Arrival of national consultants from Laos, Thailand and Vietnam in Phnom Penh

**Wednesday, 06-02-2002**

Strategy workshop

**Thursday, 07-02-2002**

Strategy workshop

Evening and next morning: Departure of national consultants from Laos, Thailand and Vietnam

**Friday, 08-02-2002**

International consultants: Discussions at Mekong River Commission Secretariat and study of documents

<b>Institution</b>	<b>People met</b>
Mekong River Commission, Basin Planning Programme	Mr. Nguyen C. Cong, Team Leader of Basin Development Plan Mr. Stephen Carson, Senior River Basin Planner Ms. Robyn Johnston, Natural Resources Planner Ms. Solieng Mak, Environment/Natural Resources Planner Mr. Nouanedeng Rajvong, Water Resources Development Planner
International Union for the Conservation of Nature	Mr. Hans Friedrich, Head of Regional Wetland and Water Resources Programme (SP via phone)

**Saturday, 09-02-2002**

International consultants: Internal discussions and study of documents

**Sunday, 10-02-2002**

International consultants: Internal discussions and study of documents

**Monday, 11-02-2002**

International consultants: Internal discussions and study of documents

<b>Institution</b>	<b>People met</b>
International Development Research Centre / Regional Community Forestry Training Centre	Mr. Doug Henderson, Project Adviser, Community Forestry Research Project

**Tuesday, 12-02-2002**

<b>Institution</b>	<b>People met</b>
Mekong River Commission, Fisheries Programme	Ms. Jeanineke Dahl Kristensen, Programme Manager Dr. Chris Barlow, Senior Programme Officer
Mekong River Commission, Programme Co-ordination Section	Mr. Lars Pedersen, Head of Section
Mekong River Commission, Capacity Building Support Programme	Mr. Henh Socheath, Programme Officer, Human Resource Section Ms. Anna de Boer, Regional Programme Facilitator
Mekong River Commission, Flood Management and Mitigation	Mr. Lieven Geerinck, Navigation Programme Manager and Chairman, Flood Management and Mitigation

**Wednesday, 13-02-2002**

<b>Institution</b>	<b>People met</b>
Mekong River Commission	Mr. Joern Kristensen, Chief Executive Officer, MRC
Mekong River Commission, Technical Support Division	Mr. Pech Sokhem, Director Mr. Dirk van der Stighelen, Senior Data Manager
Mekong River Commission, Water Utilisation Programme	Mr. Ruud Corsel, Consultant

**Thursday, 14-02-2002**

<b>Institution</b>	<b>People met</b>
Ministry of Land Management, Urban Planning and Construction, Cambodian-German Land Management Project	Mr. Willi Zimmermann, Team Leader
Department of Forestry and Wildlife, Cambodian-German Forestry Project	Mr. Jürgen Hesse, Chief Technical Adviser
Swedish International Development Assistance Natural Resources Management Programme Cambodia	Mr. Daniel Asplund, Counsellor, Head of Development Co-operation Section – SIDA Resident Representative
Mekong River Commission, Environment Programme	Mr. Ian Campbell, Senior Environment Specialist Mr. Sein Mya, Environmental Data and Monitoring Specialist

**Friday, 15-02-2002**

Wrap-up meeting of international consultants  
Departure of S. Preuss to Bangkok

**Saturday, 16-02-2002**

Study of documents and report writing

**Sunday, 17-02-2002**

Study of documents and report writing

**Monday, 18-02-2002**

Preparation of draft Planning Matrix

**Tuesday, 19-02-2002**

Preparation of Draft Budget  
Preparation of Draft Agreed Minutes

**Wednesday, 20-02-2002**

Preparation of Project Planning Workshop

**Thursday, 21-02-2002**

Planning Workshop

**Friday, 22-02-2002**

Planning Workshop  
Departure of F. Rock to France

**Saturday, 23-02-2002**

Editing of agreed Minutes  
Wrap-up meeting at MRC Secretariat and signing of agreed minutes

**Sunday, 24-02-2002**

Departure of F.E. Brandl to Germany

## List of Documents

Documents with particular reference to the proposed target areas are highlighted in italics.

