



Mekong River Commission

MRC Work Programme 2011



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FOREWORD

On behalf of the Mekong River Commission (MRC), I have the pleasure to present the MRC Work Programme for the year 2011 to our Member Countries, development partners, agencies, and friends of the Mekong River Commission.

The structure of the programme is based on the new MRC Strategic Plan 2011-2015. All MRC activities and programmes support the Regional Cooperation Programme for Sustainable Development of Integrated Water Resources in the Mekong River Basin - the Mekong Programme, owned by the Mekong Countries. The MRC Work Programme 2011 describes the supporting outputs MRC will produce in the course of the year to further the Mekong Programme.

As the MRC enters its first year implementing its Strategic Plan 2011-2015, all MRC programmes are changing their structures from a component structure to a more result-oriented structure. This change allows programmes to be in line with the implementation of the river basin management core functions activities and decentralisation.

Some MRC programmes and projects are still under the formulation process for their new phases for 2011-2015, namely Basin Development Plan, Flood Management and Mitigation, Drought Management and Agriculture and Irrigation. Other programmes and Initiatives are forging ahead with their workplan. A key-cross-cutting programme, the Climate Change and Adaptation Initiative's Framework Document for 2011-2025 was approved at the recent Seventeenth Council Meeting..

The basic structure of the Work Programme 2011 follows that of last year's Work Programme. The result-oriented presentation is maintained and more linkages and improved coordination across programmes are presented. The Work Programme 2011 starts with a general introduction to the MRC. The second part of the Work Programme then presents the MRC integrated programme structure, with an overview of the programmes and their active agreements and funding sources. The third part provides the reader with concise information on the structure and goals for each programme. It provides the progress of implementation per programme in 2010 with a chart on budget status and description of its output achievements. Planned outputs and activities per programme for the year 2011 are also described. In addition, a graphical illustration on the achieved outputs for 2010 and planned outputs for 2011 is provided for those Programmes that have already been funded.

Successful implementation of the Work Programme 2011 requires participation of the international development partner community, stakeholders and continued contributions from the MRC Member Countries. I should therefore like to take the opportunity to thank our development partners and colleagues for the continued support to MRC's work for the sustainable development of the Mekong River Basin.



Jeremy Bird
Chief Executive Officer
MRC Secretariat

PREFACE

The Work Programme 2011 contains brief descriptions of MRC programmes and explains how they are contributing to the newly approved MRC Strategic Plan 2011-2015. It includes an activity plan for 2011 including a list of the active Programme and their budget. The Work Programme presents the status of activities carried out in 2010 including graphic presentations of output achievement indicators. In line with the new Strategic Plan 2011-2015, and incorporating recent developments, the integrated programme structure of the MRC is composed of the following programmes²:

- Agriculture and Irrigation Programme;
- Basin Development Plan Programme;
- Environment Programme;
- Fisheries Programme;
- Flood Management and Mitigation Programme;
- Information and Knowledge Management Programme;
- Integrated Capacity Building Programme;
- Navigation Programme;

- Climate Change Adaptation Initiative;
- Initiative on Sustainable Hydropower;

- Drought Management Project;
- Mekong Integrated Water Resources Management Project; and
- Watershed Management Project

The MRC Work Programme is built around the concept of Integrated Water Resources Management (IWRM), defined as a process which promotes the coordinated development and management of water, land and related resources, in order to maximize the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.

A summary overview of the programmes is given below:

Agriculture and Irrigation Programme

A draft Agricultural Strategy for MRC in 2009 identified the added value of MRC's role in the sector. Starting with the key elements identified, and taking into account the objectives and outcomes of the MRC Strategy Plan 2011-15, Programme document for 2011-15 has been under development, in which the main activities would focus on IWRM-based agricultural water management and development. Meanwhile, AIP is currently conducting projects related to the water use efficiency in the irrigation sector.

Basin Development Plan Programme

A key part of 1995 Mekong Agreement is the need for the four riparian countries to cooperate in “the formulation of a Basin Development Plan (BDP) that would be used to identify, categorize and prioritize the projects and programmes to seek assistance for and to implement at the Basin level” (Article 2). Further the countries have agreed to undertake this planning to achieve “the full potential of sustainable benefits to all riparian countries and the prevention of wasteful use of Mekong River Basin waters,

² ‘Programme’ with a lower case ‘p’ is used to denote all MRC Programmes, Projects, and Initiatives.

with emphasis and preference on joint and/or basin-wide development projects and basin programs”.

The Basin Development Plan Programme works to achieve this aim by facilitating a collaborative basin development planning process among MRC Member Countries and stakeholders to prepare, implement and regularly update a Basin Development Plan based on Integrated Water Resources Management (IWRM). Transparent access to information and engagement of a wide range of stakeholders are fundamental for this planning process, which is supported by regular update of the knowledge base, improved assessment tools, strengthened IWRM planning capacity of line agencies, NMCSs and MRCS.

Two phases of the BDP Programme have been completed. Phase 1 (2001-2006) developed the participatory and rolling basin planning process. Phase 2 (2007-2010) built on the planning process to prepare the first Basin Development Plan that comprises an assessment of basin-wide development scenarios and an adopted IWRM-based Basin Development Strategy for the Lower Mekong Basin (LMB).

In the rolling planning cycle, the next five years (2011-2015) should see the BDP, in particular the IWRM-based Basin Development Strategy implemented and updated, taking into account new knowledge and development dynamics in the basin. At the same time, as the MRC is moving toward core river basin management functions, basin development planning should be institutionalized as part of national planning systems.

Environment Programme

The 1995 Mekong Agreement sets out provisions for protecting the environment from harmful effects resulting from development plans and uses of water and minimising negative effects of water resources developments and uses through Articles 3 and 7. The Environment Programme works to support cooperation among the Member Country governments to secure a balance between economic development and ecological protection. An Environment Programme has existed under the MRC umbrella since 1996.

The regional monitoring of the Mekong River water quality started more than two decades ago and has provided a large, impartial GIS-linked database and improved monitoring capacity in the Member Countries. Environmental monitoring has been advanced including biological monitoring and monitoring of peoples' dependence on aquatic ecosystems enabling addressing social issues with strong linkages to peoples' dependence on aquatic resources and to implications on poverty. Pilot studies and training programmes have strengthened the national capacity for regional environmental management e.g. transboundary environmental impact assessment, ecological risk assessment, environmental conflict management and environmental flows assessment. Understanding of the Mekong River Basin has improved through studies on toxic chemical pollution, the Mekong River flood pulse, the aquatic species and habitats. This has, however, made it clear that the complexity of the river, its ecosystems and the rich biodiversity are far from fully understood, which threatens the robustness of environmental management decisions.

Fisheries Programme

The Fisheries Programme 2011-2015 (FP11/15) was initiated in January 2011. It builds on the achievements of two earlier phases of the Programme (FP1, 2001 – 2005 and FP2, 2006-2010), specifically in the areas of facilitation of the development of a sound scientific understanding of LMB fisheries by riparian stakeholders, and supporting its communication; monitoring of status and trends of Mekong fisheries, and mitigation of the impacts of developments and climate change; support to

regional dialogue on LMB fisheries management and development; fisheries management and governance, and aquaculture of indigenous species. The primary focus of activities is on trans-boundary issues affecting fisheries, so that appropriate fisheries information is available for other MRC's programmes. Information produced within the Fisheries Programme is incorporated into national and regional management and development plans, with a view to continuously increase fisheries productivity and maintain a healthy ecosystem.

FP 2011-2015 has in-built flexibility that enables it to adapt to emerging issues. It is expected, that such emerging issues will be identified during the Programme's Inception Phase (January - June 2011), in accordance with the current emphasis on hydropower development in the LMB, as well as impacts from climate change, and the associated risks to the existing fisheries industry.

The programme operates within one shared system of support functions and infrastructure. Activities, support staff and counterparts are maintained in each of the riparian countries, building an excellent network with line agencies and institutes. Virtually all field-based activities of the programme are conducted through fisheries line agencies, although national consultants are also used when necessary for particular activities. Work Agreements are developed with counterpart staff at the start of the year which outlines the work content, outputs and respective responsibilities. Capacity development, formal and informal training, career support and gender awareness are inherent elements of the Programme. The Programme places a high priority on reporting its work in English and riparian languages, in many different formats (technical and non-technical publications, postings on web sites, films, books, brochures and posters).

Flood Management and Mitigation Programme

Following the adoption of the Flood Management and Mitigation Programme (FMMP) by the MRC Council in November 2002 an extensive consultation process has been made through national meetings, discussions and donor appraisal in order to consolidate and streamline the activities as well as to raise funds for the implementation of the programme.

FMMP's work programme to 2010 had five components, namely the Regional Flood Management and Mitigation Centre; Structural Measures and Flood Proofing; Mediation of Trans-boundary Flood Issues; Flood Emergency Management Strengthening; and Land Management.

Due to the issue's importance in terms of regional cooperation, trans-boundary implication and highly demanding integrated flood management and mitigation plans, the FMMP became the fourth MRC programme, in addition to their existing Water Utilization Programme, Basin Development Plan and Environment Programme.

The operation of the FMMP 2004-2010 was to formally come to a close on 31 October 2010 for Components 1, 2 and 3, while Components 4 and 5 would be completed by 31 December 2010. However an agreement has been reached between MRC and the Government of the Netherlands to apply a Bridging Period from 1 November 2010 until 31 December 2011, using remaining funds of FMMP 2004-2010, plus about USD 400,000 additional funding, for Components 1, 2 and 3. A budget-neutral extension has been agreed between MRC and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) to extend Component 4 until March 2010 and Component 5 until May 2010. The bridging period was needed to further disseminate some of products prepared in the first phase, formulate the next phase and provide continuity to essential flood forecasting services while securing funds for implementation of the next phase.

Information and Knowledge Management Programme

Under the management of the Technical Support Division, IKMP provides data, information and knowledge services. This follows from the Mission of the MRC defined in the Strategic Plan for 2006 - 2010: "To promote and coordinate sustainable management and development of water and related resources for the countries' mutual benefit and the people's well-being" and from the Strategic Plan definition of the MRC as a knowledge-based organisation. Accordingly, IKMP must promote the progressive knowledge service function of the MRC. In addition the Strategic Plan states: "The primary value-added of MRC as an international river basin organisation is to focus on joint and basin-wide issues, including scenario developments, identification of important joint and basin-wide projects and programmes, and the analysis of implications (economic, social and environmental) of ongoing and proposed developments in the basin". IKMP is in compliance with this objective focusing on impact analysis and scenario development.

IKMP provides fundamental data and information services and integrated information and knowledge products, services, systems and tools. Access to and use of the data, information and decision support tools are necessary to promote and co-ordinate sustainable development of water and related resources in the Mekong Basin. As part of the hydrological data collection a network of measuring stations along the Mekong transmit real-time information on water levels, precipitation, temperature etc. IKMP maintains and updates the GIS and database systems and provides related services like spatial analyses and production of thematic maps including visualization of LMB themes. Modelling services for the MRCS Programmes and Member Countries are provided by integrating and analyzing various scenarios. The modelling will be extended to cover socioeconomic and environmental impact areas. IKMP maintains the MRC Information System (IS) Portal that will be the interface to the Master Catalogue to handle data and information exchange and sharing. Cooperation is being established with international and regional agencies on data, information and knowledge sharing.

IKMP was formulated in December 2006 and has been supported by funding from Australia, Finland, and France.

Integrated Capacity Building Programme

In 2008, the ICBP was established as a cross cutting programme to support building MRC capacities needed for achieving the mandate set out in the Agreement. 'Capacity-building' is widely regarded as an important strategy in ensuring sustainable water sector development. In 1991 during a UNDP symposium, the Delft Declaration was agreed. It established three elements of water sector capacity building:

- Human resources development and the strengthening of managerial systems;
- Institutional development, including community participation; and
- The creation of an enabling environment with the appropriate policy and legal frameworks.

The Lower Mekong Basin (LMB) countries have set the first two elements as priorities for the ICBP, while other MRC Programmes support improvements in policy and legal frameworks within target sectors. ICBP phase 2 will focus on the achievement of the Goal 4 and 5 of the Strategic Plan 2011-2015.

Navigation Programme

The NAP went through its preparatory phase in 2005 and started full implementation in August 2006. The NAP's objective is to promote freedom of navigation and increase international trade opportunities for the MRC Member Countries' mutual benefit, and to assist in coordination and cooperation in developing effective and safe waterborne transport in a sustainable and protective manner for the waterway environment. The Programme addresses issues as diverse as regional transport planning and the comparative advantages of waterborne transport, a new legal framework for Mekong navigation, measures to strengthen safety and environmental protection, improved information and coordination systems and institutional development through capacity and partnership building within the navigation sector. In addition, the Programme seeks to develop national and regional management capacities; not only to ensure that the Programme as such is implemented, but also to strengthen the voice and role of the navigation sector in national and regional development planning. Broadly speaking, the NAP focuses on three main areas: navigation safety and efficiency, legal framework for cross-border transport (trade facilitation), and environmental sustainability.

Climate Change and Adaptation Initiative

The countries of the Lower Mekong Basin (LMB) are recognised as among the most vulnerable countries to climate change in the world. Their economies, ecosystem sustainability and social harmony may be at risk. Therefore strategies for poverty alleviation through sustainable development must rely on a good understanding of the impacts from climate change on aquatic resources and people's livelihoods. A regional Climate Change and Adaptation Initiative (CCAI) has been formulated in response to a call by the MRC Council at its Fourteenth Meeting to develop a cooperative regional initiative to provide knowledge, tools and capacity building and other assistance to the MRC Member Countries to better adapt to climate change.

Initiative on Sustainable Hydropower

The 2-part objective of the ISH is, "Decisions concerning the management and development of hydropower in the Lower Mekong are placed in a river basin planning and management perspective by applying IWRM principles. MRC and key stakeholders actively cooperate to bring sustainable hydropower considerations into the planning systems and regulatory frameworks of Member Countries, and into project-level hydropower planning, preparation, design, implementation and operation practices." The Initiative on Sustainable Hydropower (ISH) thus recognizes that the challenge ahead is not only about informing decisions about possible new hydropower schemes, or their design features. It is also to clarify thinking about the sort of cooperation that is needed among Mekong countries to sustainably manage the growing number of existing hydropower assets in the lower Mekong basin, as the cumulative and transboundary impacts of these projects are increasingly felt. Such considerations need to be linked also to wider strategies for sustainable development of the regional power sector.

The operational strategy for the ISH in 2011 is to progressively scale-up activities in ISH 2011-2015 to an optimal level consistent with the MRC Strategic Plan 2011-2015. In this, the ISH is implemented as a cross-cutting initiative, working closely with and through other MRC Programmes. This approach enables the MRC to help Member Countries handle the full range of multi-disciplinary issues that are integral to the sustainability challenge for hydropower in the Mekong context.

Mekong Integrated Water Resources Management Project

Funding for the Water Utilisation Programme (WUP) ended in June 2008. Building on the work of WUP, and in close cooperation with Member Countries, a concept paper for a follow-up project, entitled the Mekong Integrated Water Resources Management Project (M-IWRMP) and involving a new concept combining regional, trans-boundary and national components was developed. The preparation phase of the M-IWRMP was carried out from mid 2008 to mid 2009 to further identify and prepare components and sub-components of the project. With financial support from AusAID (AUS 700,000) and PHRD, during 2008 and 2009, the MRC has implemented the preparation phase and formulated the M-IWRMP. After a series of national and regional consultations, the Project Document was formulated and approved by the MRC Council in November 2009. This approval led to further financial support from AusAID (AUS \$ 7 million) to implement a regional component. In 2011 the World Bank will begin supporting the transboundary component in addition to the regional component. The World Bank Project negotiation are planned for March 2011 which implies that WB's funding for M-IWRMP may be available in the 2nd quarter 2011. The entire project duration will be from 2009-2014.

Watershed Management Project

MRC-GIZ Watershed Management Project (WSMP) ended in May 2011. Building on the long and important work of MRC-GIZ WSMP, MRC has cooperated with KfW to continue its effort to develop a model for watersheds in the Lower Mekong Basin to: a) secured watershed function of the Nam Ton watersheds, and b) to improve livelihoods in the Nam Ton Project area. The Project has been appraised and formulated since 2005, with a commitment of up to 5.11 million EUR, in which it will be channeled to two partners, 4,612,918.81 EUR will be disbursed directly to the Project-Executing Agency (GoL - WREA/LNMCs and MAF) and 500,000 EUR will be disbursed directly to the Recipient (Mekong River Commission). The Project has two parts: Project Part I covers all Project measures within the Project area, and is carried out by the Lao Government and the local people. With output 1, communities are assisted to establish and execute sustainable village based land use planning. Through output 2, farmers are supported to use appropriate farming systems. With Project Part II, MRC facilitates regional water resources development and pilots replicable development solutions through support to regional analysis and up-scaling. Project Part I became operational in October 2010, Project Part II started in March 2010.

Contact Details

Additional copies of the MRC Work Programme 2011 can be made available to interested agencies upon request. It is also possible to provide copies of detailed comprehensive programme proposals upon request. Further information is provided in the MRC website. For this purpose, kindly contact the MRC Secretariat's International Cooperation and Communication Section, at the following address:

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Interested readers are invited to visit the MRC home page at
<http://www.mrcmekong.org>

Acronyms and Abbreviations

ADB	Asian Development Bank
AFD	Agence Française du Développement (French Agency for Development)
AIP	Agriculture and Irrigation Programme
AusAID	Australian Agency for International Development
BDP	Basin Development Plan – Basin Development Plan Programme
CNMC	Cambodia National Mekong Committee
CPWF	Challenge Programme on Water and Food
CCAI	Climate Change and Adaptation Initiative
DMP	Drought Management Project
DSF	Decision Support Framework
EIA	Environmental Impact Assessment
EP	Environment Programme
FAS	Finance and Administration Section
FP	Fisheries Programme
FMMP	Flood Management and Mitigation Programme
GEF	Global Environment Facility
GMS	Greater Mekong Sub-Region
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Society for International Cooperation)
GWP	Global Water Partnership
IBFM	Integrated Basin Flow Management
IWQM	Integrated Water Quality Management
ICBP	Integrated Capacity Building Programme
ICCS	International Cooperation and Communication Section
ICLARM	International Centre for Living Aquatic Resources Management
IKMP	Information and Knowledge Management Programme
ISH	Initiative on Sustainable Hydropower
JRP	Junior Riparian Professional
LMB	Lower Mekong Basin
LNMC	Lao National Mekong Committee
MDBC	Murray-Darling Basin Commission
M-IWRMP	Mekong- Integrated Water Resources Management Project
MRB	Mekong River Basin
MRC	Mekong River Commission
MRCS	Mekong River Commission Secretariat
NAP	Navigation Programme
NMC	National Mekong Committee
PDIES	Procedures for Data and Information Exchange and Sharing
PMFM	Procedures for Maintenance of Flows in the Mainstream
PNPCA	Procedures for Notification, Prior Consultation, and Agreement
PWUM	Procedures for Water Use Monitoring
PWQ	Procedures for Water Quality

RBO	River Basin Organization
RC	Research Coordination
SEA	Strategic Environmental Assessment
TACT	Technical Assistance and Coordination Team
TNMC	Thai National Mekong Committee
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VNMC	Viet Nam National Mekong Committee
WG	Working Group



Figure 1: Map of the Mekong River Basin

1 Introduction to the Mekong River Commission

1.1 Background

On the 5th of April 1995, Cambodia, Lao PDR, Thailand and Viet Nam, signed the “Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin”. This agreement formed the Mekong River Commission (MRC) which replaced the Committee for Coordination of Investigation of the Lower Mekong Basin (the Mekong Committee) and the Interim Mekong Committee, which were established in 1957 and 1978 respectively. The MRC also holds an official dialogue with the two other countries of the Mekong River Basin, China and Myanmar, which are not signatories to the 1995 Agreement.

The purpose of the 1995 Agreement is to optimize the multiple-use and mutual benefits of all riparians and to minimize the harmful effects that might result from natural occurrences and man-made activities.

1.2 Areas of Cooperation

Article 1 in the 1995 Agreement obliges the signatories "To cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin..."

Article 2 stipulates the promotion of sustainable development of the full potential and prevention of wasteful uses of the Mekong River Basins waters for the benefit of all riparian states.

Article 3 charges the signatories with protection of the environment, ecological balance and natural resources from harmful effects from the development of the basin's water and related resources.

These three articles set the scope for the work of the Commission. Further details of the cooperation and its implementation framework are set out in the ensuing articles of the 1995 Mekong Agreement.

1.3 Structure

The MRC enjoys the status of an international body. The Commission has formal agreements for cooperation with a range of regional and international organisations. The MRC consists of three permanent bodies: Council, Joint Committee and Secretariat (see Figure 2). The National Mekong Committee Secretariats (NMCSs) are the focal points for the Commission in each of the Member Countries.

The MRC Secretariat as the technical and administrative arm of the MRC works closely with the NMCSs of the MRC Member Countries. The structure of the Secretariat is presented in the diagram below (Figure 3). The structure was introduced in December 2005 and updated in May 2009 to align it with newly established initiatives. The budget of the Commission consists of contributions from its Member States and the Development Partner community. Formal consultations with the Development Partners are undertaken through the annual Donor Consultative Group meeting and other regular meetings.

Figure 2: MRC Organisational Structure

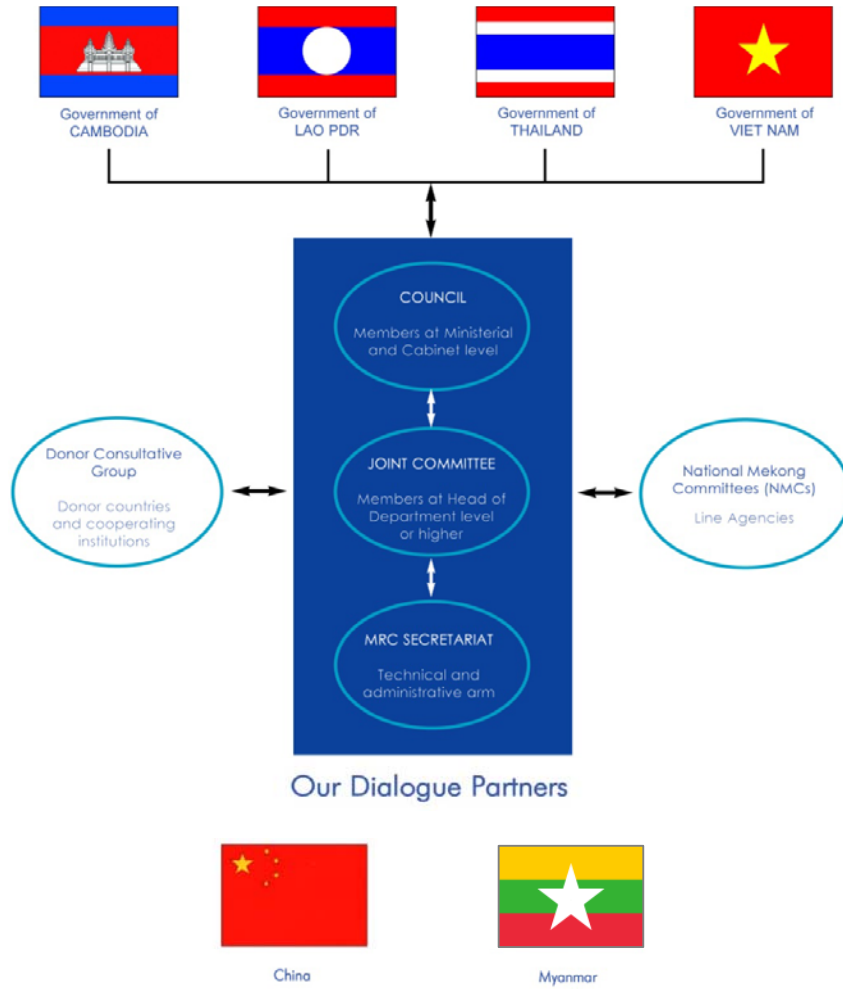
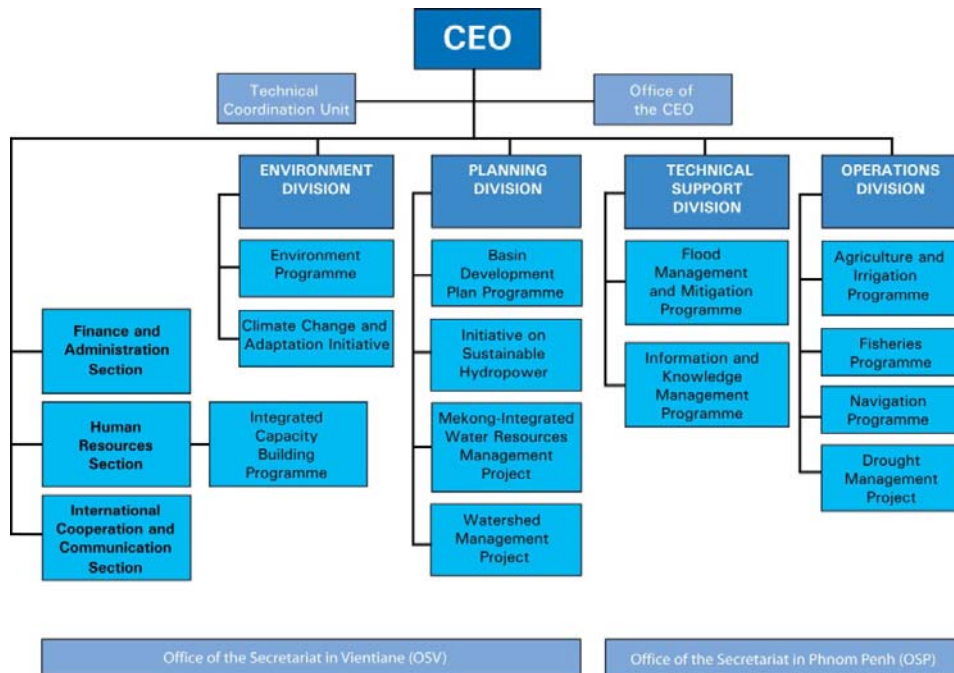


Figure 3: MRC Secretariat Organisational Structure



Development Opportunities and Challenges

Achieving higher levels of economic and social development remains a pressing priority for all Member Countries, with poverty alleviation, central to national socio-economic objectives, being one of the main aims of water resources management in the Lower Mekong Basin.

The Basin already faces many complex challenges. These will be exacerbated by the impacts of climate change to which the Mekong Delta is especially vulnerable in terms of sea-level rise and sea water intrusion. Addressing these challenges will require better coordinated and collaborative responses by the Basin Governments, particularly in terms of implications for food security, water quality, biodiversity and aquatic ecosystems. Existing uses of the abundant natural resources of the Mekong Basin are integral to livelihoods of millions of people in the Basin but these uses are now under threat.

Hydropower developments on the Lancang-Mekong provide many opportunities, but have also changed the context for the development and management of the Lower Mekong Basin (LMB) water and related resources. Some of the consequences will be positive and others potentially negative. Addressing these will require further cooperation with the People's Republic of China (China) and the Union of Myanmar (Myanmar).

There has been a revival of interest in mainstream hydropower in the LMB resulting from a number of factors related to rapidly rising energy demand and minimising carbon emissions. An example is the proposed first mainstream dam development project in the Lower Mekong Basin, the Xayaburi project, Lao PDR. A proposal for this was submitted to the MRC in October 2010 for the Prior Consultation process as established under the MRC Procedures for Notification, Prior Consultation and Agreement (PNPCA). How this prior consultation process is taken forward by the MRC together with the Member Countries under the facilitation and advisory role of the MRC, will set an important precedent for other proposed LMB mainstream developments currently being planned; some of which are expected to be submitted to the MRC during the Strategic Plan period of 2011-2015.

Plans for irrigation development together with the various hydropower projects will have a significant effect on the use and consumption of the Basin resources. For example, intensified drought risks may lead to the revival of some country plans to utilise water from the Mekong mainstream to complement national approaches for the mitigation of drought impacts.

The growth in intensive agriculture required to meet the increasing demand for agricultural products will result in an increased demand for water while the accompanying increased use of pesticides could endanger both water quality and biodiversity.

In this respect, development opportunities and challenges for the MRC include:

Global and regional economic instability

The LMB has a relatively stable macroeconomic environment with a fast growing economy since the early 2000s. LMB countries have made rapid strides towards regional market cooperation and integration into global markets. Their growth and export performance over the past decade and a half have been particularly impressive. However, there is still a significant development gap between countries in the LMB. Thailand is the largest economy, while Viet Nam has become the fastest growing and is expected to

rank second after China in terms of growth prospects in the Mekong region. The incidence of poverty has fallen rapidly over the whole LMB; yet income inequality between urban and rural areas remains a major issue and challenge for governments.

Despite the positive outlook for the LMB economies, a number of challenges remain if they are to fulfill their development potential and overcome the impact of the global financial crisis – even though this impact has been much less than in western economies. These challenges include diversifying the economies, improving efficiency and legal structures that have hindered business development, and continuing investment in infrastructure and expansion of human resource development, especially the skilled labour force, particularly in Cambodia and Lao PDR. Expanding public expenditure while balancing growth and inflation is relevant for Viet Nam. Restoring investor confidence through political stability and bolstering expenditure with expansionary policies are important challenges for Thailand.

With improved cooperation in the Mekong Basin, trade and investment should increase as these countries are rich in natural resources, especially in the potential for using Mekong water to enhance economic growth and development.

Poverty

Millions of people living in different geographical areas of the LMB depend on the river system for their livelihoods. Many of them live in poor conditions with limited access to clean water and sanitation, employment or even sufficient food. Many of the population face uncertainties, such as flooding and other disasters, lack of land ownership and consequences from global economic failure. There are limited channels that allow them to take part in decisions on issues concerning water resource management, impacts of development or access to common goods such as lands and flooded forests. National economic development, supporting infrastructure and welfare are still sparse. Such factors further contribute to the conditions of poverty and vulnerability.

The water and aquatic resources of the Mekong Basin, such as fish, other aquatic animals and plants, are virtually free and play a vital role in ensuring food, income and livelihood security for many people across the LMB. In rural areas, particularly, poverty and food security are strongly linked.

Population Growth

About 60 million people live in the Lower Mekong Basin, according to national population statistics of the four LMB countries. The figures indicate that the overall population has increased by about 12 per cent since the figures were reported in 2003 (55 million) although the trends vary between countries. The LMB population has increased by 25 per cent in Cambodia, by about six per cent in Lao PDR, has remained the same in Thailand and increased by about 10 per cent in Viet Nam. The percentage of population and territory within the basin varies between countries. Cambodia and Lao PDR lie largely within the basin but together comprise only 30 per cent of the basin population. The basin territory in Thailand is only 37 per cent of the country and comprises about 39 per cent of the basin's population. In Viet Nam, the Mekong Delta and Central Highlands comprise only 20 per cent of the country but contain 31 per cent of the basin's population.

Agricultural Livelihoods

Agricultural production in the LMB has been shaped by a drive towards modernisation and trade expansion as well as the sector's continued importance for food security and as a source of income. Crops are grown in

both upland and lowland (floodplain) areas of the basin. Forms of upland agriculture vary considerably depending on cultural practices and local soil and topographic conditions. Major upland farming systems include shifting and semi-shifting cultivation and rainfed crops with little irrigation. A significant trend is the spread of plantations for commercial production of rubber and energy crops, both as a result of a rise in energy prices (and related demand for biofuels) as well as increased demand for agricultural commodities more generally. Expansion of agriculture often encroaches into forest areas.

Agriculture across the basin involves a mix of subsistence and commercialised production. In general, farming households focus first on production to meet household needs and then sell whatever surplus they produce. Although there are large regional differences, it is mainly lowland households that have gradually made a transition into more commercialised modes of agricultural production, especially in northeast Thailand and the Viet Nam delta.

Drought

Drought periods in the basin can occur at any time of the year to a differing extent. Through their impacts on agriculture and fisheries, droughts impose significant costs on people of the basin but, unlike floods, they provide no apparent benefits. The likelihood of a 'drought year' is highest in Lao PDR and Thailand (two years in five) and declines as one moves down the basin through Cambodia and Viet Nam (one year in three).

The severity of a drought depends upon its intensity (i.e. water deficit, water use deficit or yield deficit), its timing and duration, and its socio-economic impact (e.g. effects on land use, infrastructure and society). In the LMB, the main structural measure for reducing the risk of drought is the provision of irrigation, local storage and conjunctive use of groundwater with surface water. In addition, drought forecasting and drought-resistant crops are also expected to play an increasing role in future risk management in the LMB.

Adapting to Climate Change

The main issues related to climate change in the LMB are the possible impacts and adaptation to the changes that may occur. The fourth assessment report of the Intergovernmental Panel on Climate Change (IPCC 2007) and the IPCC Technical Paper on Climate and Water (Bates et al. 2008) outline current understanding of the climate change impacts on water resources. Many of the impacts envisaged by the IPCC can be expected to affect the Mekong Basin. The projected weather pattern changes point to increasing variability, e.g. less rain during the dry season and more rain during the wet season and more frequent extreme weather events, although with regional differences within the basin (Eastham et al. 2008). Seasonal water shortages and floods may become worse, as may saltwater intrusion into the Mekong Delta due to storm surges and sea level rise (Carew-Reid 2007; SIWRP 2008). Impacts of such changes are expected to affect natural ecosystems and agriculture, and exacerbate the challenges of satisfying increasing food demands from growing populations (Hoanh et al. 2003).

Planned developments in the LMB over the next 20 years in combination with climate change will affect the hydrology, the environment and people's livelihoods. In some areas this will exacerbate the challenges of dealing with climate change and in other areas developments can counteract climate change impacts. Climate change adaptation has to be seen in this context, ensuring cost-efficient solutions.

Sustainable Hydropower

Hydropower is an important energy resource for all people living in the Mekong Basin – both now and for the future. The region as a whole has considerable potential for hydroelectric development at all scales, from large multi-purpose projects to feed national power grids to micro-scale projects for rural electrification or local supply. Mekong government policies promote the use of water resources to generate electricity, not only for national needs, but also to catalyse mutually beneficial expansion of cross-border power trade in support of regional economic integration and energy security goals.

