The MRC Basin Development Plan

The BDP Planning Process

BDP Library Volume 1

May 2005
Revised February 2006

Mekong River Commission

BDP

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Foreword

The BDP Library was compiled towards the end of Phase 1 of the BDP Programme. It provides an overview of the BDP formulation, together with information about the planning process and its knowledge base, tools and routines.

The library incorporates the essence of more than a hundred technical reports, working papers and other documents. It consists of 15 volumes:

1 The BDP planning process

2 Sub-area analysis and transboundary planning

3 Sub-area studies (including 13 sub – volumes)

4 Scenarios for strategic planning

5 Stakeholder participation

6 Data system and knowledge base

7 MRCS Decision Support Framework (DSF) and BDP applications

8 Economic valuation of water resources (RAM applications)

9 Social and environmental issues and assessments (SIA, SEA)

10 IWRM strategy for the Lower Mekong Basin

11 Monographs. March 2005

12 Project implementation and quality plan

13 National sector reviews

14 Regional sector overviews

15 Training

The work was carried out jointly by MRC and the NMCs with comprehensive support and active participation by all MRC programmes and more than 200 national line agencies. Financial and technical support was kindly granted by Australia, Denmark, Japan, Sweden and Switzerland.

The library has been produced for the purpose of the BDP and is intended for use within the BDP Programme. The work was done from 2002 to 2005, and some information may already have been superseded by new developments and new knowledge. The library does not reflect the opinions of MRC nor the NMCs.

It is hoped that the work will contribute to the sustainable development of water resources and water-related resources in support of the MRC vision of *'an economically prosperous, socially just and environmentally sound Mekong River Basin'.*

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Acknowledgement

The present document is based on notes and working papers that have been produced in a particularly active collaboration with the NMCs, many national line agencies, and the MRC programmes. The data, information, guidance and support received in connection with the work have been indispensable and are gratefully appreciated.

The guidance provided by the national BDP Units and comments from BDP national and regional workshops or orientations were have highly contributed to the work. The MRC Environment Programme made valuable contribution to the preparation of the environmental screening checklist.

Acronyms and abbreviations

BDP	:	Basin Development Plan (of MRC)
CNMC	:	Cambodia National Mekong Committee
DSF	:	Decision-Support Framework (of MRC)
EIA	:	environmental impact assessment
GWP	:	Global Water Partnership
HDI	:	Human Development Index
IWRM	:	integrated water resources management
JC	:	Joint Committee (of MRC)
LFA	:	logical framework approach
LMB	:	Lower Mekong Basin (the Mekong Basin parts of Cambodia, Lao PDR, Thailand and Viet Nam)
LNMC	:	Laos National Mekong Committee
MRC	:	Mekong River Commission
MRCS	:	Mekong River Commission Secretariat
NA, n/a	:	not applicable
NGO	:	non-governmental organization
NMC	:	National Mekong Committee
PIN	:	project information note (formerly project identification note)
RAM	:	Resource Allocation Model (of BDP)
RBC/RBO	:	river basin committee/river basin organization
SEA	:	strategic environmental assessment
SIA	:	social impact assessment
TNMC	:	Thailand National Mekong Committee
VNMC	:	Viet Nam National Mekong Committee
WSSD	:	World Summit on Sustainable Development (Johannesburg 2002)
WUP	:	Water Utilization Programme (of MRC)

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Executive summary

The goal of the Basin Development Plan (BDP) is to provide an effective framework for regional cooperation for the sustainable development of water and water-related resources in the Lower Mekong Basin (LMB). In order to achieve this goal, the BDP planning process must encompass several underlying principles and conditions. These include the definition of the BDP decision-making process; an analysis of relevant legal and regulatory frameworks; an assessment of data requirements; and, the subject of this chapter, the identification of national and regional policy contexts for BDP.

The BDP process comprises (1) comprehensive studies and analyses at sub-area and regional level; (2) scenario analyses of development options and constraints; (3) formulation of a regional development strategy (or strategies); (4) set-up of a database of projects and programmes; and (5) preparation of priority projects and programmes.

Projects and programme ideas may be raised by each MRC programme; by each NMC; and by any partner and stakeholder via an NMC or via the MRC Secretariat. Project ideas can be new or can origin from national development programs. They are described by a Project Information Note (PIN)[1] and are entered in the MRC Project Database.

The various suggestions are screened by the JC according to 5 criteria:

1 Harmony with potential strategic options of the MRC

2 National priority and support from member countries

3 Potential value, costs, side effects, risks, uncertainties

4 Completeness of decision basis

5 Implementation aspects

Following the screening, the various suggestions can be ranked in the following classes:

A Fast-track
B Promote
C Develop

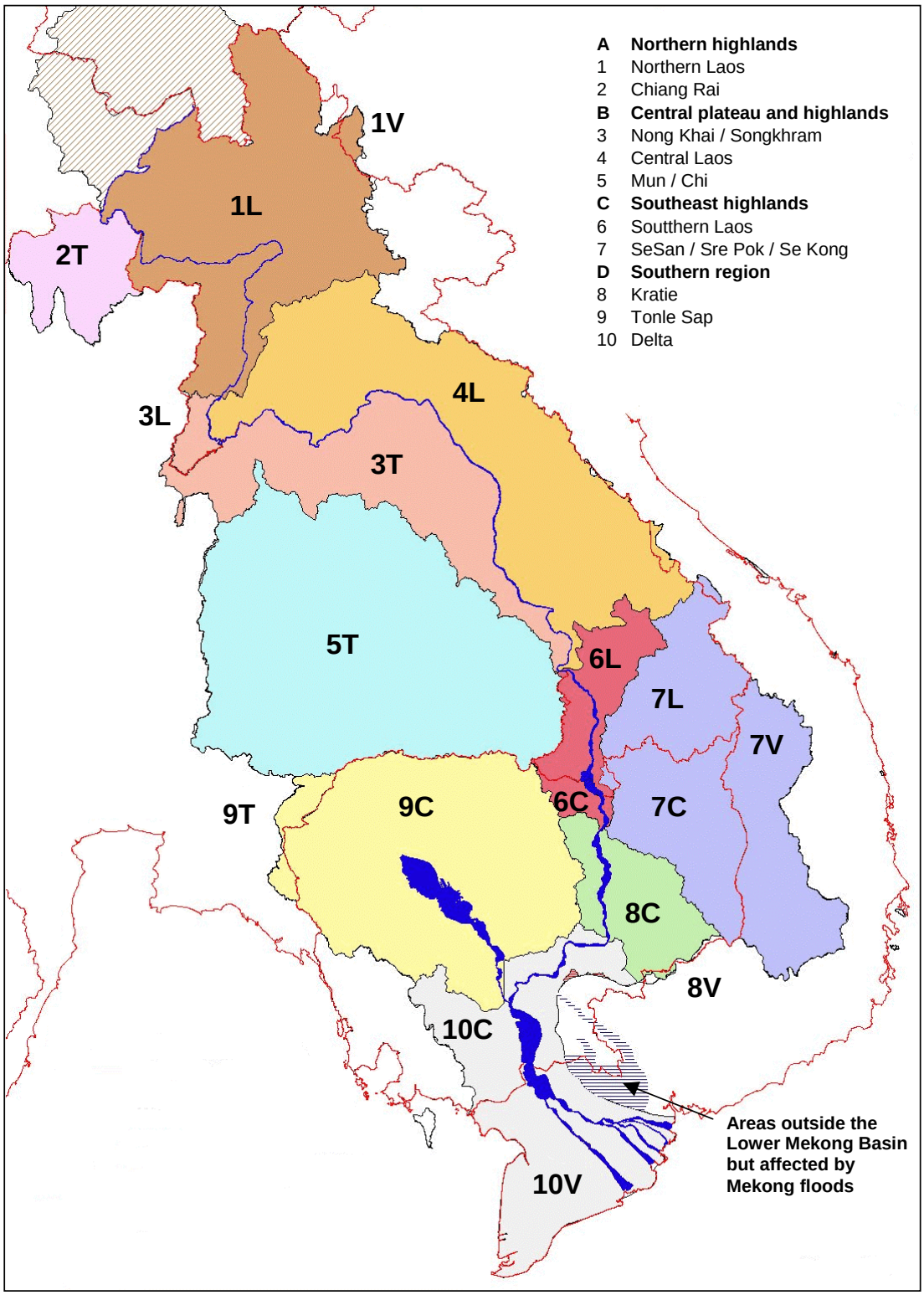
} Priority projects (short list)

D Wait

E Reformulate

[1] The PIN format was specified by MRCS on 31 January 2006, replacing previous formats

Map of BDP sub-areas



1 Introduction

The MRC Basin Development Plan (BDP) was instituted by the April 1995 Mekong Agreement. Following a series of preparatory studies, the BDP project document was approved by the MRC Council in October 2000. The BDP formulation (Phase 1) started in October 2001 and is scheduled for completion in July 2006.

The vision of the Basin Development Plan (BDP) is to contribute to acceleration of inter-dependent sub-regional growth by establishing a process and framework conducive to investment and sustainable development. To contribute to this vision, the BDP process being undertaken by the Mekong River Commission (MRC) should establish a planning framework for development programmes, capable of balancing efficient use of resources with protection of the environment and the promotion of social justice and equity.

There are two main outputs sought from the first phase of the BDP programme. First, the establishment of a more participatory form of basin planning than has previously existed in the Lower Mekong Basin for use in subsequent planning rounds. Second, an agreed short-list of high priority development projects with basin-wide or trans-boundary significance which have benefits that transcend national borders.

This paper contains an initial summary of national development policies, and a description of the BDP planning process.

1.1 Origin of document

The document is based on reports and working papers prepared between September 2002 May 2005:

MRC-BDP (Sep 02): BDP 004a: National development policy review

MRC-BDP (Sep 02): BDP 004b: National development policy review, Cambodia

MRC-BDP (Sep 02): BDP 004c: National development policy review, Lao PDR, overview and socio-economic development plans

MRC-BDP (Sep 02): BDP 004d: National development policy review, Thailand, the 9th National Socio-Economic Development Plan (2002-2006)

MRC-BDP (Sep 02): BDP 004e: National development policy review, Viet Nam

MRC-BDP (Sep 02): BDP 004f: Relevant laws and regulations

MRC-BDP (Sep 02): BDP 004g: Decision process

MRC-BDP (May 05): The BDP planning cycle following principles of Integrated Water Resources Management (IWRM). November 2002, revised 26 May 2005

MRC-BDP (May 05): Project screening toolkit

MRC-BDP (December 05): Strategic directions for Integrated Water Resources Management in the Lower Mekong Basin. Final version, as approved by the MRC Council

Reference is made to the original documents for additional information.

The BDP Planning Cycle document, which was presented to the 21st Meeting of the JC on 24-25 March 2005, is a key reference to the document. The same JC meeting suggested that the BDP team outlines a process on how the MRC would agree on deriving a short-list of projects from the long-list.

The present document describes the project prioritization process and a project screening toolkit. A note on the project prioritization process [1] was endorsed by the 22nd JC Meeting on 30-31 August 2005.

The project prioritization process and the technical screening tools were discussed at a BDP regional consultation on 26-27 May 2005, followed by an orientation workshop on 24-25 October 2005.

The current PIN format was specified in a letter from MRC to the NMCs dated 31 January 2006.

1.2 Basis and context

1.2.1 Link/relationship of subject to IWRM

According to GWP,[2] *'an IWRM approach seeks to address a country's key water-related development problems - water for health, for food, for energy, for environment - more effectively and efficiently than is possible using traditional approaches. It seeks to avoid the lives lost, the money wasted, and the natural capital depleted because of fragmented decision-making about developing and managing water resources that did not take into account the larger ramifications of sectoral actions. It aims to ensure that current demands for water are met without jeopardizing the ability of future generations to meet theirs. Overall, it seeks to advance a country's social and economic development goals in ways that do not compromise the sustainability of vital ecosystems.'*

This requires a broad planning process that spans across sector divides, planning themes and institutional mandates.

The BDP process has been shaped accordingly. The active involvement (via the NMCs) of a large number of national line agencies and other institutional stakeholders has assured a broad inclusiveness of the planning in all its stages, from scenario and strategy formulation to project identification and ranking.

The project prioritisation and screening process involves a number of key IWRM principles. It describes a rational and transparent prioritisations process based on routines agreed by the four signatory countries.

The impact assessment toolkit provides a comprehensive and systematic approach to screening where all projects are subjected to the same criteria. The project assessment

[1] Attached as Appendix 5

[2] GWP (Apr 03): Guidance in preparing a national integrated water resources management and efficiency plan. Global Water Partnership, Stockholm

screening is founded on information in the form of project information notes (PINs) using environmental, social and economic checklists developed by sector experts.

Sector experts take part in the project screening exercise and a project screening summary sheet is prepared for integrating sector expertise with different aspects of economic, social, environmental and institutional safeguarding into an early project design and development.

National and regional consultations and negotiations provide an open and participatory ranking and decision making process.

1.2.2 Link/relationship of subject to BDP Inception Report

The Inception Report retains the stage-wise approach to BDP formulation that had been identified during the programme formulation:

Stage 1 - analysis of the LMB and of sub-areas

Stage 2 - analysis of development scenarios

Stage 3 - strategy formulation

Stage 4 - compilation of long-list of programmes and projects

Stage 5 - compilation of short-list of programmes and projects

The BDP planning process comprises the entity of these stages. The present document relates to Stages 1, 4 and 5.

1.2.3 Link/relationship of subject to other BDP reports / activities

Basically, the BDP process is the framework that links all other BDP reports and activities.

Notably, the BDP process is the basis for an agreed IWRM strategy for the LMB (as drafted by mid 2005), which in turn forms the basis for a so-called live shortlist of project ideas. The process guides the subsequent identification and ranking of the project ideas that can support the strategy.

1.2.4 Link/relationship of subject to BDP's Logical Framework Matrix

The present document relates to immediate objective 1 of BDP Phase 1:

A participatory form of basin planning process established and ongoing

The BDP planning process has generated (or is generating) the following outputs under immediate objective 2:

A BDP aiming at a balanced mix of social, economic and environmental factors drafted and agreed on:

2.2 20-year scenarios

2.4 Basin-wide strategies

2.5 Project long-list

2.6 Project short-list

2.7 Implementation plans

1.3 Significance

1.3.1 Significance of subject for strategic planning

The intended outcome of the BDP process is identification and implementation of agreed, useful and practical development interventions.

In this connection, the particular distinction of the BDP will be to assure that the various development interventions are agreed between the MRC member countries, and that they are characterized as useful with reference to an agreed IWRM strategy.

Integrating different aspects of economic, social, environmental, institutional safeguarding into early project design and development is a key to strategic planning.

Participation of key stakeholders in the project identification and prioritisation process provides a planning approach with a high degree of ownership and commitment important for long-term water resources planning and management.

1.3.2 Significance of subject for Mekong Basin

The main perspective of the BDP is IWRM at the basin scale, and the BDP process has been established with this aim.

Hereby, the BDP aims to contribute to a healthy regional development in its own right, as well as by promoting synergies and added value to the national development and sector development.

The project prioritisation process feeds into BDP institutionalising a participatory planning process necessary for the responsible management and sustainable development of water and related resources in the Lower Mekong Basin. The project screening toolkit assists to negotiate a balance between socio-economic development and environmental concerns in the Mekong Basin based upon technical information and cooperation between the MRC member states.

The BDP will contribute to the coordinated investments for sustainable water resources in the Mekong Basin with emphasis on regional priorities including poverty alleviation, and achieving the Millennium Development Goals.

1.3.3 Significance of subject for MRCS / BDP 1

For practical reasons (notably including late availability of external funds), the BDP started its work later than several other MRC programmes. Furthermore, the BDP formulation took a longer time than anticipated. Therefore, the BDP has not been in a good position to interact and support its sister programmes.

During BDP Phase 1, the establishment of the BDP process took place as an open, explorative process, drawing experience from the national 5-years development plans, and from the Indicative Basin Plan (1970) and the revised Indicative Basin Plan (1987) by the

predecessors of today's MRC [1], with a view to distancing itself visibly from the indicative basin plans [2].

Many important lessons were learned during the iterative formulation of the BDP process. The value of these lessons is considerable, because the work was largely done by in-house capacity in MRCS and the NMCs, in contrast with the indicative basin plans that were prepared by external consultants. A substantial and highly valuable capacity has been built and retained within strategic IWRM at sub-area and basin level.

The development of the planning process highlights the BDP programme's capability of bringing the four member countries together in a constructive dialogue and planning process on the issue if basin-wide IWRM. It demonstrates the organisation's ability to assessing and prioritising projects ideas in a transparent manner using a comprehensive and systematic approach to screening where all projects are subjected to the same criteria.

In BDP Phase 2, it is expected that the BDP will take a more central role in the orientation and harmonization of the activities of MRC, such as it was assumed in the 1995 Mekong Agreement.

2 Summary of approach

Overview

The BDP process builds on studies and analyses carried out at three levels: Regional, national, and sub-area level.

The sub-area studies have been conducted by sub-area working groups formed for the purpose, or (in Thailand) by new permanent river basin committees. They have comprised baseline descriptions, reviews of development needs and opportunities, scenario analyses, and identification of recommended priority intervention in support of the desired development.

In addition to the sub-area studies, information about development needs has been available from many sources, such as MRC's State of the Basin Report (June 2003), and studies prepared by the MRC programmes and other regional collaboration programmes.

Regional and national development policies are described in the following documents:

- The 1995 Mekong Agreement;
- various regional sector development strategies prepared by MRC, GMS and others;
- national (5-years) development plans of the MRC member countries, and
- a variety of national sector development strategies and poverty reduction strategies.

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[1] The Committee for Coordination of Investigations of the Lower Mekong Basin (31 October 1957) and the Interim Committee for Coordination of Investigations of the Lower Mekong Basin (5 January 1978)

[2] The 1st indicative plan aimed at a cascade of large mainstream reservoirs. The 2nd indicative plan comprised national projects with a mainstream cascade as a long-term objective. In the late 90-ies, when the detailed scope of the BDP was specified by the governing bodies of MRC, these goals were not regarded as viable

The BDP process proceeds along 3 tracks: (1) The development planning process; (2) tools and knowledge base; and (3) national and regional capacity-building. It is believed that these tracks form an entity, and that each track is required for progress along the other ones.

Approach to formulation of strategic goals

The formulation of strategic goals took its starting point in the 5-years development plans (and the related policies) of the member countries, as summarised in Chapter 3.

First, it was sought to identify a field of overlap between the national policies, which could then provide a set of shared goals that were in complete harmony with these policies.

It turned out, however, that in some cases, the goals were rather general and less suited for an operational distinction between specific project ideas. Therefore, in collaboration with the NMCs, a set of more specific development goals was formulated, that aimed specifically at basinwide and transboundary water-related development..

The goals reflect the commitment of the member countries to [1]

- Regional political and economic cooperation, as embodied in ASEAN (Association of South East Asian Nations) and the Asian Development Bank Greater Mekong Sub-region program (ADB-GMS);
- The Millennium Development Goals;
- Sustainable development (as defined under Agenda 21)
- Integrated Water Resource Management (IWRM); and
- Poverty alleviation (as set out in national policies).

Approach to project identification

Quite some consideration was given to positioning the BDP in relation to an open, strategic process at the one hand, and a strongly implementation-oriented master plan approach on the other.

In this connection, consideration was given to aspects such as the role, mandate and political power of the MRC; the experience from the past Indicative Basin Plans prepared by MRC's predecessor; and the expected benefits of the BDP to the LMB in general and the member countries in particular.

In dialogue with the member countries, a procedure for an open and participatory project identification was formulated that resembled the de-central identification of recommended projects in connection with the 5-years development plans of the member countries.

The anticipated pros and cons are summarised in Table 2.1.

[1] MRC-BDP (Jul 05): Strategic Directions for IWRM in the LMB, p. 5

Table 2.1: Approach to project identification

Open long-list	Restricted long-list
(free inflow of project ideas)	*(project ideas are derived directly from BDP strategies, and are raised within the BDP organisation)*
Participatory, process-oriented, strategic	Top-down, masterplan model
'Political'	*'Rational'*
Many projects	Few projects
Shortlisting can possibly cause disappointment (if somebody raises an idea that is not shortlisted)	Smooth shortlisting
Some projects may be justified partly by BDP development objectives and related strategies, and partly by other development objectives	Projects are justified entirely by BDP development objectives and related strategies
Projects must conform with agreed BDP guiding principles, criteria and strategies	(same)
Possibly weak or partial goal-orientation	Strictly goal-oriented
Risk of fragmented shortlist	High inter-programme consistency
National support to be assured in connection with shortlisting and ranking	National support to be assured during identification and formulation
Smooth external interfacing (fits well into other MRC programmes, national plans, GMS, etc)	Attention required to external interfaces (gaps, overlaps, timing)
Development & promotion of shortlisted projects will involve various (internal and external) parties	Development & promotion of shortlisted projects mainly within the BDP organisation
Robust outlook for implementation - project ideas can proceed independently, once shortlisted	Risk of ending up on the Great Master Plan Cemetary?

Approach to project screening

The social, economic and environmental screening procedure assess the projects and programmes using checklist questions (based on numerous discussions of SIA, SEA and RAM), and relying on project information stored in the MRC Project Database. The purpose of the screening is mainly to safeguard the projects and programmes regarding three important aspects (economic, social and environmental issues) and to make a recommendation to the JC for initial project classification. In this way the screening process assists the project proponents in further project/programme preparation. For short-listing, all projects and programmes will have to be screened first.

Since the BDP employed the project screening toolkit, the potential strength and benefits of the toolkit have been appreciated. One of its advantages is that it provides a comprehensive and systematic approach to screening where all projects are subjected to the same criteria.

Approach to project ranking

A *'soft yet structured'* approach was formulated for the ranking of project ideas, leaving a broad margin to the Joint Committee (who make the decision on this matter). A screening procedure was developed in order to provide a transparent basis for the decision.

The main ranking criterion is that priority development initiatives must support an agreed IWRM Strategy for the LMB (in a final stage of preparation by mid 2005). [1]

Institutional framework

The BDP process builds on established institutions: The MRC with its Council and Joint Committee, and the NMCs with their network of national line agencies.

This framework and the BDP fit each other well. This is no coincidence, since both have their origin in the 1995 Mekong Agreement.

It is hoped that in the course of time., both the framework and the BDP can grow together, in terms of strength and visibility, in pursuance of their designated objectives.

[1] MRC-BDP (Jul 05): Strategic Directions for IWRM in the LMB

3 National development policies

3.1 Overview

The goal of the Basin Development Plan (BDP) is to provide an effective framework for regional cooperation for the sustainable development of water and water-related resources in the Lower Mekong Basin (LMB). In order to achieve this goal, the BDP planning process must encompass several underlying principles and conditions. These include the definition of the BDP decision-making process; an analysis of relevant legal and regulatory frameworks; an assessment of data requirements; and, the subject of this chapter, the identification of national and regional policy contexts for BDP.

Objectives of policy review

The BDP must comply with and support the national policies and strategies of the four riparian countries for overall socio-economic development and for the development of water and water-related sectors. Therefore, the national policy review has two objectives:

- The initial objective is to identify the relevant policy objectives and strategies in each country.

- The second objective is to formulate a regional policy perspective for integrated water resource management in the LMB. The regional perspective identifies issues that should be encompassed within the BDP regional planning framework to support the national objectives of the member countries.

Together, the national and regional policy contexts will be used in the BDP planning process to define objectives for development scenarios and management strategies and to establish criteria for priority investments and for assessment of benefits and impacts, at the basin-wide and sub-area levels.

Approach to policy review

The scope of the policy review includes the national socio-economic development plans of the riparian countries; and, national policies and strategies for water and water-related sectors including agriculture, forestry and fisheries; rural development; water resources, including irrigation and water supply; hydropower; navigation; and, tourism. Due to their significance to national socio-economic development and integrated water resource management, the policy review also includes poverty reduction and environmental management strategies of the riparian countries.

To carry out the policy review, country papers have been prepared summarizing available official policies or widely circulated draft strategies in each riparian country, generally covering the five-year period to 20058. Based on the country papers, the national policy review initially distinguishes between key, emerging and supporting policies. Key policies reflect the priority development objectives and strategies of the riparian countries, and constitute the principal policy context for the BDP. Key socio-economic development policies include economic development and poverty reduction. Key sector policies address the development of and inter-relations among the sectors that are included within the scope of the BDP.

Emerging policies such as industrialization and the relation between urban and rural development are important to BDP as they encompass major shifts in the orientations of the

8 The country papers have been incorporated as sections later in this chapter

riparian countries. The principal supporting policies form an integral part of development strategies in the riparian countries and include governance, education and health. In the context of the BDP, they may be considered assumptions or risks that will influence how the BDP can promote and support national socio-economic development and integrated water resource management in the LMB.

National policy orientations

The key, emerging and supporting policy areas are discussed in this section individually, with the aim of identifying the national orientations, as well as the commonalities and variations among the riparian countries.

National socio-economic development

Each of the riparian countries has recently adopted a national socio-economic development plan covering the period from 2001-2005. These 5-year plans generally form part of a longer-term socio-economic development strategy extending to 2010 or 2020. In the context of national development, as well as the BDP, the key policies define orientations and objectives for economic development and poverty reduction.

3.1.1 Economic development

Economic development is the central platform of national socio-economic development in all the riparian countries. Current analysis suggests that riparian countries are recovering from recent economic shocks[9]. The emphasis on macro-economic growth is the key to sustained recovery, as well as to improved living conditions and reduced poverty in the riparian countries. Targets for GDP growth for the period 2002-2005 are in the range of 6-7 percent per annum for Cambodia, Lao PDR and Viet Nam. Thailand is projecting annual growth of 4-5 percent, reflecting a slower rate of recovery from the 1997 financial crisis and the economic slowdown in 2001.

Strong, sustained and stable macro-economic growth is common to all riparian countries. At the same, they are focusing on other aspects of national economic growth.

Economic structure

The underlying economic structure and objectives for sectoral development differ between Viet Nam and Thailand, on the one hand, and Cambodia and Lao PDR. In the late 1990's, government policies in Viet Nam led to significant industrial development. Current government policies build on these strengths, and propose a major re-structuring of the economy to meet long-term goals to establish Viet Nam as an industrialized country by 202010. As a consequence, the relative contribution of agriculture to GDP will continue to decline. In Thailand, industry and the service sector each contribute approximately 45 percent to GDP, reflecting changes in the economic structure that began several decades ago. The Government is stressing the importance of continued strong growth in the tourism sector.

In Cambodia and Lao PDR, agriculture is the key economic sector. The value of agricultural production constitutes, respectively, one-third and one-half of GDP in these countries. Most of the population lives in rural areas and is engaged in agricultural activities. Increased

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9 Asian Development Bank, Outlook 2002

10 By 2020, the industrial sector is projected to constitute 42% of GDP in Viet Nam, the service sector 48% and the agricultural sector 10%.

agricultural productivity is essential for economic growth and job creation. At the same time, manufacturing (textiles) and tourism are emerging as important sources of economic growth in both countries. Government policies to promote development in these non-agricultural sectors are and will continue to be reflected in higher annual growth rates than the agriculture sector. In the longer-term, Lao PDR has targeted the development of a natural-resource based industrial economy by 2020[11].

Table 3.1: Target Annual Growth Rates (%), 2001-2005

	Cambodia	Lao PDR	Thailand	Viet Nam
Total GDP	6.1-6.6	7-7.5	4-5	7
Agriculture	3.5	4-5	0.5	4.5-5
Industry	7.0	10-11	2.5	14-14.5
Services	8.0	8-9	7-8	7-7.5

Economic stability and self-sufficiency

The riparian countries recognize the importance of building independent, autonomous and stable national economies. Domestic demand is seen as a principal driver of economic growth. For example, agricultural production to ensure food security remains a key issue in Cambodia and Lao PDR. In another sector, tourism, development will focus on domestic demand, as in Viet Nam. In Thailand, "economic self-sufficiency" takes on a particular meaning following the disruptions experienced in the late 1990's, and serves as the Government's foundation for economic recovery.

Export-oriented development

At the same time, at the macro-level and in key sectors, export-oriented development is important to all riparian countries. This orientation is closely linked to greater regional and global integration of riparian economies, based on exploiting the competitive advantages of each country and its sub-national regions.

Thailand's economy will continue to strengthen its export-oriented activities, in industry and through increased development of agro-industrial activities. Viet Nam is focusing on increasing its share of the world market for its principal agricultural and agro-industrial products, at the same time that its industrial sector is export-oriented. Cambodia and Lao PDR, while focusing on domestic agricultural production, are targeting cash cropping, higher production levels and agro-processing in order to ensure sustainable rural development and to increase exports. Other key exports in Lao PDR include electricity, textiles and tourism.

Greater specialization of economic activities will occur within and between countries. Viet Nam, for example, will promote the role of the Mekong Delta as the country's largest rice and agro-product producer, while within the Delta low-yielding rice acreage will be used to diversity agricultural production to include fishery and cultivation of other cash food crops. The Central Highlands is targeted for large-scale, intensive cultivation of "industrial" crops such as coffee, tea and rubber. The Government of Viet Nam also proposes to exploit the location of this region to increase commerce with neighboring areas in Cambodia and Lao PDR. Government policies in Lao PDR will strengthen the Mekong corridor as the locale for higher intensity, commercialized rice production. In Northeast Thailand and Northern

[11] ADB, Lao PDR Country Strategy 2002-2004

Lao PDR, agricultural strategies take into account the low productivity of rice cultivation by targeting, respectively, cash cropping and animal husbandry. Other sectors such as forestry, energy and mining will also be favored in those regions with plentiful resources.

Regional integration of the economies of the riparian countries will be strengthened by the initiatives of ADB-GMS, as well as membership in ASEAN. Sale of electricity from Lao PDR to other countries and greater movement of goods following construction of regional roads are examples of regional integration. More broadly, the governments of the riparian countries are taking steps to reform fiscal and monetary policies, as well as to restructure trade and strengthen trade legislation in order to increase the competitiveness of their exports in the global economy.

Job creation

The population of the LMB is very young – about half of the population of Cambodia and Lao PDR is below the age of 15 years, with large numbers of young people in Viet Nam and Thailand. A major challenge facing the governments of riparian countries is creating sufficient numbers of jobs for new entrants to the labor market each year. The alternative is growing levels of unemployment and underemployment.

Overall growth of the economy is the principal means to create new jobs. In addition, the proposed re-structuring of the economy in Viet Nam to promote industrial development is seen as creating more jobs for young people entering the labor market, as well as for people who will be displaced from the agricultural sector as it becomes more commercialized. Thailand is promoting the service sector to create more jobs and improve income distribution. Throughout the LMB, employment strategies are closely linked to initiatives to promote self-employment, as well as the development of small-scale entrepreneurial activities.

Economic "actors"

From the perspective of the principal economic "actors", the key to economic growth in Cambodia, Lao PDR and Thailand is greater participation of the private sector. In Viet Nam, on the other hand, the State sector will be the leader in economic growth, supported by the household and private sectors. Throughout the LMB, there is a growing emphasis on the importance of small and medium-sized enterprises.

Balanced development

A common theme in the economic development policies of the riparian countries is the notion of balanced development. In some instances, this means equitable distribution of economic growth among the regions of a country, between urban and rural areas and among sectors. Balanced development also means a sustainable relationship among economic growth, social progress and equity and environmental protection.

3.1.2 Poverty reduction

During the 1990's, there was a reduction in the levels of poverty in Cambodia, Lao PDR and, particularly, Viet Nam. Yet, nearly 40 percent of the populations of these countries still live in poverty. In Thailand, unemployment and other disruptions associated with the financial crisis in the late 1990's resulted in an increase in poverty levels, from 11 percent in the early 1990's to present levels of about 16 percent of the population. Sub-national regions in each country, including Tonle Sap, Northern Lao, Northeast Thailand and the Central Highlands, are among the poorest regions in each of the riparian countries, heightening the importance of poverty reduction for the BDP.

Therefore, poverty reduction is a high-priority policy commitment in the national socio-economic development plans of the riparian countries. Each country has established targets to reduce poverty further. The targets for 2005 include: Cambodia, from 36 percent in 1997 to 31 percent; Lao PDR, reduce poverty by 50 percent, to 20 percent in 2005 ; Thailand, from 16 percent in 2000 to 12 percent; and, Viet Nam12, decline of 20 percent compared with the 2000 rate of 17 percent. The proposed strategies include a number of initiatives that are relevant to the scope and objectives of the BDP:

Economic growth

Economic growth is the prerequisite for poverty reduction in the strategies proposed by the riparian countries. To achieve poverty reduction, however, there must be broad economic growth across sectors and regions of the country (see above, balanced economic growth). Also, at a macro level, the commitments to establish autonomous, self-sufficient economies in each country and to ensure that economic development meets domestic demand are strategies that are seen to contribute to poverty reduction.

Rural development strategies

Most poor people in the LMB live in rural areas and are involved in agricultural activities. In addition, there is a rapidly widening gap between the well being of people in urban and rural areas of the riparian countries. Therefore, rural economic development is a major component of the poverty reduction strategies of the riparian countries. The key elements include a multi-sector approach, including agriculture and rural industrialization; and, the combination of economic strategies with other initiatives such as reforms to increase access to land and security of tenure, rebuilding and strengthening rural infrastructure (roads, markets and other services) and measures to ensure that vulnerable groups (women, ethnic minorities, the very poor) benefit from poverty reduction strategies.

Cambodia, for instance, has an explicit objective to target economic growth in the sectors where poor people derive their livelihoods. Multi-sector approaches are proposed that are responsive to local needs. In the period up to 2005, the Government of Lao PDR "focal site" program will implement integrated rural economic development schemes to address poverty reduction in eight provinces. In Thailand, poverty reduction strategies focus on supporting local community economies, including improvement in agricultural production and promotion of sustainable agriculture among small farmers. In Viet Nam, the poverty reduction strategy promotes long-term protection of the farm economy.

Food security

The lack of food security is the major determinant of poverty and, therefore, the immediate focus of poverty reduction strategies. This is particularly true of the policies of Cambodia and Lao PDR, although food security is a common policy commitment of all countries. While Cambodia and Lao PDR have recently achieved production levels sufficient to feed their populations, the margin of surplus is very small and susceptible to events such as floods and drought. There are also times in the year when households do not have enough food, including particular provinces that have chronic food shortages.

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12 The figures for Viet Nam are based on the national poverty line, whereas the other countries use an international poverty line. To facilitate comparison, the international poverty level in Viet Nam in 1997 was 37 percent of the population.

Non-farm employment

While it is essential to strengthen the agricultural sector to combat poverty in rural areas, this sector has limited capacity for employment generation as populations grow and more people enter the labor force. Therefore, development and expansion of non-farm employment is a key plank of rural poverty reduction strategies. This is most explicit in the commitment of Viet Nam to promote rural industrialization. All the countries, however, are focusing on agro-processing and other value-added activities that will generate non-farm employment in rural areas.

Decentralization

An important aspect of poverty reduction strategies is the move towards increased participation of poor people in the planning of development and management of initiatives to improve their living conditions. The objectives of decentralization of poverty reduction efforts are also to increase self-reliance and empowerment among poor people.

3.1.3 Irrigated agriculture

Agricultural production is the main economic activity of the LMB, in terms of the area of the basin under cultivation and the number of people employed in this sector. In the context of the BDP, irrigated agriculture is a key component of integrated water resource management. Rice cultivation is the principal type of irrigated agriculture in the LMB, although each country is also pursuing strategies to diversify agricultural production into a range of cash crops using irrigation.

Overall, strategies in the riparian countries for irrigated agriculture seek to expand, intensify and increase the productivity of irrigated rice cultivation in countries such as Cambodia and Lao PDR. Throughout the LMB, agriculture strategies have been developed to increase crop diversification and to consolidate and upgrade resources for sustainable agricultural production. Major policy objectives for the agricultural sector in riparian countries include ensuring national food security and accelerating the move towards commodity-based production to meet demands of domestic and international markets.

It is estimated that the proportion of agricultural land in the LMB that is irrigated is less than 10 percent, compared with an average of 45 percent overall in Asia[13]. The proportion of irrigated land in the four riparian countries varies widely. In Cambodia and Lao PDR, irrigated land represents between 10-20 percent of all land under rice cultivation. In Northeast Thailand, only one percent of wet season rice land is irrigated, while 20 percent of the second rice crop area is irrigated. In the Mekong Delta, over 60 percent of agricultural land is irrigated and, with up to three harvests per year in some parts of the Delta, this region is nearing carrying capacity for intensive cropping. As a result, each country has a distinct approach to its strategies related to irrigated rice cultivation.

In Cambodia, there are approximately 400,000 ha of irrigated land, or 17 percent of all land under rice cultivation. The target is to increase the area of irrigated land to 20 percent and, through construction of water storage facilities to supply dry season production, effectively double the intensity of rice cropping. The primary means to achieve rapid, sustained agricultural growth in the short-term is to "jump-start" the development of cost-effective irrigation technologies and to improve the performance of existing facilities. This will involve minor repairs and improved operation and management, water management and delivery of essential support services. In the longer-term, objectives for irrigated agriculture include: i)

[13] Hook, J., 2002. Draft Working Paper on the State of Agriculture and Forestry in the Lower Mekong Basin

construction of small-scale irrigation systems, with a high participation rate by the private sector; ii) progressive improvement and expansion of areas irrigated with medium- and large-scale systems; iii) optimization of benefits from existing irrigation development; and, iv) formulation of a comprehensive water development plan.

The Mekong corridor is the primary focus of irrigated agriculture strategies in Lao PDR. In 1999, the areas of wet season and irrigated rice land were, respectively, approximately 475,000 and 90,000 ha[14]. The targets set in the 2001-2005 Socio-Economic Development Plan include increased rice production utilizing 620,000 ha in the wet season and 150,000 ha in the dry season. Irrigated rice land will be developed in the seven principal plains in Central and Southern Lao PDR: Vientiane, Paksane, Sebangfai, Sebanghieng, Sedone, Champassack and Attepeu. Over 40 smaller plains areas throughout the country will be developed for rainfed rice cultivation, including Mouangsing, Namtha, Phaohao, Ngouadeang, Bounneua, Bountay, Mouangxay, Mouanghoun, Mouangphieng, Mouang Sayaboury, Mouangpane and Mouangkham. In each of these plains, detailed analyses will establish land use classifications for the most effective agricultural production.

