

BASIN DEVELOPMENT PLAN
Programme Phase 2
2006-2010

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ABBREVIATIONS AND ACRONYMS

ACMECS:	Ayeyawady-Chao Phraya – Mekong Economic Cooperation Strategy
ADB:	Asian Development Bank
ADB-GMS:	Asian Development Bank’s Greater Mekong Sub-region initiative
AWGWRM:	ASEAN Working Group on Water Resources Management
ASEAN:	Association of South East Asia Nations
BDP:	Basin Development Plan
CEO:	Chief Executive Officer of MRCS
CNMC:	Cambodia National Mekong Committee
CTA:	Chief Technical Advisor
Danida:	Danish International Development Assistance
DCG:	Donor Consultative Group
DSF:	Decision Support Framework
EP:	Environment Programme of MRC
ESCAP:	UN Economic and Social Commission for Asia and the Pacific
GIS:	Geographic Information Systems
GEF:	Global Environment Facility
GWP-SEATAC:	South East Asia Technical Advisory Committee of Global Water Partnership
IBFM:	Integrated Basin Flow Management
ICCS:	International Coordination and Communication Section of MRC
IKMP:	Information and Knowledge Management Programme
IUCN:	International Union for Conservation of Nature
IWRM:	Integrated Water Resources Management
LFA:	Logical Framework Analysis
LMB:	Lower Mekong Basin
LNMC:	Lao National Mekong Committee
MDG:	Millennium Development Goals
MRC:	Mekong River Commission
MRCS-IS:	MRC Information System
MRCS:	MRC Secretariat
MW:	Megawatt
MWRAP:	World Bank’s Mekong Water Resources Assistance Programme
NARBO:	Network of Asian River Basin Organisations
NGO:	Non Governmental Organisation
OCEO:	Office of the CEO
NMC:	National Mekong Committee
PDIES:	Procedure for Data Information Exchange and Sharing
PIN:	Project Information Note
PIP:	Project Implementation Plan
PMFM:	Procedures for Maintenance of Flow on the Mainstream
PNPCA:	Procedures for Notification, Prior Consultation and Agreement
PWUM:	Procedures for Water Use Monitoring
RAM:	Resource Allocation Model

RBC:	River Basin Committee
RBO:	River Basin Organisation
SDC:	Suisse Development Corporation
SEA:	Strategic Environmental Assessment
SIA:	Social Impact Assessment
Sida:	Swedish International Development Agency
T-EIA:	Trans-boundary Environmental Impact Assessment
TNMC:	Thai National Mekong Committee
TSD:	Technical Support Division of MRC
USD:	US Dollar
VNMC:	Vietnam National Mekong Committee
WUP:	Water Utilisation Programme

EXECUTIVE SUMMARY

The 1995 Agreement charges the Joint Committee of the Mekong River Commission (MRC) with the formulation of a Basin Development Plan (BDP) “to promote, support, co-operate and co-ordinate in the development of the full potential of sustainable benefits to all riparian States and the prevention of wasteful use of the Mekong River Basin waters, with emphasis and preference on joint and/or basin-wide development projects and basin programmes “. The BDP would be used to identify, categorize and prioritize the projects and programmes to seek assistance for and to implement at the basin level. However, seeking assistance to and implementing projects and programmes is outside the scope of BDP and is primarily the responsibility of the Member States.

Extensive preparation and approval activities followed in the wake of the Agreement and BDP Phase 1 commenced in October 2001. The programme was launched with a budget of 6.1 Million USD and the duration has now been extended up to mid 2006.

BDP Phase 1 work programme was established following a logical framework with two immediate objectives. The first objective was to ensure that a basin planning process was established and maintained and the second objective was to enable drafting and agreement on a basin development plan.

The BDP team including both staff at MRCS and staff in-country has worked towards these objectives and a series of important outputs. These include National sector overviews and participatory planning at Sub-Area level. Ten Sub-Areas have been defined as hydrological planning units and more than 200 agencies have participated in the analyses and reporting and are now part of a solid network. The planning has, among others, resulted in a number of project and programme proposals, which have been included in a process of identification, ranking and formulation leading towards an implementation stage (the BDP planning cycle). A database on these projects and programmes today hold well over 400 projects at different stages of maturation and a total of 69 joint projects have been identified.

Assessment tools for use in the strategic planning have been developed under BDP in collaboration with other programmes within MRC. The Decision Support Framework (DSF) tool can for instance assist the estimation of changes in water flows and levels and the Strategic Environmental Assessment (SEA) tool can be used to evaluate environmental effects of larger programmes and strategies. Economic modelling (Resource Allocation Model) is applicable in trade-off situations and during estimates of the value of water. Social Impact Assessment (SIA) is another valuable tool designed to assist the in social studies. Analyses of some key water resource development scenarios have been made using selected assessment tools. A collection of common values and priorities related to water resources and shared between the four countries is found in the document on “Strategic Directions for Integrated Water Resources Management (IWRM)”. Information and knowledge is synthesized and documented in the BDP Core Library. The creation of these products is to large degree a result of capacity building, training and dialogues at BDP organized workshops.

It is obviously of critical importance that the BDP processes are continued and further developed. Four good reasons for this are:

- BDP is a strong support for the strategic goals of MRC, which aims to assist a move towards “an economically prosperous, socially just and environmentally sound Mekong River Basin”
- BDP is a mechanism through which the four riparian countries can “ promote, support, cooperate and coordinate in the development of the full potential of sustainable benefits”
- BDP will be able to identify and assess regional, trans-boundary and shared projects and programmes that will benefit more than one country.
- BDP can be developed into a framework for the cooperative management of the basin by giving the full picture of the water resources availability, use and development options

BDP Phase 1 has developed many useful planning tools, has set up mechanisms for participatory planning and has established a portfolio of priority programmes and projects some of which Member States can implement themselves and some that can be implemented under or in conjunction with existing MRC programmes.

The scenario analyses made in Phase 1 have shown a lot of potential value in assessing the effects, impacts and the realism of different visions for large scale developments. They are only a small subset of a multitude of feasible scenarios. The implications of climate changes, land use changes, drought mitigation, cropping patterns, groundwater use and many other critical factors is important knowledge for water resources management decisions and could provide background for decisions to embark on large-scale development projects in cooperation with regional investment initiatives for instance Greater Mekong Sub-region Programme and the emerging World Bank Mekong Water Resources Assistance Programme (MWRAP).

Integrated Water Resources Management (IWRM) and the principles behind are keys to sustainable water resource management. Developing awareness on these principles and knowledge on how to apply them in practice is important also seen in the light of the Strategic Directions for IWRM, which the four countries support and agree on. Knowledge generation and management and capacity building will be needed to get the full benefit of the IWRM approaches.

BDP Phase 2 has thus been designed to support Goal #1 of the MRC Strategic Plan 2006-2010 (draft of 19 June 2006) which is “to promote and support coordinated, sustainable and pro-poor development”. It shall support a basin-wide rolling IWRM based plan with focus on (i) development and assessment of basin-wide scenarios, (ii) identification and assessment of joint development projects and large national projects and policies with significant basin-wide implications. Given that the riparians provide comprehensive information on existing and planned water use, water quality and activities with impact on water resources, BDP Programme Phase 2 will become an essential framework for well coordinated water resources development in the basin. At the same time BDP will (i) assist generation and management of knowledge base and tools for facilitating discussions on trade-offs in relation to development options, (ii) develop methodologies and practices for public participation, stakeholder involvement and mainstreaming gender concerns in support of IWRM, and (iii) develop associated institutional competences thorough capacity building.

Key products from the BDP Phase 2

- An updated IWRM Strategy for the Lower Mekong Basin
- A rolling IWRM based Basin Development Plan
- A portfolio of programmes and projects identified and short-listed under the BDP Planning Cycle
- Enhanced knowledge base and assessment tools within MRC
- Enhanced capacity for IWRM based planning and mediation in MRCS and NMC levels
- Input to MRC Strategic Plan for 2011 – 2015

BDP Programme Phase 2 will start in December 2006 and follow the MRC strategic planning period (2006-2010). The programme will be implemented through the existing BDP structures within MRCS and within the NMCs.

The total budget is 11.044 Million USD and includes in-kind contribution from the Member States of 1.004 Million USD. The direct donor support is 10.040 Million USD. The secondment of a Senior River Management Expert is not included in these budget figures. The direct donor support is envisaged to take place through a multi-donor basket funding arrangement.

1 INTRODUCTION

1.1 Background

The 1995 Agreement charges the Joint Committee of the Mekong River Commission (MRC) with the formulation of a Basin Development Plan (BDP) to promote, support, co-operate and co-ordinate in the development of the full potential of sustainable benefits to all riparian States and the prevention of wasteful use of the Mekong River Basin waters with emphasis and preference on joint and/or basin-wide development projects and basin programmes. The BDP, together with the Water Utilization Programme (WUP), initiated March 2000 with support from the World Bank/Global Environmental Facility, the Environment Programme and a suite of programmes within key sectors, has been fundamental to pursuing MRC's mandate according to the 1995 Agreement and the MRC Strategic Plan 2001-2005.

The MRC Joint Committee approved Terms of References for the BDP in July 1996; a Project Proposal was prepared in February 1997 and pre-appraised by Danish International Development Assistance (Danida) and Swedish International Development Agency (Sida) in September 1997. On this basis a 'Detailed Planning Phase' was executed in 1999 with funding from Danida and Sida. The output from this phase was the Draft Project Document of July 1999 plus a number of background and supporting documents. Difficulties with donor funding resulted in a series of re-arrangements followed by project appraisals resulting in the final appraisal in November-December 2000 (Danida, 2000) and the finalization of the Programme Document dated November 2000 (MRC, 2000).

The total budget of the three-year BDP Phase 1 is USD 6.1 Million. It is a multi-donor project, with basket funding from three donors; Danida at approximately 50% i.e. USD 3.1 Million; Sida at USD 0.95 Million and SDC at USD 1.2 Million. Australia and Japan provides technical assistance staff. Following a confirmation of donor commitments and agreements, the BDP Phase 1 commenced on October 1, 2001. The first Danida/Sida/Suisse Development Corporation (SDC) joint review took place in November- December 2002. Danida made a Desk Review in October 2003. The three main donors (Danida, SDC and Sida) carried out a second joint review of the BDP in January/February 2004. It was agreed that the BDP Phase 1 would be extended by six months until June 2005 within the original budget to allow sufficient time for sub-area planning. The Member States and the donor community encouraged the MRC to prepare a proposal for a BDP Phase 2 for consideration by the donors in due time before June 2005 to enable continuity between Phase 1 and Phase 2.

A draft project proposal was sent to the donors in early 2005. The quality and completeness of the proposal suggested that a pre-appraisal would be the appropriate measure to evaluate the proposal. The pre-appraisal was carried out as a desk pre-appraisal in Copenhagen followed by a field pre-appraisal in Vientiane. Danida carried out the desk pre-appraisal. Sida, Asian Development Bank (ADB), AusAid and SDC have contributed to the field pre-appraisal.

The pre-appraisal reviewed the progress and degree of completion of BDP Phase 1 and the proposal for BDP Phase 2, covering the period 2006-2010. Particular attention was paid to the alignment of the BDP's basin wide IWRM strategy with MRC's overall strategic planning. As a result of the pre-appraisal MRC and donors (Danida and Sida) agreed to extend the BDP Phase 1 until July 2006 with existing funds to allow completion of activities and a revision of the proposal for phase 2. The revision was carried out in autumn 2005 with technical assistance from Danida and a revised draft BDP Phase 2 Programme Document (dated 15

November 2005) was approved by the MRC Council on 30 November 2005. The MRC Council at the same time approved the “Strategic Directions for IWRM in the Lower Mekong Basin”. The MRC Strategic Plan 2006-2010 was approved by the Council in principle, however, requesting the Joint Committee to further improve the plan notably with respect to the monitoring and programme implementation arrangements and to continue consultation with donors.

At the Donor Consultative Group (DCG) meeting on 1 December 2005 the donors submitted a joint statement expressing i.a. concern on the Strategic Plan’s (15th November 2005 draft) direction towards increased emphasis of MRC becoming a development organization that drives investment rather than a resource management organization. The donors would like to see a broader consultation process with civil society and donors before MRC Council endorsement

This concern was further elaborated as part of the joint donor appraisal of the draft BDP Phase 2 Programme Document in January 2006. The draft Programme Document echoed the increased emphasis of the Strategic Plan towards MRC becoming a development organization rather than a resource management organization. On this background the appraisal recommended that the draft Programme Document be revised and provided recommendations with respect to the strategic direction, focus and main activities of BD Phase 2 as well as capacity for BDP Phase 2 implementation, interaction with national planning, interaction with other regional initiatives, cooperation with other MRC programmes, and involvement of stakeholders, civil society and NGOs.

The revision of the draft Programme Document has taken place during June-July 2006 with technical assistance provided by Danida and included consultations with NMCs, Joint Committee members and donors. The revised draft Programme Document will be presented for approval by the Joint Committee in late August with the intention that it will be ready for desk appraisal by donors from early September 2006.

2 CONTEXT

2.1 Water resources situation¹

The Lower Mekong Basin is the Cambodian, Laotian, Thai and Vietnamese parts of the Mekong Basin. It has a population of some 62 million people and an area of 606,000 km². The entire Basin includes parts of Myanmar and of the Yunnan Province of China as well, and has an area of 795,000 km². The Basin covers 86 percent of the area of Cambodia; 97 percent of the area of Lao PDR; 36 percent of the area of Thailand; and 20 percent of the area of Vietnam.

The water resources of the Lower Mekong Basin are described in some detail in the MRC State of the Basin Report (MRC 2003)². In strategic terms, important characteristics of Mekong water resources include:

- *Abundance:* Annual runoff averages around 475 km³ / year. Per capita resources currently stand at over 8500 m³/person/year – compared with 2200 for the Nile; 1400 for the Rhine; 2265 for the Yangtze and 1700-4000 for the Ganges (WRI, 2003).
- *Low level of exploitation for extractive uses:* Average annual withdrawals are estimated at around 60,000 million m³, or 12% of total annual flows; the total volume of regulated storage in the basin (including the Upper Basin) for hydropower and irrigation is less than 20,000 million m³ (less than 5% of annual flows); and it is estimated that only 5% of hydropower potential has been developed.
- *High dependence on in-stream uses (particularly by the poor):* The Mekong fishery is the largest inland fishery in the world, estimated to be worth at least \$US 2,000 million annually, and providing the major protein source for many people in the basin. Inland navigation is an important mode of transport for many areas where road access is limited
- *Extreme seasonality:* In most parts of the Basin, flows in the driest three months constitute less than 10% of total annual flows while flows in the wettest three months make up over 50% of total annual flows (MRC DSF).
- *Importance of the flood pulse for the ecology of the floodplain and the Mekong fishery:* During the wet season, between 1 and 4 million hectares of floodplain are submerged, including the Tonle Sap Great Lake.
- *Dry season water shortages:* Dry season shortages occur as a result of the rainfall seasonality, concentration of extractions in the driest period and drought events during the onset of the wet season.

¹ This section is essentially an extract from Strategic Directions for Integrated Water Resources Management in the Lower Mekong Basin - draft Ver.6.1: 12 September 2005 (Final Draft) approved by MRC Council on 30 November 2005

² Chapter 3 of this report contains some incorrect information in particular on small scale information

- *Water quality:* Water quality in the mainstream is generally good, and is rarely a constraint to water use. The exception is saline intrusion, acid sulphate drainage and pollution in intensively used areas of the Mekong Delta
- *Groundwater:* Groundwater resources are very widely used as a source for domestic and industrial supply. Use for irrigation is limited, but expanding. Groundwater systems in the flood plain are closely coupled to the river.
- *Upper Basin:* Flows (from China and Myanmar) constitute around 18% of total Mekong flows. The proportion is higher in the dry season, when snow melt contributes a significant component of flow.

2.2 Water utilization in the Lower Mekong Basin (LMB)³

Agriculture and irrigation

Agriculture is the cornerstone of the economy in the Lower Mekong Basin. 22 percent of the area is cultivated with rice being the major crop (typically harvesting one crop per year, except in the Delta, where 2 or 3 crops can be grown). More than 80% of the rural labour force is employed in the agricultural sector. Throughout the basin, however, most rural households have highly diversified and multiple sources of income and combine farming with a range of non-agricultural activities. Within the basin, income from wages and salaries currently accounts for up to 25-30 percent of household income. Government policies that target larger-scale commercialised agriculture as well as the growth of rural industries will further influence the economic activities of the rural population.

The total water-managed cultivation areas (irrigated areas) are around 390,000 ha (Cambodia); 155,000 ha (Lao PDR); 540,000 ha (Thailand); 40,000 ha (Vietnamese Highlands); and 1,000,000 ha (Vietnamese Delta). In both Cambodia and Lao PDR, there is a large potential for development of irrigation infrastructure within existing water-managed areas. In the same two countries, there is a potential for expanding the irrigated area by around 600,000 ha in each country. In North-East Thailand, the tributaries are fully exploited, and in the Delta, the flow is fully utilized for irrigation and to curb salinity intrusion.

Fisheries

The present fisheries yield of the Basin is 1.5 – 2 million tons per year. Some 15 percent comes from aquaculture and the rest from freshwater capture. Fish is an important part of the staple diet supplying most of the protein, over 80 percent in Cambodia, for instance. Today, the capture stock is utilised close to its capacity. The aquaculture production is escalating rapidly in Cambodia and in the Delta. The capture fishery is exposed to habitat degradation, and barriers to migration, while aquaculture production is exposed to a deteriorating water quality, partly due to polluted irrigation tailwater.

Wetlands and other habitats

The wetland areas of the Basin, such as Tonle Sap, Plain of Reeds, and others, are important ecological habitats. Tonle Sap is among the World's most productive freshwater fisheries areas. Also the flood plains serve as fish breeding grounds. Tonle Sap functions as a large

³ This section is essentially an extract from Basin Development Plan - Inception Report – Summary - 12th September 2002

natural storage reservoir that reduces the maximum flow and increases the minimum flow downstream of the confluence at Phnom Penh.

For a multitude of reasons, the forests, wetlands, coastal ecosystems and other natural habitats are in a state of continuous degradation. On the other hand, there is an attractive potential for development of controlled, sustainable forestry.

Hydropower

There is a big hydropower potential in the Lower Mekong Basin. MRC has estimated it to around 30,000 MW depending on the feasibility criteria applied. Of this, 13,000 MW are on the mainstream; 13,000 MW on Lao tributaries; 2,200 MW on Cambodian tributaries; and 2,000 MW on Vietnamese tributaries. To date, 11 schemes have been completed in the LMB, totalling some 1,600 MW, or 5% of the potential. All of these are tributary projects. The largest ones are located in Vietnam (Ialy, 720 MW) and Lao PDR (Theun Hinboun, 210 MW, Nam Ngum, 150 MW, and Houay Ho, 150 MW). In the Lower Mekong Basin, the planning emphasis has shifted from the mainstream to the tributaries.

In Yunnan, two hydropower projects have been completed on the mainstream: Manwan (1,500 MW) and Da-chao-shan (1,350 MW). Additional large mainstream projects have been initiated (Xiaowan) or planned (Jinghong and Nuozhadu), with a storage capacity of 15,000 Mm³.

Navigation

Waterway transport has traditionally been the principal means of travel for much of the population, both locally and for international trade. Around a third of the population in rural areas of Cambodia and Lao PDR live further than 10 km from a road that can be used year round. Waterborne transport represents 85% of all means of transportation in the Mekong Delta of Vietnam.

The use of the river for transportation does not only depend on the physical potential of the waterways but also on the demand for trade. In 2002, trade estimated at 4.7 billion USD was distributed by inland waterway transport (88 Mio. USD between Thailand and China; 350 Mio. USD between Lao PDR and Thailand; 235 Mio. USD in Cambodia; and 4 billion USD in the Mekong Delta).

Floods

Severe floods occur regularly, in recent years for example in 1996, 2000, and 2001. The consequences have been extensive, in terms of human casualties, production loss, and damage to infrastructure and private property. Flood management and mitigation is an important issue with a strong regional emphasis.

Tourism

Tourism is a major foreign currency earner in Thailand, although today it is most dominant outside of the Mekong Basin. In Cambodia, Lao PDR and Vietnam, the sector has an attractive potential for development, which can be pursued in a basin-wide collaboration.

2.3 Socio-economic conditions

The last two decades have witnessed rapid economic development in the lower basin countries. At the same time, however, the quality of life of the poorest people has barely improved at all.

Most of the rural population, that is more than 80 percent of the total population in all basin areas, continue to live in great poverty. The socio-economic indicators in Cambodia and Lao PDR remain low, and in Thailand and Vietnam, the indicators within the basin area are substantially lower than in the areas outside of the basin. Significant investments are urgently needed in the agriculture sector and in rural development in general, as well as in education and basic health.

Education levels are generally low. The average school attendance is less than 5 years. There is a shortage of schools and higher education facilities, particularly in rural areas. Poverty can impede children from going to school, not to speak of higher education. In this way, huge human resources are critically under-utilized and do not reach their potential.

Currently, 75-80 percent of the basin's population lives in rural areas. Population growth remains high throughout the basin despite declining fertility rates and improved health conditions and life expectancy. Projections for year 2000-2020 show annual total population increases ranging from 1 percent in Thailand to 1.4 percent in Vietnam, 2.3 percent in Cambodia and 2.6 percent in Lao PDR. Moreover, rate of growth of the urban population is 2-2.5 times higher than national rates, due to migration towards secondary as well as the major urban centres. If these conditions persist, the proportion of people living in urban areas in 2025 will be in the range of 25-30 percent.

A number of key driving forces and concerns related to development in the LMB that impact directly on the need for a BDP include:

- Rapid population growth, particularly in Cambodia, Lao PDR and Vietnam, accompanied by increasing proportions of elderly throughout the Basin
- Structural transformation of the economy of the LMB spurred by government policies for export-oriented industry and commercial agricultural development that is resulting in an escalating demand for water during the dry season. There are also increased risks of agrochemical pollution, including contamination of edible fish.
- Increasing regional integration, including economic integration and regional initiatives for development of major infrastructure.
- Government policies for decentralization and devolution of planning, budgeting and implementation responsibilities to provinces and local authorities.
- Rapid growth of the labour force with rising unemployment and underemployment as insufficient new jobs are created.
- Significant seasonal and permanent migration within and between countries.
- Persistent poverty throughout rural and remote areas, with increasing inequality between rural and urban regions. Food insecurity, insecure land tenure, lack of technology, poor road and market infrastructure and inadequate social services are primary determinants of poverty.

- Effects of changing lifestyles among the “better off”, including increased per capita consumption of energy, food and water, as well as waste production.
- Deforestation due to unsustainable logging and agricultural practices. Environmental consequences include changes to maximum-minimum flows, silt transport and increased risk of floods and droughts; social consequences include the loss of non-timber forest products as a major factor in subsistence household consumption and income generation.
- Conservation of wetlands and other important habitats.
- 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 floodplain storage capacity; and iv) erosion.
- A set of ordinary upstream/downstream divergences of interests related to water uses.

2.4 Institutional situation⁴

At the national level, administration, planning and legislation for water resources in each country is generally distributed between several ministries. National planning is usually sector driven, with limited consideration given to cross-sectoral interactions. In addition, each country has national, provincial, district and local (village, tambon or commune) levels of administration, all of which may have responsibility for aspects of water resources management. In all countries there is a move to decentralization and devolution of planning, moving responsibility to the lowest appropriate level (following the subsidiarity principle).

All four countries have provincial, district and local level government organizations which have responsibility for the management of local water resources, such as dams, water supply, and irrigation projects.

Also the planning practices are comparable, comprising a hierarchy of long-term policies, 5-years strategic national social and economic development plans, and action-oriented rolling public investment plans governing the actual implementation of the policies and strategies.

All four countries regard their water resources as an important national asset.

National water resource laws and strategies have been formulated, or are under consideration in all four countries⁵.

- In Lao PDR, a water sector strategy and action plan has been prepared by the National Water Resources Coordinating Committee. The strategy includes initiation of an IWRM approach in important river basins.
- In Viet Nam, a law on water resources was adopted in 1998 and a National Water Resources Council was recently established. Implementation of the law is underway,

⁴ This section is essentially an extract from Strategic Directions for Integrated Water Resources Management in the Lower Mekong Basin - draft Ver.6.1: 12 September 2005 (Final Draft)

⁵ In accordance with the WSSD target, WSSD Plan of Implementation, Article 26.

including establishing river basin organizations (RBOs) for major river basins, including the Mekong Delta. A National IWRM Strategy was approved in April 2006.

- In Thailand, a water resources law has been formulated but not yet endorsed. In line with Thailand's emphasis on decentralized planning and management, the National Water Resources Committee has begun implementation of water resources management through river basin committees (RBCs). Thailand's National Water Policy is already completed and endorsed by the Cabinet. A National Water Resources Strategy Plan is currently being formulated.
- In Cambodia, a national water strategy is being formulated through integration of relevant sector strategies by the Ministry of Water Resources and Meteorology

As part of the implementation of their new water laws and policies, River Basin Organisations (RBOs) or Committees (RBCs) have begun operation in parts of Thailand and Viet Nam, and are being formed in Cambodia. These will represent a wide stakeholder base, incorporate the principles of IWRM and provide a spatial basis for inter-sectoral integration of water resources planning.

At the Basin level, international and multi-lateral agreements and laws potentially play an important role in promoting sustainable use of land and water. Studies have identified 25 international and regional conventions, treaties, protocols and declarations relevant to water and land management in the Mekong region. These have the status of guidelines or protocols – there are currently no binding regional legal frameworks. The most comprehensive regional agreement relating to water is the 1995 Mekong Agreement, which established Mekong River Commission (MRC) as a platform for cooperation and negotiation regarding shared water resources. MRC has a potential guiding role for water through the rules and procedures envisaged by the 1995 Agreement. However, regional cooperation and joint planning may be the most efficient mechanism.

There is a substantial expertise within water management and water-related disciplines in all four Member States, generated within universities, other research/knowledge-centres, organizations and service institutions that link with the international scientific community. The Southeast Asia Technical Advisory Committee of Global Water Partnership (GWP-SEATAC) is promoting and facilitating the concept of IWRM. Trans-boundary liaison and networking within water-related research and development is facilitated by several bodies apart from MRC and GWP-SEATAC, such as for example the Greater Mekong Sub-region Academic and Research Network, and several others.

In due time, at least a major part of the Lower Mekong Basin (LMB) will be covered by three levels of IWRM:

- The basin-wide level, within the mandate of MRC, and covered by the BDP and the MRC sector plans;
- the national level, within the mandate of the governments; and covered by national over-all development policies and specific sector policies and investment plans; and
- the sub-river basin level, managed by the RBCs/RBOs, in accordance with their mandate in each country.