Slightly more than 10 per cent (3235 MW) of the estimated 30,000 MW of hydroelectric potential on the lower Mekong has been developed, mainly in the past two decades. Private sector developers are advancing new proposals for large hydropower schemes under regulatory systems introduced to encourage investment in strategic infrastructure for water and energy. Proposals exist for further large-scale hydropower development on Mekong tributaries and, since 2006, at least 11 sites on the Lao, Lao–Thai and Cambodian reaches of the lower Mekong mainstream. The latter would represent about 15,200 MW of installed capacity. Most of the developers responding to the government calls for private sector partners, and their financing sources, are from the Asian region (MRC hydropower database). China recently completed its fourth large dam on the Lancang–Mekong in Yunnan province. Three more mainstream dams are under construction or planned before 2025. The cascade in Yunnan will represent some 15,200 MW of installed capacity. This represents electrical supply to about 75 million people, at current average per capita electricity use in the Greater Mekong Sub-region (GMS) (920 kWh/head/year).

The Mekong has thus become one of the most active regions in the world for hydropower development with a comparatively high number of large hydropower projects planned, relative to the size of the basin. Along with this interest, the need to balance the opportunities and risks of hydropower development with strategies for overall sustainable development of the basin has come to the fore.

The MRC is working with Mekong governments to develop coordinated and integrated impact assessments, consistent and fair mitigation measures, and development strategies and policies for promoting sustainability considerations in hydropower development.

Navigation

The Mekong River provides a well-used and important trade route between the Basin countries, particularly between China and northern Thailand, and between Cambodia and Viet Nam. Navigation agreements play an important role in developing the trade potential of the River, but the environmental management of waterways remains a challenge due to the lack of consistent safety standard and limited equipment and resources to manage potential risks and to respond to any dangerous leakages and oil pollution.

Flooding

The Mekong River is different from most other major rivers by its extreme seasonal discharge fluctuations: very low flows in the dry season and vast flooding in the wet season which nourishes the basin's extensive wetlands such as the world famous Tonle Sap in Cambodia. Much of the annual flood pulse along the river downstream comprises imported water from upstream, so that disruptive flooding in Cambodia may occur while nearby fields at the

same time are unproductive because shortage of the water for a long period of time.

Floods can occur anywhere in the LMB. Each year, the nature, location and severity of flooding differs across the basin, depending on the underlying characteristics of flood-producing rainfalls and other causative factors. This can best be demonstrated by four examples: the Floods of 2000, 2006, 2008 and the flash flooding of 2009.

Productive Fisheries

The inland fisheries of the LMB are among the world's largest, with surveys indicating that the total production is now in the order of 3.6 million tonnes. It is estimated that about 2.1 million tonnes is from capture fisheries and 1.5 million tonnes from aquaculture, of which about one million tonnes is exported. Commercial fishing and aquaculture employ several million people, and the LMB's fisheries are of particular importance for the millions of rural people for whom fishing is a secondary occupation that provides food security and supplementary income.

Fisheries depend on the availability of water and habitat and often compete for these resources with other sectors. The annual 'flood pulse' through a diverse range of natural habitats as well as the artificial habitats of rice fields and reservoirs favours natural fisheries production. The flood pulse inundates foods and liberates nutrients from sediment, supporting high primary productivity, and in turn the food chains that fish depend upon. Most fish and other aquatic species migrate between feeding, spawning and resting habitats. Capture fisheries can be conserved and enhanced by maintaining the annual flood pulse, by conserving key habitats (such as spawning grounds, deep pools and floodplains) and by maintaining connectivity along key migration routes. The total LMB catch comes mainly from the major flood zone and rainfed habitats (primarily rice fields) in about equal quantities. Large water bodies contribute a smaller but significant proportion of the total yield.

Water Supply and Sanitation

Millions of people in the LMB, especially in rural areas, lack access to one of the most basic human needs, safe drinking water and sanitation. About 80 per cent of the LMB population have access to safe drinking water and about 60 per cent have access to hygienic sanitation facilities. The Millennium Development Goals target a reduction by half in the proportion of people without access to safe water by 2015. At the national level, all LMB countries are on-track to achieving these targets (UNICEF and WHO 2008) and Thailand has already achieved the target. Cambodia's progress towards access to safe water indicates the likelihood of achieving more than the 2015 target as the country has achieved a much higher rate of access by 2006 compared with the targets set for 2005 (30 per cent and 68 per cent for rural and urban populations respectively). The same trend was observed for rural populations' access to improved sanitation (19 per cent in 2006 compared to the target of 12 per cent in 2005). Progress in urban areas, however, was much slower and below the target, a position that could be partly explained by the large influx of the rural poor into urban areas.

Lao PDR has made significant progress from a situation where 28 per cent of the population had access to a safe water source and less than one in three households had access to some kind of latrine in the 1990s (Government of Lao PDR and UN 2008), although disparities exist and remote provinces and districts with poor access tend to have lower coverage.

In Viet Nam, the lower progress among disadvantaged households compared to the national average creates a major challenge for the country to achieve its target of 80 per cent of households accessing clean water and 70 per cent accessing standard latrines. National surveys show that 40 per cent of households in the most disadvantaged target areas depend on unsafe water from rivers, lakes and ponds for cooking and only 13 per cent use hygienic latrines. Among the Kinh and Hoa ethnic groups, only six per cent lack access to safe drinking water whereas the rate is 57 per cent for other ethnic groups (Ministry of Planning and Investment, Viet Nam 2008).

Water quality

The Mekong River is still regarded as a fairly unpolluted river with generally good water quality, although some areas near urban centres, or with intensive agriculture and aquaculture, can experience elevated levels of nutrients and organic matter. Data on toxic micro-pollutants, such as organochlorines and heavy metals, are scarce but available data do not raise any specific concerns. Overall, the concentrations of nutrients at all mainstream stations in the Mekong River are low compared with values known to cause eutrophication and algal blooms (Voss et al. 2006; MRC 2008a).

Biodiversity

The biodiversity of the Mekong River Basin is of global significance, surpassed only by the Amazon and Congo systems. The diverse ecosystems of the Mekong Basin are exceptional in their productivity, as are the benefits its people derive from this. The maintenance of high biodiversity represents not only the biological integrity of the ecosystems but also the range of natural resources and products available to both urban and rural populations; and is therefore of high priority.

Wetlands

The biodiversity and productivity of the Mekong Basin is in large part represented by its wetlands, which are associated with the Mekong mainstream itself, as well as its tributaries from the mountains of southern China, Lao PDR and the Central Highlands of Viet Nam, the broad plateau of northeast Thailand; and the great floodplains of Cambodia and the Mekong Delta in Viet Nam. These wetlands provide unique habitats for both aquatic and terrestrial plants and animals. Some wetland species, such as mammals and birds, may spend only part of their lives in wetland habitats whereas others, such as amphibians and fish, may depend entirely on wetlands for their survival. Important species associated with wetlands are those that are seen as a resource, either because they are rare and therefore have a special conservation value or because they are seen as an important resource for people's livelihoods.

Trans-boundary Cooperation for Water Resource Management

The trans-boundary issues that need to be addressed to assess the sustainability of the scale and scope of basin development are numerous. Some of the key issues include water availability for use, fisheries production, floodplain management, navigation, wetland management, river bank erosion and sediment movement for example.

There are, however, a range of trans-boundary benefits of the water resources of the Mekong Basin that are shared amongst riparian countries. This puts the six countries that share the basin in a unique position to focus on the sharing of water benefits, rather than simple volumetric allocation of water.

Examples of this could include the beneficial effect of floods on agriculture; the benefit of alluvial silt deposits; and the importance of the Tonle Sap reverse flow on the cycle of fish breeding. Far from being a point of conflict; in this environment, trans-boundary water-use in the Mekong is an opportunity for cooperation and improved development across the region.

1.5 The MRC Strategic Planning Process

In order to better fulfil its role, MRC developed a first Strategic Plan for the period 1999-2003. Although considerable progress had already been made, many areas of MRC's work still needed improvement. Consequently, the first Strategic Plan was reviewed in a participatory process in late 2000 and a new Strategic Plan for 2001-2005 was formulated. The programme approach launched with the Work Programme for 2001 meant that the objectives of four core programmes, five sector programmes, and one support programme needed to be better reflected in the Strategic Plan. Consequently the Strategic Goals, supported by the objectives, required updating.

Since late 2009, the MRC had progressed with the preparation for the Strategic Plan 2011-2015. Extensive consultation with Member Countries, Development Partners and stakeholders were carried out in 2010. There was also a general recognition that the discussion on MRC Core Functions Categories as well as the seven River Basin Management Functions needs to be linked with and informed by the wider discussions on formulation of MRC's Strategic Plan. In addition, there was general discussion on the long term funding of the MRC Secretariat, recognizing that there will be a gradual shift from external funding to a significantly higher proportion of funds coming from member countries.

With this Work Programme 2011, the MRC enters into the first year of its five-year strategic planning cycle. The Strategic Plan 2011-2015 retained the fundamental strategic direction of MRC, and its vision statements remained relevant. The Strategic Plan 2011-2015 provides for an updated programme structure in a sector and cross-cutting programmes matrix, underpinned by a basin development planning process. This will allow the MRC to address the development opportunities of the Mekong Basin in a more balanced and sustainable manner.

Figure 4: MRC Vision



1.6 Towards the Strategic Plan 2011-2015³

The formulation of the Strategic Plan for 2011-2015 underwent extensive consultations with Member Countries and their agencies, MRC Dialogue Partners and Development Partners, and other stakeholders including NGOs, civil society organisations and representatives of riparian communities.

The overall direction of the Plan reflects the Hua Hin commitment on the continued implementation of the 1995 Mekong Agreement and on the priority areas of action. This Strategic Plan of the MRC for 2011-2015 centers on a comprehensive implementation of the IWRM principles at regional and national levels, and has a strong emphasis on improved alignment of the MRC operations with its mandated core functions, and improved organisational strategies to ensure an efficient organizational transition of the MRC towards a decentralised implementation model of its selected core functions.

The framework of this Strategic Plan 2011-2015 comprises a long-term goal supported by an overarching five-year Goal, four Specific Goals and one Organisational Goal for achievement in the next five years.

The long-term Goal of the MRC is that Member Countries manage water and related resources of the Mekong Basin in an effective, equitable and sustainable manner. The five-year Goal for 2011-2015 is Member Countries implement basin-wide IWRM approaches in national water and related sector frameworks and development programmes for sustainable and equitable development. The Organisational Goal for 2011-2015 is the efficient organisational transition of MRC for implementation of its core functions and full riparianisation of its Secretariat.

Four Specific Goals have been identified that MRC should strive to achieve progressively from 2011 to 2015. The four goals established for MRC for 2011 to 2015 are shown below:

Specific Goal 1

Application of IWRM-based basin development and related sector strategies and guidance

Outcomes

- 1.1 The IWRM-based Basin Development Strategy is applied in planning and decision making on Mekong water and related sector development in the LMB countries through an institutionalised basin development planning process.
- 1.2 The required management plans, sector strategies, guidance and guidelines are developed to support the implementation of sector-specific elements of the IWRM-based Basin Development Strategy in relation to the mainstream and significant tributary systems.
- 1.3 Sector and cross-sector strategies and plans incorporate climate change adaptation planning and implementation at various levels and in priority locations throughout the Lower Mekong Basin.
- 1.4 National, sub-basin and basin planning and management systems incorporate economic, environmental and social implications of on-

³ The Strategic Plan 2011-2015 is being submitted for consideration at the Seventeenth Meeting of the MRC Council on 25-26 January 2011.

going and proposed developments in the Basin and considerations of sustainability and equitable development.

Specific Goal 2

Operational systems for basin-wide monitoring, impact assessment, modelling, forecasting and knowledge management to support effective decision making

Outcomes

- 2.1 Information and data on the full range of water and related resources parameters are systematically monitored and used in basin and sub-basin planning and management, and the state and developments in the Basin are reported.
- 2.2 MRC analysis, modelling and assessment tools are effectively used at appropriate levels of planning, decision-making and operational management.
- 2.3 Strengthened and improved forecasting, warning and emergency response systems provide timely information on short and medium term regional forecasts, and increasingly assist the Basin countries in flood and drought forecasting, operational forecasts for shipping and contingency planning for pollution incidents.
- 2.4 Key water and water use parameters, trans-boundary impacts and other sustainability issues of water utilisation and management, and threats to livelihoods posed by climate change and other emerging environmental issues are researched, analysed, and assessed for national and regional responses.
- 2.5 Knowledge management systems and processes are developed, applied, and effectively shared with MRC partner agencies via sustainable knowledge networks.

Specific Goal 3

Efficient dialogue and coordination processes between basin countries and other stakeholders for effective regional cooperation

Outcomes

- 3.1 Strengthened implementation of MRC Procedures by MRC and Member Countries in an open and transparent manner.
- 3.2 Enhanced dialogue and coordination between MRC, Government agencies, civil society organisations and the private sector in basin planning and management, and decision-making on Mekong water related resources.
- 3.3 Enhanced cooperation with upstream riparian countries and other regional initiatives for an integrated approach to the sustainable management of the Basin.
- 3.4 Resolution of trans-boundary issues at sub-basin level is effectively facilitated by MRC.
- 3.5 Knowledge of the basin is available and accessible for more informed decision-making processes.
- 3.6 MRC is a responsive organisation providing objective, independent and timely information to Member Countries and the general public.

Specific Goal 4

Capacity developed for IWRM policy adoption and implementation within the framework of the MRC mandate

Outcomes

- 4.1 Organisational and institutional capabilities are strengthened at relevant levels in Member Countries and MRC for the adoption and implementation of the IWRM-based Basin Development Strategy, related sector strategies and guidance, and the overall management of the basin's water and related resources.
- 4.2 Sound leadership and strengthened management capacities for effective IWRM policy adoption and implementation in Member Countries and MRC.
- 4.3 Staff capabilities in Member Countries and the MRC for the adoption, integration and application of MRC Procedures and IWRM-related policies and strategies at national, trans-boundary and regional levels are improved.
- 4.4 Capacity for knowledge sharing on IWRM principles, MRC Procedures and MRC products is enhanced and relevant to groups involved in the utilisation and management of the basin's water and related resources in Member Countries.

Organisational Goal 5

Efficient organisational transition of the MRC for implementation of its core functions and full riparianisation of its Secretariat

Outcomes

- 5.1 The transition of the MRC to a decentralised modality of core functions is well prepared and effectively starts during the Strategic Plan period of 2011-2015.
- 5.2 Operational, transparent performance management system is in place.
- 5.3 The MRC Secretariat is staffed with qualified riparian professional staff.
- 5.4 Improved organisational management and reporting systems and functional mechanism for coordinated programme planning and management of the MRC are in place.
- 5.5 Member Countries, prioritised line agencies and designated stakeholders have sufficient capacity to carry out the selected core River Basin Management Functions within the agreed timeframe of the transition.

1.7 The MRC Performance Management System

The Mekong River Commission (MRC) has committed itself to being an efficient and effective organisation and needs to be able to demonstrate this to both its Member Countries and its Development Partners. It also needs to demonstrate that it is continually improving its performance.

It is important that the MRC is able to demonstrate and improve both the organisation's performance and the programmes' performance. It follows that it will be important that the individual programmes are able to demonstrate consistency with and contribution to the MRC's strategic plan objectives and its core functions.

The provision of readily available and reliable quantitative and qualitative data on performance builds mutual trust between the Secretariat, Member Countries and Development Partners. It provides a common understanding of the potential constraints and opportunities, and as such becomes a starting point for future joint action.

In establishing a performance management system the MRC is committing itself to a system which not only assesses evidence of results achieved, but also

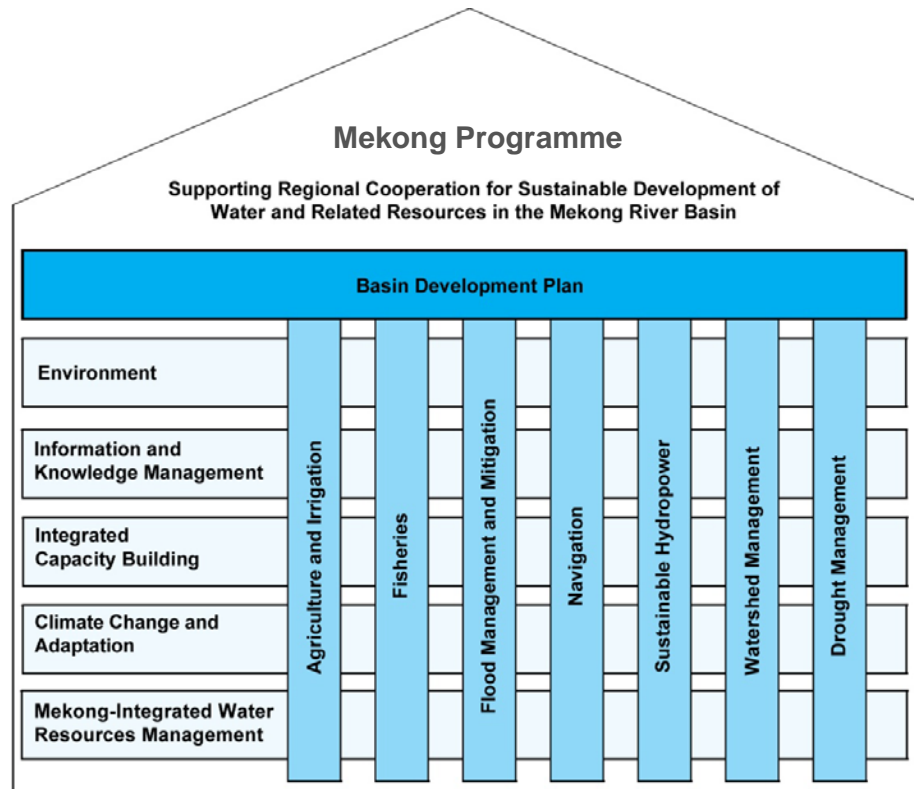
- reviews the programming context to demonstrate the continued relevance and priority of its work;
- considers the likely sustainability of what has been achieved;
- assesses the efficiency of management arrangements; and
- recognises the need for feedback systems on the lessons learned about what is actually working in order to adapt to changing contexts and promote ongoing improvement by promptly applying this information.

2 The MRC Integrated Programme

2.1 Programme Structure

The portfolio of programmes implemented by the MRC covers the sectors Flood Management and Mitigation, Drought Management, Agriculture and Irrigation, Watershed Management, Navigation, Initiative on Sustainable Hydropower, Fisheries and Tourism, and cross-cutting themes such as Basin Development Plan, Environment, Climate Change and Adaptation Initiative, Integrated Capacity Building, Information and Knowledge Management and Mekong IWRM.

Figure 5: MRC Programme Structure



2.2 Integration and Coordination of Programmes

Applying the principles of IWRM, the MRC Strategic Plan 2011-2015 calls for a stronger integration of the various programmes within the Secretariat. Such integration requires increased communication and collaboration among the programmes and occurs at several levels:

- *Basin-wide planning.* The most obvious level of integration and coordination occurs at the level of basin-wide planning, where the BDP uses acquired knowledge and services of the MRC programmes to build a basin-wide perspective of sustainable development options. Important elements for MRC are: developing a common understanding of development needs; crafting a planning framework and setting of procedures within which cumulative and trans-boundary aspects of individual projects can be assessed.

- *Cross-sector collaboration.* Coordination mechanisms are in place to ensure complementarities and synchronised delivery of contributions of MRC programmes to joint initiatives across sectors, for instance under the 'MRC climate change and adaptation' initiative or joint work relating to sustainable hydropower development. BDP and EP also share some common outputs and discussed how human and financial resources could be shared.
- *Information and knowledge management.* The MRC is a knowledge based organisation, it undertakes important, and often applied research on many subjects of direct relevance to water resources and their development. Much of this research is interdisciplinary by its nature, requiring collaboration across sectors and integration at the Secretariat level, resulting in a joint research agenda and publication pipeline.

To improve the coordination between the MRC Secretariat programmes and Member Country agencies and prepare for decentralisation, the MRC will work to further enhance coordination within the MRC Secretariat among its various programmes and between the MRC Secretariat and Member Country agencies to achieve the identified goals for Strategy Plan 2011-2015. Building on the recommendations already implemented from the MRC Independent Organisational Review, MRC will strengthen coordination and communication arrangements across programmes to ensure consistency in programme governance.

The Technical Coordination Unit (TCU) will work with MRC programmes and Development Partners for greater harmonisation of future programme formulation processes in line with the principles of improved coordination, strengthened integration and aid alignment. The new Strategic Plan for 2011-2015 is more integrated and all programmes are being aligned with the Plan.

Regular programme coordination and management meetings, currently convened by TCU under the Office of the CEO, will be an important mechanism for the MRC programmes to discuss joint activities and any obstacles in delivering the agreed services, and to find solutions.

2.3 Programme Costs and Funding

The Work Programme for 2011 provides a table on MRC programmes costs and funding. The presentation covers the total budget, funding needs and funded agreement or funding pledged for each programme and their components. Therefore, activities which are currently being developed, such as the Drought Management Project does not yet indicate funded/pledged amounts⁴.

The multi-year total budget for MRC Programmes amounts to US\$ 154.54 million. The total funding, either signed or committed stands at US\$ 76.23 million in addition to US\$ 40.09 million associated technical cooperation (GIZ, KfW). The total funding needs thus are US\$ 75.67 million.

⁴ The Drought Management Project is the subject of a scoping phase under IKMP. Activities related to tourism are being integrated into a range of MRC Programmes, EP, BDP, NAP.

Table 1: MRC Programmes, Programme Costs and Funding - Multi-Year

Programmes	Programme Duration	Total Budget	Funds Committed	Funding Needs	Associated Development Project Funding
Agriculture and Irrigation Programme (AIP)	Five Years (2011-2015)	4.95	1.5	3.45	
	1) Integration of knowledge and information on agriculture	2.2	0	2.2	
	2) Integration of the MRC Strategic process	1.82	1.4	0.42	
	3) Demonstration of the effectiveness of trans-boundary cooperation	0.58	0	0.58	
	4) Capacity developed	0.35	0.1	0.25	
Basin Development Plan (BDP)	Five Years (2011-2015)	14.5	1.8	12.7	
	1) Report on and update the IWRM-based Basin Development Strategy	5.8	0.72	5.08	
	2) Agreement on basin environmental and social objectives	2.2	0.27	1.93	
	3) Development of appropriate institutional arrangements	3.6	0.45	3.15	
	4) Capacity to implement the IWRM-based Basin Development Strategy	2.9	0.36	2.54	
Drought Management Programme (DMP)	Three Years (2011-2013)*	3.8	0	3.8	
	1) Monitoring and Forecasting	1.6	0	1.6	
	2) Impact Assessment	0.6	0	0.6	
	3) Selected pilot areas for technical tests	0.5	0	0.5	
	4) National guidelines on mitigation measure	0.4	0	0.4	
Environment Programme (EP)	Five Years (2011-2015)	11	4.4	6.6	
	1) Environmental and Social Monitoring and Assessment	3.2	1.0	2.2	
	2) Environmental management mechanisms and tools	2.1	1.3	0.9	
	3) Timely response to emerging environmental issues	2.7	0.9	1.8	
	4) Capacity building and environmental awareness	2.8	1.1	1.7	
Fisheries Programme (FP)	Five Years (2011-2015)	12.5	4.5	8.0	
	1) Science-based understanding of the situation of fisheries	2.8	1.0	1.8	
	2) Riparian planning agencies monitor the status and trends in fisheries	4.8	1.7	3.1	
	3) High level of reg. and nat. dialogue within a basin-wide IWRM framework	2.4	0.8	1.6	
	4) Capacity for improving fisheries management	2.3	0.8	1.5	
Flood Management and Mitigation Programme (FMMP)	Five Years (2011-2015)	15	3.21	11.79	1.5
	1) Basin planning and Strategy incorporating IWRM principles	5.33	0.74	4.59	
	2) Basin-wide flood forecasting, impact assessment,	3.92	1.00	2.92	
	3) Efficient dialogue and coordination	2.15	0.41	1.74	
	4) Awareness raised, capacities and skills developed	2.77	0.83	1.94	
Integrated Capacity Building Programme (ICBP)	Three Years (2011-2013)	9.6	5.4	4.2	
	1) Technical competencies to integrate IWRM principles	4.4	2.6	1.8	
	2) Organisational development	3.4	1.4	2.0	
	3) Gender mainstreaming in all IWRM works	0.8	0.5	0.3	
	4) Effective integrated and sustainable capacity building mechanism	1	0.9	0.1	
Information and Knowledge Management Programme (IKMP)	Five Years (2011-2015)	15.4	10.1	5.3	
	1) River Monitoring Network	4.3	2.2	2.1	
	2) MRC Toolbox	4.9	3.9	1	
	3) MRC-IS	2.9	1.5	1.3	
	4) Tools and Modelling services provision	1.6	1.6	0	
Navigation Programme (NAP)	Four Years (2009-2012)	20.4	13.2	7.2	
	1) Socio-economic Analysis & Transport Planning	3.2	2.2	1	
	2) Legal Framework for Cross-Border Navigation	2.1	1.2	0.9	
	3) Traffic Safety and Environmental Sustainability	6.6	5.4	1.2	
	4) Information, Promotion and Coordination	2.7	1.3	1.4	
Climate Change and Adaptation Initiative (CCAI)	Five Years (2011-2015)	15.94	8.94	7.00	1.3
	1) Adaptation Planning and Implementation	8.0	3.24	1.96	
	2) Improved Capacity to Manage and Adapt	2.6	1.9	0.7	
	3) Strategies and Plans for Adaptation	2.5	1.7	0.8	
	4) Regional Exchange, Collaboration and Learning	2.8	2.1	0.7	
Initiative on Sustainable Hydropower (ISH)	Five Years (2011-2015)	12.5	7.4	5.1	0.78
	1) Awareness raising and dialogue and communication	3.26	2.96	0.3	
	2) Knowledge base support and capacity building	1.55	1.31	0.24	
	3) Regional planning support	4.35	1.53	2.82	
	4) Sustainability assessment and financing	3.35	1.61	1.74	
Mekong IWRM Project (M-IWRM P)	Eight Years (2009-2016)	13.1	13.1	0	25.98
	Regional Component	10.5	10.5	0	
	Trans-boundary Component	2.6	2.6	0	
Watershed Management Project (WSMP)	Seven Years (2009-2015)	0.95	0.95	0	10.53
	MRC-GTZ Watershed Management Project (2009-2011)	0.3	0.3	0	
	MRC-KfW Watershed Management Project(2009-2015)	0.65	0.65	0	
Performance Management System (PMS) - Five Years (2011-2015)		1.9	0.2	1.77	
Water Management Trust Fund (WMTF) - Three Years (2011-2013)		3	1.4	1.6	
TOTAL		154.54	76.23	75.67	40.09

3. The MRC Programmes

This section provides a brief account of each programme on the progress of their activities in 2010 and the planned activities for 2011. A comprehensive progress report for each programme can be found in periodic progress reports of the individual programme. Gantt charts are presented in this section to provide an overview on the main achieved outputs for 2010 and major planned activities and outputs for 2011.

The planned activities reported under this section can be found in more detail in the individual work plan for 2011 available for each programme.

This section provides the following information for each programme.

1. Programme Overview

- Purpose: information on the development opportunities and challenges addressed by the programme; and reflected through its Development Objective.
- Approach: information on how the programme contributes to the implementation of an IWRM approach in the Mekong Basin, within its Immediate Objective.
- Strategy: information on the overall strategy of the programme.
- Structure: description of the components of the programme.
- Implementation arrangements: brief description of international partners, and main national partners network.
- Main outputs: main outputs expected from the programme.
- List of projects: active projects and projects in preparation under the programme.

2. Progress for 2010

- Funding status graph, providing the reader with funding and expenditures information for 2010 and an inclusion of the planned expenditure for 2011⁵;
- Planned outputs and achieved outputs for 2010;
- Significant problems encountered and corrective actions taken;
- Development Partner review or appraisals carried out in 2010;
- Relevant JC and Council decisions taken in 2010.

⁵ The Financial data included in these graphs present the best estimate on programme implementation at the time of the preparation of the Work Programme. Expenditure data will change as implementation progresses and are recorded in MRC Programme Progress Report.

3. Workplan for 2011

- Planned outputs and activities for 2011: including the prerequisites and risks for output achievement; and the projects in preparation.
- Planned Development Partner reviews or appraisals in 2011.
- Gantt Charts, presenting by programmes achieved output for the year 2010 and planned output for 2011.

3.1. Agriculture and Irrigation Programme (AIP)

3.1.1. Programme Overview

Balanced and efficient land and water use is essential to long-term food security in the LMB. Agriculture is the most important sector that relies on the water resources of the Basin. The Agricultural sector provides employment for about 60% of the LMB population and its efficiency is a key to poverty reduction. To sustain the high population growth in the LMB (ranging from 0.7 % in Thailand to 1.7 % in Cambodia) and to contribute to poverty reduction and economic growth, production-oriented land-use in its various forms will be - and has to be - extended in terms of area used, while intensity needs to be increased and productivity enhanced.

Irrigated agriculture is the main user of water in the LMB and is thus of considerable relevance to its hydrology. During the wet season, water availability is far in excess of demand, but dry season water shortages are common, particularly in the Mun-Chi basin in Thailand and in the Delta. There is still potential for the expansion of irrigation in the LMB, but more investment is also needed to improve existing irrigation systems and management capacities in order to increase irrigation efficiency and water productivity. The intrusion of seawater into the Delta is becoming an increasing issue of concern, reducing the potential for irrigated rice production. It also affects shallow wells for domestic use.

The objective of the current AIP is to facilitate collaborative applied research and translate them into methods for improving the use and sharing of water resources in agriculture, particularly for irrigation. It covers both paddy and upland agriculture and takes a broad view of factors that influence water use efficiency. It includes aspects such as water user group systems, water delivery systems, alternative crops and cropping patterns as well as efficient fertiliser and other chemical input use. It includes some modelling to show the multi-functionality of paddy fields, contribution to runoff control, erosion control, infiltration, etc.

A draft Agricultural Strategy for the MRC was prepared in 2009 to identify the added value of the MRC's role in the sector. On the basis of the draft strategy prepared, a concept of AIP 2011-15 has been developed. The formulation of the Programme document for 2011-15 takes into account the recent MRC achievements in IWRM-based basin development planning to contribute to the goals of the MRC Strategic Plan 2011-2015. The objective of Agriculture and Irrigation Programme 2011-15 (AIP 2011-15) may focus on an adoption of an IWRM-based agricultural water management and planning in the institutional and policy framework of the member countries.

Approach

AIP 2011-15 should fully align with the MRC Strategy Plan 2011-15. The approach will focus on the support and contribution of the Programme to implement the MRC Core Functions particularly the Core River Basin Management Functions. The MRC's basin development planning cycle recently adopted by Member Countries includes rolling steps of Scenario analysis, IWRM-based Basin Development Strategy and Project Portfolio. AIP should contribute to each of this process through the implementation of River Management Core Functions such as data acquisition, monitoring, analysis and planning support in terms of agricultural water

use, management and development, together with analytical works on common issues, challenges and policy needs of the Member Countries.

Strategy

A draft Agriculture Strategy for the MRC identifies four key elements as the role of the MRC in the sector, namely;

- (i) Agricultural knowledge base: development of stronger capacity and institutional memory in sector related information and knowledge within MRC itself;
- (ii) Planning support: linking basin wide water resource planning to national agricultural sector management and planning: establish a functional process that links MRC strategic planning to national planners, ensuring a strong two-way communication and action;
- (iii) Support to agricultural management and development: support to (pilot) projects that have potential for learning on cumulative and trans-boundary issues in resource management and development, or pilot replicable development solutions; and
- (iv) Capacity development and building: supporting above elements.

In line with these elements, and to align with the MRC Strategy Plan 2011-15, AIP works with closer coordination and cooperation with other relevant MRC Programmes and relevant line agencies in Member Countries.

Structure

AIP 2011-15 may have four outcomes to achieve its overall objective.

Outcome 1: Effective integration of knowledge and information on the current status and trends of the agricultural sector and related basin-wide issues into MRC and Member Country planning systems

To achieve this outcome, AIP may conduct various activities related to the agricultural resource use in the Basin such as monitoring, periodical update of data and information, assessment and analytical work. The activities may also cover the issues and challenges which agriculture sector is facing in the Basin, such as climate change, food security, water use efficiency, etc.

Outcome 2: Integration of the outputs from MRC strategic planning processes and principles of IWRM into national agricultural planning and development processes

Along with the basin development planning process, AIP may conduct a sector review, develop IWRM guideline and basin strategy for agricultural water management and development, and technical assistance to the project portfolio and project formulation in Member Countries.

Outcome 3: Demonstration of the effectiveness of trans-boundary cooperation in addressing management issues in the agriculture sector

AIP may provide technical and institutional support to the trans-boundary agricultural water management and project.

Outcome 4: Capacity developed among Member Country agencies and staff for integrating IWRM considerations into agricultural planning and management

AIP may take collaborative learning approach with NMCs and relevant line agencies. Participating in activities above, particularly activities for the outcome 3, concerned staffs in line agencies could build their capacity to incorporate IWRM considerations into their national process. AIP may also conduct workshop/seminar for the critical issues and topics for agricultural water management.

Implementation Arrangements

The programme may seek to develop strong links with both national counterparts and other MRC Programmes.

Main Outputs

AIP2011-15 may produce following outputs.:

1. Geo- graphical data and information related to the agricultural resource use developed.
2. Studies related to the issues and challenges conducted, e.g. contribution of the sector to food security and poverty reduction, climate change impact on agricultural production, crop diversification, water use efficiency, strengthening water use groups, etc.
3. Basin-wide datasets of agricultural water use updated and sector review conducted as an input to the basin-wide scenario analysis as well as national sector planning.
4. IWRM-based basin strategy for agricultural water management and development established.
5. IWRM-based guideline and tools for agricultural water management and development developed.
6. Dialog with Development Partners and stakeholders facilitated.
7. Technical and institutional support to the trans-boundary agricultural water management and development provided.
8. Trainings to facilitate the adoption of IWRM approaches into national planning process conducted.