The strategic objectives for the agriculture sector in Viet Nam include the continued development of commodity-based production to ensure national food security by 2005, and for export. Throughout the country, a total of 4 million ha of rice land will be protected, about half of which is in the Mekong Delta. This region, as stated, is already developed to near capacity in terms of area of irrigated land and productivity. However, systemic losses are significant and constitute the focus of strategic actions identified in plans for the 2001-2005 period. These actions include larger-scale production to enhance production efficiencies; increased mechanization of agriculture; the introduction of new technologies to improve post-harvest storage, processing and marketing; and, the completion of water conservancy systems to ensure adequate irrigation and drainage for agriculture.

Throughout the LMB, riparian governments are moving towards greater diversification of agricultural production, including soybean, mungbean and vegetables and "industrial" crops such as coffee, tea, tobacco and rubber. Many of these crops offer farmers higher economic returns than rice. They are often more suitable for cultivation in areas of low rice yield. And, they contribute to meeting domestic demand for a range of non-rice agricultural products and facilitate government policies to promote commercialized agriculture through export to regional and international markets. Northeast Thailand with low rice yields has moved more extensively than other riparian countries into diversified agricultural crops[15]. The agricultural strategy of Viet Nam includes the elimination of about 500,000 ha of rice cultivation in the Mekong Delta in favor of commercial crops such as corn, cotton and soybean, as well as tree crops. Similarly, Cambodia and Lao PDR are promoting agricultural diversification to achieve increased productivity per unit of land, improved opportunities for value-added processing and expanded market and sales. Finally, in the Central Highlands, the Government of Viet Nam is targeting extensive, large-scale production of "industrial crops" such as coffee, primarily for export.

3.1.4 Watershed management

Watershed management is defined to encompass national policies for environmental and natural resource management including, broadly speaking, land, forestry and water resources. The overarching goal of riparian governments is to promote sustainable use of natural resources and sound environmental management. The challenges include rapidly increasing

[14] Hook, J. 2002. Draft Working Paper on the State of Agriculture and Forestry in the Lower Mekong Basin

[15] (same)

population pressures and economic development that result in widespread degradation of the natural resource base. Another major issue is unsustainable and poorly managed use of natural resources, by both commercial interests and poor rural households. There are common themes and variations among the policies advocated by the riparian countries.

The National Environmental Action Plan of Cambodia has identified objectives for the 2001-2005 period, including strengthened protected areas management, enhanced forest concession management and improved management of the Tonle Sap ecosystem. Priority investments include protection and management of critical wetlands; forest monitoring and reporting; management of protected areas; preparation of a biodiversity strategy and action plan; and, Tonle Sap biodiversity conservation. Longer-term objectives include protection of surface water quality from point source and non-point source pollution; minimization of changes in hydrological regimes from planned hydropower and water diversion schemes; increased forest area cover and plant species in protected areas; rehabilitation of aquatic ecosystems; rehabilitation and sustainable management of wetlands; and prevention of biodiversity degradation and protection of rare and endangered species.

In the water resources sector, the Ministry of Water Resources and Meteorology of Cambodia has established policies. These include the increase in the area and intensity of irrigated agriculture (see above, Section 2.3); the development of drainage systems and protection dykes; data collection and studies to ensure integrated management of surface and groundwater quantity and quality; improved weather and hydrological forecasts related to disaster management (see also, Section 2.10, below); and, rehabilitation and construction of small, medium and large-scale irrigation schemes.

The Government of Lao PDR is committed to a program of integrated area-based development centred on watersheds and river basin. The Nam Ngum Watershed Plan is a recent example, prepared with support from the ADB. Policies for environmental management focus on pollution control and the establishment of ambient environmental standards for water, soil and air.

The National Environmental Plan of Thailand establishes priorities for environmental management and natural resource conservation, as well as conservation of the human environment and pollution control and prevention. Strategies for conservation and rehabilitation of natural resources focus on adopting an area-based management structure, the use of modern communications technologies and data management systems and, importantly, the establishment of integrated approaches based on local partnerships. Specific targets include rehabilitation of degraded soils and erosion, particularly in critical river basins; environmental land use planning; increases in overall forest cover and the area of both protected and economic forests; rehabilitation of existing forests, with an increase in biodiversity; rehabilitation of surface and groundwater sources; protection and conservation of important watersheds; and, accelerated establishment of river basin plans throughout the country.

In Viet Nam, the National Environmental Protection Strategy has three main objectives: to protect, conserve and sustainably use natural and biodiversity resources; to prevent and control pollution; and, to improve urban environmental quality. Four priorities have been established for improving environmental quality in the water resource and forestry sectors, as well as in urban and industrial contexts.

Throughout the LMB, there is a strong commitment to institutional aspects of environmental and natural resource management in all the riparian countries. Overall, greater emphasis is given to participatory approaches to environmental and natural resource management, including establishing people's advisory councils at all levels (Thailand),

community-based management (Viet Nam), multi-stakeholder consultative processes (Cambodia) and environmental awareness and education programs (all countries). Other strategies include legislative, regulatory and enforcement measures; better integration of environmental protection into national development plans and land use planning; and strengthening capacity and the application of tools such as environmental impact assessment (EIA) and GIS.

3.1.5 Fisheries

Sustainable development of the inland fisheries sector is crucial for each of the riparian countries. Overall, the focus of strategic objectives includes better management of existing capture fisheries and the expansion of aquaculture. The priorities are to maintain and increase per capita fish consumption and increase incomes through greater value-added activities, while preserving habitat conditions.

In Cambodia, strategies to promote fisheries target sustainable development of the sector, as well as its contribution to poverty reduction. They include: i) development of small-scale aquaculture using new technologies, to generate sustainable subsistence, income and employment opportunities; ii) improved management of natural resources to safeguard the long-term sustainability of all aquatic resources; and, iii) cooperation among riparian countries based on the 1995 Agreement to promote sustainable development of the fisheries resource.

In Lao PDR, the development of aquaculture is also targeted, to support increased fish consumption and to increase household incomes. To achieve these objectives, strategies include the culture technology of small-scale farmers and rehabilitation of facilities. Other strategic actions in the fisheries sector include: i) data collection on the extent and nature of capture fisheries; ii) development of infrastructure and human resources capacity in fisheries management; and, iii) regulation of fishing activities.

As in the other countries, aquaculture is an important component of the fisheries strategy proposed for the Mekong Delta of Viet Nam. Some of the land to be taken out of rice cultivation will be redeveloped for fisheries, including large-scale fish farming.

3.1.6 Hydropower

Within the LMB, the percentage of households with electricity is over 75 percent in Thailand (93 percent) and Viet Nam (77 percent), while the levels are much lower in Cambodia (15 percent) and Lao PDR (38 percent). Hydropower generation constitutes the major thrust of the Lao energy strategy, to meet domestic demand and for sale within the LMB. It has also been identified, in Viet Nam, as a competitive advantage of the Central Highlands. Elsewhere in the LMB, the dominant source of electricity is thermal energy. The increased participation of the private sector in power generation is central to the policies of all riparian countries.

The Socio-Economic Development Plan of Lao PDR identifies, for the period 2001-2005, a number of medium and large projects that are planned for development on tributaries of the Mekong River. Full development would increase capacity by about 2,400MW or nearly four times the existing installed capacity. The target set for electricity generation is to contribute 3.7 percent to annual GDP. In Viet Nam, the Government proposes the development of medium and large hydropower projects on tributaries of the Mekong River.

Cambodia and Lao PDR, in particular, have also established strategies to increase the availability of electricity, through upgrading and extension of transmission systems and implementation of rural electrification programs. Rural electrification programs would

combine extension of grid transmission with, particularly in remote areas, off-grid systems that would supply electricity from diesel, small-scale hydropower and solar sources. The target in Lao PDR for 2005 is to increase the proportion of households with access to electricity to 60 percent.

3.1.7 Navigation, transport, river works

Inland water transport constitutes one component of the transportation strategies of the riparian countries. In general, the strategic objectives include completing and upgrading river waterways, including implementation of navigation aids; and, construction and upgrading of river ports. In Cambodia, the national strategy targets further upgrading of Phnom Penh inland river port, improvements to smaller domestic river and lake ports and upgrading of existing ferries. In Lao PDR, the five-year strategy identifies the construction of at least five ports in Vientiane, Sayaboury and Bokeo provinces, as well as navigation aids from Vientiane to Pakbeng-Ban Mom. In the Mekong Delta, the priorities are to complete the river transport network and build or improve some river ports.

In addition to navigation and transport priorities, the riparian countries have also identified requirements for river works. Some of these, such as control of riverbank erosion in Lao PDR and the Mekong Delta, are also related to flood management (see also below). In Lao PDR, riverbank construction is proposed in Vientiane Municipality, Borikhamxay, Khammouane, Savannakhet, Champassack and Namheuang-Sayaboury. Maintenance of navigation channels, including the use of dredging, forms part of the strategies for Cambodia and northern Lao PDR.

3.1.8 Tourism and recreation

The policies of the riparian governments have set a high priority on tourism as an important source of foreign exchange earnings, as well as job creation. In 2001, tourism accounted for 13 percent of GDP in Thailand (mostly due to development outside the LMB), and 7-9 percent in the other countries. Continued growth in tourism is projected for each of the countries. Targets include the domestic and regional (LMB) markets, particularly in Viet Nam, as well as international tourists. Tourism development will be further strengthened through initiatives of the ADB-GMS.

The focus of tourism development in the LMB includes nature-based or eco-tourism, cultural tourism and village tourism, to exploit the natural and cultural advantages of the region. Water-based tourism is not a specific orientation in the strategies of the riparian countries, although excellent opportunities exist and have been targeted in the Mekong Delta and along the Mekong and Tonle Sap Rivers in Cambodia and Lao PDR. In addition to development of tourism sites and "products", national strategies focus on the human resource and infrastructure requirements to support tourism development.

3.1.9 Water supply

The provision of water for domestic and industrial purposes, as well as the management of wastewater is a high priority of the riparian governments in the LMB. Access to safe water and adequate sanitation in both urban and rural areas will contribute directly to improved health and indirectly to higher labor productivity, increased incomes and reduced poverty. In urban areas, the focus is on the development of reticulated water systems, adequate collection of sanitary and storm wastewater and the safe discharge of treated and/or untreated wastewater. The challenge in urban areas is the rapidly increasing numbers of low-income residents and poorly serviced areas, compounded by the deteriorating conditions of existing water supply and wastewater collection systems.

Most of the LMB population lives in rural areas. Low densities, dispersed settlements and seasonal variations in water availability, as well a rapidly growing populations and expanding economic activities, are major challenges to the provision of adequate safe water and sanitation in rural areas, particularly in Cambodia, Lao PDR and Viet Nam. Targets set in national policies for provision of potable water to the rural population include: Cambodia, __; Lao PDR __; and, Viet Nam, 90 percent by 2010.

In response, the riparian governments are moving towards new policy orientations and integrated strategies. Examples include the Rural Water and Sanitation Strategy and the Rural Clean Water Supply and Sanitation Strategy that have been endorsed, respectively, by the governments of Lao PDR and Viet Nam, as well as the proposed Cambodia Rural Water Policy and Strategy. These strategies encompass a number of common or similar themes[16]: i) expanded water supply through approaches that are demand-driven and responsive to users' willingness to pay; ii) decentralized planning, implementation and community-based management of water and sanitation services, including greater participation of women; iii) greater participation of the private sector, combined with targeted subsidies to ensure basic levels of service; iv) increased services to the poor and remote, ethnic minority areas; v) an integrated approach to water supply and sanitation within the framework of integrated water resource management, to control water quality as well as quantity; and vi) continued data collection and monitoring to contribute to further policy development.

Strategic issues of rural water supply are closely linked with other policy orientations for economic development and environmental management in the LMB. The potential for droughts and the shortage of water during the dry season increases the competition for water for domestic use and, for example, irrigated agriculture. The treatment of domestic water supplies is limited and highly variable within the LMB. Factors that can adversely affect water quality include deforestation, erosion and increased sediment content in surface water; pollution due to flooding, storm water overflows and inadequately managed sanitary sewage and runoff from agricultural and livestock operations; saline intrusion into groundwater sources; and, increased pollution from expanding industrial activities in primary and secondary urban centers, rural areas and along growth corridors.

3.1.10 Flood control and management

The disaster prevention and management strategy in Cambodia includes the preparation of comprehensive, well-coordinated plans for flood-prone areas to define prevention, preparedness, emergency relief, mitigation and rehabilitation measures. Further development of meteorological and hydrological networks constitutes an essential component of the strategy. A number of human activities have been identified that contribute to increased risks and severity of flooding, such as filling of reservoirs, construction in floodplains, river obstructions, deforestation, poor land drainage and sand, gravel and rock mining in the beds and along banks of rivers. These issues may be dealt with through legislative, regulatory and licensing measures related to, among others, filling of reservoirs, obstruction of flow and drainage, extraction activities and construction in floodplains; and, construction and rehabilitation of flood protection works and drainage infrastructure, reforestation and the designation of flood control areas.

In Lao PDR, flood management is the responsibility of the Irrigation Development Program. The purpose of this program is to protect agricultural protection and properties in flood-prone areas along the tributaries of the Mekong River. Specific measures include

[16] Seager, M., 2002. Water for domestic use and sanitation. Draft contribution to the MRC State of the Basin report

detailed assessment of damages; and, identification of severe flooding areas for planning and construction of flood protection facilities.

In 2001, Viet Nam adopted its Second National Strategy and Action Plan for Disaster Mitigation and Management covering the period 2001-2020. The disaster management strategy for the Mekong Delta is to "co-exist with floods". The strategy proposes measures to strengthen flood control embankments to protect crops; and, to improve sea dyke systems to prevent salt intrusion from floods and storm surges. In flood-prone areas, stilt houses and floating houses and other flood proofing methods will be built; dyke systems will be constructed along river channels to protect residential areas; and, new development planning will set mandatory requirements for flood safety measures in all types of construction. Other measures are proposed for reservoir safety; and, construction of embankments to protect important areas from the effects of river erosion. In addition, the strategy focuses on the need for close collaboration between the Government, the MRC and upstream riparian countries in order to mitigate and manage floods in the Delta.

The Central Highlands of Viet Nam is prone to long and often severe droughts. The disaster management strategy proposes a number of measures: forest plantation and protection to produce micro-climate changes and increase groundwater resources; construction of upstream reservoirs to regulate water for irrigation; construction of gravity hydraulic works, weirs and, in lowland areas, pumping stations for irrigation purposes; and, consolidation of fields and canals to permit irrigation of large areas with reduced water losses.

3.2 Emerging issues and priorities

In the analysis of national policies for the BDP, two broad policy issues have been identified as important emerging issues, industrialization and the relationship between urban and rural development in the LMB. The priority placed on industrialization varies considerably among the riparian countries, however as economies develop and employment issues become critical to national socio-economic development, the industrial sector will become an increasingly important component of economic development in the LMB. This section looks are existing policies and emerging issues.

The LMB is a predominantly rural region. Nonetheless, various dimensions of the relationship between urban and rural areas are critical to economic development, sustainable rural development and the economic and social well being of people living in the LMB. In addition to these policy issues, this section will also discuss specific policies and strategies to promote sustainable rural development.

3.2.1 Industrialization

Within the LMB, the policies of the Government of Viet Nam for industrial development stand out among the riparian countries. As stated previously, the Government has placed the highest priority in its strategies for socio-economic development on establishing Viet Nam as an industrialized country by 2020, including heavy and hi-tech industries.

However, within the LMB, the growth of labor-intensive rural industries is the significant new policy direction of riparian countries. The objectives are to generate higher levels of non-farm employment to meet the demands of the growing labor force, including people displaced from agriculture; to stabilize migration from rural to urban areas; and, to increase incomes. There is growing recognition, for example, in Thailand and Viet Nam, that the increased production of agricultural commodities does not provide a sound basis for poverty reduction. While more irrigation may mean more rice, more rice does not necessarily mean

less poverty. Therefore, governments are turning towards strategies to diversify rural economies through industrial development.

The dominant strategy is the development of a wide range of agro-processing industries and other natural resource-based industries (forestry and water resources), to increase value-added products for domestic and regional markets. Other rural industries will include construction materials, textiles and chemicals, including the relocation of city-based industries to rural areas as in Viet Nam. In general, these industries will rely on the establishment of small- and medium-size enterprises. In terms of location, the relatively good transport network in Northeast Thailand, as well as the proposed regional highways will tend to attract industrial activities. In the Delta, six concentrated and other medium-size industrial parks are planned for the 2001-2005 period, in Can Tho, Bac Lieu, An Giang and Ben Tre.

3.2.2 Urban and rural development

The projected rates of population growth in the urban areas in the LMB are 3-4 times higher than national growth rates. In the next 20 years, the percentage of the regional population living in urban areas will increase from 20 percent to 30-35 percent. Therefore, governments are placing greater policy emphasis on the management of urban growth and the relationship between urban and rural areas. The trend will be towards investments to develop provincial and district towns as regional centers of urban services and to consolidate economic activities in the industrial and service sectors. At the same time, as evidenced in the policies of Thailand, linkages between regional urban centers and rural areas will be developed through specialized cluster-based economic development exploiting the potentials of each area. Functional and physical linkages will also be established, as in Viet Nam, between the secondary and primary urban centers.

Nonetheless, rural development policies remain among the highest priorities of the riparian governments. As the poverty gap widens between urban and rural areas, rural development is the key to poverty reduction. Therefore, rural development is necessary to ensure that economic growth is equitable and that there is an appropriate balance in public expenditures between urban and rural areas. To this end, the riparian governments are targeting decentralized multi-sector strategies that involve participatory approaches to planning and implementation. The objectives are to enable local authorities and rural communities to take responsibility to meet their needs related to agriculture and other economic activities.

Rural development programs in Lao PDR, for example, are based on the designation of focal sites that exploit local potentials. The objective is to stop shifting cultivation practices and to raise rural livelihoods above the subsistence level through the establishment of sedentary settlements and diversified local economies based on the cultivation of rice, other food crops, aquaculture and other fisheries, tree plantations and animal husbandry, as well as small-scale agro-processing, handicrafts and other local industries. Similar strategies are proposed in the other riparian countries, to address unsustainable agricultural practices and, in general, to raise the living standards in rural areas.

Land is the principal asset of rural livelihood strategies. Within the LMB, governments have established policies and set objectives to increase the accessibility and security of tenure to adequate land resources. In Cambodia, the focus is on land administration reform measures to reduce land conflicts and unregulated land encroachments; to accelerate rural land titling, including granting titles to women; and, to introduce land use planning and development to meet the needs of landless people. In Viet Nam, the Government has set targets to complete the process of rural land titling in order to establish a strong basis for investment in and development of the rural household economy. Land issues are less critical in Northeast Thailand where a system of titled private ownership is widespread.

An essential component of rural development strategies in the LMB is the upgrading and provision of a range of physical infrastructure and other support measures. The construction of major regional roads will facilitate regional integration of the LMB economies, as well as defining growth corridors for rural industrial and other economic activities. Upgrading and expanding the networks of rural roads and markets is essential to the participation of many rural communities in the market economy. Similarly, small-scale irrigation systems and rural electrification are targeted to enhance the opportunities for more efficient agricultural production and diversification of the rural economy. Other important support measures included in government strategies include the expansion and strengthening of agricultural extension services and increased availability of rural credit.

3.2.3 Supporting policies

Supporting policies, as stated in the Introduction, are national policies that, in the context of the BDP, constitute major assumptions or risks for the achievement of regional cooperation for the sustainable development of water and water-related resources in the LMB. The principal supporting policies address the objectives and priorities of riparian governments for good governance and for social development related to education and health.

3.2.4 Governance

Good governance has been endorsed in the policies of the riparian countries as an essential condition to meet national objectives for economic and social development, as well as for greater regional and international integration of LMB countries. Reforms targeting governance issues are strategic priorities of the riparian countries. Several broad themes can be recognized: greater decentralization of decision-making; increased participation at all levels in aspects of planning and implementation of development; and, more efficient government. The specific strategies vary, however, among the riparian countries.

In Cambodia, good governance is a central plank in the overall strategy for socio-economic development: economic growth is a prerequisite for poverty reduction; the key to economic growth is private sector development; and, good government is necessary to secure private investment. The Governance Action Plan adopted by the Government in 2001 encompasses cross-cutting issues of judicial and legal reform related to public finance, civil service reform, anti-corruption and gender equity, as well as specific issues of natural resource management and demobilization of the armed forces. The Government also emphasizes decentralization as a means to greater rural participation for the efficient delivery of resources at the local level; to make sure that target groups such as the poor and women are reached; and, to ensure that the Government is accountable.

In 2000, the Government of Lao PDR adopted a major strategy for decentralization of responsibilities for socio-economic development to the provincial, district and village levels, within the context of the national socio-economic development plan. The province is defined as the strategic unit, responsible for setting the specific objectives and framework for socio-economic development at the provincial level, including establishment and management of budgets. The district is the planning unit, closely linked to integrated rural development at the local level. The village is the implementing unit, executing the policies, guidelines and projects set out in development plans.

The commitment to decentralization, greater participation in the public domain and involvement of civil society is entrenched in the 1997 Constitution of Thailand. Specific strategies to promote good governance include upgrading the efficiency and effectiveness of the public sector; decentralization of responsibilities to local administrations to enhance their capacity and to provide opportunities for people's involvement; the development of a "checks and balances" mechanism involving independent bodies and the media; promotion

of good governance in the private sector; and, strengthening of community and family institutions.

In Viet Nam, the State sector assumes the leading role in economic development. Government policies focus on supporting this role and, at the same time, strengthening the capacity of the cooperative sector, the private sector and the household economy sector to collaborate in economic development. In the areas of rural development and natural resource management, in particular, there is a strong emphasis on establishing and building the capacity of user groups and community-based management.

3.2.5 Education and health

The social conditions of some parts of the LMB are very poor. Limited education and poor health are major constraints to the economic and social well being of many people. They are also critical factors in the abilities of riparian countries to achieve sustained economic growth, including objectives to diversify economic activities and to compete at the regional and international levels.

Education is the key to the creation of a skilled work force capable of supporting government initiatives for the development of a commodity-based, export-oriented agriculture sector, as well as expansion of the industrial and service sectors. Goals for literacy, for school enrolments and for access to education for women are among the targets set by riparian governments to improve education. As signatories to the UNDP Millennium Development Goals (MDG), the riparian countries have endorsed efforts, by 2015, to achieve universal access to primary education and eliminate the disparities in male and female secondary enrolment rates. The Government of Viet Nam has set a target of universal access to lower secondary education by 2010. In Lao PDR, the goals for national socio-economic development include literacy rates of 90 percent by 2020.

Health conditions are extremely poor in many parts of the LMB. Life expectancy rates in Cambodia and Lao PDR are still well below averages for developing countries. Women in rural areas have high fertility rates and maternal mortality rates. Children's health is affected by high rates of child mortality, as well as malnutrition that is directly linked to food shortages. MDG targets include reductions in maternal mortality rates by 75 percent, in child mortality rates by two-thirds and in malnutrition by 50 percent. Lao PDR has set a target of life expectancy by ten years to 67 years in 2010. The Government of Viet Nam has set 2010 goals of child mortality rates of 32 deaths per 1,000 live births and malnutrition rates of 20 percent, respectively, reductions of 25 and 40 percent compared with present levels. Viet Nam has also targeted a 30 percent reduction in maternal mortality rates and an increase in life expectancy of two years, by 2010.

3.3 Cambodia

3.3.1 Introduction

The promotion of economic and social development through the implementation of an extensive reform programme constitutes the third side of the Government's strategic triangle that is designed to achieve development vision (The triangle strategy was adopted after the July 1998 election). Progress has been made in the implementation of this reform and economic growth has been strong in the last two years despite the impact of the 2000 floods. However, much remains to be done.

The Second Socio-economic Development Plan 2001-2005 (SEDP II) is drawn from the review of the First Second Socio-economic Development Plan (SEDP I). It provides the

overall development framework and articulates the national economic growth and poverty reduction strategy of the Royal Government of Cambodia. The government role in the implementation of the strategy is that of a facilitator that uses the power and resources under its control to influence the development process to achieve desired socio-economic outcomes.

To promote sustainable development in the LMB, within the framework of the BDP as a strategic plan for the development of water and water-related resources, a review and analysis of national policies is to be carried out and a working paper prepared.

3.3.2 National policies

Long-term vision

The long term Vision of the Government is "to have a socially cohesive, educationally advanced, and cultural vibrant Cambodia without poverty, illiteracy, and disease, which will allow each person to be the best that it is in them to be."

Strategy

The strategic message of the plan is that Economic growth is a prerequisite for poverty reduction and the key to growth is private sector development, which will be achieved largely through sustained improvement in the government environment.

Specific strategies for civil service reform including decentralization, military demobilization, legal and judiciary, gender equity, public financial management, anti-corruption, and natural resource management. In pursuing a higher economic growth path Cambodia will be established as a popular ecological and culture tourism destination.

Strategic priorities to achieve vision

The strategies are:

1 To foster broad-based sustainable economic growth with equity, with private sector playing the leadership role,

2 To promote social and cultural development by improving the access of the poor to education, health, water and sanitation, power, credit, market, information and appropriate technology, and

3 To promote sustainable management and use of natural resource and the environment

4 To improve the government environment through effective implementation of the Governance Action Plan (GAP).

3.3.3 Key issues: Development challenge and opportunities

Population

High population growth

1 The relatively high rate of population growth: 2.5% per year from 2001-2006 the population increase is estimated to be 1.7 million.

2 The poverty dynamics: the rate of poverty is 36%+(due to worst flooding in 70 years)

3 High migration

4 Imbalance in age and sex structure

5 Gender inequalities

- In age group
- Literacy
- Health (birth spacing and reproductive health services

The key issue is how to improve gender equity across a range of sectors in order to give women the skills and status needed to participate in contemporary society on an equal footing with men particularly in education and in health sector.

Population density and selective population pressure

The population density in Cambodia is 64 per km2, varying between 235 per km2 in the Plain region, 52 in the Tonle Sap region, 49 in the Costal region and 17 in the Plateau and mountain region. Population density in Cambodia is increasing in step with the country's relatively high population growth rate, and in certain areas pressure on natural resources and the environment will intensify.

The key issue is to ensure that this selective pressure does not undermine protection of the environment and sustainable use of natural resources.

Urbanization and urban-rural differences

The annual average growth rate projected for SEDPII is around 3.4% compared with a national rate of almost 2.5%. The increase size of population in Phnom Penh will be 10 times faster. The socio-economic gap between urban and the rural areas (incomes, literacy, access to safe drinking water.

The key issue in relation to rural-urban differences is to ensure that the economic growth process is equitable and that social development is not skewed toward urban areas. This requires a focus on rural and agricultural development and an appropriate balance in public expenditures.

Workforce participation

Proportion of employed persons is working less than 35 hours a week. Approximately 35 percent of all workers have more than one occupation. In rural Cambodia, 41.1 percent of males and 34.0 percent of females are involved in multiple income-earning activities. Overall, only 15 percent of workers aged 15 and over are wage employees.

Thus there is already significant unemployment and underemployment, and a problem of low incomes for the employed. Solving these problems is made more difficult by the rapid growth in the labour force that is due to the entry of the large age group born during the 1980s. The population aged 15-64 is estimated at 7.04 million in 2001, and projected to be 9.68 million in 2011. In other words, the labour force is projected to grow at over 3.2 percent per year, meaning that there will be around 228,000 new entrants to the labour market annually.

The Government's efforts to facilitate private sector-led development and to develop human resources are therefore of crucial importance.

Poverty

Poverty profiles

The most important characteristics of Cambodian poor previously identified in Government poverty profiles are the following:

- Poverty rates are highest in rural areas and highest for those whose household's head is engaged in agriculture
- Poorer households tend to be larger, younger and have more children and are more likely to be headed by a male
- The poor are more likely to live in households where the head is illiterate and has few years of schooling
- Poverty is lowest for those whose household head has a secondary or advanced education
- Poverty is lowest in Phnom Penh

The poverty incidence

The Human Development Index (HDI) 4 for Cambodia stands at 0.512 or a rank of 136 amongst 174 countries (HDR 2000 UNDP).

The incidence of poverty was lowest in Phnom Penh at 11 per cent; was 37 percent in other urban areas; and was highest in rural areas at 43 per cent. Poverty rates were highest in households headed by farmers (46 per cent) and lowest in households headed by public sector workers (20%). More than 75 per cent of the poor lived in households headed by farmers.

The headcount indexes for 1997 were 36.1 percent overall, 17.9 percent for the food only poverty line, 11.1 percent for Phnom Penh, 29.9 percent for other urban areas, and 40.1 percent for the rural population. The poverty index was unchanged at 3.1 in 1993-94 and 1997, ranging in the latter year from 0.6 in Phnom Penh to 2.7 in other urban areas, and 3.4 in rural areas.

The key message from the estimate of these additional indexes is that on average the poor are living close to the poverty line, and that consequently there is considerable potential for poverty reduction through growth with equity.

Dimensions of poverty

Food security: Despite the current surplus, nearly half of the 24 provinces are food deficit areas and a significant proportion of the population is unable to meet minimum rice requirements, the critical periods generally being mid-July to mid-October.

For much of the population, rice accounts for over 70 percent of calorie intake and represents about 40 percent of food expenditure. Rice lacks important nutrients such as iron, thiamine and Vitamin A. Fish is important animal protein sources of the poor.

Non-food necessities: Defined to include housing and utilities, education, health, transport and clothing but not ceremonial expenditure -account for 38.9 percent of - average monthly per capita consumption on a national basis.

Access to land: Land is a critical asset for rural Cambodians, and although there is idle arable land, ownership is unequally distributed. There is population pressure on effectively available land in many areas, and tenure is often insecure. Access to land continues to be a particular problem for returnee refugees.

Physical infrastructure: The poor are underserved by physical infrastructure, which is inadequately developed and maintained. These physical infrastructure include road, safe drinking water and sanitation, public provided electric lighting, telephone service, school, health service, formal banking and financial system. Thus it is clear that the poor are disadvantaged by lack of adequate access to physical assets and essential services, and that this severely constraints their ability to increase their income and social welfare. Other interrelated dimensions of poverty include social exclusion and a sense of powerlessness, vulnerability, and inadequate coping mechanisms.

Other determinants of poverty

There are three aspects of social exclusion in Cambodia: Illiteracy, access to decision-making, and corruption and poor governance (MoEF, 2000). The issues that concerns the poor the most and are considered to be resolved are:

- The poor lack food security
- Life crises render poor people even poorer
- There is a lack access to natural resources, physical and social infrastructure, and other basic services
- The poor are un-empowered, feel hopeless about their lives and those of their children, and experiencing and erosion of family and community relationships
- Women suffer from low socio-economic status
- There is a lack of confidence in local and provincial administration

Gender issue and poverty

Women constitute 51.5 % of the population, 52.3% of the economically active population, and head 25.7% of the households. Women comprise 54% of the skilled agriculture and fisheries workers.

Women are often in low-paid, unskilled positions and vulnerable to many forms of exploitation in the work place. They tend to be primarily responsible for home-based business that allow them to balance their responsibilities for childcare and housekeeping with economic activities.

3.3.4 National development objectives

The Government's national economic growth and poverty reduction strategy is built on achieving three national development objectives linked to specific targets founded on a "range of governance reforms". These objectives are:

1. Economic growth that is broad enough to include sectors where the poor derive a livelihood
2. Social and cultural development
3. Sustainable use of natural resources and sound environmental management.

The achievement of the three objectives will be done through better governance, sustainable broad based economic growth and social and cultural development.

Better governance

An improvement in the governance environment is essential to the achievement of the three main development objectives. This improvement is to be realized through effective implementation of the Governance Action Plan (GAP RGC 2001), which covers the five cross cutting areas of judicial and legal reform such as public finance, civil service reform, anti- corruption, and gender equity, as well as the two specific issues of natural resource - management and demobilization of the armed forces.

The Government aims to achieve sustainable real rate of inclusive broad based economic growth of 6-7 percent per year during the SEDPII period. If an annual real - GDP growth rate of 6 percent were achieved during the period 2001-2005, income per head (in 2000 prices) would reach approximately $320 at the end of 2005. This represents an annual growth rate in real income per head of 3.5 percent. Such growth will ensure significant poverty reduction if it includes agricultural and rural development, so that income-earning opportunities are available to the rural poor. If the growth rate of rural GDP matches that of total GDP, and income distribution remains unchanged, it is estimated that per capita income growth of 3.5 percent per year would reduce the poverty headcount index from 36 percent to around 20 percent in 2005 (based on MOP 1999a).

For the period 2001-2005, it is projected that agriculture GDP will grow at the average annual rate of 3.5 percent, compared with a rate of 6.1 percent for GDP as a whole.

The key determinants will be the degree to which certain correlates of poverty are effectively addressed (e.g. remoteness, inadequate infrastructure, gender, bias, illiteracy).

Social and cultural development

Expanding the capabilities of the poor through increased access to health and education is vital to sustained poverty reduction. Avoiding sickness, disability and ignorance are empowering and raise the quality of life. Education provides a means to escape poverty because it facilitates access to employment and increases productivity.

The Government emphasis on decentralization as a means to greater rural participation is intended to deliver resources -more efficiently at the local level and make sure that target groups are reached, as well as enabling the voices of the poor to be heard and holding Government accountable in ways that can protect the poor. Moreover, the Government recognizes the need to effectively address the unequal position of women in Cambodia, which will require elimination of attitudinal barriers to the process of empowerment through initiatives that support women in the domain of laws and culture.

Significant environmental degradation has occurred during the 1970s, 1980s, and 1990s. This degradation has been caused largely by overexploitation of resources and unsustainable management practices.

Forest cover has been reduced from 74 percent of Cambodia's land area in 1969 to 58 percent in 1997. Resulting in reduced biodiversity, increased soil erosion, accelerating river silt, and changes to the shape of the Mekong River, Tonle Sap River and Tonle Sap Great Lake, which has contributed in recent years to extensive flooding. Untreated wastewater is a significant problem leading to the pollution of rivers. A key issue is how to utilize abundant water resources in a sustainable way particularly for the development of irrigation. Inland fisheries have been depleted and coastal zones degraded. The Government has made significant progress in halting illegal logging during 1999 and 2000, but improved governance in the forestry sector has to be consolidated and extended to encompass the needs of local communities that rely on forest resources. The removal and reduction of fishing lots that was begun in late 2000 was completed in 2001, with approximately 53 percent of the total lot area becoming available for family fishing. This will require the formulation and implementation of a legal and regulatory, framework for community fisheries management.

3.3.5 Plans to achieve vision and objectives

National economic growth and poverty reduction strategy

The strategy recognizes that previous growth has largely been concentrated in urban areas and has tended to bypass rural where the majority of the poor live and agriculture where the majority of the poor work.

Accelerating growth in the rural economy would result in the biggest reduction in poverty because its incidence is highest there and inequalities are lowest, an important consideration given that economic growth will benefit some more than others.

Importance of growth and private sector development

The projected increase in output growth over the medium term is based on agricultural and rural development and further growth in industrial production and tourism.

The key to higher growth and therefore poverty reduction is the pace at which the private sector develops, which hinges largely on sustained and timely improvements in governance. The Government recognizes that achieving national development objectives depends crucially on creation of a more positive and predictable business environment to facilitate the development of the private sector with a special consideration to the development of small and medium-sized enterprises, as the engine of increased investment, higher incomes and more employment.

Decentralization

Decentralization offers new possibilities to bring about a broader-based economic growth and to implement a more effective and efficient strategy for poverty alleviation. Including the opportunity for broader political debate about economic and poverty reduction strategies and new ways of holding Government accountable for its actions.

Decentralization will offer new opportunities for political representation and facilitate direct participation of the poor in the local public decision making process. Properly designed and implemented local participatory planning processes may help to better understand the coping strategies of the poor and to channel local governments' resources to their support and diversification.

The Government has initiated a decentralization reforms process and newly elected Commune Councils will start operating in early 2002, in accordance with a Commune Administration Law.

Government recognizes that decentralization reforms are bound to have an impact on the national planning system itself. As new relatively autonomous budgetary units, (Communes and Provinces) will emerge the centralized sector-based national planning system will start to evolve towards a more complex multilevel decentralized planning system. Neither the traditional "top-down" nor "bottom-up" planning approaches will apply to such a system. Instead, the strategic priority will be for reformed coordination and negotiation mechanisms for the development of new strategic partnership and "contractual" arrangements between central and de-concentrated sector agencies and - Local Authorities.

The importance of agriculture and rural development

Effective poverty reduction requires more concerted efforts than in the past and this calls ' for a sustained focus on the rural poor and development of the potential of agriculture, r- as well as an improved effort to reduce gender inequalities. The rural population for whom agriculture is the primary source of income account for 90 percent of the poor, women comprise 65 percent of 'the rural population and 80 percent of them are engaged in agriculture and the sector accounts for about 40 percent of GDP.

The Government recognizes that agriculture growth is of enormous importance to poverty reduction because:

1 It is the primary direct source of incomes in the rural economy;

2 Its multiplier effects can potentially have a strong effect on the expansion of the rest of the economy and on the development of off-farm sources of income, and

3 It is associated with strong seasonal variations in the welfare of the rural poor. Agricultural improvement is key therefore to broad based economic growth and poverty reduction and there is little doubt that there is much potential for improvement.

The government intends to promote a supportive policy environment for agriculture including provisions of core economic and social infrastructure and services that allow farmers to make their own investment and production decisions.

However, continuing regional and global markets integration and agriculture liberalization raises a question mark about the long-term sustainability of small farmer agriculture. Anticipated greater exposure to competitive pressures imply that the future of Cambodia' agriculture is almost certainly one of accelerated commercialisation and development of larger farms with greater use of markets know-how and lower unit costs. Implying increased risk to the welfare of the rural poor unless and until the industrial and service sectors and other aspects of the urban economy create alternative employment and self-employment opportunities for rural migrants.