The value and indeed the feasibility of planning and management at each level depend on a close harmony and efficient and effective interaction between and within the planning levels. The BDP links into this context via the representatives from the relevant national stakeholders in the NMCs. However, MRC/BDP itself and the NMC/BDP staff is not actively involved in the planning processes of line agencies and provincial authorities.

Economic co-operation in the region is promoted primarily through both the Asian Development Bank Greater Mekong Sub-region Programme (ADB-GMS) and various mechanisms of the Association of South East Asian Nations (ASEAN)⁶. Both organisations have programmes in sectors relevant to water resources, including energy, transport and agriculture. Neither ASEAN nor ADB-GMS have associated regulatory or legal frameworks, although the GMS Strategic Environmental Framework provides guidelines for promoting sustainable development and use of natural resources.

2.5 Mekong River Commission

The Mekong River Commission (MRC) was established by the 1995 Mekong Agreement, specifically to promote cooperation for sustainable development of water and related resources in the Lower Mekong Basin. MRC is the lead agency for coordination of water related issues in the LMB. The member countries are Cambodia, Lao PDR, Thailand and Viet Nam; China and Myanmar are dialogue partners, and cooperate increasingly in MRC programmes.

Under the 1995 Agreement, the countries established a clear management framework for the Lower Mekong, of which the key elements are:

- An institutional framework (the MRC) to act as a focal point for cooperation, and to provide technical guidance and mediation
- A policy framework of agreed goals and objectives for development
- Procedures and (rules)/guidelines that facilitate interaction between the Member States and provide a mutually agreed basis for utilizing the waters of the Mekong in a reasonable and equitable manner. These procedures are prepared under the Water Utilization Programme. The status of approval is:
 - Procedures for Data Information Exchange and Sharing (PDIES) – 2003
 - Procedures for Water Use Monitoring (PWUM) – 2004
 - Procedures for Notification, Prior Consultation and Agreement (PNPCA) – 2004
 - Procedures for Maintenance of Flows in the Mainstream (PMFM) – 2006
 - Rules⁷ for maintenance of water quality, Water Quality Management - under negotiation
- A monitoring system and procedures to ensure that sustainable limits are not exceeded and to provide information to guide future development
- A basin-wide planning process (the BDP) by which the Member States can identify and promote projects and programmes to fulfil the aims of the Agreement.

In the previous five-year Strategic Plan (2001-2005), four goals were defined as:

⁶ GMS includes all six countries of the Mekong Basin - Cambodia, Lao PDR, Thailand, Viet Nam, Myanmar and China. All except China are members of ASEAN.

⁷ Name to be decided by Council

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

The MRC programmes have been carried out under these goals and are now further developed to support the new goals of the Strategic Plan 2006-2010, see Chapter 4.

3 LOWER MEKONG BASIN DEVELOPMENT PLANNING

3.1 The MRC Basin Development Plan (BDP)

In Article 2 of the 1995 Mekong Agreement, the parties agree *'to promote, support, cooperate and coordinate in the development of the full potential of sustainable benefits to all riparian States and the prevention of wasteful use of Mekong River Basin waters, with emphasis and preference on joint and/or basin-wide development projects and basin programmes through the formulation of a basin development plan, that would be used to identify, categorize and prioritize the projects and programmes to seek assistance for and to implement at the basin level.'*⁸

With this aim, MRC launched a project to formulate the Mekong BDP in June 1995. ToR explaining the approach, methodology, work plan and related time frame, etc. were approved by the Joint Committee (JC) of the MRC in July 1996. They served as a basis for a project proposal submitted to Danida and Sida in February 1997. A detailed planning phase in 1999 was followed by a bridging phase in 2000-01. The BDP formulation started on 1 October 2001.

Formulation of the BDP is done by the BDP Team of MRC and national BDP Units under each NMC. The work has involved a broad network of national planning and line agencies, and a wide range of other government, private sector and civil society actors. The work is supervised by the MRC Joint Committee and by national Sub-Committees.

In addition to resources allocated by each member country, financial support to the work has kindly been granted by Australia, Denmark, Japan, Sweden, and Switzerland while links have been maintained to World Bank, ADB, Netherlands Development Assistance and other donors and funding agencies.

3.2 BDP Phase 1

Aim, content and results

The ultimate aim of BDP Phase 1 has been defined as *'sustainable development of the water and related resources of the Lower Mekong Basin for the mutual benefits of the riparian countries and people living in the entire Basin. In the medium term, the outcome is expected to provide a framework for regional cooperation among the riparian countries to develop and manage the water resources and related resources of the Lower Mekong Basin'*.

The immediate objectives of Phase 1 of the BDP were:

- 1 *A participatory basin planning process established and ongoing; and*
- 2 *A Basin Development Plan aiming at a balanced mix of social, economic and end environmental factors drafted and agreed on.*

The BDP has been prepared with active participation by many participants, structured around the BDP Team at MRCS and the national BDP Units and working groups under each NMC.

⁸ Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin 5 April 1995 – Mekong river Commission

National ownership of the planning process has been encouraged through Phase 1 and institutional capacities have been strengthened significantly.

Within MRCS, the work has been shared among the various programmes. Initially (in connection with baseline studies and tools development) most of the collaboration took place with Technical Support Division (TSD), Water Utilization Programme (WUP) and the Environment Programme (EP). Later on (in connection with strategy formulation and project identification) it was extended to include all other MRC programmes. In this context the 'products of the BDP' are rather products of the entity of MRC programmes.

Both at the regional and the national level, the work has been done largely by in-house capacity.

The formulation process has comprised a major education programme, targeted towards the needs of the BDP. This programme was planned and carried out with assistance from Murray Darling Basin Commission.

The BDP Completion Report for Phase 1 (2nd Draft, May 2006) gives an overview of achievements during BDP 1. Annex 3 is the summary sheet from the BDP Progress Report October 2005 – March 2006 at output level. Those parts of the work under Phase 1, which will be continued during Phase 2, are marked in the column on Planned Timeframe.

In brief, the final outputs of Phase 1 will be:

A Planning Process, consisting of:

- A functional, comprehensive network of participants and information flow, consolidated during an active dialogue involving some 200 line agencies and other institutional stakeholders
- Routines for identification, scoping, and screening of recommended projects and programmes; and
- Initial practices for promotion of priority projects and programmes.

Building stones of an IWRM-based Plan, consisting of:

- Broad, integrated analyses, at sub-area, national and basin wide level, of baseline conditions, water demand projections, development opportunities, linkages and constraints, and development scenarios;
- An agreed '*Strategic directions for IWRM in the Lower Mekong Basin*';
- An MRC project database including joint projects as well as national projects and project ideas, however, still not containing key data on all major national projects of trans-boundary importance;
- An Atlas, produced by a GIS-linked database, of development needs (linking to the existing social and environmental atlases of MRC) and
- A Portfolio of priority projects and programmes that will support the strategic direction and the Mekong River Basin Vision of '*an economically prosperous, socially just and environmentally sound Mekong River Basin*'

IWRM tools and a knowledge base, comprising data, information, and decision-support tools for impact prediction and screening⁹. Decision-support tools and analytical tools are:

- A Resource Allocation Model (RAM)
- Use of the Decision Support Framework (DSF) developed by the Water Utilization Programme (GEF/World Bank)
- SEA and SIA routines, trans-boundary EIA guidelines, and IBFM Integrated Basin Flow Management and Integrated Water Quality Management

Further, the knowledge base for strategic planning has been widely expanded, as exemplified by the following cross-cutting key publications:

- The BDP Sub-Area Planning Atlas produced by a GIS-linked database, with a wealth of data and information, and listings of development projects and project ideas (based on the existing MRC-IS) (May 06)
- MRC State of the Basin Report (June 03)
- MRC Social Atlas (May 03)
- MRC People & Environment Atlas (Aug 03)
- The BDP Core Library (May 2006)

Enhanced capacity in IWRM and multi-disciplinary river basin planning at the regional, national and sub-area level, provided by:

- Dedicated training sessions and on-the-job training
- The Murray-Darling River Basin training programme and curriculum; and
- 6 riparian MSc candidates educated under BDP related grants

As part of the knowledge base, the BDP team has accessed the Global Water Partnership's IWRM ToolBox. The ToolBox includes a set of descriptions of approaches to IWRM and illustrates the use of these approaches through real-life cases. BDP can benefit from the study of these items and see how other practitioners have applied the IWRM principles.

An important outcome of Phase 1, in its own right, is a substantial knowledge and capacity generated at the regional and national level within basin-wide and trans-boundary water-related development.

Interfaces

BDP is operating in an environment where numerous planning and development activities with relation to water are taking place. From the outset it has therefore been imperative to interface and link up to these activities.

⁹ All outputs have been, or are being produced in a close collaboration with the other MRC programmes. Notably, the tools and knowledge base (shared by all MRC programmes) have been produced in a close and active collaboration, with a major part of the work done by and under the Environment Programme and the Technical Support Division

Interfaces with other MRC programmes

BDP is one of the MRC programmes. It has proceeded in parallel with the Water Utilisation Programme (WUP), the Environment Programme (EP), and the MRC sector programmes and draw on the knowledge these programmes have generated about sector development opportunities, priorities, and impacts.

Interfaces with national planning

The BDP aims to conform to the policies for national social and economic development of all the riparian countries. It supports the national policies and expects to add value to those national development efforts that have regional implications.

BDP provides a process for examining national plans in a regional context, to determine their significance for neighbouring countries and identifies areas where joint initiatives could provide a regional benefit. Current national five-year development plans are the basic documents for formulation of BDP regional scenarios and strategies. BDP draws out the common and trans-boundary issues from national plans and policies, to formulate regional strategies and initiatives.

The basic coordination for the planning stage proceeds through the NMCs, who have this coordination as one of their most important tasks in relation to the BDP

Interface on data and information sharing

Sharing of data and information between national governments and MRC for BDP is covered by the MRC 'Procedures for Data and Information Exchange and Sharing' signed by the MRC Council in November 2001. Data access and validation will be implemented through a specialist team coordinating data/information exchange between MRC Secretariat and NMCs.

Interfaces with Upper Mekong countries

The Upper Mekong countries, China and Myanmar, are not members of the MRC and are not included in the BDP at this stage. However, since information on water flows from the upper basin and on planned developments affecting water resources are essential for the LMB, communication and cooperation with the Upper Mekong countries is increasing.

China and Myanmar have been dialogue partners with MRC since 1996. In April 2002, the Chinese government signed an agreement to provide information on Mekong river flow and water levels in the flooding season to the MRC countries. In June 2005, the MRC was officially invited to Beijing to discuss further steps toward more concrete cooperation in a number of areas of common interest.

Interfaces with related regional development efforts

The MRC maintains links with – and supports – parallel regional development initiatives, notably the GMS Programme initiated and supported by ADB. The MRC Programme and the GMS are complementary in terms of aim and scope, and there is a clear opportunity for mutual support and synergy.

The collaboration is facilitated by the Partnership Arrangement, which was signed between ADB and MRC in March 2000.

Examples of other related regional programmes include:

- ASEAN (Mekong Basin Development Cooperation scheme)
- ESCAP (the 10-years Decade-of-the-Mekong Programme)
- The Global Water Partnership, which has established a Southeast Asian Technical Advisory Committee (SEATAC) to serve as a regional focal point for global exchange of knowledge about integrated water resources management and Ministerial Declaration, Bali, Indonesia
- IUCN, which has regional programmes on wetlands conservation and protected areas, has signed a Memorandum of Understanding with MRC for joint work under the Environment Programme.
- The Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy or ACMECS is a new cooperation framework amongst Cambodia, Laos, Myanmar and Thailand to utilize member countries' diverse strengths and to promote balanced development in the sub-region
- The emerging World Bank Mekong Water Resources Assistance Programme (MWRAP) aiming to set out strategic approaches to assistance to water resources management and development in the Mekong Region and associated financing options

Liaison with these organisations are maintained through consultations, and by exchange of information about course of action and progress made, but efforts to strengthen these links are required.

Scope for improvements and consolidation during BDP Phase 2

The formulation of the BDP process and plan during Phase 1 can be characterized by “exploration and innovation” plus “dialogue”.

Many practices, routines and tools have not been operational until a late stage of Phase 1, so that practical application experience is limited and shall be strengthened and consolidated as part of BDP Phase 2. Also, Phase 1 took place in a transient institutional context, with new ministries, new river basin organizations and new regulation emerging in parallel with the BDP formulation. The scope for improvement and consolidation in phase 2 comprise¹⁰:

BDP as related to project operation:

- Updating of analyses of national institutional, legal and policy frameworks for IWRM
- Enhancement of predictive capacity (tools for planning and forecasting and the ability to use them)
- Operational knowledge of promotion of programmes and projects and of resolution of trans-boundary issues to be given more emphasis

¹⁰ Reflecting the proceedings of the BDP regional consultation meeting in Vientiane on 19-21 July 04 as well as in-house observations.

- Consolidated formats and routines for identification, analysis, and promotion of priority programmes and projects
- Mainstreaming GIS throughout the BDP process as a central planning tool.
- Quality management procedures consolidated within BDP, MRCS and extended to the NMCs
- Consolidation of knowledge base and decision-support tools for use at the regional and national level, and for uses within and outside the BDP
- Development and implementation of impact monitoring (at programme and project level), and improved (indicator-based) progress monitoring and reporting
- Consolidation of operational implementation of the Decision-Support Framework (DSF), the Resource Allocation Model (RAM), the sub-area studies and scenario analyses
- The participation by women in the planning process is still limited. There is a scope for upgrading the gender mainstreaming. The routine progress monitoring should address gender issues more explicitly.
- The overall management of the BDP process needs to be more efficient and effective.
- A scope has been pointed out ¹¹ for encouragement of participation, with a view to continuity of participation, and supportive management, especially at the national level.

BDP in relation to MRC

- Consolidation of interfaces with other MRC programmes and entities, especially the Environmental Programme and the Technical Support Division (incl WUP)

BDP in relation to National level linkages

- Improved collaboration and coordination between MRCS BDP team and NMC BDP team
- Consolidation of interfaces with national planning processes
- Establishment and consolidation of interfaces with new and upcoming river basin organizations/committees, including knowledge-sharing and a functional delineation of local, national and regional development initiatives
- Extended dialogue and collaboration with external partners, including other regional development initiatives and programmes
- Riparian capacity-building (NMCs, line agencies, RBOs/RBCs)
- Enhanced public participation
- The applied scenario approach was new to the NMCs and the participating line agencies and required more time than anticipated for introduction and implementation.

¹¹ By CNMC at a national consultation meeting on 17-18 January 2005

- The dialogue between the member countries about strategy formulation and about identification of priority development initiatives takes a considerable time (workshops, meetings etc) and should address “trade-off”
- The interaction with national IWRM practices and related planning has been successfully initiated but is still weak.

4 RATIONALE FOR A CONTINUED BASIN DEVELOPMENT PLANNING PROCESS¹²

4.1 MRC strategic goals and objectives and BDP Phase 2

According to the draft Strategic Plan 2006-2010 *“the primary value-added of MRC as an international river basin organization is to focus on joint and basin-wide issues including the analysis of long-term development scenarios, the identification of important joint and basin-wide projects and programmes, and the analysis of implications (economic, social and environmental) of ongoing and proposed developments and investment”* [in the basin, including the cumulative impacts of national developments].

In accordance with Article 2 of the 1995 Agreement the Basin Development Plan is the vehicle by means of which MRC will “identify, categorize and prioritise the projects and programmes to seek assistance for and to implement at the basin level”.

The strategic planning process within MRC and the NMCs has resulted in the following overall five year goal of the MRC for the period 2006-2010:

“More effective use of the Mekong’s water and related resources to alleviate poverty while protecting the environment”

The MRC will in its quest towards the overall five year goal in particular focus on improvement of people’s livelihoods meeting the following strategic challenges:

- increased food security through more efficient land and water development and irrigation;
- appropriate development of the basin’s hydropower potential to help meeting the increasing need for energy;
- maintaining productive fisheries and enhanced aquaculture of indigenous species for increased food security and economic output;
- more active and efficient river transportation through increased freedom of navigation to increase social development, international trade and tourism opportunities;
- avoiding, minimizing and mitigating people’s suffering and economic losses due to floods and droughts;
- protecting the environment, natural resources, aquatic life and ecological balance of the basin from pollution or other harmful effects from development;

These priority challenges will be addressed based on active cooperation between all Mekong countries.

The draft Strategic Plan 2006-2010 will be submitted to the MRC Joint Committee in August and to the MRC Council end of November 2006. The proposed goals in the present draft are:

¹² This chapter draws heavily on and uses quotes from MRC Strategic Plan 2006-2010, Draft 19 June 2006 and from IWRM Strategy for the Lower Mekong Basin, BDP Library Volume 10, December 2005.

- Goal 1: To promote and support coordinated, sustainable, and pro-poor development;
- Goal 2: To enhance effective regional cooperation ;
- Goal 3: To strengthen basin-wide environmental monitoring and impact assessment;
- Goal 4: To strengthen the Integrated Water Resources Management capacity and knowledge base of the MRC bodies, NMCs and Line Agencies and other stakeholders.

The manner in which the BDP Programme Phase 2 outputs (ref. Chapter 6, 7 and Annex 1) contributes to the achievement of the defined goals are summarised in Table 4.1 below.

Table 4.1 – BDP Programme Phase 2 outputs (abbreviated) and their contribution to the strategic goals of MRC Strategic Plan 2006-2010

Goal 1	Goal 2	Goal 3	Goal 4
To promote and support coordinated, sustainable and pro-poor development	To enhance effective regional cooperation	To strengthen basin-wide environmental monitoring and impact assessment	To strengthen the Integrated Water Resources Management capacity and knowledge base of the MRC bodies, NMCs and Line Agencies and other stakeholders
<i>BDP Phase 2 - Outputs</i>	<i>BDP Phase 2 - Outputs</i>	<i>BDP Phase 2 - Outputs</i>	<i>BDP Phase 2 - Outputs</i>
Regional scenarios and development opportunities identified	Networks/partnerships with donors and investors operated	Programmes and projects identified and screened	Transparency and stakeholder involvement enhanced
Networks/partnerships with donors and investors operated	Capacity built in MRCS to assess shared benefits and costs	Basin scale rolling IWRM - based plan prepared	Knowledge base and assessment tools upgraded, reviewed and made operational
Programmes and projects identified and screened	Capacity built within BDP to assist trade-off facilitation and mediation	Project impacts monitored and evaluated	MRCS and NMC staff skilled in use of assessment tools
Portfolio of programmes and projects prioritised and promotion initiated		Knowledge based decision support capacity enhanced at MRCS and NMC levels	Knowledge based decision support capacity enhanced at MRCS and NMC levels
Basin scale rolling IWRM – based plan prepared			Upgraded planning guides prepared
Project impacts monitored and evaluated			IWRM principles internalised

It becomes clear from the table above that BDP Programme Phase 2 has an important role to play in the MRC quest to achieve the strategic goals and the overall five year goal. A particular emphasis is given to poverty alleviation and achievement of the Millennium Development Goals (MDGs) to which the countries have committed themselves.

4.2 The role of BDP in the development of the basin

By virtue of its mandate given in the 1995 Agreement, MRC and in particular BDP, is the mechanism through which the four riparian countries can “promote, support, cooperate and coordinate in the development of the full potential of sustainable benefits to all riparian States” with emphasis and preference on joint/basin-wide and large national projects and programmes with potentially trans-boundary impacts. It is the only formal mechanism which can assist Member States in ensuring that upstream - downstream impacts are kept within acceptable levels and that basin-wide aspects are considered during project development. Though the water resources management and development within the different parts of the basin is driven primarily by and fall under the individual national agencies and river basin organizations, the BDP will by means of comprehensive scenario analysis and adopting an IWRM approach in all its activities, cf. Chapter 5, be able to identify and assess regional, trans-boundary, shared projects and programmes that will benefit more than one country and which would not have been identified by a single nation

Through the basin-wide knowledge base and assessment capabilities, MRC is able on request to support Member States and their investors to make impact assessments and valuations for projects and programmes proposed by the riparians. Such assessments will form an important background for financing decisions by funding agencies, development banks and donors and thus promote sustainable development and sustainable investments.

Viewed in this context, the role of the Basin Development Plan is seen principally:

- To contribute to inter-dependent sub-regional growth by establishing an IWRM-based process that maintain the ‘triple bottom line’ approach to sustainable development
- To be a mutually agreed expression at any one time of actions deemed desirable by the Member States individually and/or collectively to realize the development aims of the 1995 Agreement and the vision of an economically prosperous, socially just and environmentally sound Mekong River Basin,
- To ensure that those actions are consistent with the *Strategic Directions for IRWM in the Lower Mekong Basin* and in accordance with agreed BDP procedures, and
- To provide an agreed prioritization of those actions that are of basin-level relevance, in the form of a portfolio of programmes and projects to attract investments

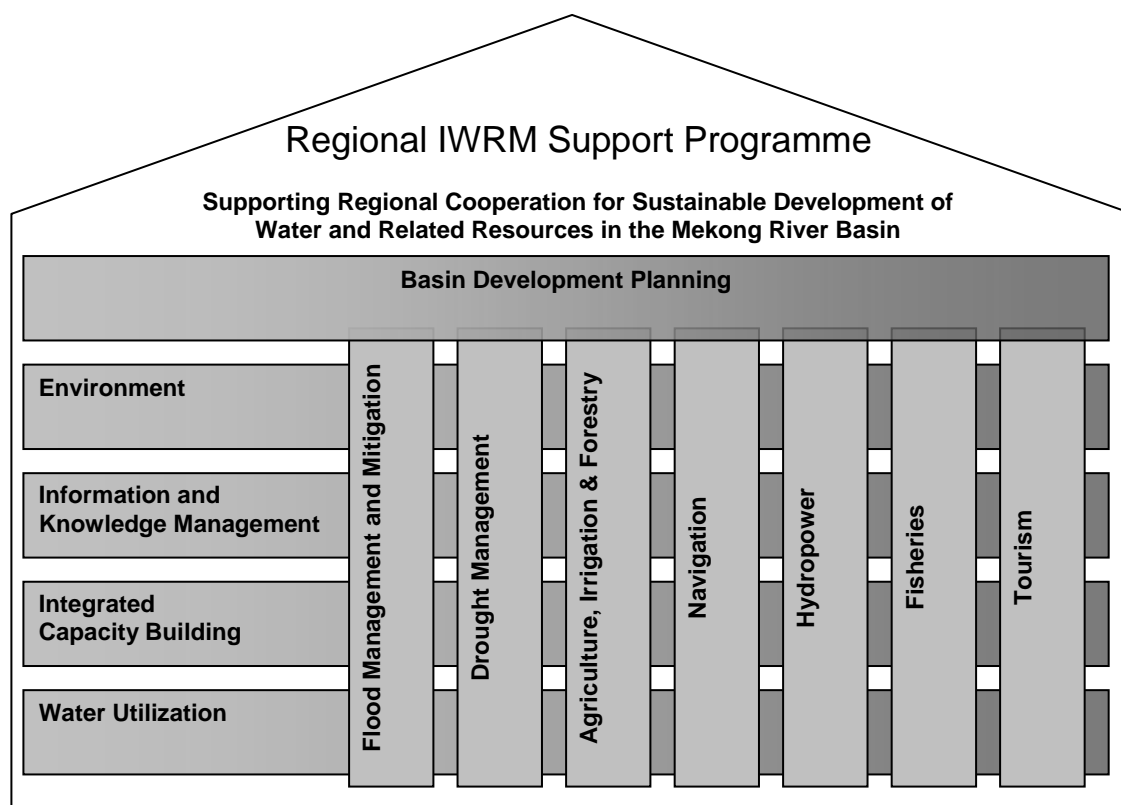
The output from a dynamic BDP planning process, where also the sector programme results are integrated, is indeed the key for MRC’s support to development in the basin. The process achieves maximum value when fully utilized by both Member States and their investors. Thus it is an important assumption for the success of the BDP that the Member States provide timely information on all significant existing and planned water related activities in the LMB. Given the right support, BDP in conjunction with other programmes within MRC, will at any time, be able to give a picture of significant present and planned water related projects and programmes and their accumulated impact on the water resources. Based on such a picture the Member States can make rational and knowledge based development decisions in support of sustainable development of the basin. So far, full use has not been made of the planning process, but if

donors and investors more strongly encourage recommendations of project and project impact evaluations to come through the process, the value of the process will highly improve.

4.3 The role of BDP in MRC’s integrated programme approach

The integrated programme structure of the MRC comprises a series of sector programmes related to Flood Management and Mitigation; Drought Management; Agriculture, Irrigation and Forestry; Navigation; Hydropower; Fisheries; and Tourism cross-cut by four support programmes in Environment, Information & Knowledge Management, Integrated Capacity Development, and Water Utilization (see Figure 4.1).

Figure 4.1 - MRC programme structure



The integration of these programmes at a higher strategic level takes place through the basin development planning and is a compelling condition for the success of the programmes to make a clearly defined and verifiable contribution to the overall goals of MRC. It is equally important to make programmes accountable at that level. Thus within the MRC programme structure the basin development planning will take on a pivotal role in a highly integrated and coordinated manner. The BDP process will use acquired knowledge from within the other MRC Programmes from which to build an overall perspective of what the development needs are. This process will identify “pertinent knowledge gaps”, which will set the agenda of the individual MRC Programmes particular the sector knowledge programmes

The BDP process thus has an indispensable role as a gathering point, where the results of the MRC sector programmes and other programmes continuously can be collected, analysed in the overall planning perspective and integrated into the basin-wide picture of the present and future water resources situation. Jointly with the Water Utilization Programme and the Environment Programme, BDP can advise the Member States, the MRC Joint Committee and the Council about situations where there are risks of unacceptable impacts of development activities.

Within the framework of the programme structure and Phase 2, BDP will have a focus on six key products:

<i>Key products from the BDP Programme Phase 2</i>
<ul style="list-style-type: none"> • An updated IWRM Strategy for the Lower Mekong Basin • A rolling IWRM based Basin Development Plan • A portfolio of programmes and projects identified and short-listed under the BDP Planning Cycle • Enhanced knowledge base and assessment tools within MRC • Enhanced capacity for IWRM based planning and mediation in MRCS and NMC levels • Input to MRC Strategic Plan for 2011 – 2015

4.4 Implementation modalities for Mekong Programme

The role of the MRC and the BDP in the project cycle is to ensure identification, analysis and prioritisation of joint projects and programmes and large national projects with potential trans-boundary implications in harmony with IWRM Strategy for the Lower Mekong Basin. The different categories of projects and programmes that may be identified under the BDP are:

- *Enabling Developments* being improvements to resource management practices, basin-wide capacity building activities, pilot projects, studies etc. - some of them coming out of sub-area consultations and analyses, some directly from the MRC Programmes
- *Infrastructure Developments* being civil, mechanical or electric engineering-based developments
- *Non-structural developments* being investments in developments other than infrastructure, such as extension programmes, flood preparedness and the like

While the BDP encompasses all three categories the main focus shall be on the infrastructure and non-structural developments representing basin-wide joint projects or major national projects with potential trans-boundary impacts.