List of agreements

(US\$ 1,000)

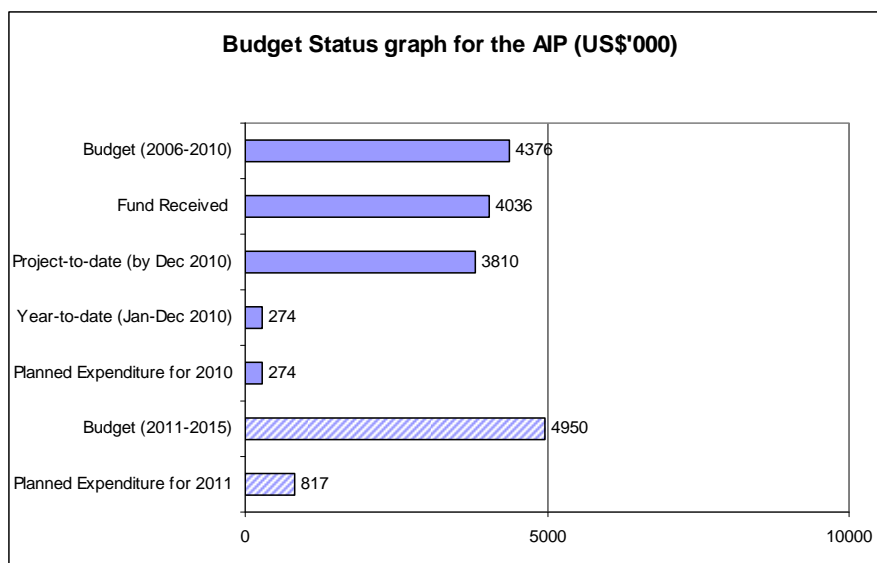
	Start date	End date	Budget	Balance 2010 (*)	Donors
Agreements					
<i>Japan contribution to Demonstrate the Multi-Functionality of Paddy Fields</i>	<i>Feb/03</i>	<i>June/10</i>	<i>1,227</i>	<i>0</i>	<i>Japan</i>
<i>Japan contribution to Improvement of Irrigation Efficiency on Paddy Fields</i>	<i>15/06/05</i>	<i>June/10</i>	<i>1,010</i>	<i>0</i>	<i>Japan</i>
Japan Contribution to Sustainable and Efficient Water Use in the LMB	Jul/08	Jun/11	896	226	Japan
Challenge Program on Water and Food	Jan/03	Dec/08	901	0	CGIAR-IWMI
Projects in preparation					
Formulation of a new AIFP	N/A	N/A	340	N/A	
IWRM-based Agricultural Water Management	N/A	N/A	1,500	N/A	

(*) Balance as per end Dec 2010

Note: Completed Agreements indicated in red Italics.

3.1.2. Progress of AIP for 2010

The following graph provides an overview of the budget status of the Programme for the year 2010 which includes budget for the Programme period, total funds received and expenses on the Project-to-date and Year-to-date.



Planned and Achieved Outputs for 2010

- AIFP 2.1.3 Based on results of the DMPF activities, an MRC Technical Report on the “Multi-functionality of Paddy Fields over the LMB” was published in February 2010.
- AIFP 2.2.4 “Guidance for Efficient Irrigation Water Use in the LMB” was published in February 2010.
- AIFP 2.4.3 Field survey at each pilot site on operation and maintenance of the facilities, irrigation water management practice, drought management practice, socio-economic condition and other factors was conducted by relevant line agencies. Based on the observation results, water use efficiency (WUE) was assessed.
- AIFP 2.4.4 In order to optimise irrigation water use at the pilot site, an improvement plan for WUE was developed.
- AIFP 2.4.5 To analyse the socio-economic impacts of hydrological changes in the LMB, irrigation development and other factors, modelling options which includes the combination of DSF and socio-economic analysis model was examined. In accordance with Member Countries’ policy needs, various scenarios were prepared.
- AIFP 2.5. In order to formulate AIP 2011-15, a concept paper was prepared and discussed with NMCs and relevant line agencies.

Significant Problems Encountered, Corrective Action Taken

No significant problems reported for the on-going projects. However, funding support to the new activities in 2011-15 is currently under discussion.

Development Partner reviews or appraisals planned in 2010

A regular donor review through an annual consultation meeting with the Ministry of Agriculture Forestry and Fisheries (MAFF) of Japan was conducted in February 2010.

3.1.3. AIP Workplan for 2011

The following activities relate to completion of the ongoing programme due to be completed by June 2011.

AIP 2.4.3, 5 Based on the results of field survey, water use assessment and development of WUE improvement plan at pilot site, designated line agencies will finalise the Country Reports.

AIP 2.4.5 Socio-economic impacts assessment of hydrological changes, irrigation development and other factors in the LMB will be completed.

AIP 2.4.6 Taking into account the outputs from pilot site activities and basin-wide impacts assessment, future direction of the irrigation development in the LMB will be developed, and discussed with Member Countries. AIP will make final report which contains all the outputs of SEWU Project.

Formulation of AIP Programme Document 2011-2015 and identifying priority activities are underway.

AIP 1.1.1 AIP Programme 2011-15 will be formulated based on the strategy review of the MRC's role in agriculture, taking into account the recent MRC achievements in IWRM-based basin development planning as well as the goals of MRC Strategy Plan 2011-15.

AIP 1.2.1 A major focus of AIP 2011-2015 will be undertaken to integrate IWRM planning considerations into MRCS agriculture activities and assist member Countries in implementing their plans for agriculture development and integration on expansion in synergy with the recently approved MRC IWRM-based Basin Development Strategy.

Development Partner Reviews or Appraisals Planned in 2011

A regular donor review through an annual consultation meeting with the Ministry of Agriculture Forestry and Fisheries (MAFF) of Japan is planned

3.2. Basin Development Plan Programme 2011-2015⁶

3.2.1. Programme Overview

Purpose

The Mekong region is undergoing great social, economic and environmental change. Demands for food, water supply and energy will increase as a result of economic growth, industrialization, urbanization and the global market. National policies will be the driving force for the Mekong Basin's water and related resources development.

The MRC has a coordinating and supporting role for Member Countries to achieve their shared goal for sustainable and equitable development of the Basin's water and related resources. This means basin planning must provide basin perspectives on how water and related resources would achieve a balance between water resources development and protection and between national development interests and the basin's sustainability. The BDP Programme works to provide these basin perspectives and support and promote their integration into national water-related policies and plans. As such, the Programme contributes to the long-term goal of the MRC "Member Countries manage the Mekong water and related resources in an effective, equitable and sustainable manner".

The MRC Strategic Plan 2011-2015 sets an overall goal that "Member Countries implement basin-wide IWRM approaches in national water and related frameworks and development programmes". The BDP Programme responds directly to this Goal with its objective for the period 2011-2015 for "Planning and decision making on Mekong water and related sector development in LMB countries apply the IWRM-based Basin Development Strategy through an institutionalized basin development planning process".

The Programme objective highlights its two inter-linked purposes of basin planning during 2011-2015 that are 1) to implement and update the IWRM-based Basin Development Strategy, demonstrating real impacts and benefits of BDP to Member Countries; and 2) to build necessary foundations to transition from a BDP Programme to a core planning support function of the MRC with basin planning process fully embedded in the national planning systems. The latter is critical in the context of the BDP process getting matured after its ten years of implementation and the MRC moving towards core functions implementation and self financing by 2030.

Approach

The basin development planning cycle, adopted by Member Countries is a 7-stage rolling process that prepares and implements a regularly updated Basin Development Plan. The Plan comprises:

- Basin-wide Development Scenarios, which provide the information that Governments and other stakeholders need to develop a common understanding of the most acceptable balance between resource development and resource protection in the

⁶ Some details of the Programme may change as it is finalized by March 2011.

various parts of the LMB. The results will guide the formulation of the IWRM-based Basin Strategy.

- An IWRM-based Basin Development Strategy, which provides a shared vision and strategy of how the water and related resources in the LMB could be developed in a sustainable manner for economic growth and poverty reduction, and a coherent and consistent IWRM planning framework that brings basin perspectives into the national planning process. The results will guide the formulation of the Project Portfolio.
- A Project Portfolio of significant water resources development projects and programmes that require transboundary cooperation and improve the development and management of the basin's water and related resources, as envisioned in the 1995 Agreement.

The process provides the necessary interplay between national and basin planning. It brings together water and related needs and issues at the sub-basin and national levels in an integrated assessment of cumulative impacts in basin-wide development scenarios. Each scenario represents different combinations of sector development, with a focus on water supply, irrigation, hydropower and flood protection as the main water resources development sectors as well as having greatest risk of transboundary environment and social impacts. The scenarios are assessed against a set of economic, environment and social criteria that Member Countries agree as providing a picture of how well water and related resources development contributes to the socio-economic development and environment protection objectives of each country as well as the basin's shared goals.

This provides a good basis for discussions and negotiations among the Member Countries of water resources development opportunities (water supply, irrigation, hydropower and flood control) as well as water-related development opportunities that would contribute significantly to improving livelihoods (fisheries, flood warning, watershed management, biodiversity conservation, safe river trade, climate change adaptation) or improve the management of water and related resources (basin resources monitoring systems, navigation systems, and policy, institutional and capacity development). It also identifies the risks associated with these opportunities and required actions to address them. The IWRM-based Basin Development Strategy reflects this shared understanding of Member Countries of the development opportunities and directs to strategic priorities and actions that guide national planning and the design of projects, as well as assists in identifying joint and basin-wide projects and programmes that are most important to realizing the benefits of cooperation between riparian countries.

An important part of implementing the Strategy will be the systems to track and monitor development opportunities, from the stage when an opportunity becomes an identified project and/or activity (and is included in the Project Master Database) to when it is endorsed by the relevant national regulatory processes and MRC Procedures. Compliant initiatives emerging from this process will then become part of the Project Portfolio. This offers an integrative platform for the MRC to engage in transboundary assessment and multi-stakeholder consultation to facilitate a broad and informed dialogue on sustainable water resources development and management.

Strategy

The Strategy of BDP Programme 2011-2015 (BDP 2011-2015) is to build on the established planning process to achieve its identified two-interlinked purposes: 1) to implement and update the IWRM-based Basin Development Strategy, demonstrating impacts and benefits of basin development planning; and 2) to build necessary institutions and capacity to institutionalize basin development planning in the national systems.

The Programme emphasises institutional and human capacity building, necessary for the implementation and update of the IWRM-based Basin Development Strategy in a way that 1) fits with policy and institutional context and responds best to the capacity building needs of each country while promoting joint learning and sharing of experience and lessons across countries; and 2) allows a gradual transfer of basin planning activities to the relevant national line agencies and NMCSs as part of their regular mandate.

It also highlights the need for planning to be updated by and responds most effectively to the rapidly changing context in the dynamic LMB, which also faces with many uncertainties, ranging from upstream development to high vulnerability to climate change. The implementation and regular reporting on the IWRM-based Basin Development Strategy combined with basin monitoring and State of Basin Report will provide a framework to capture basin trends and emerging issues as well as opportunities for cooperation among riparian countries. This will enable BDP's interaction with MRC sector programmes and their line agencies to address these issues and/or capitalize the opportunities in a particular sector within an integrated approach.

As such, BDP 2011-2015 works toward stronger integration with other MRC Programmes and activities within the overall framework of the MRC Strategic Plan 2011-2015.

BDP 2011-2015 also draws on its success to date in engaging a wide range of stakeholders in the planning process with focus on participation of communities and civil society organizations/NGOs in national level activities and processes.

Structure

BDP Programme 2011-2015 (BDP 2011-15) aims to achieve four outcomes, which form the structure of the Programme. In line with the two-pronged approach of the Programme, outcomes 1 and 3 are the main outcomes that guide the scope of the remaining outcomes (2 and 4) while the latter constitute the foundation for the achievement of the former.

Outcome 1: Improved integrated basin planning to reduce uncertainties and risks of developments, as a result of the implementation, report and update of the IWRM-based Basin Development Strategy by Member Countries and stakeholders.

The outcome is central in BDP 2011-2015. The expected approval of the IWRM-based Basin Development Strategy by the end 2010 or early 2011 will see the preparation of the Action Plans to implement the Strategy at regional level and in each Member Country. Under these Action Plans studies of strategic importance will be carried out, both by BDP 2011-2015 and other MRC Programmes, to provide inputs for the

implementation of Strategic Priorities for basin development and management and basin management. These Strategic Priorities will be incorporated and implemented in the national systems to timely address emerging challenges of the Basin.

Outcome 2: Socio-economic assessments to support basin development planning and the implementation of MRC Procedures strengthened based on agreed well-defined and realistic basin environmental and social objectives and indicators

This outcome will address the need for continually improving water related hydrological, environmental and ecological information and response relationships to increasing ‘stresses’ caused by development, which is obvious for MRC as a River Basin Organization. This, together with more comprehensive modelling and analytical systems, will allow the best possible decisions towards sustainable development. Continually improving these relationships and tools will lead to increases in trust and confidence between countries. The basin planning role is to clearly articulate what these needs are, and to agree on realistic timeframes for other Programmes and line agencies to provide data and information while leading basin-integrated assessments and maintenance of the socio-economic databases. By doing so, it will contribute to the implementation of other RBM functions and the integration between them.

Outcome 3: Appropriate institutional arrangements developed by Member Countries to implement the IWRM-based Basin Development Strategy, sustain the BDP process, and agree on a roadmap for the decentralization of selected core basin planning functions

The BDP process will be further strengthened with more ownership of countries and policy dialogue and negotiation among decision makers on transboundary water issues, and enable relevant national line agencies and RBOs to play a more permanent and “driving role” in basin development planning. In moving the MRC toward a more decentralized model of an international RBO, the modality of regional working groups will be tested in this phase of BDP, drawing on sector working groups facilitated by MRC Programmes.

At the same time, the process will allow more open and comprehensive stakeholder consultation and participation arrangements that will ensure the basin community a “voice” in how planning occurs and how benefits and impacts are assessed. The Stakeholder Analysis and Stakeholder Participation and Communication Plan will be updated, addressing the lessons learned in BDP2.

This Outcome will also prepare a roadmap for transitioning from the BDP Programme to core planning support function and full financing by Member Countries by 2030. The initial implementation of this roadmap over the next five years will require a considerable budget to assist with analysing and improving national systems and establishing appropriate standards and procedures.

Outcome 4: The necessary capacity to implement the IWRM-based Basin Development Strategy and to carry out the selected core basin planning functions within the agreed road map for decentralisation available with relevant national agencies, RBOs, NMCSs and stakeholders.

The outcome addresses the need to continually strengthen the IWRM capacities of the national water resources management, environment, planning and other concerned agencies and RBOs for the implementation and update of the Basin Development Strategy. At the same time, it will also build organizational and human resources capacity needed for the strengthening of the BDP process and the transition toward core planning function. This scope will guide focused training at regional level which will concentrate on key capabilities for transboundary negotiation and joint decision making while technical skills will largely be strengthened with learning by doing basis. At the national level, emphasis will be on the most important needs for the implementation of the Basin Development Strategy, to be in line with the National Implementation Plan of the Strategy, and existing varied capacity levels of institutional frameworks in Member Countries.

BDP 2011-2015 will work within the overall framework of MRC capacity development with coordination and support from ICBP and in integration with other MRC Programmes.

Implementation Arrangements

The Programme is executed by the MRC with its Secretariat providing facilitation, capacity building and overall coordination and monitoring and reporting. The implementation of activities will be the function of relevant national and local agencies in the Member Countries with a coordination role by the NMCSs.

National and Regional working groups will be the main institutional modality to carry out BDP activities, building on existing National BDP Working Groups, Regional Technical Working Groups (RTWG) and many regional sector technical bodies, established and facilitated by the MRC Programmes.

At the national level, the National Mekong Committee, chaired by the Minister who is also the MRC Council Member, will be the main advisory and decision making body for BDP. The NMC Secretariats will provide support to the NMC and be responsible for coordination of Mekong related activities among concerned national agencies and provincial governments.

At the regional level, a Regional BDP Working Group will be established, drawing on the existing RTWG and bringing key members of the National BDP Working Groups and various regional sector technical bodies together.

Main Outputs⁷

BDP 2011-2015 will produce 22 outputs that collectively would achieve the four outcomes and Programme objective. The main outputs are the following:

1. Regional and national Action Plans to implement the IWRM based Basin Development Strategy prepared, endorsed by the MRC JC for application in national system, sub-basin and in MRC programmes.

⁷ Subject to modification during final formulation

2. Sub-basin IWRM Cooperation Framework prepared for critical sub-basins and implemented
3. The implementation of the Basin Development Strategy adequately monitored, evaluated and reported at national and regional level
4. The IWRM-based Basin Development Strategy reviewed, updated and adopted by the MRC Council by 2015
5. A rolling program for sector data needs, collection, trend analysis, strategic assessments and associated models/tools developed and agreed for implementation by MRC Programmes and concerned national agencies
6. Basin wide socio-economic database enhanced, regularly updated and disseminated for use by countries and in all MRC activities
7. Procedures for Maintenance of Flows on the Mainstream effectively implemented, regularly reported on and Technical Guidelines updated
8. BDP Working Groups established and work effectively
9. Networks of RBOs in MRB established and operating
10. A Roadmap for transitioning toward core planning function prepared and approved as part of MRC Transition Roadmap.
11. A comprehensive 5 year programme for IWRM capacity development at regional level and for each Member Country prepared and implemented in collaboration with ICBP

List of agreements

(US\$ 1,000)

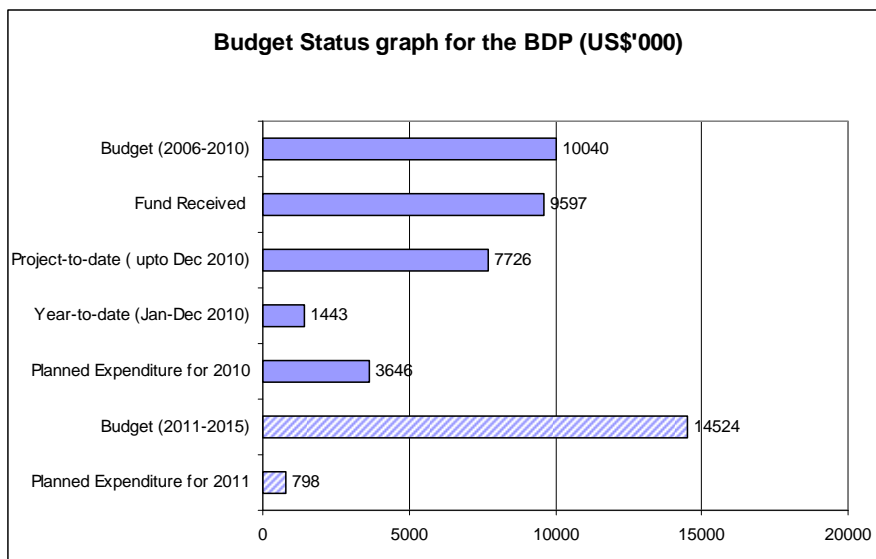
	Start date	End date	Budget	Balance 2010 ^(*)	Donor(s)
Agreements					
Danish contribution to the Basin Development Plan (2006-2010)	12/2006	04/2011	7,720	1,525	Denmark
Swedish contribution to the Basin Development Plan Phase 2	01/2007	12/2009	1,000	0	Sweden
Australian contribution to the Basin Development Plan Phase 2 (2006-2010)	02/2008	12/2009	450	0	Australia
Japan contribution to Basin Planning	06/2006	05/2008	In kind from Japan Water Agency - JWA dispatched an expert	-	Japan

(*) Balance as of end December 2010

3.2.2. Progress of BDP Programme in 2010

By the end of 2010, BDP2 (2006-2010) has achieved most of its planned outputs and outcomes, the most important outcome being the production of the first Basin Development Plan including: 1) the assessment of basin-wide development scenarios with its final report widely disseminated and discussed; 2) the approved IWRM-based Basin Development Strategy and 3) the concept of Project Portfolio.

The following graph provides an overview of the budget status of the BDP Programme. It shows the budget, funds available and expenditures to date of BDP2 (2006-2010). The required budget for BDP 2011-2015 is estimated at USD 14.5 million with USD 1.8 million being available including those carried forward from BDP2.



Planned and Achieved Outputs of BDP2 by the end of 2010⁸

Outcome 1: Riparian states produce and adopt an IWRM-based Basin Development Plan (including scenarios, basin development strategy and projects) for sustainable development and mutual benefits in the MRB. The Plan identifies “controversial projects”.

- Sub-area profiles were prepared for priority sub-areas and inputs used in the assessment of basin-wide development scenarios. The draft and final results of the scenario assessment and its reports have been discussed widely throughout the process. Nevertheless, the development of sub-area scenarios and IWRM strategies was not feasible during the tight timeframe and resources of BDP2, but essential data and information for the assessment of basin-wide development scenarios were collected from all sub-areas.
- Sekong, Sesan and Srepok (3Ss basin) Transboundary forum to discuss implications of development and IWRM framework for the 3Ss basin
- A participatory process has been undertaken to discuss (and build national capacity at the same time) the interim and final results of the environmental, social and economic assessment of the basin-wide development scenarios. Interim and draft final reports of scenario assessment have been widely disseminated including at the 3rd Regional Stakeholder Forum on BDP. Government officials of the four LMB countries have used the results to develop a common understanding of each other’s plans for water resources

⁸ The BDP2 structure around components has been updated to be outcome-based in line with the new Performance Management System of MRC thus outcomes may be slightly different compared to the 2010 Work Programme. Output numbers have been taken out to avoid confusion with the new numbers of BDP 2011-2015

development, drawing initial conclusions together on likely transboundary impacts, addressing each other's concerns, developing a shared understanding of the opportunities and risks of water resources development and agreeing to a number of Strategic Priorities and actions to guide future decisions on basin development and management. Intermediary and final results informed the process of developing the first basin development strategy.

- The consecutive drafts of the IWRM-based Basin Development Strategy have been widely discussed with stakeholder groups at the sub-basin, national and basin level. The final draft strategy will be presented to the MRC Council for adoption in January 2011.
- The Project Master Database has been developed with key sectors data. It will be populated at the basin (MRCS) and national levels (within the national water resource management agency).
- Concept for the Project Portfolio has been discussed and work is going on to prepare an initial portfolio. Promotion of the projects, particularly those that are required to implement the IWRM-based Basin Development Strategy will be initiated in 2011.
- The Independent Panel of Experts (POE) has completed their three missions to review the BDP process and products. Many recommendations, especially from the International POE, have been addressed in the following drafts of the IWRM-based Basin Development Strategy and the design of BDP Programme 2011-2015.
- The recommendations in the "Stakeholder Analysis for the MRC Basin Development Plan Programme Phase 2" have been used to enhance the implementation of the BDP Stakeholder Participation and Communication Plan (SPCP) in BDP planning activities at the basin and sub-area levels. BDP2 has seen successful engagement of a wide range of stakeholders at sub-basin, national and regional levels in the discussion of the basin-wide development scenarios and the IWRM-based Basin Development Strategy. Their comments and inputs have been addressed in the final products of BDP2

Outcome 2: Key national agencies and MRCS collectively develop, apply and regularly update the MRC knowledge-base and assessment tools for use in BDP planning process at all levels.

- The existing irrigation database has been updated and a comprehensive hydropower database built for the formulation and assessment of basin-wide development scenarios as well as for monitoring water resources development in the Mekong Basin.
- The planning atlas is almost completed and will be published in early 2011.
- The 2010 State-of-Basin Report was published with lead coordination by the Environment Programme.

- The IWRM-based assessment framework for the basin development planning process has been integrated in the monitoring, assessment and toolbox of the MRC.
- Methodologies used in the scenario assessment, especially for environmental and socio-economic assessments will be institutionalized in the next update of scenario assessment as part of the overall MRC toolbox.

Outcome 3: Key national agencies apply increased IWRM capacities to implement the BDP and to sustain the BDP planning process

- BDP planning guides for sub-area analysis are finalized and applied. Approaches and methodologies for basin-wide scenario formulation and assessment are published.
- A comprehensive IWRM Training Manual for Mekong Region has been developed and 20 Master Trainers from LMB countries trained. The Manual is being used in follow up training courses in sub-basins, conducted by the Master Trainers.
- A regional training workshop on negotiation skills has been implemented for representatives of key national line agencies with responsibilities for consensus building during the final stages of the preparation of the IWRM-based Development Strategy and for its future implementation.

Significant Problems Encountered and Corrective Actions Taken

The scenario assessment faced with some limitations of data and information, both at national and regional levels. While proactive engagement with NMCSs and National Statistical Offices in Member Countries resulted in a better understanding of the socio-economic situation, the data and information gaps on social and some other issues remain substantial and need to be addressed in the next planning cycle.

The discussions of scenario assessment results and the IWRM-based Basin Development Strategy was complex given the differing positions and conflicting interests of the various sectors and agencies, and the differing understandings of MRC's mandate, in particular by the international community and civil society organizations/NGOs. Building ownership and leadership of Member Countries has been key in arriving at a shared understanding on basin development and management as agreed in the IWRM-based Basin Development Strategy. Nevertheless, more work is needed to strengthen the dialogue between Governments, CSO/NGOs to improve mutual understanding.

Coordination with and inputs from MRC Programmes for basin development planning have improved significantly during BDP2. The Fisheries Programme has taken the lead in carrying out fishery sector analysis and the IKMP modeling team has made a major contribution to the hydrological assessment of the scenarios. These inputs should become permanent parts of the work of these and other programmes. The move towards core river basin management functions provides the opportunity to institutionalize these inter-dependence and linkages between MRC programmes/activities and BDP and move towards a corporate BDP.

Development Partner Reviews or Appraisals in 2010

The 2nd Joint Donor Review of BDP2 was undertaken in January 2010

The Panel of Experts (POE) quality assured BDP key products in a process with three missions in 2010: the 1st mission of the Regional POE in May, the 1st joint mission of the International and Regional POE in June, and final joint mission in September-October 2010.

Relevant JC and Council Decisions taken in 2010

The Joint Committee endorsed the revised schedule to finalize the IWRM-based Basin Development Strategy at the Special Session on 27 October 2010.

3.2.3. BDP Programme Workplan for 2011

The following outputs/milestones of BDP Programmes are planned for 2011:

Outcome 1: Improved integrated basin planning to reduce uncertainties and risks of developments, as a result of the implementation, report and update of the IWRM-based Basin Development Strategy by Member Countries and stakeholders.

BDP 1.1 The Basin Action Plan to implement the IWRM-based Basin Development Strategy prepared through a participatory process and approved at national and regional levels for implementation.

BDP 1.6 Monitoring, Evaluation and Reporting mechanisms of the IWRM-based Basin Development Strategy prepared that also feeds into the MRC State-of-Basin monitoring and MPCC monitoring and reporting.

Outcome 2: Socio-economic assessments to support basin development planning and the implementation of MRC Procedures strengthened based on agreed well-defined and realistic basin environmental and social objectives and indicators.

BDP 2.1 The needs for sector data and information and necessary analysis/assessments identified, discussed with MRC Programmes and concerned national agencies and incorporated in the respective MRC Programmes' workplans.

Outcome 3: Appropriate institutional arrangements developed by Member Countries to implement the IWRM-based Basin Development Strategy, sustain the BDP process, and agree on a roadmap for the decentralization of selected core basin planning functions.

BDP 3.1 PMFM effectively implemented, regularly reported on and Technical Guidelines updated.

BDP 3.2 Analysis of institutional arrangements and capacity development needs undertaken in each country to inform the preparation of The Basin Action Plan to implement the IWRM-based Basin Development Strategy (BDP 1.1) and the institutionalization of the BDP process.

BDP 3.3 The BDP Regional Working Group established.

Outcome 4: The necessary capacity to implement the IWRM-based Basin Development Strategy and to carry out the selected core basin planning functions within the agreed road map for decentralisation available with relevant national agencies, RBOs, NMCSs and stakeholders.

BDP 4.1 Target beneficiaries defined and capacity development needs updated (linked with BDP 3.2)

BDP 4.4 Inception report of BDP 2011-2015 prepared.

Development Partner Reviews or Appraisals Planned in 2011

An Inception Review by DANIDA is planned for mid 2011 to review how the “conditions” outlined in DANIDA desk appraisal of draft BDP 2011-2015 Programme document (October 2010) have been addressed to take the implementation of BDP 2011-2015 forward in close alignment with the implementation of the IWRM-based Basin Development Strategy.

3.3. Environment Programme (EP)

3.3.1. Programme Overview

Purpose

The productivity and quality of the living natural resources are vital to the livelihoods of the Basin's people. Environmental degradation induces lasting changes in the Basin resources, and represents a major threat for the Basin's people who rely on the river for their food and water. The Mekong River system faces several major environmental challenges over coming decades. Planned hydropower developments, expansion of irrigation and waterway transport together with the impacts of climate change will have major implications for the river environment and, in some cases, threaten the biodiversity of the Basin's aquatic systems and the livelihoods of the people that depend on them.

The overall goal of the Environment Programme 2011-2015 is the MRC Strategic Plan Goal: "Member Countries implement basin-wide IWRM approaches in national water and related sector frameworks and development programmes for sustainable and equitable development". The Environment Programme responds to this Goal by providing environmental and social data and knowledge and efficient environmental cooperation mechanisms as necessary supporting instruments for the application of basin-wide IWRM approaches at national and regional level.

Approach

The Lower Mekong Basin is in a fortunate position compared with similar river basins. Both the water quality and the environmental conditions are relatively good and the current development of the Mekong River is still very limited compared to most other large international rivers. With generally low levels of industrial activity in the Basin at present, the two immediate concerns regarding water quality are diffuse pollution due to poor catchment land management, and the potential for water quality emergencies arising from spillages or shipping accidents. Also in the Mekong Delta nutrient levels in the water are high and rising due to intensive agriculture and aquaculture and the wastewater produced by areas of high population density.

The objective of the programme is "Basin management and development in the Lower Mekong Basin is guided by up to date environmental and social knowledge and efficient environmental management cooperation mechanisms".

The 2011-2015 Environment Programme implementation will fully align with the MRC Strategic Plan (2011-2015). The approach will be a move towards support and contribution of the Programme to implement the MRC Core Functions especially the Core River Basin Management Functions. A shift of programme focus from data, information and particularly tools development to application, implementation and use of information and tools is stressed. A gradual transfer in responsibility from regional to national level will initiate some environment activities with a vision of long-term sustainability for implementation by the Member Countries. This will be supported by increased and enhanced capacity building and awareness raising. Lastly, integration across relevant MRC programmes will be enhanced by shared tangible outcomes and outputs.

Strategy

The Environment Programme 2011-2015 supports the implementation of the MRC Strategic Plan 2011-2015 and the embedded move towards implementation of long-term Core Functions, which is the key strategy for the Environment Programme 2011-2015. This implies a change of focus from development of new methodologies and tools to application of methodologies and implementation of tools. The Environment Programme strategy also includes networking and good environmental governance through public participation and dissemination. Networking among triangular partners; national institutions, MRC and regional organizations, will be enhanced.

The programme objective will be achieved by combining the use of monitoring information and cooperation mechanisms with capacity building and awareness raising while proactively considering appropriate responses to the rapid changes of the Mekong River Basin.

Structure

The Environment Programme has four outcomes which will collectively enable achievement of the objective.

Outcome 1: Operational environmental monitoring, assessment and reporting

Environmental and socioeconomic data and information are used to assess and report on the state and developments in the Basin and to support assessment and mitigation of potential impacts promoting sustainability of basin developments. The outcome will provide a comprehensive overall Basin status and development assessment through operational environmental monitoring systems in place; water quality, ecological health and social impact and vulnerability assessment. Regular environmental and social monitoring assessment and reporting by the Member Countries will support their participation in environmental cooperation. Basin-wide transboundary environmental impact assessment will be adequately supported.

Outcome 2: Implementation and use of environmental management mechanisms and tools

Decision making on basin developments is based on the use of agreed environmental management tools such as the Procedures for Water Quality, the Procedures for Notification, Prior Consultation and Agreement and the Transboundary Environmental Impact Assessment (TbEIA) Guidelines. Transboundary cooperation on environmental impact assessment will follow the TbEIA Framework and its Technical Guidance. Support to implement agreed MRC Procedures with regard to environmental mechanisms will be enhanced. These are the existing mechanisms supporting IWRM in a regional and national context and these may be supplemented by other guidelines or cooperation tools at later stages.

Outcome 3: Timely Response to emerging environmental issues

Timely response to emerging issues is enabled through research and outreach activities engaging national and regional stakeholders responding to the need for being proactive and adaptive in a changing world. Early warning of negative environmental trends will be identified and addressed. Environmental and social sustainability in climate change adaptation planning will be addressed through the Climate Change and Adaptation Initiative. Improving the knowledge of Mekong river ecological and social system dynamics and providing environmental outlooks will be supported.

Outcome 4: Capacity and awareness of environmental issues and cooperation

Improved capacity and awareness of environmental issues and cooperation is established including improved networking, appropriate institutional arrangements and efficient management for implementation of the Environment Programme supporting a longer-term sustainability strategy. It ensures the regional environmental knowledge is benefiting the Member Countries at all levels; from policy and decision makers to academia and university education level. Dissemination will increasingly focus on an access to environmental information by the Member Countries to targeted stakeholders. Partnerships and networks will coordinate efforts and development and sharing of knowledge.

There are close linkages between the four outcomes. The information and knowledge support the implementation of the environmental cooperation mechanisms and the capacity to respond to emerging issues provides a much needed proactive approach making sure the knowledge and cooperation is relevant and up to date. Capacity building, awareness raising and engagement of partners are prerequisite for efficient environmental cooperation and in turn provide feedback on needs and gaps that should be addressed.

Implementation Arrangements

The implementation strategy includes a triangle of partners (national level, MRC, other regional organizations). The role of the national line agencies is implementation of national level activities, the role of MRC is coordination, guidance, technical assistance, regional synthesis and capacity building and the regional organisations support knowledge production, development of new methodologies and tools and capacity building. As the MRC Member Country governments' capacity increases the role of the Environment Programme will shift to coordination, monitoring and reporting. The time frame for reaching this will be beyond the next five years, but the direction would be set and initial steps taken in support of building capacity and national ownership, and for longer term sustainability.

Main Outputs

The main outputs the Environment Programme seeks to deliver by 2015 reflect the programme structure:

1. Environmental and social data and information collected through monitoring programmes and other studies reported regularly and used for impact assessments of basin developments. The monitoring includes water quality, ecological health, wetlands and biodiversity and peoples livelihood assessed through social impact monitoring (Outcome 1).
2. Effective implementation of environmental cooperation mechanisms such as the Procedures for Water Quality, the Procedures for Notification, Prior Consultation and Agreement and the Transboundary Environmental Impact Assessment Guidelines. In addition the use of more general impact assessment tools such as SEA, CIA or EIA methodologies to support assessment of basin developments will be promoted. (Outcome 2).