Making markets work better for the poor

Tackling market failures that affect agriculture performance is crucially important. Reversing past under investment in rural infrastructure, particularly in underdeveloped and decaying rural roads and strengthening public market information are key priorities. Such intervention will reduce farmer's high transport and distribution costs and better disseminate price signals. Thereby enhancing the effect of price incentives on their behaviour, which will encourage farmers to raise their yields and productivities and to shift production to potentially higher income earning crops.

Land

Government efforts will focus on land distribution, land management and land administration in order to address landlessness issues and land speculation including the sale of state property for private gain. Reducing gender inequalities to enable increased access of women to schooling and health, land, credit and support services is a high priority, as this will facilitate the progress of agriculture, where women's labour is particularly important.

Forests and fisheries

Forestry reform efforts will be intensified to crackdown on large-scale illegal operations and protect the rights of poor communities and indigenous groups. The most significant and sustainable contribution that forest resources can bring to poverty reduction is the value of timber and non-timber products to local community. The impact of concessions on community access to these products has not yet been studied and will be the subject of an independent and transparent evaluation. Government also places a high priority on developing new fisheries legislation through a participatory stakeholder process to ensure sustainable management of fisheries and access of the poor to aquatic resources.

Water resources management

Developing capacities to better manage water resources is a priority. In parallel with the expansion of irrigation and drainage systems the emphasis will be on building capacity of Farmers Water Users Communities (FWUC) to manage water resources more efficiently and effectively. Without the continued development of irrigation and drainage systems the priority of food security and diversification will not be realized. Irrigation is a key determinant of agricultural productivity improvement in particular rice production, which is the mainstay of agricultural production in Cambodia. However, expanding irrigation without simultaneously putting in place management improvement measures may create larger problems of lack of management and inefficient use of resources. Research and extension will be reoriented with an emphasis on rain-fed lowland agro- ecosystem because it comprises around 80 percent of the current cultivated area and about 6 to 7 million people mainly rice farmers depend on this agro-ecosystem.

Physical infrastructure

The public provision of physical infrastructure particularly to facilitate rural development, rural-urban linkages and provincial growth in intermediate towns is a strategic priority.

Encouraging reduced fertility and slower population growth

The relatively high population growth rate of 2.5 percent per year indicates the need for the wider birth spacing in poor families, allowing for better health for mothers and their children, and reduced maternal and child mortality. This in turn would increase the likelihood of parents, and thus providing them with the human assets they need to improve their welfare, as well as enabling them to space their families and participate fully in a developing society.

Reducing gender based poverty

The Government recognizes that realization of its development Vision depends crucially on empowering women through initiatives that support women and girls particularly in the areas of laws and culture. This involves promoting a systematic strategy directed towards raising the level of skills and productivity of both rural and urban women through greater investment in basic education, literacy, skills programs and vocational training, and health and nutrition.

Building and empowering women's organizations and enhancing their participation in mainstream policy and decision-making. Changing the thinking and operational r procedures of institutions both public and private through advocacy to increase their L. responsiveness to women's needs. Creating security for women through legal measures and public education, particularly of men, to reduce trafficking of women and other violence against women.

Improving access of the poor to education and health

Key priorities for improving access of the poor to education and health include:

- Promoting financial transparency and addressing corruption issues particularly in health, nutrition and education.
- Addressing the HIV/AIDS threat through more awareness raising and multi-disciplinary programmes that especially target women and children in rural areas. In parallel to this, prevention strategy is developed. There will be greater investment in health services.
- Increase investment in education to enable the poor to increase their access and improve school quality and deployment of educational inputs.

Expanding village level infrastructure and services

Rural infrastructure priorities are in the following order: water, roads and electricity. The development of single and multipurpose hydropower will be a potential option; along with the government will promote the policy environments to increase investment of private sector in rural infrastructure services.

Disaster prevention and management

Most of the rural poor live in an environment marked by wet-dry seasonality, which affects all aspects of their lives from income to consumption, to nutritional status, education and health.

Against this background, and the prospect of changing weather patterns due to climate change plans in natural disaster prevention, preparedness, relief, mitigation and rehabilitation are important poverty reduction measures. Moreover, the further development of meteorological and hydrological networks are essential preventative measures and will form an integral part of the Government's disaster prevention and management regime. Government intends to put in place an effective and efficient mechanism in relief and emergency services with good coordination and cooperation at all levels. Ongoing work to develop a national natural disaster preparedness capability are linked to Government's efforts to minimize the vulnerabilities of the rural poor to adverse weather, in particular flooding and drought. Key aspects of national disasters l preparation include the elaboration of plans and mechanisms for coordination, 1 monitoring and review.

Targeted special programmes

Special programmes will be necessary for those groups of the poor who are unable to participate effectively in the economic growth process. NGOs and other aid agencies will be encouraged to continue actively in these areas, and the government intends to become more engaged. Food for work programme, food based interventions (such as food distribution and feeding programmes) will be implemented.

Special programmes will be established for reducing the vulnerability of women and children protection.

3.3.6 Economic development of Cambodia 2001 - 2005

Cambodia's economic growth has become even more broad-based and will attain the targets for 2001-2005, based on two main factors: First, with the successful implementation of our Government's policy platform measures, we have built up, strengthened and expanded this reform momentum over the last 1-1/2 years, through hard work, discipline, good governance initiatives and actions, combating corruption and enhancing the efficiency of civil servants. Second, the regional economic recovery is reflected in our positive economic growth in 1999, which will accelerate in year 2000. Economic and financial reforms underway in the region and measures undertaken by ASEAN members to avoid the recurrence of the financial crisis and enhance efficiency and stability of financial markets will create and environment conductive to regional economic growth, which will have a positive impact on Cambodia's economy. Peace, political and macroeconomic stability, social order and positive development in all sectors both inside and outside of Cambodia will instil investor's confidence in the prospect of economic growth and recovery underway in Cambodia. We are consolidating the foundation for manufacturing and industrial growth by focusing on the development of agri-business, electronics, and intensive-intensive sectors, in which Cambodia has enjoyed comparative advantages.

The SEDPII macroeconomic framework is aimed at raising economic growth to 6.6 percent, lowering inflation to 3.8 percent, containing the external current account deficit to 11.5 percent of GDP and increasing gross official reserves to about 5 months of import coverage. The projected increases in output are premised on continuing political stability, a favourable regional environment and improvement in personal security that will facilitate rising levels of public and private investment and savings as a result of further fiscal reform.

The regional economy is assumed to recover leading to increase the prices of rubber and timber and the restoration of economic stability in the region will facilitate increase foreign direct investment (FDI) to Cambodia. However, the pace at which FDI increase assumes that for the forthcoming commune elections pass off peacefully and that the personal security of foreign investors is enhanced and that recent intensive disputes do not reoccur.

The on-going market based reform programme continues and delivers benefits throughout the period reflected in enhanced fiscal performance and better governance as a result of public resource management reform and with the implementation of administrative and military reform the impact of reform will benefit economic performance in general and in particular will facilitate in increased foreign aid for public investment in crucial economic and social infrastructure.

Selected projections of the model results are shown in Table 1. Economic growth and fiscal and external balances will continue to strengthen. Real economic growth will average 6.4 percent over the plan period driven largely by industry and services. Within these sectors the primary sources of growth will be tourism and manufacturing and construction. Tourism will benefit from the further improvement in security and international image of Cambodia and increased transport access to tourist destination in the country. Increased foreign investment particularly foreign aid will boost the construction sub-sector and maintenance of favourable export markets will drive expansion of basic manufacturing. Agriculture performance will benefit from increased trade and tourism activities and subject to the uncertainties of the weather sector growth will remain relatively stable, as productivity constrains in the sector impede faster growth.

Economic growth of 6 percent and above will boost employment opportunities in the range of creating about 35,000 new jobs per year. However, this will be insufficient to meet the estimated annual entry of job seekers into the labour force of 135,000 per year. Thus about

100,000 new labour market entrants annually will work in agriculture adding to that sector's productivity problems, although some will seek informal work in urban areas. Increasing agricultural productivity is crucial, as is in parallel creating the conditions for faster employment generation in industry and services. The dilemma faced by the government is that programs aimed at increasing agricultural labour productivity and hence economic growth generally could have an adverse impact on employment of industry and services are unable to take up the slack.

Table 3.2: Selected indicators from Cambodia's SEDPII

	2001 projected	2002 projected	2003 projected	2004 projected	2005 projected
Real GDP growth (% pa)	6.1	6.3	6.4	6.5	6.6
Growth of real GDP per capita (% pa)	3.3	3.9	3.6	3.7	3.8
CPI inflation (% pa)	3.7	3.6	3.8	3.8	3.8
Riels/US$ Exchange rate	3772	3758	3750	3743	3735
National GDP per capita (US$)	307	332	357	384	415
Private consumption per capita (US$)	266	278	296	320	344
Domestic Exports (% of GDP)	12.2	12.4	12.6	12.7	12.7
Retained Imports (% of GDP)	33.0	31.5	31.5	32.3	32.5
Budget Revenue	11.7	12.3	13.1	13.3	13.5
Tax	8.9	9.3	9.9	10.0	10.2
Non – Tax	2.8	3.0	3.2	3.3	3.4
Budget Expenditure	21.8	19.8	20.1	19.6	19.1
Current Expenditure	8.9	9.3	9.7	10.1	10.6
Capital Expenditure	12.9	10.5	10.4	9.4	8.5
Current Budget Surplus (Deficit)	2.8	3.0	3.4	3.1	3.0
Overall Budget Deficit	(9.9)	(7.3)	(6.8)	(6.2)	(5.6)

3.3.7 Sectoral policy

Policy for agriculture

Poverty in Cambodia is primarily a rural phenomenon. The majority of them get their livelihood from agriculture, and the incidence of poverty is also much higher among farmers than among other occupation groups. At the same time, agriculture provides over 40% of the GDP. Therefore, the government's strategies for developing the economy and for poverty reduction demand a much stronger focus on agricultural development.

The opportunities for agricultural growth include rice production and other field crops, rubber, fruit trees and other perennial crops, livestock, fisheries and forestry.

The constraints to agricultural growth identified are:

1 Absence of a clear policy framework

2 Undeveloped market for rice and other food crops

3 Barriers to export growth

4 Low crop productivity

5 Demographic and gender issues

6 Institutional and financial constraints

7 Inadequate extension services

8 Limited access of farmers to production resources

Given the nature of agriculture (i.e. small farm holding, low level of technology, and lack of security of tenure), the end view of any socio-economic and agricultural development plan should be the promotion of a farm sector that is dynamic, productive, and competitive – one that takes advantage of technological innovations, stretches its development potentials and is environmentally friendly, guided by sound principles of management technology for sustainable growth. The emphasis of such plan should be small farmers and fisher folk over production resources and the availability of opportunities to choose from a range of farming options.

The proposed agricultural development plan focuses on the following key components:

1 Maintain an appropriate macroeconomic framework and a favourable agricultural policy and institutional environment.

2 Accelerated and sustainable irrigation development including a greater degree of water control (and drainage) by farmers.

3 Development of highly productive and diversified farming systems through, among others, soil, pest and seed management and appropriate farm mechanisation and post-harvest technologies

4 Under its program for land administration and policy reform, the government plans to:

- Establish policies, programmes and measures to reduce and alleviate land conflicts and unregulated land encroachments;
- Launch an accelerated programme of rural land titling; and
- Introduce new land planning and development for residential communities including farms for landless people, especially along the borders and in forested areas.

5 Development of an export market for rice and other agricultural products along with product quality and processing facilities

6 Strengthening essential agricultural support services including marketing, input distribution, extension programmes, research and development and credit

7 Expansion of livestock production with emphasis on animal health services, nutrition and range management; and a focus on small-scale poultry and swine production, large animal husbandry and establishment of feed processing plants

8 Improved management of appropriate technologies for rice-fish farming and aquaculture

9 Promotion of community-based forestry, agroforestry and agroforestry-livestock farming systems; sustainable production of fuel wood; and protection and management of critical watersheds

10 Clear delineation of the mandates of the principal public institutions engaged in agricultural and rural development (i.e. MAFF, Ministry of Water Resources, Ministry of Environment, and Ministry of Rural Development)

11 Strengthening institutional capacity of the MAFF and related agencies by intensive training, staff upgrading and redeployment at different levels.

Agricultural extension policy will be to develop and strengthen the extension System and the agricultural extension activities by using and managing the natural resource and implementing the appropriate agricultural technologies for improving the quantity and quality of the agricultural product and response to the local market and export.

Irrigation development

Irrigation offers the best opportunities for agricultural growth. There are bright aspects for substantial increases in unit area productivity through improvements in irrigation systems and management of irrigation water.

The primary means for achieving rapid and sustained agriculture growth in the short-term are to "jump-start" the development of cost-effective irrigation technologies and boost the performance of existing irrigation facilities. This can be done through minor repair, paper operation and maintenance, better water management, and improved delivery of essential support services.

Medium and long-term objectives for irrigation include the following:

1 Construction of small-scale private sector-led irrigation systems;

2 progressive improvement and expansion of areas covered by medium-size and large-scale irrigation;

3 optimisation of benefits from existing irrigation development; and creation of a comprehensive water development plan.

4 creation of comprehensive water development plan

MOWRAM will establish a reliable and sustainable hydrological management information system of all surface and groundwater sources (river basins and aquifers). This system will provide information to support strategic planning and sustainable and environment-friendly development of water resources for various objectives including irrigation, potable water supply, hydropower, transportation, fishery, flood control and protection of environmental resources.

In this regard, the government plans to:

1 Prepare a detail water sector profile and national water resource strategy, with technological assistance from the ADB and World Bank;

2 Formulate suitable water investment strategies;

3 Establish and maintain an institutional framework for sustainable operation and maintenance of irrigation systems;

4 Prepare an action plan for the national Water Resource Development Policy; and

5. Strengthen project planning and implementing capacity at all levels.

There are excellent opportunities for improving existing farming systems. The MAFF will develop policy instruments and projects to enable farmers and fisher folk to take advantage of these opportunities in the following three areas:

1 Crop intensification and diversification

2 Expansion and improvement in livestock production

3 Improved management and appropriate technologies for rice-fish farming and aquaculture schemes

Policy for the fisheries sector

The potentials of Cambodia's living aquatic resources and habitat are the main sources to support social and economic growth for the nation and its people. For a sustainable development in this sector and to contribute to the permanent reduction and eradication of poverty, the following strategies will be pursued:

1 Development or improvement of the management of and administration of Cambodia's natural resources and the obligation to safeguard the long-term sustainability of all usages of aquatic resources.

2 Development and setting up specific programme and project activities to use the potentials of small-scale aquaculture by transfer new technologies and know-how to support poverty alleviation and the generation of sustainable subsistence, income and employment opportunities in aquaculture and fisheries related activities.

3 Cooperation among riparian countries based on the 1995 Agreement to enable the negotiation and solving problems on the related field of water development in the neighbouring countries towards sustainable development of the fisheries resource in the Mekong Basin.

The possible alternative approaches to reach the above strategies are:

1 Establishing fisheries database and baseline survey on habitat, stock assessment, biodiversity, statistic and others

2 Community-based fisheries management

3 Aquaculture development

4 Assessment of Mekong fisheries

3.3.8 Rural development strategy

The strategy of the Ministry of Rural Development is to:

1 Adopt and integrate multi-sectoral development approach, responsive to local needs;

2 Initiate, coordinate and monitor the implementation of targeted poverty reduction programmes in rural areas;

3 Put people at the centre of rural development efforts, helping them to take greater responsibility for their own lives and their children's future;

4 Encourage community participation in planning and development, using a decentralised rural development structure; and

5 Strengthen its capacity for monitoring of outcomes in rural poverty reduction programmes and using the results for national policy formulation.

3.3.9 Policies and measures on environment and natural resources

Sustainable forest management

Deforestation had resulted from the conflicts in the 1970s-1980s, and after Khmer Rouge influence had declined, access to formerly insecure areas had encouraged illegal logging that are often linked to corruption. Forest area declined from 73% before 1960 to 58% of land area by 2000. The new Government began to address these problems by canceling 15 concessions, curbing illegal logging, seizing equipment and illegally harvested logs, and closing illegal sawmills.

Substantial work has been undertaken in forest concession management: suspension of forest concessions awaiting a management plan, formulation of a code of conduct for forest concessionaires, and preparation of sub-decrees on management of forest concessions and on forest community management.

A Cambodia Forest Crime Monitoring Project was set up. An international organization, Global Witness, acts as an independent monitor. The Project had improved the capacity of the Government to detect and track illegal logging, conduct apprehensions and generate additional revenues from fines and sale of seized logs.

Land management

More equitable access to land is identified as a critical factor in poverty reduction. According to a World Bank survey in 2000, the richest 10% of Cambodian households owned 40% of the land, while the poorest 40% owned only 12%, and 14.4% of rural households are landless.

Forcible displacement of millions from their homes and practical abolition of private ownership by the Khmer Rouge, followed by its reinstitution after 1989 have introduced large-scale confusion and land disputes. About half of complaints brought before the Human Rights Commission involved land disputes. Sixty percent of civil cases handled by the Cambodian Defenders Project were land disputes. Land grabbing by local authorities and soldiers are so serious that the Prime Minister had issued an 11-point order to halt it.

In October 1992 a Land Law was enacted. 4.4 million applications for land ownership had been made by end of 1995, and applications are piling up in land title offices. Land titling was the responsibility of the Land Titles Department of the Ministry of Agriculture, Forestry and Fisheries but due to mismanagement in 1994 the responsibility was transferred to the Council of Ministers, and in 1999 to a new Ministry of Land Management, Urbanization and Construction.

Conservation of biological diversity

A multi-sectoral, multi-stakeholder Biodiversity Strategy and Action Plan had been drafted to provide the basis for all future activities in biodiversity conservation. A National Workshop on Biodiversity Issues was held in October 2000, which helped prioritize the components of the Action Plan. Training in Biodiversity Planning led to the drafting of a Biodiversity Planning Manual in both English and Khmer.

With World Bank GEF (Global Environmental Facility) funding and a Learning and Innovation Loan, a pilot project is being implemented at the Virachey National Park to develop and demonstrate an approach to manage Cambodia's National Protected Areas System. The project will also develop and test specific measures to minimize degradation of

biodiversity in the area. A significant component is the development and testing of ways and means to involve local communities' participation in forest protection.

Management of Tonle Sap floodplain and freshwater resources

Tonle Sap with its Great Lake is simultaneously a richly diverse ecosystem, the largest freshwater lake in Southeast Asia, a UNESCO biosphere reserve, a livelihood base for nearly 30% of Cambodians, and — together with the world-famous Angkor Wat — a national symbol of Khmer identity. It provides 60% of the total protein intake of the Cambodian population.

It is plagued by many problems: overfishing, denudation of watersheds, use of harmful farm chemicals and flooding (or drought at other times). Proper management of the Tonle Sap region has been recognized as important. Because of the complexity of the ecosystem, effective management of the Tonle Sap ecosystem requires an integrated approach and collaboration among government agencies at national to village levels.

Accordingly, a Royal Decree on the Protection of the Tonle Sap Biosphere Reserve had been enacted in March 2001. A Tonle Sap Inter-Ministerial Task Force was created to formulate and coordinate the implementation of a multi-sectoral management plan for the sustainable development of the Tonle Sap region. A Coordinating Unit for the Tonle Sap has also been created within the Ministry of Environment.

Integrating environmental considerations in decision making

Article 59 of the Constitution mandated the protection of the environment and the balance of natural resources, and the establishment of a plan for environmental management. Subsequently, a broad set of environmental laws; regulations, institutions and standard procedures have been put in place in the short period of time since 1994. Among these are: the 1993 Royal Decree on the Creation and Designation of the Protected Area System; the 1996 Law on Environmental Protection and Natural Resource Management; the 1997 Sub-Decree on the Organization and Functioning of the Ministry of Environment; the 1999 Sub-Decrees on Water Pollution Control, Environmental Impact Assessments; Solid Waste Management; Organization, Structure and Functioning of the Cambodia National Mekong Committee, and the 2001 Royal Decree on the Establishment and Management of the Tonle Sap Biosphere Reserve.

An important broad policy instrument for incorporating environmental considerations in development decision-making, including investment planning at the national and local levels, was the National Environmental Action Plan approved by the Council of Ministers in December 1997. It sets the stage for setting up many activities and procedures in environmental management within 1998-2002.

More specifically, environmental impact assessment (EIA) is a tool used in many countries for incorporating environmental considerations in development and project investment decisions. By sub-decree on August 1999 following the December 1996 Law on Environmental Protection and Natural Resource Management, EIAs are required on various kinds and scales of projects. The sub-decree mandated the general requirements, procedures and responsibilities, and instructed the Ministry of Environment to formulate implementing rules and guidelines. EIA became a requirement on projects and investments that are submitted to Council of Development of Cambodia (CDC) for approval.

Being a tool new to Cambodia, training of local experts is needed. For example, training courses in EIA were conducted in 1995-96 by the IDRC and ADB for government personnel in the Ministry of Environment, MAFF, Ministry of Rural Development, Ministry

of Tourism and Ministry of Health. In 1998, an RGC-FAO SARD Project (Support to Human Resources Development for Sustainable Agriculture and Rural Development) included training in the conduct of EIA for 50 staff members from the MAFF and Ministry of Environment including its new Environmental Assessment Branch.

Other tools for integrating environmental factors in decision making are being applied in Cambodia, such as use of geographic information systems (GIS).

Waste management

Industrial and urban pollution are not yet very serious in Cambodia. The main sources of air pollution are in Phnom Penh where about 170 factories are located, about 63,000 cars, trucks and buses and 450,000 motorbikes. Ninety percent of cars and 60% of motorbikes are operated in Phnom Penh. Disposal of hazardous solid wastes at Sihanoukville contributed to hastening the enactment of corresponding rules and regulations.

A number of urban and industry-orient waste management measures had been prepared by the Ministry of Environment and enacted by the Royal Government of Cambodia: the Sub-Decree on Water Pollution Control (April 1999), the Sub-Decree on Solid Waste Management (April 1999), and Sub-Decree on Air Pollution Control and Noise Disturbance (July 2000). Corresponding Declarations to spell out implementing guidelines pursuant to the decrees have also been issued by the Ministry of Environment.

Environmental development objectives

The Government goals and objectives for environmental protection and conservation are set out in the SEDP and can be summarized as follow. The goal is to manage, conserve and protect Cambodia's environment and natural resources in an ecologically sustainable manner to assist in alleviating poverty throughout the nation.

The medium-term objectives (2001-2005) are to:

1 Develop coastal zone management

2 Reduce urban and industrial pollution

3 Strengthen protected areas management

4 Enhance forest concession management

5 Improve management of the Tonle Sap ecosystem

6 Build the environmental planning capacity of core institutions.

The long-term objectives are to:

1 Minimize deterioration of surface water quality with is caused from both point sources and non-point sources pollution.

2 Minimize changes in hydrological regimes from planned hydropower and water division schemes

3 Increase the forest area cover and plant species diversity in protected areas

4 Rehabilitate and prevent future deterioration of aquatic ecosystem

5 Rehabilitate and improve sustainable management of wetlands areas especially user sites

6 Prevent future biodiversity degradation and protect fare and endangered species in control zone and wetland resources

7 Design and implement or EIA process for the Cambodia and the Mekong Basin (trans-boundary issue)

8 Review laws and sub-decrees pertaining on environment protection and management

9 Prepare state of environment report

10 Develop policy on environmental management and protection

The Action Plan focused on six priority environmental issues:

1 Forest areas management

2 Fisheries management in the Tonle Sap

3 Sustainable agriculture in the floodplain of the Tonle Sap

4 Energy development and environment

5 Forest resources utilization and management

6 Coastal resources utilization and management

All activities in the environment sector in Cambodia on the part of the international development community has been in the form of technical assistance; there have so far been no environmental investments made in Cambodia. But there is a number of major environmental initiatives underway in the country.

The Government's environmental protection and natural resources management efforts are guided by four principles:

1 Recognition of the link between poverty alleviation and the environment: To safeguard the environment, the Government must increase economic opportunities to the rural poor. Natural resources degradation is in part due to exploitation of basic needs by the rural poor. Reducing rural poverty is essential to achieving sustainable management of Cambodia's environment.

2 Recognition of the importance of communities: Structured interventions to provide local communities with the skills to manage the natural resources base on which their livelihoods depend is the most effective way of achieving sustainable management of these resources.

3 Recognition of the need for institutional capacity building: The MOE and other organizations lack technical specialization to effectively protect, preserve and manage Cambodia's environment.

4 Recognition of the importance of an integrated approach to environmental planning: Environmental issues are cross-sectoral and different institutional have responsibilities and implement activities that concern the environment. The Ministry of Environment promoted an integrated and multi-disciplinary approach to environmental management.

Future directions

Suggestions to combine sustainable use of natural resources, environmental management and poverty reduction have been made as follows:

- Community-based natural resource management that provides livelihood opportunities and empowerment to local people
- Sustainable agricultural technologies for rural areas

- Renewable energy development and technology transfer to rural areas
- Cultural and nature-based tourism, which is highlighted in SEDP II
- Integrated pest management, which shifts away from consumption of imported chemicals to more labour intensive and ecologically sound substitutes
- Pro-poor trade in natural resource based commodities
- Green labelling, which helps consumers choose products that are biodegradable and not synthetic or artificial
- Community-based biodiversity-enhancing livelihood programs, such as those funded by the UNDP GEF Small Grants Programme.

Several technical suggestions were offered in the multi-stakeholder consultative workshops, namely: Education and awareness programme for decision makers and general public (in addition to environmental education now given to various steps of the formal education system), information/data management and networking, and application of *"precautionary"* and *"polluter pays"* principles.

Since 1993, many laws, institutions and regulations had been enacted in the environmental and natural resources sector. The next steps mentioned are those to ensure more effective implementation of these enactments, such as:

- Publication of laws and better enforcement of laws
- Capacity building of communities in natural resources stewardship
- Revision of fisheries and agricultural concessions
- Use of indicators to measure sustainability of resources
- Monitoring and evaluation mechanisms
- Greater transparency through public information in the mass media

3.3.10 Water resources development

To implement the programme of the Cambodia Royal Government and accelerate economic development, the Ministry of Water Resources and Meteorology has set forth policies for social development, and in particular poverty reduction, which are as follows:

1 To increase the irrigated area of rice production from 16.62% to 20%, which means from 374,603 ha to 450,600 ha in addition to the existing 407,000 ha irrigated area, through water storage during the wet season for double crop production, with a view to increase job opportunities and income of the population in rural areas.

2 To take a leading role with regard to drainage, water conservation, water resources development to the benefit to the population through drainage systems and protection dikes.

3 To study surface water and groundwater to ensure that water quantity and quality are managed in an integrated manner and determine the balance between the demand and water availability.

4 To improve weather forecasts, hydrological forecasts and ensure the timely warning of natural disasters such as typhoons, floods and drought to the population in the whole country.

To implement the above policy, the Ministry of Water Resources and Meteorology sets forth the following strategies:

1 Improvement of data collection with regard to surface water, groundwater and meteorology for publication, and of data evaluation and analysis to better develop water resources.

2 Preparation of the drafts of law, sub-decrees, policy and strategies for water resources and meteorology development.

3 Improvement of the water resources and meteorology development sector:

- Preparation of the public investment programme for the rehabilitation/construction of small-scale, medium scale and large-scale irrigation schemes and dams for hydro-power, and improvement of the relations with the donor community.
- Introduction of a coordination mechanism with the participation of the ministries concerned with water resources and meteorology development.
- Increase private investment participation in water resources and meteorology development.

4 Increase the number of trained staff in the Ministry of Water Resources and Meteorology, apply new technologies for the management and development of water resources and meteorology, educate and raise the awareness of people of the importance of water and the dangers that it may cause to the population by using radio, television, magazines, news papers as media.

3.3.11 Water supply and sanitation

Cambodia has abundant water resources. Yet access to potable water and sanitation facilities is very limited, causing ill health and low labour productivity in both rural and urban areas. The Royal government is committed to achieving the long-term goal of providing access to clean drinking water and environmental sanitation for the entire population, and to increasing rural incomes through agricultural development. This will require effective and on-going coordination and cooperation between water-related line agencies responsible in various ways for policy formulation, management and administration of water resources, water supply and sanitation- MAFF, MIME, MPWT, MRD, and the Ministry of Water Resources and Meteorology (MOWRAM), as well as Phnom Penh Municipality. Such coordination will need to occur within the context of legal, regulatory, and policy frameworks to be developed during SEDPII as one of MOWRAM's four key strategies.

The policy objectives and supporting strategies are as the same as for water resources development described above.

3.4 Lao PDR

3.4.1 Socio-economic development and performance

Overview of macro-economic conditions

In 1986, the Government of Laos (GOL) adopted a drastic policy reform from a centrally planned economy to a market oriented system, introducing the New Economic Mechanism (NEM). The reforms included price decontrol, liberalization of trade and payment systems, introduction of two-tier banking system, freeing of all but agriculture-related interest rates, initiation of civil service reforms, introduction of legal framework to support market

economy, and an extensive privatization program. Considerable progress has been achieved in structural transformation and macro-economic management, creating the basic foundations of an incentive driven economy that contributed to the growth of real GDP at the rate of 6.3% per annum over 1990-1994. Per capita income rose at 3.2% per annum over the same period. Growth accelerated to 8.1% in 1994 and continued at 7.1% in 1995 and 6.9% in 1996 respectively, led by the strong recovery of agricultural production and a continued boom in manufacturing, construction and services. Lao PDR joined the Association Southeast Asia Nations (ASEAN) and the ASEAN Free Trade Area (AFTA) regional trade blocks in 1997.

The rice production has reached the target of 2.2 million tons in 2000, and thus the country achieved self-sufficiency. Some basic industries have increasingly been developed. The electricity production reaches the target of 1,576 million MWhr, an increase of around 6.4 times compared to 1976. The number of garment factories has significantly increased to 52 factories and employs about 22,000 workers. The organic fertilizer factories were also established and are able to produce 56,000 tons/year. Additionally, altogether there are 22 animal food-processing factories in the provinces and the total capacity is approximately 90,000 tons per year.

The value of grants and loan from other countries and international organizations has satisfactorily increased over time. During the period of implementing Fourth national five year plan (1996-2000), it was support by donors of grants and loans with an amount of US$ 1,715 million.

Constraints in the development process

Experiences and lesson learnt from the implementation of development activities is that the government faced various difficulties in implementing the development plan and which are specified below:

- Relatively low-level socio-economic development during the last 25 years compared to the potential and comparative advantage of the country.
- Unsatisfactory level accomplishment of programs and projects under the Government policy resulted in failure to achieve macro economy targets as directed in the Fourth Socio-economic Development Plan.
- Development of economic structure rather focusing on the service sector than agriculture and industry.
- Poor, inconsistent performance of macro policy with lack of accountability of central and local authorities for implementing a plan.
- Slow and unsatisfactory translation of eight priority programs into specific projects for implementation.
- Weakness in promoting and mobilizing the people's capability for boosting the economy in both public and private sectors.
- Poor state's management to follow principles and rules to correct mechanism to abide by existing laws; and
- Insufficient progress of human resources development both in quantity and quality.

Table 3.3 shows the economic and financial indicators 1996-2000 of Lao PDR

Table 3.3: Economic and financial indicators of Lao PDR
(1996-2000)

Item - breakdown	95-96	96-97	97-98	98-99	99-00
Total GDP Growth (%)	6.9	6.9	4	7.3	5.9
Agriculture(Growth/Share)	2.3/54	7.0/53	3.1/53	8.2/52	4.4/51
Industry (Growth/Share)	17.3/21	8.1/21	9.2/22	7.9/22	7.3/23
Services (Growth/Share)	8.5/25	7.5/25	5.5/25	6.9/25	6.4/26
GDP at current prices (Kip)	1,726	2,201	3,745	8,700	13,780
GDP at constant prices (Kip)	893	955	983	1,035	1,157
Public saving (% of GDP)	2.60	2.40	3.60	3.90	4.00
Budget "Revenue" (Kip bill) per Fiscal Year (FY)	217	238	367	961	1,680
Expenditures (Kip bill) per FY	364	421	847	1,651	2,705
Government revenues/GDP ratio	12.6	10.8	14.6	15.8	15.9
Government expenditure/GDP ratio	21.1	19.1	22.6	18.6	19.6
Fiscal deficit (as % of GDP)	8.5	8.3	12.8	9.97	8.53
Growth of money supply	26.7	65.8	113.3	136.7	61.14
Inflation (Average annual rate)	13	26.4	142	108.3	11.9
Total value of exports (US$ million)	321	317	341	311	323
Total value of imports (US$ million)	690	648	553	525	540
Current account balance (US$ million)					
Deficit as of GDP	-306	-282	-129	-145	n.a
Total foreign investment approved (US$ million)	1,292	154	141	155	33
Number of approved projects	63	66	69	68	43
Direct foreign investment inflow (US$ million)	160	378	253	56	26
Inflow of which grants (US$ million)	212	324	296	347	n.a
Total debt services (US$ million)	5.9	37.1	51.9	65.1	n.a

Source: National Statistic Centre
n.a : not available

Financing/budgeting

The budget data provides an indication of the importance of external financing in the government expenditure. The table below provides details for the past four years and shows that foreign grants and loans account for sizeable proportion of budget financing. On average, revenue accounted for only about one half of expenditure. In addition, domestic financing has only made a small contribution to budget financing.

Table 3.4: General government budget, Lao PDR

(1996-1999) (Unit: Billion kip)

Description	1995-96	1996-97	1997-98	1998-99
Revenue and grants	274.9	298.2	557.0	1,461.5
Of which grants	57.6	69.9	200.0	532.3
Expenditure	364.4	412.2	864.6	1,719.0
Overall balance excluding grants	-147.1	-183.9	-507.4	-789.8
Financing				
Domestic	-19.6	-0.5	56.6	-143.1
Foreign (net)	109.1	113.5	223.2	393.3

Source: National Statistic Centre

Table 3.5: Summary of PIP Actual Implementation

(1996-2000) (Unit: Billion kip)

Actual implementation	1995-96	1996-97	1997-98	1998-99	1999-00
Total	205.47	264.35	589.61	908.17	1,701
Domestic	47.71	78.94	154.00	204.91	506
Foreign	157.76	185.41	435.60	703.26	1,195

Source: National Statistic Centre

3.4.2 Socio-economic development strategy

The GOL overarching development goal is to liberate the country from the group of least developed countries (LDC) by the year 2020 through sustainable and equitable development. The national development challenge is seen in the context of wide spread poverty, weak fundamentals of the economy and the lack of capacity and resources. This commitment and recognition has led the GOL to take two distinct development approaches: 1) growth with equity as "internal challenges"; and 2) active participation in the region and gradually in the world economy as "external challenges".

Development Strategy towards 2020

To accomplish the national desire for development, the vision was directed as follows:

1 The socio-economic development of Lao PDR should progress efficiently, continuously and evenly. Sustainable development should be the government's priority, which is the balance among the economic, culture-social and environmental development;

2 Development should also be balance between the economic and social sectors, among various parts in each sector, province to province, between urban and rural areas, through the promoting of country's comparative advantage and people's production capacity. Simultaneously, the government should also utilize natural and human development efficiently and ensure reasonable and fair income distribution.

3 Socio-economic development should be undertaken in parallel with political involvement and improvement, strengthening of administrative system, accumulating of harmonization among people, and facilitating democracy under the leadership of Lao People's Democratic Republic;

4 The government should be keen in utilizing the national potential combined with the current global opportunity and seek advantage from regional and global integration;

5 The socio-economic development should in fact run in parallel with the task of national defense, security and stability.

Objectives and goals for 2020

The main national objectives include: poverty reduction; economic growth at the most appropriate rate; progressively and greatly developing/production in agriculture, industry and standard service sectors improving living standard in term of both physical and mental well-being step by step; disseminating the education and health service throughout the country; enlarging of national culture's attractiveness; providing social welfare; increased capacity of write and blue color labor; remaining of peaceful society, political stability under strong leadership of Lao PDR; and broadly opening up for international cooperation and integration into the world's changing environment.

In 2020, the population is estimated at around 8.3 million people, with average growth rate of 2.2% annually. In order to release from the poverty, the government therefore needs to accomplish the struggling the following objectives:

- GDP per capita US$ 1,200-1,500;
- 90% literacy rate (over 15 years old);
- Life expectancy 70 years;
- Basic infrastructure developed;
- Increased GDP share for industry and service sectors; and
- Improved and upgraded level of people's living standard both physically and mentality by creating employment.

To reach these objectives, the average GDP growth should be around 7% per annum, with total investment of 25-30% of GDP. Besides, the public investment should cover about 12-14% and private will be 13-16% of GDP. In parallel with increased investment, the government needs to accumulate the national saving of at least 15% of GDP in 2020. So that higher productivity in each sector and part of country needs to be always emphasized through utilizing advanced technology, valuable resources, efficient state management.

3.4.3 Sector development

To achieve the mentioned objectives, the government needs to follow the following sector development strategies:

– The implementation of policy should be consistent of the development direction. Human resources development under the education reform should enhance its quality to the same level of other countries in the region particularly primary education, vocational education and informal education;

- The government needs to modernize the basic infrastructure development in some areas and sectors in order to smooth the progress of national development and move toward global and regional integration as well as developing Lao PDR as a service center in the sub-region;

- The electricity network needs to be expanded to all part of the country and used as an engine for development of other economic sectors by installation the electricity network from north to south and provide significant access to those production zone geared to steadily enhance the industrialization process;

- The appropriate allocation of production activities needs to be undertaken according to the potential of each region and based upon proper development of agriculture, industry and service sectors. Production activities should mainly focus on small sized, medium sized and traditional handicraft industries. In addition, the industrial development in each region should be developed in parallel. Increased reservation of natural environment should be considered. The ecological and biology system should be sustainability maintained;

- All sectors need to be developed and promoted efficiently. Domestic and international market's competition should be strengthen in response to the promoting of regional export and tourism service, which comprises the proper operation and business activities. Concurrently, there should be a promotion of business's establishment such as family business activity and private-public joint ventures, in order to encourage more production serving the requirement in both domestic and international markets;

- The government should also intensively contribute to the effort and participate in the process of globalization and regionalization such as ASEAN, WTO, ASEAN Investment Area, GMS and other international organizations' activities; and

- Reasonable investment should be injected in developing the strength of technology, which would directly influence the movement of industrialization in the country.