It is envisaged that many of the *enabling developments* (but most probably not all) will be incorporated in MRC Programmes and executed/implemented by the MRC. Further project preparation and fundraising for these may well be undertaken by MRCS.

Further preparation (pre-feasibility, feasibility, detailed design, tender documents etc.) and implementation of *infrastructure and non –structural developments* would be assigned to national line agencies of the country in which the programme or project takes place.

However, to the extent resources are available, the MRC in collaboration with the NMCs can prepare services to Member States and their donors/investment banks who are preparing investments of joint projects and national projects with trans-boundary impacts. Such services can include access to information and knowledge resources of the MRC, application of modelling tools to evaluate potential impacts of various investment and management options at the design stage of project development, interpretation of regional policy perspectives and guidance, and advice on issues and mitigation strategies that should be explored during the project preparation process. Early involvement of the MRC in project design and preparation is desirable both to improve the quality of the design and to reduce the risk of major issues being raised after the project has been formally notified by the sponsoring countries to the MRC under its notification and project assessment policies. However, such support to project preparation is not part of the BDP process but shall be provided mainly by sector programmes and the cross-cutting support programmes.

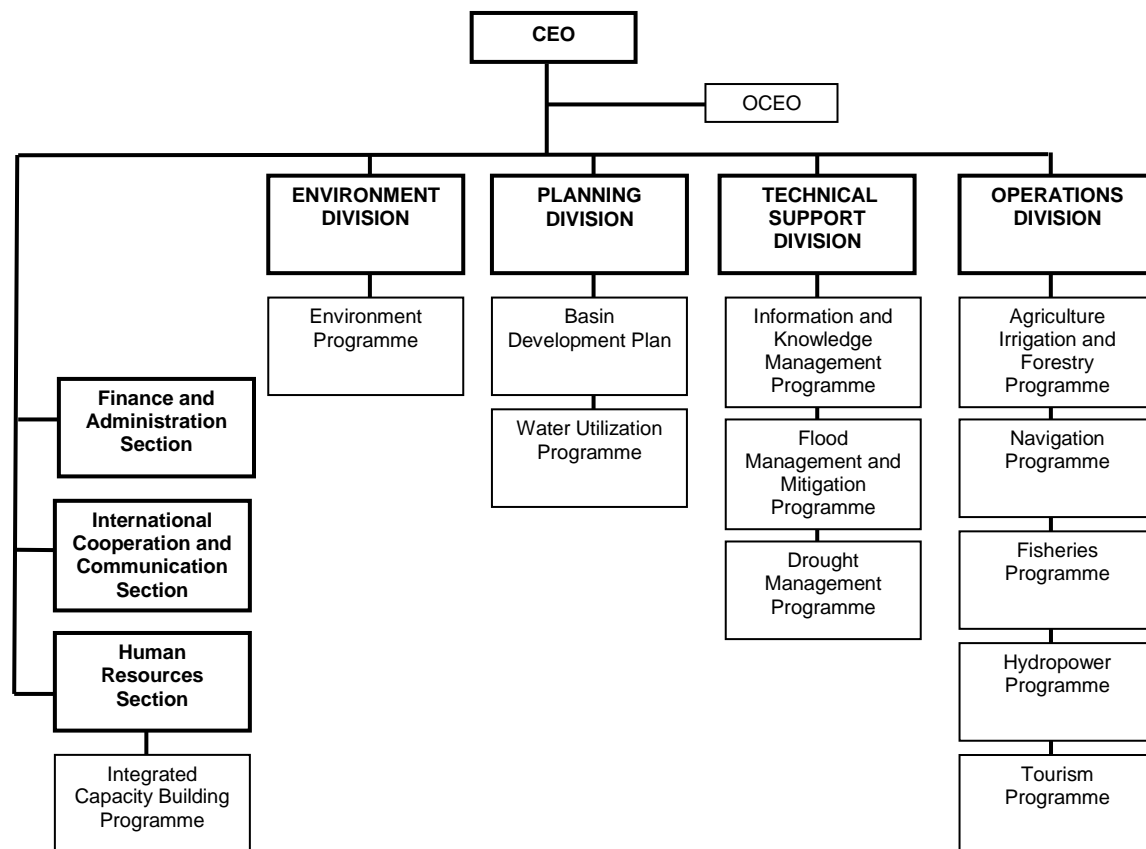
4.5 The position and links of BDP in the organisational structure of the MRC Secretariat

According to the MRC Strategic Plan 2006-2010, the present organisational structure of the MRC Secretariat will be continued as shown in Figure 4.2.

Within the Planning Division the link to WUP is particularly important as WUP is part of defining the “development space” or the water available for new development projects. In the same way the EP is defining the environmental part of the “development space”. Modelling of the hydrology through the WUP Decision Support Framework (DSF), which is the responsibility of the Technical Support Division and its Information and Knowledge Management Programme, is a clear interest area of BDP. Water quality modelling under the EP is also a significant activity for BDP to link to. BDP needs input from the sector programmes and the Flood Management and Mitigation Programme in order to complete the picture of existing and planned development activities in the basin, to formulate sector strategies and to identify development needs and opportunities.

Further, the efficient management of the BDP requires management information systems and reporting to the finance and administration section. BDP will link to and assist the International Cooperation and Communication Section in promotion and fundraising activities of those ‘*enabling developments*’ that will be incorporated in MRC Programmes and implemented by MRC activities, cf. section 4.4., and in networking and promotion of the BDP with the Member States and regional economic development initiatives. Interaction with the Technical Coordination Section under the Office of the CEO will take place in relation to basin-wide IWRM policies and strategies and facilitation of the strategic direction towards IWRM. Through its normal operations, BDP is in close contact with the NMCs and national line agencies and can contribute significantly to the coordination. The support to BDP Phase 2 from other MRC Programmes is described in section 9.5.

Figure 4.2: Organizational structure of the MRC Secretariat



5 BDP PROGRAMME PHASE 2 APPROACHES

5.1 Guiding principles¹³

IWRM principles have been adopted to guide the planning processes within the basin. More specifically, eight key result areas in IWRM of most relevance to the Mekong Basin at this time have been identified, recognizing that later, other areas or categories might become dominant:

- Economic development and poverty alleviation
- Environment protection
- Social development and equity
- Dealing with climate variability
- Integration through basin planning
- Information based management
- Regional cooperation
- Governance

Some important aspects of these key result areas are described briefly in the following.

Economic Development and Poverty Alleviation

The most pressing requirement for all the countries of the Mekong Basin is to realize economic and social development through use of water and related resources. This drive must be balanced by two considerations: protection of the water resource base to ensure environmental sustainability; and equitable distribution of the benefits from development, to ensure social sustainability and cooperation.

Economic development is important in its own right. In addition to the macroeconomic benefits of accelerated growth, properly managed economic development can also have a significant and positive impact on poverty alleviation. The water and related resources of the Mekong Basin serve as inputs into productive activities. As a resource management organization, the role of MRC is to lend guidance to the development of the resources to build a favourable investment climate that is attractive to donors and private sector investors alike. Through their work, the MRC can further ensure that economic development patterns have a poverty alleviation impact while protecting the environment.

Key issues for water resource development and utilization are:

- Providing a predictable and fair resource management framework, as a basis for a favourable investment climate
- Identifying and promoting investment opportunities that are responsive to real development demands and have a favourable poverty impact

¹³ The section on guiding principles has been adapted from "Strategic Directions for Integrated Water Resources Management in the Lower Mekong Basin –draft. Version 6.1, 12 September 2005 (Final Draft)" approved by the MRC Council in November 2005.

- Linking with appropriate regional initiatives to exploit comparative advantages in pursuing basin development
- Ensuring balanced and equitable development, between different areas and different sectors

Environment protection

Protection of the water resource base is crucial both to secure human uses, and to protect the natural and cultural values of the river. Potential threats include loss of wetland habitats and active flood plains, unsustainable water consumption, river regulation, loss or degradation of habitats, pollution (both from industry and agricultural runoff), and over-harvesting of significant species. Several threats have a trans-boundary and/or a distinctive cumulative character. One of the key issues in environment protection in the LMB is a lack of coordinated environmental planning as coherent regulatory and planning structures and institutions are essential for effective environment protection.

Protection of the water resource base falls into four broad areas all of which are covered by the 1995 Agreement:

- *Maintenance of flows.*

Procedures for Maintenance of Flow in the Mainstream (PMFM) have been negotiated under the Water Utilisation Programme (WUP), in accordance with the 1995 Agreement and were finally agreed and signed in June 2006. Discussions on Technical Guidelines for the implementation of PMFM are ongoing. Determining acceptable limits for change from the natural regime that allow utilization of the river without threatening the ecosystems requires a clear understanding of the links between river flows or quality and the health of particular ecosystem components. MRC through the WUP and EP has instituted the Integrated Basin Flow Management initiative (IBFM) to provide a technical assessment of impacts of changes in flow on the ecology of the river.

- *Maintenance of water quality.* (Procedure No. 6 is dealing with Water Quality/ Water Quality Management)

Procedures and associated Technical Guidelines under the 1995 Agreement are being drafted under WUP and expected to be ready for approval by the Council by the end of 2006. Since 1995, MRC has provided technical advice on defining acceptable water quality parameters. The main areas of concern for water quality are diffuse pollution from agricultural inputs (fertilizers, pesticides, herbicides) due to intensification of agriculture with irrigation development (particularly in the Delta); and pollution from sewage and industry downstream from major population centres (point source pollution). Integrated watershed management is the key to addressing these concerns, and River Basin Organisations (RBOs) potentially have an important role in this process.

- *Protection of aquatic ecosystems and biodiversity (habitat management)*

To maintain biodiversity, it is necessary to preserve a diverse range of habitats, and also to preserve the linkages between them – for example, migration paths and connections between river and floodplain. Particular attention should be given to identifying and preserving important or unique ecosystems, such as the Great Lake of Tonle Sap and its surrounding inundated forest areas.

- *Protection of watershed functions (catchment land use management)*

Deforestation and poor agricultural practices can significantly degrade both the quantity and quality of run-off and alter groundwater recharge. Management of catchments must take account of the links between land use, surface water and groundwater. The ecological,

economic and social functions are closely linked, and there is a need for better understanding of the links. Groundwater, now, is not properly addressed, due to general lack of information and data on groundwater development in LMB.

Changes to the river associated with development will inevitably change the river's ecosystems. A balance between development and protection will often mean trading off some degree of environmental value to gain a development benefit. Determining where the balance should lie requires understanding of the potential impacts of change, and of the value of ecosystems in terms of the total range of goods and services they provide.

Social development and equity

Social development is, along with economic development, a cornerstone of the development strategies of all MRC member countries. The quality of life of the poorest people in the basin area has improved only slowly, if at all, as a result of recent economic growth, and a significant share of the rural population continues to live in poverty.

Key issues of concern regarding social development include:

- Access to water for basic human needs
- Access to water-related resources (fish, wetland products)
- Equity of access for different ethnic and social groups, particularly women and the poor
- Protection of access for traditional lifestyles, cultural and heritage values
- Protection from the impacts of floods and droughts

Issues of equity and social development can be best addressed by ensuring that all stakeholders participate in planning and management decisions. As a general precept, local communities and civil society organization should always be consulted, although identification of stakeholders and the level at which they participate in decision will differ for different issues and areas.

Planning processes, in which the maintenance of watershed functions are addressed, like land use plans, village development plans, district development plans, watershed management plans are the ideal platform for community consultation and participation.

MRC initiatives in this regard include:

- A Public Participation Strategy (developed by MRC in 2002) to guide integration of stakeholder consultation into its work plans and practices
- MRC Gender Strategy, which calls for mainstreaming of gender perspectives in all MRC development efforts, ensuring that all MRC development programmes benefit men and women equally.

Dealing with climate variability

Water resource development and management takes place within the context of inherently variable climate conditions. Although the hydrology of the Mekong is one of the most regular and predictable of any river of its size, there is still significant annual variability. In addition,

the possibility exists of long term changes in flow due to climate change. Dealing with variability due to floods, droughts and climate change is an integral part of water resource management and development, which impacts on all sectors. Responses must make balance between adapting the hydrological systems (for example with storage dams and flood protection works) and adapting human systems (agricultural systems and patterns of settlement) to fit better the existing conditions.

- *Flood management and mitigation*

Floods are part of the natural cycle of the Mekong, and are vital to the functioning of Mekong ecosystems. The flood pulse is the engine which drives the enormous productivity of Mekong fisheries. The urgent need for improved flood management and mitigation is reflected by the recurrent damage in the Lower Mekong Basin. The poor are often the most adversely affected by floods. The extent of damage will increase as the population and economy develop.

- *Drought*

As with flooding, drought is a natural part of the climate cycle of the region. In addition to severe problems of access to water during the months of the dry season, drought may occur due to low overall rainfall for the year, or to delay or breaks in the on-set of the wet season causing short-term water shortages at crucial points in the cropping calendar. It is not uncommon for the Mekong floodplains to experience flooding and drought simultaneously, with high river levels fed by rain in the upper parts of the basin, but drought conditions away from the river. Provision of irrigation storage is an important “drought-proofing” measure. Identifying effective solutions for reducing the impacts of droughts is a high priority for BDP Phase II.

- *Climate change*

The general conclusion from international climate change studies for the Mekong region is that the overall level of rainfall is not likely to change dramatically over the next 20-50 years, but that variability may increase, with longer, drier dry seasons and wetter, more intense monsoons. Predictions for the Western Himalaya suggest that global warming could result in increased snow melt over the next 20-50 years, with resulting higher flows in rivers; but a long term decrease as the area of snow pack declines. In the long term, more specific strategies must be developed based on an improved understanding of the likely direction and magnitude of change.

Integration through Basin Planning

Integration and coordination of water resources development in the LMB have many dimensions. Among these are:

- Integration between and within water use sectors to ensure maximum efficiency of resource use and economic growth
- Integration of the concerns of different stakeholders to ensure equity
- Integration of environmental and social concerns into development planning to ensure sustainability
- Integration and cooperation between geographic areas (countries/trans-boundary, upstream – downstream areas)

- Integration of policy, institutional and regulatory frameworks at different levels to ensure consistency

Basin planning provides a framework to promote integration at all levels. MRC/BDP has initiated a scenario-based assessment of broad development options for the basin. This approach integrates both across sectors (by considering multi-sector development scenarios), and spatially (through the delineation of watershed-based planning units, termed “sub-areas”). Potential impacts of different development paths are assessed in terms of the effects that planned interventions in one part of the basin will have on the natural resource systems in another part or country (using hydrological models)¹⁴. Impacts on the water resource are linked to environmental, social and economic values by considering the effect of hydrological change on ecology and livelihoods. Understanding these values are fundamental to assessment of trade-offs between benefits and cost associated with particular development paths.

Key issues emerging from the basin planning process include:

- Links between regional and national planning agencies need to be clarified and strengthened, and mechanisms developed to ensure that regional planning concerns are taken up in national plans.
- Because basin planning must take into consideration all water-related developments, not only those that are implemented at the basin level, a regional inventory of all water resource developments is needed, in order to assess cumulative impacts and sustainability
- The interpretation of “all significant development” mentioned above is not trivial. Rural water supply and sanitation projects are definitely outside the scope of the BDP and MRC. Small projects (e.g. small watershed management and small-scale irrigation schemes) may individually be below a cut-off point of significance in a basin-wide context, but the sum of them may have an impact. Hence, it does not seem operational to define “small” in quantitative terms. The best way forward seems through the BDP gradually to build up experience on (cumulative) impacts of different projects and use this experience increasingly to cut-off projects that are of little or no significance.
- The importance of a basin-wide approach to balancing withdrawals and storage of water, through negotiation between countries and integration between sectors (specifically, irrigation and hydropower)
- Providing a strategic and rational approach to assessing trade-offs by understanding the impacts (direct, indirect and cumulative) of interventions within the context of the basin as a whole.

However, there is a need as part of BDP Phase 2 to develop improved mechanisms to integrate regional and national strategies and plans

Information-based management

The importance of shared information for regional decision making was recognized in the 1995 Agreement, and in accordance with its provisions, the countries have signed:

- Procedures for Data Information Exchange and Sharing (PDIES)

¹⁴ The Water Utilization Program Decision Support Framework (WUP-DSF) MRC

- Procedures for Water Use Monitoring (PWUM)
- Procedures for Notification, Prior Consultation and Agreement (PNPCA)
- Procedures for Maintenance of Flows on the Mainstream (PMFM)

MRC has built a shared MRC Information System (MRC-IS), available to all countries, which allows MRC to provide reliable information in three key roles:

- independent monitoring of changes in flow and water quality in the river
- prediction and assessment of potential impacts of different development options, through the use of scenario analysis
- prior notification of proposed developments which may have trans-boundary impacts.

However, there is a general need to strengthen the information base in particular by:

- Collating information on all water related projects and programmes in the LMB to allow coordinated planning and analysis of cumulative impacts
- Developing an information base for the Upper Mekong Basin (UMB) for issues relevant to LMB (e.g. land use information, proposed water resource developments, hydrological and climate models for UMB, particularly for snow melt and climate change issues).

Regional cooperation

The 1995 Mekong Agreement provides a clear statement of intent of the four riparian countries to cooperate in sustainable development of Mekong water and related resources to mutual advantage. It also provides a management framework for regional cooperation in the four countries of the Lower Mekong Basin. Within the LMB, MRC has a clear mandate to coordinate water resource development issues.

China and Myanmar are not members of MRC, although both are cooperating in the areas of hydropower, navigation, flood and drought management and tourism. Liaison and coordination with the Upper Basin is a high priority.

The countries of the Mekong are increasingly inter-dependent in terms of trade, economic development and political cooperation. Regional initiatives for cooperation in economic development complement MRC's role in water resources. Of these, the most important are the ADB sponsored Greater Mekong Sub-region (GMS) initiative (which includes Myanmar and China); and programmes under ASEAN (Association of South-East Asian Nations) (which includes Myanmar, but not China). Bilaterally, China is an important economic partner for all the Lower Mekong Basin countries, as a developing market for energy, raw materials and food; and as an exporter of manufactured goods.

In addition, there are a number of regional programmes which focus specifically on water resources and which are relevant as network partners. These include, among others:

- Global Water Partnership – South East Asia (GWP-SEA) which promotes and facilitates the concept of IWRM, including Network of Asian River Basin Organisations (NARBO)
- Water and Sanitation Programme (WSP), which coordinates efforts to improve access to water and sanitation in Cambodia, Lao PDR and Viet Nam

- World Bank's Mekong Water Resource Assistance Programme (WB-MWRAP).
- Under ASEAN, a Long-Term Strategic Plan of Action on Water Resources Management was endorsed in 2003 by the ministers responsible for environment. The ASEAN Working Group on Water Resources Management (AWGWRM) has developed ASEAN Strategic Plan of Action on Water Resources Management which is currently being considered by the ASEAN Senior Officials on the Environment
- The Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy or ACMECS is a new cooperation framework amongst Cambodia, Laos, Myanmar and Thailand to utilize member countries' diverse strengths and to promote balanced development in the sub-region

MRC will actively seek closer cooperation with these regional initiatives to make sure that the BDP process is relevant and that the Mekong Programme, which is the dynamic outcome of the BDP process, is made available to and recognized by decision makers and investment institutions as the "Regional cooperation and partnership programme for the sustainable development of water and related resources in the Mekong Basin".

Governance

Improved integration of planning and management across the various management levels is key to achieving IWRM in the LMB. In general, national water administration is fragmented, with responsibility for water spread between different agencies and between national, provincial and district levels of administration. In the past, national planning has often been sector-driven, with little consideration given to cross-sectoral interactions, accountability and stakeholder participation. All countries are working towards more integrated and responsive approaches to water management and planning.

At the regional level, MRC has a clear mandate to coordinate water resource issues and a number of other regional and international agreements also relate to water resources development. These regional agreements are cooperative rather than regulatory. Links between national and regional planning need to be clarified and strengthened.

Key issues for effective water governance include:

- **Accountability and transparency:** roles in the legislative and executive processes need to be clear. Each institution must explain and take responsibility for what it does.
- Coordination of water policy within countries, through structures such as coordinating councils, or a designated ministry with responsibility for water resources.
- Some issues impacting on water governance may fall outside the water domain – for example, land tenure. Water managers will need to engage in dialogue with other branches of government to seek solutions.
- Coordination of water policy between countries, through effective involvement in MRC
- Harmonisation between national water laws and rules and procedures governing cross-border issues through MRC.

5.2 Cross-cutting issues

Poverty alleviation

Poverty alleviation is the main goal of water resources development in the Mekong basin. It cannot be disconnected from (i) accelerated economic development in general (due to increased national production capacity, as well as increased national purchasing power); (ii) improved climate for investment; (iii) development of human resources (and hereby increased national capacity for production and management); and (iv) control of excessive migration from the countryside to the towns.¹⁵

The close linkages between poverty reduction and water management are addressed in the UN Millennium Declaration (September 2000) and the Chiang Mai Declaration (November 2003). Also, the linkages are emphasized in the national poverty reduction strategies of Cambodia; Lao PDR; and Viet Nam. Thailand has no specific poverty reduction strategy, but water is a theme in the 9th National Economic and Social Development Plan (2002 to 2006)¹⁶. The BDP incorporates these national strategies as an important part of the basis for its work.

Water-related poverty alleviation measures comprise:¹⁷

- Good governance
- Safe water supplies and sanitation;
- Water for livelihoods (including, but not limited to cultivation, fisheries and livestock);
- Disaster preparedness and mitigation (notably floods and drought); and
- Management of aquatic and water-related habitats and ecosystems

All these perspectives can be supported and promoted under the BDP, as clearly indicated in the *IWRM Strategic Directions for LMB* prepared under Phase 1¹⁸.

Gender issues

The MRC Gender Strategy builds on the principles that (i) gender equity and equality is considered an integral part of all MRC programmes, projects and activities; (ii) effectiveness and efficiency in achieving development goals requires the recognition that every MRC activity affects women and men differently, and that their different perspectives, needs, interests, roles and resources should be taken into account at every stage; (iii) gender equity and equality are fundamental values that must be strengthened and reflected in development choices and institutional practices. The strategy calls for *'mainstreaming of gender perspectives in all MRC development efforts, ensuring that all MRC development programmes benefit men and women equally, in accordance with their different needs, and with the input and equal participation by men and women at all levels'*.

This objective of the MRC Gender Strategy has been carried forward into *IWRM Strategic Directions for LMB*, which also promotes the application of the MRC guidelines on *'Mainstreaming gender in water resources development'* (Aug 1998).

¹⁵ MRC-BDP (Oct 2004, p. 12)

¹⁶ For example in Chapter 5: Strategies for natural resources and environmental management

¹⁷ NCDP (June 2004)

¹⁸ MRC-BDP (Oct 2004), Section 3.3

The following are examples of important areas where gender issues are of a particular relevance to scoping and successful implementation of development initiatives:

- Public health, particularly domestic water supply and sanitation
- primary production, particularly small-scale and traditional farming systems, small-scale fisheries, and traditional subsistence systems
- disaster management, such as flood preparedness, including flood proofing
- community-based management of natural resources and the environment
- all areas of education, awareness-building, capacity-building and human resources development.

5.3 Water resources issue based approaches

A guiding principle for the BDP Programme Phase 2 will be to keep a focus on those basin relevant issues that the riparians see as high priority. The BDP will assist them in addressing these issues by applying a basin-wide perspective, participate in identifying solutions and provide expertise as and when required. Examples of issues of high priority, which typically require cooperation and approaches at a basin-wide scale, are:

- Droughts, in north-eastern Thailand. National approaches could for instance be supplemented by trans-boundary approaches in terms of transfers, additional storages and mainstream projects. Such approaches could be promoted by MRC in general and by the BDP programme in particular
- Saline intrusion in the Mekong Delta, where seasonal flow reductions threaten the salt balance in the delta and thus the livelihood of farmers and fishermen. Addressing this issue require a concerted effort from upstream riparians combined with an in-depth knowledge of flow conditions, water quality and hydraulic conditions in the delta. Promotion and coordination by MRC/BDP Programme will be instrumental in addressing this issue
- Exploiting the unused hydropower potential for instance in Laos. Due to the upstream-downstream implications of such exploitation there will be a need to look at the trans-boundary and basin-wide perspectives and ensure that impacts are acceptable. The studies of the impacts and promotion and support of a dialogue on the acceptability of these impacts would be an area where MRC/BDP Programme could be helpful.
- Threats to the productivity of the Tonle Sap where variation in the Mekong River levels is a determinant for the ecology and thus for the natural fisheries, which are key to livelihoods in the surroundings. Threats have to be counteracted through common riparian efforts and basin-wide coordination of activities which may influence the water levels and their duration. MRC/BDP Programme could be helpful in respect of coordination and promotion of cooperation.

6 DESCRIPTION OF THE PROGRAMME – OBJECTIVES AND ASSOCIATED STRATEGIES

The following description of the project is based on the structure of the Logical Framework Analysis (LFA) given as Annex 1. The level of detail in the description covers the project objectives, the outputs, the activities, risks and assumptions, and the overall input. Indicators and means of verification are listed in the LFA. The description has been based on the lessons learned from BDP Phase 1, the Mekong River Basin context, the MRC Strategic Plan 2006-2010, the Strategic Directions for IWRM in the Lower Mekong Basin, the position of BDP in the MRC organization, consultations with the NMCs. Chapter 6 covers the objectives and associated strategies while Chapter 7 covers the project output and activities. The overall approaches in terms of guiding principles, cross-cutting issues, and specific water resources issues that underlie the BDP Phase 2 are described in the preceding Chapter 5.

6.1 Objectives

Development Objective

The Development Objective has been defined as:

- “The water resources of Mekong River Basin managed and developed in an integrated, sustainable and equitable manner for the mutual benefit of the riparian States”

It is this development objective that BDP Phase 2 will support and contribute to. BDP will gradually become a framework for the water resources development in the basin. Given that it will achieve a status as a MRC approved basin plan, it will become an instrument with regulatory notions. While the development objective for natural reasons refer to the total Mekong Basin, planning activities under BDP Phase 2 can only be carried out for the Lower Mekong Basin as long as China and Myanmar are not signatories to the “Agreement on the cooperation for the sustainable development of the Mekong River Basin – 5 April 1995” However, cooperation with these two upstream countries is continuously strived for and has resulted for instance in agreements on exchange of information.