3. Continuous improvement of the environmental and social knowledge base and development of specific measures enabling adaptation to climate change including considerations on environmental sustainability and effects on peoples' livelihoods. Provision of environmental outlooks to support adaptive environmental management increasing the capacity to respond to emerging issues. (Outcome 3).
4. Awareness raising and capacity building applying principles of regional integration making sure the regional knowledge is benefitting Member Countries not only at decision making and government level but also education at university level for longer-term impacts.
5. Dissemination targeting publications and information materials supporting decision making and stakeholder engagement including translation into riparian languages to improve the access to environmental information.
6. Development and implementation of strategy for longer term sustainability of the environment related activities including efficient implementation of the MRC Core River Basin Management functions, transfer of responsibility and activities to the Member Countries and increased engagement with wider networks and improved utilisation of partnerships.

List of agreements

(US\$ 1,000)

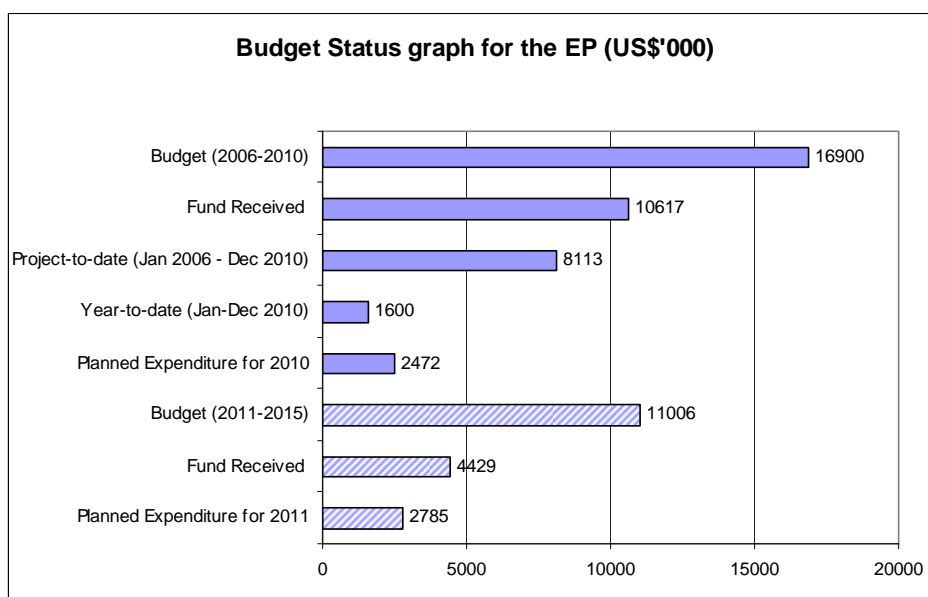
	Start date	End date	Budget	Balance 2010*	Donors
Agreements					
<i>Danish contribution to EP 2002-2006</i>	<i>01/10/04</i>	<i>31/03/07</i>	<i>56</i>	<i>0</i>	<i>Denmark</i>
<i>Dutch support to Mekong wetland biodiversity programme</i>	<i>01/10/04</i>	<i>31/03/07</i>	<i>592</i>	<i>0</i>	<i>Netherlands</i>
<i>Participation in the UNDP Mekong wetland biodiversity programme</i>	<i>19/07/05</i>	<i>31/03/07</i>	<i>81</i>	<i>0</i>	<i>UNDP</i>
<i>Swedish contribution to EP 2004-06</i>	<i>01/01/04</i>	<i>31/03/07</i>	<i>1,825</i>	<i>0</i>	<i>Sweden</i>
Swedish contribution to EP 2007-2010	01/01/07	30/6/11	401	401	Sweden
Swedish contribution to CC related activities of EP	1/12/09	30/6/11	534	534	Sweden
Danish contribution 2011-2015	1/1/11	31/12/15	1,900	1,900	Denmark
France contribution to EP 2009-2012	11/09/09	31/12/12	635	635	France
MRC Water Management Trust Fund for 2008-2010	01/08/08	31/12/10	46	46	Finland and France
Total value of current agreements	2006	2015	3,516	3,516	All

(*) Balance by the end of December 2010

Note: Completed Agreements indicated in red italics.

3.2.1 Progress of EP for 2010

The following graph (Figure 1) provides an overview of the budget status of the Environment Programme which includes the budget for the Programme period of 2006-2010, total funds received so far and expenses on the Project-to-date (January 2006 – December 2010) and Year-to-date (January - December 2010). The expected expenditure for 2011 is planned for US\$ 2,785,000. The Figure 2 shows the budget plan for 2011-2015.



Planned and Achieved Outputs for 2010

Component 1: Programme Management

EP 1.1.1, 1.1.2 EP in collaboration with CCAI arranged an Environment and Climate symposium during 26-27 April 2010 in Ho Chi Minh City. More than 200 people participated in the very successful event. EP has collaborated with all MRC programmes e.g. contributing to the BDP scenario assessment and the ISH lead SEA of planned mainstream dams, emergency response and management with the NAP, wetland mapping and data management with IKMP, strengthening of MRC procedures (Procedures for Water Quality with the MIWRMP, support to the CCAI implementation etc..

EP1.1.3 Cooperation with WWF and IUCN has been strengthened by planning and implementation of shared activities (e.g. wetland inventories, Ramsar Convention related activities supporting Lao PDR becoming signatory to the convention, climate change impacts on freshwater biodiversity, alternative livelihood opportunities for local communities around Dolphin pools). Fund raising for the EP activities for the new MRC Strategic Plan (2011-2015) was targeted at Denmark and Sweden who received early drafts of the EP document 2011-2015 to create interest in addition to promotion at the Informal Donor Meeting in June 2010.

EP1.2.1 Production of MRC Technical Reports, River Report Cards and Management Information Booklets have continued during 2010 leading to in total five publications contributing to communication of EP achievements and outcomes under the completion of the MRC Strategic Plan (2006-2010). EP contributed actively in the activities resulting in the development of the MRC Strategic Plan 2011-2015 and Environment Programme Document 2011-2015 was prepared and approved by the Joint Committee.

Component 2: Environmental monitoring

EP 2.1.4 The water quality monitoring continued following some revision of sampling sites and frequency. The number of sampling sites across the basin is now 48 stations and the sampling frequency at

least 6 times per year and not more than 12 times. QA/QC activities took place similar as previous years.

- EP 2.1.5 A national and regional reporting system was agreed in 2009 and implemented for the first time in 2010. National water quality monitoring reports were used to prepare the regional water quality report. The 2nd River Report Card was produced in 2010.
- EP 2.1.7 The Technical Guidelines for protection of Human Health, Aquatic Life, Water Quality Emergency Response and Management and the Cooperation Framework under the Procedures for Water Quality were finalised. Endorsement of the Procedures on Water Quality by the Member Countries was complemented.
- EP 2.2.4 A training sessions on ecological health monitoring was undertaken and a biomonitoring handbook was published in English and the four riparian languages to support biomonitoring activities in the future.
- EP 2.3.1 The social impact monitoring pilot study was finalized by publication of a regional report and 2nd River Report Cards briefly explaining the methods and results. Technical guidance was also prepared to support future implementation. A basin-wide baseline survey supplementing the pilot survey was initiated including climate change aspects. This can be used to support impact assessment of development projects and plans in the basin and support the vulnerability assessments of climate change.
- EP 2.4.2 The 2nd report card on ecological health was prepared in 2010 based on data collection in 2008.

Component 3: Environmental Decision Support

- EP 3.1.1 A revised version of the Transboundary EIA Framework for the Member Countries was developed in response to country comments and suggestions with a view to support national capacity, national legislation and becoming a practical decision support tool. The TbEIA Framework was submitted to the JC for approval in December 2010. The practical application will be promoted through Technical guidance and Institutional Support for implementation of the revised Transboundary EIA Framework.
- EP 3.3.5 MRC Guidelines for Environmental Considerations of Sustainable Hydropower Development (ECSHD) was drafted by developing the Basin-wide Rapid Sustainability Assessment Tool, which was widely tested at workshops and is going to be trialed for its usefulness at sub-basin level in Lao PDR and Cambodia.

Component 4: People and Aquatic Ecosystems

- EP 4.1.2 The Mekong wetland classification system was developed in collaboration with IKMP and FAO. The methodology will allow sharing of information between the four Member Countries without enforcing changes to the national systems.
- EP 4.1.3 Based on the classification system a wetland map was prepared in collaboration with IKMP. An updating of this map based on data from 2009 will be undertaken in 2011.

EP 4.3.6 Wetland inventory of key wetland sites was agreed to be undertaken in each Member Country covering approximately 10 important sites in each country. The methodology for the inventory was developed in collaboration with IUCN Lao, who supported the work in Lao PDR.

Component 5: Environmental Knowledge

EP 5.1.2 The State of the Basin Report was produced as a collaborative effort across MRC to provide up to date information about the Mekong river Basin and its resources to benefit the Member Countries and the general public. It was launched at the international conference in connection with the 1st MRC Summit in the beginning of April 2010. Summary of the State of the Basin report was produced in English and each of the four national languages.

Component 6: Environmental Flows Management

EP 6.1.3 Promotion of the Integrated Basin Flow Management predictive tool for basin development planning in collaboration with IUCN, IKMP and BDP.

Component 7: Support to Climate Change and Adaptation

EP 7.2 A basin-wide pilot on climate change impact and vulnerability assessment for wetlands and biodiversity was initiated. A basin-wide survey of social impacts and vulnerability assessment was initiated including climate change aspects. This will support the Member Countries work on climate change adaptation planning. Support to the CCAI implementation was also provided.

Significant Problems Encountered, Corrective Action Taken

Approval of the PWQ is a prerequisite for approval of the Technical Guidelines for implementation of the PWQ. While preparing the Technical Guidelines, the MRCS facilitated the dialogue between the Member Countries to finalise the PWQ for endorsement of the JC and approval of the Council in 2010.

Development Partner Reviews or Appraisals Undertaken in 2010

A joint donor review of EP by Danida and Sida took place in January 2010. The review was very positive providing recommendations for the completion of the 2006-2010 outputs as well as for the focus of the next five years of EP activities. The outcome of the Joint donor review was presented to the JC at the Thirty-first Meeting of the MRC Joint Committee in March 2010.

Danida appraised the EP document 2011-2015 in August 2010. The comments by Danida were incorporated fully into the revised EP document 2011-2015.

Relevant JC and Council Decisions taken in 2010

The Joint Committee approved the EP document 2011-2015 and endorsed the Procedures for Water Quality at its Special Session in October 2010. The Procedures for Water Quality was subsequently approved by the MRC Council at its Seventeenth Meeting in January 2011.

3.2.2 **EP Workplan for 2011**

Outcome 1. Operational environmental monitoring, assessment and reporting

- EP 1.1 Water quality monitoring will continue from 2010 and ecological health monitoring will be undertaken in March 2011. Inventory and assessment of change will be finalized for important wetland sites across the basin. Indicators measuring the performance of the MDG 7 on biodiversity will be developed and a baseline established. This will support assessments of impacts of project developments in the basin.
- EP 1.2 A basin-wide baseline survey of social impact and vulnerability assessment including aspects on climate change will be finalized covering the mainstream corridor. A package of socio-economic activities will be defined in collaboration with BDP, FP and CCAI with the aim to strengthen the social assessments of MRC.
- EP 1.3 Design of outline, layout and format of indicator based monitoring reports will be undertaken. Reporting and assessment of water quality and ecological health monitoring activities will be undertaken based on national reports. A report on Mekong wetlands will be prepared.
- EP 1.4 A needs assessment for basin-wide or transboundary environmental and social impact assessments will be undertaken in collaboration with MRC programmes particularly the BDP. Capacity building through an international seminar on environmental flows assessment will be implemented.
- EP 1.5 Clear description and documentation of the water quality and ecological health monitoring systems will be prepared facilitating future reviews and revisions.

Outcome 2. Implementation and use of environmental management mechanisms and tools

- EP 2.1 A capacity needs assessment for implementation of the PWQ will be undertaken enabling design of a capacity building programme in collaboration with the MIWRMP. Review and revision of the water quality monitoring system will be undertaken to ensure it supports the implementation of the PWQ. Support the establishment and testing of the water quality emergency response and management system.
- EP 2.2 The document on TbEIA Technical Guidance and Support Mechanisms will be finalized and the key mechanisms for implementation e.g. the TbEIA Working Group will be established. A capacity needs assessment will be undertaken to enable the design of a TbEIA capacity building programme.
- EP 2.3 Support will be provided according to needs for the PNPCA process. Support will be provided to testing and any further developments of hydropower sustainability assessment tools.

Outcome 3. Timely response to emerging environmental issues

- EP 3.1 A basin-wide pilot on climate change impact and vulnerability assessment for wetlands and biodiversity will be finalised. A basin-wide survey of social impacts and vulnerability assessment including climate change aspects will be finalized. General support to the implementation of the CCAI will continue in 2011.
- EP 3.2 A diagnostic study on water quality focusing on heavy metals and persistent organic chemicals will be finalized and published. A scoping study on potential impacts of mining including mining accidents will be undertaken.
- EP 3.3 Indicators to illustrate cause-effect relationships for social and environmental impacts in the basin will be developed using the DPSIR framework. A methodology for establishment of environmental outlooks will be developed. Selected valuation studies of wetland and biodiversity values will be undertaken. Description of knowledge gaps identified during the SEA of mainstream dams and the BDP scenario assessment will be used to design a programme of action to fill those gaps. An initial prioritisation according to needs and funding availability would be attached to the action plan supporting the future implementation.
- EP 3.4 An annual Technical meeting will be arranged. EP staff will present EP results at regional and international events.

Outcome 4: Capacity and awareness of environmental issues and cooperation

- EP 4.1 A capacity needs assessment will be undertaken for key activities of the EP to strengthen the capacity for regional environmental cooperation. This includes monitoring as well as assessment related activities.
- EP 4.3 An EP communication plan will be prepared aligned with the MRC communication strategy and disclosure policy. The web site will be continuously updated and publication of technical papers as well as easy to read booklets and report cards will continue.
- EP 4.4 A roadmap describing the activities to be undertaken by line agencies in Member Countries, NMCS and those to be undertaken by MRCS as well as a strategy and plan for the gradual transfer of activities will be prepared. This will be guided by the discussions at MRC level about MRC long-term core functions.
- EP 4.5 An Inception Phase will take place during the first three months of implementation where the following aspects will be sorted out: consultations and development of partnership arrangements with key regional partners, feasibility of inclusion of new (private sector) partners, review of the programme performance management system particularly the performance indicators to adjust the indicators providing key information in a cost-efficient manner. An inception report detailing these aspects as well as others that may be identified will be prepared by April 2011. An EP Steering Committee meeting is planned for the second quarter of 2011.

Development Partner Reviews or Appraisals Planned in 2011

Annual joint mission of AFD and Sida is expected. An Appraisal Mission by Sida is also possible as Sida has indicated its intent to support the EP 2011-2015 when the current support ends by June 2011.

3.4. Fisheries Programme (FP)

3.4.1. Programme Overview

The Fisheries Programme Phase 2011-2015 was initiated in January 2011. It builds on the achievements of two earlier phases of the Programme (FP1 from 2001 to 2005 and FP2, from 2006 to 2010), specifically in facilitating the development of a sound scientific understanding of LMB fisheries by riparian stakeholders, and supporting its communication; monitoring the status and trends of Mekong fisheries, and mitigating the impacts of developments and climate change; supporting regional dialogue on LMB fisheries management and development; improving fisheries management and governance, and aquaculture of indigenous species.

Purpose

The Lower Mekong fishery is the world's largest freshwater fishery, with an estimated yield of 2-3 million tonnes per year and a total value of around US\$ 2,000 million. Up to 40 million people (two-thirds of the population of the LMB) across the LMB are actively involved, at least part-time, in fisheries. Fishery is one of the few sources of employment for an increasingly young, often landless rural population. Fisheries products also supply essential micro-nutrients (especially Vitamin A and calcium) and between 50-80% of the animal protein for the basin's population. Consequently, they are essential for food security, especially for the poorest people in the LMB.

The goal (or development objective) of the Fisheries Programme is that 'Riparian governments and other stakeholders make sustainable and effective use of the Mekong's fisheries resources to alleviate poverty while protecting the environment'.

Approach

The Programme objective is that "Regional and national organisations successfully implement measures for sustainable fisheries development and improved rural livelihoods".

Four intermediate outcomes are expected to lead to the achievement of the Programme's objective:

- 1) Riparian organisations have a good, science-based understanding of the situation of fisheries in the Region.
- 2) Riparian organisations monitor, provide and promote the use of information on status and trends in fisheries and aquaculture management and development.
- 3) Key stakeholders maintain a high level of regional and national dialogue, as well as dialogue between sectors and programmes relevant to fisheries within a basin-wide IWRM framework, and guide the implementation of suitable measures to maintain fisheries sustainability.
- 4) National and local agencies and fishing communities have the capacity necessary for improving fisheries management and development.

The programme implements its extensive field programme in conjunction with national fisheries agencies. That is, the work of the Fisheries Programme generates information for both MRCS and the line agencies. Work Agreements are developed with counterpart staff at the start of the year which outlined the work content, outputs and respective responsibilities. Capacity

development, formal and informal training, career support and gender awareness are inherent elements of the Programme. The Programme places a high priority on reporting its work in English and riparian languages and in many different formats (technical and non-technical publications, postings on web sites, films, books, brochures and posters).

Strategy

The strategy of the FP 2011-2015 is characterised by a two-pronged approach consisting in:

- 1) supporting Member Countries' agencies in applying improved methods and tools for regional cooperation in fisheries management and development; and
- 2) moving towards the implementation of long-term core functions.

In addition, it will address a number of regional and national priorities, such as improving national capacity for regional fisheries cooperation, filling information and knowledge gaps, and fostering communication and participation.

Its strategy relies on producing information relevant to fisheries development, utilisation, management and conservation in the Lower Mekong Basin. Relevant information is that which is necessary for the development and management of fisheries within the context of integrated development and management of all the resources of the river. With respect to fisheries, the primary focus is on developing an understanding of biology, ecology, economics and social aspects of fisheries, and the threats to the resource from other river-based developments. Activities are mainly centered on trans-boundary issues affecting fisheries, so that appropriate fisheries information is available to other MRC's programmes. Information produced within the Fisheries Programme is incorporated into national and regional management and development plans, with a view to continuously increase fisheries productivity and maintaining a healthy ecosystem.

Structure

Unlike its earlier phases, which were divided into thematic components, the new FP is structured around its four outcomes.

Outcome 1: "Riparian fisheries decision-makers have a good, science-based understanding of the situation of fisheries in the Region".

Under this outcome, MRC, riparian fisheries management organisations and fisheries sector stakeholders will cooperate in information generation and transfer, capacity building, and development of the inland fisheries resources of the LMB.

Outcome 2: "Riparian planning agencies monitor the status and trends in fisheries and aqua-culture management and development, and provide and promote the use of this information". This outcome will be based on four outputs.

Under this outcome, the FP will increase the capacity (knowledge, skills and tools) of fisheries managers and relevant stakeholders to sustainably monitor the fisheries of the LMB, as a pre-condition for sustainable fisheries management in the context of the basin's integrated development.

Outcome 3: “Key stakeholders maintain a high level of regional and national dialogue, as well as dialogues between sectors and programmes relevant to fisheries within a basin-wide IWRM framework, and guide the implementation of suitable measures to maintain fisheries sustainability”.

Under this outcome, the FP will continue bringing together stakeholders from fisheries and water agencies on different occasions in order to further continue regional dialogue for improved and sustainable aquatic resources management.

Outcome 4: “National and local agencies and fishing communities have the capacity necessary for improving fisheries management and development”.

This outcome will address two areas: 1) Resource users, members of riparian fisheries line agencies and other organisations develop and implement improved institutional arrangements and technical measures for inland fisheries management; and 2) scientific and technical staff of fisheries line agencies and local users (fish farmers) develop and implement indigenous Mekong fish species culture systems for aquaculture, stocking and mitigation.

Implementation Arrangements

The FP is managed and executed by the MRC through its Secretariat. In particular MRC-FP provides regional coordination, technical and scientific advice, reporting and capacity development. Its activities at the national level are implemented through relevant fisheries agencies in the four MRC Member Countries, coordinated by the four NMCs. The FP may implement specific activities engaging other national institutions, such as universities, and individual experts. A FP Steering Committee (PSC) comprising representatives from national fisheries agencies and NMCs has been established. Its main function is to oversee the strategic direction and implementation of the FP 2011-2015. The PSC also reviews the FP progress and impact, and may recommend adjustments necessary towards achieving programme’s objectives. The PSC may also recommend actions aiming at maximising the national uptake of the FP results.

More than in most other MRC programmes, FP activities are already, at this early stage, executed at national level. This national execution occurs through a historically strong and direct interaction between FP, national fisheries agencies and NMCs. There are two major implementation mechanisms, i.e., the FP ‘Work Agreement’ and the ‘Programme Coordination Meeting’ (PCM). Work Agreements, which are contracts guiding national programme execution, are primarily formulated by counterparts, but within the overall FP framework. This means, ‘national execution’ of FP does not only entail implementation of activities by national collaborators, but their planning as well. Furthermore, the general arrangement on national level includes a National Programme Coordinator (NPC) as the focal point for coordination and facilitation of the Programme’s implementation, and a National Programme Manager for providing specific fisheries inputs into yearly Programme plans and work agreements, and technical supervision and follow-up of day-to-day activity implementation by national counterparts. The NPC has a key role in engaging with national organisations and experts as necessary and ensuring that activities are implemented efficiently and without delay.

The FP coordinates and interacts closely with other programmes of MRCS to identify, utilise and benefit from areas of synergy. This interaction was initiated already in earlier FP phases, for example with EP; WUP; BDP; IKMP.

During this new phase, the cooperation with M-IWRM-P, BDP and ISH will be intensified. The FP will continue to look for areas of synergy between its work and that of other programmes, to ensure efficient implementation arrangements and expenditure funds, as well as maximising the outcomes of the work.

The FP 2011-2015 also collaborates in field activities and in meetings/workshops with a range of fisheries agencies active in the Mekong basin. The major ones are of course the fisheries line agencies of the MRC Member States, through which the FP's field programme is implemented. Others include the Southeast Asian Fisheries Development Centre (SEAFDEC); the Network of Aquaculture Centres in Asia-Pacific (NACA); the Food and Agriculture Organisation of the UN (FAO); the WorldFish Center; several regional universities active in fisheries; and others.

Outputs of the FP 2011-2015

- Output 1.1: An Inception Phase is implemented, and an Inception Report, which will guide the FP 2011-2015 implementation, is submitted and endorsed by the Programme Steering Committee (PSC).
- Output 1.2: Technical and scientific information is packaged; this includes information produced by FP as well as other organisations.
- Output 1.3: Effectiveness of fisheries communication is evaluated; this will be done in accordance with the methodology developed recently for the Performance Monitoring System (PMS) established at the MRCS.
- Output 2.1: Information on Fisheries and Aquaculture Status and Trends (FST) and Fisheries Valuation (FV) is provided regularly; this includes information from national as well as regional levels.
- Output 2.2: Improved information on capture fisheries and aquaculture is available, and disseminated to basin planners and other concerned agencies.
- Output 2.3: Potential impacts on fisheries and aquaculture described, and suitable mitigating measures are identified and evaluated.
- Output 2.4: Impacts of climate change (CC) on fisheries and aquaculture are assessed.
- Output 3.1: Platforms for regional and international dialogue and consultation on sustainable Mekong fisheries management and development are maintained and functioning well.
- Output 3.2: A regional cooperation framework for fisheries management and development is drafted in close collaboration and interaction with the MRC Basin Development Plan.
- Output 4.1 Technical and administrative skills and knowledge of fisheries managers are developed⁹.
- Output 4.2: Fisheries management institutions are strengthened.

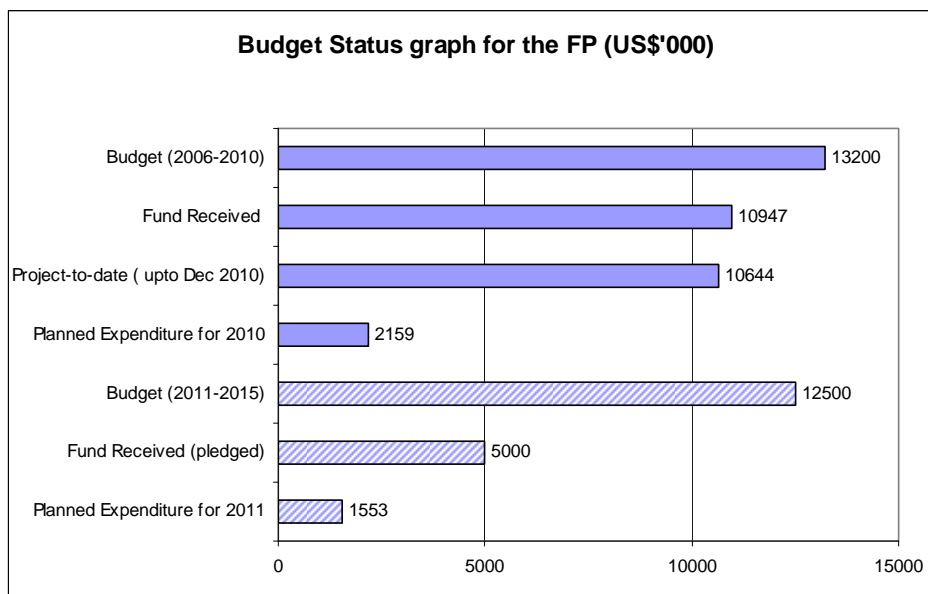
List of agreements

Agreements	Start date	End date	Budget (US\$ 1,000)	Balance 01/2011 (*)	Donors
Danida	01/01/2011	31/12/2015	5,000	5,000	Denmark

⁹ These skills and knowledge relate to both capture fisheries and aquaculture.

3.4.2. Progress of FP in 2010

The progress reported here covers the FP Phase 2, which commenced in January 2006. The following graph provides an overview of the budget status of the programme during Phase 2, as well as some information on the budget status for the Programme's upcoming phase FP 2011-2015¹⁰.



Planned and Achieved Outputs in 2010

FP 1 Programme Management and Communication

FP 1.1 The FP financed, organised and implemented, checked, finalised, initiated and implemented work agreements in all the MRC Member Countries. Coordination Meetings of all Components in all countries have been prepared, implemented and reported on. Staff and counterparts of all Components have attended regional and global conferences on fisheries and aquaculture development (such as the Global Conference on Aquaculture in Phuket, Thailand, in September 2010). National Technical Symposia were held in each country, after which each country submitted abstracts for consideration for next years' 9th AFF in Shanghai. The 17th FP Annual Meeting was held in Can Tho, Viet Nam.

A Concept Note for a 3rd phase of FP was prepared and extensively discussed and negotiated with national and regional stakeholders at several meetings. The FP 2011-2015 Draft Programme Document was finalised in August 2010 and approved by the Danida Board in September. The agreement between Danida and MRC on implementing FP 2011-2015 was signed on 11 October 2010.

FP 1.2 Fisheries information published

A MRC-supported book, 'The Mekong–Biophysical Environment of a Tropical River Basin' was published. It

¹⁰ Expenditure planned for 2011 is based on a "front-loaded" 25% of total agreed budget of FP 2011-2015 plus USD 303,000 balance from 2010.

contains two chapters prepared by the FP staff on basin-wide reviews of fisheries and fish species diversity, summarising prior MRC-sponsored and others research.

The FP published three editions of its newsletter: Catch & Culture (C&C) Vol. 15(3), Vol. 16(1) in August 2010, and Vol. 16(2).

Some sections of the MRC State of the Basin (SOB) report, the IKMP Primary Productivity Report, an external Strategic Environment Assessment (SEA) draft report were reviewed from a fisheries angle and information were provided to the authors of the SEA report. A fisheries brochure for the Hua Hin Mekong Summit was prepared.

A contract for the production of animations of Mekong fish species and their migration and effects of dams was discussed and prepared. The final animations for ten Mekong fish species have been completed. These will be used to illustrate key points on fish ecology, e.g. behaviour, seasonality or fish passage, to the non-technical public.

FP 2 Fisheries Ecology, Valuation and Mitigation

FP 2.1 Improved information on status and trends made available

A major review from a consultant of the Cambodian Dai fisheries was received, covering the period 1998-2009.

FP 2.3 Improved information on ecology and models for basin planning have been made available.

In order to support the BDP Scenario assessment, information on fish price survey from December 2009 was compiled, as well as information on aquaculture and information on reservoir areas. Furthermore, up to date reports on consumption were collected and details checked with authors. FP Programme Officers (POs) presented the information during the regional BDP workshops.

Regional FEVM workshops were held on deep pool habitat assessment and fish length-frequency distribution analysis (LFDA) methods.

A list of Mekong fishes was compiled, forwarded under a service agreement to Mekong fish taxonomist Maurice Kottelat for review, and now completed. This is an update of the Mekong Fish Database list, based on pre-2003 information.

The SEA presentations in Vientiane in May 2010 and Ho Chi Minh City in June 2010 were attended and contributions made. The FP attended and contributed to the M-IWRMP consultation in June 2010. The FP contribution to the BDP scenarios fisheries assessment and overview presentations were completed and presentations given to the review team and at the BDP regional workshop in Vientiane. A joint submission with NASA for funding on climate change and fisheries modelling was developed.

Discussions were held regarding a Mekong tributary significance study, and some criteria for significance for fisheries were drawn up.

Three national reports on the Regional Ichthyoplankton Survey were submitted (Cambodia, Thailand and Viet Nam). The

remaining are the national report from Lao and RIS regional report to be prepared by Thai DOF within two weeks after submission of the Lao national report.

FP 2.4 Potential impacts of water management projects described, and mitigation measures identified, evaluated and disseminated

In *Lao PDR*, as part of assessing impacts of dams in Northern Laos, the FP discussed and arranged a contract with LARReC to sample fish fry at four locations (Luang Phabang, Xayaburi, Pak Lai, and Vientiane) daily during the early flood season. A PNPCA taskforce (international and regional consultants contacted for a Fisheries Expert Group [FEG]) for Xayaburi Dam, consisting of international (3) and regional consultants (4) was set up, and a draft scoping assessment report for fisheries was completed. A field trip and preparations of a draft review report were carried out on 13-17 December 2010.

Fish fry sampling in upper Lao PDR was carried out at four locations from mid-May to mid-August and samples are being processed. The sorting of fish fry samples in upper Lao PDR is slow and additional help with identification of fry is being sought. The FP plans to contract additional experienced laboratory staff from counterparts in Cambodia as this information is needed for the Xayaburi's assessment.

In *Thailand*, FP staff reviewed documents from the Thai Department of Fisheries and data on fish and aquatic ecology of the Pong-Chi-Mun system in Northeast Thailand and also made a field trip to visit sampling locations and dams and weirs. This heavily dammed system provides some useful insights into the effects of damming.

In *Viet Nam*, RIA2 was supported to provide input to a contract they have for Fisheries Management and fish passage monitoring of the major Phuoc Hoa Reservoir, which is now under construction.

FP 3 *Fisheries Management and Governance*

FP 3.1 Awareness on ongoing and new co-management initiatives raised

Several study tours and demonstrations have been organised in the four Member Countries to enhance capacity and encourage the sharing of experiences. The FP also contributed to other programme's work. In Lao PDR and Thailand is assisted the M-IWMMR-P project formulation by providing lessons learned on fisheries co-management arrangement. The FP will continue supporting this project, in particular in the area of transboundary fisheries management.

A Transboundary Fisheries Management Pilot Project for bordering provinces of Bokeo, Lao PDR and Chiang Rai, Thailand, has been developed. The project is an initiative of the Technical Advisory Body on Fisheries Management (TAB), and is implemented with the support of the FP, national fisheries line agencies and the National Mekong Committees of Lao PDR and Thailand.

In *Cambodia* and *Viet Nam*, a Joint Viet Nam Cambodia transboundary fish release ceremony was organised in Dong Thap province with representatives from Cambodia, Lao PDR,

Thailand and local communities in Viet Nam. A total of 50,000 fingerling of Giant Barb (*Catlocarpio siamensis*) were released into the Mekong River.

FP 3.2

Fisheries management and development capacity strengthened

Support to the establishing and maintenance of fisheries co-management in the four countries is continued.

In *Cambodia*, a number of capacity-development activities were implemented, including an awareness raising meeting on fisheries law and regulation for Communities Fisheries, an awareness campaign on illegal fishing and resource protection, a catch Assessment in Community Fisheries reservoirs in target project areas of Cambodia Reservoirs.

In *Lao PDR*, capacity-development activities included a training on fish seed production using mobile hatchery and formulation of Village fishery regulations in deep pool in five villages (it was reported that regulations have improved and officially endorsed by the concerned district).

In *Thailand*, capacity-development activities implemented included a training course to establish a network of volunteers for fisheries resources conservation in order to allow local farmers to report the illegal fishing activities, a training on management and leadership to strengthen local capacity and a training courses to raise awareness on the importance of fisheries for peoples' livelihoods and food security as well as the need for the conservation for future generation.

In *Viet Nam*, capacity-development activities included a training course on selected good quality of shrimp seed, pond preparation and management as well as shrimp culture technique, a training course on integrated rice cum fish and rice cum freshwater prawn, the implementation of a handover strategy for locally-based co-management activities to ensure that communities can continue implement independently after completion of the FP Phase 2, a workshop on developing solutions for preventing the use of electro-fishing methods in three districts.

FP 4

Aquaculture of Indigenous Mekong Fish Species

FP 4.3

Better aquaculture and stocking practices established

The revision of 17 species synopses was completed; it includes the summary of genetic inventory study of four indigenous fish species, research on propagation (broodstock management, breeding, nursing) and grow out techniques and cost-benefit analysis of indigenous fish according to proposals in work agreement.

A stock enhancement (SE) consultation meeting was convened successfully in Vientiane in August 2010. A SE consultation meeting report and a draft concept note for a regional SE project to be implemented jointly with NACA under possible funding from FOA/TCP were prepared.

A genetic inventory meeting was organised to finalize the draft report of a genetic inventory study of four indigenous species. The final report was completed in December 2010.

Significant Problems Encountered, Corrective Action Taken

No major problems encountered in 2010. However, additional workload has been experienced by FP in 2010 from requests for intensified cooperation and collaboration from other MRC Programmes, which originally was not part of the annual work plan. Corrective action was taken by improving coordination of work with such programmes, seeking to avoid overlap and repetitions.

Though the programme is moving towards the process of riparianization, it was observed that the capacity of fisheries specialists in the region is limited. With rapid changes occurring in the region, the programme will continue to require internationally recognized experts. In 2010, a good example for this was the need to contract consultants for a Fisheries Expert Group to participate in the PNPCA process on the planned Xayaburi Dam. It is clear that similar action will have to be taken to provide such expertise to the programme in future. The Programme still lacks an effective performance monitoring system (PMS), which would inform its implementation. Action was taken to outline such a system in the FP 2011-2015 Programme Document and to introduce it into the agenda of the FP Inception Phase.