3.4.4 The 5th Five Year Socio-economic Development Plan (2001-2005)

Targets and macro objectives

The main targets of the socio-economic development plan (2001-2005) are:

- To ensure the progress of social security and political stability;
- To create continued economic growth;
- To reduce by half existing poverty incidence (to 19-20%);
- To achieve a food security program;
- To resolve slash-and-burn practices and to strictly prohibit opium plantation by allocating new permanent jobs for peoples;
- To enhance national saving;
- To seriously pay attention to both state and private enterprises reform;
- To develop human resources in various areas; and
- To support the development of modern industry in the next stage.

The objective indicators for a five year plan are set as follows:

- Annual GDP growth 7-7.5%, where agriculture 4-5%, industry 10-11% and service 8-9% respectively;
- Sectoral share for GDP: Agriculture 47%, industry 26% and service 27%;
- Single digit annual inflation rate;
- Increased annual budget revenue of 18% of GDP, budget deficit 5% of GDP;
- Low down the trade deficit to 6%;
- Public investment 12-14% and saving about 12% of GDP; and
- The GDP per capita would be US$500-550 (total population about 5.9 million)

Planned sector development

1 Irrigated agriculture: Policies: i) achieve food self-sufficient, increase commodity production and reduce shifting cultivation; ii) involve all stakeholders in irrigated agriculture development and management; iii) coordinate irrigation with other means of increased agricultural production; and iv) protect against flood damage. To ensure the food security and national food reserve, supplying food demand with quantitatively and qualitatively. The targets set for food production is three million tons, where rice is 2.7 million tons in the areas of 770,000 hectares (wet season 620,000 ha and dry 150,000 ha respectively) in irrigated areas of the seven main plain and rainfed areas in 42 small plain, they are: Vientiane, Paksane, Sebangfai, Sebanghieng, Sedone, Champassack, and Attapeu. The small pains such as: Mouang sing, Namtha, Phaohao, Ngouadeang, Bounneua, Bountay, Mouangxay, Mouanghoun, Mouangphieng, Mouang sayaboury, Mouangpane and Mouangkham..... In each plain is needed to classify and identify sub-area for effectively land use.

2 ***Watershed management:*** Integrated watershed management is especially with regard to the current practice of exempting planned hydropower development sites from logging restrictions once the MOU has been signed. A critical component of any watershed management plan is community participation. The Government's experiences with preparing the Nam Ngum Watershed Plan with support from ADB indicates that an extremely complex set of administrative, coordination, technical and people issues must be considered in formulating any policy for effectively tackling these problems on a watershed basis. The Government is committed to a program of integrated area based development centered on watersheds and river basins.

3 ***Fisheries:*** Policies: i) collect information on the extent and nature of capture fisheries; ii) develop infrastructure and human resources in fisheries management; iii) promote development of aqua-culture; and iv) regulate fishing activities. The amount of fish catch in the Mekong River and its tributaries has decreased year by year. In the future, the aquaculture of Laos has an important role to supply animal foods to the peoples. According to the National Plan, it is projected that the per capita fish consumption should increase from the present value of 8-10kg to 24kg by 2020. This amount requires approximately 200,000 tons. In order to respond to the increase of the people's consumption, promotion of aquaculture will be an important subject. The future aquaculture would have objectives to increase the income by selling the excess products which would be realized by the improvement of culture technology of small-scale farmers and rehabilitation of facilities.

4 ***Hydropower:*** Policies: i) reduce imported fuel; ii) support rural development and reduce regional power imbalance; iii) encourage private investment in hydropower development; iv) earn foreign currency for socio-economic development; v) minimize environmental impacts; and vi) develop watershed management. The main target sets for this sector is: Electricity GDP growth 3.7% per annual, based on above policies the objectives of hydropower development is to supply electric power for national socio-economic development and living standard of the peoples in the country and export. Hydropower development capacity as 2000 is 644MW, generated 3.2 billion kilowatt hour per annum, with 627 MW from hydropower and 17 MW from fuel. From 2001-2005, is planned to develop medium and large scale of hydropower such as: Nam Mang 3 (35MW), Nam Theun 2 (1,088MW), Nam Ngum 2 (615MW), Nam Ngum 3 (460MW), Se xet 2 (76MW), Nam Mo (105MW). The transmission line development in the country is to extend 230Kv,115Kv from Paksane to Lao-Cambodia border, and four Northern provinces (Luangprabang-Oudomxay-Luangnamtha, Oudomxay-Phonsaly, Luangnamtha-Bokeo. The high voltage transmission line from Nam Ngum to Lao-Thai border will be carried out in the same time of Nam Ngum 2 and 3 construction phase. In the year 2005, every prefecture of all provinces and special region, 40% of totally villages and 60% families have access to electricity.

5 ***Navigation, transport, river works:*** The Government polices: i) maintain current transport capability by river; ii) improve navigation aids and information for safety travel; iii) encourage use of river transport in wet season instead of poor roads; and iv) protect riverbanks from erosion. In the five-year plan, this sector is focused and continued implementing on-going and planned projects along the Mekong river and its main tributaries: The activities are: 1) construction at least five ports (Vientiane, Sayabury and Bokeo provinces). 2) Mekong's riverbank construction in Vientiane Municipality, Borikhamxay, Khammouane, Savannakhet, Champassack and Namheuang-Sayabury (500m). 3) Navigating aids construction, to ensure safe navigation from Vientiane to Pakbeng-Ban Mom. 4) Maintain navigation channel Northern of Laos.

6 ***Tourism and recreation:*** The Government policy sets for tourist sector is to be developed as a new tourist place, which comprises of it own identity to attract more foreign tourist. Besides that, the neighboring country tourism will also be encouraged. To fulfill the success of tourism industry, the government should put more efforts to boost the capacity of tourism business and develop more natural, historical and cultural tourist places. Large investments and foreign assistance will be injected in the development of tourism industry and integrate Lao tourism closely and extensively into the development of international and regional tourism. Furthermore, tourism along Mekong River, village tourism, tourism along road 8,9,12 and other sources will be consolidated. In paralleled with this, the quality of management and service needs to be improved by strengthening capacity of the staff in the areas of hotel, restaurant, tour guide, and other concerned service activities efficiently. The estimated number of tourists in 2005 will grow by about 15% per year, and Luangprabang will be developed as a regional tourism center. Benefits from this development will be geographically dispersed, and should reach some of poorest areas of the country. The potential for substantially reducing poverty under this approach is quite promising.

7 ***Water supplies:*** The Government of Laos has sets overall policies to water supplies: 1) Urban water supply and waste disposal: i) increase amenity of life in urban areas by providing affordable, reliable and quality service in commercial water supply and in sanitation. 2) Rural water supply: i) improve water supply and environmental

health in rural areas; ii) focus inaccessible, poverty-ridden areas; and iii) encourage private water supply and sanitation ventures in easy-to-reach areas.

8 ***Flood control and flood management:*** There is no specific policy with regards to this sector in Lao PDR. This sector is one of main development activity of Irrigation Development program (irrigation sub-sector). A propose of this program is to secure agricultural production and properties at flood-prone area along tributaries of Mekong River from wet season flooding. This program composes of detail assessment of damages, identification of severe flooding areas for planning and construction of flood protection facilities.

Cross-cutting themes

1 ***Environment:*** Augment and refine environmental policy and the legal framework for: (i) pollution control including issuance of discharge permits, site inspection, surveillance of discharge self-monitoring, and enforcement actions; (ii) adoption ambient environmental standards for air, water, soil .....; (iii) integration of environmental protection into national development plans by including a programmatic environmental assessment in subsequent plans; (iv) project owner adherence to existing land-use and sector development plans at the national, provincial and district levels during project design; and (v) in coordination with line agencies, design and implement a national level environmental and land use awareness and education program for schools and training centers.

2 ***Human resources development:*** Following a decision to adopt a more holistic approach to human resources development, the government in 1993 established a Leading Committee for Human Resources Development with responsibility for drawing up plans, policies, projects and measures to improve HRD in Laos. The Lao Government defines HRD as a lifelong process to provide citizens with a good life, health, education and employment, while also enabling them to contribute productively to society.

3 ***Poverty reduction:*** The Government defines rural development as "a set of national policies, programs and projects whose broad goal is to alleviate poverty and to help develop the most rural social strata". Because poverty has many causes, rural development involves a wide range of interventions aimed at addressing these causes. The focal sites for poverty reduction from now on to year 2005 is focused in 8 provinces where incidence poverty, namely: Houaphanh, Oudomxay, Phongsaly, Luangnamtha, Luangprabang, Special region, Sekong and Attapeu. The sector is directly involved in poverty reduction are: agricultural, infrastructure development, educational and public health.

4 ***Decentralization:*** On 11/3/2000, the Government adopted the Prime Minister Decree No. 1 on definition of province as strategic unit, district as planning and village as executing unit. Regarding the formation of province as development strategy unit, it is clearly stipulated that provincial level has its responsibility for formulating development strategic, socio-economic development plan. In particular, it is able to manage and plan the budget, according to its tasks, roles and responsibilities delegates by the government. Generally, the province itself has an organization and management similar to the country's ones, but its area and roles are limited. The provincial socio-economic development plans consist of two main documents: i) A follow-up report of socio-economic development plan; and ii) An investment plan (investment project account). The formation district as planning unit , is making the district has a sufficient capacity and lead itself in formatting,

implementing and evaluating a conclusion of its implementation plans. A real matter is making the leading officers and relevant technical officials to understood the system and the method of planning, the method of making report summary in the conduction of plans and projects according to the general rules and regulations. The formation of district becomes a planning unit. It has closely related and conducted with the formation of political base root and integrated rural development. Thus, the task is directly charged by district leading committee in directing and implementing. Based on the division of responsibility in the development between central and local authorities, the village is a basic organization (grass-root) is responsible for the actual implementation of the guidelines, policies, projects and works, which are issue by provincial and central levels. Therefore, the village has most important role to execute development plans.

In order to meet the goals sets in the plans, the Government has adopted the decentralization policies for administrative and planning:

- The highest executing body of the government is the Council of Ministers, chaired by Prime Minister. The provincial, district governors and village chiefs are the executive officers at the respective level of the governments. The Prime Minister appoints provincial and district governors and district appoint village heads after selection by villagers among endorsed candidates. Every ministry in the governmental structure has its function designated by the Prime Minister. They role is very much concerned with technical matters, while the Prime Minister, governors and village heads are political affairs of people in their jurisdictions. The policies of the government are performed through an administrative line from the Prime Minister down to village heads with technical assistance from line ministries.

- Regarding to the Prime Minister Decree No.1 was issued on March 01, 2000 on "Decentralization", provincial are defined as strategic-making unit, district is planning and budgeting and village is implementation units of development projects. These bodies have to control infrastructure development budgets for roads, water supply, irrigation etc. that has already been planned annually and five year development plan, which was approved by the government. Departments or units of line ministries provide consultative services to the respectively administrative organization.

3.4.5 Development planning and project implementation

The development planning process begins with the issuance of an instructions outlining overall national policies, priorities, targets and guidelines for the next plan period from the government to line ministries/sectors, provincial and district. Then sectors in each level prepare and issue their guideline to the respective organization under them. The sectoral plans derived from the province are reviewed during three regional meeting (northern, central, southern) and separately forwarded to line ministries. Based on the regional and ministerial plans, the State Planning Committee (SPC) prepares National Plan and Investment Programme for submitting to the government for consideration and endorsement. Once National Plan and PIP have been reviewed and endorsed, it will be forwarded to National Assembly for adopting and instructions will be prepared for implementation.

3.5 Thailand

3.5.1 Background

A review of development in Thailand in the past 4 decades reveals that the development was not a " balanced" one . The past development success is said to be based to be based mainly on the " quantity" rather than " quality". Specifically, this has been attributed to the economic, political and public administration system that is largely centralized and thus less ineffective. Meanwhile, income gap, poverty and the degradation of natural resources base are on the rise. This disparity has brought on competition and conflicts of interest among groups in different level of society.

However, on the other end, the past development has also brought about some " social capitals" which can gives strength to future development. Namely, the current Constitution (1997) brings important reforms in social, politic, and public administration. Great importance is given to decentralization, provision for people participation in public domain, as well as the involvement of civil / interest groups in society. There is greater freedom of expression, and thus development of strong media, an important element in a plural and democratic society. Thailand still maintain its strength in a very diverse agriculture base- possessing a high potentials which could constitute a major food source for the world market.

The 9th development plan is drawn from a "common vision" for the next 20 years. It was drafted by bringing together the ideas and inputs from people at different level of society; from provincial level, sub region, and national levels and harmonized them into a common vision. Consideration and careful reflection were given past development, trend and future changes within and outside the country like regionalism and globalization.

The Plan is thus a framework for the medium term development effort, but conducive to the long tern vision. The plan continues to build on the thrust the 8th Development Plan (1996-2001) which is " People Centered Development". The 8th Plan was the first of all national development Plan with a broad range participation of civil society at many levels in the making of the plan.

The trend of change in the world today constitutes both" opportunity and risks", especially the " new world order" brought about by new economic structure and system which is led by new and modern technologies. Thailand sees that the country must build a system, mechanism, and develop its people in order to meet new development change and benefits from this global trend.

The 9th National Development Plan was drawn during the most important economic transition in Thailand. It is seen as necessary to institute economic and social reform in order to build the foundation for economic recovery after the crisis, and to as well as establishing a strong foundation to effectively management the changes.

3.5.2 The 9th National Socio-economic Plan

Objectives

Under the philosophy of " economic self sufficiency" the plan has 4 main objectives

1 Economic Recovery with stability and immunity

2 Foundations for future national development that is sustainable, self sufficient and well informed and well quipped to deal with changes in the global situation

3 Good governance at all levels in public administration

4 Poverty reduction: to create potentials and opportunities of the poor for self sufficiency

Development targets

1 Economic balance: To strengthen the macro economic structure to harbor growth with quality and stability. Economic growth is targeted at 4-5 % per year, increase employment by 230,000 jobs per year, export increase at 6% per year, contribution of agriculture to GDP to increase at least 0.5% per year, industry 2.5% and income from tourism is to increase 7-8% per year.

2 Quality of life improvement : To achieve appropriate population structure, good health, people are conscientious and responsible to society. It is the aim that on average the population complete 9 years basic education by 2007(6 years in average) and increase education level among Thai labour force; half of this population to complete secondary school by the end of this plan.

3 Good governance: Increase efficiency in civil service system with appropriate size and structure, local administration able to collect tax and generate their own income while receiving support from the central government in decentralization, and good governance and instilling transparency in administration.

4 Poverty reduction: Pro–poor economic measure will be taken, together with the creation of enabling environments that enhance the quality of life of lower income groups. To reduce the poverty incidence below 12% of the population by 2006.

Approaches and strategies

The 7 development strategies are grouped under 3 approaches

Approach # 1 : Establishing a structure for good governance at all levels

Approach #2: Strengthen social foundation

Approach #3: Adjustment to economic structure to achieve a more balanced and sustainable development

Approach #1: Good governance

Strategy 1: Strategy for good governance gives importance to

1.a Upgrading the efficiency and effectiveness of the public sector via structural adjustment, down sizing, adjustment of roles/ responsibility and reduce overlap of duties and redundancy. Review and improve legal system to be compatible with current situation, promote laws which protect basic rights of the people. Support the roles of mass media and civil society in monitoring the work the government, as well as of the judicial system.

1.b Decentralize tasks and responsibilities to local administration bodies. To enhance the capacity of the local administration, while providing avenue for the peoples' involvement.

1.c Prevent and suppress corruption in political arena, public service, and private business.

1.d Develop " check and balance mechanism" by supporting independent bodies as defined by the constitution. Provide for media involvement in monitoring politicians and civil servants

1.e Promotion of corporate good governance in the private sector so that they can act responsibly to the people and the public

1.f Build strong community and family institutions: support network of CSO for self-reliance and mutual assistance

Approach #2: A strong social foundation

Strategy 2: Development of human potentials and social protection

2.a Empowerment of the people to cope with change

2.b Employment policies to promote self-employment and small scale entrepreneurship in all regions of the country.

2.c Improvement of social protection system

2.d Prevention and suppression of drug abuse

2.e Development partnership with family oriented institutions, communities, non-government organizations, voluntary agencies, and the mass media.

Strategy 3: Restructuring the management of rural and urban development

3.a Empowerment of communities and develop livable cities and communities.

3.b Alleviation of rural and urban poverty through the process of popular participation. The effort will focus on empowerment of the poor, but not only focusing on the income aspect. Legal and regulatory reform are needed to provide the poor with access government service and to sustainably utilize natural resources for their livelihood.

3.c Establishing the linkage between rural and urban development . Economic cluster linking rural and urban areas will be established o distribute economic and social opportunities equitably. Cluster based economic development will be based on potentials, preferences and functions of each area.

3.d Management of integrated area- function-participation. Capacity building is needed for local administration to facilitate decentralization.

Strategy 4: Natural resources and environment management

4.a Upgrade the efficiency of the management of natural resources and environment in support for conservation and rehabilitation, and grassroots economy. The existing mechanism for natural resources and environmental management would put emphasize on local participation. Public awareness about importance of natural resources and environmental protection would be enhanced as well as enforcement of law.

4.b Preservation and rehabilitation of natural resources. Actions would be taken to protect and demarcate preservation and conservation areas in order to maintain eco-system balance and promote land use consistent with the capacity and best use. Nationwide, natural resource strategies should stress the preservation of bio-diversity, efficient utilization of water resources, and restoration of soil fertility to support increased agricultural productivities.

4.c Rehabilitation and preservation of community arts, culture, and tourist attractions to enhance quality of life and local economy.

4.d Efficient pollution abatement management with the focus on development of waste disposal systems that are acceptable communities.

Approach #3: Economic restructuring for balanced and sustainable development

This group of strategies emphasizes macro economic management to achieve stronger economic base. Linkage with global economy should be enhanced, with prudence, while developing and maintaining resilient to global shock. The role of capital markets should be increased to stimulate economic recovery.

Strategy 5: Macroeconomic management strategy

5.a Implement monetary policy designed to increase the resilience of Thai economy to the change in global situation, more widely distribute economic growth

5.b Consolidate of fiscal position and decentralization of growth to regional areas

5.c Expenditure increase in Outer Thailand, and adoption of revenue enhancement measure to support economic expansion in the regions.

5.d Strengthening the socio-economic system

Strategy 6: Upgrading national competitiveness

6.a Restructuring production and trade sectors: Support development of stronger production base that is more self reliance and sustainable. Balanced development of natural resources and the environment should be sought.

6.b Upgrading the quality of infrastructure services to achieved productivity increase

6.c National productivity strategy

6.d Development of local economies, small and medium scale enterprises, and cooperatives system

6.e Improvement of the trade negotiation system and international cooperation

6.f Promotion of service industries to create employment and improve income distribution.

Strategy 7: Strengthening of science and technology development

Development priorities

There are 4 development priorities:

1 rehabilitation of economic and social conditions

2 strengthening of grassroots economies

3 Alleviation of social problems and

4 Poverty reduction

3.5.3 Poverty Reduction Strategy (drafted)

Poverty situation in Thailand

Currently in Thailand, poverty is defined by not only by income level or occupation, but also refers to structural factors which hampers the potentials /capacities of people in sustaining their livelihood, such as the lack of education, access to natural resources base, land ownership/or small landholding, etc.

In 1996, 11.4 % (6.8 million people) were defined as under the poverty line. But by 2000, after the economic crisis, 15% (9.3 millions people) live under poverty line. Rural poor has increased from 14.9% to 20% in the same period.

Social and economic inequality is of a serious concern to the government. Disparity of wealth gets wider among the poorest and the richest during the economic boom and burst. The lowest 20 % of population had 4.2 % of the GDP, and this has dropped to 3.9 % during boom an burst. Meanwhile the share of national wealth of the top 20% population has grown from 56.7 to 57.8 in the same period.

Table 3.6: Poverty in Thailand

Year	Poverty line THB/month	Poor %	Poor millions	Central % poor	North % poor	NE % poor	South % poor	BKK % poor
1996	737	11.4	6.8	9.6	18.3	57.9	13.3.	0.6
1998	878	13	7.9	10.1	12.7	61.8	14.8	0..6
1999	886	15.9	9.9	7.7	12.0	66.4	13.7	0.2
2000	892	15.0	9.3	7.0	19.7	62.0	10.5	0.8

Source: NESDB June 2000

Rural poor is still the main problem of Thailand. Ninety two (92%) of all poor live in the rural area (or 8.6 millions people. Of these, 5.4 of them are in the NE, 1.7 millions in the North, 0.9 in the South and 0.6 in the Central.

Most of the poor live in the North East region of Thailand, accounting for 62% of the country poor. Families with less than 5 Rai (0.8 ha) are among the poorest. Bangkok metropolitan has the population only 11% of the whole country, but has GDP share of 52% of country while the NE (Isan) with the population of 1/3 of the country has GDP share only 11%. The quality and standard of social services in the rural area is much lower than that of Bangkok.

Urban poor are people who live in slum or homeless people in the city. They work in informal sector such as day worker in construction, restaurant or street vendor. They have insecure work, income, and residence and limited access to basic services.

According to the government policy and the Ninth National Development Plan, Poverty reduction is one of the 4 objectives. Poverty alleviation plan is being formulated in order to gain a comprehensive multi-faucet plan to address the issue effectively. However, it is widely accepted among key players that poverty is not only low income, but also related to structural problems that prevent the poor from escaping from poverty.

The plan proposes 3 strategies to attack poverty; 1) enhancing the potential of the poor, both rural and urban, 2) Social safety net, 3) Structural approach to Poverty reduction. These 3 approaches is aimed to achieve 3 main targets:

1 Reduced poverty incidence to less than 12% of the total population by year 2006

2 Redistribute and extend basic services to the poor; economic and social services

3 Reduce gap between the rich and the poor through structural approach; economic and financial reform, and development direction.

Strategies in poverty reduction

1 Increase poor people's potentials and quality of life. To improve self reliance by supporting local economy, strengthen income and employment security. This strategy is to be achieved by

1.1 Development of occupational skills and employment through promotion of local wisdom and technology. Improve agricultural sector in production and value added process

1.2 Grassroots economy strengthening by readjusting production to suit local circumstances, increase and secure income and employment. Enhance product development, marketing system, finance system and opportunities to new technology. This approach is to be achieved by

- promotion of sustainable agriculture among small farmers, with food security and household consumption taking the first priority. Then In addition, the support will be given to sale of surplus for cash income.
- Promotion of bio agriculture to reduce chemistry use and. production cost

1.3 Enhancing local economy by supporting community economies, strengthen local economy management, local economy linkage/network, advocating local saving fund, developing local based business, link community economy to business firm and urban consumers.

1.4 Improve the quality of life by enhancing access to basic services, enhancing education their opportunity for both formal and informal education, raising awareness of the poor about the benefits of participation in social, economic and political activities.

2 Poverty alleviation through structural adjustment. This is by adjusting development direction, national resource allocation structure, legal system, public sector structure. It is aim to achieve a balanced mix between social, economic and natural resources development while also aim at reducing the gap between the rich and the poor.

2.1 Readjustment of development direction to be in line with poverty reduction strategies by

- promoting the philosophy of " self sufficiency" economy as the base of Thai development direction.

- Promote pro poor development approach which aim to immunize them to be capable of adapting to changes which comes with globalization. This include maintaining low inflation rate, investment which generate more employment for the poor including opportunity for upgrading their skills through on-job – training

2.2 Reform of natural resources and environment management to bring about sustainable development and to reduce the conflicts in resource use.

2.2.1 Upgrade information technology to accelerate the legalizing land use, irrigation and water resources

2.2.2 Establish natural resources fund for the natural direct beneficiaries of resources in the situation that the natural resources are taken away from them to be used for the public other them. Improve multi-sectoral coordination among public sectors, local communities and direct users and people organization in regards to resources allocation and use

2.2.3 Increase awareness of government agencies to realize potential impact of their development projects on the sustainability of natural resources and local community direct users' livelihood.

2.2.4 Network among local communities for managing natural resources, create sense of ownership for the protection of natural resources.

2.3 Adjustment of legal system to support the poverty alleviation by

2.3.1 Adjust and integrate laws on land ownership and land utilization regulation to achieve effective land use of the country

2.3.2 Improve the legalization of the rights of the poor so that they may effectively participate in the use and management of natural resources.

2.3.3 Develop progressive inheritance tax and property tax to reduce idle lands/ property

2.3.4 Improve trade law to protect the disadvantaged small scale retails operators who are mainly mall –medium local business against overseas mega- retail store

2.4 Reform of public sector structure and administration. This include

2.4.1 Adjust administrative government structure to reduce redundancy in functions, effective services, distinguishing roles between policy makers and implementation actors in poverty alleviation work. This include budgetary reform, accelerate decentralization process, legalize community and local organizations, enhancing roles /function of community and civil society in public decision-making.

2.4.2 Improve public administration by applying the performance base management and evaluation. This includes development of anti corruption system, improvement of database on poverty to serve policy analysis in targeting the poor.

2.4.3 Development of conflict management system by improving access and credibility of government information to society. Public sector's roles will need to be adjusted from judging conflicts to

managing conflict via peaceful means as well as prevention of conflicts.

3 Social safety net: To enhance the capacity and life quality of the poor. This would be achieved by

3.1 Improve access to health and education services to the poor and vulnerable groups, improve the quality of life in communities areas, revising rules and regulations to improve funds and access to services by the poor. It is also aimed to provide incentives to increase education and skills of low-skills labour

3.2 Improve database on the poor so basic services can target /reach the poor better. Consolidate fund from various sources to improve their skills. Encourage partnership among development agencies and local people for network to combat poverty problems.

3.5.4 Framework for Environmental Management Plan 2002-2006

Background

Since the first national social and economic development plan over 4 years ago, Thailand has gain a rapid economic progress, with the national growth of average 8 percent a year. Specifically, during the 6th national plan, the economic growth was exceptionally high of 11% that year. At the present time, the economy is sluggish due to the impact of economic crisis 4-5 years ago, and this will take sometime to recover. With all considerations, it is still predicted that after the recovery development will assume the course at significant level.

Economic progress over the last 30 years has come at the high costs in degradation natural resource base, environment and life quality for the general public. In this regard, there has been efforts by various government to address environmental problems with a varying degree of success. But environmental problems have been deep and accrued over along period of time, thus need comprehensive, effective and continuity in management to redress. Otherwise these problems will in turn severely limit the country future development.

The natural resource base degradation is directly related to vast expansion of both industry and agricultural sector. Natural resources- minerals, water sources, forestland and marine resources - have been exploited at a rapid rate beyond their own natural capacity for self – regeneration. Reduced forest cover area has led to often severe drought and flood, which result in negative impact in agricultural production, transport, and other productions. Expansion of agriculture and industries without appropriate zoning resulted in inappropriate /ineffective land use and further led to degradation of soil and inducing pollution.

Soil fertility decreases and erosion is on the rise. Yields of many important crops can not be raised as set in the national plan because of this reason. The past policy which promoted cash crops often led to promotion of mono crop production which requires chemical farm inputs and pesticides to achieve high yield. Cost of production to farmers increases, while their health decline as result of toxic exposure. Chemical use has a wider negative affects to the environment. Both the volume and process of production of industrial sector, service sector, general public consumption pattern, expansion of urban area without proper planning all lead to the poor quality environment and pollution in water, in air and solid waste. Ultimately this impacts the quality of life.

Land and land use

Thailand has an area of 321 million Rais (53 millions ha). This includes 150 million rais privately owned agricultural land, 30 millions of which are cultivated inappropriately according to soil type. About 190 million rai are classified as infertile land, and 17.8 million rai in the northeast are affected by salinity from underground salt. The rate of loss for wetland is increasing. There is also a problem toxic residue in soil from agricultural production, industry and urban settlement.

The above situation stem from (1) ineffective land use from lack of knowledge in land conservation and management; (2) forest land clearance for agriculture purposes; (3) lack of land use planning and zoning; and (4) limited extension work on agricultural knowledge and natural resource conservation and rehabilitation by the state. Several agencies are responsible for land resources but better coordination is still needed for rehabilitation, development and distribution of land holding.

Water resources

Water demand of the country, both in domestic sector and economic sector, has steadily risen with the economic growth. But the sources of water to meet these demands are getting limited, which in turns limit potential for agricultural intensification. Currently, 22% of all agricultural land or 29 millions Rais receives benefits from irrigation work. Totally there are 392 dams, and reservoirs of large and medium size in Thailand which stock and provide water to agriculture, industries and others. The capacity for storage is 70,000 millions m3. There is still very limited possibility for more reservoir or dams construction remain due to topography and potential impact on environment. At the same time, 28,000 villages still lack drinking and domestic water in the dry season.

Water resources both surface and underground is degrading in quantity and quality due to inefficient use and management. There is much water wastage, and increasing competition between water users in industrial sectors, agriculture, service, and domestic sector. Over use of underground water has resulted in, many instances, land collapse. Water use without due consideration of river source/ basin and its overall ecosystem degrades the natural resources base

In November 1996, the cabinet approved a drafted National Policy and Plan for the promotion and conservation environmental quality for the 1997-2017. This was to serve as a guidance for management of natural resources, as well as the protection of environment in the same process with economic development in the next 20 years. Under this policy, an a 5 years action plan is drawn to translate this policy into action by allocating tasks to ministries, departments, and local governments.

Based on the 9th National Development Plan, the National Environmental Plan was drafted and has been approved by the National Environmental Committee. The plan is comprised of 4 sections; the management of natural resources, conservation of the natural resources, conservation of human environment, pollution control and prevention.

This plan was drawn from inputs from broad base participation of various sectors in society; government, private, non-government, civil society through organized environmental assembly from the North, Northeast, and the central region. Their inputs was then screened and considered, revised national committees on environment (for restructuring and management) National and several regional meetings and seminars for public inputs were held and had been a significant part of this restructured frame work for environmental management.

Vision

Thailand is a society that gives special consideration to the conservation of natural resources in while making wise utilization. This is in order to maintain the essential base for development of life quality and sustainable economic progress.

Main objective

1 To increase effectiveness in the management of natural resources and environment. Particular attention will be given to increasing participation of local community and other sectors of society in the planning for and managing natural resources, thereby reducing social conflict stemming from competition over uses of resources.

2 To conserve and rehabilitate natural resources and environment, and to promote sustainable use.

Targets

1 Restructure the management of natural resources and environment in order to be more effective, with transparency and measurable as well a enabling the public participation in the management of these resources.

2 Conserve, and rehabilitate natural resource base while making wise and sustainable uses, and maintaining essential ecological balance

3 Better planned urban development compatible with potential of the area, avoiding environmental harm, revitalizing touristic resources, conserving natural beauty, traditions and cultural heritage.

4 Protect, rehabilitate the main rivers and tributaries in the country, as well as improving the water quality in of water seashore in order to better serve for domestic and industrial use

Specific sector targets are set as follows (1999-2006)

Land resources

a) Rehabilitate degraded / infertile soil 45 millions Rais

b) Seek solution and implement measure to rectify erosion problems (especially in public land) 33 millions Rais, and particularly in critical river basin (18 millions Rais)

c) Improve land use in all regions to ensure land use is compatible with its potentials, and ecological features.

d) Conserve and utilize land with special geological features and ecological features while maintaining ecological balance in all regions.

Forest resources

a) To increase forest area of the country to 40% of the total land area, among which 25% will be protected (non use) area, and forest for economic production 15%. Reforestation of economic forest is set at 6 millions Rai / year during this plan.

b) Rehabilitate the existing forest, and to increase biodiversity in protected forest total area of 80 millions Rais during the life of the plan.

Water *resources*

a) To rehabilitate surface and underground water sources, especially all the existing dams and reservoirs in all regions so that they are useable, efficient in servicing users

b) Develop small water reservoirs and weirs in farm land 100,000 reservoirs/year

c) Protect and conserve important watershed, and water head in order to protect river ecology and assuring sources for underground water. d) Accelerate the establishment of river basin plan for all river basin in Thailand, with the total of 25 rivers (between 1999-2004)

Strategies

Four strategies are formed to guide activities to achieve the above objectives

Strategy #1 - Management and administration: This strategy has the main objective in increasing effectiveness of laws enforcement and stricter application of environmental impact assessment, decentralization of natural resources management to local administration with specific aim of "inclusion" of popular public participation in the management.

This is to be undertaken through

1 Making environment a national agenda, and an important issue in political arena. This is to be achieved by

   a) Strengthening the structure and mechanism for environmental management, enhancing the link /cooperation between government, private sectors, non government agencies, media and local community. Readjust composition and scope of responsibility of the national environmental committee to enhance their effectiveness in making policy, supervise and monitor environmental works. Improve approaches and process and working methods of related agencies esp. related to policy, resource allocation and EIA. Progress report on environmental work to national assembly at least once a year.

   b) Applying the provision of laws under the current Constitution into practical reality. Assist in establishing "people advisory council" for the natural resources conservation and management at national, provincial and local level. To assure that there are good representation of all important groups in society; non government development agencies, business sector, education initiations, media, respected academia, people organization and government. This committee is to give advise to the national environmental committee in regards to the conservation, protection and addressing environmental problems resulting from various development projects. Establish mechanism and process for public participation in order to receive inputs from the people from planning stage of projects feasibility study and EIA.

2 Law enforcement

   a) Establish a practical mechanism for implementing the prevention of environmental destruction

   b) Increase knowledge and understanding of government officials about environment and related legal /judicial procedure. This will also include campaign through mass media on legislation and law related to environment.

3 Decentralization of environmental management to local administration.

a) Improve environment management and administration system through support of budget, human resources and technical support.

b) Build the process for coordination between line ministries and local administration in managing environment and natural resources to ensure the optimal benefits to local community.

c) Technical and management support to local administration.

d) Start with pilot project to test decentralization of environmental management

e) Ensure timely issuance of law and regulation guaranteeing the rights, authorities, and responsibility of local communities and local administration in the managing, maintaining, and sustainably utilizing natural resources according to section 46,56, and 290 of the 1997 Constitution.

4 Better coordination between national and international initiatives and rules in order to secure sustainable development.

5 Improve the application of EIA in order to prevent significant environmental and social impact resulting from major development projects, both area based and sector based.

6 Restructuring of management and administration of natural resources and environment by installing check and balances.

Strategy #2 - Conservation of natural resources management. The objective is to rehabilitate, conserve and arrest ecological balance so that it may serve as an important base for future development

This is to be undertaken by

a) Conservation and sustainable use of natural resources by adjusting the management approach and structure departing from line ministry based to "area based " management.

b) Rehabilitate natural resources using integrated approach and participatory process.

c) Strengthening the coordination and network of natural resources management by applying modern communication technology and good database system.

d) Awareness raising to general public for their participation in the conservation and natural resource management.

- Land resource: Importance will be given to land use planning, and database. Rehabilitation of degraded soil and application of appropriate technology
- Forestry resources: Importance will be given to building network and mechanism for people participation in the management, rehabilitation and conservation.
- Water resources: Importance will be given to management of water sources and effective utilization of water. The priority will be on establishing master plan for river basin management, support the recycle use of water.
- Biodiversity: Importance given to building structure and mechanism for biodiversity management, including important wetlands, issuance of important provision and laws in protecting fragile ecosystem of sites of national and international importance.

Strategy #3 - Conservation of human environment: The objective of this strategy is for the effective development of urban centers which is compatible with resource potentials and least environmental impacts. The strategy deals with the expansion of large urban centers, provincial towns, tourist attractions, culture and historical sites.

Strategy #4: Prevention and solution to pollution problems. This strategy has objectives in rehabilitating human environment which is impacted pollution so as to assure safety in live and quality of living for the people.

3.6 Viet Nam

This section constitutes a very preliminary and partial review of relevant national policies for the Socialist Republic of Viet Nam (Viet Nam) based on the following documents:

- The Strategy for Socio-Economic Development 2001-2010 (Presented by the Central Committee, Eighth Tenure, to the Ninth National Congress)
- The 5-Year Plan for Socio-Economic Development (2001-2005) – Draft; Ministry of Planning and Investment, Hanoi, October 16, 2001
- Some Matters for Discussion on Agriculture and Rural Development Strategy in Vietnam for the Period 2001-2010; Ministry of Agriculture and Rural Development
- Agriculture and Rural Development 5-Year Plan (2001-2005); Ministry of Agriculture and Rural Development, Hanoi, 22 August 2000
- Government of Viet Nam (March 2001): Interim Poverty Reduction Strategy Paper

Also, information has been achieved from World Bank analyses of Viet Nam's development strategies: The World Bank in Viet Nam, and Viet Nam's Pillars of Development (www.worldbank.org.vn).

3.6.1 Socio-Economic Development Strategy, 2001-2010

The implementation of the ten-year 1991-2000 Socio-Economic Strategy produced many positive economic and socio-economic achievements. These achievements position Viet Nam to embark on new program of development:

- The economic structure has made positive shift: Agriculture as share of GDP dropped, while share of industry and services increased
- structure more conducive to socialist-oriented market economy, including roles of State economic sector, collective economic sector, household economies and individual, private and foreign-invested economic sectors
- targets met for eradication of illiteracy and primary education universalization
- poverty levels dropped from 30% to 11% (Vietnam poverty line)
- natural population growth declines to 1.4% per year
- life expectancy has increased to 68 years

However, Viet Nam's economic growth still falls below average world standards, e.g.,

- economic growth rate declined in recent years, but rose again in 2000
- unemployment and underemployment rates remain high
- HIV/AIDS rates increasing

- quality of education and training is still poor

The international context for Viet Nam's future is characterized as follows:

- science and technology, especially information and biological technologies, very important
- accelerating economic restructuring causing profound changes in various fields of social life
- rapidly changing business conditions in the world, including globalization, increasing competition pressure and interdependence

Overall strategic goals for 2001-2010 10-year strategy

- bring Viet Nam out of underdevelopment
- improve noticeably people's material, cultural and spiritual life
- lay foundations for a modern-oriented industrialized country by 2020

Specific goals of the Strategy

- Rapid, strong economic growth: i) ensure GDP in 2010 is double 2000 level; ii) increase efficiency and competitiveness; iii) meet essential consumption demands and a considerable part of export demands; iv) ensure macro-economic stability. Agriculture share of GDP to drop to 16-17%; agricultural labor to drop to about 50% of labor force,
- raise Human Development Index: I) reduce population growth rate; ii) eliminate category of hungry and reduce number of poor households; iii) reduce urban unemployment and increase utilized work-time in rural areas; iv) increase trained work force; v) universal junior secondary education; improve health conditions and stats,
- enhance scientific and technology capabilities,
- build infrastructure to meet demands of socio-economic development, as well as national defense and security,
- enhance leading role of State economic sector.