Immediate Objectives

Three Immediate Objectives have been defined to reflect the manner in which MRC conceptualizes basin planning; namely as consisting of a planning process, a knowledge basis and assessment tools, and capacity to run the process applying the knowledge base and the tools. The Immediate Objectives are:

1. A rolling IWRM based Basin Development Plan produced in support of sustainable development in the Mekong River Basin
2. Knowledge base and assessment tools further developed and utilized effectively in MRCS and NMCs
3. Capacity built at MRC and NMC levels for IWRM planning and facilitation/mediation in areas where trade-off management is required

Again here, the geographic scope of the planning is the Lower Mekong Basin within the four countries of Cambodia, Laos, Vietnam and Thailand but at all times MRC/BDP would be working towards involvement of China and Myanmar in dialogues on basin development planning.

6.2 Component 1: Immediate Objective 1 and associated strategy

Immediate Objective 1 – A rolling IWRM based Basin Development Plan produced in support of sustainable development in the Mekong River Basin

The BDP Phase 1 process has been operational since October 2001. By mid 2006 it will have produced – in cooperation with other MRC programmes:

- A planning process including (i) a network of participants and stakeholders, (ii) methodologies and practices for public participation and stakeholder involvement, (iii) routines for project identification, and screening of their impacts, and (iv) practices for prioritization and promotion of priority projects and programmes
- Broad integrated analyses at different geographical scales of baseline conditions, water demand projections and development opportunities
- Strategic directions for IWRM in the Lower Mekong Basin
- A GIS linked BDP database of development projects, however still lacking key data on major – existing and planned – national projects with potential trans-boundary impacts
- A (limited) portfolio of priority projects and programmes, but most of them outside the intended focus of BDP of basin-wide projects and large national projects with possible trans-boundary impacts
- Decision support tools and analytical tools (models and guides) such as DSF, SIA, SEA, RAM
- BDP Core Library with detailed documentation of the BDP 1 methodologies, guidelines and outputs

The strategy will be to continue these efforts and expand and consolidate the processes, practices and routines supporting the basin-wide rolling IWRM based plan and focusing on development of basin-wide scenarios and engagement in joint development projects and large national projects with potential trans-boundary or basin-wide implications. At the same time BDP Phase 2 should intensify the cooperation with the other MRC programmes, strive to act as an integrative element for these programmes, synthesize their results and use them in the BDP processes. This would support the MRC Strategic Plan 2006-2010 where an overall aggregation of results from programmes within MRC is envisaged to be consolidated into a comprehensive regional Mekong Programme for Sustainable Development of Water and Related Resources.

The MRC Strategic Plan 2006-2010 emphasizes two strategic key conditions that underlie the BDP planning approach. These are:

- To acknowledge and accept the prevailing planning processes that exist in each country
- The planning process must be responsive to real development needs and priorities and the MRC sector programme staff would work jointly with line agencies on fact-finding missions to identify real development needs

The BDP Phase 2 will approach the basin planning from two perspectives:

The first perspective is the basin level perspective or basin level entry point, where basin-wide development scenarios/ solutions / opportunities / constraints and options are identified and analyzed, where the broad visions for long term development come into view and where the options are explored by means of impact analyses (cost/benefit, socio-economic, environmental etc.). The scenarios would vary from the visionary and longer term (mega-trends in population dynamics, technology developments, macro-economic developments, climate changes, environmental trends etc.) to the shorter term scenario-based strategic planning addressing multi-sector regional planning, priority sectors (notably hydropower, irrigation and fisheries), and priority regional water management programmes (e.g. flood protection/bank protection, drought management, inter-basin transfers and disaster management) based on compilation of requirements from, among others National Development Plans, National IWRM –based plans and other sources. This perspective will help illustrate the sensitivity of the basin in relation to water resources development activities, produce guidance for regional investment planning and resource management policies by countries and will assist joint decisions as a part of a framework for development. Throughout a process of stakeholder consultations is essential to formulate scenarios, assess results and formulate policy recommendations. Member States shall submit key data on all significant – existing and planned – infrastructure projects on the tributaries if these scenario analyses shall be plausible. The BDP provides the operational mode for this necessary exchange of information, but the MRC Joint Committee and ultimately the MRC Council are instrumental in making it happen. These key data shall also be the basis for individual analyses and screening of planned projects, cf. second perspective beneath.

An international review panel will support MRC/BDP in their efforts of scenario formulation and assessments. This perspective will also contribute to identifying “pertinent knowledge gaps”, which will set the agenda of the MRC Programmes, particular the sector knowledge programmes.

The second perspective is the advocacy for sustainable development and sustainable investment that will be done in an open and transparent way without compromising MRC’s essential role as the basin’s “resource manager”. Investments that are important for the regional public good and joint cooperation among the Member States will be actively identified through the BDP process and subsequently be promoted by MRC. Project identification takes place through various processes:

- the strategic scenario assessment processes mentioned above
- the sub-area based bottom-up selection process developed under BDP Phase 1 and operated through the NMCs,
- active co-operation and direct engagement with national planning processes and line agencies at strategic and policy formulation level through Joint Committee members and at operational level through the NMCs,
- active co-operation and direct engagement with established and upcoming River Basin Organisations in the Member States through the NMCs.

Focus shall be on joint basin-wide development projects and large national projects with potentially trans-boundary or basin-wide implications. Preparation of project concepts should

be a national level and sub-basin level responsibility. Based on their major features and key figures the BDP will analyse such infrastructure and non-infrastructure development through the BDP screening and ranking process. Projects found to be in harmony with *Strategic directions for IWRM in the Lower Mekong Basin* and which do not violate economic, social and environmental impact criteria are presented to the Joint Committee for prioritization and approval. Approved projects constitute an agreed Portfolio of programmes and projects among the Member States in a medium term perspective (up to 15 years), i.e. the Regional Cooperation Programme for Sustainable Development of Water and Related Resources in the Mekong Basin ('The Mekong Programme').

MRC shall promote the project and programme portfolio with the member governments to ensure integration in national planning and encourage sustainable investments that will yield benefits and tangible results that can only be obtained through regional cooperation. The promotion takes place through the various levels in the MRC governance structure, i.e. through its Council members at the political level, through Joint Committee members at strategic and policy level and through the NMCs at operational level. MRCS shall support the decision-making process at national levels by making its knowledge base and assessment tools available on request. The MRC should not be in the direct business of fundraising as this would compromise its role as the basin's "resource manager", but MRC may assist Member States in facilitating dialogues with donors on possible funding opportunities. An exception is promotion and fund-raising for those components of the Mekong Programme that address '*enabling developments*', cf. section 4.4, and would mostly be implemented by MRC itself.

However, MRC in collaboration with the NMCs should be prepared to provide services to Member States and their donors/investment banks in further project preparation in the form of access to information and knowledge resources of MRC, application of assessment tools to evaluate potential impacts of various investment and management options, identification of mitigation strategies and interpretation of regional policies, cf. section 4.4. Such possible support to project preparation is not part of the BDP process but shall be provided mainly by sector programmes and the cross-cutting support programmes.

6.3 Component 2: Immediate Objective 2 and associated strategy

Immediate Objective 2 – Knowledge base and assessment tools further developed and utilized effectively in MRC and NMC

The BDP Phase 1 process has resulted in and based itself on a number of decision support tools and analytical tools (models and guides) such as Decision Support Framework (DSF), Social Impact Assessment (SIA), Strategic Environmental Assessment (SEA), and Trans-boundary EIA (T-EIA). These tools have been developed within the Technical Support Division (TSD), the Water Utilization Programme and the Environmental Programme in collaboration with BDP Phase 1, which has itself, developed the Resource Allocation Model (RAM).

The general strategy for this part of the project will be to strengthen the capacity of the BDP team to undertake integrated water resources and management planning by further upgrading and refining the models and assessment tools and adding to the knowledge base developed during BDP Phase 1. The responsibility for upgrading and maintaining the assessment tools and knowledge base rest with the programmes and divisions that developed them, but BDP 2

will support this process in various ways, notable with respect to enhancing modelling procedures and facilitating an international peer review of the assessment tools and knowledge base. There is a need to further strengthen the capacity of BDP teams both at MRCS and NMCs to bring it to the international level that is required for MRC to gain sufficient credibility. MRCS does not yet have senior experts with the necessary experience to guide and assure quality of modelling studies and assessments, neither for scenario purposes nor for analysis and screening of individual projects. Also when it comes to broader IWRM based planning, stakeholder consultation and public participation there is a need for strengthening capacity. Thus, MRC will for some time continue to be dependent on input from experienced international consultants for direct planning support; tools application; training needs assessment and training; and on-the-job coaching. Their input will be designed in such a way that experience and capacity gradually is being built up with MRC staff during the first two years of the BDP Phase 2 through comprehensive training and that international support in terms of on-the-job coaching is being gradually phased out during the last 18 months of BDP Phase 2. Monitoring mechanisms to assess impact of training and coaching will be developed and implemented.

More specifically, the existing MRC- Information System will be enhanced further, serving as the basis for the atlas of development projects in the Lower Mekong Basin. The RAM, the modelling tools developed under the DSF, and analytical support tools like SIA, SEA and T-EIA will also be improved. This will include activities and procedures to document the adequacy and credibility of the tools and their use and also undertaking an external quality assurance by means of an international peer review of assessment tools and knowledge base.

To further develop the MRC knowledge base, BDP will tap relevant resources by establishing an international review panel of international and regional experts with particular expertise within river basin management including not only hydrological and modelling skills but also expertise covering the economic and social aspects of river basin management and tools related to that, with particular view to supporting scenario formulation and scenario assessments under Component 1. This will also include enhanced dialogue mechanisms and partnerships to engage NGOs (as e.g. the ongoing MRC-IUCN Wetland Biodiversity Programme) at international, regional and national level to review the work of MRC and hereby include their knowledge in the work.

6.4 Component 3: Immediate Objective 3 and associated strategy

Immediate Objective 3 – Capacity built at MRC and NMC levels for IWRM planning and for facilitation/mediation in areas where trade-offs are required

'Strategic Directions for IWRM in the Lower Mekong Basin' sets out priority areas for action within eight key result areas being "economic development and poverty alleviation, environment protection, social development and equity, dealing with climate variability, integration through basin planning, information based management, regional cooperation and governance". These directions along with the generic principles of IWRM now have to be mainstreamed into the planning processes at the relevant levels including sub-area level and RBO level.

In order to reach these strategic goals, development of planning guides for IWRM should take place followed by a capacity building exercise for IWRM planning at the MRCS and NMC levels. Follow-up on these exercises will be required to ensure that the principles have been internalized and are used in the planning work.

The MRC has as one of its goals to enhance regional cooperation. The BDP Phase 2 will likely have a strategic role to play in supporting the achievement of this goal as BDP will provide a framework for water resources development and for dialogues regarding trans-boundary (upstream-downstream) issues. Facilitation and trade-off management need to be fact based, both in terms of value of water and potential sharing of costs and benefits. BDP Phase 2 needs to be directed towards an active role as the provider of knowledge and assessments on which to base dialogues and thus be a resource unit for the involved parties.

7 PROGRAMME DESCRIPTION - OUTPUTS AND ACTIVITIES

In the following, project activities leading to the outputs under each immediate objective are described.

7.1 Component 1: Immediate Objective 1 – associated outputs

Immediate Objective 1 - A rolling IWRM based Basin Development Plan produced in support of sustainable development in the Mekong River Basin:

- Output 1.1 – Transparency and stakeholder involvement enhanced including linkages with national planning
- Output 1.2 - Regional/basin-wide scenarios and development opportunities identified, assessed and impacts analyzed jointly with the four riparian countries
- Output 1.3 - Programmes and projects proposed by national and sub-area level institutions and stakeholders assessed
- Output 1.4 – Portfolio of programmes and projects developed, prioritized and promoted
- Output 1.5 - Basin scale rolling IWRM – based Plan including facilities for periodic revision prepared in a participatory manner
- Output 1.6 - Lessons learned from implemented projects and programmes collected and analysed
- Output 1.7 – BDP Phase 2 managed effectively

7.2 Output 1.1 – Transparency and stakeholder involvement enhanced including interaction with national planning

Activity 1.1.1- Enhance and implement methodologies and practices for public participation

Purpose: To enhance quality, relevance and credibility of MRC work

Approach: At all levels of operation, from local to basin-wide, it is important for MRC's work quality and credibility to be open and transparent and continuously work with stakeholders including local population, local and national government agencies, academia and the private sector in accordance.

The four Member States have quite different provisions and policies for stakeholder participation in public planning and MRC must observe these. During BDP 1 national routines for stakeholder participation were not fully developed or consolidated, as well as the confidence between the stakeholders, NGOs and civil society that are a precondition for a fruitful process.

The BDP 2 will continue and improve efforts during BDP 1 on engaging stakeholders at sub-area level and expand efforts to cover also national/trans-national/regional participatory levels – particularly NGOs and civil society - in accordance with broad IWRM principles. Such multi-stakeholder consultations will be undertaken on consolidation of the IWRM strategy, on scenario formulations and assessments, and project identification, screening and prioritization.

Partnering with civil society or NGOs will be undertaken and the public access to and dissemination of information and results of the BDP process to all stakeholders will be improved.

It is essential that all stakeholder consultations are clear with respect to focus, scope and expected outputs in order not to generate expectations among stakeholders that cannot be met by MRC e.g. in terms of further support for project development. Such expectations have probably been generated by the sub-area level participatory planning process in BDP 1 that has generated more than 400 project ideas many of which are outside the scope of BDP to focus on basin-wide development projects and large national projects with potential trans-boundary impacts.

The capacity to enhance civil society participation and stakeholder consultations will be supported through a riparian core position in the BDP unit, supported by an international consultant and possibly also drawing on the expertise and experience of NGOs in the region. This activity will support updating and revision of the BDP guideline on Stakeholder Participation developed during BDP 1 that will ultimately be included in one comprehensive BDP Planning Guide (see also Activity 3.1.1). Valuable inputs to making MRC's strategies for Public Participation and for Gender operational are additional benefits.

The public participation and stakeholder consultations requirements are stressed throughout the individual activities in the remaining sections of this Chapter.

Result: An open and transparent BDP planning process

Activity 1.1.2 – Improve interaction with national planning and line agencies through direct participation of MRC and NMCs/BDP staff in relevant fora and working groups

Purpose: To enhance national ownership and engagement in the MRC in general, and in the BDP in particular

Approach: During BDP 1 national planning and line agencies were involved in the BDP process through the BDP sub-area working groups and the national BDP working groups. However, the continuity and consistence of the representation of the national planning and line agencies needs improvement in order that their representatives are fully aware and continuously up-to-date on the role and current outcome of the BDP. For this reason, each of the relevant agencies shall establish a BDP focal points – not being a specific person, but a staff position (and a substitute position) in the most BDP relevant department of the line agency to be responsible for and participate in the day-to-day contact and coordination activities of BDP at national levels facilitated by the NMCs and national BDP working groups. The same should apply for representation at sub-area level.

What is further needed in BDP 2 is that this involvement of national agencies in the BDP process is mirrored, and that BDP/MRC is engaged directly with national economic planning and sector planning processes through participation in the existing coordination fora, working groups etc., when this national planning has a bearing on the development of water and related resources in the Mekong River Basin.

This engagement of BDP/MRC shall take place at various levels and through various key actors of MRC. At the political level this engagement is the responsibility of the MRC Council Members, at the strategic and policy formulation level it is the responsibility of the MRC Joint Committee members and at the operational level the responsibility rests with the NMCs. The role of the BDP in this respect is to support the dissemination and advocacy of the BDP outcome and IWRM strategic directions in these fora and levels and provide technical guidance and support, notably to the NMCs.

This engagement shall raise the general awareness of and support to the MRC and the BDP process, enhance the integration of the outcome of the BDP process in national economic and water related sector planning processes, but also – and not least – facilitate and ensure that all existing and planned major national projects with trans-boundary effects and national sector policies and strategies with basin-wide implications are incorporated into the BDP process and scenario analyses.

The requirements for improved interaction with national economic and water related sector planning are stressed throughout the individual activities in the remaining sections of this Chapter.

Result: An inclusive BDP process and outcome integrated in national economic and water related sector planning

Activity 1.1.3 – Improve and consolidate fora for dialogues on shared development opportunities and trans-boundary issues

Purpose: To promote dialogues between the riparians on shared development opportunities, trans-boundary issues and constraints in order to realize development potentials that require cooperation between two or more countries.

Approach: The mechanisms for dialogue, information exchange, coordination and planning that have been established and used during Phase 1 include: regional workshops, BDP coordination meetings, trans-boundary/bilateral meetings, stakeholder fora in each sub-area and sub-area working groups. In Thailand, where development of River Basin Councils (Committees) is well advanced sub-groups of these councils (Committees) have been involved in the BDP discussions on development opportunities. These mechanisms will be used in Phase 2 as found appropriate in the given situation according to the scale of the development opportunity or the scale of the trans-boundary issue. The MRC Joint Committee, the MRC Council and as a last resort the national governments are ultimate fora for discussions and binding decisions between the four Member States. When found appropriate, representatives of China and Myanmar should be included in the discussion fora. BDP, having the accumulated knowledge of development opportunities and constraints basin-wide and across sectors is in a position to call dialogue meeting at strategic points in time and thus provide and maintain the fora needed to enhance collaboration and resolve pertinent issues.

Results: Dialogues facilitated and fora maintained thus creating a favourable climate for collaboration on development opportunities and resolution of issues.

Activity 1.1.4 – Build partnerships with relevant regional actors and the international donor community

Purpose: To enhance relevance and credibility of MRC work

Approach: Due to the fundamental role that Mekong Basin's water and related resources play in the socio-economic development, management of the river must be linked to regional political and economic initiatives. A major value-added of the MRC is in the promotion and partnership with development banks, donors, UN institutions, private sector, academic institutions and NGOs. It is crucial that MRC forges effective links with other regional cooperation initiatives including ASEAN, the ADB's GMS Economic Cooperation Programme and the emerging World Bank Mekong Water Resources Assistance Programme (MWRAP) as well as bilateral donors. According to the Strategic Plan 2006-2010 efforts will be made to minimize overlap based on mutual assessment of each partners' comparative advantages. Ways forward include strategic partnerships, networking, participation in the regional dialogue fora and working groups of these actors. As examples, it would be important for MRC to engage with GMS core Environment Programme and the Environment Operations Centre, which will be soon established in Bangkok, as well the GMS Working Group on Environment (including the Hydropower Subcommittee). The International Cooperation and Communication Section (ICCS) develop and maintain these links to and liaison with regional initiatives and donors.

In this process BDP will assist and work through the ICCS by providing information on BDP-activities and participate in relevant fora of these initiatives, thereby ensuring that basin-wide scenarios and assessment tools are relevant and made available to regional cooperation initiatives and donors. The access to BDP assessments and analyses as addressed in activity 1.1.1, an improved and documented credibility of MRC work as addressed in Component 2 and a demonstrated capacity to perform analyses are necessary to enhance future cooperation with these actors. A successful cooperation will imply that these actors recognize the Mekong Programme as the regional cooperation programme for the sustainable development of water and related resources agreed by the Member States and that they involve MRC and the knowledge base and assessment tools of MRC as appropriate in their project preparation.

Result: Enhanced linkages with other regional development initiatives and international donor community

7.3 Output 1.2 - Regional/basin-wide scenarios and development opportunities identified, assessed and impacts analyzed jointly with the four Member States

Activity 1.2.1 - BDP/MRC lead a process towards consolidated shared visions of the water resources development of the Mekong Basin

Purpose: To develop shared visions between the Member States of the opportunities for large-scale water resources development projects with a view to 'Strategic Directions for IWRM in the LMB' and the agreed overall Vision for the Mekong Basin.

Approach: BDP/MRC will design and lead the working process with broad participation from the Member States. The stakeholders to be involved in the process would comprise line

agencies representing sector interests, NGOs and other representatives from civil society, academia and international organizations with particular interests in Integrated Water Resources Management.

Projects of a nature that requires a regional/basin wide perspective will be envisioned and be gradually described and analyzed in more detail. This working process will require, among others

- knowledge of basin water balances based on water resources assessments
- sector-wise assessment of present and future needs with a basis in for instance National Development Plans and regional development plans like those of ADB-GMS
- environmental and ecological requirement in terms of for instance environmental flows and water quality objectives

Given these basic facts in a rough format, the four Member States assisted by BDP/MRC will analyse long terms trends in development and try to see how large scale water resources projects can possibly support a response to the development needs. Though water resources are an important factor in the development within the LMB, many other strong driving forces are going into the equation. Scenarios for development and relations between sectors that may have an impact on the water resources in terms of water quantities, water quality and aquatic ecology will have to be considered as well. The consequences of decisions in other economic sectors (e.g. fisheries, agriculture, power, tourism) will have to be an integral part of the scenario building and associated analyses. Land degradation, erosion and sedimentation and navigation are also among the major parameters.

During BDP Phase 1, experience with scenario development and modelling has been gained. Six scenarios were tested in conjunction with the World Bank Mission under the heading “Modelled Observations on development pathways in the Lower Mekong Basin”. Likewise, five BDP scenarios have been developed within MRCS BDP Unit.

Further aspects of the exercise could include scenarios dealing with effects of climate trends and increased variability in hydro-meteorological parameters, mega-trends and changes in demographic conditions and the effect of developments in technology.

All these scenario-based shared visions and analyses will subsequently provide a basis for further studies of development opportunities in the basin.

The analyses also have to include presumptions about future water related developments in the upper part of the basin, notably in China and Myanmar. Whenever possible, representatives from the upper riparians should be invited to participate.

A review panel of international and regional experts with particular expertise within river basin management including hydrological, environmental, social and economic aspects will be established to support BDP and review scenario formulation and assessment.

Results: Shared visions of IWRM related development opportunities prepared by the Member States with assistance from BDP/MRC together with rough sensitivity analyses and tentative assessments of key impacts.

Activity 1.2.2 - Concretize large scale development options, opportunities, constraints and analyze costs, benefits and impacts

Purpose: To identify large scale development project options and estimate impacts and benefits

Approach: Based on activity 1.2.1 the further process will try to identify the most realistic and beneficial development options in terms of projects and schemes, series of projects and/or projects that are mutually supporting and may create synergies. The focus will be on IWRM related schemes that have significant trans-boundary implications either in terms of impacts, require cooperation between two or more countries or where benefits and/or costs are distributed over areas in two or more countries. Also here scenario-based strategic approach is applied addressing multi-sector regional planning, priority sectors (notably hydropower, irrigation and fisheries), and priority regional water management programmes (e.g. flood protection/bank protection, drought management, inter-basin transfers, and disaster management) based on compilation of requirements from, among others National Development Plans, National IWRM –based plans and other sources. There are already a number of visionary project concepts in existence for instance within hydropower development. These will be scrutinized along with the ideas generated in activity 1.2.1. This perspective will help illustrate the sensitivity of the basin in relation to water resources development activities, produce guidance for regional investment planning and resource management policies by countries and will assist joint decisions as a part of a framework for development. To be plausible, this scenario-based activity shall receive inputs from the Member States through the relevant line agencies of key data on all significant - existing and planned - national water related infrastructure projects on the tributaries.

The expertise of the MRC sector programmes and the specialists from the national line agencies will be brought in during identification, outline and impact assessment. BDP Phase 2 will act as the “assembly line” where the sectoral key information and planning content is brought together and where the full picture can be derived.

Identified development project options will be analysed as to their responsiveness to needs, their concurrence with development policies of the Member States, IWRM strategic goals, value to the economies, environmental impacts and social impacts. To the extent feasible the modelling capabilities of MRCS will be applied. In particular the DSF (Decision Support Framework), the SIA (Social Impact Assessment), the SEA (Strategic Environmental Assessment) and the RAM (Resource Allocation Model) will be used to assess impacts and benefits. Simplified versions of the models may have to be used to be compatible with the level of detail in the identified large scale development options.

Proposed scenarios and scenario results shall be presented to the MRC Joint Committee for approval.

The group of stakeholders that has participated in activity 1.2.1 and the review panel will also participate and support this activity.

Results: A number of large-scale project concepts, described roughly as to their role in fulfilling development needs and their impacts and guidance for integration of regional considerations in national investment planning and resource management policies.

7.4 Output 1.3 - Programmes and projects proposed by national and sub-area level institutions and stakeholders assessed

Activity 1.3.1 - Continue needs assessments based on national development plans, multi-sector requirements, sub-area preferences and stakeholder proposals

Purpose: Establish needs and requirements at sub-area and lower levels with a particular view to assisting the achievement of MDGs and poverty alleviation.

Approach: The sub-area analyses are continued along the lines defined in the BDP guideline for Sub-area Analysis and Trans-boundary Planning. Sub-areas in LMB have been delineated under Phase 1 to provide a more focused analysis of local concerns and requirements. Sub-areas (clusters of sub-basins) are regional scale units for integrating and reporting on water resources planning in a catchment context. The catchment approach highlights the links between upstream use and downstream flows and improves the analysis of the impacts and dependencies in development of water and related resources, particularly trans-boundary issues.

The guideline sets out a process of:

- Step 1 - Preliminary review of available information at regional, national and sub-area levels providing overviews of key issues, review of development plans/programmes (present or under development) and preparation of GIS and related information from MRC data sets
- Step 2 - A stakeholder forum considers the sub-area information and identifies key issues and sub-area objectives, information gaps/needs, preliminary ideas on sector needs and requirements, scenarios, strategies and projects and a work plan to complete sub-area studies
- Step 3 - The defined work plan is implemented by BDP Units, Line agencies, a sub-area working group assisted by national consultants and others as agreed (ref Activity 1.3.2)
- Step 4 - A stakeholder forum discusses and agrees on sub-area objectives, scenarios and strategies and identify and propose programmes and projects for eventual implementation (ref Activity 1.3.2)

In most sub-areas this process has been followed and programmes and projects tentatively identified. However, elements of the process could be further refined and focused more directly on assistance to achievement of MDGs, poverty alleviation and IWRM. This activity aims to fill possible gaps in the first two steps in the process and detail reviews and data whenever deemed appropriate. By its nature the process is iterative and steps may have to be repeated as new project concepts are brought forward.

Results: Needs, requirements and major issues consolidated and work plans for programme and project identification amended.

Activity 1.3.2 - Identify and assess combinations of basin scale development potentials/constraints and options and prepare cost/benefit estimates and impact analyses in cooperation with proposers/owners

Purpose: To identify and analyse potential programmes and projects relating to IWRM, with significant impacts at a basin or sub-area scale and with a special view to assist the achievement of MDGs and poverty alleviation.