Development Partner Reviews or Appraisals in 2010

None.

Relevant JC and Council Decisions taken

An Important JC decision taken with regard to FP has been the approval of the FP 2011-2015 Programme Document at its Thirty-second Meeting.

3.4.3. FP Work Plan for 2011

Outcome 1: Facilitation of the development of a sound scientific understanding of LMB fisheries by riparian stakeholders, and supporting its communication

- FP 1.1 An Inception Phase will be implemented, and an Inception Report, which will guide FP 2011-2015 implementation, will be submitted for endorsement by the Programme Steering Committee (PSC).
- FP 1.2 Technical and scientific information will be packaged; this includes information produced by FP as well as other organizations.
- FP 1.3 Effectiveness of fisheries communication is evaluated; this will be done in accordance with the methodology developed recently for the Results-based Monitoring & Evaluation System established at MRCS.

Outcome 2: Monitoring of status and trends of Mekong fisheries; LMB; mitigation of the impacts of developments and climate change

- FP 2.1 Information on Fisheries and Aquaculture Status and Trends (FST) and Fisheries Valuation (FV) will be provided regularly; this includes information from national as well as regional levels.
- FP 2.2 Improved information on capture fisheries and aquaculture will be available, and disseminated to basin planners and other concerned agencies.
- FP 2.3 Potential impacts on fisheries and aquaculture described, and suitable mitigating measures will be identified and evaluated.
- FP 2.4 Impacts of climate change [CC] on fisheries and aquaculture will be assessed.

Outcome 3: Support to regional dialogue on LMB fisheries management and development

- FP 3.1 Platforms for regional and international dialogue and consultation on sustainable Mekong fisheries management and development will be maintained and functioning well.
- FP 3.2 A regional cooperation framework for fisheries management and development will be drafted in close collaboration and interaction with the BDP.

Outcome 4: Fisheries management and governance; and support to aquaculture of indigenous species.

- FP 4.1 Technical and administrative skills and knowledge of fisheries managers will be developed¹¹.
- FP 4.2 Fisheries management institutions will be strengthened.

Note: Some flexibility may be required for FP to respond to emerging issues arising from the ongoing consultations on proposed mainstream and tributaries dams including need for more research to better understand migrating fish behaviour, design of fish passages and monitoring of fisheries. These will be proposed for discussion to the PSC.

Development Partner Reviews or Appraisals Planned in 2011

None.

¹¹ These skills and knowledge comprise both capture fisheries and aquaculture.

3.5. Flood Management and Mitigation Programme (FMMP)

3.5.1. Programme Overview

Purpose

In 2000, more than 800 people lost their lives due to excessive flood, and the economic damage caused by the flood was assessed at more than US\$ 400 million. In 2001 and 2002 large floods have again caused loss of life and property in all four riparian countries. In August 2008 widespread flooding occurred in Northern Lao PDR and Northern Thailand. Flash floods have devastated large areas in the MRC Member Countries for example as a result of Typhoon Ketsana in 2009. In each of these years, between one and eight million people were affected by floods, either by a need of evacuation, or by loss of crops and livestock, or by being prevented from going to work or to school. People in flood prone areas are used to live with floods but population pressure has significantly increased the damage risk.

Poor people are the most adversely affected by floods. Efficient flood management, including flood forecasting and early warning for better preparedness, flood proofing measures, emergency flood management, including disaster aid is therefore an important precondition for poverty alleviation in the Lower Mekong Basin.

Approach

Flood management is cross-sectoral in essence. Floodwaters can disrupt road transportation, affect farmer's crops etc. Development of levees to protect crops and infrastructure as well as construction of elevated roads has the potential to unintentionally exacerbate flooding elsewhere in the floodplain, and can also block fish migration routes. Therefore flood management needs to be coordinated in an IWRM approach at a basin-wide scale. Improved flood management and mitigation remain indispensable and will in the future be more in demand than ever. The complex flood problems of the Lower Mekong Basin not only require an integrated floodplain management approach but also significant attention to trans-boundary and regional issues. The large floods of the Mekong are regional in character, and MRC is in a unique position to contribute effectively to improved flood forecasting and warning and flood management at the regional level.

Immediate objectives are defined for each of the programme components. The immediate objectives of the programme include: (1) To establish a Regional FMM Centre in Phnom Penh; (2) To reduce vulnerability of society to floods; (3) To strengthen the cooperation and capacities of the MRC in addressing and resolving differences in trans-boundary flood issues (4) To strengthen competence in flood preparedness and flood mitigation at each management level; (5) To improve land use planning integrated into floodplain management and mitigation in the LMB.

Strategy

The overall Flood Management and Mitigation Strategy was formulated after developing FMMP working papers, conducting a series of national consultations and workshops. The strategy was agreed between the Member Countries in November 2001. The Flood Management and Mitigation Programme was formulated in 2003/2004 based on this MRC Flood Management and Mitigation Strategy. This dialogue pointed out a list of possible MRC roles: flood forecasting services; centre of flood data and information; flood analytical services and setting of standards; neutral

mediator of trans-boundary issues; capacity building and technology transfer; coordination of floodplain management of national and MRC programmes; forum on floodplain management and flood preparedness.

Structure

In the period 2004-2010 FMMP has been structured along components with sets of related outputs under the components. Since 01.11.2010 implementation of the Netherlands funded Bridging Period replaces the Netherlands co-funded Components 1, 2 and 3. There will be a small number of remaining activities under these components after 01.11.2010, which will be completed in the first half of 2011. GIZ/GiZ co-funded Component 4 and funded Component 5 will continue until 31.05.2011. It is clear that after the first half of 2011, all components will be replaced by the new FMMP 2011-2015 structure for which the programme document is being drafted.

Component 1: Regional FMM Center

A Regional Flood Management and Mitigation Centre (RFMMC), based in Phnom Penh, maintains the availability of flood-related tools, data and knowledge at national and regional levels; produces accurate regional flood forecasts with timely and effective dissemination; and provides accurate and consistent tools for basin wide flood risk assessment and trans-boundary impact analysis.

This component is supported by the governments of Denmark, Japan, the Netherlands and the United States of America (USA).

Component 2: Structural Measures and Flood Proofing

This component studies the effect infrastructures, such as reservoirs, embankments and waterways, have on flooding in order to provide guidelines and technical standards to encourage the adoption of good practices. An implementation plan will be developed using a holistic approach giving attention to trans-boundary issues. Flood-proofing measures will be developed and promoted in flood-prone areas as a cost effective means of flood mitigation at local level. There will be emphasis on working in poor communities when considering building design guidelines, financing mechanisms and conducting awareness-raising.

This component was supported by the Asian Development Bank (ADB) and the Government of the Netherlands.

Component 3: Enhancing Cooperation in Addressing Trans-boundary Flood Issues

This component aims at enhancing cooperation and capacities of the MRC in addressing and resolving differences in trans-boundary flood issues. In addition, a Mediation and Coordination Section of this component will be established to facilitate dialogue and resolution of issues on land management and land use planning, infrastructure development and cross-border emergency management of floods. Formalised procedures, norms and rules for mediation and decision-making regarding non-compliance in trans-boundary flood management issues will be developed as will recommendations on water and land use legislation. This component is supported by the government of the Netherlands.

Component 4: Flood Emergency Management

The component ensures the improvement of existing Emergency Management Systems in riparian countries to deal with the Mekong Floods more effectively, through capacity building, knowledge sharing and public awareness campaigns at the provincial, district and community levels.

Also, this component aims at strengthening competence in flood preparedness and flood mitigation, with communities, emergency managers and civil authorities.

This component is supported by Government of Germany and the European Commission.

Component 5: Land Management

The component addresses the pressing issues of flood probability assessment techniques, improved land use planning methods and damage-reducing land management policies in order to achieve sustainable natural resource management in the Basin. Meanwhile, this component will make the institutional, land management human resources and technical support available to sustainable land management. It will improve land use planning integrated into floodplain management and mitigation in the LMB.

This component is supported by the Government of Germany.

Implementation arrangements

Within the MRC Secretariat, a Management Team has been established. The management structure of the FMMP includes a Programme Management Unit (PMU) at FMMP level, a National FMM Unit in each NMC to coordinate the activities at the national level, a Programme Coordination Committee (at the levels of NMCs and MRC Secretariat) and a Steering Committee (at regional level).

In 2006, the Office of U.S. Foreign Disaster Assistance of USAID (USAID/OFDA) had approved the proposals of MRCS and riparian countries for Radio and Internet for the Communication of Hydro-Meteorological and Climate Related Information (RANET) communication and Satellite rainfall estimation. After having funded two earlier phases, the European Commission's Humanitarian Aid Office (ECHO) funded in 2007 the third phase of the project on "Support to Implementation of Flood Preparedness Programs at Provincial, District and Commune Levels in the Lower Mekong Basin." The fourth phase of project "Strengthen Implementation of Flood Preparedness Program at Provincial, District and Commune Levels in the Lower Mekong Basin" was funded in 2008. In 2004 the German Government agreed to support implementation of the components "Flood Emergency Management Strengthening" (Component 4) and Land Management (Component 5). USAID approved in 2008 the project "Asia Flood Network - Flash-Flood Guidance System".

Main Outputs

1. Regional FMM Centre: (i) An operational Regional FMM Centre established under MRC, interacting with national collaborating centres/focal points; (ii) Basic data; (iii) Improved monitoring; (iv) Improved operational forecasting; (v) Improved warning and

dissemination services, (vi) Medium and long term forecasts; (vii) Risk assessment tools; (viii) Flood risk analysis and flood risk mapping; (ix) Related competence; and (x) Annual Flood Forums.

2. Structural Measures and Flood Proofing: (i) Tendering of consultancy services including: A description of the nature of Flooding in the Mekong River and its tributaries; Socio-Economic Surveys of Flood-Affected Communities; Guidelines for the Combined Use of "Hard" and "Soft" Flood Risk Management Measures; A FMM Project Development and Implementation Plan for the LMB and Demonstration Projects; Guidelines for the Use and Impact Assessment of "Hard" Flood Mitigation Measures, and Floodplain Infrastructure.
3. Enhancing Cooperation in Addressing Trans-boundary Flood Issues: (i) Information Generation; (ii) Awareness Raising and Knowledge and Skills Building; and (iii) Toolbox Development
4. Flood Emergency Management: (i) Preparedness program implemented; (ii) Related national capacities established; (iii) Awareness campaign implemented; (iii) Regional knowledge sharing implemented; (iv) Preparedness for Province-to-Province Trans-boundary emergency assistance is facilitated.
5. Land Management: (i) Identification of National Institutional Framework & Line Agency Mandates/ Cooperation & Improvement of Dataflow between Line Agencies/ Formation of National Working Groups for Flood Information Based Land Management / Harmonised land use management; (ii) Data acquisition & compilation (topographic data/ topographic surveys, hydrographic data) and Hydrological Infrastructure Establishment in close cooperation with the respective NMCs; (iii) Development of Education Material on Data Processing & Data Use for Flood Probability Map Establishment; and (iv) Establishment of a results based monitoring system in line with the MRC M & E-System.

List of agreements

(US\$ 1,000)

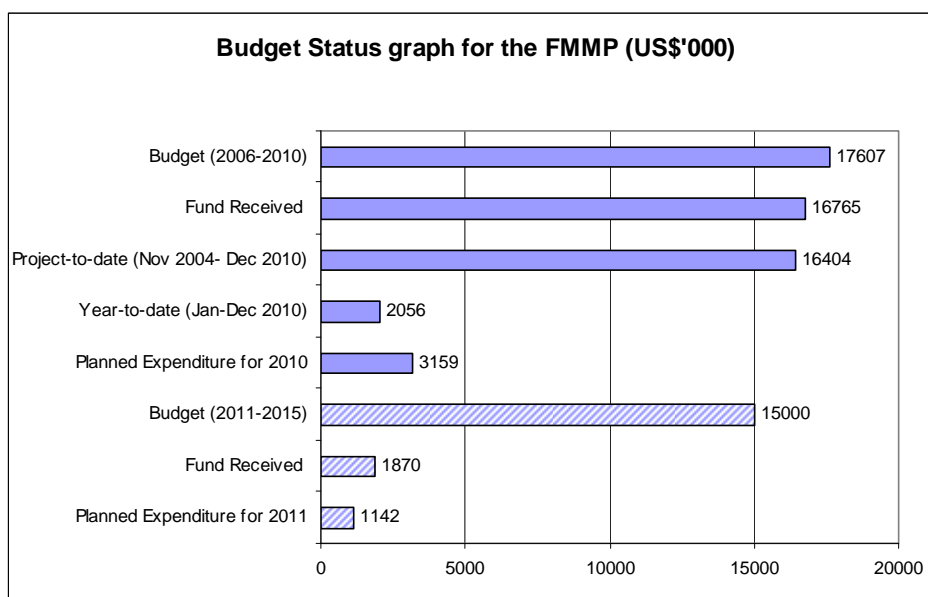
	Start date	End date	Budget	Balance 2010 (*)	Donors
Agreements					
<i>Dutch contribution to the RFMMC</i>	<i>01/06/05</i>	<i>31/12/10</i>	<i>8,003</i>	<i>0</i>	<i>Netherlands</i>
<i>Dutch contribution to FMMP-NFUs</i>	<i>01/01/07</i>	<i>31/12/10</i>	<i>264</i>	<i>0</i>	<i>Netherlands</i>
<i>Danish contribution to FMMP-NFUs</i>	<i>01/01/07</i>	<i>31/12/10</i>	<i>211</i>	<i>0</i>	<i>Denmark</i>
<i>German contribution to FMMP-NFUs</i>	<i>01/01/07</i>	<i>31/12/07</i>	<i>40</i>	<i>0</i>	<i>Germany</i>
<i>Danish contribution to FMMP coordination</i>	<i>01/09/04</i>	<i>31/08/07</i>	<i>605</i>	<i>0</i>	<i>Denmark</i>
<i>OFDA - provision of Flood Early Warning</i>	<i>01/01/03</i>	<i>31/12/08</i>	<i>1,250</i>	<i>0</i>	<i>USA</i>
<i>German - 3rd Annual Flood Forum</i>	<i>01/01/05</i>	<i>31/12/05</i>	<i>18</i>	<i>0</i>	<i>Germany</i>
<i>Asia Flood Network contribution to the FMMP (Phase i)</i>	<i>01/01/05</i>	<i>31/12/05</i>	<i>74</i>	<i>0</i>	<i>AFN</i>
Asia Flood Network contribution to the FMMP (Phase li)	01/01/08	31/09/09	265	16	AFN
<i>Dutch - to design of Flood Proofing Measures</i>	<i>01/06/05</i>	<i>31/12/10</i>	<i>2,539</i>	<i>0</i>	<i>Netherlands</i>
<i>ADB - Flood Proofing Measures</i>	<i>01/04/05</i>	<i>31/12/06</i>	<i>1,000</i>	<i>0</i>	<i>ADB</i>
<i>Dutch support to enhancing cooperation of flood issues</i>	<i>01/06/05</i>	<i>31/12/10</i>	<i>1,565</i>	<i>0</i>	<i>Netherlands</i>
<i>EC-ECHO I contribution for capacity building in flood preparedness</i>	<i>01/02/05</i>	<i>31/03/06</i>	<i>208</i>	<i>0</i>	<i>EU</i>
<i>EC-ECHO II contribution for capacity building in flood preparedness</i>	<i>01/02/06</i>	<i>31/03/07</i>	<i>291</i>	<i>0</i>	<i>EU</i>
<i>EC-ECHO III contribution for support for implementation of the flood preparedness programmes</i>	<i>01/02/07</i>	<i>05/2008</i>	<i>375</i>	<i>-10</i>	<i>EU</i>
EC-ECHO IV contribution for strengthening implementation of flood preparedness programmes	15/08/08	15/11/09	503	40	EU
Japan contribution to the RFMMC	27/10/05	31/12/10	970	NA	Japan
GIZ project for land use and flood emergency management (1 st phase)	18/08/04	30/04/08	3,530	NA	Germany
GIZ project for land use and flood emergency management (2 nd phase)	01/08/08	31/12/10	4,650	NA	Germany
Dutch Contribution to Roads & Flood in the Lower Mekong Basin – Delft Cluster-WWF	01/06/06	31/03/09	161	NA	Netherlands
<i>Dutch - 5th Annual Flood Forum</i>	<i>01/10/06</i>	<i>30/09/07</i>	<i>86</i>	<i>0</i>	<i>Netherlands</i>
<i>Dutch - 6th Annual Flood Forum</i>	<i>01/10/07</i>	<i>30/09/08</i>	<i>60</i>	<i>0</i>	<i>Netherlands</i>
<i>GIZ - 7th Annual Flood Forum</i>		<i>2009</i>	<i>10</i>	<i>0</i>	<i>Germany</i>
<i>ADB - 7th Annual Flood Forum</i>		<i>2009</i>	<i>10</i>	<i>0</i>	<i>ADB</i>
<i>OFDA/USAID - 7th Annual Flood Forum</i>		<i>2009</i>	<i>10</i>	<i>0</i>	<i>USA</i>
<i>GIZ - 8th Annual Flood Forum</i>		<i>2009</i>	<i>20</i>	<i>0</i>	<i>Germany</i>
<i>ADB - 8th Annual Flood Forum</i>		<i>2009</i>	<i>10</i>	<i>0</i>	<i>ADB</i>
<i>OFDA/USAID - 8th Annual Flood Forum</i>		<i>2009</i>	<i>20</i>	<i>0</i>	<i>USA</i>
ADB contribution for Formulation FMMP 2011-2015		2010	75	50	ADB
ADB support to LMB flood Vulnerability Assessment		2010	500	NA	ADB
Dutch contribution to Bridging Period agreement		2010	1870	932	Netherlands

(*) Balance as per end December 2010

Note: Completed Agreements indicated in red Italics

3.5.2. Progress of Programme for 2010

The following graph provides an overview of the budget status of the programme. It should be noted that the figure on the total budget of US\$ 27.36 million, includes the support from all Development Partners. The remaining data, however, include the funds directly managed by FMMP only, i.e., excluding the technical assistance from GIZ, Japan and IHE-UNESCO as these are monitored separately.



Note: The 'fund received' does not include the technical assistance from GIZ.

Planned and Achieved Outputs for 2010

Component 1: Regional FMM Centre

FMMP 1.1.3 Routine short-term river flood forecasting and monitoring: A flood forecasting bulletin has been prepared and published quarterly, containing information on hydrological condition of the mainstream and the meteorological conditions through out the Lower Mekong Basin.

FMMP 1.1.6 Advanced medium term river flood forecasting and monitoring: provides the flood forecasting along the mainstream Mekong River and disseminates this information on a routine basis, to the National Mekong Committee and line agencies concerned in the Member Countries, who transmit the forecasts to the respective flood forecasting centers or relevant agencies. This system was ready at the beginning of 2009, using Uniform River Basin Simulator model, CatchmentSim, Hydrological and Meteorological Operating System database, HYDMET and Flood Early Warning System. The system will rely on the near real time (rainfall and water level) data transfer from the Member States and on the rainfall estimation/forecasts supplied by United States Geological Survey/ National Oceanic and Atmospheric Administration (USGS/NOAA).

FMMP 1.1.11 Annual Flood Report for 2009 (published in 2010): having contributed significantly to the understanding of Mekong mainstream floods and flooding in the 2006, 2007, 2008

annual flood report, the report for the year 2009 will continue this general goal.

- FMMP.1.1.13 Capacity building on the understanding and operational use of the new MFFS and FFGS: training plan on the development and operations of the new MFFS and FFGS was developed and the national and regional training courses were organised for the specialised line agencies.
- FMMP.1.1.14 Dissemination of component 1 products: all models, systems and data and information have been shared with dedicated line agencies if they are interested after the training courses.
- FMMP.1.1.15 Preparation of the second phase FMMP/RFMMC: a programme document for the implementation of second phase of FMMP (development and operations of the RFMMC) was developed with broad consultation with MRC Member States and donors.
- FMMP.1.3.2 Vulnerability Assessment Study in the Lower Mekong Basin: two remaining phases need to be completed. Based on the outcome of a tripartite meeting between FMMP, ADB (donor) and ICHARM to confirm the project concept to be submitted to ADB for funding support and to be implemented by ICHARM with the project monitoring by FMMP.
- FMMP 1.4.5 Annual Mekong Flood Forum 2010: the theme of the forum was the “Integrated approach to flood risk management and mitigation in the Mekong Basin”.
- FMMP 1.6.1 Regional Flash Flood Guidance System: is the MRC-RFMMC based regional system, which lies at the centre of end-to-end system of data-collection, analysis, and information dissemination. The system provides a broad, cost-effective framework for monitoring and warning of the likely incidence of flash floods in four MRC Member Countries. As community based flash-flood warning systems were developed in the countries, the MRC-RFMMC based system will play a complementary role to such community operated systems.

Component 2: Structural Measures and Flood Proofing

- FMMP.2.1 Initiation of the approval process printing and dissemination related to: (FMMP 2.1.2): The Best practice guidelines for flood proofing in urban and rural areas; for the use, design, construction, O&M of infrastructure and (FMMP 2.1.3): The Best practice guidelines to assess environmental impacts of infrastructure and the best practice guideline to select and integrate management measures for flood risk reduction have been completed.
- FMMP 2.1.7: Framework for integrated flood risks management (see BPGs for IFRM for BDP) has been completed.
- FMMP 2.1.6 Draft final Report on Prioritized FMM Project Development and Implementation Plan and FMMP 2.1.7: Draft final Report on Framework for IFRM for the LMB were completed since the first quarter of 2010. All the 16 annexes to the draft final reports were also completed after incorporated the comments

by one country to adjust a report. The initiation of the approval process, printing and dissemination has completed under this Component.

Component 3: Enhancing Cooperation in Addressing Trans-boundary Flood Issues:

FMMP 3.2.2 Report of implementation of pilot study: for each pilot study a report was prepared, which contains (i) A summary of the study, outlining the factual circumstances of the trans-boundary impact studied and the resulting inter-State difference, and the mechanisms, principles or procedures applied to the resolution of that difference; (ii) Lessons learned in the course of each pilot study; (iii) Recommendations for the elaboration of the framework; (iv) Recommendations for the elaboration of any associated guidelines and / or required technical tools; and (v) Timing of pilot implementation. In addition, the Capacity Building Programme Phase 2 "Enhancing Cooperation in Addressing TB Flood Issues" conducted: The Implementation of the Pilot Study and Print and disseminated the Pocket Versions is still on-going and it is expected to be completed in the end of April 2011.

FMMP 3.3.1 Administrative tools for addressing differences: these have been developed to provide a general guidance to MRC for addressing differences and disputes that might arise between members of the MRC as a result of operation of the 1995 Mekong Agreement. A set of administrative tools is suggested to support the modalities of the Agreement. The administrative tools offer the Member Countries, on a voluntary basis, a guidance process in addressing differences and disputes.

Component 4: Flood Emergency Management

FMMP 4.5.1 The programmes and related reporting of the Flood Preparedness Programme is being implemented by local authorities has completed.

FMMP 4.5.2 Linkages of provincial flood preparedness programmes with local development planning process has completed.

FMMP 4.6.1 Capacity building and related reporting on disaster management/flood preparedness planning at National level and selected provinces has completed.

FMMP 4.6.2 Integrated of disaster risk reduction and flood management in development plans at National level and in some selected provinces, districts and communities has completed.

Component 5: Land Management:

FMMP.5.2.1 Land Management (Phase II): Capacity building and related reporting on elaboration and use of flood probability maps and land management tools at the national levels and selected province has completed.

FMMP.5.2.2 The activities including related reporting regarding the Integration of flood probability maps and land management tools into development plans of selected provinces/districts/commune has completed.

Tourism or drought related activities will be identified within the course of the year for further integration, if appropriate, in the Work Programme 2011.

Significant problems encountered and corrected action taken

Due to the fact that FMMP 2004-2010 is being completed by the end of 2010 a careful approach in terms of expenditure and staff positions has been applied. No new staff were contracted. Existing staff have been secured until through a Bridging Period to 2011. In line with FMMP Steering Committee recommendations, FMMP has worked on the “future development and operations of the RFMMC” and on the formulation of FMMP 2011-2015. In the meantime FMMP has been working through ICCS with the Royal Netherlands Embassy in Hanoi in order to secure a Bridging Period until 31 December 2011. The Bridging Period was approved in November 2010. The Bridging Period facility will help create conditions for promoting FMMP 2011-2015 with Development Partners. The present situation seems to provide conditions for staffs to remain in FMMP/RFMMC, therewith providing the minimum capacity required to draft technical proposals and respond to funding opportunities. It is expected that other Development Partners will consider supporting FMMP 2011-2015 in the course of 2011.

Development Partner Reviews or Appraisals carried out in 2010

The RNE Hanoi has been appraising the Bridging Period proposal (1 November 2010 – 31 December 2011). Since the appraisal led to an extension of the funding agreement MRC-Netherlands, the submission of the completion report FMMP 2004-2011 for the RNE Hanoi has been postponed until after 31 December 2011.

Relevant JC and Council decision taken in 2010

FMMP 2011-2015 document will be submitted to the Thirty-third Meeting of the MRC Joint Committee on 25-26 March 2011.

3.5.3. *FMMP Workplan for 2011*

The FMMP Work Plan 2011 will be a combination of the Netherlands funded Bridging Period and the extension of the GIZ funded Components 4 and 5. Apart from that there are some activities under the earlier components 1, 2 and 3 which have to be completed, e.g. translation and dissemination of approved reports.

Regarding the Bridging Period (BP) the following 9 Outputs will be accomplished during 2011:

- BP. 01 Daily flood forecasts during the flood season, and of the river monitoring during the dry season, through the MRC website and disseminated to a wide network of stakeholders FF and FW.
- BP. 02 Enhanced understanding and knowledge and skills of personnel of the National Centres in a) mainstream flood

forecasting (URBS, ISIS and FEWS applications), b) in Flash Flood Guidance system.

- BP. 03 Enhanced knowledge and skills built of staffs of Line Agencies and Technical Centres in the MRC Member Countries on application of Integrated Flood Risk Management. The activity is to implement the Capacity Building Programme Phase 2 of Component 3. *(FMMP I related outputs)*
- BP. 04 A set of FMMP 2011-2015 formulation documents appropriate for further processing by MRCS (implementation documents for FMMP 2011-2015, like various project documents and Programme Implementation Plan).
- BP. 05 A series of documents specifying the planning and progress made during the Bridging Period (5 Quarterly progress reports, 3 biannual progress reports and a FMMP completions report)
- BP. 06 Annual Flood Report 2010 and Hydrology Report 2011.
- BP. 07 Enhanced Awareness, understanding, knowledge and skills built at dedicate personnel of National line agencies in the MRC Member Countries.
- BP. 08 A series of documents, describing dedicated outputs, activities and indicators, budget and planning to specify the FMMP contributions to other MRC programmes. The activity is to provide facilitation, support and inputs for the FMMP 2011-2015 formulation mission.
- BP. 09 Enhanced knowledge and skills built to strengthen cooperation in addressing transboundary flood issues. The activity is Implementation of Capacity Building Programme Phase 2, Component 3, FMMP 2004-2010 through training workshops conducted.

The following remaining activities will be completed (refer to the 2004 – 2010 Components – Structure):

Component 2

FMMP.2.1 Final Report printing distributed will end in April 2011

Component 3

FMMP.3.3.1: Pocket book version translated into the four languages printed and distributed to the countries will be completed by the end of June 2011.

Component 4:

- Act. 4.1 Implementation of GIZ Phase 2 support contract with ADPC
- Act. 4.2 Finalization of GIZ Phase 2 support contract
- Act. 4.3 Preparation of English version of Completion Report (GIZ Phase 1 &2 and ECHO I - IV).
- Act. 4.4 Assessment of Completion Report
- Act. 4.5 Present Performance Evaluation Report of Component 4 to MRCS

Component 5:

- Act. 5.1 Implementation of GIZ Phase 2 support contract with GFA
- Act. 5.2 Finalization of GIZ Phase 2 support contract
- Act. 5.3 Preparation of English version of Completion Report (GIZ Phase 1 &2)
- Act. 5.4 Assessment of Completion Report
- Act. 5.5 Present Performance Evaluation Report of Component 5 to MRCS

For more detailed, see the Gantt chart of remaining activities of C2, C3, C4 and C5 in the attachments.

Development Partner Reviews or Appraisals Planned in 2011

FMMP has drafted a Bridging Period proposal for the RNE Hanoi (1 November 2010 – 31 December 2011). The proposal is being screened by ICCS/CEO. There has been frequent interaction between RNE and ICCS on the financial status of FMMP 2004-2010 at 31 October 2010; FMMP has been working with FAS to produce the “best guess estimate”.

It is expected that a Bridging Period of USD 927,290 (excluding the funding of C3 CBP-2 by end October 2010) for 14 months (1 November 2010 – 31 December 2011) will be approved by the RNE Hanoi. An extension and topping-up of the agreement will have to be signed soon after.

The German Government is expected to assess the completion reports of Components 4 and 5 Phase 2 by mid 2011.

The completion report of FMMP 2004-2011 for the Netherlands is rescheduled by March 2012.

3.6. Information and Knowledge Management Programme (IKMP)

3.6.1. Introduction

Under the management of Technical Support Division, The Information and Knowledge Management programme (IKMP) was designed as a cross cutting programme of the Mekong River Commission (MRC) which provides information and knowledge services to other programmes as well as to National Mekong Committees and line agencies. The programme was formulated in December 2006 with the goal of building a solid foundation of data, information and knowledge products, systems and services that supports the goal of the Mekong River Commission.

The IKMP is supportive of the goal and objectives of the MRC Strategic Plan 2006-2010 and, in particular, of being a “centre of excellence” for information and knowledge base by providing the latest analytical and management systems on water related and environmental resources of the Mekong basin.

To operate as a cross cutting programme, the IKMP was designed to cover three key areas as follows

- (i) MRC Data, Information and Knowledge Keeper: this includes the development and maintenance of high quality baseline data, data management; setting of standards, modelling tools and, in particular, the Decision Support Framework (DSF), suite of models and outreach tools for the MRC. This also includes capacity building of National Mekong Committees and line agencies in these areas.
- (ii) Service Provider to MRC Programmes: the IKMP provides hydrological modelling and analysis; spatial and time series data products; advises on the implementation of other MRC projects as well as provides technical assistance to relevant programmes.
- (iii) Service Provider to Countries and Other External Clients: this includes the provision of GIS-based and hydrological data to commercial and non-commercial data users in both riparian and non-riparian countries; modelling services, data supported to the implementation and monitoring of projects in MRC member countries.

The activities of IKMP have been carried out with funding from the governments of Australia, Finland and France. The IKMP has strategic importance to sustainable development of the Mekong Region and links to the Millennium Development Goals. The increased population and development pressures necessitate improved understanding of the river basin conditions, management options and environmentally, socially and economically sound practices. Informed decisions are essential if the overall goals of sustainable and equitable development of the Mekong Basin are achieved and which have an influence on many of the region's poor population. The IKMP provides direct guidance to development and investments taking into account impacts on the environment and livelihoods, and will thus contribute to sustainable development and poverty reduction in alignment with the Millennium Development Goals.

Programme Overview

Since its operation began in early 2007, IKMP has had many achievements over the past four years. The countries, through the NMCS and line agencies; and other MRC programmes have indicated a strong knowledge of IKMP. IKMP was agreed by all stakeholders consulted to be a core and essential

component of the MRC activities and has very important activities and tools. Subsequently, IKMP's stakeholders find the following activities highly valuable (i) Collection and Quality Assurance of hydro-met data (especially real time data) which is then used for flood forecasting; (ii) Databases, sharing and associate procedures; (iii) DSF modelling activities including capacity building activities and scenario studies. All countries indicated that their capacity to undertake IKMP related activities have greatly improved.

As phase 1 of IKMP was scheduled to end in December 2010, and has been granted for an extension of six months until June 2011 as a transition period. It is obvious to see that key products and services of IKMP are still considered as priority needs in the MRC, IKMP 2011-2015 has been formulated, in order to:

- Consolidate the outputs/achievements from phase I and sustain the results of IKMP.
- Continuously provide services and capacity building; transfer knowledge to line agencies from member countries in modelling, river monitoring, database management etc., which are still considered as "knowledge gaps" in the region.
- Take the lead role in the implementation and delivery of two Core River Basin Management Functions that are identified in the next Strategic Plan (SP) of the MRC 2011-2015, including the functions of "Data Acquisition, Exchange and Monitoring" and "Analysis, Modelling and Assessment".

The second phase of IKMP is a five-year programme (2011-2015) with a total budget of 14.8 million USD which includes:

- Fund available from phase 1: US\$ 1.29 million (through Mekong-HYCOS project, Discharge and Sediment Monitoring project and support to Senior Modelling Advisor)
- Fund committed by Finland: US\$ 9.4 million
- Fund committed by France: US\$ 0.5 million
- Fund allocated by M-IWRMP: US\$ 0.8 million
- Funding gap: US\$ 2.81 million

Purpose

Information and knowledge have undoubtedly become a key factor shaping the development and determining the success of organizations, economies and even nations. As the Mekong Basin will undergo great social, economic and environmental changes over the next years, the need for information will arise at all levels, from that of senior decision makers at the national and international levels to the grass-roots and individual levels.

The development objective of the Information and Knowledge Management Programme 2011-2015 is to "effectively support MRC programmes, NMCS and relevant line agencies on the development and management of water and related resources in the Mekong Basin by providing basin-wide monitoring, impact assessment, modelling, forecasting, and knowledge management system for planning and programme implementation work"

Approach

Integrated Water Resources Management (IWRM) and Development needs to be supported by databases and Geographical Information Systems (GIS) in order to store, analyse, and distribute hydro-meteorological data, land use

data, socio-economic data, administrative data, infrastructure data, etc. Planning and decision-making require mathematical simulation models and Decision Support Systems (DSS). These databases and tools need to be integrated and constantly updated and quality-controlled. During the past six years, the MRC Secretariat has developed rich databases and powerful mathematical tools, such as the Decision Support Framework (DSF) which need further maintenance, updating and interfacing to other models based on an effective international data management and exchange policy.