Development approaches

To ensure rapid, efficient and sustainable development, economic growth is to go along with social progress and equity and environmental protection

- rapid and efficient development of industries and fields in which Viet Nam has competitive advantages
- rapid increase of endogenous capacities in science and technology
- enhance the capacity of all individuals – i) improve the quality of people's lives, ii) eradicate hunger and alleviate poverty, iii) promote gender equality
- socio-economic development to be closely linked with environmental protection and improvement

To consider economic development the central task and the synchronized laying of foundations of an industrialized country

- focus on heavy industry, hi-tech industry, large-scale cash agriculture, science and technology potentials
- State economic sector to play leading role

To step up the renovation process, generate a driving force for releasing and promoting all resources

- establishment and improvement of institutions of a socialist-oriented market economy
- lifting barriers, etc., to tap resources of population to promote industrialization and modernization

To closely link building of an independent and autonomous economy with proactive international economic integration

To combine socio-economic development with defense and security

- building of infrastructure, etc., to be rationally apportioned in different regions of country
- invest in socio-economic development and population settlement in crucial regions, frontier areas, border gates and islands

Sector orientation: Agriculture, forestry, fishery and rural economy

1 To speed up agricultural and rural industrialization and modernization geared toward forming a large-scale commodity agriculture
   - increase world market share of VN's main agro-products
   - electrification and mechanization in rural areas
   - invest more in rural socio-economic infrastructure development
   - raise the efficiency of land, water and forest resources utilization
   - develop district towns, townships

2 To design a rational agricultural production scheme
   - raise productivity combined with quality
   - ensure food security in all eventualities
   - form specialized cash rice-paddy production zones
   - ensure planned development of areas under industrial crops, e.g., coffee, rice, etc.
   - increase share of animal husbandry
   - promote aquaculture; cultivation of freshwater, brackish water and marine products (e.g., shrimps); offshore fishing
   - combine forestry with agriculture and sedentary cultivation/settlement to stabilize life of mountain inhabitants

3 To enhance the scientific and technological potentials in agriculture
   - strains with high yield, quality and value
   - new technologies for production, harvesting, storage, processing, marketing

- limit use of hazardous chemicals in agriculture
- establish a number of high-tech agricultural zones

4 To continue developing and basically complete water conservancy system

- protection from salinization, fresh water conservation and flood control, safe and proactive irrigation and drainage for agriculture

5 To vigorously develop industry and services in the countryside

- shift to rural areas part of the city-based industry (garment, leather, footwear, etc.) and agro-product processing enterprises
- On the basis of shifting a part of agricultural labor to other industries and trades, to gradually augment the arable land per capita for the agricultural workforce, and increase job opportunities and income for the rural population

Industrial development

1 To rapidly develop industries capable of promoting their competitive advantages, e.g., agriculture, forest and aquatic product processing

2 To selectively build a number of heavy industry establishments

3 To vigorously development hi-tech industries

4 To plan for rational industrial development nationwide – industrial parks, export processing zones, hi-tech zones, industrial clusters, open economic zones

5 To extensively develop small and medium-sized industrial establishments with diverse trades and crafts; to appropriately apply potentially labor-intensive technologies

Infrastructure

1 Energy sector to be developed one step ahead of requirements for socio-economic development

- make use of water sources (in combination with water conservancy program), gas and coal for a balanced development
- accelerate development of Son La hydro plant

2 Develop modern communications network

3 Complete upgrading of National Highway No. 1 and building of HCM Highway

4 Provide sufficient clean water to urban areas, industrial parks and 90% of rural population

Services

1 Develop commerce, including e-commerce

2 Develop tourism into cutting-edge economic sector take advantage of natural and ecological conditions

Regional orientation

All regions to promote their respective advantages for development

1 Urban regions

- establish modern agro-belts around big cities
- plan urban network with a few large cities, many medium cities and a system of small towns reasonably apportioned in various regions

2 Lowland rural regions

- develop diverse ecological agriculture on the basis of rice-paddy, vegetables, fruits, animal husbandry
- apply science and technology to cultivation, processing, etc.
- shift large numbers of workhands to the industrial and service sectors
- develop small industries, handicrafts, craft villages and networks of agricultural, forest and aquatic product processing industries and services

3 Mountain rural areas

- develop long-term crops, cattle husbandry and processing industries
- promote sedentary cultivation and settlement;
- relocate population to ensure efficient exploitation of resources
- narrow the development gap with lowland rural areas

4 Southeast and southern key economic regions: form specialized farming areas linking to processing industries, to attract more labor from the Mekong River delta

5 North central, central coastal and central regions: gradually create conditions to link with the Central Highlands in efficient economic cooperation with Laos and Cambodia, particularly border provinces

6 Central Highlands

- represent a strategic location: socio-economic development; national security/defence
- advantages for developing large-scale agriculture, forest goods production, processing industries, energy industry, mining industry eventually becoming an engine economic region
- develop quickly, mainly intensive farming, industrial crops, e.g., coffee, rubber, tea
- develop large and medium-scale hydro plants as well as reservoirs for water conservancy
- exploit and process bauxite
- develop paper industry
- develop economic-commercial-service cooperation with Laos and Cambodia
- apportion population and labor force in keeping with plans
- improve the material and cultural living standards of ethnic minorities

7 Mekong Delta

- promote its role as country's largest rice and agro product producer
- increase production and raise quality of cash food, vegetables, fruit, animal husbandry and aquaculture
- raise the proportions of labor employed in industry and services

- complete river transport network
- plan and construct populated areas and infrastructures adaptable to annual flood control and counter-salinization abilities

5-Year Plan for Socio-Economic Development, 2001-2005

Overall objectives for 2001-2005: *Sustainable economic growth shall be maintained at high rate; transformation of economic and labor structure shall be enhanced towards industrialization and modernization. The efficiency and competitiveness of the economy shall be strengthened….main targets are job creation, poverty alleviation and elimination of social evils….*

Major tasks and orientations:

1 Achieve higher rate of annual economic growth than in five previous years

2 Develop multi-sector economy: State sector to play dominant role; transform economy and labor structure towards enhancement of industry and service; focus technology in production

3 Increase investments in socio-economic development: enhance competitive power, value added, economic efficiency

4 Enhance efficiency of external economic relations

5 Continue financial and monetary reform

6 Continue renovation facilitating improvements in training and education, science, technology

7 Deal with severe social problems efficiently, focusing on job creation, unemployment reduction, reform of wages, enhancing poverty alleviation

Develop economic activities to achieve higher economic growth

1 Agricultural economy

- rapidly transformed specialized areas of agricultural production
- science and technology applied in agricultural production
- land used for rice production will be maintained at 4 million ha, where there is actively operated irrigation system
- inefficient rice acreage will be used for other productive crops
- Mekong delta: about 400-500 thousand hectares of low-yielding rice acreage will be used for fishery and growth corn, cotton, soy beans
- focus on production of high-quality species of rice to meet requirements for exports and domestic demand
- leading industrial crops: rubber (mainly in Central Highlands), coffee, tea, cashew, pepper
- animal husbandry to be developed
- protection and development of forests: plan for sedentary agriculture and settlements in mountain areas
- fishery: develop the industry of water products; big farms of fish and water products in the North, Central and Mekong River delta

- system of irrigation to be developed; building of water conservancy and freshet protection projects; system of sea dykes and project of salt water prevention to be built; system of irrigation used for water products raising in certain areas, especially in Mekong delta
- program of building lines and clusters of residents and accommodation for people in the Mekong delta and areas affected by natural disasters such as floods
- jobs to be created in non-agricultural sectors, facilitating transformation of labor structure in rural areas and reducing the number of agricultural labor force

2 Industry

- develop industries with competitive advantages
- develop industries related to agriculture in rural areas industries of agricultural, forest and water products
- develop heavy industries and hi-tech industries

3 Services

- tourism: focus is given to domestic tourists
- international cooperation is needed to develop international tourism
- program of tourism infrastructure: 4 national comprehensive tourism areas related to 3 leading economic areas + 16 special tourism areas

Infrastructural development in support of socio-economic development

1 Upgrade several river waterways and system of main river ports; complete construction of Southern waterway

2 Double capabilities of water supply for industry and urban areas targets = 80% urban residents, 60% rural residents

3 Provide drainage of flood in rainy season

Develop and improve human resources to meet requirements of industrialization and modernization

1 Education is the primary national policy: universal secondary education; vocational/job training; university education

2 Research, applied science and technology are keys to achievements in production and business operation

Develop social culture, solutions for social matters, improvements in living standards

1 Develop culture, preserve national cultural heritages

2 Focus on finding solutions for labor and jobs

- create jobs, stabilize occupations and reduce rate of unemployment
- create opportunities in reallocating labor force and residents in each region, industry and field
- in rural area, develop jobs in industries of manufacture, handicraft artistic wares, services and labor export

- increase labor for industry and services; reduce labor in agriculture, forestry, fishery

3 Continue to implement program for hunger elimination and poverty reduction

4 Implement family planning program

5 Develop preventive public health care services

Central Highlands

1 Make use of strategic location and land/natural resources

2 Develop export of industrial crops, e.g., cotton, coffee

3 Concentrate on processing industry high quality products from industrial trees

4 Develop hydro stations

5 Form centralized industrial zones

6 Exploit hydraulic stations to meet demands for production and living; water provision in towns

7 Build up trade in cities and with Laos and Cambodia

Mekong Delta

1 Transfer unstable rice growing land to fish cultivation/aquaculture

2 Build/consolidate East and West coastal dykes salt prevention construction for fishery cultivation

3 Build/improve some river ports

4 Establish measures to prevent damage caused by flooding, protect natural and living environment and speed up construction of houses for people living in flooding areas

5 Improve/build water provision and sewage systems for cities

6 Develop food processing industry, textiles, chemical industries

7 Establish 6 concentrated industrial parks and set up small/medium industrial parks in Can Tho, Bac Lieu, An Giang and Ben Tre

Harmonize relations between socio-economic development and environmental protection

1 Monitor pollution

2 Settle environmental problems caused by natural disaster and flooding

3 Improve water quality in rivers, ponds, pools

4 Ensure reasonable use of natural resources

5 Strengthen international cooperation in field of environmental protection, especially cooperation with neighboring countries and other countries in the region

Agricultural and rural development 2001-2010 - Ministry of Agriculture and Rural Development

Achievements in 1990s comprise improved food production, export, hunger eradication and poverty alleviation, due to the following:

- Established autonomous rights of production for farm households
- Allocation of agricultural and forest land to farmer households on long term
- Liberalization of trade of agricultural products
- Development of science, technology and agricultural extension services
- Increasing development for development of irrigation schemes and other rural infrastructure
- Development of multi-sectoral economy

Current challenges in agricultural and rural development sector:

- Agriculture has changed from self-supply and self-reliance production system to commodity production economy, but quality, efficiency and other aspects still weak
- Rural economic structure has adjusted slowly non-agricultural sectors have developed slowly, to only 30% GDP in rural areas; agriculture depends 55% on rice production; agricultural labor only uses 73% of available time underemployment
- Infrastructures still poor in many areas; for example, irrigation schemes well developed in plains areas, but not in Central Highlands
- Rural incomes still low GDP per capita is $200, versus $400 on average in Viet Nam
- Environment more polluted in some rural areas

Strategic objectives for 2001-2010:

- Build up a sound commodity agriculture
- Build up a new rural area with appropriate agriculture-industry-services, with industrialization and modernization linking to urbanization

Main agricultural and rural strategies for 2001-2010

1 Restructure agriculture and rural economy: promote rural industrial development and services to generate more jobs to attract most of unemployed laborers

2 Development of sciences and technology related to agriculture

3 Continue to develop multi-sectoral agricultural economy: consolidate/strengthen household economy; develop cooperative economy; raise efficiency of State enterprises; encourage development of private economy, particularly private economy and small- and medium-size enterprises

4 Continue investment for development of rural infrastructures and rural urbanization

5 Human resources development: basic education, job training, local management training

6 Continue policy reforms in areas of land allocation, commercial development, taxation and investments

7 Concentrate development of industry, handicrafts, services in rural areas, chiefly jobs that require many laborers

8 Strengthen the capacity of State management

9 Seek out international cooperation

Agriculture and Rural Development 5-Year Plan (2001-2005), MARD, August 2000

Main achievements of last five years (1996-2000):

- Agriculture has moved quickly to produce commodities, become a key export sector
- Many concentrated producing areas of agricultural products and commodities linked to processing industry have been initially set up and agricultural products are more diversified
- Animal husbandry continues to be developed
- Export products have increased from 37% of agricultural GDP to 40%
- New forests have been established, along with forest rehabilitation and reduction in levels of deforestation
- Irrigation capacity has increased to 240,000 ha, creating water resources for 210,000 ha, preventing salinity (150,000 ha), drainage (250,000 ha); as a result, irrigated areas has increased from 6.6 million ha in 1996 to 7.5 million ha in 1999
- Programs implemented for fresh water supply in Mekong delta and construction of reservoirs and dams in Central Highlands
- Implementation of Cooperative Law (1999): cooperatives providing services and agricultural extension services to supply cooperative household members
- Livelihood of farmers improved, with agriculture contributing to job creation, increasing incomes, eradicating hunger and poverty

Difficulties and new challenges

- Agricultural production still not sufficiently linked to markets quality not high enough, production costs too high; marketing depends on quantity, selling at lower than international prices
- Rural, agricultural labor force only employed about 70% of work time unemployment and underemployment
- Technical and material infrastructure for agriculture are very poor: only 38% of agricultural land is irrigated; road system incomplete, poor; vulnerability to floods; processing industry is backward
- Rural livelihoods/income are low; widening of urban/rural gaps
- State management system still have some weaknesses

Context of the Socio-economic Development Plan

- Rapid and stable economic growth
- Transform economic structure towards industrialization and modernization
- Increase competitiveness of Viet Nam products
- Strengthen socialist-oriented market economic institutions
- Progress rapidly in areas of HRD (education, training), science and technology
- Address urgent problems of job generation and poverty reduction

- Continue to strengthen socio-economic infrastructures

Development viewpoint

- Agricultural and rural development are foundation for industrialization and modernization; transform agriculture and rural economy to large-scale production
- Develop diversified, strong and sustainable agriculture based on competitive advantages of each ecological zone and the whole country
- Development agriculture and rural economy with many forms of ownership and forms of enterprises

2001-2005 objectives

- Ensure national food security with population up to 85 million by 2005
- Increase production of agricultural and forestry products and commodities for export
- Quickly raise the livelihoods of rural population increase incomes, upgrade rural infrastructure
- Ensure ecological environment, mitigate natural disasters, raise forest cover to 38-39% by 2005

2001-2005 strategies

1 Change economic structure of agriculture, with development of competitive advantages in each region in relation to markets; implement industrialization and modernization

1.1 Food production: ensure food security at national level; continue to develop irrigation; invest in small irrigation structures; develop production of crops used for animal food and raw materials for industry

1.2 Industrial trees: expand areas of industrial trees to meet requirements for raw materials for domestic processing industry and for export, e.g., coffee, rubber, tea, cashew, etc.; promote irrigation for industrial trees, especially coffee in Central Highlands, etc.

1.3 Vegetables, fruits, flowers and ornamental trees: linked to domestic and international markets

1.4 Animal husbandry: promote raising pigs, cows, poultry

1.5 Forestry: Speed up natural regeneration/reforestation activities; create concentrated plantation areas related to processing industries; create employment

1.6 Salt production

1.7 Develop post harvest technology and processing technology

Central Highland orientations

- develop export industrial trees – coffee, tea, rubber, cashew, pepper and other industrial trees such as cotton, silkworm mulberry, etc.
- expand regional forest cover
- develop production of cattle and poultry

- develop processing industries for coffee, rubber, sugar cane, etc.
- develop vegetables and fruit for export (Lam Dong)

2 Strengthen infrastructure and agricultural services

2.1 water resources: irrigation, water conservancies, preventing salt intrusion

2.2 water supply for agriculture, industry, residential use – urban and rural

Mekong Delta orientations

- continue implementation of program on fresh water development, construction of canals
- construct dykes to prevent salt water, flooding

3 Dykes and flood control issues

3.1 raise/reinforce sea dykes, salt water prevention dykes; construct a sea dyke to protect Autumn Summer rice in Mekong delta

3.2 use different measures to treat soil erosion on river rims, to avoid damage to properties and life

3.3 liberate river beds, river mouths, to discharge floods

3.4 strengthen planting of watershed forests

3.5 promote flood forecasting and warning work

4 Develop infrastructures and other services: transport, water supply, electricity, information in rural areas, agricultural extension services, etc.

5 Strengthen scientific and technological potentials in agriculture

6 Train and develop human resources for agriculture and rural development

7 Land resources

7.1 protect 4 million ha of rice land, 9 million ha of special use forest and protection forest

7.2 implement Land Law efficiently land allocation, issuance of land use right certificates, land leasing

7.3 shift to tree crops on low-efficiency rice land

7.4 create favorable conditions for farmers to change to tree crops in response to market demand

8 Poverty reduction

8.1 create conditions for poor people to switch from food production to other jobs so as to generate enough income for buying food when needed

8.2 poverty reduction measures: allocation of land and forests; support to establish permanent cultivation fields; small irrigation structures, road network; create conditions for professional and other non-agricultural jobs

8.3 ensure equality: create conditions for poor people to enjoy benefits from social services and to participate in community activities women, ethnic minorities

8.4 reduce risks, prevent and control natural disasters

3.6.2 Interim Poverty Reduction Strategy Paper (I-PRSP)

Poverty situation

- 2000: per capita income = $400/year
- Poverty levels declined from 58% in 1992/93 to 37% in 1998 (WB poverty line)
- Viet Nam poverty lines: declined from 30% in 1992/93 to 15% in 1998; estimated 11% in 2000
- Poverty mainly concentrated in rural areas 90% of poor households in rural areas
- Poor people mainly work in agriculture; have low level of education or professional/job skills; poor access to credit, agricultural inputs, markets; few off-farm employment opportunities
- In urban areas, most poor people are new immigrants
- Poverty has marked regional variations: North and Central Highlands = poorest regions
- Gap between rich and poor is widening; also between urban and rural areas
- Trend rise in the number of hungry and poor household that have little or no cultivated land, especially in Mekong Delta area

Policy focus

- Poverty reduction is key social policy
- Objective is to created favorable conditions for poor (especially women/children), to access employment opportunities and social services
- Faster economic growth/accelerating economic reforms encourage people to accumulate wealth
- Hunger eradication and poverty reduction program in addition to economic growth, focus on social equity and preventing the rich-poor gap from exceeding allowable limits

Growth and poverty reduction objectives

- At least double GDP between 2000 and 2010; 2001-2005: GDP growth rate of at least 7%
- Maintain macroeconomic stability
- Transform economic structure in direction of industrialization and modernization (with balanced and sustainable economic growth in different regions
- Increase investment in infrastructure
- Implement hunger eradication and poverty reduction program
- Provide social allowance for those who live under especially difficult conditions
- Reduce poverty to under 10% by 2005

Macro mechanisms/policies to promote economic growth and create resources for poverty alleviation

1 Create a fair and efficient business environment, promote competition

1.1 Create a fair and competitive business environment

1.2 Continue reform of the system of state-owned enterprises

1.3 Create favorable conditions regarding land, support production and business activities and develop various types of enterprises, small- and medium-sized enterprises, cooperatives and agricultural farms

1.4 Encourage foreign investment

2 Maintain macroeconomic stability

2.1 Improve fiscal policy

2.2 Implement appropriate monetary policy to maintain macroeconomic stability, control inflation

2.3 Trade policy

3 Mobilize and use efficiently resources for the poor

- Mobilize local resources
- Allocate State budget to finance economic, cultural and social development in poor areas
- Mobilize funds from enterprises, people, communities, social organizations, NGOs
- Obtain support from international organizations
- Increase efficiency of capital utilization

Sector policies to create opportunities, reduce vulnerability and support the poor

1 Create opportunities for poor families

1.1 Develop essential infrastructure for poor communes and areas

1.2 Increase productivity in agriculture and diversify the rural economy; primary strategy to create jobs and increase income

1.3 Solve problems of urban poverty

1.4 Protect the environment

1.5 Strengthen the ability of the poor, especially women, to access credit

1.6 Invest in training activities, especially for women, to learn how to do business and develop production

1.7 Stabilize and raise the living standard of ethnic minorities

1.8 Create favorable conditions for the poor, especially women and children, to access social, education and health services

2 Develop social safety nets for poor and victims of natural disasters

2.1 Provide emergency and regular support to complete the system of state support

2.2 Establish measures to help the poor improve their participation in the marketplace

2.3 Establish priority system to help disadvantaged groups benefit from social development programs

2.4 Expand social protection and safety net

2.5 Develop solutions to effectively address emergency social relief

2.6 Expand participation and enhance role of domestic social organizations and NGOs

3.6.3 World Bank analysis of Viet Nam's policy orientations

Environmental issues:

- 1950-2000: forest cover has declined from 43% to 29% of land area
- Acute shortage of arable land
- Habitat loss has led to rise in threatened species
- Migration to cities as a result of high rural unemployment, land shortages and emphasis on industrialization → annual growth rate of 4.5% in cities is three times rural growth rate
- Sedimentation and point/non-point sources of pollution threatening health of rivers
- Over-fishing and destruction of coral reefs and mangroves have reduced fish yields

10-year National Environmental Protection Strategy (NSEP) and Action:

Main challenge is to improve livelihoods while protecting environment

- 3 main objectives: i) prevent and control pollution; ii) protect, conserve and sustainably use natural and biodiversity resources; iii) improve environmental quality in urban, rural and industrial areas
- 4 priorities: improving environmental quality in i) industrial, ii) urban, iii) water resources and iv) forestry sectors
- cross-cutting themes: i) institutional capacity and HRD; ii) education and awareness; iii) community participation → community-based management

3.7 Decision process

3.7.1 Context

Each country has its own decision-making process within IWRM, but they can differ from each other. Therefore, an overall BDP decision process will assist the four MRC countries to collaborate on finding common solutions and proceed with basin-wide planning. The BDP decision process will be based on national policy frameworks and obligations under the MRC 1995 Agreement.

With this in mind, the BDP decision process aims at identifying the involvement, at different stages, of decision-making bodies in the riparian countries that would strengthen effectiveness of the BDP through their participation, commitment and support. At the same time, it will identify processes through which the outputs (mainly) of each planning stage as well as the key inputs and activities will be officially acknowledged, negotiated, agreed to, endorsed and approved at national as well as at the regional level. It is also the aim of the BDP decision process to attain periodic validation and acceptance from important stakeholders in BDP structure on milestone outputs, quality and relevance of information used, as well as appropriate processes used in formulating the plan. Participation of key stakeholders and ownership of the process will ensure that the end products will gain a higher chance of acceptance and commitment in all four countries.

3.7.2 Present decision process

Each MRC member country has its own decision processes for water resources planning. During the BDP bridging period, several working papers were prepared and identified the steps of planning for the development of water and water related resources in each country. These working papers contribute to the development of a basin-wide planning process for BDP.

The Decision Support Framework (DSF) developed by WUP-A under the MRC Water Utilisation Programme is also an important tool to support the decision process in basin development planning. The DSF clearly defines steps in development planning of water and its related resources in the Lover Mekong Basin (LMB) as stated in the MRC 1995 Agreement (please refer to annex 1 for more information on the DSF). Although, BDP will adhere to the national development policies, goals and socio-economic plans of the four riparian countries, the focus is on basin wide planning with transboundary implications.

3.7.3 Proposed decision-making process within the BDP

Types of decisions

The types of decision to be reached during the BDP planning process will range from technical to political issues. These will require the involvement of various levels of decision makers in each member country before being dealt with at a regional level. Decisions to be made will range from *end-product output,* which is the Basin Development Plan, to *milestone outputs* resulting from the planning stages, which altogether lead to the production of basin plan (for example, agreed management strategies and criteria for project/programme selection). At the same time, decisions will also be needed on *critical and/or sensitive processes.* These will include negotiation processes that will be required to ensure that certain inputs can be agreed or approved in time to validate and endorse the outputs.

Decision making bodies

The key MRC decision-making bodies that will be involved in the BDP decision process are the Council, the Joint Committee, and the National BDP Sub-committee. Decision-making will be carried out both at national level and regional levels and may involve working sessions between National BDP Sub-committee representatives before submission to the Joint Committee and Council.

Mechanism of the BDP decision process

The BDP decision process will follow the overall planning process of BDP including preparation and the five planning stages. Table 3.7 summarises the proposed decision making process in the BDP context.

Preparation stage

Prior to initiation of the planning process, a series of activities and planning tools are being prepared. Some level of agreement is required across the four countries.

Based on a series of national and regional workshops, the Inception Report describes a revised and updated planning process[17]. Other issues during the preparation stage include:

[17] The Inception Report was endorsed by the 16th Joint Committee meeting, 10-11 July 2002.

- Agreed planning process composed of decision process, relevant laws and regulations, national policies and data sharing (The planning process is fully detailed in the Inception Report. These working papers function primarily as reference documents).
- BDP guidelines for working groups, sub-area analysis, scenarios and strategies, priority programs, stakeholder participation.
- Data system which is composed of information need assessment and screening of information at MRC Secretariat, national data management, GIS implementation, development indicators, and data system development.
- Training composed of training needs assessment and training plan, identification of training institutions, preparation of course material, training implementation.

Some of these working papers and guidelines will act as reference documents, whereas others provide the detail on how to actually carry out important elements of the BDP process. Some dealing with the most important issues on which four countries' agreement will be required (e.g. scenario and strategy formulation, priority programmes) will need to be agreed by the National BDP sub-committees and endorsed by the Joint Committee.

Stage 1: Sub-area analysis

The main outputs from this stage will be the identified sub-areas, baseline conditions (water demand, water supply) and development objectives. Although, these are largely technical matters stakeholder participation and consultation will be required. It is proposed that these outputs will be submitted through the National BDP Sub-committee to the Joint Committee to take note.

However, there are a number of milestones activities that should be started from a very early stage. These include development of selection criteria for project and programme short-listing, establishing indicators and a negotiation process. They will be important inputs to be used later in compiling the project/programme long-list and short-list. Negotiations will involve consideration of national rules/legislation and political concerns. Regional meetings will be needed to review the outputs concerning selection criteria and indicators prior to endorsement by the Joint Committee (JC).

Stage 2: Scenario formulation

A limited number of 20-year basin-wide scenarios will be the output to be endorsed by JC. Consultations and workshops will be the main mechanism for agreement on the formulated scenarios. These will include:

National workshops to discuss scenarios and reach agreement at the national level. The National BDP Sub-committee, BDP Units/Working Groups and the MRC-BDP Team and a range of other interested stakeholder will be the main participants.

Bilateral or trilateral consultation workshops where scenarios of trans-boundary sub-areas need to be shared and discussed among members of the BDP organisational structure and key stakeholders.

A regional workshop to discuss the Basin-wide scenarios aggregated from sub-area scenarios, and to integrate other external factors at the basin level, for example upstream/downstream impacts. The BDP coordination bodies will attend this workshop along with senior officials from key planning agencies of each country and a range of representatives of regional organisations.

The outcome will be presented to the JC for acknowledgment of the scenario validity and endorsement.

Stage 3: Development and management strategies

The decisions to be made at this stage are very important, in particular agreement on sub-area and basin wide strategies. The formulated strategies will need to be consistent with defined BDP objectives, development indicators, and project/programme selection criteria. This will therefore involve these last three elements being approved by the four countries. Along with the strategy formulation process, there will be a negotiation process to ensure the validity of the formulation techniques/approach to ensure that trans-boundary and basin-wide issues are being incorporated.

Technical matters will have to be addressed and agreed on as part of the decision process, at the national/sub-area level as well as at the basin-wide level.

The negotiation process will be carried out through a series of workshops, consultations and dialogue in order to reach agreement that the formulated strategies sufficiently consider trans-boundary issues and harmonize the needs and aspirations from both within and between the countries.

For sub-area strategy formulation approval can be granted by National BDP Sub-committee in each riparian country. Stakeholders involved in the process will be BDP Working Group/BDP Units and representatives of the sub-area. Workshops and consultations may be held as many times as necessary taking the forms of dialogues and/or periodic consultation to review the consistency with scenarios, check for the trans-boundary effects, harmonise with BDP objectives, consult with the public for its "win-win strategies" and evaluate the validity of the formulated strategies.

For formulation of a basin-wide strategy a number of dialogue and consultation forums will be organised to negotiate agreement between the four countries. As this will be an important decision, the decision-making should include policy level officials at Minister or Vice-Minister level from the Ministry of Planning and Ministries responsible for natural resources (land and water resources) management in each country before submission to the JC and Council.

Stage 4: Long-list of projects/programmes

A long-list of potential programmes/projects will be the main output to be approved at this stage. The National BDP Sub-committee will play an important role in agreeing to long-list projects/programmes that involve that particular country. Then the National BDP Sub-committee will propose the compiled list to JC to approve in the JC Meeting. Regional consultations will be needed to share national long-list and reach a common understanding on principles of projects/programmes selection and funding policy prior to submission to the JC for approval

Stage 5: Short-list of projects/programmes

During this final stage, short-listed programmes/projects will be accorded relative priority by the member countries, potential donors and concerned regional organisations. Application of the previous agreed and established selection criteria will be particularly critical in being able to reach agreement and commitment on a number of prioritised projects/programmes. In this regard, National BDP Sub-committees will have a very important role to play in reviewing programmes/projects in a basin-wide and transboundary context.

The outcome of a regional negotiation process will be the short-list for submission to the Joint Committee (endorsement) and Council (approval). It is proposed that during the Council meeting participation of the Minister of Finance (or at least, head of the Budget Bureau) and representatives of the donor community, be considered. Following the existing mechanism, a special agenda on this subject may be added in to the Donors Consultative Group (DCG) meetings.

Compared to the fourth stage, it is assumed that there will be a longer process of discussion to reach the final agreement between the four countries. Therefore, a series of regional dialogue meetings may be required to reach common understanding on various aspects of technical as well as financial and project implementation issues. The four National BDP Sub-committees, with the participation of required technical working groups, should ensure that final agreement can be reached.

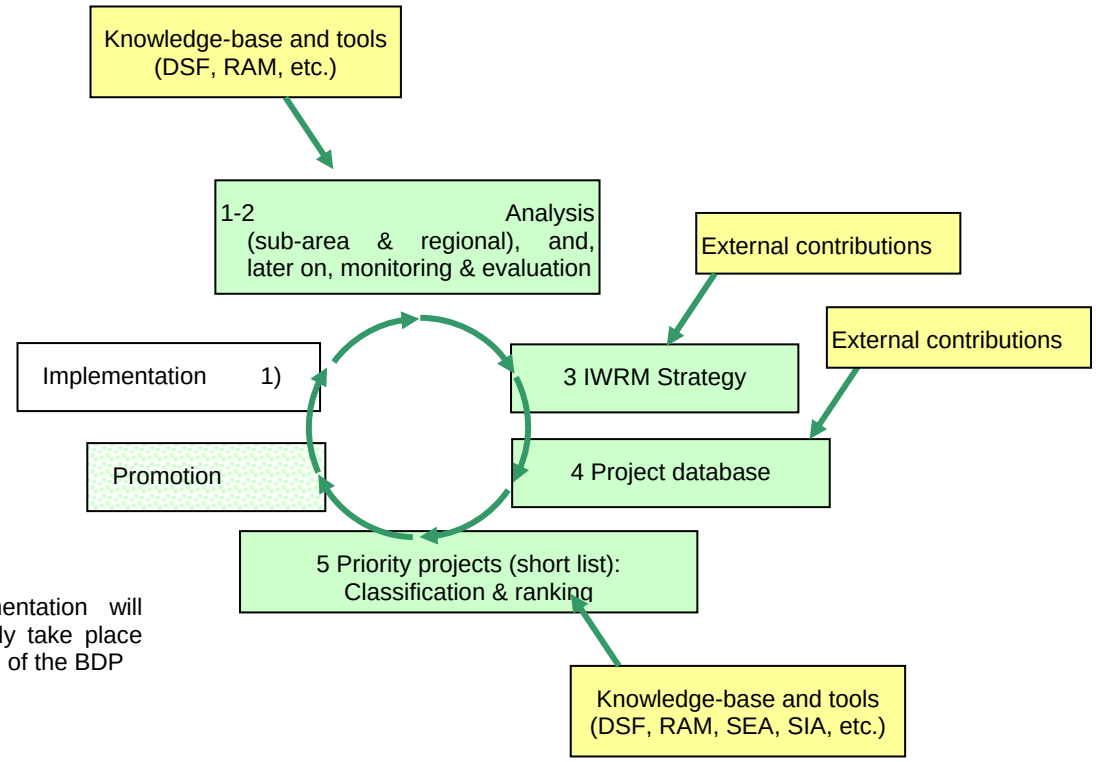
Each short-listed project/programme submitted to the Joint Committee and Council will include a brief implementation plan. The issue of project/programme funding and implementation should be considered.

When Phase 1 of the BDP Project ends

Upon completion of BDP Phase 1, the Council will need to approve the whole planning process that has been developed in accordance with immediate objective 1 of the project. The process will require prior endorsement by the respective National BDP Sub-committees and the Joint Committee before submission to the Council.

Table 3.7: The decision process

Planning stage	Decision items	Stakeholders	Level of decision	Comments
Prepara-tion	- Inception Report	- JC	- Endorse	Already, July 2002
	- Planning process developed (decision-making process, relevant laws and regulations, national policies, data sharing system)	- National BDP Sub-committees	Take note	Planning process endorsed in Inception Report. Individual working papers serve as reference documents
Stage 1	- Identified sub-areas	- JC	- Take note/ endorse	* These two outputs are milestones to be developed along the BDP process from the initial stage to allow enough time for the preparation. They will require endorsement by the JC.
	- Baseline conditions (water demand, water supply) - Development objectives - Projects/programmes selection criteria* - Development indicators*	- National BDP Sub-committees	- Agree	
Stage 2	- A number of basin-wide scenarios formulated (LMB)	- Council - JC - National BDP Sub-committees	- Approve - Endorse - Agree	
	- (possibly) 3 scenarios for each sub-area formulated	- National BDP Sub-committees	- Agree	
Stage 3	- Basin-wide management strategies formulated	- Council - JC - National BDP Sub-committees	- Approve - Endorse - Agree	
	- Sub-area strategies formulated	- National BDP Sub-committees	- Agree	
Stage 4	- Projects/programmes long-list	- JC - National BDP Sub-committees	- Endorse - Agree	
Stage 5	- Short-list of projects/programmes	- Council - JC - National BDP Sub-committees	- Approve - Endorse - Agree	
BDP ending	- Implementation planning framework	- Council - JC - National BDP Sub-committees	- Approve - Endorse - Agree	



1) Implementation will basically take place outside of the BDP

4 The BDP planning cycle

4.1 Background

According to Article 24 of the Mekong Agreement, formulation of the BDP is among the functions of the MRC Joint Committee (JC). The JC monitors and directs the work and makes all major decisions related to it.

Many of the decisions are based on preparatory work by the MRC Secretariat in collaboration with the NMCs. The present chapter describes ways to conduct the preparatory work in relation to the identification and short-listing of priority development initiatives.

The formulation of the BDP has been divided into 5 stages, as follows:

1 Analysis of the LMB and of sub-areas;

2 analysis of development scenarios;

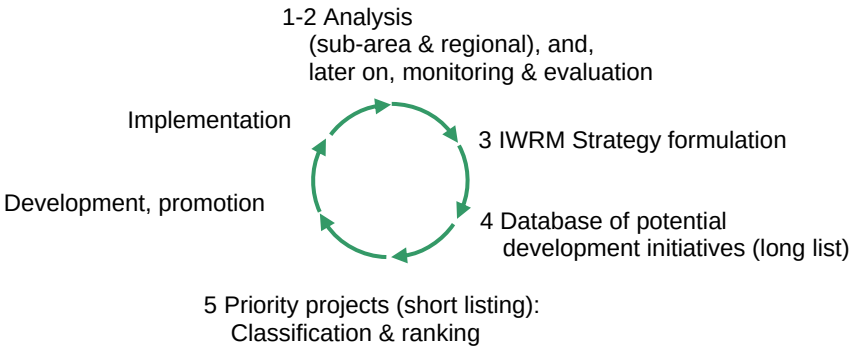
3 strategy (strategies) formulation;

4 set-up of database of projects; and

5 prioritization of programmes and projects.

The BDP planning cycle is illustrated in Figure 4.1.

Figure 4.1: The BDP planning cycle



The BDP builds on the principles of Integrated Water Resources Management (IWRM): *"Integrated water resources management is a process, which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems"* [18].

[18] (Technical Advisory Committee of Global Water Partnership, 2000)

4.2 Origin and types of project proposals

4.2.1 Origin of proposals

It is expected that initial ideas will originate from various sources, including:

- NMCs
- national line agencies and other organisations (including NGOs);
- BDP working groups, workshops and forums;
- MRC programmes; and
- regional and international organisations, including development agencies and NGOs.

4.2.2 Types of proposals

It is suggested that the BDP is open to any type of development intervention related to IWRM: policy-oriented; structural or non-structural investment; social; educational; institutional; scientific; etc.