Approach: Based on the results of a stakeholder forum (Step 2 in the sub-area analysis) the working group will further analyse likely programmes and projects. Similarly to Activity 1.3.1, selected programme and project options will be analysed as to their responsiveness to needs, their concurrence with development policies of the Member States, IWRM strategic goals, value to the economies, environmental impacts and social impacts. The responsiveness to policies regarding MDGs and poverty alleviation will be given particular attention. Again, the focus shall be on basin-wide and large national projects with potential trans-boundary impacts. To the extent feasible the modelling capabilities of MRCS will be applied. In particular the DSF (Decision Support Framework), the SIA (Social Impact Assessment), the SEA (Strategic Environmental Assessment) and the RAM (Resource Allocation Model) will be used to assess impacts and benefits. Simplified versions of the models may have to be used to be compatible with the level of detail in the identified options.

An aspect of critical importance is the establishment of “ownership” in relation to the identified programmes and projects. Though a stakeholder group may find a project both feasible and in accordance with selected strategies implementation and later operation will inevitably fail unless an interested and motivated “owner” is driving the process and taking responsibility at a very early stage. The “owner” will most often be a national line agency, a provincial authority or a private sector investor or group of investors.

Results: Programmes and projects with relevance to basin and /or sub-area scale have been identified, analysed, and discussed by stakeholders.

7.5 Output 1.4 – Portfolio of programmes and projects developed, prioritised and promoted

Activity 1.4.1 – Review BDP Project Screening and Ranking Process

Purpose: To streamline the BDP Planning Cycle, its products and terminology

Approach: During BDP 1 a comprehensive BDP Planning Cycle has been put in place including:

- Establishment of a long list of project ideas described in Project Information Notes (PINs)^(*), many of them with very limited information
- Identification of joint projects and programmes (unfortunately few of them within the focus of BDP) with a view to collect further project details and develop a PIN as basis for project screening and assessment
- Screening of joined projects in terms of their potential value, costs, side effects, risks and uncertainties and summarised in a Project Screening Summary with associated screening details (economic, social and environmental)

(*) Refer to the MRC fax No MK-0044/06 dated 31 Jan 2006

- Ranking/project classification as basis for
- A project short list as a result of Joint Committee prioritisation and described in a PIN including screening details

At the same time MRC has a MRC Programming Manual providing guidance and procedures for identification, planning and formulation etc. of MRC Programmes (i.e. concerned with the ‘enabling development’ type of projects but not with investment projects, cf. section 4.4). This manual uses a different staging and terminology. This has caused confusion on how far the BDP will involve itself in project preparation.

On this background the BDP Project Screening and Ranking Process shall be reviewed in the initial stage of BDP Phase 2 in order to streamline the process and the products and ensure that terminology and scope of the products (PIN, PIP etc) are finally agreed on and in line with internationally accepted project cycle terminology to avoid causing confusion or expectations that can not and shall not be met by the BDP. This review shall be done in close cooperation with the NMCs and consultation with line agencies and sub-area stakeholders. This shall include a common understanding of the level of information and project details required in a PIN to allow for a meaningful initial screening of the economic, social and environmental impact of the project and acknowledging that comprehensive economic, social and environmental analyses will be carried during later stages in project preparation.

Result: All stakeholders understand the BDP Planning Cycle and the role of BDP in project identification

Activity 1.4.2 - Include identified basin relevant programmes and projects in BDP project database

Purpose: To build up a database of basin and IWRM relevant programmes and projects for further screening and eventual promotion by BDB/MRC and implementation by Member States

Approach: Programmes and projects identified by stakeholders under Output 1.3 will be included in a database presently operated and updated within BDP. Project ideas can also originate directly from NMCs, national line agencies, provincial authorities, NGOs, MRC sector programmes, private sector investors or be spin-off from the strategic work of development agencies and banks.

The input to the database is made in a uniform format, a PIN (project information note) – subject to the review in Activity 1.4.1 - giving the highlights of the proposed programme/project. In order to be admitted to the database, the proposer must have considered, among others;

- how well the programme or project fits into national plans, policies and preferences with respect to for instance objective, scope and timing
- whether the idea can be recommended in line with IWRM principles
- requirements for additional data and studies to justify the project

At the end of BDP 1 the database includes well over 400 ideas for projects and programmes, unfortunately lacking information on major national projects with potential trans-boundary impacts. There is a need to carefully review and update the content of the database and identify those significant basin-wide and national projects with potential trans-boundary implications that shall be the main focus of the BDP planning process. Others are small to medium size national projects without significant trans-boundary impacts and hence with no direct role of MRC except for analysing their cumulative impact as part of the basin-wide scenario analyses for which purpose and only this purpose these projects shall be registered in the BDP project database. It shall be part of the updating to collect through the NMCs and national line agencies key data on those major national projects that are hitherto not included in the BDP project database. The database will be continuously updated in view of the changes in the project/programme status or content.

Results: A comprehensive overview of programmes and projects, identified by stakeholders, relevant to IWRM and with significance in a basin or sub-area context.

Activity 1.4.3 – Rank joint projects and national projects with potential trans-boundary effects according to agreed criteria and present to Joint Committee for prioritisation

Purpose: To establish a Portfolio of prioritized programme and projects – the Mekong Programme

Approach: The programmes and projects will be scrutinized in the view of ranking criteria agreed by MRC. These criteria include among others,

- Harmony with the Strategic Directions for IWRM in LMB: Consistency with the entity of strategy elements, and positive support of at least one strategy element. This criterion is expected to assure harmony with national development strategies and assure that the project is within the mandate of the BDP and has a certain basin-wide or trans-boundary significance
- National priority and support from Member States¹⁹
- 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)
- Completeness of decision basis (in terms of costs and benefits, impact assessments as required, public participation procedures as required, assumptions made, uncertainties, time scale)
- Implementation aspects: (i) Whether an institutional framework (an “owner”) is identified and operational for implementation and operation; (ii) resource requirements (in terms of funds, water, land, other natural resources, energy, technology, management); (iii)

¹⁹ This formulation was made at a Regional Working Session in Hua Hin, May 2005. the classification and ranking should be generally acceptable to all member countries, while the national support should relate to the countries having a particular interest in the specific proposal

interfaces with national planning and investment programmes; and (iv) legal or administrative implications

Ranked projects will be presented to Joint Committee for negotiations, prioritization and approval. As the weighting between social, environmental and economic aspects is basically a political process the ultimate prioritization is likely to take place as a result of an iterative process, where BDP supports JC by analyzing consequences of various weightings.

The Portfolio of finally prioritized (short-listed) programmes and projects to be further promoted by MRC contains for each project and programme – and subject to the outcome of Activity 1.4.1 - a Project Information Note (PIN) with associated screening results.

Results: A Portfolio of prioritised joint projects and national projects with potential trans-boundary impact

Activity 1.4.4 – Support promotion of portfolio of programmes and projects with Member States

Purpose: To encourage sustainable investments that will yield benefits and tangible results that can only be obtained through regional cooperation.

Approach: MRC shall promote the project and programme portfolio with the member governments to ensure integration in national planning. The promotion takes place through the various levels in the MRC governance structure, i.e. through its Council members at the political level, through Joint Committee members at strategic and policy level and through the NMCs at operational level. MRCS shall support the decision-making process at national levels by making its knowledge base and assessment tools available on request.. Within MRCS promotion is the responsibility of the Chief Executive Officer (CEO) and the International Cooperation and Communication Section. BDP will assist the CEO and ICCS in the promotion by providing appropriate information on projects and programmes. cf. Activity 1.4.1.

An exception is promotion and fund-raising for those components of the Portfolio that address “enabling developments”, cf. section 4.4, and would mostly be implemented by MRC and for which MRC itself will undertake further preparation and fundraising with investment banks and donors.

Result: Priority projects and programmes promoted for further project preparation

7.6 Output 1.5 - Basin scale rolling IWRM based plan including facilities for periodic revision prepared in a participatory manner

Activity 1.5.1 - Formulate detailed IWRM strategies for cross-sectoral, balanced developments and consolidate in a comprehensive IWRM Strategy for the Lower Mekong Basin

Purpose: To detail and make operational the generic strategies for IWRM collated in “Strategic Directions for IWRM in LMB” with due regard to IWRM and Water Efficiency Plans 2005.

Approach: The Strategic Directions for IWRM is the starting point for more detailed IWRM development strategies. These have to be developed from the sub-area study results and stakeholder consultations. The strategies will look at more specific time-bound goals and the pathways towards these goals and actual implementation mechanisms. In particular, cross-sector balances and trade-offs will have to be fleshed out.

The number of programmes and projects identified at sub-area level may not be exhaustive enough to ensure that the most beneficial set of programmes and projects have been found and that these combine together and across sectors in an IWRM based manner, moving towards economic efficiency, social equity and environmental sustainability. Thus, the strategic perspective has to be widened from the programme/project level to development projections say, over a 20 year period. Where River Basin Organizations have been formed, these will be involved in the development of the detailed strategies, together with sector programme staff, NMC staff and stakeholders from public agencies and private organizations.

Strategies will, in some cases also concern a drive towards better management frameworks and water reforms comprising for instance, improvements in the enabling environment, the institutional roles and the management instruments. Such improvements, along with improvements in efficiency in water use are described or will be described in the national IWRM 2005 and Water Efficiency Plans. Following agreements made at the World Summit on Sustainable Development in Johannesburg, September 2002, these plans are under preparation on a national basis around the world and will include, among others the following generic steps:

- *Establish Status and Overall Goals.* The starting point of the IWRM process is the burning and urgent water resources issues seen in the national context. Chart the progress towards a management framework within which issues can be addressed and agreed and overall goals be achieved. Do international agreements with the neighbours present potentials/constraints? Pragmatism is important.
- *Build Commitment to Reform Process.* The political will is a prerequisite and building or consolidating a multi-stakeholder dialogue comes high on the list of priority actions. The dialogue need to be based on knowledge about the subject matter and awareness raising is one of the tools to establish this knowledge and the participation of the broader population.
- *Analyse Gaps.* Given the present policy and legislation, the institutional situation, the capabilities and the overall goals, gaps in the IWRM framework can be analysed in the light of the management functions required by the urgent issues
- *Prepare Strategy and Action Plan.* The strategy and action plan will map the road towards completion of the framework for water resources management and development and related infrastructural measures. A portfolio of actions will be among the outputs, which will be set in the perspective of other national and international planning processes.
- *Build Commitment to Actions.* Adoption of the action plan at highest political levels is key to any progress and full stakeholder acceptance is essential for implementation. Committing finance is another prerequisite for taking planned actions to implementation on the ground.
- *Implement Frameworks.* Taking plans into reality poses huge challenges. The enabling environment, the institutional roles and the management instruments have to be implemented. Changes have to be made in present structures and building of capacity and capability also taking into account that infrastructure development needs to take place in parallel.

- *Monitor and Evaluate Progress.* Progress monitoring and evaluation of the process inputs and outcomes serve to adjust the course of action and motivate those driving the processes.

Choosing proper descriptive indicators is essential to the value of the monitoring

Full use will be made of the results of the work being done under the IWRM and Water Efficiency Plans 2005 at Member State level and the relevant parts will be incorporated into the overall basin scale development plan.

Strategies from the 10 sub-areas of the Mekong Basin have to be collated, streamlined and put together to form a comprehensive, detailed IWRM strategy for the Lower Mekong Basin also taking into account information about planned developments in the Upper Mekong Basin.

Results: An update IWRM Strategy for the Lower Mekong Basin which can be used in the development of the rolling basin development plan.

Activity 1.5.2 - Combine detailed IWRM strategies, development scenarios and project portfolios into a rolling IWRM based Basin Development Plan intended for periodic revisions

Purpose: To assemble and combine detailed strategies, regional/basin-wide scenarios, development projections, issues and project portfolios into a coherent rolling IWRM based Basin Development Plan that can function as a development framework and thus become part of the regulatory environment.

Approach: The detailed strategies identified and described under Activity 1.5.1 will be combined with the large scale development options as studied under Activity 1.2.2, demographic and development projections, major issues in water resources management and development and project portfolios as collated under Activity 1.4.2 and Activity 1.4.3. Based on these and other relevant aspects, a dynamic/rolling basin scale development plan will be developed and organized in a manner which enhances updating at regular intervals.

Producing a BDP based on the Mekong River context, IWRM principles and with four Member States involved presents a number of methodological issues, which have to be addressed during the plan preparation. Among these are:

- For BDP to be a meaningful framework for water resources development it is necessary that all significant present and future water related developments are known and recorded in a geographically referenced information system. This requires a comprehensive and consistent reporting from line agencies and NMCs in the Member States. This will necessitate an intensified effort compared for instance with the present level of reporting/notification to WUP
- The interpretation of “all significant development” mentioned above is not trivial. Rural water supply and sanitation projects are definitely outside the scope of the BDP and MRC. Small projects (e.g. small watershed management and small-scale irrigation schemes) may individually be below a cut-off point of significance in a basin-wide context, but the sum of them may have an impact. Hence, it does not seem operational to define “small” in quantitative terms. The best way seems through the BDP gradually to build up experience on (cumulative) impacts of different projects and use this experience increasingly to cut-off projects that are of little or no significance.
- Planning level information from the sector programmes under MRC will have to be integrated

- National development plans from the different riparians, which will form the background for the BDP do not necessarily combine to create synergies and optimal solutions from a basin point of view.
- Water related activities in the Upper Mekong Basin (China and Myanmar) can have significant impacts on the Lower Mekong and these upstream riparians need to be involved and provide planning information.
- Key scenarios will have to be harmonized with the overall plans and initiatives of major development banks, for instance ABD – GMS and WB/MWRAP and those of regional cooperation organizations such as ASEAN.

Assuming that BDP has the required, updated information on significant present and planned water uses (incl. use for maintenance of a desired ecological status), BDP can be used as *a decision support system* together with the existing impact assessment tools. BDP can provide the necessary overview of the abstractions, use and discharges in quantity and quality. Effects of new water uses (in-stream, off-stream, on-stream) as compared to acceptable limits (established by WUP and EP) will form the basis for recommendations to the MRC Council/Joint Committee regarding the acceptability of new water resources related developments. In this way the Council/JC will be in a better position to take a “regulatory” function aiming to guide the development towards efficiency, equity and environmental sustainability.

Results: A rolling IWRM based Basin Development Plan comprising a prioritized set of water resources related development programmes and projects described and assessed at planning level.

7.7 Output 1.6 – Lessons learned from implemented projects and programmes collected and analysed

Activity 1.6.1 – Gather lessons learned from impacts of programmes and projects promoted by the Mekong programme

Purpose: To get feed-back on those programmes and projects, which have been promoted by the Mekong Programme in order to compare the original objectives with the impacts and results on the ground.

Approach: The programmes and projects, which have been identified through the BDP Planning Cycle and promoted by the Mekong Programme, shall be revisited in order to gain experience by comparing aims and objectives to impacts on the ground. The “owner”, NMCs and line agencies will cooperate in setting up and implementing the actual monitoring and evaluation programme, which will take place at a scale compatible with the size and importance of the project. The results will be communicated to the Mekong Programme and MRC and disseminated to the public. Both short term and long term effects shall be considered and analysed to the extent possible.

Results: Experience gained regarding project success factors both in relation to short- and longer term effects

7.8 Output 1.7 – BDP Phase managed effectively

Activity 1.7.1 – Managerial and administrative procedures strengthened

Purpose: To improve and consolidate sound and efficient managerial and administrative procedures for BDP

Approach: Good practices in management of a planning project has to be discussed, agreed and adopted by the BDP team and cooperating units with the Programme Coordinator driving the process and supported by the Chief Technical Advisor (CTA). The key items constituting the basis for good management include, among others:

- Plan and schedule project activities aiming to achieve an agreed set of outputs and objectives. Activities need to be clearly defined and links and interdependencies with other activities identified. Links to and synergies with other projects and programmes (for instance WUP, EP, regional programmes and national programmes) have to be exploited.
- Include all project units (BDP, NMC, Line Agencies) in project planning, agree on reporting lines and responsibilities and maintain close working relations during project execution
- Estimate resource requirements (break-down according to activity) in terms of staff, equipment, software, facilities, transport etc. and preparation of budgets in line with requirements set by MRCS Section for Finance and Administration. Cash flows and schedules for costs have to be prepared.
- Procure resources, employ staff and apply team building approaches
- Describe and organize quality assurance activities and assess risks and potential counter-measures
- Prepare and implement a communication plan – internal and external in cooperation with the MRCS Section for International Cooperation and Communication
- Tracking of technical and financial progress based on operational indicators, organize progress and planning meetings

These key items have to be combined with cross cutting items such as transparency, accountability, openness and clear organizational set-up and reporting lines.

An important part of good management practice is to make sure that the project conforms to the context and framework in which it shall function and that synergies with other programmes and projects are exploited. The Strategic Plan 2006-2010 sets out the organization of MRC and the overall responsibilities and forms the framework for the management activities of BDP. In particular BDP will link and collaborate on the technical level with;

- Operations Division (technical cooperation with MRC Sector Programmes)
- Other parts of Planning Division (WUP and Integrated Capacity Building Programme)
- Environment Division (EP)
- Technical Support Division (Flood Management Programme, Drought Management Programme)
- NMCs, line agencies, river basin organizations (emerging)

Consistency in management style and approach is also part of sound practices. This requires that competent managerial level staff is employed/seconded for long periods and preferably for the duration of the project/programme.

Results: Knowledge-based and result-oriented management practices consolidated

Activity 1.7.2 – Staff competences matching needs

Purpose: To ensure that staff composition, knowledge and profiles at all times are appropriate in relation to the project activities.

Approach: This activity is carried out during the inception of the BDP Phase 2 and should be repeated at selected intervals. The activity starts by analyzing the work schedule and its technical content and requirements to skills, competences and capacity. The required positions and the skills required should be described in a set of Terms of Reference. An analysis of available human resources is compared with the requirements, and gaps are identified. Gaps can be filled in several ways. Staff training, recruitment of new staff, cooperation with programmes having the required skills and outsourcing are among the options available to the project management.

Given that the required staff is in place, distribution of responsibilities and work planning for each staff member has to follow and a training needs assessment will show the need to supplement the skills and competences of the staff. Training should be arranged, monitored and evaluated.

Results: Staff resources are appropriate to the work tasks of BDP Phase 2

Activity 1.7.3 – Management information systems internalized

Purpose: To ensure a continuous flow of information on technical and financial project progress, constraints and opportunities and staff performance as a basis for management decisions

Approach: The knowledge-based, result-oriented management has to be based on factual information from all cooperating units. In particular, the NMCs and BDP Phase 2 team at MRCS level have to be in a situation of providing mutual information. A system for monitoring and evaluation of progress and exchange of information has to be agreed and made operational. The monitoring and evaluation has to become a natural part of the day-to-day work of the different units cooperating on preparing the BDP Phase 2. Parts of the management information system will be designed for milestone reporting to the CEO of MRCS, the Joint Committee and the Council. Capacity building may have to take place in order to fully make the systems operational.

Results: All cooperating units are monitoring and evaluating progress and the management is fully informed.

7.9 Component 2: Immediate Objective 2 – associated outputs

Immediate Objective 2 – Knowledge base and assessment tools further developed and utilized effectively in MRC and NMCs

- Output 2.1 - Knowledge base including sub-regional planning data and assessment tools upgraded, reviewed and operational
- Output 2.2 - Staff at MRCS and NMC levels skilled in the use of assessment tools
- Output 2.3 - Knowledge based decision support capacity enhanced at MRCS and NMC levels

7.10 Output 2.1 – Knowledge base including sub-regional planning data and assessment tools upgraded, reviewed and made operational

Activity 2.1.1 – Upgrade MRCS and NMCs’ knowledge and information bases from BDP Phase 1

Purpose: To provide easy access to updated planning level data for all BDP units

Approach: A knowledge base was established under BDP Phase 1. Expansion (and/or updating) is required to cover:

- all existing and planned water-related projects/programmes and activities with significance in the basin context; this is particularly important as a basis for the function of the Basin Development Plan as a framework for development and thus giving it an overall guiding role in relation to allocation of water together with the guidelines established under WUP;
- sub-area and national data and information, for example for development of LMB scenarios and strategies;
- socio-economic data and information, building on the existing MRC Social Atlas (May 03) and MRC People & Environment Atlas (Aug 03);
- water availability and water demands;
- other data and information developed under the MRC programmes and other regional organisations. The expansion will include an annual update of economic data, including production statistics.

In relation to the use for IWRM planning it is important that the information covers broadly over the different sectors using water or having and impact on the water resources.

The BDP team will work closely with Technical Support Division to ensure that the MRC-Information System and knowledge base is regularly updated and maintained to reflect current knowledge about the LMB. In this respect notice shall be taken on the recommendations in the BDP 1 Completion report

The BDP team will, in particular use the information contained in the GIS and the knowledge base to conduct analyses and assessments covering social, environmental and economic aspects of scenario outcomes. GIS and knowledge base capability will further be consolidated among the NMCs and data exchange systems/protocols will be developed and made operational.

Results: A continuously updated knowledge base designed for planning and with extensive use of GIS

Activity 2.1.2 – Upgrade assessment tools and modelling procedures and make them operational for routine use

Purpose: To upgrade assessment tools and modelling procedures for use in all BDP units

Approach: Environmental, economic and social impact assessment methods and multi-criteria analysis tools will be upgraded and maintained to assess cross-sector trade-offs and trans-boundary impacts of development strategies. The Decision Support Framework, the Social Impact Assessment and the Strategic Environmental Assessment models should be upgraded for routine use by all BDP units, with Environmental Programme, Technical Support Division, and the Water Utilisation Programme. Methods to assign in-stream, environmental, and subsistence values of water and related resources should be refined. This activity will require cooperation and linking to existing components in several other MRC programmes, and to related research under the Challenge Programme.

Models simulating flows and water quality need upgrading and further development to meet increasing information needs of decisions makers. This output will largely be produced by TSD and will include items such as estimates of crop water requirement, operating rules for storages and resolution.

The need for modelling of groundwater-surface water interaction will be studied and areas where there is a particular need for knowledge of this interaction will be identified.

The upgrading activities shall take notice of the recommendations in the BDP 1 Completion report.

The above assessment tools are basically what are required for the BDP. However, good tools are no guarantee for trustworthy modelling results, because different assumptions and adaptations of the tools for addressing a specific problem may significantly influence the results. Adaptation of transparent and reproducible modelling procedures and performance of uncertainty assessment of model results are crucial for overall credibility of the modelling results and shall be implemented by the responsible divisions and programmes during BDP 2. BDP will support this through the services of an international consultant.

Results: Modelling tools and modelling procedures upgraded and user friendly

Activity 2.1.3 - International quality assurance of knowledge base, assessment tools and modelling procedures

Purpose: To build confidence among stakeholders as to the quality of the BDB knowledge base, assessment tools and modelling procedures

Approach: Following internal review and upgrading as described in activity 2.1.2, the BDP knowledge base, assessment tools and modelling procedures shall be quality assured through peer review by an international panel of 3-4 independent experts covering the range of assessment tools being used. A stakeholder panel should be invited to provide input to the review. The results of the review should be publicly available. The review will serve the dual purposes of (i) enhancing the transparency and openness of MRC in accordance with

management principles and approaches outlined in the Strategic Plan for 2006-2010 and (ii) providing valuable guidance and input to the continuous upgrading and improvement of the BDP knowledge base, assessment tools and modelling procedures.

Result: Adequacy and credibility of knowledge base, assessment tools and modelling procedures enhanced and documented

7.11 Output 2.2 – Staff at MRCS and NMC levels skilled in the use of assessment tools

Activity 2.2.1 – Engage senior professionals with internationally recognised expertise in modelling in MRCS

Purpose: To contribute to the development of MRC's full potential as river basin organisation

Approach: MRCS lacks senior people with internationally recognised expertise in applying some of the assessment tools and analysing their results. When MRC for instance wants to use the DSF tools to evaluate the hydrological impacts of large controversial projects, where substantial national and stakeholder interests are at stake, the assessment made by the MRCS modelling team must be scientifically good and robust enough to pass through peer reviews by the best international professionals. Furthermore, the personal integrity and neutrality, in relation to national interest, of the MRC professionals must be unquestionable. Development of senior professional experience takes maybe a decade or more as it involves not only individual persons, but the entire organizational thinking. However, it is essential that it is given priority if MRC shall create the necessary trust to reach its full potential as an international knowledge-based river basin organisation.

This activity will assess the detailed needs for engaging senior professionals with internationally recognised expertise related to the various BDP assessment tools, prepare detailed job descriptions and explore the riparian resource base with a view to qualifying the recruitment procedures for the relevant staff positions. The responsibility for this rest with Human Resources Section but requires support from notably the Technical Support Division, WUP, the Environment Programme and the BDP. While it is appreciated that the required senior capacity cannot be secured by employment alone it shall be the aim by the end of BDP 2 that sustainable senior capacity on modelling application and assessment has been increased considerably in MRC through further training and capacity building, cf. activity 2.2.2.

Results: Qualified senior staff with the potential to guide the use of and operate assessment tools employed with MRCS

Activity 2.2.2 – Train relevant staff at MRCS and NMC levels in tool application

Purpose: To make selected staff members proficient in the use of the assessment tools

Approach: Staff members at MRCS and NMC levels need to be identified for training in the use of the assessment tools. The selection will be based among others, on professional area of work, interest and capability in IT and model applications, employment history and expected duration of service with MRCS/NMC. The training shall be need based for satisfying specific job requirements, practical and problem orientated to ensure relevance, monitored to assess impacts, and documented to support continuous capacity building. Training programmes and training material (in riparian languages) will be designed and prepared for each model and

methodology and class-room training sessions will be arranged as a first step. This will be followed by training on real-life examples.

The training will focus on the use of DSF, SEA, SIA, RAM and Trans-boundary EIA. A close cooperation with WUP, EP and other relevant programmes will be maintained. The training needs assessment and training is likely to require support from an international consultant to MRCS.

Results: Staff at MRCS and MNC levels can use assessment models competently

7.12 Output 2.3 – Knowledge based decision support capacity enhanced at MRCS and NMC levels

Activity 2.3.1 – Relevant staff at MRCS and NMC levels select and apply information and tools on a routine basis

Purpose: To train relevant staff members in the practical application of the databases and models in evaluation of scenarios, development options and their impacts for use in the decision process.

Approach: The modelling skills have to be applied in the development context and put to use as a support to decisions on water resources development projects. The staff, which has been trained in the use of the models, has to be coached in their job situation. This staff will be given the job of building up a substantial part of the decision basis, among others, project impact on the hydrology, on water quality and ecology, economic and financial consequences, social impacts, gender aspects, impact on poverty as well as other relevant items. Selection of information, application of models, evaluation of results and their accuracy, use of the result in the decision making context and sensitivity analyses are among the skills that are required. These skills should be developed in the selected staff to such a degree that they are applied as part of the daily working routines.