The IWRM approach has driven IKMP 2011-2015 into a broader context for its provision of knowledge-based products and services, supporting decision-making processes at national and regional levels. Modelling and assessment tools and real-time monitoring data provided by IKMP 2011-2015 are primary inputs for scenario analysis and assessment that helps in basin planning and management. The MRC Information System (MRC-IS) developed by IKMP is seen as a central platform to fulfilling the commitment to promoting the sustainable use of water and related resources in the basin. Together with a powerful IWRM-based analytical capacity, IKMP 2011-2015 acts as one of the focal points for promoting transboundary water resources management in the region.

Strategy

While improving information content is critical, improved content can only lead to better decision making if it is disseminated and delivered in the right form to the right people. This requires designing appropriate information flows and developing systems, standards, procedures and practices that enhance the availability of information. Knowledge transfer to National Mekong Committees and Line Agencies and knowledge retention are important issues to address in highly specialised staff environments, combined with the use of virtual training and transfer methods.

These crucial tasks will guide the strategy of the programme.

Structure

Component 1: Programme Management

The Programme Management Component of the IKMP provided overall leadership, coordination and management for Information and Knowledge Management and for the programme. This included putting in place the framework for systematisation of data, information and knowledge management by designing and implementing appropriate business processes throughout the MRCS and working closely with the national agencies to support their capacity building and cooperation with the programme.

Component 2: River Monitoring

The River Monitoring Component added to the level of understanding that currently exists on the physical condition of the mainstream and major tributaries in the Mekong River Basin. Each of the MRC programmes collected considerable amounts of data and information, and generated knowledge within their particular area of expertise. The IKMP supported these programmes by providing services and expertise in the processing, storage and management of these data, and the linking of it other programmes to form the MRC IS. IKMP Component 2 was responsible for collecting hydro-meteorological data, which was critical for many MRCS functions. Component 2 also accommodated other types of monitoring activities in synergy with the hydro-meteorological data collection, such as sediment, river-morphological and ground water monitoring activities.

Component 2 of the IKMP ensured that collection of these types of data and information was properly coordinated, planned and performed.

Component 3: MRC Information System

The MRC Information System, Component 3 constituted the technical backbone of the IKMP, providing core database services upon which all other components of the IKMP depend and build. It closely interfaced with and coordinated data and information collection and management activities in the other components of the IKMP as well as the other MRC programmes. It set standards and guidelines valid and binding for all data collection and management activities performed in other components of the IKMP and in other MRCS programmes, and provided related technical coordination and service functions for data and information collection and production.

Component 4: Modelling

The Modelling and Assessment Component worked in close cooperation with and support most of the MRCS thematic areas and programmes like basin-wide hydrological/ hydrodynamic scenarios, hydropower and irrigation development, climate change, sediments at basin-wide scale, productivity of the system, navigation, ecosystem productivity, especially Tonle Sap fisheries, sustainable agricultural and forestry development, basin-wide mitigation and trade-off mechanisms, basin-wide flood modelling support and trans-boundary and cumulative issues.

The successful execution of the works required integration of existing data, collection of relevant primary data, multidisciplinary impact assessment, use of state-of-the-art assessment tools, broad partnership and networking, and communication of generated information to the stakeholders.

Component 5: Learning Centre and Knowledge Hub for Transboundary Water Resources Management (TWRM)

The Learning Centre and Knowledge Hub for TWRM, Component 5 facilitated data, information and knowledge exchange, sharing and networking and supported collaboration within MRC and among other stakeholders. It included a focus on eliciting ‘soft’ knowledge, the tacit knowledge that existed throughout the wide network of people who work in TWRM or interact with it. Through identification and setting up of virtual systems on the internet, and a knowledge hub, the Learning Centre and Knowledge Hub for TWRM Component assisted the MRC to take advantage of the latest technologies to improve work processes and efficiency, and drove the demand for information flows while building the infrastructure to supply it.

Implementation Arrangements

For the past years, information and knowledge activities were carried out within the framework of the TSD. The IKMP 2011-2015 as described is intended to run over a five year period. However, as the programme specifically addresses longer-term goals such as capacity development, sustainability and institution building it will continue for a longer period.

A number of activities and projects which are ongoing from IKMP phase 1, will continue and will be integrated into the second phase of IKMP; these include the GIS and database systems, discharge and sediment monitoring networks, modelling toolbox and its services and MRC portal etc.

Main Outcomes

IKMP 2011-2015 is expected to deliver 5 outcomes as follows:

Outcome 1: IKMP is efficiently and effectively managed and communicated, and technical components are effectively supported.

Outcome 2: A basin-wide river monitoring network is well functioning and linked with other MRC monitoring systems to provide accurate, reliable and timely hydro-meteorological and related data at basin level while strengthening relevant national and regional capacity

Outcome 3: An Information System of the MRC (MRC-IS) which comprehensively integrates MRC data and information, is consolidated, regularly updated and made available for internal and external uses

Outcome 4: MRC provided tools and related modelling services extensively used by target regional and national agencies for planning, forecasting and impact assessment

Outcome 5: Appropriate knowledge management systems and processes developed and applied, and shared with MRC partner agencies via sustainable knowledge networks

List of ongoing agreements

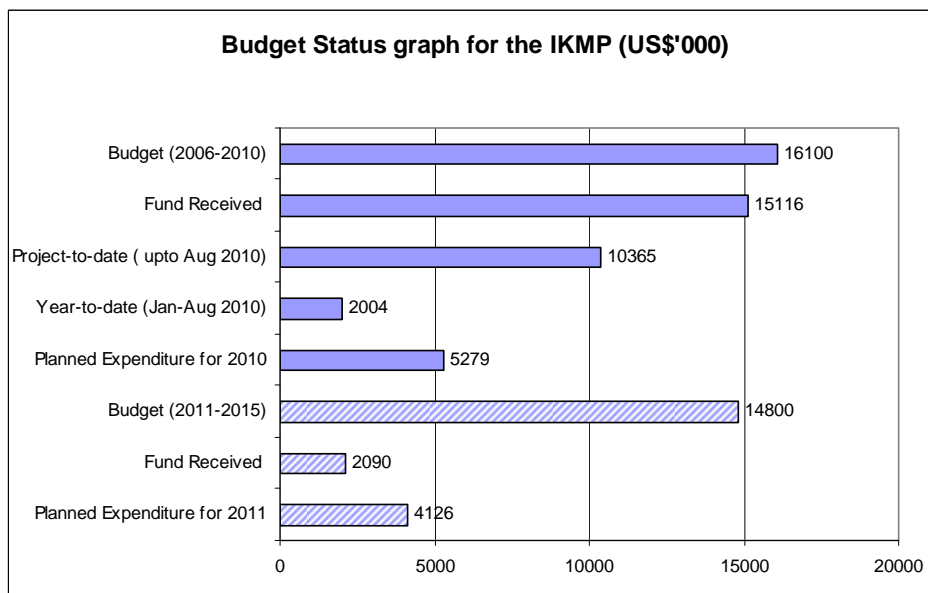
(US\$ 1,000)

	Start date	End date	Budget	Balance 2010 (*)	Donors
Agreements					
Information and Knowledge Management Programme	2007	Dec 2010	9,131	2,130	Finland
Additional support to Senior Modelling Advisor	July 2009	Dec 2012	754	525	Finland
AFD support to Mekong HYCOS project					
–Project Management Unit	Jan 2006	Jan 2012	660	440	France
–Other programme activities	May 2006	May 2012	3,338	669	France
Discharge & Sediment Monitoring	Apr 2010	Apr 2012	960	951	France

(*) Balance as of end of August 2010

3.6.2. Progress of IKMP for 2010

The following graph provides an overview of the updated budget status of the Programme for the year 2010 which includes budget for the Programme period, total funds received and expenses on the Project-to-date and Year-to-date. The expected expenditure for 2011 is planned for US\$ 4,126,000.



Planned and Achieved Outputs for 2010

Component 1: Programme Management

- IKMP 1.1** Consultation with other programmes of the MRC and member countries was made in order to prepare the programme document for IKMP phase II (2011-2015). The next programme document will be developed with internal resources under the current phase of IKMP. Recommendations made from IKMP Mid-term Review (MTR) and the MRC Strategic Plan 2011-2015 will be main references for the preparation of the programme document for IKMP phase II. In addition to this, the final progress report of IKMP performance will be made and submitted to donors for further coordination of fund raising.
- IKMP 1.2** For the implementation of the Drought Management Project, a regional expert on drought management was recruited. Meanwhile, a Programme Officer on GIS and Remote Sensing was also mobilized to support finalization of the LMB land cover and wetland map with additional tasks of image processing and flood mapping when needed.
- IKMP 1.3** A set of activities on knowledge management was carried out in cooperation with the Integrated Capacity Building Programme (ICBP). These activities aimed at strengthening the capacity of the MRC as a knowledge-based organization in application of IWRM concepts.
- IKMP 1.4** With support from M-IWRM project, IKMP worked closely with other programmes and national line agencies to:
- Identify needs, constraints and gaps in implementation of PDIES in order to find out practical ways to move forward.
 - Provide technical support to other programmes in building up their own databases on water utilization. Through this process, general coordination support was

to monitor the water use in the LMB as requested in PWUM.

- IKMP 1.5 Technical and financial support was continuously provided to NMCs and national line agencies on the implementation of key national activities as follows:
- National Case Studies in application of DSF and other IKMP tools
 - Training on Data Quality Assurance and development, operation and maintenance of the Master Catalogue.
 - Training and hands-on exercise on land cover and land use mapping using the FAO classification standard.
 - Development of hydro-met relational databases of line agencies
 - Transfer and sustainability of Mekong river monitoring system
 - Other capacity building activities for national staff as required
 - Provision of equipments for technical work at national level
- IKMP 1.6 Quarterly, bi-annual progress and technical reports will be prepared per normal practice and submitted for PCC, SC and Joint Committee as required.
- IKMP 1.7 Two TACT (Technical Assistance and Coordination Team) meetings were organized in 2010 to inform and discuss on some important technical issues that IKMP undertook.
- IKMP 1.8 The 6th IKMP Steering Committee meeting was held in February 2010 to review progress of IKMP in 2009 and approve the work-plan for 2010. Respectively, the last SC meeting of IKMP phase I was organized in September 2010 to review the progress of IKMP phase I and approve the programme document of IKMP phase II.

Component 2: River Monitoring

- IKMP 2.1 All HYCOS stations were finalized and functioning in 2010 including the civil construction and installation of equipments. Some 32 stations in the tributaries were able to provide reliable near real-time data through the quality control process managed by IKMP. Moreover, a relational hydro-met database system was finalized to store, manage and analyze the data for different purposes in the MRC and Member Countries.
- IKMP 2.2 For hydro-meteorological data services and products, IKMP continued to provide the following services and products:
- Quality assured historical data services
 - Quality assured near real-time data services
 - Data analysis and special services as required
 - Implementation of the discharge and sediment monitoring project that enable to provide more sediment data in the mainstream for modelling and sustainable hydropower planning purposes. The project will be implemented in cooperation with World Wide Fund for Nature (WWF)

with funding committed from the French Fund for World Environment (FFEM).

- Close cooperation with dialogue partners (China and Myanmar) for ensuring hydro-met and other data and information exchange between the LMB and HMB. Field visits will be undertaken by IKMP staff to visit Jing'hong and Ma'an stations and data terminal in Kunming to ensure the proper functioning of the equipments as well as to strengthen cooperation with dialogue partners. In parallel, a set of HYCOS standard equipments will be installed in Myanmar (Wang Pong Port) in order to strengthen the data exchange with the Myanmar site.

IKMP 2.3 A full concept note with detail work-plan on sustainability of the MRC river monitoring network was finalized and submitted for approval from the JC in 2010. All AHNIP stations (17) were upgraded into HYCOS standards that enabled them to provide near real-time data for every 15 minutes and 24/7 using GPRS coverage from mobile phone services. In addition, all historical hydro-met data was quality assured and transferred into the new defined single system. IKMP provided financial support on operational and maintenance of the system as agreed in the TOR signed with countries under the Mekong HYCOS project.

IKMP 2.4 Under IKMP management, the drought management project will be implemented as follows:

- Recruitment of project manager and other experts and preparation of detailed work-plan.
- Development of drought management strategy and tools for drought risk analysis and mapping.
- Development of a full proposal with a new strategy for a drought management project.

Component 3: MRC Information System

IKMP 3.1 All spatial and other databases were integrated into a single system which include works of auditing of all existing data holding; improvement of data storage system; development of standards and guidelines for data and information management with IP support and infrastructure maintenance.

IKMP 3.2 Services for data access, management and analysis were continuously provided by IKMP. New spatial and time series data was collected from national line agencies with technical support from IKMP through PDIES practices. The hydrological data (2001 to present) was updated for the knowledge base and BDP scenario analysis and others. Other key programmes of the MRCS will be supported on establishing their own database systems in order to implement the PWUM.

IKMP 3.3 Following the activities in 2009, the data acquisition and generation plan was conducted in 2010 in order to update and finalize the Master Catalogue. In parallel, data from Member Countries and satellite images provided by FAO are being used for generating unified land cover and wetland map of the LMB. Remote sensing expertise was mobilized to produce near real-time flood maps for FMMP as required.

IKMP 3.4 Visualization, software and hardware were upgraded in order to provide adequate maps, hardcopy and printing services to other programmes and to Member Countries.

Component 4: Modeling

IKMP 4.1 Modeling platform was reviewed and continuously upgraded. DSF was used as transboundary tools for planning and management. Modeling Team has been working closely with national line agencies in application of the DSF for national modelling activities. New versions of DSF tools was also maintained and supported. Capacity building for national modellers in DSF application was continued through the modality of Associate Modellers, Junior Riparian Professionals, National Case Studies and other training courses. Upgrades of ISIS model into 2D was considered as a priority.

IKMP 4.2 Modeling services were continuously provided to other programmes of the MRC and Member Countries. They included:

- Provision of modelling services in scenarios generating for BDP II and updated of results from scenarios analysis. It focused mostly on running basin scenarios in taking into consideration of climate change scenarios made by EP.
- IKMP toolbox that included a number of modelling tools was finally established in 2010. Through the work packages of Wide Basin Modeling Support (BMS), the new tools (preferable open sources for water and related resources management) were studied and selected for the IKMP toolbox if they are relevant and compatible with the work of the modelling team.
- A number of new models for national and transboundary uses (sediment, primary production, erosion etc) will be finalized. The knowledge and skills of applying these tools were transferred to the countries through a network of national modellers and Training of Trainers (TOT) approach.
- Support NAP in hydraulic modelling for navigation route in new planning dams. This service was implemented in close cooperation with consultants of Navigation Programme.
- Training on application of REC HeSim model was conducted in 2010 in order to strengthen capacity of the MT and national modelers.
- National Case Studies were implemented by Member Countries for application of DSF and new developed models. These activities aimed at building up capacity of the national modelers in using national and transboundary assessment tools.

Component 5: Learning Center and Knowledge Hub for Transboundary Water Resources Management (TWRM)

IKMP 5.1 MRC-IS portal improved by IKMP in order to provide users (both inside and outside of the MRC) with more information and data on water and related resources management. The

portal was operated and maintained together with the MekongInfo and Document Management System.

- IKMP 5.2 MRC Documentation and Learning Centre (DLC) continuously upgraded that include the improvement of equipment and learning materials. The DLC was able to provide clients with more digitized products that enable the application of IT in managing the centre.
- IKMP 5.3 Cooperation with international, regional agencies on data, information and knowledge management was strengthened through joint studies/researches with partners such as Washington University, Mississippi River Commission, Knowledge Hubs and WWF etc. In addition to this, a knowledge hub for transboundary water resources management (TWRM) was set up and launched in 2010 in order to share knowledge, tools and information on TWRM issues in Asia Pacific.
- IKMP 5.4 A plan for the MRCS Management Information System (MIS) was continuously developed and functioned. The MIS was implemented in a pilot scale for testing before implementing in whole organization scale in MRCS. A Monitoring and Evaluation System was also established and implemented in the MRCS.

Tourism or drought related activities are being identified for further integration, if appropriate, in the Work Programme 2011.

Development Partner Reviews or Appraisals Planned for 2011

There is no donor review or appraisal which has been planned for 2011. However, completion report of IKMP phase 1 will be appraised by the Steering Committee of IKMP in April 2011 and then be submitted to Finland as the final report which aims to guide the implementation of IKMP 2011-2015.

3.6.3. *IKMP Workplan for 2011*

- IKMP 1.1.1: The PIP will be developed in a way that (i) incorporates the needs and concerns of all stakeholders through a consultative process; (ii) ensures that the indicators for each task are measurable and achievable and (iii) applies the principles of the MRC Performance Management System. It is expecting that an indicative five-year Programme Implementation Plan that provides basic foundation for operation of IKMP 2011-2015 is made in corporation with the Countries and will be one integrated plan covering IKMP and NMCs IKMP Units. National and regional consultations will be carried out before a final draft is submitted to the Steering Committee (SC) for approval.
- IKMP 1.2.1: Consolidate IKMP management structure within TSD and to coordinate IKMP activities. IKMP will need to be consolidated in order to maintain on day to day basis a clear direction for the programme by:
- Developing clear and transparent Terms of Reference for each position
 - Recruiting new personnel.

- Applying performance monitoring to measure progress towards the achievements of objectives and planned results; and reporting to schedule.

As a result: a well organized and functioning IKMP team that effectively meets the client needs in a measurable manner is established. Staff skills and staff work will focus on Knowledge Management Principles for Knowledge workers. Major elements are the ability to continuously achieve new knowledge, to develop personally and to master teamwork within the programme and with other internal and external entities. It includes the ability to take on responsibility within the frame of the job description and to work vertically and horizontally in the organization.

IKMP 1.2.2: Develop long-term capacity building strategy for IKMP. The strategy will be developed and implemented in collaboration with ICBP and Mekong-IWRM project. It will focus on four areas:

- Legal, regulatory and procedural development
- Institutional development
- Human resources development, and
- Technology development

A comprehensive capacity building plan is developed and implemented effectively and efficiently that strengthens competencies of IKMP and relevant line agencies staff. The capacity building plan and the personal development plans are based on knowledge management principles. They include all staff levels from management to junior staff and describe their roles, duties and responsibilities and plans for developing their competence. The capacity building strategy will define the Knowledge Management principles under which the staff capacity building will take place and will focus qualifications, but especially capacity building activities to ensure staff competency.

IKMP 1.3.1: Maintain and consolidate the activities of IKM TACT. Current mechanism of IKM TACT will be maintained by updating the Terms of Reference to include enough technical specialists into this advisory body. IKM TACT maintains its regular operation to facilitate regional technical coordination of IKMP which needs regional consensus and conversion into national actions. The TACT will include all technical areas like modelling, GIS, Real time monitoring, sediment monitoring, related procedures and guidelines etc. Depending on the topics discussed relevant national and MRCS staff participate additional to the TACT members.

IKMP 1.3.3: Organize and participate in relevant IKM workshops and training. Current network of partnership of IKMP is expanded with new members from four Member Countries and in other regions. IKMP coordinates with NMCs, line agencies and regional and international organizations to organize national or regional workshop on IKM issues together as appropriate. Moreover, IKMP may participate in workshops, conferences and other forums that are in alignment with IKMP needs. If necessary, IKMP co-organize those events or contribute to some agenda items of some events. Relevant issues may

include promoting, communicating and raising awareness of best practices of IKM, procedures, MRC-IS, river monitoring, modelling and assessment tools, training materials and knowledge sharing on Transboundary Water Resources Management etc. National and regional workshops, conference and forums are taken place to promote IKMP work, products and services.

- IKMP 1.3.4: Provide technical support and implement MRC procedures and guidelines. In collaboration with other MRC programmes and NMCs, IKMP may facilitate the process of implementing the signed procedures of the MRC. IKMP is involved directly with implementing two procedures; PDIES and PWUM, and provides technical assistance (database development, assessment tools and analysis etc) for the implementation of other procedures (PMFM, PNPCA etc) and their guidelines. National and regional consultations may need to be conducted during the implementation phase to update country perspectives into the process and results. As a result, signed procedures of the MRC and their guidelines are implemented supporting the decision making process and Mekong Cooperation. It is also expected to make signed agreements with relevant Line Agencies to regularly provide Quality Assured data and information to the MRC-IS.
- IKMP 2.1.1: Finalize the implementation of the Mekong Hydrological Cycling Observation System project (Mekong HYCOS). More attention is paid to real time data transmission and data management. It is expected that 17 hydrological stations on the mainstream and 32 stations on tributaries functioning and delivering reliable and timely data to MRCS and line agencies. In order to make sure that after complete installation of all stations, the system will work properly, it is needed to update some problematic stations occurred by possibly firmware, radar sensors problems and so on. Additionally, testing of the hydro-met system is also essential and then commissioning trip of upgraded AHNIP and some HYCOS stations is planned in early April 2011.
- IKMP 2.2.1: Develop the strategy/policy for data management within MRCS and in Member Countries. The MRCS data and Information strategy is based on the requirements set out in the IKMP programme and Programme Implementation Plan documents. The basic approvals took place in the TACT group in the years 2000-2003. The practical implementation has taken place during 2008-2010. The manual will contain overview of Data exchange and sharing, Quality Assurance, Metadata etc.
- IKMP 2.2.2: Adopt or develop appropriate software for hydro-meteorological data management in MRC. Review the current use of software for data management in both MRCS and member countries. Comparative analysis is applied for available software for hydro-met data management in the world. Build up capacity for using the recommended software. This will be done in line with the MRCS Information strategy and recommendations for HM software upgrade initiated in TACT.
- IKMP 2.2.3: Consolidate a system for quality assurance and correction for data acquired from the river monitoring network. Improvement

of current system developed by IKMP and introduced to Member Countries and relevant Programmes.

- IKMP 2.3.1: Provide coordination and technical support to the implementation of Discharge and Sediment Monitoring and Geomorphology Tools Project. It is under ongoing activities of the discharge and sediment monitoring and geomorphology tools project. IKMP will assign more coordination support and staffing to the implementation of this project and ensure the alignment of the project implementation with IKMP objective. The comprehensive sediment monitoring programme plan is being implemented in close cooperation with the NMCs and MRC Environment Programme. The Monitoring Team works in coordination with the hydrographical and water quality measurements. The monitoring is implemented through the NMCs.
- IKMP 2.4.1: Develop and regularly include ground water data in the Master Catalogue and update a relational database for the Lower Mekong Basin. Through the existing ground water database, the ground water data are collected from member countries and made available in the Master catalogue. Some field survey may be conducted in Cambodia and Laos PDR where ground water data is not yet available. Ground water data of the LMB are expected to be available at MRC and used for water use monitoring purposes.
- IKMP 2.5.1: Deliver properly processed and quality assured historical and real-time hydro-met data to the users via the Master Catalogue. All historical and near real-time hydro-met data are quality assured and imported into the MRC Master Catalogue. These data will be categorized and made available to users via MRC web portal. Implement the PDIES on hydro-met data via the MRC Master Catalogue and web portal. Any quality Assured dataset can now be included and thereby will be available for search.
- IKMP 2.6.1: Near real time monitoring of hydrological conditions of the river and give advice in critical situations. Timely and precisely monitor the situation of the river, especially for flood extreme events and critical drought situations. All critical hydrological situations are monitored and actions responded. Online display and weekly short situation assessment are available.
- IKMP 2.6.2: Collect necessary data to provide scientific analysis of any critical hydrological conditions and issue technical reports on each event. All critical hydrological situations (flood, drought and other possible hazards) are explained and reported.
- IKMP 2.7.1: Set up a working group for water use monitoring within MRCS and in each Member Country (in corporation with M-IWRMP). At MRC level, each relevant programme that has a database on water use may need to assign a staff to be a member of the working group. Meanwhile, at the national level, NMCs may coordinate to establish a working group in each country.
- IKMP 2.7.2: Conduct national and regional consultations on the implementation of PWUM in regional context. All needs/concerns of member countries are taken into consideration in the implementation of the procedure.

- IKMP 3.1.1: Upgrade both hardware and software for data storage and IT infrastructure especially servers at both offices of MRCS. The approach will be two-fold. Data and information can be stored, shared and exchanged via MRCS server or via services on the Internet if more applicable. Needed software must be available to facilitate the storing, sharing, exchange and for quality assurance.
- IKMP 3.2.2: Develop manuals and guidelines used for data and information management systems in MRCS and member countries. IT infrastructure, Information strategy, use of standards and procedures and implemented solutions are documented in manuals and as integrated parts of the systems. Documentation is available in electronic form to relevant user groups. For non technical users easily accessible data summaries should be produced.
- IKMP 3.3.1: Finalize manuals and guidelines for data quality assurance in MRCS and its Member Countries. International standards and procedures for orderly, logical, and consistent Quality Assurance must be followed. This is set out in the MRCS-IS strategy and implementation. Further development is needed and it is important to ensure that the standards and procedures are followed although they may not always be in the same practical way.
- IKMP 3.3.2: Provide quality control and quality assurance to all historical and near real time data available in MRCS. Internationally accepted and peer reviewed algorithms must be used. Quality Assurance is very diverse from time series to spatial and non spatial data. As part of capacity building (See Activity 3.2.3), the national line agencies should undertake the QA in all areas of their responsibilities. The selection of algorithms and software can be handled by TACT. All Quality Assured datasets must have relevant metadata attached according to the ISO19139 standard.
- IKMP 3.4.1: Permanently upgrade the MRC master catalogue in both functionality and interface. The present process where MRCS receives raw data and information from national line agencies is to be changed to receiving QA datasets with metadata. The upgrade of the Master Catalogue can also be gradually transferred to the national Line agencies provided they build up the capacity and infrastructure. IKMP will then mainly ensure the integration of national datasets to form MRB. Orderly, logical, and consistent sets are available to users.
- IKMP 3.8.1: Conduct re-assessment of custodians for data provision in each Member Country. Relevant line agencies are engaged to discuss standardization of national processes for data exchange and sharing. It is important to use the same standards and procedures while details should be adapted to individual line agency needs and capability.
- IKMP 3.8.2: Organize national consultations to identify the best mechanism for data exchange and sharing. Relevant line agencies are engaged to discuss standardization of national processes for data exchange and sharing. It is important to use the same standards and procedures while details should be adapted to individual line agency needs and capability.

IKMP 3.8.4: Regularly report and update information on PDIES to TACT and JC meetings. The result of datasets sharing via the Master catalogue is recorded. The exchange of regularly and ad hoc exchanged datasets are monitored separately or be available in the MRCS-IS for users.

IKMP 4.1.1: Finalize specific releases and updates of the MRC Toolbox including the interface, modelling software, KB and QA containing standard input setups and output results and for further use and studies by target external and internal user groups. Continue MRC Toolbox development and DSF improvements from IKMP phase1 to provide an effective way to be able to apply access and share analysis techniques, modelling tools and results to achieve effective IWRM at Regional and RBO (River basin organisation) levels. More attention is to be paid to the needs of a wider community of users and the tools that they need for their work.

A widely used toolbox, associated models, analysis techniques and data that meets the needs of its users for application of all aspects of IWRM. The initial release of the MRC Toolbox will be made in March 2011 at a workshop on completion of the international consultancy contracts of IKMP Phase 1. The tools initially included will cover the existing DSF modelling tools enhanced with Syke IWRM tool and 3D modelling of sediments, water quality and primary productivity in the Tonle Sap.

The MRC Toolbox will continue to be developed and improved throughout the IKMP Phase 2011-2015 in response to the needs identified by consultation with users and through direct experience and capacity building feedback.

IKMP 4.1.2: Promote Use of MRC toolbox and other MRC Programmes. IKMP will encourage the use of the MRC tools by other MRC programmes by providing technical assistance, capacity building and application of new tools in the implementation of the programmes, especially modelling and assessment. It is expected that the MRC tools are recognized and widely used by other MRC programmes.

The approach will need to adapt to the requirements of other programmes particularly Basin Planning, Environment and CCAI and progressively integrate IKMP and Tools used to access and analyse and make available common information sets and achieve common goals. This will require closely knowledge and understanding of needs but ultimately contribute significantly to closer working and cross cultivation of outputs in line with SP2011-2014.

Initial activity will be to make the Toolbox available with relevant datasets as a robust platform and to regularly consult on needs of programmes adapting the development of software and datasets to achieve the highest possible usage.

IKMP 4.1.3: Capacity building for the application of the new MRC toolbox. Initial activity will be conducted to make the Toolbox available with relevant datasets as a robust platform and to regularly consult on needs of Line Agencies in adapting the

development of software and datasets to achieve the highest possible usage.

- IKMP 4.2.1: Strategic studies at basin, national and transboundary levels supported with effective modelling services. IKMP modelling team is responsible for conducting modelling activities or providing technical assistance to other programmes in modelling, assessment and analysis.

Under this activity IKMP will develop, update and commission new models to support strategic studies using IWRM principles and covering specific areas like fisheries, SEE, water Quality etc.

- IKMP 4.2.3: Provide modelling services on national and transboundary issues upon request. The PNPCA process for notification of Xayaburi mainstream dam and analysis of the dry season flows in 2010 are example of the type of service for which modelling is required and delivered. It aims that decisions regarding development works are fully informed based on results of basin-wide and local modelling work as required conducted by IKMP in conjunction with NMC modelling capacity.

- IKMP 4.2.4: Support national real world activities especially for Cambodia and Lao PDR. As it was identified in the assessment report of IKMP phase 1, Cambodia and Lao PDR may need more special support on modelling in order to build up their knowledge in this area. Financial and technical assistance to Cambodia to establish a national centre for modelling under the management of a central water management agency should be considered.

- IKMP 4.3.1: On the job training for national modellers (updated Associate Modeller Programme). Capacity building for MRC and national line agencies in analysis, modelling and assessment, designed and implemented under Integrated Water Resources Management (IWRM) principles. In line with the IKMP capacity building plan that was developed and partly implemented by IKMP phase 1. The modality of Junior Riparian Professional under ICBP may be applied by IKMP for this activity. National modellers may need to spend some time to work day to day together with the IKMP modelling team or they may be sent to work in national line agencies with technical support from IKMP.

- IKMP 4.3.4: Set up a network of modelling trainers in the region for the application of the MRC toolbox. Some key modellers who have strong background and knowledge in modelling are selected among relevant national line agencies. A course of Training of Trainers (TOT) on the application of the MRC toolbox will be provided and would be repeated as refresher and updating courses. These trainers (modellers) will be mobilized as key facilitators who help promote the use of the MRC toolbox to other modellers and within their institutes.

- IKMP 5.1.2: Regularly update and maintain the MRC web portal. The most important activities are to constantly update and maintain the datasets and provide access for users and to regularly add new services and functionalities. The maintenance and updating of datasets is ensured via component 2, 3 and 4 activities. The decision whether or not to add new services and

functionalities has to be viewed as a combination of user needs and availability, especially the availability of the Internet services for storage, map servers, translation tools, visualization tools etc, to minimize and avoid duplication at MRCS.

IKMP 5.3.1: Develop the web-based Virtual Mekong Basin (VMB). The work is ongoing with the portal upgrade but will have limited contents finished in phase I of IKMP. The VMB is to provide learning and understanding of the MRB by providing scientifically based information using visualization, animation and interaction. It intends to link the layers of information from physical assets like geomorphology, weather systems, water, sediment, nutrient and carbon balances and the Social, Economic and Environment layers. This includes especially links between ecological balances like nutrient and primary production to fisheries and agriculture production etc.

IKMP 5.5.1: Establish a core management team and an interim steering committee for the knowledge hub on TWRM. In accordance with the approved Knowledge Hub business plan to establish the organization for the KH:

- Steering Committee of network partners (initially selected key partners), chaired by MRC
- Expert Staff at MRC
- An experienced riparian Knowledge Hub Manager (with specific TWRM background and extensive international network of contacts)
- Focal points designated in existing programmes with a maximum time allocation of 5-10% and gradual recruitment of 1-3 additional regional professionals depending on the demand and required expertise and including a mixture of full time and part time positions in different disciplines
- Secretarial services for the Core Team at MRCS, including a dedicated Web Manager
- Regional/international Advisory Panel (3-5 part time senior experts) which could be drawn from other international advisory panels being established at MRC such as for the Basin Development Plan.
- Focal point arrangements associated with, and working from, key partner organizations, in particular IUCN.

IKMP 5.5.2: Develop guidelines and introductory materials for operation of the knowledge hub. Knowledge Hub for Transboundary Water Resources Management (TWRM) established for sharing tools, best practices and knowledge on TWRM with partners and clients.

IKMP 5.5.3: Consolidate the business plan for fund raising and extend the partnership with other members of the Asia Pacific Water Forum Knowledge hubs. Various phases of financing could be considered including:

- Start up financing from ADB or other development partners in parallel with in-kind support from related programmes and

sections of the MRC based on the synergies with their existing work programmes (mid 2010)

- Start-up financing 2010-2013 to be sought from development organizations, including foundations, with an interest in knowledge management and capacity building and ultimately including a broader range, including possible support from private sources
- Building up cost recovery mechanisms by sale of products and charging for services, with a view to gradually reduce reliance on donor core funding, aiming for a 50-50% share by 2018 to ultimately self-financing by 2020
- Securing agreement from partners to provide a reasonable level of in-kind contributions (in addition, membership fees are suggested in the guidelines etc)

With reference to the section on “Clients” above: target some services to other regions, mainly trans-boundary river basins in Africa (Southern, Western and Eastern), to attract donor financing and income

3.7. Integrated Capacity Building Programme (ICBP)

3.7.1. Programme Overview

Purpose

During its four-year period of implementation (2009–2013), the Integrated Capacity Building Programme contributes to the capacity development processes taking place within the MRC through targeted capacity building activities. ICBP sees the importance to support the MRCS and the Member Country agencies to reach:

- (a) *A more coherent approach in managing water and related resources:* ICBP works toward supporting the designing, implementing and monitoring of the different capacity building activities at the regional, trans-boundary and national levels within MRC system. This will be done through the completion of the IWRM competency framework¹², and the close collaboration with key MRC Programmes such as the Basin Development Programme, the Mekong IWRM Programme, the Climate Change Adaptation Initiative and the Initiative for Sustainable Hydro-power for effective implementation of their capacity building plans.
- (b) *A more cohesive decision-making, policy development and institutional development:* ICBP will work toward the improvements of selected MRC organisational systems, systems e.g. human resource management, procurement system, etc. and the development of visionary leadership and effective management that are required from the emerging needs to become a world class and decentralised river basin organisation.
- (c) *The international standard MRC staff members who are competent, efficient and effective in implementing and providing high quality technical and advisory supports:* ICBP will support the different processes of human resource development, refining the work place staffing procedures and promoting a learning organisation through different knowledge and skills transfer modalities.
- (d) *The further mainstreaming of gender equality principles in all MRC Programmes:* ICBP will continue to review and apply different updated gender mainstreaming toolkits, guidelines, and checklists to help MRCS and the member countries to mainstream gender equality in different IWRM processes at different levels either in the community, in IWRM policy system, or in daily practices at the Line Agencies.