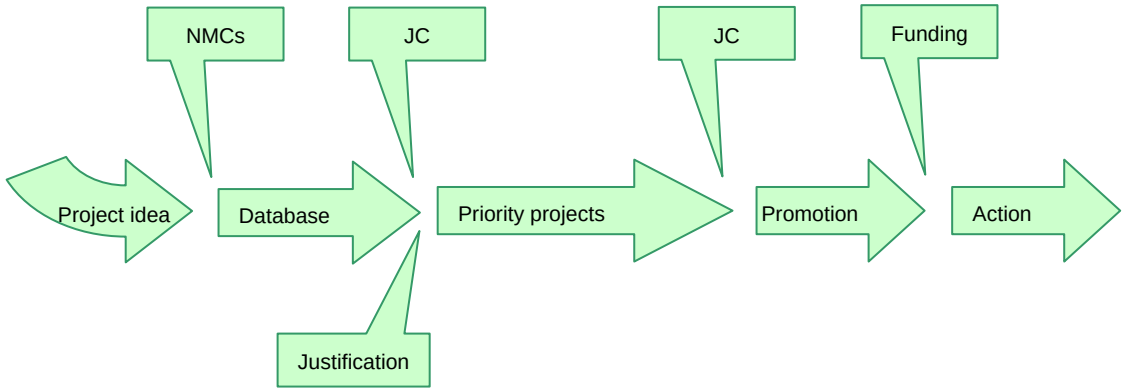
The proposals should be related to the principles of IWRM; they have to support one or several objectives of the IWRM Strategy for the Lower Mekong Basin [19].

4.2.3 Processing of proposals

It is proposed that proposals will be processed as indicated in Figure 4.2.

The project ideas are intended as a source for the project database.

Figure 4.2: From idea to implementation



[19] In preparation (mid 2005)

4.3 Project ideas and project database

4.3.1 Project ideas – PIN format

Project ideas can be raised by each NMC or by MRCS using the PIN format. [20]

It is expected that project ideas from national agencies or other national parties are raised via the NMCs, while project ideas from regional organisations may be raised either via MRCS or via an NMC.

The PIN format is shown in Appendix 3.

The MRCS BDP Team will assist with formulation, if requested to do so by the NMC.

4.3.2 The MRC Project Database

The following routine is proposed for inclusion into the database:

1 Each NMC prepares a PIN for the project they want to include, considering:

- How well the idea fits into national plans, policies and preferences (with respect to objective, scope and timing)
- Whether an idea can be recommended in line with IWRM principles
- Suggestions on modifications to improve the idea
- Whether additional information is required to form an opinion
- Other comments

The MRCS BDP Team will assist with formulation, if requested to do so by the NMC.

2 The PIN is entered into the project database by MRCS BDP.

In the process, the ideas will be screened for gaps, overlaps and interfaces. If need be, the 'regional' or 'transboundary' implications of a project idea can be strengthened by merging it with related proposals.

4.3.4 Procedure for update of the Project Database

It is expected that the Project Database will be continuously updated and comprehensively reviewed periodically in the light of:

1 changes in national priorities;

2 updating of priority projects;

3 further technical progress on the project proposal;

4 preparation of recommendations to the JC;

5 classification and ranking of project priorities by the JC

[20] Format as specified by MRC on 31 january 2006, replacing previous formats

6 promotion or further development of priority projects (by MRCS and/or NMCs and/or an external implementing agency)

Each year, the JC will review the database, deciding whether existing classifications and rankings remain valid. Further, the JC will review actions taken in connection with previously identified priority projects.

Once a project idea (PIN) has been raised by an NMC, this NMC is expected to keep MRC informed about new developments related to the idea (for example whether it is being promoted outside of the BDP framework).

4.4 Project classification and ranking

4.4.1 Project classes

The JC may divide the project ideas into various classes. The classes can reflect the state of preparation of each project idea or outline and the priority allocated to it. The classes can be delineated as follows:

A Fast-track (uncontroversial, low-risk projects with obviously attractive benefits and insignificant side effects)

B Promote (attractive projects where feasibility, benefits and side effects have *either* been examined *or* are regarded as insignificant)

C Develop (attractive projects where further analysis is required of feasibility, benefits and side effects)

D Wait (apparently less attractive projects with uncertain assumptions, benefits or risks; or apparently attractive, but controversial projects)

E Reformulate (projects which may be out of scope of the BDP; projects with small benefits, large risks or adverse side effects; or projects that are in some way controversial)

4.4.2 Criteria for project classification and ranking

The following set of criteria can be applied for classification and ranking of project proposals:

1 Strategic relevance, as reflected by harmony with potential strategic options of the MRC[21]. Consistency with the entity of strategy elements, and positive support of at least one strategy element. (This criterion is expected to assure general harmony with national development strategies). (Also, this criterion will assure that the project is within the mandate of the BDP and has a certain basin wide or transboundary significance)

2 National priority and support from member countries [22]

[21] MRC-BDP (Dec 05): Strategic directions for Integrated Water Resources Management in the Lower Mekong Basin. Final version, as approved by the MRC Council

[22] This formulation was made at a Regional Working Session in Hua Hin on 26-27 May 2005. The classification and ranking should be generally acceptable to all member countries, while

3 Potential value, costs, side effects, risks, uncertainties (economic, social, environmental, or resource-wise, including synergies with related projects; and including the risk of duplication of efforts)

4 Completeness of decision basis (in terms of costs and benefits, impact assessments as required, public participation procedures as required, assumptions made, uncertainties, time scale)

5 Implementation aspects: (i) Whether an institutional framework is identified and operational for implementation and operation; (ii) resource requirements (in terms of funds, water, land, other natural resources, energy, technology, management); (iii) open interfaces with national planning and investment programmes; and (iv) open legal or administrative implications (if any)

4.4.3 Procedure for project classification and ranking

The project classification and ranking will be made by the JC, possibly as illustrated in Figure 4.3.

The classification and ranking may in many cases be based on incomplete information, and will normally involve criteria that are not comparable by a common standard. Therefore, it is proposed that a *structured yet soft* procedure be applied for the classification and ranking.

For each criterion, a rating may be given, for example as follows:

Criterion		Rating
1	Harmony with IWRM strategy	A - E
2	National priority and support from member countries	A - E
3	Potential value, costs, side effects, risks, uncertainties	A - E
4	Completeness of decision basis	A - E
5	Implementation aspects	A - E
(Details are given in Appendix 4)		

It is expected that projects be given *high priority* if they are characterised by (i) high consistency with the agreed strategy; and (ii) national priority and support from member countries.

Similarly, it may be expected that projects be given *low priority* if they are characterised by (i) low consistency with the strategy; or (ii) low national priority or low support from the member countries; or (iii) clearly unattractive benefits, side effects, or risks.

Project ideas with a high priority would be classified as A (fast-track), B (promote), or C (develop). Priority projects should be classified as C (develop) if the decision basis is incomplete, or if the institutional framework is not yet identified.

Project ideas with a low priority would be classified as D (wait) or E (reformulate).

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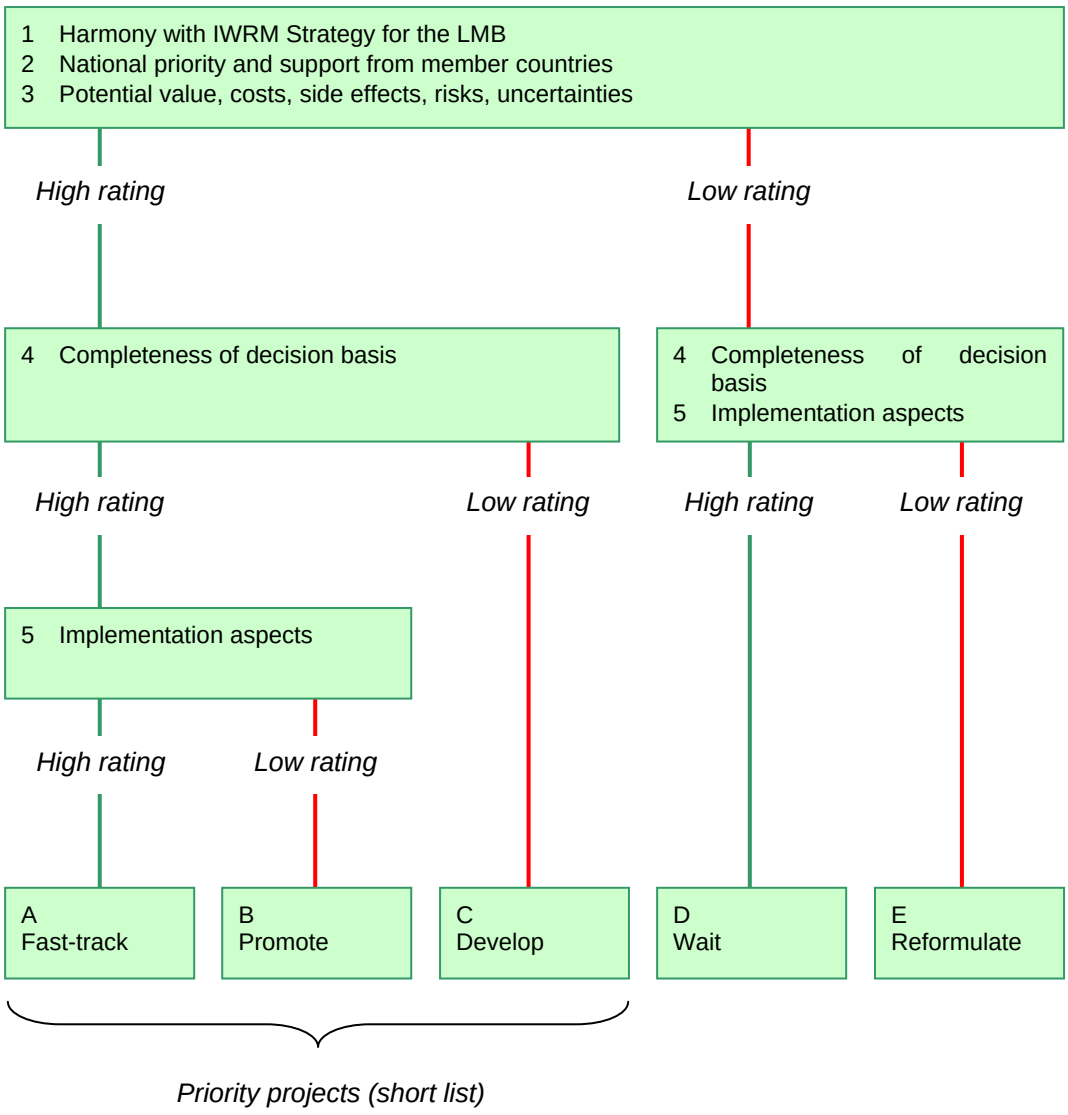
the national support should relate to the countries having a particular interest in the specific proposal

Figure 4.3: Procedure for project classification and ranking



4.5 Project facilitation, development and promotion

Under normal conditions MRCS is not an implementing agency but rather a partner facilitating and promoting sustainable development projects related to IWRM up to the point of ensuring funding for implementation of a national agency or another service provider.

In this context project facilitation and promotion can bring the preparations to a stage where the project is ready for actively seeking donor assistance. *This stage will depend very much on the size and character of the project.*

Project development and promotion under the BDP will take place for project ideas that have been classified as A, B or C by the JC.

The following preparatory activities may be required from case to case (assuming a large project):

- Preparations
- Identification of an implementing agency
- Preparation of an initial project implementation strategy
- Identification of funding / project documents in line with funding agencies formats)
- Identification of other required resources (land, management, etc.)
- Stakeholder consultations
- Preparation of Terms of Reference for next implementation stage

Pre-feasibility analysis

- Conceptual design (possibly a set of alternatives)
- Economic and financial analysis at pre-feasibility level
- Initial (pre-feasibility) screening of social and environmental impacts
- Initial (pre-feasibility) screening of legal and institutional implications
- Continued stakeholder consultations
- Preparation of Terms of Reference for next implementation stage

Feasibility analysis

- Detailed surveys and data collection
- Economic and financial analysis at feasibility level
- Social impact analysis at feasibility level
- Environmental impact analysis at feasibility level
- Legal and institutional analysis at feasibility level
- Continued stakeholder consultations

Detailed design and tender

- Detailed design
- Mechanism and steps for approval as required and appropriate from case to case
- Preparation of tender documents

Project facilitation and promotion will normally be done by MRCS and/or one or several NMCs *only until an implementing agency has been identified.* Once an implementing agency has been identified, it might take over the project development and promotion, possibly with technical support from MRCS and/or one or several NMCs, as required from case to case.

For large projects, project facilitation and promotion can take several years. For example, the World Bank applies an indicative net duration of 1-2 years for the project preparation activities between the initial screening and the subsequent appraisal.

Even more time is required for *projects that need approval via national Public Investment Plans or 5-years plans,* particularly as more than one country will often be involved.

For large projects, external funding can be available to feasibility and impact studies in connection with the project development.

4.6 Project implementation

Project implementation is undertaken by an implementing agency. This could be MRC; one or several NMCs; one or several line agencies, one or several existing organisations; or perhaps a new organisation established for the purpose.

In most cases, project implementation will take place outside of the BDP organisation.

The implementation modality will vary from one project to another.

The representative role of MRC sector programmes is acknowledged in the overall context of the MRC mandate.

4.7 Monitoring, evaluation and learning

Monitoring and evaluation will take place of value and impacts of implemented projects. This is in order to learn from experience, and to incorporate the lessons learned into a revised development strategy or into improved planning process routines.

The BDP organisation will develop indicators that can support the monitoring and evaluation (apart from serving other purposes).

A large part of the monitoring may be designed specifically for each project, possibly within a general framework (like the LFA).

5 Issues and priorities

Strategic planning of water resources in the Lower Mekong Basin is characterized by [23]

- a high level of complexity in water resource management
- great variability in the hydrologic cycle
- the need to satisfy many different stakeholders
- issues often being highly political
- the context of water resources management undergoing rapid change, and

[23] MRC (Mar 2001), p. 6

- a need of sustainable use of land and water

Major development opportunities and important assets include:

- A vast immediate growth potential, notably within agriculture, hydropower, tourism, and navigation;
- highly valuable fisheries resources;
- a large scope for integrated, basinwide water resources development, including intra-basin and inter-basin transfers, improved water efficiencies, and improved economic efficiencies of water uses and water-related production systems;
- unique river, lake, wetlands, floodplain, and headwater habitats and ecosystems, many of which remain in a healthy state; and
- an opportunity for prevention (rather than mitigation) of adverse social and environmental impacts of urbanisation and industrialization.

Tools and practices for basinwide management of water and water-related resources are in place or are being developed under several MRC programmes.

Major challenges comprise (in random order):

- A need of poverty alleviation, and of development and consolidation of rural livelihoods, most of which are water-dependent;
- an escalating demand of electricity;
- an escalating demand of water for irrigation;
- the need of conservation of wetlands and other important habitats, fisheries resources, and important icon species;
- preservation of the Delta as a freshwater regime;
- effects of changed lifestyles: Increased per capita consumption of energy, food and water, and increased per capita waste production;
- population pressure (notably including migration from the countryside to urban growth centres); imbalance between loss of employment in agriculture and employment generation in other sectors;
- deforestation due to timber logging and expansion of agricultural lands; and consequential changes of maximum flows, minimum flows, and silt transport, increasing the risk of both floods and droughts;
- agrochemical pollution, including contamination of edible fish;
- effects of regulation, such as (i) adverse land use consequences, including habitat degradation and loss of fish spawning grounds; (ii) blocking of fish migration routes; (iii) loss of flood plain storage capacity; and (iv) river bank erosion;
- an imperfect knowledge about important cause-effect relationships and related management options, such as for example groundwater resources, environmental flows , flood risk, droughts, morphological processes, etc. etc.; and
- a set of ordinary upstream/downstream divergences of interests related to water uses.

6 Solutions

Cooperation within cross-sector, basinwide and transboundary development is described in Article 1 of the Mekong Agreement: *'[The parties agree] to cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin, including, but not limited to irrigation, hydro-power, navigation, flood control, fisheries, timber floating, recreation and tourism, in a manner to optimize the multiple-use and mutual benefits of all riparians and to minimize the harmful effects that might result from natural occurrences and man-made activities'.*

The related implications for the BDP process comprise

- Orientation towards the potential of cross-sector, basinwide and transboundary development opportunities
- Due observation of cross-sector, basinwide and transboundary synergies, linkages and dependencies
- Smooth and well functioning working relationships, including active participation and knowledge-sharing, between all actors and stakeholders involved in development of the LMB, at the regional, national and sub-basin levels
- Via the NMCs, collaboration with and support in many ways to the existing/upcoming River Basin Committees/Organizations
- Continued dialogue with the upper riparian countries, aiming at an active collaboration wherever appropriate

7 Findings and recommendations/ lessons learnt

- Even if there are visible differences between the development strategies and policies of the MRC member countries, an overlap of shared preferences exists that is fully adequate as a platform for basinwide IWRM

- The decision process for establishing the BDP process turned out to be more heavy than originally anticipated. During Phase 1, the BDP process was more participatory than hitherto seen within the MRC collaboration - an experience that BDP shared in parallel with other MRC programmes. In consequence, the preparation process became lengthy, with most documents being circulated in many draft versions, and several formal decisions being implicit rather than explicit. The positive side is that the member countries had a comprehensive influence and were, for that reason, in a good position to support the outcome

- At a late stage of BDP Phase 1, the process formulation (that was hitherto aligned with the 2000-2005 MRC Strategic Plan) was visibly influenced by its interaction with the parallel formulation of a new (2006-2010) MRC Strategic Plan. This required a certain re-alignment, but will add to the relevance and usefulness of the BDP

- A scope is seen for enhancing and streamlining the information flows via the NMCs about the national and the regional planning processes. Occasionally, visible changes occur within a short time. While a policy change at one time and one place should not necessarily immediately penetrate the whole BDP process, a fruitful gradual

convergence can best be maintained when timely information is relayed about such changes. This consideration will be even more relevant once the upcoming river basin committees/river basin organizations come into full operation

8 Relevance

8.1 Relevance for NMCs and/or line agencies

A functional BDP process is highly relevant to the NMCs and line agencies, to support the shared aim of the MRC collaboration.

The BDP process will provide a platform for the NMCs and the line agencies to raise and promote their potential development initiatives in a basinwide context, whenever this is regarded as beneficial by these bodies.

Another prospect is the gradual convergence between the BDP, with its basinwide perspective, and the sub-area level planning that is presently in an early stage of implementation under the emerging river basin committees/river basin organizations. This may, in the course of time, lead to a particularly fruitful synergy between the over-all basin planning under the BDP, the national planning processes, and the de-central planning at sub-basin level.

8.2 Relevance for MRCS and/or BDP Phase 2

MRCS will benefit from a functional BDP process in two ways:

- The placement of the MRCS activities within a context of an agreed IWRM strategy for the LMB will support the documentation of their relevance, and add to their quality, transparency and credibility; and
- the BDP process will provide a shared platform for promotion and funding of agreed priority development initiatives.

The BDP process established during Phase 1 will be a natural starting point for its enhancement, streamlining and consolidation during Phase 2. Furthermore, a substantial planning capacity has been built within MRCS, the NMCs, the line agencies, and the sub-area working groups that will highly support the further achievements during Phase 2.

9 Concluding general outlook

The BDP process was finalized at a late stage of Phase 1 and is as yet un-consolidated. It should be further developed once experience has been achieved about its implementation.

The momentum gained should be retained, aiming at the BDP process finding its place and providing the intended outputs in the context of the new MRC Strategic Plan for 2006-2010.

The work should take place in a continued close collaboration among the MRC programmes, the NMCs, the national line agencies, and other stakeholders. Also, there is a scope for expanded collaboration with development agencies that operate in the region.

This will contribute to harmonic and useful IWRM at the LMB level, in support of the MRC vision of *'an economically prosperous, socially just and environmentally sound Mekong River Basin'.*

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MRC-BDP (Apr 1999): BDP Detailed Planning Phase, Working Paper 7: A methodology for assurance of stakeholder commitments, and assessment of capacities and capacity-building needs, by Michael Loft

MRC-BDP (July 2002): Basin Development Plan, Inception Report

MRC-BDP (August 2003): Stakeholder participation working paper 4: Sub-area Forum 2: Approach and process for stakeholder participation

MRC-BDP (June 2003): Stakeholder participation working paper 1: Framework for stakeholder participation in the formulation of BDP

MRC-BDP (June 2003): Stakeholder participation working paper 3: Sub-area Forum no. 1: Approach and process for stakeholder participation

MRC-BDP (June 2003): Scenario formulation and assessment

MRC-BDP (December 05): Strategic directions for Integrated Water Resources Management in the Lower Mekong Basin. Final version, as approved by the MRC Council

National Statistical Centre, Lao PDR (May 2000): Basic Statistics of the Lao PDR

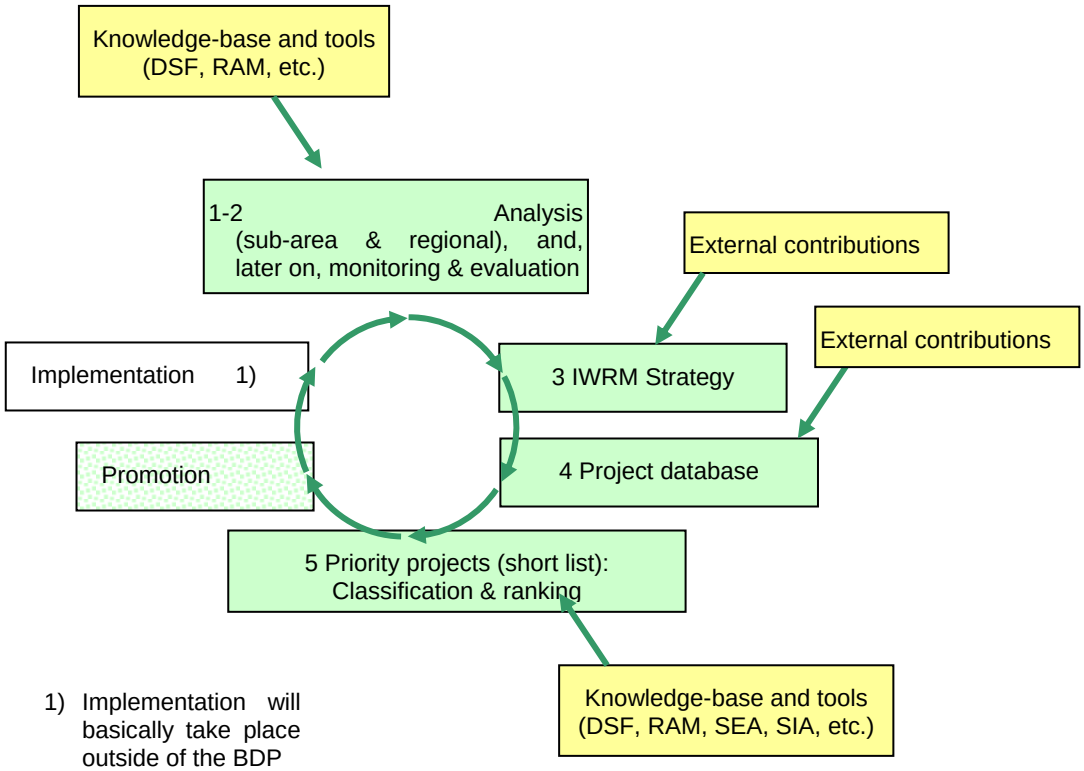
National Tourist Authority, Lao PDR (July 2001): Tourist sector, Fifth five-year Development and Promotion Plan

Science Technology and Environment Agency, Lao PDR (July 2000): National Environmental Action Plan 2000

Seager, M., 2002: Water for domestic use and sanitation, draft paper prepared for MRC's State of the Basin Report

Viet Nam: The Strategy for Socio-Economic Development 2001-2010 (Presented by the Central Committee, Eighth Tenure, to the Ninth National Congress)

Appendix 1: Illustration of the BDP planning cycle



Planning cycle components

A distinction can be made between different components of the BDP planning cycle:

1 A ***strategy cycle,*** comprising a periodical review and revision of the Strategy

2 A ***project classification cycle,*** comprising a review and revision of the project database and priority projects (short list), for example every year

3 A variety of ***project implementation cycles,*** comprising development, promotion, implementation and monitoring of each priority development intervention or investment. The time scale of these cycles will vary from case to case, from 1 to 10 years or more

Appendix 2: The PIN format

The PIN (Project Information Note) is used for raising project ideas for inclusion into the MRC Project Database. Further promotion of the idea depends on the priority it is given by the member countries.

If a project is shortlisted, a small project proposal will be prepared. Initially, this will normally be somewhat less than a full project proposal (for example with respect to implementation plan and detailed budget).

Following comprehensive consultations in March and April 2005, it is assumed that the BDP will normally not involve itself in preparation of full project proposals. The BDP will promote the projects until they have been shortlisted and until an implementing agency(/ies) and a funding source have been identified.

The following information will assist in project promotion and funding:

- How the project fits into national and/or regional development plans, and how it supports official national and/or regional development policies (notably inlcuding MRC's Strategic Plan, and BDP's Strategic Directions for IWRM in the Lower Mekong Basin)
- Whether the project supports important general development goals, like the Millennium Development Goals, poverty alleviation, gender mainstreaming, management of natural resources and the environment, capacity-building, etc.
- Whether there are any related projects or programmes, and perhaps a need or coordination

PIN format version 5 (20 january 2006)		
Project Database items	Definition and notes	Essential items for simple project directory
Project ID	Sequential number in the database	
Date of First entry	Date of First entry to database	
Date of Update	Date of Update of information in the database	
Project Code	We usually use this code for project identification. e.g. JP-001 (Joint project among the member countries No.001) , CNP-010 (Cambodian National Project No.010), MRCS-020 (MRCS project No.020)	v
Project title	Project title should be described rightly and clearly to discriminate from other projects	v
Short project title	If project title is long, we should make a short expression (one line)	
Raised by	Original source of project ideas. e.g. transboundary meeting	
Project ranking	Ranking from A to E by intial screening toolkit developed by BDP	

PIN format version 5 (20 january 2006)		
Project Database items	Definition and notes	Essential items for simple project directory
Sector /sub-sector	Select categories below (if necessary, add more sub-sector categories) irrigated agriculture hydropower water supply and sanitation watershed management / forestry tourism flood management and mitigation fisheries water transport and trade environmental conservation drought management other	v
MRC related programme	Classified by MRC work programme Basically each project should be classified by one MRC programme Select MRC programme below Basin Development Planning Environment Management Information and knowledge Management Integrated Capacity Building Water Use Management Flood Management and Mitigation Drought Management Agriculture, Irrigation and Forestry Navigation Hydropower Fisheries Tourism Note: Water supply and sanitation should be classified under Environment Management. Bank protection is usually classified under Navigation	v
Geographic coverage	Select categories below Basin wide project Joint project National project with trans-boundary implication Other national project	
Country(-ies)	Country(-ies) where the project is located	v
Sub-area(s)	Sub-area(s) where the project is located	
Province(s)	Province(s) where the project is located	v
Location map	to be attached separately	
Executing agency(ies)	Main responsible executing agency and co-executing agencies Executing agency is responsible for project execution. Project excecution may be defined as the mobilization of resources (financial and human), monitoring and supervision of project implementation, coordination, reporting on the progress of the project to the funding agency	v
Contact address to executing agency(ies)	Responsible department, e-mail address, tel etc.	

PIN format version 5 (20 january 2006)		
Project Database items	Definition and notes	Essential items for simple project directory
Implementing agency(ies)	Main implementing agency and co-implementing agencies The implementing agency is responsible for project implementation. Project implementation may be defined as the production of project outputs and related information in order to achieve project objectives. Depending on the type of project, the implementing agency may usually be either a national line agency (infrastructure projects), supported by a consulting company, contractor etc.., or the MRCS in cooperation with the NMCs (non-infrastructure projects).	v
Type of project	Select the categories below (if integrated projects, select all related types) 1. Capacity building / awareness raising 2. Data management (including data collection / delivery, mapping) 3. Study 2-1 Policy/strategic study 2-2 Research and development 2-3 Guideline / regulation 2-4 Needs assessment 2-5 Pre - feasibility study 2-6 Feasibility study 2-7 Monitoring and evaluation of project 4. Infrastructure (construction or rehabilitation of physical structures)	v
Project status	Select the categories below 1. Project idea 2. Project Information Note (PIN) completed 3. Project proposal / project identification document prepared 4. Full project document prepared 5. Project on-going / implementation 6. Project cancelled / dropped 7. Project completed	v
MRC notification information	This is based on the article 5 in the 95 Mekong agreement 1. Yes / no 2. Notified date 3. Select the nature of the proposed use: a) On tributary: - Intra-basin uses - Inter-basin diversion b) On the mainstream - Intra-basin use during wet season	v
Background / justification	Description of project background and justification	v
Development objective	Description of project development objective and other expected impacts	v
Immediate objectives / project components	Description of immediate objectives / project components	v
Project outputs	Description of project outputs	v
Scope of works / activities	Description of Scope of works / activities	v
Project start year	Project start year	v
Project end year	Project end year	v
Project duration	Project duration (years)	v
Expected beneficiaries	Description of target beneficiaries	
Number of beneficiaries	Number of beneficiaries	
Expected impacts	Expected impacts	

PIN format version 5 (20 january 2006)		
Project Database items	Definition and notes	Essential items for simple project directory
Relation with similar projects / programmes	Description of relevance or difference from other similar projects	
EIA required	Yes or no	
Relation to MRC Strategic Plan	Relation to MRC Strategic Plan, IWRM Strategy or sector strategy (if relevant)	
Total project budget (US$)	Total project budget (US$)	v
National contribution (US$)	National contribution (US$)	
External funds (US$)	External funds (US$)	
Type of funding	Loan or grant	v
Funding agencies	Funding agencies (by project components if necessary)	
Other support documents	If necessary, please add concrete titile of documents	

Appendix 3: Classification criteria

Harmony with potential strategic options of the MRC	No violation of any strategy element Positive support of at least one strategy element	A-E
National priority and support from member countries [2]	Expressed in a joint recommendation to the JC	A-E
Potential value, costs, side effects, risks	Potential economic value, costs, side effects, and risks Potential social value, costs, side effects, and risks (poverty alleviation, livelihood generation, gender issues) Potential environmental value, costs, side effects, and risks Potential resource-wise value, costs, side effects, and risks Synergies with related projects Risk of duplication of efforts	A-E
Completeness of decision basis	Completeness and character of assumptions made Other uncertainties Time scale for implementation Whether the documentation of costs, benefits and impacts is adequate for implementation, or whether a pre-feasibility or feasibility study should be aimed at	A-E
Implementation aspects	Institutional framework identified and operational Resource requirements (funds, water, land, other natural resources, energy, technology, management) Open legal and/or administrative issues (if any)	A-E

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1 In preparation, cf. MRC-BDP (Jul 05): Strategic Directions for IWRM in the LMB

2 Formulation as per 26 May 2005

Appendix 4: Project screening

Acronyms and abbreviations

BDP	Basin Development Plan
EIA	environmental impact assessment
IWRM	integrated water resources management
LMB	Lower Mekong Basin
MCA	multi-criteria analysis
MRC	Mekong River Commission
NMC	National Mekong Committee
PIN	project information note (applied by the BDP)
RIAM	rapid impact assessment matrix
SEA	strategic environmental assessment
SIA	social impact sssessment

1 Introduction

This document is intended as a complete project screening reference. It follows from the BDP Planning Cycle document, which outlines the process and general criteria for project screening. To recap, the following set of criteria have been proposed for classification and ranking of project proposals:

(1) Harmony with potential strategic options of the MRC

(2) Regional support confirmed by the member countries

(3) Potential benefits, costs, side-effects, risks and uncertainties

(4) Completeness of decision basis

(5) Implementation aspects

The BDP screening process, toolkits, and initial results were approved by the MRC Council at its 12th Meeting in December 2005.

1.1 Screening process

Each project idea is assessed according to each of the selection criteria listed above. A summary screening sheet provides brief details of the project, an assessment of its strategic relevance, summary environmental, social and economic prospects and a short narrative including the course of action recommended by the BDP.

Note that a number of project ideas (e.g. studies) have no or relatively minor physical impacts but the activities that these studies could lead to could have potentially significant impacts. But it is the project prospects (i.e. potential impacts of physical interventions) that have been assessed, as it is ultimately the likely prospects that we are interested in for strategic planning purposes.

In the absence of a finalized BDP IWRM Strategy, the strategic relevance (i.e. criteria 1 above) of all project ideas is presently being assessed using a set of indicative selection criteria. These indicative criteria come from the (draft) 'IWRM strategy for the LMB' (June 2004, revised January 2005, no longer used), which was in turn based on 'Initial outline of basinwide development objectives & elements of an LMB Strategy' (May 2003, revised February 2004, no longer used). These will only be used until the BDP IWRM Strategy has been finalized.

It is expected that regional support by the member countries will be reflected by a joint recommendation to the JC made at regular regional meetings between the member countries.

Individual screening criteria and checklists for the environmental, social and economic prospects of project ideas have been developed using the BDP Strategic Environmental Assessment (Level 2) and Social Impact Assessment tools and macroeconomic indicators respectively. All PINs for priority projects will be assessed by the MRCS BDP team in collaboration with relevant in-house sector Programmes.

While each of the checklists (including the summary screening sheet) has been developed to be as self-explanatory as possible, brief user guides have been prepared to orientate first-time users.

All project ideas are also being screened by relevant MRC Sector Programmes to identify potential synergies and/or overlaps with existing or planned sector projects and programs both within MRC and beyond (e.g. ADB, World Bank, etc).

1.2 From screening to shortlisting

Once the screening exercise has been completed, project ideas can be classified to reflect their suitability for short-listing and relative priority for implementation. At least 40 joint projects had already been identified as "priority" by the NMCs before the technical screening process. Five project classes (A – E) are delineated in the BDP Planning Cycle document:

Class	Action	Description
A	Fast track	Uncontroversial, low-risk projects with obviously attractive benefits
B	Promote	Attractive projects where feasibility, benefits and side effects have either been examined or are regarded as insignificant
C	Develop	Attractive projects where further analysis is required of feasibility, benefits and side effects
D	Wait	Apparently less attractive projects with uncertain assumptions, benefits or risks; or apparently attractive, but controversial projects
E	Reformulate	Projects which may be beyond the scope of BDP; projects with small benefits, large risks or adverse side effects; or projects that are in some way controversial

The ranking and shortlisting routines are described in a separate document. [24]

[24] Attached as Appendix 5 to this report

1.3 How to use the toolkit

The remainder of the toolkit is structured as follows:

- *Chapter 2* provides guidance on how to use and interpret the summary screening sheet and shows a blank summary screening sheet.
- *Chapter 3* describes each of the environmental, social and economic screening checklists and shows blank examples of each
- *Chapter 4* describes how the broader development context has been considered through the engagement of relevant MRC sector programmes in the project screening exercise
- *Chapter 5* is a list of *"Interim screening criteria for assessing the strategic relevance of BDP project ideas".*

2 Summary screening sheet

The summary screening sheet has been designed to provide decision-makers with the necessary information required to make an informed decision about how to proceed with a particular project idea.

The first part of the sheet provides a summary description of the project idea. This information is extracted directly from the PIN. This is followed by a short narrative statement which summarises the position of the BDP and wider MRC Sector Programmes on both the strategic relevance of the project idea and the key messages regarding the project's social, environmental and economic prospects.

The second part of the sheet uses a semi-quantitative approach to assess the project idea against the five shortlisting criteria. Indicators are assigned to each of the assessment criteria based on the outcomes of:

1) An assessment of the idea against the interim screening objectives. This assessment is done using the 'Interim screening criteria for screening the strategic relevance of BDP project ideas' (see Part 4).
2) An assessment of the social, environmental and economic prospects using the checklists shown in Part 3.
3) Discussions with MRC Sector Programmes on potential overlaps and synergies
4) Identification and assessment of the nature of assumptions and risks associated with each project idea; and
5) An assessment of the adequacy of information contained in the PIN

Further comments can be added in the final column to qualify each of the indicators assigned.

The summary screening sheet follows.

PROJECT SCREENING SUMMARY

Project Name: _____

Project Code: _____

Identification (from database)		
Short title		
Raised by		
MRC programme(s) (if any)		
Sub-area(s)		
Duration		
Direct costs		
Investment value		
No. of countries involved		
No. of people affected		
Stage of formulation		
Implementing agencies		
Synthesis (short narrative statement)		
Shortlisting criteria 1-3	**Indicator** (*see below)	**Comments**
Strategic significance		
National/regional support		
Economic prospects *(separate checklist)*		
Social prospects *(separate checklist)*		
Environmental prospects *(separate checklist)* (incl. cumulative impacts)		
Interfaces with other projects - *inputs from other MRC programmes*		
Supplementary criteria 4-5		
Assumptions and risks		
Documentation (completeness of decision basis)		
Implementation aspects		
Actions to be taken next		

***Indicators:**

1:	Apparently clearly unfavourable	5:	Apparently clearly favourable
2:	Apparently moderately unfavourable	n/a:	Not applicable
3:	Apparently neutral	?:	Not known at this stage
4:	Apparently moderately favourable	NC:	Not known at this stage, to be clarified prior to shortlisting

3 Individual screening checklists: Economics, social and nvironmental

The purpose of the environmental, social and economic screening checklists is:

- to ensure that the project screening sheet provides sufficient information to ensure that environmental, social and economic concerns are fully taken into account during decision-making; and
- to assist reviewers to evaluate the completeness and suitability of the information contained in the PIN.

The environmental, social and economic screening checklists all work in the same way. The person responsible for screening answers "yes", "no" or "uncertain" to a number of questions about the occurrence of potential impacts. So,

"Yes" – indicates that the occurrence of a particular impact is expected

"No" – indicates that a particular impact is not likely to occur

"Uncertain" – indicates that there is insufficient information available at this stage to say whether or not a particular outcome is likely or not

In order to further qualify the "yes" and "uncertain" responses, the screener is asked to provide a statement about the expected significance of impacts as follows:

Significance rating	When used
Low / minor	Impacts are temporary/short-term, localised and possibly reversible
Moderate / medium	Impacts are long-term but can be managed /mitigated
High / severe	Impacts are permanent and widespread.

The individual screening checklists follow.

3.1 Economics screening

The economic checklist consists of three main parts, namely general comments and screening assumptions, checklist questions, and assessment synthesis.