Results: Improved decision making capacity within water resources development

7.13 Component 3: Immediate Objective 3 – associated outputs

Immediate Objective 3 – IWRM Planning Capacity built at MRC and NMC levels

- Output 3.1 – Upgraded planning guides prepared and agreed
- Output 3.2 – IWRM planning principles and approaches internalized at MRCS and NMC levels
- Output 3.3 – Capacity built within MRC to assess value of water and sharing of benefits and costs
- Output 3.4 – Capacity built within BDP to assist MRC and the Mekong Programme in trade-off facilitation and mediation

7.14 Output 3.1 – Upgraded planning guides prepared and agreed

Activity 3.1.1 – Upgrade BDP planning guides and assess skills requirements for IWRM planning

Purpose: To mainstream IWRM in the planning guides and subsequently establish the corresponding skills requirements

Approach: The planning process developed during Phase 1 will be reviewed and revised based on the increased emphasis on IWRM, the lessons learned and new information.

A number of guidelines were produced and applied during Phase 1, covering for example, sub-area studies, scenario formulation and related reporting; the BDP planning cycle; stakeholder participation; SEA and SIA; the use of DSF and RAM; and quality management.

During Phase 2, one single consolidated BDP Planning Guide will be produced covering, among others, the above areas. The guide will facilitate and harmonise the work contributed by the BDP team and by the national BDP units. The guide will facilitate decentralization of a larger part of the work in accordance with the need for more active stakeholder participation. Furthermore, uniformity and transparency in data collection and analyses is enhanced when using agreed standards and guidelines. The BDP Planning Guide will be translated into all four riparian languages to further enhance its dissemination and use.

Based on the tasks outlined in the planning guide, skills needed to address these tasks will be described and analysed as a background for a training needs assessment.

Results: A revised BDP Planning Guide and an overview of skills and competences required for planning based on IWRM principles

7.15 Output 3.2 – IWRM planning principles and approaches internalized at MRCS and NMC levels

Activity 3.2.1 – Assess training needs and develop training packages for IWRM planning accordingly

Purpose: To prepare tailor-made training in IWRM planning for relevant staff at MRCS and NMC levels

Approach: A Training Needs Assessment will be made analysing the functional qualification gaps at MRCS and NMC levels. The starting point for the assessment will be an analysis of job descriptions for the different functional groups and assessments of the existing staff qualifications. Existing qualifications may be analysed by using data on professional backgrounds combined with reviews by superiors.

When qualification gaps have been mapped, learning objectives should be defined and described for each functional group. Learning objectives should be expressed to the largest possible extent in behavioural terms, stating what the trainee or the group of trainees should be able to do after completion of the training.

Based on the identified learning objectives, the training interventions may be more precisely determined. This should include determination of the target groups (manager, professional

practitioner, technician), the performance level (introductory, basic training, expert level, training-of-trainers), the types of training (internal/ external, on-the-job training, workshop or seminar based training etc.) and the themes and duration of training courses.

Based on such assessment, a training plan and associated training packages can be developed. Existing training material shall be used to the extent possible. Cap-Net, a network of training and educational institutions with expertise within IWRM, has recently developed a comprehensive IWRM training material. This and materials developed under BDP Phase 1 (e.g. River Basin Toolkit, IWRM Basics etc.) will be considered for use as background for the training.

Results: Training needs assessment at MRCS and NMC levels and associated training packages developed.

Activity 3.2.2 – Implement training and evaluate impacts

Purpose: To train relevant staff at MRCS and NMCs and evaluate progress towards learning objectives

Approach: Based on the training interventions identified under Activity 3.2.1, implementation will be initiated. The training plans and activities will among others take into account such generic lessons as;

- Training of senior managers can help ensure capacity building throughout the organization and support for training of staff with less seniority
- On-the-job training is highly effective as a learning tool and an agent of change in large organizations
- The effectiveness of the training interventions can be increased if groups of people who regularly work together are also trained together
- Successful training often combine practical activities with classroom learning experiences

Upon completion of the different modules of training, evaluation of the skills acquired will be made and guidance will be given to application of the skills in the daily work. Impacts in terms of IWRM principles being integrated in plans and documents will be established.

Results: Staff trained and skills applied during planning

7.16 Output 3.3 – Capacity built within MRC to assess value of water and sharing of benefits and costs

Activity 3.3.1 – Upgrade modelling skills and staff capabilities to value water in different uses

Purpose: To build up skills in valuation of water for the purpose of support to trade-off management

Approach: Valuation is an important tool to support management and can facilitate the process of sharing benefits (rather than simply sharing water). Even in cases where valuation may not be possible in monetary terms, the exercise of benefit estimation, even if only qualitative, helps to indicate better solutions. The Resource Allocation Model (RAM) is the modelling tool established at MRCS for valuation of water in its various uses. This model and its inherent

assumptions have to be studied and if necessary amended in each special case. Relevant staff will receive instruction in the use of the model and the interpretation of the results.

Results: Staff skilled in valuation of water

7.17 Output 3.4 – Capacity built within BDP to assist MRC and the Mekong Programme in trade-off facilitation and mediation

Activity 3.4.1 – Assess skills requirements

Purpose: To assess the skill needed within BDP in order to assist MRC in situations of trade-off facilitation and mediation

Approach: Following the Strategic Plan 2006 – 2010 (Goal #2) MRC will enhance effective regional cooperation. Among others, this goal will entail the development of trade-off mechanisms such as co-management, public involvement and institution building. The role of BDP in situations of trade-off facilitation and mediation will be to provide knowledge, facts and professional evaluations which MRC can present to the parties in a trade-off situation. Other programmes (e.g. EP, WUP) will share this role depending on the subject. Requirements for skills for provision of these facts and for valuation, cost/benefit assessments and other impact assessments will be established as well as associated training needs.

Results: Staff skills for assistance to trade-off facilitation and mediation assessed

Activity 3.4.2 – Train staff in principles of dispute facilitation and mediation

Purpose: To build up staff skills relative to assistance to trade-off facilitation and mediation

Approach: Relevant staff needs to be knowledgeable in the different levels and subjects of trade-off facilitation and mediation. These levels fall in two broad categories,

- Shared vision planning (optimization modelling, valuation and shared vision modelling)
- Consensus building (joint training, policy dialogue, strategic assessment and interest based negotiations)

Orientation training within these categories is a precondition for assisting MRC in trade-off facilitation and mediation.

Results: Selected staff has a broad knowledge and understanding of the tools and principles involved in trade-off facilitation and mediation.

8 RISKS AND ASSUMPTIONS

Any project will be influenced by many factors outside the direct control of the management. This is particularly true for BDP Phase 2 that, among others, requires cooperation and motivation at many different levels. These include BDP and other MRC programmes/projects, MRC/BDP and NMC/BDP, NMC and national agencies, and other public or private stakeholders. A project is never isolated from external events. These external events may present a risk (a negative statement about what may go wrong) or an assumption (a positive statement about the conditions that have to be met if the project is to stay on track). Understanding and assessing the nature of these assumptions is an essential part of good project design. The robustness of the design can be increased. Failure to address assumptions during project implementation is placing the project in jeopardy. During a relative evaluation of risks, they can be ranked according to the probability of occurrence and the severity of the consequences or impacts.

8.1 Generic assumptions

A number of the lessons learned from BDP Phase 1 (see also Section 3.2) are in reality general assumptions for the success of BDP Phase 2.

Assumptions related to project operation:

- The overall management of the BDP programme becomes more efficient and effective. Higher efficiency will be encouraged by more continuity in management level staff. During Phase 1, the change in management has been far too frequent to provide consistency in management style and policy.
- Continuity in in-house staff is improved, both at MRCS and national level, as required for institutional consolidation of methodology, technology and related skills;
- The importance of the above assumptions is further accentuated by the gap between the end of BDP 1 (July 2006) and the expected start of BDP Phase 2 (December 2006), which likely means an entirely new BDP Team shall be recruited in MRCS and NMCs for BDP Phase 2
- A scope has been pointed out²⁰ for encouragement of participation, with a view to continuity of participation, and supportive management, especially at the national level. A broadened and more active stakeholder participation is an assumption for identification of projects which will eventually have a good chance of being successful
- Human and financial resources are made available at the appropriate milestones in particular for support to Member States in preparation of programme and project formulation and proposal documents

²⁰ By CNMC at a national consultation meeting on 17-18 January 2005

Assumptions related to interfaces and links within MRCS

- Interfaces with other MRC programmes and entities, especially the EP in the Environment Division, WUP and the Technical Support Division are consolidated. BDP Phase 2 will rely on the EP to upgrade and maintain SEA and SIA assessment tools developed under EP and to support training in their use, but also requires input from EP to support scenario formulation and impacts assessments as well as project screening analysis. BDP Phase 2 shall receive input on limits and “rules” for water use from the WUP, and inputs from the TSD in terms of upgrading and maintenance of DSF and its documentation, improving modelling procedures and supporting operation of DSF. Input from sector programmes is required to support scenario formulation and assessments, as well as for project analysis and screening. See also section 9.5.

Assumptions related to interfaces and links to National levels

- Close collaboration and coordination between MRCS BDP team and NMC BDP teams maintained
- National planning processes guides the Basin Development Plan
- Interfaces and cooperation with new and upcoming river basin organizations/committees can be established and maintained, including knowledge-sharing and a functional delineation of local, national and regional development initiatives
- Dialogues and collaboration with external partners, including other regional development initiatives and programmes can be established and maintained
- Dialogues and collaboration with upstream riparians (China and Myanmar) can be maintained and expanded

The two most important assumptions relate to the degree of support and cooperation provided by the Member States towards the BDP process and the continuation of the WUP in to a second phase to support the Decision Support Framework (DSF).

For the BDP process to be meaningful, the BDP knowledge base must contain information on all significant existing and planned water related activities in the LMB. Otherwise it will not be possible to make assessments of impacts of new projects, identify project development opportunities or constraints or have truly fact-based trans-boundary collaboration on development of the water resources in the LMB. The riparians need a detailed knowledge of surface- and groundwater abstractions and discharges of wastewater and return flows. Such knowledge is fairly diffuse, unless the riparians have licensing systems where permits are issued. Presently, licensing systems are inadequately developed in the four Member States.

The WUP Phase 1 including support to DSF will run to mid 2007, possibly extended to end of 2007. The World Bank/GEF is presently considering its support to a WUP/GEF phase 2. In the budget for BDP Phase 2 there is provision for some operational modelling capacity in BDP and NMCs, including also provision for improving general modelling procedures and undertaking an international peer review (Output 2.1). However, general model upgrading, maintenance, and documentation of the DSF shall remain the responsibility of the WUP modelling team located in the Technical Support Division (TSD) for which there is a need for external financing after 2007. The January 2006 Appraisal Team noted that the BDP and WUP may eventually merge into one large programme in the longer term. At the same time MRC has

established an Information and Knowledge Management Programme (IKMP), cf. section 4.3, hosted in TSD under which the continued support to the DSF may also be placed. With support from Finland, the MRC is in the process of defining how IKMP may most beneficially interface with other MRC Programmes. Depending on the outcomes of this and the yet to be agreed scope of the continued World Bank/GEF support, it is suggested that the BDP Phase 2 should be open for later changes, either by integrating more modelling capacities in the programme or transferring its modelling capacity to the IKMP.

8.2 Assumptions at output level in the logical framework matrix

	Description	Assumptions and Risks
Development Objective	The water resources of Mekong River Basin managed and developed in an integrated, sustainable and equitable manner for the mutual benefit of the riparian States	
Immediate Objectives /components	<p>Component 1. A rolling IWRM based Basin Development Plan produced in support of sustainable development in the Mekong River Basin</p> <p>Component 2. Knowledge base and assessment tools further developed and utilised effectively in MRC and NMCs</p> <p>Component 3. Capacity built at MRC and NMC levels for planning based on IWRM and for facilitation/mediation in areas where trade-offs are required</p>	<p>BDP units at basin and national levels cooperate closely with National Agencies in identification and maturation of sustainable, basin-wide projects and programmes within the framework of a rolling basin plan.</p> <p>Databases operational , updated and widely accessible</p> <p>Management and assessment tools helpful, operational and user-friendly</p> <p>Capacity building is relevant and focused on key competencies</p> <p>MRCS and NMC staff trained and applying skills to planning based on IWRM and when assisting MRC in mediation</p> <p>Trained staff continue to work with the project for an extended period</p>
Outputs	<p><i>A rolling IWRM based Basin Development Plan produced in support of sustainable development in the Mekong River Basin</i></p> <p>1.1 Transparency and stakeholder involvement enhanced including interaction with national planning</p> <p>1.2 Regional/basin-wide scenarios and development opportunities identified, assessed and impacts analysed jointly with the four Member States</p> <p>1.3 Programmes and projects proposed by national and sub-regional level institutions and stakeholders assessed</p> <p>1.4 Portfolio of programmes and projects portfolio developed, prioritised and promoted</p>	<p>National planning and line agencies include MRC and BDP outcome in relevant planning fora and plans and network partners are open and willing to exchange information and cooperate on exploiting basin-wide development potentials</p> <p>All four Member States motivated to support the process of long term, large scale scenario development and analysis</p> <p>A wide group of stakeholders cooperate in identification of projects and programmes</p> <p>Project cycle steps and screening criteria agreed by stakeholders</p>

	<p>1.5 Basin-wide rolling IWRM based plan including facilities for periodic revision prepared in a participatory manner</p> <p>1.6 Lessons learned from implemented projects and programmes collected and analysed</p> <p>1.7 BDP Phase 2 managed effectively</p> <p><i>Knowledge base and assessment tools further developed and utilised effectively in MRCS and NMC</i></p> <p>2.1 Knowledge base including sub-regional planning data and assessment tools upgraded, reviewed and operational</p> <p>2.2 Staff at MRCS and NMC levels skilled in the use of assessment tools</p> <p>2.3 Knowledge based decision support capacity enhanced at MRCS and NMC levels</p> <p><i>Capacity built at MRCS and NMC levels for IWRM planning and for facilitation/mediation in areas where trade-offs are required</i></p> <p>3.1 Upgraded planning guides prepared and agreed</p> <p>3.2 IWRM planning principles and approaches internalised at MRCS and NMC levels</p> <p>3.3 Capacity built within MRC to assess value of water and sharing of benefits and cost</p> <p>3.4 Capacity built within BDP to assist MRC and the Mekong Programme in trade-off facilitation and mediation</p>	<p>The four Member States agree on plan content</p> <p>MRC and riparian “owner” cooperates in monitoring and evaluation</p> <p>Continuity and consistency in management exist</p> <p>Planning data exist in an accessible form to appropriate detail</p> <p>Assessment tools utilized across the BDP units</p> <p>Continued funding to upgrading and operation of DSF secured</p> <p>Staff motivated to receive training and apply skills</p> <p>Database skills exist at MRCS and NMC levels</p> <p>All four Member States agree to the content of the planning guide</p> <p>Planning staff familiar with IWRM principles and include this in the rolling planning</p> <p>Training in valuation of water conducted</p> <p>Awareness on trade-off management raised</p>
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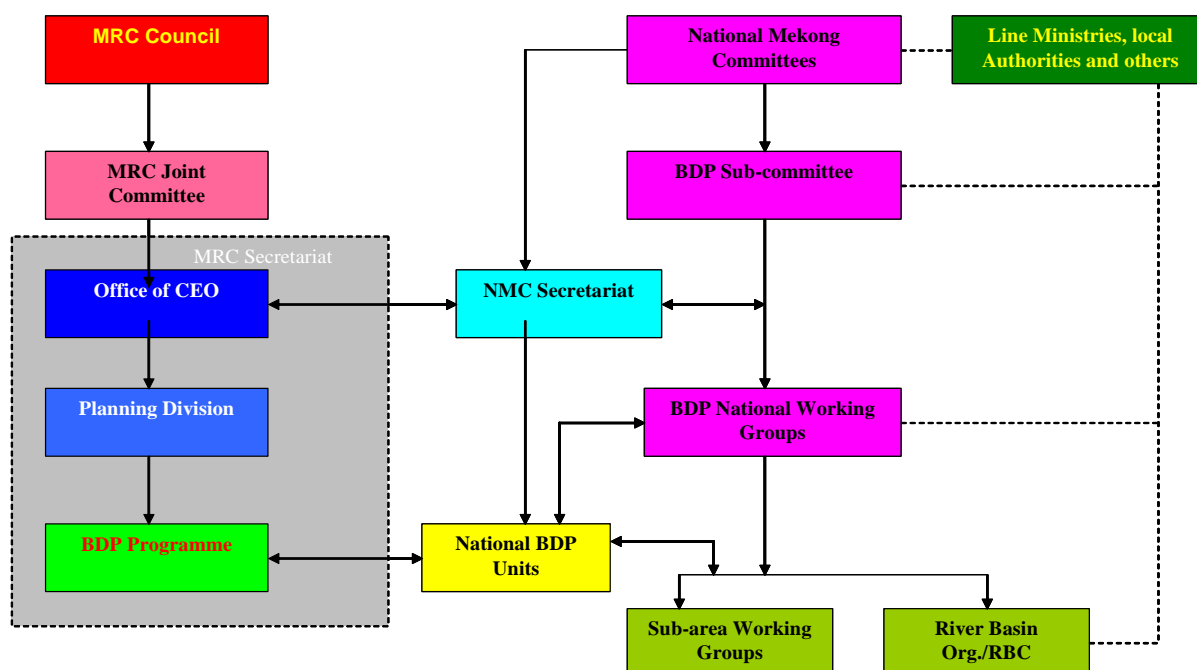
9 ORGANISATION AND MANAGEMENT²¹

9.1 Organisation

At the MRCS level BDP Programme Phase 2 will be implemented within the Planning Division. The Planning Division is one out of four divisions, which BDP Programme Phase 2 will be cooperating with on the technical level. BDP Phase 2 will refer to the Director of the Planning Division. This Director of the Planning Division refers to the Office of the Chief Executive Officer of MRCS, who again refers to the MRC Joint Committee and the MRC Council.

At the National level a National BDP Unit refers to the NMC Secretariat. This secretariat refers to a BDP subcommittee and the National Mekong Committee. At all these levels there are close working links to Line Agencies, Provincial Authorities and other stakeholders.

Figure 9.1: BDP Organisation within the MRC Structure



9.2 Programme management

The essence of the programme management activities have been summarized in Section 7.8 under Activity 1.7.1. They include, among others,

²¹ During the informal Donor Consultation in Vientiane on 5 July 2006 MRC and the donors have agreed to carry out an Organisational Review of MRCS and NMCs. The outcome and recommendations of this review may have a bearing on some of the organisational and management approaches suggested in this Chapter and in Chapter 11.

- plan and schedule programme activities and responsibilities
- include all programme units (BDP, NMCs, Line Agencies) in programme planning
- estimate resource requirements
- procure resources and employ staff
- organize quality assurance activities
- prepare and implement a communication plan
- tracking of technical and financial progress based on operational indicators including possible needs for adjustments
- organize progress and planning meetings

These are the activities that the BDP Phase 2 Programme Coordinator will focus on at the same time ensuring that there is a smooth and close collaboration between BDP Programme at MRCS level and the BDP units at national level.

A particular issue relates to the secondment of national staff. It must be ensured that secondment is done for a minimum of two years and preferably longer and that the Programme Coordinator and Modelling Specialist (cf. section 7.11) are employed preferably for a four year period corresponding to the entire duration of BDP Phase 2.

The programme management will be based on a detailed work plan presented three months after the start of the programme in an inception report. The inception report will address the total programme design in a detailed manner based on the available financial resources committed by donors and Member States.

Many risks and assumptions are associated with the planning process. However, it will be the responsibility of the programme management to guide the processes in a way that counteracts these risks, obstacles and pitfalls.

9.3 Programme staffing

The human resources required to cope with the activities within the given timelines can come from different sources:

- Permanent staff, employed by MRC, recruited nationally, regionally or internationally
- Seconded staff from the Member States
- Seconded staff from donor countries
- International consultants (recruited individually and/or through company contract(s))
- Regional/national consultants (recruited individually and/or through company contract (s))

Each category has its own merits in the context, and a decision on the composition of staff from the different groups will have to be taken during mobilisation for BDP Programme Phase 2. The budget however, has been based on certain assumptions which may be changed during the mobilisation stage, if considered an advantage.

The staff in the BDP Unit at MRCS will be lead by:

- A Programme Coordinator
- CTA/Senior Water Resources Planner with documented experience on IWRM

and include staff members with expertise in river basin management, economy/finance, environment, sociology and socio-economy including civil society participation and stakeholder consultation, modelling and GIS/data management, in addition to administrative support. Japan Water Agency has extended the BDP 1 secondment of a Senior Advisor on River Management with two years from June 2006. Annex 4 contains draft job descriptions for the key professional positions.

As parts of the work (scenario preparation and assessments including international review panel; upgrading of RAM, new modelling procedures notably related to DSF including international review of knowledge base and assessment tools; methodologies and practices for civil society participation and stakeholder consultation; training needs assessment and training; sector specialists to support scenario analyses e.g. hydropower; sub-area and national level data collection and compilation for scenarios and project screening as well translation services) will have to be done by contracting outside consultants (international, regional, national), the leading professionals will have to have experience in procurement of services and contracting.

Envisaged profiles of international short term consultants include: river basin planning, economy, sociology/socio-economy, IWRM, natural resources planning/environmental assessments, modelling plus required scenario panel and model peer review.

At each of the 4 NMCs the following staff composition is assumed:

1 Head of BDP Unit
1 BDP Coordinator
1 Database/IT/GIS Modelling Specialist
1 Secretary

The actual staff composition will be considered and eventually decided by the NMCs. Three full-time positions (BDP Coordinator, Database/IT/GIS/Modelling Specialist and Secretary) are financed by BDP. Annex 4 contains draft job descriptions for BDP Coordinator and Database/IT/GIS Modelling Specialist.

9.4 Reporting, quality management and monitoring

During the Inception Stage a reporting schedule will be prepared, also taking into account requirements from funding agencies and donors.

Tentatively the following recurrent reports will be produced.

- Semi-annual progress reports according to detailed progress indicators
- Basin Development Plan, with updates every two years

A number of thematic reports, working papers and training packages will also be produced according to the operational requirements for documentation. In particular, project information notes will be prepared as part of the project cycle process, cf. section 7.5. More generic awareness creation and promotion material and pamphlets will also be among the documents. A Project Completion Report shall be prepared at the end of BDP Phase 2.

The documents will be kept short and to the point and will assist management in creating cohesion between the different BDP units and forging the links to other programmes and initiatives.

Quality management and internal reviews will be in line with international project management standards also using the BDP Quality Plan.

Over-all progress monitoring will be undertaken by the JC by review of milestone submissions and by routine monitoring of general progress. Detailed progress monitoring is part of the management and will take place following indicators from a detailed LFA.

9.5 Interfacing with and input from other MRC Programme

Throughout Chapter 7 the importance of a close collaboration with MRC Programmes has been stressed.

In broader terms, the MRC Strategic Plan 2006-2010 calls for a stronger integration of the various programmes within the MRC. This is essential to enhance the quality of the MRC services and products and to build MRC as a knowledge-based organisation. Furthermore, it is a key requirement to support the BDP as an overarching programme within the MRC programme structure. The various programmes must be aware of activities in other programmes and provide input to the planning process in such a way that tradeoffs between various development options can be analysed and screened. Such integration requires increased communication and collaboration among the MRC Programmes, not least at the level of BDP. The Strategic Plan calls for the establishment of a Technical Coordination Unit in the Office of the CEO to develop and overlook the modalities for such integration between programmes in terms of establishing working fora, financing and monitoring mechanisms etc.

At present there are no strict criteria/operational guidelines for how collaboration between MRC Programmes is being financed. Generally, technical support from one programme to another can be provided either within the budget of the 'providing' programme - as part of general knowledge sharing objective – or be paid for by the 'receiving' programme. This is today decided on a case-by-case basis with the general understanding that in the case of major inputs the 'receiving' programme has to pay. In this context, it may also be considered, to which extent the 'providing' programme directly benefits from the results and products coming out of the 'receiving' programme.

In practical terms and for preparation of the BDP Phase 2 budget this has led to the following considerations with respect to BDP collaboration with other programmes:

Data bases, information systems and assessment tools

General upgrading, maintenance and minor operational support shall be the responsibility of and paid by the programmes/divisions where these databases, information systems and assessment tools are hosted. The SEA and SIA are hosted in the Environment Programme, DSF and IBFM in TSD/WUP, the MRC-IS in TSD and the RAM and BDP Project Database in BDP. However, the BDP Phase 2 programme has allocated funds (through short-term international consultants) to introduce improved modelling procedures in the DSF and carry out an external peer review of the assessment tools. Obviously this shall be done in close collaboration with TSD/WUP and EP.

Input from the sector programmes in the Operation Division may well prove useful in connection with upgrading of assessment tools. However, the required efforts in this context are expected to be minor and provided through the resources of these programmes. In cases, where major inputs are required BDP shall pay for these services.

The responsibility for operation/use of these assessment tools shall generally be paid for by the programmes in need of applying the models, but there is no firm decision yet within MRCS whether this shall actually be the responsibility of the host programme or the ‘user’ programme, cf. section 8.1 last paragraph. The BDP Phase 2 Programme has allocated funds (through riparian full-time modelling specialist and environmental specialist, supported by short-term international specialists) for operating the DSF and applying the SEA, SIA etc.

Training of BDP staff at MRCS and NMC levels in the use of assessment tools (Output 2.2) will be carried out by international short-term consultants and supported by staff from the programmes where the assessment tools are hosted. When major inputs from the hosting programmes are required BDP shall pay for these services.

General information and data in sector programmes

The sector programmes are responsible for updating and maintaining general data and information related to their own programmes and making them accessible to other programmes within MRC including BDP at no costs. This shall also apply to any minor support in terms of interpretation of this data and information.

Support to scenario formulation and impact assessments and project analysis and screening

The BDP will need the support from the Environment Programme and sector programmes for scenario formulation and impact assessment. BDP may also need services from the same programmes for data collection to produce a complete Project Information Note and for analysis and screening of basin-wide projects and large national projects with potential trans-boundary impacts. The need of BDP to pay for such services shall be decided on a case-by-case basis.

The BDP Phase 2 Budget has provision for subcontracts within which such major inputs from other programmes as described above can be accommodated. The requirements can be further detailed in the Inception Stage of BDP Phase 2.

10 TIME SCHEDULE

The project/process as described is intended to run over a 5 year period coinciding with the planning period for the MRC Strategic Plan 2006-2010 and 5 year - National Development Plans in the Member States. In the longer term, it is envisaged that the BDP process is continued as the need to identify water resources development projects and programmes and the need to guide water related developments from a basin-wide perspective will always be there. The level of effort and staffing may have to be adjusted according to the severity of issues and complexity of problems.

The scheduling of activities over the first five year period has to be flexible in order to constantly adjust to the progress and outcomes of other programmes and national development processes. A tentative, rough time schedule is given below in Figure 10.1 and 10.2.