Approach

A combination of capacity building modalities will be used to address the needs of the various groups and agencies.

¹² IWRM Competency Framework defines three levels of competencies (a) technical competencies, (b) managerial competencies and (c) integrative competencies. The Organisational Independent Review indicate the gaps with respects to “integrate competencies” which are Decision making techniques, Cross-cultural communication, Public consultation and community participation approaches, Dispute management, and Writing skills relative to programme development and reporting.

At the regional level, ICBP will aim to build a pool of competent ICBP riparian staff that could provide technical and methodological advices to all MRC Programmes in the areas of IWRM Capacity Building, Organisational and Institutional Development, Human Resource Development, Gender Mainstreaming, Planning, Communication and Monitoring. ICBP will also further promote the capacity building database and combine it with a monitoring and evaluation system that helps MRC to measure the outcomes and impacts of the capacity building processes.

ICBP will maintain a well established documentation centre for capacity building and capacity development with which all training materials will be combined and displayed in both two Secretariat offices in Vientiane, Laos and in Phnom Penh, Cambodia for the easy access of all staff who may want to refresh their knowledge on different disciplines and updated contents and approaches, or those who do not have the chance to participate in the training courses, workshop, events, etc. to have the knowledge from the training materials. ICBP will also provide chances for participation for MRC staff into different courses ICBP will organise, using the MRC training room. This will help expand the chances for knowledge and skills update, at the same time to be cost-effective in capacity building implementation.

The Operating Expense Budget fund for capacity development within MRC will be used in the most effective and innovative way to help develop staff's capacity and to increase their commitment to increase effectiveness and efficiency in the daily operation of the organisation. ICBP will also be proactive to access other MRC Programme to provide as much as possible the support on planning, implementing and monitoring of capacity building activities. In this relation, ICBP will also focus on the development of different tools and guidelines to facilitate this process. ICBP will promote the movement of MRC to be a learning organisation. Coaching and mentoring processes among staff will be facilitated and guidelines and practices are to be developed for this purpose.

At the national level, ICBP will provide technical and methodological advices and financial support to the different capacity building activities those are (a) in the framework of the ICBP, (b) implemented by other MRC programmes, and (c) related IWRM capacity building when required. ICBP will promote the development of the learning centres (where good practices on IWRM are documented, or facilitated. They can be one organization who is advanced in different IWRM disciplines and who is ready to facilitate the learning of the good IWRM practices in their organization) for national and regional exchange and learning from good practices in IWRM and related disciplines. Tools and guidelines in capacity building planning, implementing and monitoring will be introduced for application. Revision of tools will be done regularly to make them localised and institutionalised. Besides, training courses, workshops, forums, exchange visits, demonstration, etc. will be used by ICBP for the different identified Line Agencies.

Strategy

IWRM Competency framework is very important for MRC to finalise and apply in different MRC programmes. It is also important to build capacity for the National ICBP Coordinators and Focal Points, National Coordinators for other programmes to help them coordinate well with each other on capacity building across MRC programmes at the national levels.

This will help make the capacity building work more coordinated and sustained.

The ICBP will collaborate closely with the human resource management team to revise the human resource policies and procedures necessary to enable the MRCS and the NMCSs to retain a critical mass of appropriately qualified, experienced and motivated personnel. ICBP also focuses on strengthening the connections between the various human resource development elements of job descriptions and required competencies, performance management, capacity building needs assessments and knowledge and skills transfer processes to develop consistency in human, organisational and institutional development of the MRC;

The ICBP will be active to facilitate the riparianisation process, and take lead in facilitating the different knowledge and skills transfer processes among which coaching has been identified as one of the effective modalities;

The ICBP will identify and establish the learning centres in the Member Countries to facilitate the different exchanges and exposure to relevant, effective and efficient IWRM practices. This will also help to gradually reduce the heavily reliance on international consultancy for capacity development. Instead, it will focus more on the utilisation of the affordable and accessible regional pools of experts.

The ICBP will work to build in-house resource of professional facilitators, negotiators and planners who can help other MRC programmes to design, plan, implement and monitor different capacity building activities. This will start with ICBP team members and other core MRC programme staff who will be trained as in-house facilitators on different capacity building aspects;

The ICBP will build network of regional and international training institutions such as the Asian Institute of Technology (AIT), the Mekong Institute (MI), and the international network for capacity building e.g. IWRM CAP-NET, International Centre of Excellence for Water Resources Management (ICE WaRM), UNESCO-IHE and many other riparian institutions to increase the formal and long-term education in IWRM in the region; This will also help build partnerships with national training agencies to involve them in the training of trainers to increase the use of local languages and to improve the quality of services provided to MRC.

Most importantly is to support the development or improvement of short-term, medium-term and long-term training on high quality IWRM periodic training courses, a bachelor degree on IWRM, master or PhD degree on IWRM. High quality implies a well established and up to date IWRM curriculum, an active and well equipped pool of lectures and trainers with participatory and learner centered teaching and training approaches that use and update regularly the different cases that reflects the diversity of changes and challenges in IWRM.

Structure

Outcome 1: The MRC, NMCs and prioritized national agencies have the necessary technical competencies to integrate IWRM principles into policy making, planning and implementation.*

The focus of Outcome 1 is to support the Strategic Plan Goal 4. To achieve Outcome 1, the ICBP will collaborate with the different MRC Programmes e.g. CCAI, M-IWRM-P, BDP, and ISH to facilitate different capacity needs assessment and capacity building strategies in the areas of BDP rolling out, better implementation of MRC Procedures, etc. As well, ICBP will support Member Countries to carry out different IWRM related capacity building activities through training workshop, exposures, training of trainers, etc. Outcome 1 also works toward helping related programme to finalise the IWRM training materials and having it further used and elaborated in different IWRM training in Member Countries and at related regional training centres. At the same time, different modalities for riparianisation will be explored and the knowledge and skills transfer process within MRCS will be facilitated. The focus of Outcome 1 is also on the implementation of the Junior Riparian Professionals project and Murray Darling Basin Authorities Strategic Liaison Partnership.

*Outcome 2: The MRC and NMCs (including their Secretariats) have the necessary organisational capability** to effectively coordinate and support the achievement of MRC objectives.*

The focus of Outcome 2 is to support the Strategic Plan Goal 5 that focuses on the development of the general organisational competencies, knowledge, skills and attitudes required for organisational functioning within the MRCS and NMCSs. The general organisational competencies are skills, attributes and behaviours that are considered necessary for all staff members, regardless of their function or level. Organisational systems such as human resource, procurement, finance and administration, programme management and performance management will be the focus for ICBP support in this period of time from 2011-2013. Outcome 2 also focuses on the facilitation and implementation of different capacity needs assessment, institutional assessment, road map preparation and the implementation of the capacity building programmes for the decentralisation of the 7 core river basin management functions.

Outcome 3: Gender is mainstreamed within the MRCS, and the national agencies integrate gender aspects more effectively into their IWRM work.

The focus of this Outcome 3 is to continue gender mainstreaming in the MRC. The further improvement of gender mainstreaming toolbox, the development of new mainstreaming methodologies, the establishment of the gender focal point both in-house at MRCS and in Member Countries, the piloting of different gender mainstreaming projects in MRC programmes, etc. all will be the focus of the phase.

Outcome 4: An effective integrated and sustainable capacity building mechanism is established and functioning to support the MRC work.

The focus of Outcome 4 is to improve the planning, coordinating and monitoring of all MRC capacity-building initiatives through developing tools, checklist, guidelines, IT system for planning, implementing, monitoring and evaluation. It is also to research out to identify different training and education systems so to develop supporting networks for the ICBP and MRC in building IWRM capacity and related disciplines for the region in the long run.

Country Implementation plans

Each country will have a different capacity building plan that reflects the needs and priorities for their IWRM competencies development. Four countries have different needs and demands for their increased capacity in IWRM and related disciplines.

TNMC aims to build and strengthen capacities of its related staffs at three levels which comprise executives, programme coordinators and managers, and supporting staffs, through trainings, study visits and also exchange of best practices which include leadership skills, management skills, operational skills for supporting staff in order to prepare and support for the core functions to be decentralised from MRCS according to MRC Strategic Plan 20011-2015.

LNMC focuses more on the learning of the hand-on experience from other Member Countries and a high number of training on IWRM to the stakeholders managing the main Mekong river tributaries of the country. LNMC also gives high attention to the improvement of different competencies for managers and professional staff in the Line Agencies on project cycle management, change management, human resource management, MRC procedures and guidelines, etc. Besides, English competencies, report writing, proposal development, etc are also the focus for capacity development at LNMC.

CNMC, besides the needs for IWRM competencies improvement, focuses on trans-boundary exchanges between Member Countries, conflict management, Key Performance Indicators (KPI), leadership and management skills, financial management, team building, office skills, gender mainstreaming tools, etc.

VNMC focuses on the efforts to the different trans-boundary exchange to different good IWRM practices between the four countries; at the same time choose to develop different skills for IWRM related professionals in the field of negotiation, conflict management, problem identification, project cycle management, communication and facilitation.

Implementation arrangements

The Integrated Capacity Building Programme has been established as a cross-cutting programme under the overall management of the Human Resources Development Section (HRS) and with the oversight of a Programme Steering Committee which will be chaired by the CEO. The programme team is led by the Programme Coordinator who is supported by a Technical Advisor (TA) and a team of programme officers together with a national ICBP coordinator in each of the National Mekong Committees.

Main Outputs

The expected outputs for programme implementation 2011-2015 are:

Outputs for Outcome 1

- 1.1. General IWRM competencies are strengthened
- 1.2. Specialized IWRM competencies for MRCS programmes are strengthened.
- 1.3. Junior Riparian Professional development process improved.
- 1.4. MRC, MDBA, and AusAID Strategic Liaison Partnership built.

- 1.5. Internships, professional work exchange opportunities provided, and scholarship-related information provided.

Outputs for Outcome 2

- 2.1. MRC Human Resources Management policies and procedures to support capacity building revised and applied
- 2.2. Leadership and Management competencies strengthened within MRC and NMCs.
- 2.3. Selected MRC organisational systems strengthened, e.g. procurement, performance management system, administrative system, human resource management system.
- 2.4. General organisational development competencies of staff of MRC and NMCSs strengthened.
- 2.5. Core-training programme for new staff is established and implementation coordinated

Outputs for Outcome 3

- 3.1.1. MRC gender strategy and policy mainstreamed into MRCS systems, procedures and guidelines
- 3.1.2. Gender responsive approaches are mainstreamed into the MRC sectoral programmes.
- 3.1.3. Gender responsive capacity of the NMCSs and the prioritized national Line Agencies is developed through gender awareness raising, training and pilot project implementation.

Outputs for Outcome 4

- 4.1. MRC and NMCs capacity-building planning, information management, coordination and monitoring and evaluation system is established
- 4.2. National capacity-building plans (covering the NMCs and prioritized national agencies) prepared and implementation monitored by the NMCSs.
- 4.2. Lessons learned on capacity-building processes documented and disseminated.
- 4.3. MRC programmes supported with advice on the methodology of capacity building.
- 4.4. Capacity-building materials repository (open access) established.
- 4.5. A regional network of training and education institutions is established to support long-term sustainable capacity building in IWRM.
- 4.7. Effective and efficient programme management and communication

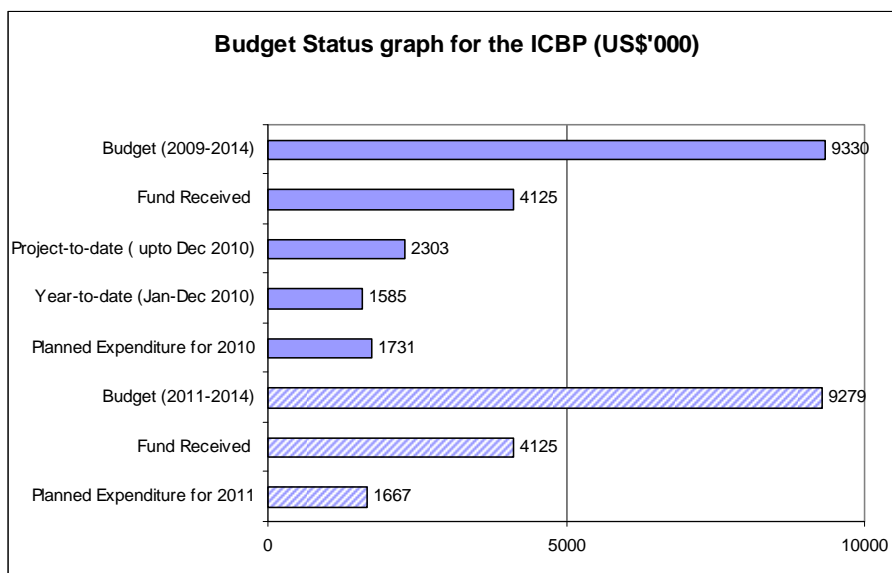
List of agreements

(US\$ 1,000)

Project title	Start date	End date	Budget	Balance 2009 (*)	Donors
Active projects					
OEB Staff Training	Jan 2011	Dec 2011	50		OEB
New Zealand support to ICBP	Dec 2004	-	320	52	New Zealand
Junior Riparian Professional (JRP) Project	Jan 2008	Dec 2011	1,000	774	Finland
Junior Riparian Professional (JRP)	Mar 2011	Dec 2014	1.250		Finland

3.7.2. Progress of ICBP for 2010

The following graph provides an overview of the budget status of the ICB Programme for the year 2011, which includes budget for the programme period, total funds received and expenses on the Project-to-date and Year-to-date.



Planned and Achieved Outputs for 2010

Outcome 1: MRC, NMCs and prioritized national agencies have the necessary technical competencies to integrate IWRM principles into policy-making, planning and implementation.

Integrated Water Resources Management Competencies: ICBP supported a series of training courses, workshops, excursions and exchange visits were held on IWRM for the four Member Countries. ICBP also supported the adaptation of an IWRM training manual, which was considered by member countries to translate into the riparian languages. Twenty eight (28) Junior Riparian Professionals (JRPs) have graduated and returned to their respective agencies to work in the water resource management sectors (JRP Batch 1-4) and four JRPs of Batch 3 and 4 still are on the job training. Another eight (JRPs Batch 5) are being trained on subjects such as gender mainstreaming, communication, facilitation, IWRM, project cycle management and strategic planning prior to their official on-the-job training (from 4 to 8 months) at MRC from February 2011 onwards. Besides, ICBP is also active in the preparation for the capacity assessment in Member Countries on the implementation of the Five MRC Procedures. This is done in collaboration with the Mekong IWRM Programme. Trans-boundary negotiation skills were also introduced to a number of key MRC personnel and NMCs' representative from the Secretariat and Line Agencies.

Support to the Basin Development Strategy/Plan: During the year the ICBP provided comments to the drafts of the Basin Development Strategy. ICBP also support BDP to organise an international standard training course on multiple parties trans-boundary negotiation skills for BDP working groups members, selected MRCS professionals and representatives from Line Agencies.

Riparianisation: As part of the implementation of the long-term goal of 'riparianisation' of the organisation by 2012 in order to ensure that it is fully run by riparian professionals, the ICBP organised an analysis of the gaps in competencies of different MRC programmes and a competency framework is drafted. This resulted in the development of a knowledge and transfer road map for each related MRC programme. The Environment Programme and the ICBP are piloting the process of knowledge and skills transfer from the last quarter of 2010 which performance coaching is identified as one of the tools to facilitate the knowledge and skills transfer process and a coaching guideline is drafted to facilitate the process.

Outcome 2: MRC and NMCs (including their Secretariats) have the necessary organisational capability to effectively coordinate and support the achievement of MRC objectives.

Improvement of organisation's support systems: Systems such as human resource management, financial, administrative system, procurement system and performance management systems of the MRC have been provided with technical support to review, revise and revitalised in 2010. Leadership, management, communication, facilitation, presentation and interviewing skills have been provided to senior managers and programme staff at both MRCS and in the Member Countries. This contributes to further strengthening of collective decision making processes as well as the effective management and communication of MRC leaders, managers and professional staff. The programme has also been active in providing advice and technical inputs to different capacity building activities within MRCS and in the Member Countries.

Establishment of a performance management system (PMS): In collaboration with the Technical Coordination Unit, ICBP facilitated the initial steps in establishment of a performance management system analysis and followed up with a series of training courses for the Member Countries on results chain and performance management. As well, ICBP continued to provide financial and technical support for the establishment of the system from 2011 onward.

Formulation and implementation of the MRC Strategic Plan 2011–2015: the ICBP has been working closely with ICCS in improving goal 4 (concerning MRC capacity building functions) and goal 5 (the organisation's routine and recurrent functions) of the Strategic Plan as well as to contribute to the facilitation of the Consultative Workshop on the Strategic Plan that was organised in September 2010. Through various discussions and inputs ICBP has clarified its roles in the implementation of the Strategic Plan over the next three years.

Decentralisation of river management core functions: the ICBP has been involved in the different discussions on the process to prepare for the decentralisation of the seven core functions. A road map for decentralisation is to be developed by MRC and ICBP expects to support the institutional analysis in the member countries to measure their current capacity to take over the core functions, as well as to help the

development of the human resource and capacity building plans necessary for this process.

Outcome 3: Gender is mainstreamed within the MRCS and national agencies integrate gender aspects more effectively into their IWRM work.

The promotion of gender responsiveness in IWRM: Gender mainstreaming has been a special focus, with many rounds of training and workshops taking place in the Member Countries. Technical advice on gender issues was provided to the Climate Change Adaptation Initiative for training on climate change. Inputs on gender mainstreaming were also provided in other areas such as the Strategic Plan 2011–2015, the Basin Development Strategy and the Environment Programme Document. The ICBP has updated the MRC Gender toolkits and will make them into a resource for gender mainstreaming with concrete guidelines, case studies and checklist for easy application.

Outcome 4: An effective integrated and sustainable capacity building mechanism is established and functioning to support the work of the MRC.

Programme Implementation Plan 2011-2013 (PIP): Regional and national teams have been involved in the development of the second ICBP phase – the ICBP PIP 2011–2013. National consultation workshops on the draft PIP were organised in Member Countries in the last quarter of 2010. The second phase of the PIP focuses on the alignment of ICBP to the Strategic Plan 2011–2013 with a specific focus on Goal 4 and 5.

National country teams have been working hard to implement all activities planned for 2009-2010 and a review is planned for May 2011 to measure the changes in human, organisational and institutional systems of the MRC.

3.7.3. ICBP Workplan for 2011

Outcome 1

ICBP 1.1. The ICBP will work to complete the IWRM competency framework, to further support programmes to implement knowledge and skills transfer processes and to support 2 professionals from MRCs and NMCs to take part in international IWRM related conference

ICBP 1.2 The ICBP will continue to provide support to BDP and other programmes such as ISH, CCAI, M-IWRM-P, IKMP, FMMP, etc. to implement their capacity building plans.

ICBP 1.3. The ICBP will start implementing the Junior Riparian Professional Project Phase III with the recruitment of Batch 6 including 1 JRP from China and 1 JRP from Myanmar. Project Phase II will be evaluated and lessons will be withdrawn for Phase III.

ICBP 1.4 The ICBP will actualise the MRC/MDBA/ICE WaRM/AusAID Strategic Liaison Partnership once the MOU is signed by the 4 strategic partners.

ICBP 1.5: The ICBP will continue to facilitate the interships and professional workshop exchanges for riparian and international interns and professional staff.

Outcome 2

ICBP 2.1 The ICBP continue to provide capacity building support to the HRS and FAS to improve the human resource management, procurement system, and possibly administrative and financial systems.

ICBP 2.2. Phase 1 of the Leadership and Management competencies will be started and evaluated so to develop the second phase. At the national level, different training on management, leadership, communication, negotiation, etc. will be organised for executives and professionals at NMCs and prioritised LAs.

ICBP 2.3 PMS system development will be continued and TCU will receive both financial and human support from ICBP. Other system will also be identified and provided with financial and technical support for revision or improvement.

ICBP 2.4 The MRC Learning guidelines will be finalised and the principles for OEB budget utilisation will be established to maximise the effectiveness and efficiency of the fund. Reporting system will be set up for the OEB budget spending and staff development programmes using the fund.

ICBP 2.5 Staff orientation package will be finalised and core training modules are to be further identified and finalised for application e.g. PMS, Leadership and Management, Interviewing, etc.

Outcome 3

ICBP 3.1: In-house gender focal points will be established for MRCS and NMCs. MRC key documents and strategy are gender mainstreamed, and sex-disaggregated data will be clear for HRM. Sexual Harassment Guidelines is developed.

ICBP 3.2. Different MRC programmes e.g. CCAI, Fisheries, EP, BDP, etc. will have the support for gender mainstreaming and piloting.

ICBP 3.3 The gender Toolkit are finalised and translated into 4 riparian languages. Exchanges between countries for best practice in gender mainstreaming are organised and pilot projects will be implemented in NMCs and LAs.

Outcome 4

ICBP 4.1 Capacity building data base system upgraded into a web-based system. MRC capacity building data entry re-vitalised for different levels (MRCS, NMCs and prioritised LA)

ICBP 4.2 NMCs have their annual work plans available and support to M&E will be provided for quality capacity building implementation.

- ICBP 4.3 Some good practices in capacity building will be documented and disseminated. E-newsletter will be started.
- ICBP 4.4 All MRC Programmes receive ICBP support with capacity building methodological advices on capacity needs assessment, capacity building plans designing, implementing and quality insurance.
- ICBP 4.5 MRC training room will have all necessary equipments, training materials, capacity building data base available for sharing and continuous learning within MRC. ICBP folder in the MRC share drive is updated and provided with adequate information about ICBP and its progresses.
- ICBP 4.6 Concept note for regional network available and initial stages for network development implemented e.g. consultation with ICE WaRM, UNESCO IHE, etc,
- ICBP 4.7 ICBP continues to manage effectively and efficiently ICBP budget and action plans. Steering Committee members will be provided with high quality result-based reports, and National ICBP Coordinators will be updated on all ICBP activities and process at the regional and national levels. National ICBP Coordinators will be the key target groups for capacity building in the year.

3.8. Navigation Programme (NAP)

3.8.1. Programme Overview

Purpose

The Mekong River is an important gateway to trade centres in the Southeast Asia region and beyond. However, in many stretches, the Mekong River of today has not exploited its inherent potential to boost trade relations and income for the countries situated in its Basin. A regional development approach is needed to contribute to poverty reduction, opening new economic opportunities, creating new employment, developing skills, and improving the access facilities to the remote communities and the delivery of rural services.

Referring to Article 9 of the 1995 Agreement, the development objective of the Navigation Strategy is to promote freedom of navigation and increase the international trade opportunities for the MRC Member Countries' mutual benefit, and to assist in coordination and cooperation for the development of effective and safe waterborne transport in a sustainable and protective manner for the waterway.

Approach

The flow regime exercises an important control on navigability, and changes in flow, which are either increasing due to regulation or decreasing due to diversions, will influence the viability of navigation. Issues to be addressed in a regional navigation programme include river navigation conditions; ports developments; capacity building in the navigation sector, integration of navigation with other transport modes (particularly in the international context); comprehensive legal framework to address the physical and non-physical barriers to navigation; and environmental and safety concerns such as pollution.

The MRC Navigation Programme has the following immediate objectives:

- **Legal Objective:** To facilitate in establishing an appropriate legal foundation and navigation regime for International Mekong Navigation, and ensure its implementation and sustainability.
- **Economic Objective:** To employ the potential of the Mekong River System to increase international trade
- **Safety Objective:** To improve navigation conditions to increase the efficiency and effectiveness of the fleet, waterways and ports, aid navigation and harmonise rules and standards and rules thereby reducing the related accidents and mitigation of risks to passengers and cargo.
- **Environmental Objective:** To balance the navigation development and promote the concept of “clean” river transportation.

Strategy

The updated MRC Navigation Strategy, in its 2003 version, is based on basin-wide studies and reviews of the navigation conditions that helped to identify the most apparent regional weaknesses and strengths. The strategy formulation took place in close cooperation with MRC Member Countries and other partners. The strategy argues that the navigation sector holds comparative advantages that justify a higher allocation of

investments in order to develop important business and trade potential in the Lower Mekong Region. At the same time it was stated that a number of institutional and physical barriers must be overcome, for which a regional approach is indispensable. The priority direction set out in the navigation strategy remains well relevant with the vision of the Mekong River Basin, and the vision and mission of the Mekong River Commission under the MRC Strategic Plan 2011-2015.

In particular, NAP strategy has also responded well to several important principles of the Strategic Plan 2011-2015 including sound legal framework for cross-border navigation, enhancing conditions of the waterway, modernizing fleets and port infrastructure, capacity building in the sector, integrated inter-sectoral and basin-wide planning, sustainable and stimulating pro-poor development for countries' mutual benefits and people's well-being, and the protection of the environment.

Structure

A total of five components have been identified and will be implemented until 2012. A new programme document will be prepared from the last quarter of 2011 to be implemented from 2013 through to 2020 which will continue to be based on the navigation strategy and in particular to align with the strategic and specific goals of the MRC Strategic Plan 2011-2015.

As with the current objectives, NAP Programme beyond 2013 will have four outcomes which will collectively enable achievement of the objective:

Outcome 1: Comprehensive legal frameworks for cross-border navigation established and effectively implemented.

Based on experience learned during the process of establishing legal framework between Viet Nam and Cambodia, NAP will continue to facilitate in establishing an appropriate legal foundation and navigation regime for International Mekong Navigation between other member countries, and ensure its implementation and sustainability. This is important for regional trade through waterway transportation by reducing non-physical and physical barriers, ensuring smooth flow, non-interrupted navigation for both maritime and inland vessels. This will include harmonizing operational rules and regulation pertaining to waterway transportation, develop guideline and standard specification for navigation locks, preparing waterway classification, defining the significance of the tributaries of the LMB for navigation to be applied with relevant MRC procedures. Also for the common stretches between the Lao PDR and Thailand a solution needs to be found vis-à-vis freedom of navigation.

Outcome 2: Utilisation of the potential of Mekong Navigation.

The Mekong River, often called the 'major brown highway' forms an ideal means of transportation leading to increased international trade. The Mekong waterway is presently underutilised and to fully realise the trade and transport potentials a socio-economic and technical feasibility study for the improvement of waterborne transport on the Mekong is required. If its potential is to be developed, inland waterborne transport and maritime access must be made a part of an integrated transport system, comprising all modes. That is why we have to examine and propose cost-effective and practical ways in which cargo and passenger transport on the Mekong waterway network can be increased as a separate transport mode and as a part of the regional multimodal transport network. Establish an integrated Mekong River Information System necessary for navigation development that covers operational data, traffic monitoring and information on

navigation development and management throughout the lower Mekong Basin. In order to promote IWT it is required to demonstrate the advantages and potentials of the waterborne transport sector and disseminate essential information to relevant stakeholders with a view to change misguided perceptions and promote public and private investments in this sector.

Outcome 3: Improved waterway safety.

Given that the capacity of the Member Countries are not at the same level, NAP will continue to assist the less advanced Member Countries in improving navigation condition including waterway infrastructures, signaling and communication system, low-level forecasting tools, capacity building of the waterway-related sector, harmonizing rules and regulations for safety, aids to navigation, technical specification, curriculums, certification and develop guidelines and procedures as required.

Outcome 4: Environmental protection.

To balance the navigation development and promote the concept of “clean” river transportation, focusing on strategic prevention of environmental damage from waterway infrastructure works or from shipping or port accidents rather than remedying or combating the impacts.

Implementation Arrangements

The Navigation Advisory Body (NAB) is the high-level body responsible for encouraging more detailed inputs from the Member Countries and to free the MRC Joint Committee from dealing with technical issues. The MRC Navigation Programme Office (NPO) consisting of experts from the Member Countries and international advisors is not only formulating and supervising all activities necessary to implement the NAP, but is also supporting the above-mentioned Advisory Body. International partners such as IMO (International Maritime Organization), PIANC (Permanent International Association of Navigation Congresses), the Central Commission for Navigation on the Rhine (CCNR), and the Danube Navigation Commission are important partners in developing and assisting in the implementation of the international standards for navigation safety and environmental protection measures. Actual implementation of the activities is done by the related line agencies in the countries with assistance from consultancy companies if required. Increasingly the private operators are becoming direct partners as they are among the beneficiaries of the programme.

Main Outputs

The main outputs of the NAP are the followings:

1. New or updated and harmonised legal regimes to guarantee freedom of navigation consisting of legal and operational navigation agreements. This includes effective implementation of the agreement and operational rules and regulations.
2. Inland waterway navigation is promoted as a vital part of the multimodal transport network, and for tourism. Practical applications include providing River Information Services, improving navigation channels, and establishing low water level warning.

3. Waterway and safety improvement designs, aids to navigation, guideline and standards specification for navigation ship locks, waterway classification, defining significance of tributaries in the LMB for navigation and regional transport plans.
4. Environmental safeguards and emergency plans in place.

Cross-sectoral Output: Strengthening of technical and management capacities of national counterparts, and relevant line agencies

List of agreements

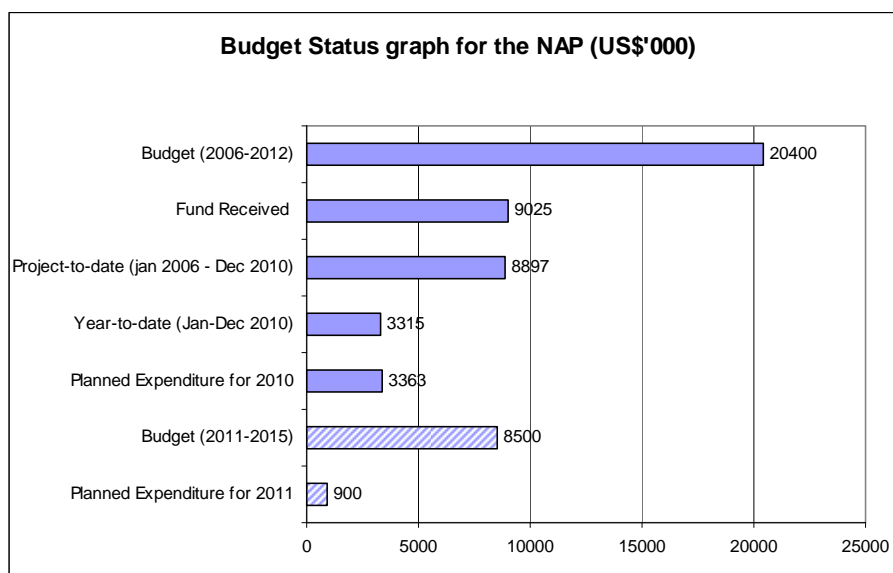
(US\$ 1,000)

	Start date	End date	Budget	Balance 2010*	Donors
Agreements					
NAP-Belgium	04/10/05	04/10/10	6,700		Belgium
NAP-Belgium	2/10/09	13/12/12	5,520	2,868	Belgium
NAP-Australia	05/05/08	30/04/09	1,011	27	Australia

* Balance as per end of December 2010

3.8.2. Progress of NAP for 2010

The following graph provides the total expenditure of 2010 as well as planned expenditure for the year 2011 under the extended contributions from Belgium. The graph also gives an overview of the NAP budget status for the period 2006-2012, total funds received and expenses on the Project-to-date and Year-to-date.



Planned and Achieved Outputs for 2010

NAP 1.1.5 Condition Survey of dangerous areas for navigation between Houei Sai and Luang Prabang: production of topographic maps, detailed design and preparation of the final report has been completed. The report is being circulated to Navigation Advisory Body members as well as

to Line Agencies for comments. A workshop will then be conducted to officially close the project.

NAP 1.1.6 Topo-hydrographic measurements along the Tonle Sap River between Phnom Penh and Chnouk Trou Design for a system of aids to navigation were completed and topo-hydrographic maps have been updated.

The study on defining Significance for Navigation on the Tributaries of the LMB, phase 1, has been concluded. However, because the project requires a substantial amount of additional data and information, not all tributaries have been covered. With financial assistance from the M-IWRM-P, the NAP will conduct a second study to complete the full report.

NAP 1.1.7 Re-determination of the Chart Datum between the Golden Triangle and Vientiane has been completed. Main outputs of the study are as following:

- 200 description cards of vertical control stations obtained through extensive surveys within the 0.1m accuracy.
- Chart Data (Lowest Low Water Level compared to Ko Lak Datum assigned to the 200 selected vertical control stations.
- Bathymetric data on the digitised maps between the Golden Triangle and Vientiane have been updated according to the new chart data.
- Longitudinal Profile of the river between the Golden Triangle and Vientiane prepared based on the new chart data.

NAP 1.1.8 Terms of Reference for the formulation of standard specifications for design, construction and operation of navigational locks, Phase 2, have been prepared. With approval by the Navigation Advisory Body at its 8th Meeting, the bidding process will be carried out in 2011. The study is expected to take about 8 months.

NAP 2.1.1 Recommendations for establishing a legal framework for cross-border navigation between Lao PDR and Thailand on the stretch of river downstream of Luang Prabang has commenced. The National Consultation Meeting in Thailand has been carried out on 19 October 2010, and the Meeting in the Lao PDR on 26 October 2010. The first Regional Meeting between the Lao PDR and Thailand has been held on 27 October 2010.

NAP 2.1.3 Establishment of the Mekong Navigation Facilitation Committee to oversee the implementation of the Agreement between Cambodia and Viet Nam has been done during the First Regional Meeting between the Legal Taskforces of Cambodia and Viet Nam. The meeting discussed the implementation work programme as well as the Terms of Reference for the Committee.