### **1 CAMBODIA**

*ADB (July 1999): Se Kong – Se San and Nam Theun River Basins Hydropower Study: Final Report: Volume 1 – Main Report (excerpts only)*

*ADB (July 1999): Se Kong – Se San and Nam Theun River Basins Hydropower Study: Final Report: Volume 2 – Technical Data, Surveys and Analysis*

*ADB (July 1999): Se Kong – Se San and Nam Theun River Basins Hydropower Study: Final Report: Volume 4 – Environmental and Social Aspects Report*

ADB, RETA 5771 (Phase I) (no date): A Review of National Social Policies - Cambodia, by John Dennis

ADB, RETA 5771 (Phase I) (no date): A Review of Policies and Institutions Related to Management of Upper Watershed Catchments: Cambodia, by Esa Puustjarvi

*ADB, RETA 5771 (Phase II) (March 2001): Final Report: A Proposal for Project Interventions: Se San – Cambodia*

ADB, RETA 5771 (Phase II) (March 2001): Final Report: Project Progress, Achievements and Conclusions

*CIDSE (Dec. 2001): Indigenous Adaptation to a Rapidly Changing Economy – The Experience of Two Tampuan Villages in Northeast Cambodia, by John P. McAndrew*

Commune Council Support Project (CCSP) (no date): Promoting Pro-Poor Local Governance, Two Year Project Proposal, July 2001 – June 2003

Commune Council Support Project (Aug. 2001): Decentralization, A Review of Literature, by David Ayres

*CRES (Feb. 2001): Study Into Impact of Yali Falls Dam on Resettled and Downstream Communities, Center for Natural Resources and Environmental Studies (CRES), Vietnam National University*

DANIDA (Jan. 2001): Project Document for National Capacity Development – Cambodia

DANIDA (March 2001): Programme Document (2001-2005) for Natural Resource and Environment Programme – Cambodia

Electricity of Vietnam (May 2001): Hydrodynamic Modeling of Se San River: Tentative Terms of Reference

Gartner, Dr. Joseph A. (April 2001): Mandate of the Department of Agronomy and Agricultural Land Improvement, Agricultural Productivity Improvement Project

GTZ (Oct. 2000): Review of the GTZ/MRC Sustainable Management of Resources in the Lower Mekong Basin Project (SMRP): Cambodia Report on the 2<sup>nd</sup> Phase: Nov. 1998 – Aug. 2001, by Noelle O'Brien, Khieu Borin and Chin Chharom

GTZ (Dec. 2001): Review of the GTZ/MRC Sustainable Management of Resources in the Lower Mekong Basin Project (SMRP), Cambodia Report, Prepared by Danny Harvey, Khieu Borin and Ken Serey Rotha

*Hasselskog, M. et.al. (June 2001): Addressing Anarchy: Decentralization and Natural Resources Management in Ratanakiri Province, Upland Cambodia*

*McAndrew, J.P. (2001): Indigenous Adaptation to a Rapidly Changing Economy – The Experience of Two Tampuan Villages in Northeast Cambodia*

*McKenney, B. (Jan. 2001): Economic Valuation of Livelihood Income Losses and Other Tangible Downstream Impacts from the Yali Falls Dam to the Se San River Basin in Ratanakiri Province, Cambodia*

MRC (no date): Existing Institutional Legal and Policy Structure for Wetlands Management in Cambodia, [www.mekong.info](http://www.mekong.info)

Oxfam America (Nov. 2001): Sesan River Protection Network: Rehabilitation, Research & Advocacy – Phase 1, Dec. 2001-Dec. 2002

*PRDC Ratanakiri (Jan. 2002): Ratanakiri Seila Work Plan and Budget 2002*

RGC (no date): Action Program for Development of Agriculture in Cambodia 2001-2010, MAFF, Dept. of Planning, Statistics and International Cooperation

RGC (no date): Agriculture Development Plan 2001-2005, MAFF, Dept. of Planning, Statistics and International Cooperation

RGC (no date): A Poverty Profile of Cambodia 1999, Min. of Planning

RGC (Jan. 1998): Cambodia National Environmental Action Plan 1998-2002

RGC (Dec. 1999): The SEILA Programme of the Royal Government of Cambodia – Management Structure Roles and Responsibilities

RGC (Dec. 1999): Cambodia Poverty Assessment, Min. of Planning

RGC (May 2000): SEILA Programme 2001-2005, (SEILA Task Force)

RGC (June 2000): Community Forestry Guidelines, ADB Sustainable Forestry Management Project TA-3152-CAM

RGC (Aug. 2000): Second Five Year Socio-economic Development Plan 2001-2005, Min. of Rural Development

RGC (Aug. 2000): Sub-Decrees, PRAKASs (Regulations) and Decisions of the SEILA Programme

RGC (Oct. 2000): Interim Poverty Reduction Strategy Paper, Phnom Penh

RGC (Dec. 2000): SEILA Program Document 2001-2005, (SEILA Task Force)