Figure 10.1 – Tentative, rough time schedule for project activities under Immediate Objective 1: *A rolling IWRM based Basin Development Plan produced in support of sustainable development in the Mekong River Basin* (activity names are abbreviated)

	2006				2007				2008				2009				2010			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Stages					IS															
Output 1.1 – Transparency and stakeholder involvement enhanced including interaction with national planning																				
Practices for public participation																				
Interaction national planning																				
Establish and maintain fora																				
Build regional partnerships																				
Output 1.2 – Regional/basin-wide scenarios and development opportunities identified, assessed and impacts analyzed jointly with the four Member States																				
Process towards shared visions																				
Large scale development options																				
Output 1.3 – Programmes and projects proposed by national and sub-area level institutions and stakeholders assessed																				
Continue needs assessments																				
Identify basin scale development																				
Output 1.4 – Portfolio of programmes and projects developed, prioritized and promoted																				
Review screening process																				
Update project database																				
Rank project for prioritization																				
Support promotion																				
Output 1.5 – Basin scale rolling IWRM based plan including facilities for periodic revision																				
Detailed IWRM strategies																				
Rolling development plan																				
Output 1.6 Lessons learned from implemented projects and programmes collected and analysed																				
Analyse impacts																				
Output 1.7 – BDP Phase 2 managed effectively																				
Procedures strengthened																				
Match needs with competences																				
Information systems internalised																				

Note: IS: Inception Stage
 Dark shading – Period of intense activity
 Light shading – Period of intermittent activity

Figure 10.2 – Tentative, rough time schedule for project activities under Immediate Objective 2 – Knowledge base and assessment tools further developed and utilized effectively in MRC and NMCs and under Immediate Objective 3 – Capacity built at MRC and NMC levels for planning based on IWRM and for facilitation/mediation in areas where trade-off management is required (activity names are abbreviated)

	2006				2007				2008				2009				2010			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Stages					IS															
Output 2.1 – Knowledge base including sub-area planning data and assessment tools upgraded, reviewed and made operational																				
Upgrade knowledge bases																				
Upgrade assessment tools																				
International peer review																				
Output 2.2 – Staff at MRCS and NMC levels skilled in the use of assessment tools																				
Engage senior professionals																				
Training in tool application																				
Output 2.3 – Knowledge based decision support capacity enhanced at MRCS and NMC levels																				
Apply information and tools																				
Output 3.1 – Upgraded planning guides prepared and agreed																				
Upgrade guides and assess skills																				
Output 3.2 – IWRM planning principles and approaches internalized at MRCS and NMC levels																				
Training packages																				
Training and impact assessment																				
Output 3.3 - Capacity built within MRC to assess value of water and sharing of benefits and costs																				
Upgrade skills and competences																				
Output 3.4 – Capacity built within BDP to assist MRC and the Mekong Programme in trade-off facilitation and mediation																				
Assess skills requirements																				
Training in facilitation/mediation																				

Note: IS: Inception stage
 Dark shading – Period of intense activity
 Light shading – Period of intermittent activity

In this time schedule it is assumed that BDP Phase 2 is operational by late 2006 (December). The different stages in the project are seen as:

- Inception Stage (duration 3 - 4 months ending March 2007) where various project approaches and strategies are evaluated, where detailing of individual activities, work plans and budgets take place, and where high priority issues are identified. This stage is concluded with an inception report giving a detailed logical framework and project implementation plan for the remaining period including also a budget breakdown/cash flow requirements for each year
- Stage A (duration 18 months) where focus is on training and capacity building and the application of the skills to development of the elements of a rolling Basin Development Plan takes place. Further, updating of the knowledge base and upgrading of assessment tools are among the important activities.
- Stage B (duration 27 months) where final consolidation of planning procedures takes place and where updating of the rolling plan is made at intervals of 24 months.

11 BUDGET

Annex 1 - Key concepts and terms as used in this document

Mekong Programme – A Regional Cooperation Programme for Sustainable Development of Water and Related Resources: The totality of programmes being prepared and implemented through Member States (infrastructure and non-infrastructure developments) and through MRC (enabling developments) and supporting the Vision for the Mekong River Basin.

Basin Development Plan (BDP): The general planning tools and process that the Joint Committee would use as a blueprint to identify, categorise and prioritise the projects and programmes to seek assistance for and to implement the plan at the basin level (Agreement on the Cooperation for the sustainable development of the Mekong River Basin. April 1995). One outcome of the BDP process is the Mekong Programme

BDP Programme: A MRC Programme as described in a programme document approved by the Ministerial Council and proposed for funding.

Enabling developments: being improvements to resource management practices, regulatory and trading conditions and typically being prepared and implemented by MRC through the MRC programmes,

Infrastructure developments/projects: Projects that are civil, mechanical or electric engineering-based developments used for water resources management and are prepared and implemented by Member States and their investors

Lower Mekong Basin: The part of the Mekong Basin which is located in Laos, Cambodia, Vietnam and Thailand.

MRC Programmes: Programmes being prepared by and implemented by the MRC

Non-infrastructure developments: being investments in developments other than infrastructure, such as extension programmes, flood preparedness and the like, typically being prepared and implemented by the Member States and their investors

Upper Mekong Basin: The part of the Mekong Basin which is located in China and Myanmar.

Trans-boundary: Reaching across national boundaries. Trans-boundary issues can be causes and effects that span across borders as well as shared concerns, shared development opportunities and scope for added value of coordinated action.

Basin-wide: Having implications for the whole basin. BDP, for instance is a basin-wide plan and MRC is a basin-wide institution.

Basin, Catchment and Watershed: These terms are used synonymously.

RBO: River Basin Organisation. A national institution created to manage a river basin according to a defined mandate.

Sub-areas: Areas defined under BDP as suitable planning units based on catchment boundaries. Ten sub-areas have been defined. Several of these transcend national borders.

Annex 2 – Logical Framework Analysis

	Description	Verifiable Indicators	Means of Verification
Development Objective	The water resources of Mekong River Basin managed and developed in an integrated, sustainable and equitable manner for the mutual benefit of the riparian States	Water level and streamflow characteristics and the quality of the aquatic environment maintained within acceptable limits	Monitoring of levels, streamflow and water quality at regional station network
Immediate Objectives /Components	<p>1. A rolling IWRM based Basin Development Plan produced in support of sustainable development in the Mekong River Basin</p> <p>2. Knowledge base and assessment tools further developed and utilised effectively in MRC and NMCs</p> <p>3. Capacity built at MRC and NMC levels for planning based on IWRM and for facilitation/mediation in areas where trade-offs are required</p>	<p>1. Potential development initiatives and projects based on IWRM principles identified, screened, prioritised and promoted for financing</p> <p>2. MRC information system updated and DSF, SIA, SEA and RAM upgraded, peer reviewed and used in scenario analyses and project impact assessments</p> <p>3. Training in IWRM concepts and approaches and in support for facilitation/mediation conducted</p>	<p>1. Initiatives financed</p> <p>2. Report from international peer review, assessment reports, and organised stakeholder consultations</p> <p>3. Training sessions held</p>
Outputs	<p><i>A rolling IWRM based Basin Development Plan produced in support of sustainable development in the Mekong River Basin</i></p> <p>1.1 Transparency and stakeholder involvement enhanced including interaction with national planning</p> <p>1.2 Regional/basin-wide scenarios and development opportunities identified, assessed and impacts analysed jointly with the four Member States</p> <p>1.3 Programmes and projects proposed by national and sub-regional level institutions and stakeholders assessed</p> <p>1.4 Portfolio of programmes and projects developed, prioritised and promoted</p> <p>1.5 Basin scale rolling IWRM based plan including facilities for periodic revision prepared in a participatory manner</p> <p>1.6 Lessons learned from implemented projects and programmes collected and analysed</p> <p>1.7 BDP Phase 2 managed effectively</p> <p><i>Knowledge base and assessment tools further developed and utilised effectively in MRC and NMC</i></p> <p>2.1 Knowledge base including sub-regional planning data and assessment tools upgraded, reviewed and made operational</p> <p>2.2 Staff at MRCS and NMC levels skilled in the use of assessment tools</p> <p>2.3 Knowledge based decision support capacity enhanced at MRCS and NMC levels</p>	<p><i>Potential development initiatives and projects based on IWRM principles identified, analysed, jointly promoted and financed</i></p> <p>1.1 Improved guidelines, stakeholder consultations at all levels and through all BDP processes and products, public access to and increased dissemination of BDB outcome and results</p> <p>1.2 Regional investment proposals agreed between the four Member States for further development</p> <p>1.3 All significant national projects and programmes with trans-boundary impacts are submitted</p> <p>1.4 Database including prioritised project portfolio maintained</p> <p>1.5 National, sub-regional agencies, RBOs and other stakeholders cooperate and submit potential development initiatives based on IWRM principles</p> <p>1.6 Socio-economic and environment trends</p> <p>1.7 Agreed quality products delivered in time and within budget</p> <p><i>MRC information system updated and DSF, SIA and SEA upgraded and used in project impact assessments</i></p> <p>2.1 Updated GIS databases and sub-regional reports as well as tools ready for use, complete with manuals and guides</p> <p>2.2 Training in use of assessment tools conducted</p> <p>2.3 Tools applied during assessments</p>	<p><i>Initiatives financed</i></p> <p>1.1 Minutes of meetings, records of exchange and manuals</p> <p>1.2 JC/Council decisions</p> <p>1.3 Project proposals</p> <p>1.4 Updated database available and accessible</p> <p>1.5 Programmes and projects received at NMCs and MRC</p> <p>1.6 Socio-economic statistics and surveys and environmental monitoring results</p> <p>1.7 Planning reports and assessments</p> <p><i>Assessment reports based on updated information</i></p> <p>2.1 Manual and guidelines</p> <p>2.2 Training sessions</p> <p>2.3 Assessment reports</p>

	<p><i>Capacity built at MRC and NMC levels for IWRM planning and for facilitation/mediation in areas where trade-offs are required</i></p> <p>3.1 Upgraded planning guides prepared and agreed 3.2 IWRM planning principles and approaches internalised at MRCS and NMC levels 3.3 Capacity built within MRC to assess value of water and sharing of benefits and costs 3.4 Capacity built within BDP to assist MRC and the Mekong Programme in trade-off facilitation and mediation</p>	<p><i>Training in IWRM concepts and approaches and in support for facilitation/mediation conducted</i></p> <p>3.1 Guidelines available and their use monitored 3.2 Plans and reports has IWRM as strategic basis 3.3 Training of staff in valuations and sharing principles 3.4 Training of staff in principles of trade-off facilitation</p>	<p><i>Assessment reports based on updated information</i></p> <p>3.1 Training sessions and guidelines 3.2 Plans and reports 3.3 Training sessions 3.3 Training sessions</p>
Activities	<p><i>Transparency and stakeholder involvement enhanced</i></p> <p>1.1.1 Enhance and implement methodologies and practices for public participation 1.1.2 Improve interaction with national planning and line agencies through direct participation of MRC and NMCs/BDP staff in relevant fora and working groups 1.1.3 Establish and maintain fora for dialogues on shared development opportunities and trans-boundary issues 1.1.4 Build partnerships with relevant regional actors and the international donor community</p> <p><i>Regional/basin-wide scenarios and development opportunities identified, assessed and impacts analysed jointly with the four Member States</i></p> <p>1.2.1 BDP/MRC leads a process towards consolidation of shared visions of the water resources development of the Mekong Basin 1.2.2 Concretise large scale development options, opportunities, constraints and analyse costs, benefits and impacts</p> <p><i>Programmes and projects proposed by national and sub-regional level institutions and stakeholders assessed</i></p> <p>1.3.1 Continue needs assessments based on national development plans, multi-sector requirements, sub-regional preferences and stakeholder proposals 1.3.2 Identify and assess combinations of basin scale development potentials/constraints and options and prepare cost/benefit estimates and impact analyses in cooperation with proposers/owners</p> <p><i>Portfolio of programmes and projects developed, prioritised and promoted</i></p>	<p><i>Improved guidelines, stakeholder consultations at all levels and through all BDP processes and products, public access to and increased dissemination of BDB outcome and results</i></p> <p>1.1.1 Implement updated BDP guideline for Public Participation, increase number of stakeholder consultations, notably at national level, disseminate results of BDP outcome broadly 1.1.2 MRC participation in national planning for a , working groups etc – formal and informal 1.1.3 Joint meetings between riparians and other stakeholders formal and informal 1.1.4 Information on programmes and projects copied to network partners</p> <p><i>Regional investment proposals agreed between Member States for further development</i></p> <p>1.2.1 Shared views developed 1.2.2 Scenarios and development options analysed</p> <p><i>All significant national programmes and projects submitted</i></p> <p>1.3.1 Updated needs assessments /quality and quantity 1.3.2 Realistic project proposals</p> <p><i>Database including prioritised project portfolio maintained</i></p>	<p><i>Minutes of meetings, records of exchange and manuals</i></p> <p>1.1.1 BDP Planning Guide, Minutes from stakeholder consultations, BDP publications 1.1.2 Minutes of Meetings and working group documents 1.1.3 Minutes of Meetings 1.1.4 Programme and project documents</p> <p><i>JC/Council decisions</i></p> <p>1.2.1 Shared Views description publicly available 1.2.2 Reports on development</p> <p><i>Project proposals</i></p> <p>1.3.1 Report on present and future needs 1.3.2 Project summaries</p> <p><i>Updated database available and accessible</i></p> <p>1.4.1 Inspection of document</p>

<p>1.4.1 Review BDP Project Screening and Ranking Process 1.4.2 Include identified basin relevant programmes and projects in BDP project database 1.4.3 Rank joint projects and national projects with potential trans-boundary effects according to agreed criteria and present to Joint Committee for prioritisation 1.4.4 Support promotion of portfolio of programmes and projects with Member States</p> <p><i>Basin scale rolling IWRM based plan including facilities for periodic revision prepared in a participatory manner</i></p> <p>1.5.1 Formulate detailed IWRM strategies for cross-sectoral, balanced developments and consolidate into a comprehensive IWRM Strategy for the Lower Mekong Basin 1.5.2 Combine detailed IWRM strategies, development scenarios and project portfolios into a rolling IWRM based Basin Development Plan intended for periodic revisions</p> <p><i>Lessons learned form implemented projects and programmes collected and analysed</i></p> <p>1.6.1 Gather lessons learned from impacts of programmes and projects facilitated by the Mekong Programme</p> <p><i>BDP Phase 2 managed effectively</i> 1.7.1 Managerial and administrative procedures strengthened 1.7.2 Staff competences matching needs 1.7.3 Management information systems internalised</p> <p><i>Knowledge base and assessment tools upgraded and operational</i></p> <p>2.1.1 Upgrade MRCS and NMCs' knowledge and information bases from BDP Phase 1 2.1.2 Upgrade assessment tools and modelling procedures for use in all BDP Units 2.1.3 International quality assurance of knowledge base, assessment tools and modelling procedures</p> <p><i>Staff at MRCS and NMC levels skilled in the use of assessment tools</i></p> <p>2.2.1 Senior professional capacity with internationally recognised expertise in modelling within MRCS 2.2.2 Train relevant staff at MRCS and NMC levels in tool application</p> <p><i>Knowledge based decision support capacity enhanced at MRCS and NMC levels</i></p>	<p>1.4.1 Revised BDP Planning Guide 1.4.2 Project database populated</p> <p>1.4.3 Prioritised portfolio of programmes and projects</p> <p>1.4.4 Project advocacy supported by Project Information Notes s into national planning and line agencies through the various MRC levels</p> <p><i>National and sub-regional agencies and other stakeholders cooperate and submit potential development initiatives based on IWRM principles</i></p> <p>1.5.1 An update IWRM Strategy for the Lower Mekong Basin</p> <p>1.5.2 Comprehensive IWRM based Plan</p> <p><i>Socio-economic and environment trends</i></p> <p>1.6.1 Field investigations and evaluation report</p> <p><i>Agreed quality products delivered in time and within budget</i> 1.7.1 Work plans and budgets used as management instruments 1.7.2 Staff composition, experience and performance 1.7.3 Management reports regularly issued</p> <p><i>GIS databases and tools ready for use complete with manuals and guides</i> 2.1.1 Recent data included in information base 2.1.2 Assessment tools available and modelling procedures formulated 2.1.3 Peer review panel appointed</p> <p><i>Training in use of assessment tools conducted</i></p> <p>2.2.1 Senior staff engaged 2.2.2 Training material available and staff for training identified</p> <p><i>Tools applied during assessments</i></p>	<p>1.4.2 Inspection of database 1.4.3 Full Project Information Notes 1.4.4 Minutes of meetings and written correspondence</p> <p><i>Programmes and projects received at NMCs and MRC</i></p> <p>1.5.1 Strategy document 1.5.2 Planning document</p> <p><i>Socio-economic statistics and surveys and environmental monitoring results</i> 1.6.1 Data and evaluation reports</p> <p><i>Planning reports and assessments</i> 1.7.1 Updated work plans and budgets 1.7.2 Survey of staff performance 1.7.3 Management reports</p> <p><i>Manual and guides</i> 2.1.1 Inspection of information base 2.1.2 Manuals and software 2.1.3 Peer review report</p> <p><i>Training sessions</i> 2.2.1 Inspection of list of MRCS employees 2.2.2 Training sessions held</p> <p><i>Assessment reports</i> 2.3.1 Inspection of study reports</p>
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<p>2.3.1 Relevant staff at MRCS and NMC levels select and apply information and tools on a routine basis</p> <p><i>Upgraded planning guides prepared and agreed</i></p> <p>3.1.1 Upgrade BDP planning guides and assess skills requirements for IWRM planning</p> <p><i>IWRM planning principles and approaches internalised at MRCS and NMC levels</i></p> <p>3.2.1 Assess training needs and develop training packages for IWRM planning accordingly 3.2.2 Implement training and evaluate impacts</p> <p><i>Capacity built within MRCS to assess value of water and sharing of benefits and costs</i></p> <p>3.3.1 Upgrade modelling skills and staff capabilities to value water in different uses</p> <p><i>Capacity built within BDP to assist MRC and the Mekong Programme in trade-off facilitation and mediation</i></p> <p>3.4.1 Assess skills requirements 3.4.2 Train staff in principles of trade-off facilitation and mediation</p>	<p>2.3.1 Impact studies firmly grounded on knowledge and modelling skills</p> <p><i>Guidelines available</i></p> <p>3.1.1 Guidelines and IWRM planning skills requirements</p> <p><i>Plans and reports has IWRM as strategic basis</i></p> <p>3.2.1 Training packages based on needs assessments 3.2.2 Staff trained</p> <p><i>Training of staff in valuations and sharing principles</i></p> <p>3.3.1 Water valued in its different uses and scenarios</p> <p><i>Training of staff in principles of trade-off facilitation</i></p> <p>3.4.1 Training package base on needs assessment 3.4.2 Staff trained</p>	<p><i>Inspection of guidelines</i></p> <p>3.1.1 Skills assessment report</p> <p><i>Plans and reports</i></p> <p>3.2.1 Training material 3.2.2 Training sessions</p> <p><i>Training sessions</i></p> <p>3.3.1 Valuation reports</p> <p><i>Training sessions</i></p> <p>3.4.1 Training material 3.4.2 Training sessions</p>
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Annex 3 – BDP Phase 1 achievements and transition into Phase 2²³

The activities which are expected to be continued into Phase 2 are marked by “Phase 2” in the column on **Planned Timeframe**

Objective / output	Indicator(s)	Planned timeframe (as per PIP presented in Progress Report Apr-Sep 2003)	Actual timeframe	Progress at 31 March 2006
Immediate objective 1 A basin planning process established and ongoing.				
1.1 Planning process	MRCS BDP team established and functional	Continuous activity Phase 2	On schedule	By end of March 2006, the BDP team comprised 3 riparian professional staff (1 woman), 1 Senior Adviser on River Management, 2 administrative staff (2 women) and three (two Lao, one Thai) nationals working on special service contracts.
	A network of institutional stakeholders established and functional, coordinated by sub-committees under each NMC	Early 2004 Continuous activity Phase 2	Completed	Sub-committees operational in Cambodia, Lao PDR and Viet Nam (In Thailand the National WG carries similar functions). More than 50 line agencies represented at national and sub-area level in each country through BDP national and sub-area working groups. In Thailand, implementation of BDP at sub-area level takes place through RBCs. Cambodia and Lao PDR is being implemented the pilot projects of RBOs.
	National BDP units established and operational, as reflected by routine production of sector reviews, sub-area planning, and related reporting	Phase 2	Completed	National BDP coordination units/working groups, operational in all four countries, including head of unit, BDP coordinator and one BDP secretary.
	The planning modality established, and described in various guidelines, including an agreed planning cycle guideline endorsed by the JC	Final draft guideline to JC in March 2005	Completed	The regional planning modality includes network of institutional stakeholders, BDP coordination forum, regional workshops, sub-area studies and transboundary planning and consultation. Updating and consolidation of working papers is deemed appropriate to allow for flexibility and continued improvements. The BDP Planning Cycle document was endorsed by JC in March 2005 and updated in May. An amendment to the document 'The process from long-listing to short-listing and the prioritization process of projects to be placed on the short-list' was endorsed in August 2005. Version 9 is considered as a draft final. A "Project Screening Toolkit" was prepared and finalized in 2005, including detailed user guides for social, economic and environmental impact assessment questionnaires.

²³ The table is quoted from the BDP Phase 1 Progress Report for the period October 2005 – March 2006

Objective / output	Indicator(s)	Planned timeframe (as per PIP presented in Progress Report Apr-Sep 2003)	Actual timeframe	Progress at 31 March 2006
	Quality management procedures defined, described in a guideline, and implemented at MRCS	Mid 2004 Phase 2	Completed	A ' <i>BDP quality plan</i> ' was prepared in September 2003 & revised in February 2004. Preparation and reviews of BDP documents are made internally (between MRCS and NMCs) and by a key group of international and regional experts. Documents in the BDP core library was revised.
	Quality management procedures implemented at NMCs	Late 2004 Phase 2	Completed	A ' <i>BDP quality plan</i> ' guideline was submitted to NMCs in May 2005 for information. Most national reports are prepared by national consultants, reviewed by NMCs and by the MRC Secretariat BDP team before final draft
	Interfaces between the BDP and the national planning established and applied	Mid 2005 Phase 2	In progress consolidation required	Full integration between BDP and RBCs in Thailand, and good perspectives for the integration between BDP and the RBO for Tonle Sap in Cambodia and Lao PDR. A link has been established to the RBO in the Vietnamese Delta, but the level of integration is not clear. Steps have been taken to establishing a RBO in the area of sub-area 7 (Vietnam Highlands) and collaboration with BDP.
	Interfaces between the BDP and related regional planning initiatives established and functional	Mid 2005 Phase 2	In progress; consolidation required	Substantial collaboration with the World Bank on the development and analysis of initial development scenarios. Regular information exchange with international organisations such as IUCN, WWF, and ADB
	Interfaces between the BDP and other MRC programmes	Continuous activity Phase 2	In progress; consolidation required	Ad-hoc meetings conducted and tack-forces established as necessary. Regular in-house MRCS coordination has been restructured to strengthen collaboration between programmes.
	Routines for public participation agreed and implemented	Mid 2003	In progress; Consolidation required	Routines prepared and implemented on a pilot basis in connection with sub-area stakeholder fora. Modalities are varying from one country to another. Update of BDP web-side information, and publications submitted to the Mekong Info information platform.
1.2 Guidelines	Sub-area guidelines prepared and implemented		Completed	
	Revised sub-area guidelines prepared, reflecting lessons learned	Mid 2005 Phase 2	Completed	To be reviewed after completion of sub-area studies
	Full set of supporting guidelines and working papers approved as part of the final BDP document	Mid 2005	Completed	Updating and consolidation of working papers is deemed appropriate to allow for flexibility and continued improvements. In total 101 BDP documents have been produced, including administrative reports (14), discussion papers (31), working papers (46), technical papers (3) and guidelines (1). Documents are now being consolidated for a final BDP Core Library.
1.3 Data system & knowledge base	GIS system established and distributed to national users		Completed	Consolidation & ad hoc support to implementation
	Database established and functional		Completed	

Objective / output	Indicator(s)	Planned timeframe (as per PIP presented in Progress Report Apr-Sep 2003)	Actual timeframe	Progress at 31 March 2006
	Database continuously expanded and updated	Continuous activity Phase 2	In progress; consolidation required	Existing database expanded as a continuous routine function. CNMC, LNMC, TNMC and VNMC have established national BDP data management systems to oversee incoming information from national sector overviews and sub-area studies
	Project database designed (new activity)	December 2004	Completed	An MRC Projects Database is operational in MS-Access and contains more than 400 projects in PIN formats
	Hydropower database designed (new activity)	March 2005	Completed	A Hydropower Project Database is initially prepared in excel (to be developed in MS Access). Contains around 90 hydropower projects (existing and planned)
	Planning Atlas designed (new activity)	December 2004 Phase 2	In progress	BDP in collaboration with TSD have drafted GIS-based planning atlases for sub-area 1,2, 3, 4, 7,9 and 10. 25 GIS maps have been produced for each sub-area.
	Documentation, publication, dissemination	Continuous activity Phase 2	In progress; consolidation required	Examples of major publications completed in a collaboration between BDP and other MRC programmes: <i>'Social Atlas'</i> (March 2003), <i>'People and the Environment Atlas'</i> (Sep. 2003), <i>'State of the Basin Report'</i> (June 2003) A large number of technical papers (working papers) have been prepared. See output 1.3 and publication list. The MRC/BDP website was updated in April. The MekongInfo contains sub-area reports and BDP national sector overviews. A <i>'BDP archive'</i> CD with more than 200 BDP-related documents (February 2006) is regularly circulated to NMCs, line agencies, and other stakeholders
	DSF operational at MRC and NMC level	Early 2004 Phase 2	Consolidation required	The main scenario assessment tool, the Decision Support Framework (DSF), was completed in June 2004. The iSIS model has been recalibrated and reconfigured, after running the BDP scenarios.
	RAM operational at MRC level	Early 2004 Phase 2	In progress consolidation required	The 'optimiser' of the Resources Allocation and Optimisation Model (RAOM) proved unstable and has been removed. The RAM is now operational and initial analysis of scenarios has been made. The current model is however not sufficiently developed, either conceptually or in terms of interface/operation to be used effectively by the NMCs. To be consolidated in Phase 2
	SEA and SIA procedures formulated and agreed	Early 2005 Phase 2	In progress; consolidation required	Application of SEA to the BDP is being prepared in collaboration with the EP programme. Matrixes have been prepared as checklists for the IWRM Strategy and the identified projects. A Social Impact Assessment (SIA) tool has been developed with social

Objective / output	Indicator(s)	Planned timeframe (as per PIP presented in Progress Report Apr-Sep 2003)	Actual timeframe	Progress at 31 March 2006
				development screening checklists for scenarios and projects.
1.4 Trained staff	MSc studies completed	Late 2004	Completed	6 students have completed their MSc studies (1 female)
	Training needs assessments made for national BDP working group members	Mid 2003	Completed	TNA made in all four countries.
	National training carried out based on training plans		In progress consolidation required	Formal training programmes have been conducted in all riparian countries. 1-2 national orientation workshops (one or two days) on the BDP assessment tools have been conducted in all countries. In each sub-area, 2-3 workshops have been conducted with a significant level of learning-by-doing. A training curriculum has been prepared NMCs.
	Regional training programme completed as per plan	Mid 2005	In progress consolidation required	The MDBC training completed included four modules + an additional study tour to Tonle Sap. Curriculum of IRBP was prepared by MDBC and MRC-BDP 11 regional workshops have been conducted with a significant content of training.
	IRBP training curriculum prepared (new)	October 2004	Completed	8 training modules produced.
	IRBP training curriculum tested and training conducted based on curriculum (new)	Phase 2	Completed	A pilot training was conducted in November 2005
1.5 Reporting	Scheduled routine and non-routine reporting	Continuous activity Phase 2	On schedule consolidation required	Eight semi-annual BDP Progress Reports have been produced integrating NMC national progress reports. An excel file has been prepared providing overview of BDP Phase 1 data. Monitoring procedures to be consolidated.
1.6 Workshops, meetings, fora	Coordination and planning meetings conducted	Continuous activity Phase 2	In progress	For regional information exchange, coordination and planning, 13 regional workshops have been conducted, 18 BDP coordination meetings and 14 transboundary/bilateral meetings. For national coordination, around 20 major workshops have been conducted in each country, and for sub-area studies and analysis around 110 workshops have been conducted in total.