It is formatted into a table that contains six columns and several rows with different impacts. More precisely, it consists of ten economic themes, each further sub-divided into question(s) relating to potential economic impacts. The themes broadly correspond to the economic objectives of the IWRM strategic direction, particularly to foster sustainable development and ensure economic growth and development in an environmentally sustainable way.

The ten economic themes that are considered are as follows:

1 Income effects

2 Employment effects

3 Macroeconomic impacts and external balances

4 Industry / sectoral linkage impacts

5 Migration impacts

6 Technological impacts

7 Regional development impacts

8 Sub-regional / transboudary development impacts

9 Distributional economic impacts to the poor at project-level.

10 Environmental-economic impacts

3.1.1 Explanation of the economic checklist

The economic checklist is built based on the past discussions of the Resources Allocation Model (RAM, an economic valuation of resources). Its main focus is on the economic positive and negative impacts in order to analyze the net profit of the project.

Similar to the social and environmental checklists, the economic screeners are required to process steps as following.

1 Read the project screening toolkits to understand how the three checklists work.

2 Begin with PIN (project information note) to provide the general comments and assumptions.

3 Clarify each checklist question to correctly respond, based on the PIN

4 Recap the significant findings into the assessment synthesis.

To ease the checklist procedures, the meanings of the four parts and the checklist questions are explained below.

3.1.1.1 General comments/screening assumptions

The general comments are important to our judgment and further consideration because they will somehow indicate and sketch the project's potentials, drawbacks or even additional information needed for the screening. To provide these comments, the screener is required to clearly understand the primary information (i.e. its objectives, title, description, etc) of the proposed project that is provided in the PIN, particularly its feasibility and net economic impacts. In addition, if the information in the PIN is insufficient for our assessment, some assumptions need to be set up to allow the projects to be screened.

3.1.1.2 Economic checklist questions

The following sub-section explains the questions that are listed in the economic checklist, chronologically.

General questions

The general question is based on economic rational thinking to quickly express our understanding towards the effectiveness of proposed project. Particularly, it aims to justify whether the project should be considered through appraising the demand of its final output and alternative projects. Here, the readers shall have a draft idea about the project outcome or its net profits as well as any possible alternative projects available.

Is there a demonstrated demand for the project output?

It is important to predict the demands or benefits of the project outcome upon its completion because if the final output is highly demanded, the project is more likely to be considered and supported. In our example, Xe Kong 4 Hydropower Project, the demand for its output is uncertain because of not enough

information. Even this project is assumed to generate benefits to the country, it is not sure yet who will demand or benefit from the project's output. More importantly, it is not clear whether people would prefer hydropower or another source of clean energy. Or maybe they don't want more electricity, but would rather have more water or better roads. Thus, additional information and consultation with potential beneficiary communities would be required.

Have alternative projects/project activities been considered?

This examines whether the project and its final outputs are economically cost-effective compared to the possible alternatives. Alternatives would be projects that would produce similar outputs in a different way. Ideally, the most cost-effective alternative should be promoted.

Income effects

A rise in income is an indication of growth and development. Thus, to achieve economic growth and development, the proposed project should continuously contribute to (either maintaining or increasing) i) individual/household income, ii) national income or gross domestic product (GDP, total final output of goods and services), and regional income or the so-called regional economic development.

Is the project likely to contribute to household income?

An increase in the household income is fundamentally required to achieve the economic growth and poverty reduction since it indicates the significant improvement of the household's purchasing power and of their well-being. In the example, the potential impact of the hydropower project to household income is uncertain because information regarded to beneficiaries from the project PIN is not fully available. Also it is not clear how many households might suffer a decline in income as a result of the dam (e.g. those that are resettled). While some households (those that gain access to cheaper electricity) gain, others may lose. The net effect is not known.

Is the project likely to contribute to GDP?

Similar to household income, if the project contributes significantly to the increase in GDP, the country is likely to obtain its sustainable growth and development. This is because the country tends to have large financial source for its development. In the example, while its contribution is uncertain to the household income, the hydropower will apparently benefit to the country in terms of expert earning.

Note that this measure tells us nothing about the distribution of wealth. GDP may be very high but very unevenly distributed (i.e. wealth is concentrated in the hands of a few). This is why we have a question about household income – it provides a better reflection of how wealth is distributed among the population.

Is the project likely to contribute to regional economic development?

Alike as above, this question looks at the contribution of the proposed project to the development at the regional level. In other words, how the project benefits to other nations. When more countries gain its benefit, the project opportunity to be considered is also high. In the example, when hydropower project, which locates in the southern of Laos, is complete, it would promote the economic development of Vietnam, Cambodia and Thailand in terms of supplying cheap power.

Employment effects

Labor productivity or high employment is one of the main determinants of economic growth. The project can demonstrate its effectiveness or additional positives if it can expand employment opportunities. This is essential because the creation of the high labor productivity and employment leads to achieve not only the growth and development but also the social safety as well.

Is the project likely to result in the creation of employment opportunities, both formal and/or informal?

This question attempts to investigate whether the proposed project creates formal and/or informal employment opportunities. The employees who are registered are regarded as the formal employment, otherwise it is informal. In the example, during the project's implementation, it expects to create formal temporary opportunities for construction workers and long-term opportunities for dam operation and maintenance engineers. Informal employment opportunities may also arise around the dam site, in the provision of goods (e.g. foodstuffs) and services (e.g. restaurants, foodstuffs, etc). After project completion, both formal and informal will be created where the power is reached and used.

If yes, is labour likely to be locally sourced (i.e. from local communities)?

To achieve sustainability, as a key of developmental projects, local resources, especially labors as the main actor, need to be integrated into the project. This question attempts to prove if the project will allow local labors to play any roles in the implementation. This is important approach to sustainability since the local people can maintain and repair the project by themselves when the project ends. Local employment also stimulates the local economy, making sure that the project benefits are felt locally too.

Is the project likely to result in the acquirement of skills by project participants?

It is a part of the project benefits if local people or participants can learn and gain their new knowledge and skills from the project. Most developmental projects often utilize local people and participants for at least two purposes when project ends; i) to achieve sustainability as they can maintain and repair activities; ii) to promote local income earning as they can be hired or employed by others based on the acquirement of skills.

Macroeconomic impacts / external balances

Based on macroeconomic theory, the aggregate demand of a nation consists of four components, namely domestic consumption, final government expenditure, gross domestic investment, and net export (Export – Import). Thus, some of these components are mentioned and briefly described in order to detect any possible impacts of the proposed project on macroeconomics.

Does the project contribute to government finances
(e.g. through foreign export earnings, taxes, royalties, etc)?

This question considers if the proposed project will positively contribute to the government's revenue. It is good if the project will raise government's revenue, so that this revenue can be used for any government or public development purposes. However, it is not necessary to imply that the project with high yields to government is superior. For example, the main purpose of some government projects is to increase their own revenue and it also is doubtful if that revenue will be used for any developmental purposes.

Does the project result in significant government capital and recurrent expenditures?

The meaning of this question is just the opposite to the former one. This also provides a "check" – if the government is not receiving much in the way of revenues, then how can it possibly sustain significant capital and recurrent expenditures after project completion. If so, it provides a warning that the project may not be sustainable unless other sources of ongoing finance are available.

Is there likely to be private sector involvement?

While government, any development agencies or NGOs initiate most development projects, the private sector may involve through sub-contract activities or other implementing activities beyond the initiators' ability or even sharing the project's consumptions and profits utilization upon its completion. Particularly, infrastructure improvement project is essential to attract private investment.

There is also an argument that the private sector is more efficient at providing goods and services (mainly because it promotes competition which stimulates innovativeness, production of better quality goods and services and at more competitive prices), assuming that there is no private monopoly operating.

Is the project likely to contribute to export earning?

Income from export is a source of growth and development. It is considered as advantageous if the project can contribute to export earning. If so, the project may be very significant to implement (i.e. helps the country move towards a positive trade balance).

Does the project contribute towards structural transformation (i.e. a move away from a natural resource-based economy towards more service-based economy)?

The structural transformation is related to the development stages of an economy that move from agriculture to industrialization, and then to service. In the past, a nation took time and a lot of resources to move from one to another stage. Now, new technological progress, Feign Investment, globalization etc have changed patterns of the movement of the stage. Therefore, it is essential to observe the project if it has any contributions or impacts on the movement of structural transformation.

Industry / sectoral linkage impacts

In a formal economic planning analysis, an economy is divided into several industries or sectors, such as agricultures, health, manufacturing, trade and service. The interaction of the project on these industrial or sectoral linkages is another important way to observe its net impacts.

Does the project have forward linkages to other sectors?

The term of "forward linkages" is referred to the supports from one to another sector(s). When a project is implemented, it also aims to directly or indirectly enhance one or more economic sectors. Thus, to show its significant impact, the project should link and boost up the performance of the economic sector(s). In the example, electricity from hydropower project as a main input to operate most industries in the economy of the LMB countries presents its significant impacts on other sector when it is utilized.

This question is also trying to look at whether there are any other indirect or chained economic benefits that the project might create. For example, the cement industry would be stimulated by the demand for large amount of concrete to build a dam. The manufacturing industry would be supported by a large demand for construction vehicles, etc.

Does the project have backward linkages to other sectors?

Oppositely, the "backward linkages" is regarded to the discouragement or negative externalities from one to another sector(s) as a result of the project since the resources may be taken away from that to another sector. So, it is critical to analyze the negatives against the positives of the project. Therefore, to understand the real impacts, the cost and benefit analysis would be helpful to analyze the project.

Does the project add to the domestic product range?

The final output of a project can be either tangible and visible (i.e. Dam, agriculture products) or abstract and invisible (i.e. capacity building) or both. This question seeks to identify if the project outcome can add a new product(s) or expand the quantity of the existing product(s) in the domestic market. In example, the power generation from the Xekong hydropower would not be a new product because Laos already has hydropower stations. It just raises the quantity of power generated in Laos.

Migrations

One of the problems in many developing countries is that too many rural residents migrate to urban areas for their education, jobs opportunities, and better living conditions. Consequently, this imbalance creates low wage and social pressure in the city, while lack labors for agricultural sector in rural areas. Thus, the project must not create such the imbalance and the pressure. Interestingly, in the South West China, there is a move by government to promote urbanization.

Is the project likely to result in migration to or from urban areas?

The high migration from/to urban areas results differently outcome. If the project results to people moving from urban to rural areas, this can be considered as positive impact because rural-urban linkages will be promoted. Otherwise, it would create economic pressures as mentioned above.

Technological impacts

Technological progress is recognized as a major factor in stimulating the long-term economic growth of contemporary developed countries. Therefore, if a nation can quickly absorb and use new technologies, its economic growth and development goals can be achieved.

Does the project rely on imported technology?

While technology is a main determinant of growth, its cost to apply is also high. Particularly, the external or imported technology would be very costly and may be inappropriate for some small projects as local skills may not exist to operate and maintain the technology. In addition, the proportion to use imported technology for the large-scale projects is needed to be carefully considered, due to the project budget constraint and maintaining reasons.

Does the project expand the national technological base?

Some projects may or may not apply new technology during their implementation or after their completion. The key point is that it is considered as project additional advantages if the project can result to an expansion of the national technology. This expansion can be presented in various forms, such as technological spillover, knowledge transferring, computer know-how and labor productivity improvement.

Regional development impact

This sub-section is to access whether the outputs of the project will domestically benefit to either a particular area or another region(s) as well. Of course, the more areas sharing benefit is the better. In other words, the project is highly and economically important if it spreads out its benefits and development to several regions, particularly in the rural and remote areas, rather than a particular or urban area(s). The benefits can be presented into rural-urban linkages and incentives for better livelihood of the poor.

Is the project likely to strengthen rural-urban linkages?

The close linking between the rural and the urban areas is regarded as a factor to foster the regional development because the accumulated experience on development and modernization of the urban will be gradually transferred to the rural. Otherwise, the development of the rural may take time. Thus, the project that promotes this linkage would be very important for consideration. Some examples of this linkage can be any communication channels (roads, rivers), trade (especially access to markets), or tourism activities.

Is the project likely to contribute to the development of a poor and/or remote region?

Several developmental projects aim to focus on the rural and remote areas in the developing and less developed countries since the residents in these areas are very disadvantaged. As a part of the IWRM objectives, it is necessary and an additional advantage to the projects if it can create any incentives to improve the status and welfare of the poor in the rural and remote regions such as income generation, job and educational opportunities, and market accessing.

Subregional / transboundary development impact

This part aims to assess the impacts of the project from the cross-border or transboundary issues. The project to be implemented usually benefits to one or more countries, and more importantly it should not create any costs to other countries. However, it is concerned to project cost when more than one country share its benefits and whether the benefit of one is hunt or negatively impacted (an)other country(s) to another country(s).

Are the sources of project finance transboundary?

The project cost is one of the main issues in the project proposing process. In many cases, a project that implements for one or jointly for two countries may positively and externally benefit to other countries members. Therefore, it often becomes the issue and claims that if the cost should be shared among all beneficiary countries.

Is one country likely to benefit from the project at the expense of another?

One country may enjoy benefits from the project, while another(s) may be hurt by the negative impacts or externalities from the project. However, these negative impacts are sometime difficult to figure out, due to their characteristics.

The cost-benefit analysis would be helpful for our judgment. A project will be allowed to implement when all country members are better-off and non worse-off, or when at least one is better-off and non worse-off. If the better-off can fully compensate the worse-off, it is still possible to implement the project. Again, if there is no such compensation, the project may be impossible to implement because it hurts (at least) a country(s) while it benefits to another country(s).

Are there any negative transboundary impacts?

This is just an additional detail of the former question, to indicate the negative impacts of the project on the transboundary, if any, for further analysis purpose For example, a project (in Laos or Thailand) that uses the upstream water may reduce both quantity and quality of water at downstream (in Vietnam and Cambodia). These should be added to the costs of the project.

Are there any positive transboundary impacts?

This is just another additional detail, to indicate the positive impacts of the project on the transboundary, for further analysis purpose. For example, the river bank protection project in Laos and Thailand may improve fisheries productivity in Cambodia and Vietnam. These should be added to the benefits of the project.

Distributional impacts

This question is further analyzing the potential project impacts on the vulnerable group at the project site, which is referred to the poor, women, and disabled people. These impacts of the project need to be viewed on both positives and negatives to analyze its net benefit to the poor.

Is the project likely to result in economic or financial benefits to the poor at project-level?

For this checklist, the economic or financial benefits are regarded to the income earning and any accessible opportunities for the poor to education, trade, employment, health improvement, etc. These opportunities from the project expect to help the poor to achieve their self-sufficient condition. Thus, as a tool to reduce the poverty in the LMB countries, the project requires to provide these opportunities to the poor at the project's site.

Is the project likely to result in economic or financial benefits to women or disabled people at project-level?

Women and disabled people, especially in the rural areas, are often considered as the most disadvantaged group. To improve the status of this group, the project needs to directly or indirectly contribute such economic or financial benefits to them. For example, the project may encourage them to participate in the planning, transfer new knowledge and skills to them for maintenance and repairing the activities, etc.

Environmental-economic impacts

Positive impacts on environment such as clear air and water, expansion of wild animal or fish habitats, etc or negative impacts on environment such as air and water pollution, global warning, drought and flood, etc can be produced by the project or by any other projects/factor. These impacts are likely to create environmental imbalance. Therefore, the deep study and the long-term prediction of the environmental impacts of the project are needed because these impacts are invisible and unpredictable.

Does the project present any opportunities for using market-based instruments for mitigating adverse environmental impacts or for promoting environmental conservation?

The environmental imbalance can be reduced by using the Market-Based Instruments (MBIs) that are referred to environmental policies to encourage a change in technology, behavior or products through financial incentives (subsidies, taxes, price differentiation or market creation). In addition, MBIs seek to address the market failure of 'environmental externalities' either by incorporating the external cost of production or consumption activities through taxes or charges on processes or products, or by creating property rights and facilitating the establishment of a proxy market for the use of environmental services. When the project may create positive or negative impacts, leading to market failure, the government or the authorities needs to intervene to adjust the environmental condition (reducing pollution). For example, subsidies and incentives can be used to support the producers to produce more positive externalities. On the other hands, tax, fine, or regulation should be imposed to the polluters to reduce their negative impacts.

3.1.1.3 Assessment synthesis

The assessment synthesis provides a summery / conclusion of the main economic finding from the answers or remark to the checklist questions. Particularly, it should include brief project explanation on project general statement, economic costs and benefits, potential environmental-economic impact, conclusion of the project net benefits and recommendations, and other necessary information to support decision making process.

ECONOMICS SCREENING CHECKLIST

Project Name: _____

Project Code: _____

General comments / screening assumptions

	Questions to be considered	Yes	No	Uncertain	Significance of impacts	Remarks
	General questions					
	Is there a demonstrated demand for the project output?					
	Have alternative projects/project activities been considered?					
1	Income effects					
1.1	Is the project likely to contribute to household income?					
1.2	Is the project likely to contribute to GDP?					
1.3	Is the project likely to contribute to regional economic development?					
2	Employment effects					
2.1	Is the project likely to result in the creation of employment opportunities, both formal and/or informal?					
2.2	If yes, is labour likely to be locally sourced (i.e from local communities)?					
2.3	Is the project likely to result in the acquisition of skills by project participants?					
3	Macroeconomic impacts / external balances					
3.1	Does the project contribute to government finances (e.g. through foreign export earnings, taxes, royalties, etc)?					
3.2	Does the project result in significant government capital and recurrent expenditures?					
3.3	Is there likely to be private sector involvement?					
3.4	Is the project likely to contribute to export earnings?					
3.5	Does the project contribute towards structural transformation (i.e. a move away from a natural resource-based economy towards more service-based economy)?					
4	Industry / sectoral linkage impacts					
4.1	Does the project have forward linkages to other sectors?					
4.2	Does the project have backward linkages to other sectors?					
4.3	Does the project add to the domestic product range?					
5	Migration					

	Questions to be considered	Yes	No	Uncertain	Significance of impacts	Remarks
5.1	Is the project likely to result in migration to or from urban areas?					
6	Technological impact					
6.1	Does the project rely on imported technology?					
6.2	Does the project expand the national technological base?					
7	Regional development impact					
7.1	Is the project likely to strengthen rural-urban linkages?					
7.2	Is the project likely to contribute to the development of a poor and/or remote region?					
8	Subregional / transboundary development impact					
8.1	Are the sources of project finance transboundary?					
8.2	Is one country likely to benefit from the project at the expense of another?					
	Are there any negative transboundary impacts?					
	Are there any positive transboundary impacts?					
9	Distributional impacts					
9.1	Is the project likely to result in economic or financial benefits to the poor at project-level?					
9.2	Is the project likely to result in economic or financial benefits to women or disabled people at project-level?					
10	Environmental-economic impacts					
	Does the project present any opportunities for using market-based instruments for mitigating adverse environmental impacts or for promoting environmental conservation?					

Project synthesis:

3.2 Social screening

3.2.1 General

3.2.1.1 Objectives and background

The ultimate aim of (all sectors) development is to achieve social and economic well being of the peoples in LMB and the citizens of the 4 LMB countries, and to also ensure that this well-being lasts into the future; that is by ensuring environment sustainability. This is clearly stated that in the MRC vision and mission statement of an *"economically prosperous, socially just and environmentally sound Mekong Basin"* (MRC vision statement, March 2001).

The promotion of a *'socially just'* Mekong Basin is central to development concerns in all the MRC countries. Each has poverty eradication as a key and overarching policy goal. Poverty reduction targets are embodied in the national priorities, with clear commitments made through Poverty Reduction Strategies (PRSs), as a part of meeting the Millennium Development Goals.

The Basin Development Plan could add value to the poverty reduction and Social Development targets of each riparian state. It could be done through promoting actions which address key transnational, basin wide issues of poverty and sustainable development common to all. The Plan can also add value to national poverty reduction strategies through addressing issues of the cumulative impact, which by working together may be far greater than that which results from each country working separately.

SIA, a social impact assessment, is one among a number of recommended methods for incorporating social concerns in the BDP. Specifically, the SIA is recommended for application to screening water related projects and programmes that have been proposed by MRC member countries from long list to short list. It is a part of criteria 3 among 5 criteria already endorsed by the MRC Joint Committee. Along with 2 other assessment tools, the SIA serve to prioritize projects among hundred projects proposed, with the aim of establishing LMB portfolio of " high priority" projects, and for further seeking funding support. It is envisaged that in the near future, the riparian state will use this tool kit to screen their respective nationally proposed projects, and to be part of MRC future project database.

3.2.1.2 Basis

In order for BDP in incorporate social development considerations into its process, strategy and plan, a number of working papers have been prepared as inputs for different steps.

It is important that BDP planners, and those " SIA" tool kit users familiarize themselves with the SD principles as planning approach as it applies to BDP, and come to comprehend the full picture of social development situation of peoples in the basin first. It is also important to know specific information of each subarea in regards to socio economic status, and key stakeholders, and their poverty profile. These understandings are pre-requisite for the exercise of applying the SIA checklist to screen proposed projects. Applying SIA without familiarity with social context knowledge for e referencing, may not be useful and may merely serve as " mythology " work with no due substance behind the considerations.

The basic working papers provide a framework for the SIA exercise. This is because SIA is only " partial" to the whole SD considerations to basin plan. And thus, it needs to be put in the larger context. SIA screening quality is greatly enhanced when undertaken in a group of experts of related sectors, environment experts, and at least 2 social development experts for cross referencing view.

3.2.1.3 Role of SIA in the screening process

Social Impact Assessment (SIA) is a tool to ensure sustainable development. It has evolved in the 1970s as a method for evaluating the social impacts of large-scale public programs and policies. This impact assessment is an important pillar in meeting the goals of sustainable development. This is because the sustainable development requires the harmonisation of the biological resources, economic and social spheres.

Along with environmental impact assessment (EIA), and technology impact assessment (TIA), SIA arose as a preventative means of anticipating potentially negative impacts prior to the program implementation (Oakley, in Eckman 1994). SIA is generally one phase occurring early in the project cycle to identify possible outcomes

In the past, assessing impact involved asking the following questions:

- *Is it technically feasible?*
- *Is it financially viable?*
- *Is it legally permissible?*

With the advent of Environmental Impact Assessment (EIA), a further question was asked:

- *Is it environmentally sound?*

With SIA, a further two questions are posed:

- *Is it socially desirable?*
- *Is it equitable and just?*

SIA is concerned with predicting change, and managing the risks associated with the changes. SIA deals with both the expected, and the unexpected consequences. SIA is concerned with people, and therefore with human agency. Human interaction and decision making is complex and not easily reducible to cause and effect. Humans have choices, and exercise these choices on what are not always rational grounds. SIA is , therefore, necessarily imprecise as human action is too.

How is social impact evaluated? SIA seeks to observe the following kinds of impacts:

Direct impacts: Impacts that result directly from actions undertaken as part of the proposed development

Indirect impacts: Impacts which take place through a secondary, or intermediary process An example may be declining school attendance amongst young girls as a result of improved irrigation for market gardening, requiring girls to spend more time at home on vegetable production and processing.

Cumulative impacts: These may be *'aggregate'* (the sum of a number of individual impacts together), or *'synergistic'* (whereby the overall impact is greater than the sum of the individual parts). Given that SIA is dealing with the human dimensions to development, assessing cumulative impacts is very difficult, and thus a full account should be taken of all intermediate variables and alternatives.

Social Impact Assessment criteria for BDP were initially developed in April 2004. They are intended for screening proposed projects from long list to short lists. The checklist for screening long list is intended to be a *'coarse sieve',* as the there may be very high number of potential projects. As such, it is to assess project concepts in a broad manner only.

As seen in current status of PIN1, information in each field is very limited, and thus can not yet provide a solid basis for thinking and assessing the impact. The information field most important for social impact assessment is *" beneficiaries expected".* In many cases, this is still absent in current PINs.

Thus for *'coarse sieve'* or screening of the PIN, only key questions in highlight green can be appropriately applied. The detailed questions under each topic will be more useful to apply at a later stage of the project formulation.

The SIA screening is designed to consider both the potential level of impact, and the level of risk associated with the proposed activities. It is anticipated that the SIA checklists, along with SEA and economic tools, could effectively be used to prioritize projects if, a high poverty reduction impact is deemed desirable under the Plan.

3.2.2 The social checklist

3.2.2.1 Overview

The checklist consists of 6 columns and 6 rows with different impacts. The rows consist of 6 social themes, each theme is further sub-divided into questions. The social themes broadly link to the social objectives of the IWRM strategy, particularly to foster sustainable development while supporting economic development, must also be contributing to poverty reduction, ensuring equity, and ensuring environmentally sustainable move.

The 6 social themes that are considered in the checklist are as follows:

A Poverty

B Vulnerability

C Conflict

D Gender

E Ethnicity, minorities, and cultural rights/heritage

F Participation

The columns cover themes to be assessed, and whether impact is anticipated under each theme.

No = no impact is anticipated

Yes = Impact is anticipated. Therefore, the following quantify the impact

Uncertain = Not enough information to determine the like impact

Additional columns allow for rating of level of impact (seriousness) and for references to explanation note that may be required.

3.2.2.2 Explanation of the checklist

First, the project screener (s) make explicit his or her assumption on whether the project is assessed as " feasibility study project" only (many of the current PINs are) , or whether project assumed to be in full implementation.

General question

The general question is based upon social development basic principles to express a brief and overall view towards the proposed project. Specifically, it is to justify whether the project should be considered by assessing the demand of the project's outputs; who are the intended beneficiaries, what are the benefits, who will carry the costs, and if alternative projects could meet the objective better – in a more socially desirable manner.

Is there a demand for the project outputs? and whose demand ?

It is important to predict the benefits of the project outcome upon its completion. If the final outputs are demanded by large segment of communities, the project is more likely to be supported. If the demand for the products are external (to locality or to country), the benefits gained from providing the products must outweigh peoples' loss in local resources in order for the project to gain further support (in the case of hydro power export). Consideration will focus on who get benefits ? what and how much? who

carry the costs? And are those to carry the costs already the least able to do so n society? What are the trade off? The demand for type and level of benefits has to be made clear for "trade –off" in order to make them socially acceptable. Sometimes, trade-off is not an option, as the social cost may be too high. Other development options yielding comparable economic-social benefits will have to be sought under" alternatives" . For many instances, among current PINs, additional information is needed , thus consultation with beneficiary communities would be required.

Poverty

Poverty is a multi dimensional condition beyond simply lacking cash income. It is understood as a condition of deprivation in key assets important to sustaining a livelihood. This may include customary rights to communal lands, rivers and forests for subsistence; access to health and education services; relationships of exploitation; the ability to preserve a traditional way of life; as well as the means to earn an income, or exchange goods.

Broadly speaking, conceptions of poverty fall along scale from 'material' measures (such as a lack of monetary income, a lack of consumptive ability or a particular condition of health) to more 'relative' measures (such as a lack of opportunity, a susceptibility to vulnerability, low capabilities, insecurity, powerlessness, social exclusion and a lack of choice)

The material measures are often described as 'absolute', in that they can be measured and collected across countries without particular reference to the prevailing social context. The more 'relative' measures of poverty are more context specific, more relational and dynamic in seeking to understand some of the context and causality behind conditions of deprivation.

Poor people engage in diverse livelihoods strategies, utilizing a wide range of resources - material, economic, natural, human and social. This diversity is locally specific. Poor people are poor in different ways and at different times in different places (Friend and FungeSmith 2002:4). This nature must be understood context specific in each sub basin .

Overall anticipated poverty reduction impact of the project

Poverty reduction is a over-arching development goal is each country. In their PRS (national Porverty Reduction Strategy) " the poor" are identify, located, and characteristic of the poor described. Proposed project for development intervention will be assessed by its impact on these groups.

Is the project going to improve their income (food or cash)? Enhance income opportunities (new employment, better access to market sell their products) for the poor in the area? Improve access to basic services such as functional health facilities ? improving access common resources (land, forest, fishing ground) which they depend on? Provide new alternative livelihood that are feasible? acceptable?

For example, irrigation infrastructure construction intending to increase national cereal yield (by expanding more area for cultivation) may or may not improve food security for the poor in the area. Ability to benefit from such scheme depends largely on variables such as access to land, having fund for farm investment, affordability of farm inputs and fuel for pumping, rate of return for investment, and risk involved for such undertaking. Often, the poor are reluctant to engage in activity that they see to be of high risk because they have so little assets and can not risk the loss.

Over the past 4 decades, global food supply has grown more faster than world demand. Food prices are at an all-time low. World cereal production has doubled in forty years, reducing real food prices by 50%. However, most people buy food (or barter) rather than produce it. The poor in the most badly affected areas cannot produce enough food, nor afford to buy food. Agriculture alone does not offer a way out of poverty for many people.

In many locations of LMB , there is insufficient land to produce the food that people need. The symptom of poverty is hunger, but it is wrong to assume that the solution is agricultural. Measurements of the number of food insecure people based on national level food supplies are, at best, inaccurate and, at worst, misleading. The challenge for most people is to earn enough money to buy food (Quashigah and Short 2002).

As proven many places in the world, national economic growth alone does not automatically reduce poverty. Gain from national economic growth need to be well channeled , and manipulated to reduce poverty among particular groups as targeted.

Does the project concept include an overall objective of reducing poverty?

Is the project intended to reduce poverty? Is this included in objective statement of the project? In what ways ? For whom? For example irrigation expansion *"to increase rice and other food crops production to improve food security among the small farmers in central Laos ".*

Are poverty reduction measures included in the proposed project?

If the poverty reduction is among the objectives, does it say " how " poverty will be reduced in relation to project activities? e.g. . by creating - off farm employment opportunities, securing land tenure, improving access to safe drinking water, thus reduce water borne diseases?

Have project target groups been defined?

Who is the project intended to benefit (either: Directly? Indirectly?) Will any groups be adversely affected?

Overall level of risk of adverse poverty impact resulting from the project

This section looks at a " negative impact" that might come from the project. The question to ask is who will get the share of benefits from this? who/ which groups carry the cost ? is it the poorer sector in society? Rural or urban ? Is it deepening poverty among the poor? is creating new poverty? The nature of the "costs" should be identified.

Are possible risks of increased poverty resulting from the project identified?

For example, national watershed management via resettlement of highland peoples to low land area carries risk of pushing the poor groups deeper into poverty, in term of food security, social disintegration, and risks to new diseases not common in highlands. These risks need to be assessed for the severity, and if socially acceptable weighing against gains, or there might be alternative ways for " watershed management" ? that are cost effective and socially desirable /accpetable?

Are possible at-risk groups identified?

Does the project mention who or " groups -at -risk " in association with the project ? Both on site and beyond the site. This is for the reason that all " costs" to project are accounted for. If not yet identified, and there are risks , who and how many might be at risk? Significance of risk? What are their profile?

Are poverty risk mitigation measures identified?

If the project identify group at risk, does it propose ' measure " to reduce to risks and dealing with result of those risks?

Vulnerability

Vulnerability is defined as susceptibility to and inability to withstand shocks from natural occurrence and man made interventions. This might result in loss of livelihood, food insecurity, loss of chosen way of life/culture or heritage, or identity.

Livelihoods resources are the 'capital' base from which different production streams are derived, and there are four types: natural capital (soil, water, genetic resources etc)- economic or financial capital , human capital and social capital (support of community network, social relation and kinship)

People's dependence on aquatic resources also implies that their food security (or insecurity), health and nutrition status, and livelihoods are also greatly impacted by the availability, diversity and quality of riparian aquatic resources

Different environment contexts carry with them different of risk in securing access to resources. Many factors affect the risk profile, including topographical factors; location (urban or rural); presence of local private sector companies; and the channels of communication which can convey demands, and also the presence of transparency of government. Thus, vulnerability is not confined to physical factors, but also includes the risk to livelihoods which comes from unstable social environment, physical and political environments. A change in policy at international level which drives change can have different impacts on vulnerability (Nicol 200015-16).

All of these factors / drivers will need to be considered *"social cumulative impact"* in conjunction with immediate impacts from a single project on a given group.

Overall anticipated reduction in vulnerability resulting from proposed project

The nature of vulnerability in each LMB country depends on local conditions. In general farmers in NE and north of Thailand and Vietnam are vulnerable to market price fluctuation (for farm products) which put them at risk of further indebtedness and subsequent loss of productive assets and other livelihoods.

In Cambodia and Laos where dependence on natural and aquatic resources is high and alternative income sources is limited, vulnerability comes from loss / reduced access to the natural resources or degradation of this base.

Assessment of projects will be based on whether or not the intervention can help *" reduce"* existing vulnerability of marginalized groups and " circumvent" vulnerability which comes from other factors in the particular social – economic context of the region, or country.

Has the project considered livelihood vulnerability in concept design?

How was/ is vulnerability understood in the project formulation process? Is there specific mention in the proposal?

Have target vulnerable groups been identified as beneficiaries from the proposed project?

Which groups identified are considered particularly vulnerable through project activities? (reference to single female headed households, the young and aged, households with a high care ratio, refugee and resettled households and communities) And in what ways?

Are specific project measures proposed for reducing vulnerability?

What management and mitigation measures are in place to reduce the risk of increased vulnerability? What barriers have been identified to vulnerable groups enjoying project benefits? How will these barriers be addressed under the project?

For example, one measure is avoiding large scale resettlement of communities as result of propose project to avoid hurting community social and environmental resources. And if resettlement is absolutely necessary, new site to be in similar altitude and settings to maintain livelihood will need to be sought in addition to feasible new income options. This will depend on the " parameter of impact" defined in particular vulnerability situation.

The answer may be *'yes', 'no',* or *'uncertain'.* Then write under *'remark'* any key points on concerned issues.

Overall level of risk of increased vulnerability resulting from the project

Projects are assessed against the vulnerability it may inflict on, firstly the very poor , the disadvantage groups in society, the marginalized and the ethnic minorities who live at subsistent level with few assets. This is to highlight and flag if the "least able people' are ones who might have to "shoulder" the cost of development.

For example, hydropower development may lead to increased income and employment in the industrial sector, rural electrification, education, sanitation and water supply, irrigation possibilities, and regulation of water flow. But it also may generate negative impacts such as decline of fish resources, possibly increasing in water-borne diseases, reduced food production due to water logging, and displacement and loss of cultural identity of indigenous people who are generally among the poorest in the region (Kristensen 2001).

Are there potential groups at risk of increased vulnerability under the project?

For example, the poorer groups or in rural community in Laos and Cambodia derive over 50% of their food and livelihood from forest and aquatic resources, have very few other options . Any project that reduce their access to these resources, or alter these resource base will have adversely impact on the fishing communities who are already living on the margin of society, while the gains could be benefiting other groups (e.g urban development).

Have vulnerability risk mitigation and management measures been identified?

If there is any adverse impact on vulnerability, whether or not the project includes suggestions on mitigation measures.

Conflict

Conflict is the latent or manifest tensions underlying social relations, and the triggers that can lead to tensions becoming open conflict.

The project will be assessed in the light of whether it creates negative social relation among communities, between sectors of society, CSO and governments. Social development concerns itself with peaceful coexistence and societal cohesion.

Overall anticipated reduction in conflict potential resulting from the proposed project

Considerations may include- Is the project situated in an identified conflict prone area?

What are the latent conflict issues in the project area, and will they be reduced or exacerbated by project activities? (including potential conflict with the state) What are the 'potential for conflict' triggers?

For example, land security is the highest stake issue for most highland ethnic peoples in the LMB, as shown in PPA reports (participatory poverty assessment). Threats to their ability to hold on to heritage land and pass down to their children in the next generation is ranked the biggest threat to livelihood than health, or income. Major development projects in the highland area thus present potential conflicts among different set of stakeholders, e.g. private enterprise, local peoples and the state.

Is there a core conflict reduction rationale to the proposed project?

Consideration may include; is conflict reduction or mitigation a project objective? What are key issues ? how will these issues be approached ?

Have target groups been considered from a conflict perspective?

Has the project specified groups? From example above, groups may be Karen / Mien or Lahu peoples in 24 villages in 2 districts.

Level of risk of increasing any potential conflict resulting from the project

Is there a risk of project measures increasing conflict, or the potential for conflict amongst groups?

Issues posing risk of conflict could be such as new land allocation, limiting access to local resources, levying fee for water use. Have key issues been identified? If yes what are they ? if not yet, and comments can be made under on remark

Have conflict risk reduction and management measures been identified?

Have any solution been suggested (where relevant)? If yes, what are the suggestions? What conflict risk management measures are in place for the project?

Gender

Women and men in the LMB agrarian society has different roles to play in productive and reproductive activities. Asset ownership are different , so are access to natural resources and credit and employment. Men and women benefit from fruits of development differently as well they differ in development priorities/needs. Food security in rural communities are significantly supported by foraging and collecting activities from common resources by women.

Gender is widely regarded as an important element in sustainable livelihoods. Women's access to and control over land may be restricted due to heredity laws, while the pond in her backyard is readily accessible and managed by her. 80% of the workforce in fresh water and cage culture in Viet Nam is contributed by women (AIT 2000:6).

Overall anticipated impact in transforming gender relations

Are their either positive or negative impacts anticipated for women ? What are they?

For example, project which improve rural communities' access to safe drinking water will have positive impact on women., and improve gender relation. This is reduce their time for fetching water, better health for children, more time for herself, and higher potential for earning jobs and thus improve positioning in family and community.

Are such or similar impact expected from this project?

Has the proposed project concept considered the issue of gender relations?

Does the project recognize exiting gender relation and identify the area that the project can help improve? Example, encouraging women representation in "community forestry" who decide on the use of NTFP may be one way to improve gender relation as this allow for inclusion of women's views and needs into the management plan.

Have gender disaggregated target groups been identified?

Which groups of women will be affected? Is the project activity specifically targeted at one gender group? (i.e. older women, young married women living in an extended household, young girls, women heads of household where male family members working away)?

Will the proposed project specifically address existing gender relations of inequality in any way?

If yes, please consider e.g. income disparity, workload, employment opportunity etc.

Overall level of risk of project contributing to increased gender inequality

For example, Intensive farming and cash crop production that comes with new irrigation may benefit male and female farmers differently. It depends on the training and extension support for in new production techniques. Who constitute primary targets for training matters greatly. Training participants are often men, though, for example, in Cambodia and Lao over 50% of farm labor are women. In many communities as high as 25-30% of household are headed by women (most of family members age under 14). Though good intention of increasing yield and income, the project may have unintended impact by worsening gender inequality in land holding and further putting female farmers at risk in the new venture, and risking indebtedness from failed investment

Are there risks of the proposed project increasing gender inequalities?