RGC (April 2001): Poverty Monitoring and Assessment for Informed Dialogue and Decision Making in Cambodia – Principles, Diagnostic, and Recommendations, Report prepared by IDEA International, Canada, and UNDP/Bureau for Development Policy, New York

RGC (Oct. 2001): Integration and Competitiveness Study – Part A: Overview (DRAFT!) (A pilot study prepared under the Integrated Framework for Technical assistance Program of the world trade Organization, the International Monetary Fund, the International Trade Centre, United nations Development program, United Nations Conference for trade and development and the World Bank)

RGC (Nov. 2001): National Workshop – Formulation of the 2002 Seila Program Support Work Plan and Budget, Council for the Development of Cambodia

RGC (Nov. 2001): SEILA Natural Resource and Environment Management Mainstreaming Strategy 2002-2005, (SEILA Task Force)

RGC (Nov. 2001): Support Programme to SEILA Natural Resource Environment Management Strategy 2002-2005, Programme Document, Funding Request to DANIDA, (SEILA Task Force)

Romeo, Leonardo (March 2000): The SEILA Program and Decentralized Planning in Cambodia

UNDP (no date): Project Document for CMB/01/007 – Partnership for Local Governance (UN Donor to SEILA Programme), July 2001 – Dec. 2005

Working Group on Forest Rehabilitation (DFW) (June 2001): National Strategic Plan for Forest Rehabilitation

World Food Programme (cooperation with Min. of Planning and PNDP) (Feb. 2001): Identifying Poor areas in Cambodia: Combining Census and Socio-Economic Survey Data to Trace the Spatial Dimensions of Poverty

WWF (2000): Conservation Programme in Cambodia

*WWF (2000): Virachey National Park, Ratanakiri and Stung Treng Provinces, Cambodia*

WWF/Oxfam America/IDRC (July 2001): Project Profile of CBRNM Case Study and Networking Initiative

WWF/Asia Foundation (no date): Resource Rights and Participatory Planning (RRaPP) Project

#### **4 LAOS**

*ADB, RETA 5771 (Phase II) (February 2001): Final Report: A Proposal for Project Interventions: Nam Ou – Lao PDR*

BCEOM/DoF (April 1999): Nam Ngum Watershed Management – Final Report, ADB TA 2734-LAO

DANIDA (Nov. 1999): Integrated Watershed Management in Xieng Khouang and Huaphan Provinces, Natural Resources and Environment Programme Lao PDR / DANIDA

DANIDA (Feb. 2001): Inception Report – Integrated Watershed Management in Xieng Khouang and Huaphan Provinces

DANIDA (Sept. 2001): Progress Report Jan.2001-Aug.2001 – Integrated Watershed Management in Xieng Khouang and Huaphan Provinces

DoF/LSFP/IUCN (Oct. 2000): Fact Sheets for National Biodiversity Conservation Areas in the Lao P.D.R.

Department of Land Use Planning and Land Allocation (no date): Pre-feasibility Study on National Land Use Master Plan, Lao PDR

GOL-MAF (Dec. 1999): The Government's Strategic Vision for the Agricultural Sector

LSFP/DoF/IUCN (2001): Review of the National Protected Area System of Lao PDR, by William Robichaud, Clive W. Marsh, Sangthong Southamakoth, Sirivan Khounthikoummane

National Capacity Building Project (Nov. 2001): Concept and Practice of Integrated Watershed Management (IWM) in Lao PDR, Lao-DANIDA Natural Resources and Environment Programme

NAWACOP (June 1997): Towards a National Watershed Management Strategy, Consultancy Report No. 14, by Herbert Christ

SMRP (May 2000): Upland Resources Management in Lao P.D.R. – Directory of Organisations and Projects

SPC-National Statistics Center/ADB (June 2001): Participatory Poverty Assessment Lao PDR

STEA (Oct. 2000): National Environmental Action Plan 2000

World Bank (May 2000): Logging Survey Mission: Technical Report, Nam Theun Social and Environment Project

World Bank (May 2001): Project Appraisal Document on a proposed Credit to the Lao PDR for an Agricultural Development Project

World Bank/SIDA/Gov. of Finland (June 2001): Lao PDR Production Forestry Policy – Status and Issues for Dialogue, Vol.1, Main Report

World Bank/SIDA/Gov. of Finland (June 2001): Lao PDR Production Forestry Policy – Status and Issues for Dialogue, Vol.2, Annexes

WWF (March 2001): WWF in Lao PDR – Country Strategic Action Plan (Program Focus) 2001-2005

## **5 THAILAND**

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