Objective / output	Indicator(s)	Planned timeframe (as per PIP presented in Progress Report Apr-Sep 2003)	Actual timeframe	Progress at 31 March 2006
Immediate objective 2: A BDP drafted and agreed on				
2.1 Sub-area studies	Multi-disciplinary sub-area working groups established	December 2002	Completed	Cambodia, Lao PDR and Viet Nam have BDP Sub-area Working Groups. In Thailand, sub-groups of RBCs are responsible for BDP implementation in collaboration with TNMC.
	'1st Stakeholder Forum' held in each sub-area	May 2004	Completed	Forum #1 has been conducted in all sub-areas outside Thailand. Here, forum 1 and 2 have been combined and carried out in sub-area 2T and 3T. A forum in 5T has not been conducted.
	Sub-area scenario elements identified	July 2004	Completed	Included in all sub-areas reports except from TNMC.
	'2nd Stakeholder Forum' held in each sub-area	July 2004	Completed	Forum #2 has been conducted in all sub-areas outside Thailand. Here, forum 1 and 2 have been combined and carried out in sub-area 2T and 3T.
	Stakeholder involvement by means of active participation of representatives from academia, mass organisations, civil society and community groups. Use of neutral facilitators. Active participation of women constituting at least 20% of meeting participants.	Continuous activity Phase 2	In progress; consolidation required	The public participation activities have initially been carried within the framework sub-area forums. A minor representation of women, academia and civil society groups were represented. Women constituted in average 8% of total participants.
	Sub-area study reports prepared and approved by sub-area working groups	September 2004	Completed	All sub-area study reports have been prepared and revised (13 sub-volumes in BDP core library)
2.2 20-years scenarios	Scenario analysis prepared	December 2004 Phase 2	Completed	Six scenarios have been tested in conjunction with the World Bank mission under the heading "Modeled Observations on Development Pathways in the Lower Mekong Basin". In consultation with NMCs, five BDP scenarios have been reviewed, refined and completed. The embankment scenario lacked sufficient data. 1 scenario (on floodplain developments) has been analysed in qualitative terms. Three initially development-planning scenarios (baseline, low and high) have now been run using the RAM. Draft scenario reports have been produced.
2.3 Sub-area strategies	Sub-area strategies prepared and agreed by sub-area working groups	October 2004	Completed	Strategic elements have been identified in most sub-areas
2.4 Basin-wide	Basin-wide strategy agreed between	March 2005	Completed	The 'Strategic Directions of IWRM for the LMB' was endorsed in principle by JC

Objective / output	Indicator(s)	Planned timeframe (as per PIP presented in Progress Report Apr-Sep 2003)	Actual timeframe	Progress at 31 March 2006
strategy	member countries and formally approved by JC	Phase 2		in August 2005 subject to further improvements over time, and approved by the Council in December 2005.
2.5 List of projects and programmes (long-list)	First long-list agreed between member countries	December 2004 Phase 2	Completed	More than 400 project and programmes have been identified and included in PIN formats into the BDP project database. Reports have been prepared with an initial overview of proposed projects
2.6 List of priority projects and programmes (short-list)	List of priority initiatives and interventions (short-list) agreed between member countries and formally approved by JC	March 2005 Phase 2	In progress; behind schedule	9 projects and programmes (7 joint groups projects and 2 joint projects) were presented to the JC in August as a draft short-list (1st. batch). The JC meeting took note of the initial screening process and endorsed the first batch of screened projects to be placed on the BDP shortlist. 11 joint projects were prioritized and screened for JC's consideration in April 2006.
2.7 Implementation plan	Implementation plan for priority initiatives (short-listed) and interventions prepared	Mid 2005 Phase 2	Completed	One BDP project short-listed in the first batch, entitled "Capacity Building in integrated River Basin Planning" was selected for the preparation of Initial Project Implementation Plan
2.8 Final BDP document	Document approved by MRC Council	Mid 2005	In progress;	Key documents have been revised and core library containing of 27 relevant documents for planning purpose is being finalized. First draft of completion report prepared

Annex 4

JOB DESCRIPTIONS FOR THE KEY STAFF

JOB DESCRIPTION

BDP PROGRAMME COORDINATOR

- Position:** Riparian position within the MRC Secretariat, funded by the BDP Programme.
- Duty Station:** MRC Secretariat, Vientiane, Lao PDR
- Reporting to:** Director of Planning Division
- Duration:** 4 years
- Duties:** Under the overall supervision of the Chief Executive Officer of the Mekong River Commission Secretariat and direct supervision of the Director of Planning Division. The BDP Programme Coordinator will be responsible for the overall coordination and management of BDP Programme, including all technical, administrative and financial aspects. The duties will include but not be limited to:
- Heading the BDP Team at the MRC Secretariat;
 - Managing and coordinating all technical, administrative and financial activities to ensure the effective and efficient implementation of the programme in full compliance with all applicable donor funding agreements, the Programme Document and MRCS procedures and standards;
 - Preparing progress reports and other routine reports in accordance with MRCS procedures and specific requirements of the programme;
 - Managing the Programme's budget and preparing the report to Chief Executive Officer (CEO) and donors;
 - Preparation of Term of Reference and budgets for employment of programme staff and consultants, and recruitment of such staff and consultants;
 - Coordinating and Mobilising the resource and personnel requirements for the main activities of the BDP;
 - Development and management of the BDP training programme and guidance on its planning and implementation;
 - Providing BDP-related information to the CEO, the National Mekong Committees, and other related MRCS Programmes;
 - Undertaking general advocacy, promotion and dissemination of BDP project and its current outcome with stakeholders and civil society and support NMC BDP Coordinators in the same efforts at national level
 - Liaison and exchange information with other BDP-related regional projects, programmes and initiatives;
 - Maintaining regular communication with NMCs, NMCS-BDP team, and other BDP-related national planning and line agencies in riparian countries; and
 - Performing any other duties related to the coordination and management of BDP implementation and as assigned by the CEO and Director of Planning Division.

Qualifications: MSc/MA or higher in development economics, water resources and natural resources planning/management or a related field with at least 15 years experience in Integrated Water Resources Management (IWRM) and in Planning and administration of development projects in developing countries.

Experience with and good knowledge of the Mekong riparian countries and the Mekong River Basin and should have a proven experience of working in an international environment.

Knowledge/experience within development project planning, programming, execution, strategy formulation, project preparation and project management work including procurement of services and contracting is an advantage.

Ability to work and cooperate in an international environment is a necessity.
Fluency in English is required (both written and spoken)

JOB DESCRIPTION

BDP CHIEF TECHNICAL ADVISOR (CTA)

Position: International position within the MRC Secretariat-BDP, funded by the BDP Programme.

Duty Station: MRC Secretariat, Vientiane Lao PDR

Reporting to: BDP Programme Coordinator

Duration: 4 years

Duties: Under the overall supervision of the Director of Planning Division of the Mekong River Commission Secretariat and direct supervision of the Programme Coordinator. The BDP Chief Technical Advisor (CTA) will assist and guidance on the coordination and implementation of activities of the BDP Programme, especially technical guidance, work-plan, training etc. The duties will include but not be limited to:

- ❑ Guiding and co-supervising BDP Specialists, Consultants concerning to technical aspects;
- ❑ Coordinating and implementing of programme activities, organize and facilitate in preparing IWRM implementation plan;
- ❑ Guiding and assessing development scenarios of the water resources and water related resources for the Mekong Basin;
- ❑ Drafting, inception report, progress reports, and completion report and other routine reports in accordance with MRCS procedures and specific requirements of the programme;
- ❑ Drafting of Term of Reference for employment of programme staffs and consultants;
- ❑ Assisting Programme Coordinator in coordinating and mobilizing the resource and technical requirements for the main activities of the BDP. Formulation BDP implementation plans, development scenario and strategy development, project/programme preparations and etc.;
- ❑ Developing curriculum of the BDP training programme and guidance on its planning and implementation;
- ❑ Guiding and coordinating on the establishment and improvements of BDP project database, project identification, screening and prioritization by using BDP assessment tools;
- ❑ Guiding and coordinating on the preparation of project portfolio of the basin-wide projects;
- ❑ Guiding and coordinating the establishment of network with other International River Organizations, regional initiatives and develop the coordination mechanism;
- ❑ Coordinating and communication with senior management officials of the MRC programmes and stakeholders for knowledge sharing and dissemination of BDP results and outcome;
- ❑ Guiding and supporting general advocacy, promotion and dissemination of BDP project and its current outcome with stakeholders and civil society
- ❑ Performing any other duties related to the coordination and implementation of BDP programme as assigned by the Programme Coordinator and Director of Planning Division.

Qualifications: MSc level degree or higher in development of water resources and natural resources planning/management or a related field with at least 15 years experience in Integrated Water Resources Management (IWRM) and river basin planning

Experience in institutional development and capacity building, development project planning, programming, strategy formulation, project preparation and project implementation work in the developing countries and Mekong countries including procurement of services and contracting is required.

Experience with and good knowledge of the Mekong riparian countries and the Mekong River Basin is desirable. Fluency in English is required

JOB DESCRIPTION

SENIOR ADVISOR ON RIVER MANAGEMENT

Position: International position within the MRC Secretariat, funded by JAPAN WATER AGENCY (JWA)

Duty Station: MRC Secretariat, Vientiane Lao PDR

Reporting to: Programme Coordinator

Duration: 2 years from June 2006. *(If the Fund is available, the duration is possible to extend.)*

Duties: Under the overall supervision of the Chief Executive Officer and direct guidance of the Director of the Planning Division, the expert will assist the MRC member countries in their national development efforts through management of the Mekong River by providing technical advice on relevant and appropriate facilitation measures. As a member of the Planning Division staff, the expert will perform his duties as a member of the BDP Team, and refer to the BDP Program Coordinator. His overall duties will include but not be limited to:

- Undertake studies and surveys on laws and regulations of river management in the MRC member countries, taking into consideration the requirements of international river management; and in association with other on-going programmes of the MRC.
- Undertake studies and surveys for establishing an efficient and effective river management organisation.
- Collect information and review present river management systems to develop and establish planning methods for effective co-ordination of the preservation/protection of the river-environment and river-use;
- Review facilitation measures related to hydrological and meteorological data collection systems to assist in the improvement of the river information system.
- Assist in the upgrading of the data inventory on water and those of related sectors, and in the establishment of a data system to track the state of development in the Mekong River Basin (MRB).
- Participate in BDP related quality management, including data, analyses and reporting at the Mekong River Commission Secretariat (MRCS) level.
- Participate in the formulation of guidelines for various aspects of the initial formulation of the BDP as well as its operations.
- Participate in sub-area and sector analysis, and the formulation of scenarios and development strategies.
- Participate in the analysis of projects considered for promotion under the BDP.
- Provide administrative knowledge to strengthen the capacity of the MRCS staff from member countries in order to ensure the sustainable development of the MRCS.
- Provide technical knowledge so as to strengthen the capacity of National Mekong Committee (NMC) staff in river management.
- Provide technical knowledge so as to strengthen the capacity of Junior Riparian Officers in river management.
- Participate in other BDP activities.
- Perform any other duties as and when requested by the Chief Executive Officer and /or the Division Director of Planning Division if JWA is in agreement with the request.

Qualifications: A senior River Engineer with an advanced university degree in water resources planning/management, natural resources planning/management, or a closely related field. He/she should have an extensive experience in water resources management, technical aspects of design and planning of river with understanding of administrative and economic aspects for the development of river management. Preferably, he/she should have working experience in programmes with a sound legal background. He/she should have a good knowledge of river environment and solid expertise in computer applications to rivers. Good experiences in institutional development are advantage. Ability to cooperate in an international environment is a necessary
Language: Proficiency in English, both speaking and writing, is required

JOB DESCRIPTION

ECONOMIST/PLANNER

Position: Riparian position within MRC Secretariat – BDP Team, funded by BDP Programme

Duty Station: MRC Secretariat, Vientiane Lao PDR

Reporting to: BDP Programme Coordinator

Duration: 4 years

Duties: Under the overall guidance of the Director of Planning Division and direct supervision of the Programme Coordinator, the specialist will be responsible for coordination and implementation of economic analysis related to BDP activities. He/she will work closely with the relevant counterpart agencies, short-term consultants and other specialists in MRC Secretariat. The duties will include but not be limited to:

- Ensuring that economic concerns are incorporated in the planning;
- Participating and guiding in assessing development scenarios by using economic tools (RAM and other relevant tools in MRCS);
- Improvement and development of relevant tools and guidelines for the assessment of value – added to BDP projects and programmes short-listed;
- Participating and guiding in the identification of basin-wide projects and programmes of BDP to be included in BDP projects database ;
- Participating and guiding in the screening and prioritization of projects and programmes to be placed in BDP shortlist and support their promotion towards the Member States
- Identification of training needs and preparing training plans and training materials, with emphasis on the economic values and benefits from the BDP development projects and programmes;

- ❑ Liaison with national counterparts, National Coordinator, Working group and other related national line agencies involved in the implementation of BDP at country level;
- ❑ Assisting Programme Coordinator and other Specialists in the BDP-Team in preparing and implanting the training courses and reporting; and
- ❑ Performing any other duties related to field expertise as assigned by Programme Coordinator.

Qualifications: University degree or higher in economic development and management, or other related field. At least ten years varied experience in the economics of Integrated Water Resources Management or related fields.

Knowledge/experience related to water resources development in river basin is an advantage. Ability to work and co-operate in an international environment is a necessity and Fluency in English is required.

JOB DESCRIPTION

NATURAL RESOURCES PLANNER/ENVIRONMENT SPECIALIST

Position: Riparian position within MRC Secretariat – BDP Team, funded by BDP Programme

Duty Station: MRC Secretariat, Vientiane Lao PDR

Reporting to: BDP Programme Coordinator

Duration: 4 years

Duties: Under the overall guidance of Director of Planning Division and direct supervision of the Programme Coordinator, the specialist will be responsible for coordination and implementation of environmental analysis related to BDP activities. He/she will work closely with Environment Programme the relevant counterpart agencies, short-term consultants and other specialists in MRC Secretariat. The duties will include but not be limited to:

- Ensuring that environment concerns are incorporated in the planning;
- Improvement and development relevant tools and guidelines for the assessment of environmental impacts of BDP projects and programmes short-listed;
- Participating and guiding in assessing development scenarios and environment impacts in the basin by using various environmental assessment tools and other relevant tools in MRCS);
- Participating and guiding in the identification of basin-wide projects and programmes of BDP to be included in BDP projects database ;
- Participating and guiding in the screening and prioritization of projects and programmes to be placed in BDP shortlist and support their promotion towards the Member States;
- Identification of training needs and preparing training plans and training materials, with emphasis on the environmental aspects;
- Liaison with national counterparts, National Coordinator, Working group and other related national line agencies involved in the implementation of BDP at country level;
- Assisting BDP Programme Coordinator and other Specialists in the BDP-Team in preparing and implementing the training courses and reporting; and
- Performing any other duties related to field expertise as assigned by BDP Programme Coordinator.

Qualifications: University degree or higher in environmental management, or other related field. Ten years varied experience in the natural resources and environmental planning and management or related fields. A good understanding of the multi-jurisdictional issues of river basin management is required.

Knowledge/experience related to water and related water resources development in river basin is an advantage. Ability to work and co-operate in an international environment is a necessity. Fluency in English is required.

JOB DESCRIPTION

SOCIOLOGIST/SOCIO-ECONOMIST

Position: Riparian position within MRC Secretariat – BDP Team, funded by BDP Programme

Duty Station: MRC Secretariat, Vientiane Lao PDR

Reporting to: BDP Programme Coordinator

Duration: 4 years

Duties: Under the overall guidance of the Director of Planning Division and direct supervision of the Programme Coordinator, the specialist will be responsible for coordination and implementation of social aspects related to BDP activities. He/she will work closely with the relevant counterpart agencies, short-term consultants and other specialists in MRCS. The duties will include but not be limited to:

- ❑ Ensuring that social concerns are incorporated in the planning;
- ❑ Participation and guidance in assessing development scenarios and social dimensions and impacts by using social impact assessment tools (SIA, and other relevant tools in MRCS);
- ❑ Participating and guiding in development of socio-economic guidelines for identification, prioritization and evaluation of projects and programmes, including definition of socio-economic indicators and criteria for selecting high priority projects and programmes;
- ❑ Participating and guiding in all matter of the BDP activities related to civil society participation, stakeholder analysis and stakeholder consultation including updating of Guidelines;
- ❑ Participating and guiding in the screening and prioritization projects and programmes to be placed in BDP shortlist and support their promotion towards the Member States;
- ❑ Identification of training needs and preparing training plans and training materials, with emphasis on the social aspects;
- ❑ Liaison with national counterparts, National Coordinator, Working group and other related national line agencies involved in the implementation of BDP at country level;
- ❑ Assisting Programme Coordinator and other Specialists in the BDP-Team in preparing and implementing the training courses and reporting; and
- ❑ Performing any other duties related to field expertise as assigned by Programme Coordinator.

Qualifications: University degree or higher in sociology, anthropology, psychology or other related social science disciplines. At ten least years varied experience in socio-economic aspects related to water resources, natural resources planning and management.

Knowledge/experience from regional, inter-disciplinary development projects is an advantage. Ability to work and co-operate in an international environment is a necessity. Fluency in English is required.

JOB DESCRIPTION

MODELLING SPECIALIST (MODELLER)

- Position:** Riparian position within MRCS-BDP Team, funded by BDP Programme
- Duty Station:** MRC Secretariat, Vientiane Lao PDR
- Reporting to:** BDP Programme Coordinator
- Duration:** 4 years
- Duties:** Under the overall guidance of the Director of Planning Division and direct supervision of Programme Coordinator, the specialist will be responsible for the day-to-day application of models supporting the BDP activities. He/she will work closely with the specialists, international and national Consultants involved with modelling at MRCS level. The duties will include but not be limited to:
- Maintaining and support updating of models tools hosted by the BDP;
 - Collaborating with modelling team of the TSD in upgrading DSF models as required, primarily supporting those activities that relate to the introduction of improved modelling procedures and quality assurance
 - Collaborating with the modelling team of TSD in developing TOR for undertaking an international peer review of knowledge base and assessment tools.
 - Participating in basin wide scenario analysis and screening and prioritization of projects proposed water related projects by running the DSF and RAM
 - Providing technical advice in relation to data collection to the MRC programmes and riparian counterpart agencies for running models;
 - Preparing the reports on modelling outputs and other routine technical reports as required;
 - Identification of training needs and preparing the training plans, training materials (manuals etc.) concerning to modelling for NMCs, national line agencies, and etc. ; and
 - Performing any other duties related to field expertise as assigned by Programme Coordinator and Director of Planning Division.
- Qualifications:** University degree or higher in computerized tools development, Natural Resources, Hydrology, Mathematics or other related field.
- Ten years varied experiences, in developing and running models is required
- Fluency in English is required.

JOB DESCRIPTION

GIS AND DATA MANAGEMENT SPECIALIST

Position: Riparian position within MRCS-BDP Team, funded by BDP Programme

Duty Station: MRC Secretariat, Vientiane Lao PDR

Reporting to: BDP Programme Coordinator

Duration: 4 years

Duties: Under the overall guidance of the Director of Planning Division and direct supervision of Programme Coordinator, the specialist will be responsible for the day-to-day managing and quality assurance of the BDP project database and developing and managing relevant BDP documents and materials under GIS format. He/she will work closely with the specialists, international and national Consultants in maintaining and improving BDP project database and developing maps, posters, CD-ROM and etc for BDP planning purposes. The duties will include but not be limited to:

- Establishing a unified natural and water resources GIS for the Mekong Basin, which will be fully incorporated in the BDP projects database;
- Reviewing and undertaking spatial analysis of the existing data of the BDP;
- Coordinating with other MRCS programmes on data retrieval, acquisition and analysis for the purposes of enhancing GIS activities at BDP programme;
- Providing technical advice of the quality control of GIS datasets and the generation of metadata;
- Assisting in the development of digital map-based Internet portals;
- Identifying data/information gaps, maintaining and updating of projects and programmes in the BDP projects database;
- Designing and developing relevant software for data management compatible with the guidelines on custodianship and management of the MRC Information System
- Coordinating with other relevant MRC Programmes, NMCs and national line agencies in collecting information for applying BDP assessment tools
- Identification of training needs and implementation the training plans, concerning to data management and GIS application and remote sensing, including related software for NMCs, national line agencies, and etc. ; and
- Performing any other duties related to field expertise as assigned by Programme Coordinator and Director of Planning Division.

Qualifications: University degree or higher in natural/physical sciences, e.g. geography, socio-economics or in any other academic field relevant to natural resources management and/or mapping. At least ten years varied experience in developing spatial natural resources information systems and mapping including data base design, processing and management

Full working knowledge of ARCVIEW and ARCINFO software is required.

Experience in applying satellite remote sensing, both SAR (Synthetic Aperture Radar) and optical imageries, to GIS for natural resources mapping and inventories would be an advantage.

Fluency in English is required.

JOB DESCRIPTION

NATIONAL BDP COORDINATOR

- Position:** National position within each NMC, funded by the BDP Programme
- Duty Station:** National Mekong Committee Secretariats. (Phnom Penh, Vientiane, Bangkok, Hanoi).
- Reporting to:** Director or Secretary General of the National Mekong Committee Secretariat, and BDP Programme Coordinator at MRC Secretariat.
- Duration:** 4 years
- Duties:** Under the overall supervision of the Director or Secretary General of the National Mekong Committee Secretariat. The National BDP Coordinator will be responsible for the day-to-day coordination and management of BDP implementation at national level. He/she will refer to the Head of National BDP Unit and work in close collaboration with the national consultants, and NMC staff working in connection with the BDP project. The duties will include but not be limited to:
- Responsibility for coordinating and managing the day-to-day implementation of the BDP programme at national level;
 - Supervising and Coordinating the work of the national consultants, national BDP Staff and NMC staff for effective planning and implementation of BDP and related activities;
 - Preparing and managing national Programme Implementation Plan (PIP) and budget;
 - Preparing agenda, background information and reports for meetings of the National BDP Sub-committee and national working groups;
 - Coordinating and Mobilising the resources and technical requirements for the main activities of the BDP;
 - Arranging and participating in the drafting of work plans, terms of reference, budgets and employment of national consultants and/or line agency sub-contracts for activities at the national level required to support the BDP sub-area analysis and project screening process ;
 - Arranging meetings and workshops as required and specified in work plans;
 - Management and reporting of funds provided from the MRC Secretariat for implementation of approved activities;
 - Organising assessment of national BDP training needs and identifying training activities consistent with on-going national capacity building;
 - Preparing reports for submission to the Director or Secretary General of the NMC Secretariat and the Chairperson of the National BDP Sub-committee (member of MRC Joint Committee) to keep them informed of BDP progress;
 - Maintaining regular communication with MRC-BDP team, including the preparation of semi-annual reports (6 monthly reports);
 - Undertaking general advocacy, promotion and dissemination of BDP project and its current outcome with stakeholders and civil society at national level
 - Performing any other duties related to the coordination and management of national BDP implementation plan including interaction with national stakeholders as assigned by the Director or Secretary General of the National Mekong Committee Secretariat.
- Qualifications:** University degree within water resources planning/management, natural resources planning/management or a related field. Experience from integrated, i.e. regional, national and inter-sectoral, water management for sustainable use and consumption.

Knowledge/experience within development policy planning, strategy formulation, project preparation and project management work is desirable.
Fluency in English is required.

JOB DESCRIPTION

DATABASE MANAGEMENT/GIS/MODELLING SPECIALIST

- Position:** Riparian position within each NMCs, funded by BDP Programme

- Duty Station:** National Mekong Committees. (Phnom Penh, Vientiane, Bangkok, Hanoi)
- Reporting to:** National BDP Coordinator
- Duration:** 4 years
- Duties:** Under the overall guidance of the Director or Secretary General of NMC Secretariat and direct supervision of National Coordinator, the specialist will be responsible for the day-to-day managing project database of BDP to ensure the quality assurance of the NMCs project database. He/she will work closely with the national line agencies related staff, specialists and national consultants in developing relevant maps, posters, documents and maintaining project database at NMCs level. The duties will include but not be limited to:
- Maintaining and updating the data and information of projects in the NMCs-BDP projects database;
 - Coordinating with related NMCs staff and national line agencies concerned, especially data management, GIS and modelling to develop relevant maps, posters for supporting BDP planning purposes;
 - Assisting in collecting information for scenario assessment and analysis;
 - Coordinating and collaborating with specialist of MRCS-BDP to ensure the quality of project database and relevant documents and materials for BDP planning purposes;
 - Preparing the reports on project database and related field expertises as required;
 - Identification of training needs and preparing the training plans, training materials (manuals etc.) for national working group and sub-area working groups ; and
 - Performing any other duties related to field expertise as assigned by National Coordinator and Director or Secretary General of NMC Secretariat. .
- Qualifications:** University degree or higher in database development and management, hydrology or other related field. Five years varied experience in hydrology and water resources engineering or related fields including: design and operation of database, data collection, processing, management and dissemination.
- Knowledge/experience in IT/GIS/database and modelling work is required.
Fluency in English is required.