If there are risks, what are the risks? And their parameter ?

Have risk mitigation and management measures for possible increased gender inequality been identified?

Additional comments can suggestion can be added under remark, if not yet covered by project.

Ethnicity, minorities and cultural rights

The protection and promotion of indigenous identities and culture is a key right, and Social Development analysis is concerned with cultural and ethnic identities, and the role they play in determining susceptibility to poverty and vulnerability. Ethnic identity is an important concern the Mekong Basin particularly, as one of the world's great cultural and biodiversity hotspots. Ethnicity is most important in understanding the relationships between biodiversity preservation, environmental management and poverty reduction in the region.

Poverty is the highest among the ethnic minorities in the LMB, as well as low living standards. Additionally, they are often excluded from having due voice in development direction and intervention. Being in the pristine remote area, the location which are most often targeted for major development, they often carry burden of development "costs" disproportionately.

Overall anticipated impact in safeguarding/promoting cultural rights and traditional livelihoods of minorities

To be able to assess the kinds of impact on ethnic minorities, one need to understand the dependence relationship of the group to resources. For example What is the nature of minority group relationships to the resources under review? (i.e. what cultural significance is attached to the use of water, in rituals, traditions, heritage etc.)? With these factors in mind, the assessment then will look at the nature of intervention and implications they may have on these resources.

Have ethnic minority groups been identified as a significant stakeholder in the proposed project?

What is the ethnic composition of the affected population? Are there significant minority groups included under the proposed project? Are they mentioned by ethnic groups, name, numbers, location, coverage?

Has an assessment been made of the likely impact upon minorities' existing livelihoods?

Is the proposed project likely to reduce, or enhance access to natural resources for ethnic groups? Is the proposed project likely to change in any way the relationship of ethnic groups to the natural resources affected by the project?

For example, what would watershed management mean for upland ethnic people in northern Laos or the Central Highlands in Vietnam? Increasing community rights over their common forest? Selected cultivation of forest products in public land? Exclusion from new areas under plantation? Among the poorest, collection from nature - not production - make up over 80 % of their income and livelihood support.

Answering yes or no will require understanding the nature of dependence and the threat posed by interventions.

Is the proposed project likely to safeguard existing cultural rights, traditions and decision making around natural resources?

Is the project likely to change significantly ethnic groups authority in decision making over natural resource use? For example burial site? Sacred forest, ancestral forests? Will the project impinge of these sites? Social dislocation from resettlement? Could alternatives be considered to achieve same objectives?

Note whether the safeguard is sufficient against the scale of threats.

Is the proposed project likely to promote and enhance cultural rights, traditions and decision making around natural resources?

For example, community forestry can be considered one form of watershed management under different protection regimes. Agreement between communities and government might be arranged on what environmental features to protect, what can be used and replenished. In such case key cultural rights could be retained. Does the project plan to deal with existing minority group bodies with sound representation?

Overall level of risk of project adversely affecting minorities' livelihoods and curtailing cultural rights

Is there a risk that the proposed project may curtail access, and access rights of minorities and others to culturally significant resources, and resources important to livelihoods?

For example access to NTFP, firewood collection, change in land holding, alteration /disturbance to places?

Have risk mitigation/ management measures been identified?

What mitigation and risk management measures are proposed to protect the integrity of group's cultural heritage and rights within the project? If yes, please define. If no, define parameter of impact for further study.

Participation

Underlying Social Development approaches are the two related tenets of participation and 'rights'. Participation is central to a social development approach, because it seeks to centre analysis upon people themselves, and include them as active agents in processes of change.

There are also structural dimensions to poverty. People are poor not only the lack of material good, but also because of inequitable relations of power. Poverty is not only resulting from shocks from natural disasters, or failures in crop production. Poverty alleviation is therefore not merely concerned with providing temporary relief from hardship but at addressing deep-rooted, and often complex social processes

Social Development is described as being 'bottom-up' and 'people centred'. Given the central focus upon poverty, participation is also crucial in providing influence for the poor and marginalized, who are least able to have a voice in processes of development, and who are sometimes ignored under other disciplinary approaches. Participation ensures that Social Development remains 'process oriented', and that actions are not pre-prescribed, but rather result from ongoing dialogue and exchange with 'subjects' themselves

What level of (public and other) participation is envisaged for all stages of project development?

The first consideration is if there is a demand for the products of the project, or is it merely supply driven? Is the demand local , national or international ? Increasingly with the regional integration, regional / global demand for local resources are increasing via trade and facilitated national trade policy.

Primary stakeholders of these resources are local users whose stakes in resources the resources are high. Other stakeholders are private investors, business, related agencies and government institutions, population and other interested parties by different type of stakes. Benefits from projects gained by each of these groups are different.

What level of participation? Informing about the project , consultation, partnership? At which point?

Does the proposed project have a participation strategy?

Consideration points are; does the project specify who, among stakeholders, should be involved at what stage of the project? For what purpose? Is there a mechanism in place for stakeholder participation and review? Have target and affected groups taken part in the project formulation process? In what ways?

Does the project participation strategy cover all stages of the proposed project (feasibility to completion and post project review)?

Has a stakeholder analysis been conducted?

This refers to whether the project has identified key groups that have stake (to gain or lose) in the project, nature and significance of stake, as well as their knowledge and influence. This analysis may be used to guide fruitful engagement throughout projects.

Have particular mechanisms and institutions been identified for involving as fully as possible key poverty/ vulnerable groups likely to be affected by the project? (including women and minority group representatives)

With whom in the project implementation staff do stakeholders interact? Is it a standing or ad hoc body fro consultation? How was the representative body constituted (community representatives, NGO's, Govt, business, others)? What is the mechanism for redress of grievances?

What is the overall risk that the project will not develop a fully participatory process?

Sectoral development projects are often conceived at central level with focus using of existing resources potentials e.g. major irrigation infrastructure. It is not rare this type of project has limited public consultation in its formulation, since it is supply driven with fund already available. Whether these facilities are utilized or not depends largely on farmers' realities such as size of land holding, return per capital investment, return per labor, requirement for upfront investment, water fee and maintenance. In many instances, small scale irrigation scheme might be more appropriate, and existing, in some locality since they have less environmental-social costs and lower maintenance. These local requirements /needs could be realized though a process of consultation.

There are many evidences in the LMB that the use rate of irrigation facility is low, below 20% of the capacity. The lack of participation in this type of project development not only makes public investment ineffective, but could also cause social conflicts among stakeholders.

The risk of non -participation is often the haste of project development, supply-side planning lack of staff, or/ and unclear target groups the project will serve. The cost of non participation could be high in financial terms and social terms as proven in cased of dams in LMB and else where in the world.

Does the project face significant risks in engaging in a participatory project process?

If yes, what are the risks ? and why? What may be the cost of this risk? (level of significance)

Have risk mitigation/ management measures been identified to address these risks?

If yes, please specify under remark.

Project synthesis

The project synthesis provides an over all assessment of the project. This calls for professional judgement based upon social gain and loss potentials the project may bring. The synthesis must highlight key impacts on peoples on project site and beyond, those with stake in the project a- both short term and long term. It should include 1) general statement of social impact (type and scale) 2) key groups to be impacts positively and negatively 3) recommendation 4) information needed to support decision making on social aspects 5) give assessment by giving ranking (indicator 1-5) for the project.

SOCIAL SCREENING CHECKLIST

Project Name: _____

Project Code: _____

General comments / screening assumptions

	Questions to be considered	Yes	No	Uncertain	Significance of Impacts	Remarks
A	Poverty					
A1	Overall anticipated poverty reduction impact of the proposed project					
A2	Overall level of risk of adverse poverty impact resulting from the project					
A1.1	Does the project concept include an overall objective of reducing poverty?					
A1.2	Are poverty reduction measures included in the proposed project?					
A1.3	Have project target groups been defined?					
A2.1	Are possible risks of increased poverty resulting from the project identified?					
A2.2	Are possible at risk groups identified?					
A2.3	Are poverty risk mitigation measures identified?					
B	Vulnerability					
B1	Overall anticipated reduction in vulnerability resulting from the proposed project					
B2	Overall level of risk of increased vulnerability resulting from the project					
B1.1	Has the project considered livelihood vulnerability in concept design?					

	Questions to be considered	Yes	No	Uncertain	Significance of Impacts	Remarks
B1.2	Have target vulnerable groups been identified as beneficiaries from the proposed project?					
B1.3	Are specific project measures proposed for reducing vulnerability?					
B2.1	Are there potential groups at risk of increased vulnerability under the project?					
B2.2	Have vulnerability risk mitigation and management measures been identified?					
C	Conflict					
C1	Overall anticipated reduction in conflict potential resulting from the proposed project					
C2	Level of risk of increasing potential conflict resulting from the project					
C1.1	Is there a core conflict reduction rationale to the proposed project?					
C1.2	Have target groups been considered from a conflict perspective?					
C1.3	Will the proposed project reduce conflicts, or the potential for conflict?					
C2.1	Is there a risk of project measures increasing conflict, or the potential for conflict amongst groups?					
C2.2	Have conflict risk reduction and management measures been identified?					
D	Gender					
D1	Overall anticipated impact in transforming gender relations					
D2	Overall level of risk of project contributing to increased gender inequality					
D1.1	Has the proposed project concept considered the issue of gender relations?					
D1.2	Have gender disaggregated target groups been identified?					
D1.3	Will the proposed project specifically address existing gender relations of inequality in any way?					
D2.1	Are there risks of the proposed project increasing gender inequalities?					
D2.2	Have risk mitigation and management measures for possible increased gender inequality been identified?					
E	Ethnicity, minorities and cultural rights					
E1	Overall anticipated impact in safeguarding/ promoting cultural rights and traditional livelihoods of minorities					
E2	Overall level of risk of project adversely affecting minorities' livelihoods and curtailing cultural rights					
E1.1	Have ethnic minority groups been identified as a significant stakeholder in the proposed project?					
E1.2	Has an assessment been made of the likely impact upon minorities existing livelihoods under the project?					
E1.3	Is the proposed project likely to safeguard existing cultural rights, traditions and decision making around natural resources?					

	Questions to be considered	Yes	No	Uncertain	Significance of Impacts	Remarks
E1.4	Is the proposed project likely to promote and enhance cultural rights, traditions and decision making around natural resources?					
E2.1	Is there a risk that the proposed project may curtail access and access rights of minorities and others to culturally significant resources, and resources important to livelihoods?					
E2.2	Have risk mitigation/ management measures been identified?					
F	Participation					
F1	What level of (public and other) participation is envisaged for all stages of project development?					
F2	What is the overall level of risk that the project will not develop a fully participatory process?					
F1.1	Does the proposed project have a participation strategy?					
F1.2	Does the project participation strategy cover all stages of the proposed project (feasibility to completion and post project review)?					
F1.3	Has a stakeholder analysis been conducted?					
F1.4	Have particular mechanisms and institutions been identified for involving as fully as possible key poverty/ vulnerable groups likely to be affected by the project? (including women and minority group representatives)					
F2.1	Does the project face significant risks in engaging in a fully participatory project process?					
F2.2	Have risk mitigation/ management measures been identified to address these risks?					

Project synthesis:

3.3 Environmental screening

3.3.1 Overview

The Environmental Assessment Checklist contains 3 main parts: general comments/screening assumptions, checklist, and synthesis:

1 General comments/screening assumptions

Provides general comments on the project when ideas about it are not clearly expressed in the PIN and/or a judgment on a specificity of the project needs to be made; and/or other specific assumptions based on which the environmental screening is done.

2 Checklist

The checklist contains 37 questions related to the potential environmental concerns and environmental assets in the LMB posed under 5 key themes, including strategic objectives, water resources, water-related resources and assets, physical impacts, and transboundary and cumulative impacts (Appendix 1). The checklist covers the general and detailed aspects of environmental concerns in a balanced way to support the projects proponents in information gathering. A more detail environmental information will be provided when the feasibility study will be conducted later. Detailed explanation of the 37 questions is done below.

3 Screening synthesis

The screening synthesis, which is generated from the 37 answers, provides conclusions on the potential environmental concerns that the project needs to address, further information to be filled up; and recommendations on the screening categories and respective type of EIA that the project needs to undertake.

3.3.2 How to proceed?

The environmental screening is done using the Environmental Assessment Checklist. The process consists of the following steps:

Step 1: To start with, the screener should read the (fully completed) PIN to have an understanding on the project, and to make analysis on environmental issues. Then make general comments and/or screening assumptions to Part 1 (General Comments/Screening Assumptions) of the Environmental Assessment Checklist. The general comments include the project information, the nature and characteristics of the project, and recommendation on project value and additional information required. The screening assumptions include the assumption on technical condition, based on which the environmental screening specifically is done, and the assumption on how the screening should be for particular project.

Step 2: Answer to the questions in the checklists, which is Part 2 of the Environmental Assessment Checklist. The screener needs to provide the best answers as possible. The answers are based on the information of the PIN and knowledge of the screener. To answer the questions, the professional responsible for screening need to understand the questions clearly.

The selection of answers *"yes", "no"* or *"uncertain"* is based on the following principle:

"Yes" – indicates that the occurrence of a particular impact is expected.

"No" – indicates that a particular impact is not likely to occur.

"Uncertain" – indicates that there is insufficient information available at this stage to say whether a particular outcome is likely or not.

It is important to note that in case of the environmental assessment checklists, a "yes" answer generally indicates the expectation of a negative impact, except for the two questions under the Strategic objectives theme. In order to further qualify the "yes" and "uncertain" responses, the screener is asked to provide a statement about the expected significance of impacts as follows:

Significance of impacts	Remarks
Low / minor	Impacts are temporary/short-term, localized and possibly reversible
Moderate / medium	Impacts are long-term but can be managed /mitigated
High / severe	Impacts are permanent and widespread.

Step 3: Provide a synthesis, which includes conclusions and recommendation based on the answers of the checklists. To do this, first analyse all answers theme by theme, then make judgment on each for withdrawing conclusions, and finally based on these conclusions make recommendations.

Environmental Impact Assessment (EIA) Category is one of the recommendations to be made. To judge on the EIA Category, the screener should base on the following principle:

	EIA category	Recommendation
A	If you have answered YES to >5 questions above OR if you are uncertain about >5 questions	A full or partial EIA is recommended
B	If you have answered YES to <5 questions above OR if you are uncertain about >5 questions	A partial EIA is recommended
C	If you have not answered YES to any questions	No EIA is required

In case that transboundary and/or cumulative impacts are/is identified, the transboundary EIA and/or cumulative impact assessment will be required.

After each step is completed, the screener can always check back and ford to ensure that all three parts are consistent and linked to each other well.

3.3.3 Explanation of the questions

The explanation attempts to illustrate the meanings of the questions and suggests ideas on what could be intended answers. The explanation of the questions can be either in general or in detail.

Generally, the questions in the environmental checklist are straight forward and direct. However, the screener should consider that environmental impacts can be direct or/and indirect, therefore their answers need to link to cause-effects relationship. While answering the questions, remarks or detail explanation can be made to each question when they are necessary. The Strategic Directions for IWRM in the LMB, the Interim Screening Criteria, sub-area reports, the national sector overviews, and other relevant documents related to the environmental issues in the LMB can be used as references.

Strategic objectives

The two questions under this theme are very general. They are pose to confirm whether the project meets the BDP's strategic objectives on environmental ground. To answers to the two questions, it requires the screeners to check the project objectives with the IWRM Strategic Directions for the LMB.

Does the project meet the objectives set out in the IWRM Strategic Directions?

This question assesses whether the project complies with the objectives of the BDP Strategic Directions. Reference to relevant paragraphs or chapters in the IWRM Strategic Directions should be made.

Are there any risks that any of the objectives set out in the IWRM Strategic Directions could be contravened?

This question intends to assess whether the project can create any risk to the IWRM Strategic Directions. If yes, these risks should be explained in general terms.

Water resources

The questions under this theme intend to assess the concerns related to the water resources both in terms of quantity and quality, which the project should address during the preparation as well as during the implementation and after completion. All six questions are posed straight forward.

Is the project likely to regulate the flow in the Mekong River downstream of the project location?

Is the project likely to alter the flow of the Mekong River?

Is the project likely to cause a drop in water table/ground water level?

Is the project likely to produce negative impacts on the surface water quantity?

Is the project likely to introduce or increase the incidence of waterborne or water-related diseases?

Is the project likely to release organic or chemical pollutants into rivers, lakes or streams, water table, etc.?

Water-related resources

The seven questions under this theme intend to assess the concerns related to the water- related resources such as forest resources, important wetlands and protected areas, biodiversities, and important habitats, which the projects should address during the preparation as well as implementation and after completion. These concerns tend to deal with long-term impacts. All questions are straight forward and easy to understand.

Is the project likely to increase the exploitation of natural forests?

Is the project likely to threaten or cause harm to any wetlands or protected areas (Tonle Sap lake, RAMSAR sites, national parks, etc.)?

Is the project likely to threaten or cause harm to any habitats that are important for wildlife or fisheries, e.g. flooded forests, deep pools, fish migration routes, etc.?

Is the project likely to threaten or reduce fisheries resources?

Is the project likely to cause any harm to other aquatic resources, e.g. aquatic plants or non-fish species?

Is the project likely to cause harm and/or decline to non-renewable biodiversities and biological resources (such as genetic resources of plants, animals, etc.)?

Is the project likely to cause decline or loss of non-timber products?

Physical impacts

The ten questions under this theme intend to assess the physical changes/effects that the project should address during the preparation as well as during the implementation and after completion. Those impacts also tend to be long-term.

Is the project likely to threaten or cause harm to the Mekong Delta (e.g. promote saline intrusion, flooding, affect water quality, etc.)?

If you can identify other harmful effects, please remark.

Is the project likely to increase sedimentation within rivers and lakes?

Rivers and lakes in this case are referred to those located within the LMB.

Is the project likely to threaten or cause erosion to river banks and/or damage to riverine vegetation?

Normally along the riverbank there are also particular vegetations very useful, when the riverbank is eroded these vegetations can be damaged or completely eradicated.

Is the project likely to exacerbate the impacts of drought?

The meaning of this question is whether the project worsens the drought impacts.

Is the project likely to increase the frequency and/or intensity of flooding?

Is the project likely to cause interruption to and/or block transport and communication routes (e.g. for navigation)?

Is the project likely to increase the production of solid wastes and associated problems?

The associated problems to solid wastes can be pollution, diseases, etc.

Is the project likely to cause and/or increase soil problems: e.g. soil erosion, acid sulphate soil, soil salinity, etc.?

Is the project likely to result in significant land-use change (e.g. conversion from forestry to upland agriculture, change of wetland into urban area)?

Is the project likely to contribute to global climate change (e.g. project that involves significant loss of forested areas, green houses, high emission of carbon dioxide, etc.)

Transboundary and cumulative impacts

This part is especially important for the BDP and MRC. The questions under this theme intend to assess the severity of environmental impacts that are identified under the previous three themes. The severity can be transboundary and/or cumulative impacts. To answer all questions under this theme, clear understanding on the concept of transboundary and cumulative impacts is necessary. Documents on Transboundary SEA/EIA can be used as reference.

Could the project cause transboundary impacts? If yes, specify.

This question is very general. If impact is assumed it should be explained in more detail.

Could the project cause transboundary impacts on water resource (quantity and quality?

Could the project cause transboundary impacts on water-related resources (e.g. wetlands, biodiversities, habitats)?

Could the project cause transboundary impacts in term of physical effects (e.g. saline intrusion, river bank erosion, sedimentation, flood, climate change, etc.)?

Could the project cause transboundary impacts on hydrological and ecological functions of the river?

Could the project cause cumulative impacts ?

This question is also very general. If impact is assumed, it requires detailed explanation.

Could the project cause cumulative impacts on water quantity?

For example, large-scale irrigation project or water diversion project that demand high quantity of water can cause cumulative impacts on water quantity.

Could the project cause cumulative impacts on water quality, e.g. discharge or waste cause water deterioration?

Could the project cause cumulative impacts on aquatic habitats, e.g. deterioration of wetlands, flooded forests?

Could the project cause cumulative impacts on fisheries resources?

Fisheries resources include kind of fish species, their feeding resources, habitats, deep pools, migration routes, etc.

Could the project cause cumulative impacts on the hydrological function of the river?

Example of this can be the flood pulse function of Tonle Sap Lake and river.

Could the project cause cumulative impacts on the ecological function of the river?

Example of this can be function of the river provided to the fisheries system, and the living condition of aquatic organisms.

ENVIRONMENTAL SCREENING CHECKLIST

Project Name: _____

Project Code: _____

General comments / screening assumptions

	Questions to be considered	Yes	No	Uncertain	Significance of impacts	Remarks
1	Strategic objectives					
1.1	Does the project meet the objectives set out in the Strategic Directions for IWRM in the LMB?					
1.2	Are there any risks that any of the objectives set out in the Strategic Directions for IWRM in the LMB could be contravened?					

	Questions to be considered	Yes	No	Uncertain	Significance of impacts	Remarks
2	Water resources					
2.1	Is the project likely to regulate the flow in the Mekong River downstream of the project location?					
2.2	Is the project likely to alter the flow of the Mekong River?					
2.3	Is the project likely to cause a drop in water table (ground water level)?					
2.4	Is the project likely to produce negative impacts on the surface water quantity?					
2.5	Is the project likely to introduce or increase the incidence of waterborne or water-related diseases?					
2.6	Is the project likely to release organic or chemical pollutants into rivers, lakes or streams, water table, etc.?					
3	Water-related resources					
3.1	Is the project likely to increase the exploitation of natural forests?					
3.2	Is the project likely to threaten or cause harm to any wetlands or protected areas (RAMSAR sites, national parks, etc.)?					
3.3	Is the project likely to threaten or cause harm to any habitats that are important for wildlife or fisheries, e.g. flooded forests, deep pools, fish migration routes, etc.?					
3.4	Is the project likely to threaten or reduce fisheries resources?					
3.5	Is the project likely to cause any harm to other aquatic resources, e.g. aquatic plants or non-fish species?					
3.6	Is the project likely to cause harm and/or decline to non-renewable biodiversities and biological resources (such as genetic resources of plants, animals, etc.)?					
3.7	Is the project likely to cause decline or loss of non-timber products?					
4	Physical impacts					
4.1	Is the project likely to threaten or cause harm to the Mekong Delta (e.g. promote saline intrusion)?					
4.2	Is the project likely to increase sedimentation within rivers and lakes?					
4.3	Is the project likely to threaten or cause erosion to river banks and/or damage to riverine vegetation?					
4.4	Is the project likely to exacerbate the impacts of drought?					
4.5	Is the project likely to increase the frequency and/or intensity of flooding?					
4.6	Is the project likely to cause interruption to and/or block transport and communication routes (e.g. for navigation)?					
4.7	Is the project likely to increase the production of solid wastes and associated problems?					
4.8	Is the project likely to cause and/or increase soil problems: e.g. soil erosion, acid sulphate soil, soil salinity, etc.?					

	Questions to be considered	Yes	No	Uncertain	Significance of impacts	Remarks
4.9	Is the project likely to result in significant land-use change (e.g. conversion from forestry to upland agriculture, change of wetland into urban area)?					
4.10	Is the project likely to contribute to global climate change (e.g. project that involves significant loss of forested areas, green houses, etc.)					
5	Transboundary and cumulative impacts					
5.1	Could the project cause transboundary impacts?					
5.2	Could the project cause transboundary impacts on water resource (in quantity and quality?					
5.3	Could the project cause transboundary impacts on water-related resources (e.g. wetlands, biodiversities, habitats)?					
5.4	Could the project cause transboundary impacts in term of physical effects (e.g. saline intrusion, river bank erosion, sedimentation, flood, climate change, etc.)?					
5.5	Could the project cause transboundary impacts on hydrological and ecological functions of the river?					
5.6	Could the project cause cumulative impacts25?					
57	Could the project cause cumulative impacts on water quantity?					
5.8	Could the project cause cumulative impacts on water quality, e.g. discharge or waste cause water deterioration?					
5.9	Could the project cause cumulative impacts on aquatic habitats, e.g. deterioration of wetlands, flooded forests?					
5.10	Could the project cause cumulative impacts on fisheries resources?					
5.11	Could the project cause cumulative impacts on the hydrological function of the river?					
5.12	Could the project cause cumulative impacts on the ecological function of the river?					

	Screening Categories	Recommendation
A	If you have answered YES to >5 questions above OR if you are uncertain about >5 questions	A full or partial EIA is recommended
B	If you have answered YES to <5 questions above OR if you are uncertain about >5 questions	A partial EIA is recommended
C	If you have not answered YES to any questions	No EIA is required

Project synthesis:

25 When it is implemented along with similar or other projects.

4 MRC sector programme screening feedback sheet

A more complete assessment of the strategic significance of BDP project ideas requires that each idea is assessed within the broader regional development context. In order to do this, relevant MRC Sector Programmes have been asked to participate in the screening exercise. Project ideas have been categorised by sector and distributed to the relevant Programmes[26] who have been asked to assess each project idea according to a set of guideline questions:

1 General initial response to the proposed project

2 Strategic significance of the proposed project for IWRM / LMB

3 Important operational implications / considerations of the proposed project

4 Potential for links to existing MRCS projects (your project?)

5 Would your project be able to prepare a full proposal for the proposed project / would you have the resources?

6 Suggestions for the next steps to be undertaken

All responses are being recorded in a standard feedback sheet, as shown below.

MRC SECTOR PROGRAMME SCREENING FEEDBACK SHEET

Project Name: _____

Project Code: _____

General initial comment	
Strategic significance of the proposed project for IWRM in the LMB	
Operational implications / considerations	
Potential links to MRCS projects	
Potential links to wider LMB projects / programs	
Resources available to prepare a project proposal?	
Recommended action	

[26] Or staff with knowledge in that particular area where no sector programme exists

5 Interim screening criteria for 'strategic relevance' of BDP project ideas

Note: The following *'interim screening criteria for strategic relevance'* were compiled to serve as temporary guidance for ranking and shortlisting of project proposals under the BDP. Such guidance was required for an orderly completion of BDP Phase 1, which was in turn a precondition for implementation of BDP Phase 2. The criteria were intended for use only until the *'Strategic directions for IWRM in the LMB'* had been finalized (in December 2005).

1 Over-all development goal

Achievement of *'an economically prosperous, socially just and environmentally sound Mekong River Basin'*.

2 Detailed development goals

2.1 Value generated

1 The water resources, water-related resources, and water-dependent production systems of the Lower Mekong Basin developed towards their full, sustainable potential in a harmonic collaboration between the countries: Agriculture, hydropower, fisheries, tourism, etc.

2 High water efficiency and economic efficiency of all water uses, water-related services and water-related production systems, consumptive as well as in-stream

3 Food security and national self-sufficiency maintained, based on rice production

4 Continued development of reservoir fisheries and aquaculture

5 Added value of agricultural production achieved (i) by increasing the quality of the production as much as the cultivated area and yield; (ii) by gradual development of crops, cultivation practices and farming systems; (iii) by continuously increasing the efficiency; (iv) by continuously improving the water management, optimising the time and space distribution of irrigation water, and reducing losses; (v) by making unallocated water available for cultivation; (vi) by development of processing industries; and (vii) by expansion of water-related services, extension services, distribution, marketing, and education

2.2 Water availability and water use

6 Human health, livelihoods (including rural and traditional livelihoods), and social development unconstrained by access to water and related resources and services

7 The aim of adequate employment opportunities mainstreamed into management of water resources and water-related resources

8 Balance and harmony between water uses by different sectors

9 Water shared and reservoirs operated with a view to regional optimization, considering social, economic and environmental aims

10 Water available for traditional lifestyles and livelihoods, and water availability and quality unaffected by new lifestyles

11 Mainstreaming of poverty issues (including rural livelihood development) in regional water resources management

12 Mainstreaming of gender issues in regional water resources management

2.3 Water quality, flow regimes, habitats

13 Human health, livelihoods (including rural and traditional livelihoods), and social development unconstrained by water quality

14 Hygienic water quality adequate for domestic use

15 Surface water quality complying with agreed standards, and entirely free of persistent and bio-accumulating pollutants

16 Fertilisers and pesticides free of non-decaying and bio-accumulating constituents

17 Orderly sewage disposal from towns and industries

18 Groundwater bodies protected from contamination that would reduce their value or impede utilization

19 Good practices and capacity with respect to spill prevention and mitigation

20 Maintenance of appropriate flow regimes (including upstream and downstream flow resistance, natural storage capacity, and runoff rates)

21 Preservation of fish habitats and migration routes

22 Healthy aquatic and floodplain habitats and ecosystems, reflecting agreed standards

23 Important icon species preserved

2.4 Water-related services

24 Coordinated and sustainable development, utilisation, management and conservation of the fisheries

25 Mechanisms for monitoring the health of the fisheries continuously improved throughout the basin

26 Adequate structural flood protection and flood proofing

27 Good practices and capacity within flood and drought management and mitigation, including preparedness, awareness, and operational mitigation measures

28 Regional inland navigation expanded and consolidated in terms of capacity, efficiency, safety, and public service within (i) strategic promotion; (ii) transport of goods and passengers (including tourists) in general; (iii) cross-border passage in particular; (iv) statistics and monitoring; and (v) knowledge-sharing

29 Harmonised regulation and navigation aids

30 All major navigation routes maintained and mapped

31 Good practices and capacity within morphological management (including erosion control, and control of siltation in general, and in large lakes and reservoirs in particular)

32 Water-related tourism further developed, with due regard to social and environmental impacts

2.5 Institutions, regulation, participation

33 Harmony and synergy between water-related development efforts at the basinwide, national and sub-basin levels

34 The BDP consolidated as a practical and useful basin planning process, applied as a routine core activity of MRC, and with functional links to the national planning processes

35 A functional institutional framework, covering water-related management at the local, sub-area (sub-basin), national, and regional levels

36 Institutions empowered to control water utilization and water quality within their mandate

37 Framework in place for management of cumulative effects (on flow and water quality), including transboundary cumulative effects

38 General public awareness of regional water-related development and management concerns, options and constraints

39 Active participation by the general public in regional water resources management

40 Consolidated network of institutional stakeholders

41 Confidence and continuous liaison between stakeholders, encouraged and facilitated by MRC, NMCs and RBCs/RBOs, as relevant from case to case

42 Comprehensive use of national languages in regional collaboration

2.6 Knowledge base and capacity-building

43 Good understanding of important cause-effect relationships within water resources, and of related management options (for example regarding fisheries, environmental flows, flood risk, droughts, morphological processes, etc. etc.)

44 Improved knowledge about groundwater availability and groundwater utilization

45 All routine water resources management tasks and many non-routine tasks undertaken by riparian capacity within MRCS, NMCs, involved line agencies, and RBCs/RBOs

46 Continuous real-time monitoring of flows, water level and water quality on the Mekong mainstream

47 Availability and free flow of data and information as required for operational and strategic water resources management

48 Continued development, consolidation and implementation at the regional level of riparian expertise in specific disciplines, including advanced specialist skills, as well as broad managerial competence

49 Regional dialogue among and between scientists, decision-makers and practitioners, with close links to the international community

50 The MekongInfo dissemination platform maintained, extended, consolidated and further promoted

Appendix 5:
From long- to shortlisting

(Procedure endorsed by the 22nd JC meeting in August 2005 and approved by the 12th Council meeting in December 2005) [27]

Introduction

As outlined in the BDP Inception Report and implemented over the past two years, the Basin Development Plan Program produces a planning process and a continuously revised and updated short-list of projects relating to water resources development and management in the Lower Mekong Basin. The BDP is arriving to the final stage of initial project identification and completion of phase 1.

The preparation of this document is a response to the suggestion of the 21st JC Meeting on 24-25 March 2005 in Pattaya / Thailand, suggesting that the BDP Team should propose a process on how the MRC would agree on deriving a short-list of projects from the long-list; and both NMCs and the Secretariat should submit joint development projects to the next MRC JC meeting.

This document is providing information on how BDP projects are identified and become long-listed (in the MRC Project Database), what process is undertaken from long-listing to short-listing, the meaning and the result of projects' screening, and finally, what the JCs can do with the forwarded project outlines.

This explanation is summarized below.

How were the projects identified?

The projects were identified in meetings at sub-area level and are documented in the sub-area studies and analysis, which consist of the sub-area overview, key issues identified and scenario analysis, and formulation of strategies (5 stages as set out in the BDP Project Document, and reflected in the BDP Planning Cycle). Necessary technical working sessions took place and a comprehensive consultation processes (planning meetings, orientation meetings, national and regional working sessions, stakeholders forums, and trans-boundary meetings) engaged all stakeholders. The consultation process with external stakeholders was complemented through various MRC and BDP internal meetings (dialogues, BDP coordination meetings, sector programmes meetings, donor appraisal missions) conducted at both national and regional level, and serving the purpose to harmonize the understanding between the member states.

The MRC Project Database has been developed in the beginning of 2005 to compile the identified projects, with data fields based on the so-called short Project Information Note (PIN) format (as initially agreed on August 2004, and revised in January 2006) for outlining the initial proposal and listing of project ideas in a central MRC database.

During the 21st JC Meeting in 24-25 March 2005 in Pattaya, Thailand, about 282 water-related projects from the Member States and MRC Programmes were presented to the JC in the new MRC Project Database and were acknowledged as Long-list of Projects. The database is operational and currently contains information on 351 water-related project outlines and ideas from the member states and from the MRC programmes (see attached Document 1). The database has been constructed using the software

[27] For the Council submission, the following documents were attached: (1) List of all projects (including national projects, joint and grouped projects, and MRCS projects); (2) Screening results for selected joint projects

Microsoft Access, and links to ArcView GIS. Additional projects will be added on an on-going basis. The database is a "live" working tool, which will be updated and reviewed at regular intervals by the Member States and by the JC, as envisaged in the BDP Planning Cycle Guideline. Projects in the database will be screened and ranked, as the basis of developing a coordinated programme of agreed priority projects to investment banks, development agencies and interested donors.

Among the 351 water-related projects, there are 250 so-called "national" projects (115 from Cambodia, 91 from Lao PDR, 9 from Thailand, and 35 from Vietnam), 69 so-called "joint" projects with trans-boundary focus, 25 projects identified by the MRC Sector Programmes, and 7 so-called "grouped" projects. It is important to note that the 69 joint projects were a result from the first round of Sub-area Trans-boundary Meetings during November 2004. Out of them, 45 high priority joint projects were identified by the participants from the member states during the second round of Sub-area Transboundary Meetings (Bilateral and Trilateral Meetings) during January-April 2005. The 7 "grouped" projects were generated by grouping 21 joint projects within the same sector and a similar nature, based on suggestions made by the participants of the Hua Hin Regional Working Session on 26-27 May 2005.

How to go from long-listing to short-listing?

There are two aspects to focus on here: one is the process to undertake from long-listing to short-listing, and two is the selection of projects to be candidates for short-listing.

The initial process from long-listing to short-listing was proposed to the Member States during the Regional Working Session on 26-27 May 2005 in Hua Hin, Thailand; then it was revised based on the comments received, and presented later to the 7th Core Programme Meeting on 15 June in Phnom Penh, Cambodia.

The process from long-list to short-list consists of the following steps:

Project prioritization process (cycle to be repeated)	
1	Project database /long-list (continuously updated, and gradually containing all projects in LMB)
2	Negotiation by joint meetings
3	Regional Working Sessions are convened regularly to agree on the list of projects that need to be screened
4	Project screening, by applying the 5 criteria in Planning Cycle, and the Screening Toolkits (social, environmental and economic checklists) by BDP MRCS and by sector expertises (in MRCS, NMCs, others)
5	Classification of these projects leads to the draft short-lists prepared by BDP MRCS
6	Review and endorsement by NMCs, then revise by BDP MRCS
7	Submission of the draft short-lists to JC
8	JC decision on the short-lists and follow-up on the JC decisions

It is important to note that this prioritization cycle is repeated and with every round new projects are added to the shortlist.

The social, economic and environmental screening consists of assessing the projects using checklist questions (based on numerous discussions of SIA, SEA and RAM), and relying on project information made available in the (PIN, stored in the MRC Project Database. The purpose of the screening is mainly to safeguard the projects regarding the three important aspects (economic, social and environmental issues) and to make a recommendation to the JC for initial project classification. In this way the screening process assists the project proponents in further project preparation. The result of each project screening is summarized in the Screening Summary Sheet. [28]

Regarding the projects selected to be short-listed - based on the discussion during the Regional Working Session on 26-27 May 2005 in Hua Hin - the BDP team now presents the List of All Projects (long list) in the Project database (Document 1), includes the joint projects (and the "grouped" projects), the national projects, and the projects identified by the MRC Programmes.

For short-listing, all candidate projects have to be screened first. The BDP Team in MRCS was able to screen some of the 31 Joint Projects including the 7 grouped projects and they are available as Examples for a Draft Short-list for decision-making in the JC.[29] As it has been stated earlier, the process of screening and classification is continuously ongoing, and forward new projects onto the shortlist.

What can be done with the projects and screening results?

In order to justify the implementation of a BDP Phase Two, the tangible outcome of BDP Phase One need to be produced and show that they are reasonably working. This includes at least one completed process of Basin Development Planning and short-listing of projects.

To finally agree on the initial projects short-list, two crucial actions from JC are needed in upcoming JC Meeting:

1 The JC need to decide on the list of projects to be candidates for short-listing by selecting from the List of All Projects (long list).

2 The JC need to endorse the Process from long-listing to short-listing and the Examples for a draft Short-list to enable further handling of the project outline and doing the next step in project development..

The JCs' endorsement of the process from long-list to short-list and for the Examples for a Draft Short-list in this JC Meeting is most important, for getting them further endorsed by the MRC Council in December, which is the last chance for BDP phase 1 to reach this milestone before the project comes to an end.

It should be understood that the endorsement process by the JC is not a technical approval of a technical and finalized project document but a more general and principled endorsement of a project outline leading to a project proposal to be developed further in collaboration of the member states, safeguarded through the BDP planning process.

[28] Attached in the submission to the JC in August 2005

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