- NAP 3.1.3 Installation of aids to navigation on selected stretches along the Bassac and Vam Nao Rivers in the Vietnamese part of the Mekong Delta has been completed. A hand-over ceremony to the Line Agency has been organised in November 2010.
- NAP 3.1.5 Installation of three landing facilities for tourists and passengers as well as one dry-dock jetty for NAP's work boat have been installed in the Lao PDR between June and September 2010. Channel markers on the dangerous stretches of the Mekong between Houei Sai and Luang Prabang, will be carried out during the next dry season and shall be completed by June 2011. The system of aids to navigation including floating buoys and beacons have been installed on the Tonle Sap River between Phnom Penh and Chnouk Trou, the entrance to the Great Lake. As part of this project, a jetty for the NAP's boat will also be installed along the Bassac River behind the Office of the MRC Secretariat in Phnom Penh.
- NAP 3.2.1 Successful start-up of the project on Risk Analysis of the Storage, Handling and Carriage of Dangerous Goods along the Mekong River since November 2010. Full teams of National and International Technical Experts have been selected and recruited. The first Risk Assessment exercises have started. The reconnaissance surveys quickly revealed that extremely dangerous situations for humans and the environment exist because of very low or non-existing standards. First assessments also showed that there are almost no emergency response plans available to combat oil pollution or explosions from accidents involving dangerous goods.
- NAP 4.2.2 Cooperation on Upper and Lower Mekong River Navigation between MRC and its Upstream Dialogue Partners has been enhanced in particular the cooperation between the MRC-NAP and the Joint Committee on Coordination for Commercial Navigation (JCCCN) of the P.R.China and Myanmar. There have been exchanges of representatives to attend each other's annual meeting. As a result, P.R.China will cooperate with the NAP on the study of the Standard Specifications for Planning, Design, Construction and Operation and Management of Navigation Locks on the Proposed Mekong Mainstream Dams.
- NAP 5.1.1 NAP's relocation to the Office of the Secretariat in Phnom Penh has been successfully carried out. The NAP Office is fully functioning since 1 July 2010.
- NAP 5.1.2 The NAP Office and NAB are fully functioning to implement the Belgian and Australian Contribution to the MRC Navigation Programme. Successful achievement of NAP's outputs will require extensive cooperation from the line agencies and private sector, and coordination by the NMCs. Political commitment of the Member Countries, who have endorsed the Navigation Programme should be translated into a high level commitment at the operational and executive level within the NMCs and national line agencies involved.

- NAP 5.1.3 The 8th NAB meeting has been successfully organized on 9 August 2010 in Bangkok, Thailand.
- NAP.5.1.4 Specialised Training Courses will be carried out for professional staffs of the NAP and the Line Agencies of the Member Countries.

Significant Problems Encountered, Corrective Actions Taken

Overall, no significant problems have been identified. The planned project for the risk analysis of storage, handling and carriage of dangerous good had to be delayed. The evaluation panel did not retain the only bid, because the minimum requirements for technical acceptance were not met. The Navigation Advisory Body, at its 8th Meeting in Bangkok in August agreed to let NAP carry out the analysis according to the new implementation plan from mid-November 2010. Consequently, the study had to be extended up to June 2011. The new plan is to commission a team of individual experts and national counterparts to complete the work.

The NAP Office put the project Phase 2 'Standard Specifications for Design, Construction, Operation and Coordination of Navigation Locks on the Proposed Mekong Mainstream Dams' on hold because of the official notification of the first mainstream Mekong project received by the MRC for a project in Xayaburi. The decision to resume Phase 2 of the project will depend on the outcome of Procedures for Prior Notification and Prior Consultation and Agreement (PNPCA) for this project. In the meantime, the NAP will refer back to the Preliminary Design Guidance for Mekong Mainstream Dams in the Lower Mekong Basin, which has endorsed recommendations for International Ship Lock Dimensions and their Relevance to the Proposed Hydropower Developments on the Mekong Mainstream.

Development Partners reviews or appraisals planned in 2010

Development Partners reviews or appraisal for 2010 were planned by the Development Partners.

3.8.3. NAP Workplan for 2011

- NAP.1.1.8 The Terms of Reference for Phase 2: Standard Specifications for Design, Construction, Operation and Coordination of Navigation Locks on the Proposed Mekong Mainstream Dams have been updated. With approval by the Navigation Advisory Body at its 8th Meeting, the bidding process will be carried out by within first quarter of 2011. The study is expected to take about 8 months with funding to come from ISH.

The study on defining Significance for Navigation on the Tributaries of the LMB phase 2 to be carried out. The project requires a substantial amount of additional data and information, not all tributaries have been covered during phase 1.

Continued close coordination between ISH and NAP under MRC's initiative on Sustainable Hydropower

- NAP.2.1.1 Comprehensive recommendations for establishing a legal framework for cross-border navigation between Lao PDR and Thailand on the stretch of river downstream of Luang Prabang formulated. Depending on the recommendation, the agreement on cross-border navigation down stream of Luang Prabang to the Khone Fall between Lao PDR and Thailand will be established.
- NAP.2.1.3 Establishment of a standing bilateral committee to oversee the implementation of the Agreement between Cambodia and Viet Nam arranged. The implementation of the agreement including the fully functioning of the committee, setting up and harmonizing operational rules and regulations prepared. If fund will be made available the physical improvement to ensure a smooth and more effective cross-border navigation will be tackled as well in order to further accelerate the growth of the container and river cruise along the Mekong.
- NAP.3.1.5 Installation of Channel markers on the dangerous stretches of the Mekong between Houei Sai and Luang Prabang, and remaining dangerous in the Lao PDR and Thailand be completed and Installation of aids to navigation as well as jetties for tourist on the selected stretches as per priority by the member countries.
- NAP.3.1.7 Updated surveys and charts on selected stretches of the Mekong River, installation of the low lever forecast warning facilities.
- NAP.3.2.1 Completion of the Risk Analysis and Contingency Planning in all MRC Member Countries for the storage, handling and carriage of dangerous goods. Implement the recommendations made during the assessment of the risk analysis which included prevent and mitigation action plans be carried out.
- NAP.4.2.2 Cooperation on Upper and Lower Mekong River Navigation between MRC and its Upstream Dialogue Partners. MRC NAP and P.R. China will conduct a join study to provide standard specification for the design, operation, management of the navigation lock in association with the proposed hydropower dams along the mainstream Mekong.
- Depending on the availability of the fund, an AIS system, and aids to navigation will be designed and installed on the Mekong and Bassac in Viet Nam as well as on the remaining river stretches in Cambodia which have been covered by the Agreement on Waterway Transportation between Viet Nam and Cambodia.
- NAP 5.1.2 Maintaining the on-going functioning of the NAP Office and NAB. Successful achievement of NAP's outputs will require extensive cooperation from the line agencies and private sector, and coordination by the NMCs. Political commitment of the Member Countries who have endorsed the Navigation Programme should be translated into a high

level of commitment at the operational and executive level within the NMCs and national line agencies involved.

NAP.5.1.4 Provision of specialised Training Courses for MRC, NMC and Line agencies staffs.

Formulation of Navigation Programm document for the period of 2013 through to 2020 focusing on the MRC Core Function outlining in the Strategic Plan 2011-2015 with an aim of raising the functional role of the Navigation Advisory Body in the region to oversee the overall development of the navigation and cross-border trade over the Mekong system.

Development Partner Reviews or Appraisals Planned in 2011

The review by the Government of Belgium is tentatively planned for May 2011.

3.9. Climate Change and Adaptation Initiative (CCAI)

3.9.1. Programme Overview

Purpose

The CCAI goal: “An economically prosperous, socially just and environmentally sound Mekong River Basin responsive and adapting to the challenges induced by climate change” reflects the MRC Vision. Inherent in the goal is a commitment to poverty reduction, gender responsiveness and ecological sustainability in adapting to climate change. The overall scope of the CCAI is climate change impact assessment and adaptation planning and implementation within the Mekong River Basin. The overall outcome of the CCAI is the contribution to achieving the Millennium Development Goals, poverty eradication and improved food security. The main focus of this regional initiative is the basin wide integrated approach consistent with IWRM and the MRC 1995 Agreement.

Approach

The immediate objective: ‘Climate change adaptation planning and implementation is guided by improved strategies and plans at various levels and in priority locations throughout the Lower Mekong Basin’ shows how the goal may be achieved by using the climate change adaptation planning process to improve strategies and by building the necessary capacities. Pilot studies and demonstration projects will ensure that the efforts support governments, local authorities and communities in their endeavour to tackle the challenges of climate change.

The CCAI will pilot and demonstrate adaptation planning and implementation throughout the region including the processes of climate change impact and vulnerability assessments. It will develop the tools and provide information to support the adaptation planning process. Local demonstration sites will be established to test the methodologies, build capacity, start implementation and provide lessons learned. Basin scale activities will address climate change impacts and adaptation options at basin planning level through integration with the Basin Development Plan as well as addressing transboundary issues. The CCAI will improve capacity to adapt from local to national and levels including in the use of tools for different adaptation planning stages and methods. It will support LMB governments in introducing and improving strategies and plans for adaptation at various levels and their integration with appropriate development plans. It will ensure that adaptation performance and the status of climate change is monitored and reported on a regular basis.

Strategy

CCAI will achieve those outcomes through regional cooperation, exchange and learning based on partnerships, working under the umbrella of the *Mekong Climate Change Adaptation Strategy and Action Plan*. Implementation will involve core partners with expertise and experience in the Mekong River Basin, and a wider network of partners and identified stakeholders. As a multi-donor initiative, donors are invited to participate both in the provision of funds and through technical guidance. The CCAI needs to retain the overall integration and balance between its various outputs and activities. All ingredients of the CCAI need to move forward together with donors supporting the entire package, rather than individual elements.

The CCAI is designed to assist Member Countries in knowledge sharing, awareness raising and to facilitate capacity building throughout the entire process of climate change adaptation planning and will ensure adaptation strategy and plans are undertaken through appropriate stakeholder engagement and gender responsiveness.

A Mekong Panel on Climate Change will be established as a unique regional body acting as an independent scientific panel comprising high-profile scientists and specialists, experienced individuals and experts from the four LMB countries and other international organizations across the Mekong region and will complement the work of the Inter Governmental Panel on Climate Change (IPCC) by providing regional insight on climate change and adaptation for the Mekong River Basin.

Stakeholder engagement will build on a stakeholder engagement plan reflecting all appropriate levels and engagement will take place throughout the adaptation planning and implementation process including in pilots and demonstration sites.

Mainstreaming gender is a key strategy towards sustainable development. Both the CCAI goal and objective statements assume that the Initiative's success, efficiency and sustainability is dependent on it being developed and managed in a gender responsive manner.

Structure

The CCAI has four Outcomes designed to achieve the immediate objective.

Outcome 1: Climate Change Adaptation Planning and Implementation:

This outcome covers demonstration of the adaptation planning process focusing on tangible outputs through pilots and demonstration sites. Member countries are concerned to see appropriate adaptation options identified to increase resilience to climate change. It emphasises the need for demonstration, exchange and learning to improve performance and help shape adaptation plans. Effective implementation is based upon careful assessment and planning and hence the importance of developing and refining tools for the adaptation planning process. Implementation of the adaptation planning process will be promoted at both the local level leading to demonstration of adaptation measures, and at the basin level where it will be applied at the development planning level (BDP), at the sectoral level for principal MRC sectors, and for basin wide and transboundary issues e.g. wetlands, water quality, livelihood of people. A very important aspect in this respect is to use existing experiences and knowledge as a starting point and to feed back the lessons learned from implementation in pilots and demonstration sites into guidance on adaptation strategies, plans and specific adaptation measures.

Outcome 2: Improved Capacity to Manage and Adapt to Climate Change:

Outcome 2 is concerned with building the capacity of LMB institutions, specialists, programmes and communities in adaptation planning and implementation, including the application of planning and assessment tools developed under Outcome 1 and the adaptation measures demonstrated in the pilot and demonstration projects. This will ensure that capacity is built in measures that are appropriate to conditions in the LMB countries. Capacity building is not just about the provision of training courses, but involves a variety of different mechanisms, including on-the-job advising and mentoring and exchange visits. The preparation of training and

advisory manuals for the tools is an essential component. The general lack of knowledge and the general uncertainty about climate change impacts call for awareness raising as an important element of building capacity. The establishment of the Mekong Panel on Climate Change is seen as an important opportunity to improve regional capacity, credibility and dissemination of regional achievements in relation to climate change and adaptation for the Mekong River Basin.

Outcome 3: Strategies and Plans For Climate Change Adaptation

Outcome 3 is improved policy frameworks to promote adaptation and, most important, to integrate adaptation as a key ingredient in development planning at different levels (e.g. in the BDP). An important aspect is a monitoring and reporting system to make governments and communities aware of the progress they are making in adaptation and where gaps remain. Appropriate communication of the results to support the awareness raising and disseminate knowledge, tools and lesson learned is integrated with this.

Outcome 4: Regional Exchange, Collaboration and Learning:

Outcome 4 recognises the long term nature of adaptation to climate change and the need for steady and continuous support to Member Countries through partnerships and networking facilitated by the CCAI. The outcome also relates to the longer term sustainability of the initiative for which alignment with the MRC Strategic Plan is a key aspect as is the wider partnerships and networks that are so important for coordination of efforts and development and sharing of ideas.

There are close linkages between the four outcomes – all support and feed back into the others. Implementation depends upon the building of capacity to assess, plan and develop adaptation measures, and the demonstrations feed into improving the performance and effectiveness of strategies and plans at basin, national and local levels. All the first three outcomes depend on the effectiveness of the CCAI partnerships and the networks.

Implementation Arrangements

The implementation strategy of the CCAI is to work through a partnership approach. The CCAI has four main groupings of organisations for implementation. At the heart are the CCAI Office of Climate Change and Adaptation (OCCA) and its permanent working linkages with each of the MRC Programmes. The OCCA has a continuing and two way interaction with four networks, each with distinct characteristics and roles in implementation of the CCAI:

- National Climate Change focal points, line agencies and NMCs
- CCAI core implementation partners
- The Mekong Panel on Climate Change
- CCAI Development Partners and wider network

A Steering Committee oversees the direction of the implementation and a Regional Technical Working Group will guide and participate in the implementation.

Main Outputs

Support to adaptation planning and implementation at different levels, ranging from local demonstration projects established by each Member Country at community, provincial, sub-basin levels to a preparation of Mekong Adaptation Strategy at a regional level. Robust criteria, tools, methods and guidelines for vulnerability assessment and adaptation planning will be provided, tested and refined to reflect different environmental settings and climate change risk following stakeholder engagement and gender responsiveness plans at different steps of the adaptation planning process.

Basin wide, sector and transboundary assessments will provide a knowledge base to support decision making on strategies for increasing resilience and reducing climate change effects on sectors, natural ecosystems and social infrastructure. Two basin-wide/sector assessments will be selected for assessments by end of 2011.

A network of local adaptation planning and implementation projects for testing of adaptation planning and implementation addressing adaptation to some of the threats and impacts of climate change. The sharing of experiences and exchange visits will be encouraged between these demonstration sites with networking between the sites.

The Mekong Panel on Climate Change (MPCC) is a capacity building mechanism joining national and regional forces of climate change expertise providing knowledge and assessments supporting the policy development in the Mekong River Basin. It is an independent expert body which is made up of specialists from the four LMB Countries and from other countries and international organisations with climate change expertise of special relevance to the Mekong region.

The Mekong state of climate change adaptation report is the foundation analysis for the Mekong adaptation strategy and action plan. The two can be prepared in parallel with monitoring, demonstration and piloting activities feeding the status report and strategy and plan formulation. Both documents should be ready for presentation at the regional climate change forum.

The experience gained in basin-wide assessments and demonstration projects will feed into and influence climate change adaptation policy development and refinement in the four LMB countries through policy frameworks and guidelines. Most important initially it will contribute to the preparation of the Mekong adaptation strategy and action plan to be reviewed and updated every five years.

A CCAI database is a compilation of information and data from various sources that can be used to support different steps throughout the climate change vulnerability assessment and adaptation planning process. As a result of the lessons learned from the pilots and demonstration sites a compendium of adaptation options drawn from local experience and projects will be developed and integrated into this database as a knowledge base to facilitate adaptation planning, replication and upscaling.

List of agreements

(US\$ 1,000)

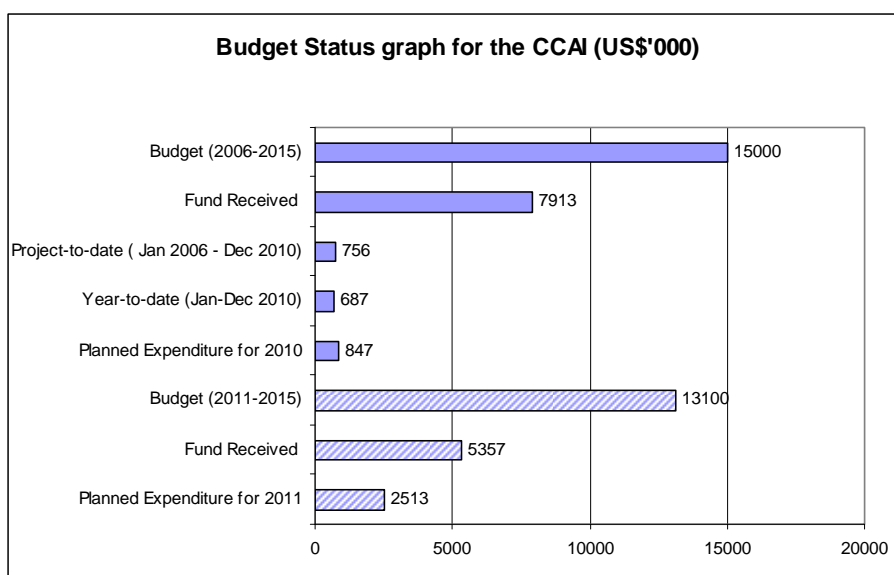
	Start date	End date	Budget	Balance 2010*	Donors
Australian contribution to CCAI 2009-2013	02/11/09	30/06/13	3,253	2,124	Australia
Danish contribution to the CCAI 2010-2015	01/01/10	31/12/15	910	99	Denmark
Luxembourg contribution to the CCAI 2010-2015	21/12/10	31/12/15	2,600	2,600	Luxembourg
Swedish contribution through EP**	1/12/09	31/12/10	1,150	534	Sweden
Total value of current agreements	2009	2015	7,913	5,357	All

(*) Balance projected by the end of December 2010

(**) Implemented through EP

3.3.1 Progress of CCAI for 2010

The Figure 1 provides an overview of the budget status of the CCAI activities which includes the budget for the period of 2009-2015, total funds received so far and expenses on the Project-to-date (August 2009-December 2010) and Year-to-date (January-December 2010). The expected expenditure for 2011 is planned for 2,513,000 US\$. The Figure 2 shows the budget plan for 2011-2015.



Planned and Achieved Outputs for 2010

Outcome 1: Climate Change Adaptation Planning and Implementation

CCA1 1.1.1 A review of the climate change database structure has been conducted towards its establishment. Preliminary findings suggest three possible components for this database, namely (i) historical and future climate change variability and change; (ii) tools and methods for climate change vulnerability assessment and adaptation planning (a link to parent organizations that have developed the tools and methods), including training manuals or toolkits for different planning steps, and (iii) the database of adaptation options and policy according to climate variability and climate change risk by different sectors, social and natural ecosystems.

- CCAI 1.1.2 A review report on “climate change adaptation methods and tools” was published. This report provides an overview of the adaptation methods and tools that have been developed and applied around the world, with a particular emphasis on Asia. The report will be used for building capacity and providing guidance for local and basin wide adaptation planning.
- CCAI 1.1.3 A preliminary study report by CSIRO-MRC “Impacts of Climate Change and Development on Mekong Flow Regimes, First Assessment” has been published. The study was conducted using the MRC DSF simulation models with inputs of downscaled data from ECHAM4 under IPCC A2 and B2 scenarios and two BDP scenarios, namely the Baseline Scenario and the Lower Mekong Basin (LMB) 20-Year Development Plan Scenario. The projection shows wetter rainy seasons from now to 2050 with a precipitation increase of 1.2 - 1.5 mm/year.
- CCAI 1.2.3 Implementation of one local demonstration project established in each Member Country has been agreed. Four demonstration sites selected for demonstration of adaptation planning include Khon Kaen sub-basin of Thailand, Savannakhet of Lao PDR, Prey Veng of Cambodia, and Kien Giang of Viet Nam – all have different environmental settings and climate change risks. A national training workshop on “Climate change risk assessment modelling and data inputs” for the Lao National demonstration project team was conducted as part of the demonstration activities in Lao PDR.
- CCAI 1.3.1 Two possible basin-wide assessments have been identified, namely wetland vulnerability assessment and adaptation planning and basin-wide drought impact assessment, which will be implemented in 2011. The wetland and biodiversity vulnerability assessment will be conducted by the Environment programme. The pilot on drought management is being discussed with the drought management expert of IKMP.

Outcome 2: Improved Capacity to Manage and Adapt to Climate Change

- CCAI 2.1.3 A regional training on “Climate change vulnerability assessment and adaptation planning” was conducted for the national teams responsible for the local demonstration activities and some representatives from relevant line agencies of all Member Countries. The main objective of this regional training was to build capacity on climate change vulnerability assessment and adaptation planning by providing general knowledge on climate change sciences and its potential impacts on various sectors and people across the Mekong Region, guiding the use of effective tools and methodologies in vulnerability assessment and adaptation planning and introducing case studies and field experience of some ecosystems and communities in coping with and adapting to climate change risk. The CCAI also hosted two junior riparian professionals (JRP) and provided technical guidance and support for their direct involvement

in various CCAI activities, especially in local adaptation demonstration project in Lao PDR and Cambodia.

Outcome 3: Strategies and Plans for Climate Change Adaptation

- CCAI 3.1.3 A concept note for preparation of the Mekong Adaptation Strategy was prepared providing a general framework for its preparation to be started in early 2011.
- CCAI 3.3.1 A draft communication plan was prepared and discussed at the first CCAI steering committee meeting. It will be revised to be consistent with the MRC Communication Strategy and complementary to the national climate change communications activities. A number of communication and awareness activities have been carried out including preparation of posters, mini-cartoon brochures and booklets on climate change issues, preparation of a climate change glossary, establishing a section of climate change publications and literatures as part of MRC library, publication of MRC technical reports such as technical paper No 24 and No 29, and launching and maintenance of a CCAI webpage.
- CCAI 3.3.4 The MRC CCAI website has been operational supporting online dissemination of CCAI publications and reports.

Outcome 4: Regional Exchange, Collaboration and Learning

- CCAI 4.1.1 Collaboration continued through MOUs and other collaboration mechanisms with partners such as SEA START RC, Japanese Institute for Irrigation and Drainage (JIID), ICEM, WWF, ADPC, Mississippi River Commission, ASEAN and SEI. Discussion is also under way for possible collaboration with CARE international, CSIRO- ACIAR, FAO and Wetland Alliance. A number of possible areas for collaboration has been identified, namely participation in the Mekong Panel on Climate Change, information sharing on lessons and experience on adaptation projects, participation in vulnerability assessment and adaptation planning at basin-wide or local demonstration levels, participation in peer review of the status of climate change and adaptation report, and conducting capacity building and training on climate change adaptation planning.
- CCAI 4.2.1 The Office of Climate Change and Adaptation was established at the MRCS with the full quota of staff. A results-based work planning and progress reporting process has been initiated and cross cutting CCAI impact indicators to address the Millennium Development Goals have been prepared to complement the CCAI Framework Document indicators. Additional CCAI staff, namely CCAI coordinator and CCAI programme officer will be recruited to meet the needs of CCAI activities in the next five years. The first CCAI Steering Committee meeting was convened to review CCAI progress, to consider the CCAI communication plan, and to review TOR of the Mekong Panel of Climate Change (MPCC). The CCAI Steering Committee was endorsed by the Thirty-second Joint Committee Meeting.

- CCAI 4.2.3 Establishment of the MPCC is being explored along with existing MRC mechanisms. Draft Terms of References has been prepared and was discussed by the CCAI Steering Committee meeting held in mid July. The MPCC has the objective to strengthen the science-based knowledge on climate change and adaptation in the Mekong River Basin by bringing together national and international experts, managers and practitioners to prepare a triennial report on the Status of Climate Change and Adaptation in the Mekong River Basin and facilitate knowledge sharing and capacity development on these issues. Membership of the Panel is on a voluntary basis.
- CCAI 4.3.1 Performance indicators for cross-cutting issues for the MDG on poverty, environment and gender have been drafted in addition to original indicators for the outcomes, objective and outputs of CCAI framework.
- CCAI 4.4.3 An agreement No MK 2010/05 for a total funding of app. US\$ 900,000 between the Royal Government of Denmark and MRC was signed in May 2010. An agreement for Luxemburg funding of US\$ 2.6 million was prepared and will be signed during the Ambassador's visit to Vientiane in the fourth quarter of 2010. An additional funding of EURO2.5 million from GIZ is under discussion with possible agreement to be signed in 2011.
- CCAI 4.5.3 A review on the CCAI achievements and lessons learnt was conducted as a basis for preparation of CCAI document 2011-2015. A draft detailed CCAI document 2011-2015 has been prepared and undergone national consultations following recommendations by the Thirty-second Joint Committee Meeting.

Significant problems encountered and corrective actions taken

Delay in start-up of demonstration activities by Member Countries due to the need for more consultation and preparation than originally foreseen. Trainings and technical back-up were provided to the National Teams to ensure timely and effective implementation of demonstration activities.

Development Partner review or appraisals carried out in 2010

No donor review was undertaken in 2010, but donor representatives were invited to attend the first CCAI Steering Committee meeting to review CCAI progress and management issues.

Relevant JC and Council Decisions taken in 2010

The Thirty-second Joint Committee meeting took note of the process for preparation of an operational framework for CCAI 2011-2015. The Joint Committee considered and agreed that the Steering Committee of the CCAI should be separate from that of the Environment Programme.

The Council approved the CCAI Framework document as a framework for cooperation on climate change and adaptation between the Member Countries.

3.3.2 CCAI Workplan for 2011

Outcome 1: Adaptation planning and implementation

- CCAI 1.1.1 The database on climate change and climate variability, tools and methods for impact assessment and adaptation planning and a compendium of adaptation options in the Mekong Basin will be established building on existing platforms or databases setup by national or regional organizations. Additional data and information will be collected from different sources such as CCAI core partners, especially from national agencies of Member Countries and a mechanism for information sharing among national focal points and regional partners will be developed and agreed. This database will be managed and maintained as part of the Integrated Knowledge Management Programme (IKMP).
- CCAI 1.1.3 Developing a basin-specific integrated climate and hydrological analysis system to assess the climate change threats including spatial analysis and the use of GIS as a knowledge sharing platform and decision support tool. Climate change scenarios and basin development scenarios, including analysis of strength and weakness of various climate models and MRC Decision Support Framework (DSF) will be assessed and agreed by Member Countries as a benchmark towards development of a robust framework for integrated climate-hydrological analysis and impact assessment in the Mekong Basin.
- CCAI 1.1.4 In developing tools for projecting ecosystem changes – biophysical impact assessment, it is envisaged that a set of indicators for monitoring behaviors of key biological features and physical conditions of ecosystems (such as wetland and forest ecosystem) in response to current and future climate change scenario and environment change will be developed and agreed in collaboration with relevant national and international organizations such as WWF, WorldFish Center and Wetland Alliance. These indicators will be tested and interfaced with climate-hydrological models developed under CCAI 1.1.3. Existing information and data gathered and collected as part of environmental monitoring by the Environment Programme and other relevant data from the Fishery Programme will serve as a baseline for monitoring the changing pattern of ecosystems, habitats and the biodiversity.
- CCAI 1.1.6 In developing tools for identifying and assessing adaptation options and priorities, a combination of existing tools (cost-benefit, cost effective analysis, expert peer review), indicators and criteria will be developed and analyzed based on climate variability and sensitivity of affected systems and communities, which would lead to a cost-effective decision on the best adaptation measures among a wide range of adaptation options such as engineering options (e.g. dykes and drainage systems); traditional local strategies; social

responses (e.g. resettlement, “autonomous” actions and gender responsiveness); land use planning (e.g. zoning and development controls); economic instruments (e.g. subsidies and tax incentives); natural systems management (e.g. rehabilitation, enhancement); sector specific adaptation practices (e.g. agriculture – crop varieties, planting patterns and irrigation regimes); institutional and administrative innovations.

- CCAI 1.2.2 As part of piloting and implementation of adaptation planning, existing policies and plans will be collected and analyzed by project partners and national teams to define the regional and national efforts and capacity in mainstreaming climate change adaptation in the local and national development plans and to propose how CCAI can be aligned and supportive.
- CCAI 1.2.3 To support a regional exchange and learning, a network of demonstration sites and existing adaptation projects will be established beginning with demonstration projects set up by each Member Country, which will be expanded to include at least two existing projects managed by national and regional partners each year, enriching experience and practice in adaptation planning and implementation.
- CCAI 1.2.4 Consistent with the CCAI adaptation planning framework and based on the agreed Implementation Agreement between NMCs and MRCS the vulnerability assessment and adaptation planning will be conducted by the national teams of Member Countries at each demonstration site including testing and refining tools and identifying and assessing existing knowledge and practices that can contribute towards adaptation planning and implementation.
- CCAI 1.2.5 A number of cost-effective adaptation options will be prioritized and selected using appropriate methods for implementation in demonstration sites including enriching appropriate existing adaptation activities after completion of adaptation planning report that meets CCAI requirements and funding availability.
- CCAI 1.3.2 The wetland and biodiversity vulnerability assessment will be implemented in 2011. The basin wide drought impact assessment will be considered. A third sector or transboundary assessment is expected to be identified for implementation.
- CCAI 1.4.1 Establishing a systematic process of review, definition and analysis of lessons learned from the demonstration and pilot activities through regular meetings of the Regional Technical Working Group, national experts and CCAI core implementing partners to share progress, experience, lessons and difficulties in implementing adaptation measures and policy based on which a set of criteria and indicators will be defined to facilitate adoption of the good practice for replication and upscaling. A reporting and monitoring framework will be agreed among key partners as

a mechanism for knowledge sharing and dissemination of adaptation planning and implementation.

Outcome 2: Improved Capacity to Manage and Adapt to Climate Change

- CCAI 2.1.1 A capacity need assessment including review of national capacity building plans will be conducted based on which an overall CCAI capacity building plan will be prepared and reviewed annually by national and regional partners and also in close collaboration with Integrated Capacity Building Programme of MRC.
- CCAI 2.1.3 An integrated programme of technical trainings in adaptation planning and implementation will be defined on a two yearly basis based on the capacity needs assessment.
- CCAI 2.1.4 Preparation of a first glossary of climate change terms has initially started since 2010 as part of CCAI communication plan, which will be subject to discussion and further clarification by national experts and regional technical working group in 2011. This glossary will be translated into national languages and be used to raise awareness and understanding on climate change terms and definition among national teams, communities, line agencies, and decision makers.
- CCAI 2.1.5 A gender analysis will be conducted to define the vulnerability of different sex to climate change, the aggregate role and responsibility of men and women in climate change adaptation and mitigation, and their power structure, which would help identify appropriate gender responsiveness training and guidelines to target different CCAI stakeholders and partners so that gender is taken into consideration throughout climate change adaptation planning and implementation in terms of policy and technical .
- CCAI 2.1.6 Reviewing the national capacity needs focused on Mekong climate change issues and developing feasible national trainings under the CCAI (based on the National Adaptation Planning process and working group structure)
- CCAI 2.1.7 Following nationally defined capacity needs assessment and lessons learnt during implementation of demonstration activities and pilots, a number of regional trainings combined with field visits to pilot sites for each LMB country will be conducted
- CCAI 2.1.8 Conducting a number of exchange visits and on-site trainings for demonstration project teams based on specific needs and priority and implementation progress in each demonstration site. A regional meeting will be convened to solicit exchange of lessons learnt
- CCAI 2.1.10 Following a regional training on “Climate change vulnerability assessment and adaptation planning” additional training courses and on-the-job training will be designed and conducted at national and demonstration

levels for CCAI network projects teams in the use of adaptation planning and implementation tools.

- CCAI 2.2.1 Following an established CCAI database and an agreed mechanism for information sharing information and data on climate change related themes such as climate variability and scenario, tools and methods for vulnerability assessment and adaptation planning and a compendium of climate change adaptation options will be gathered, compiled, documented and disseminated through different means, including the CCAI website.
- CCAI 2.3.1 Based on a set of performance indicators on cross-cutting issues and project monitoring indicators developed as part of CCAI logframe, training of CCAI network project teams in application of the monitoring framework, including systematic baseline assessment of indicators prior CCAI implementation, will be conducted for assessing and reporting on the status of adaptation in the Basin including its gender responsiveness.
- CCAI 2.3.2 To support preparation of Status Report on climate change and adaptation in the Mekong Basin additional mentoring and training modules on reporting and monitoring of adaptation activities will be developed.

Outcome 3: Strategies and Plans for Climate Change Adaptation

- CCAI 3.1.1 Scoping the Mekong adaptation plan including coverage of sector, natural systems and livelihood concerns building on basin-wide or sector assessment report, report on status of climate change and adaptation produced as part of MPCC, and reporting and monitoring report coming from a network of adaptation projects and national demonstration activities.
- CCAI 3.1.2 A review of regional climate change scenarios, climate downscaling modelling and uncertainties will be conducted, discussed and agreed by the CCAI regional working group, NETs and MPCC which would result in a range of climate change scenario and variability acceptable for the Mekong Region as a information base for climate change adaptation planning undertaken by national demonstration teams and various CCAI partners at different locations, the Mekong Adaptation Plan and to be integrated with the BDP scenarios as part of IWRM BDP planning process.
- CCAI 3.1.6 Preparing guidelines for integrating climate change implication and adaptation option into SEA and EIA, including their use of EIAs for assessing the impacts of adaptation options
- CCAI 3.2.1 Developing monitoring and reporting plans at various levels, including the definition of impact indicators, baselines, methods and frequency of measurement, gender responsiveness, significance and management response guidance.

- CCAI 3.3.1 Preparation of a three yearly Status of Climate Change and Adaptation in the Mekong River Basin will be undertaken as part of MPCC responsibility based on an agreed outline, the process for its preparation, peer review and adoption, and stakeholder involvement.
- CCAI 3.3.2 Implementing a communications campaign based on the three yearly regional synthesis report arising from the local demonstration and national and regional adaptation activities (a product of the MPCC) and a CCAI communication plan.
- CCAI 3.3.4 The CCAI website will be improved and updated with more publications, study reports and MRC CCAI technical reports and progress uploaded, providing links with CCAI database and other information platforms of regional partners such as SEI, and interactive questions, query and comments on CCAI work.

Outcome 4: Regional Exchange, Collaboration and Learning

- CCAI 4.1.1 Discussion will continue with a number of CCAI partners such as CARE International, Wetland Alliances, Oxfarm, CSIRO ACIAR to arrive at appropriate MOUs and other cooperation agreements with concrete activities and deliverable outputs with each of the CCAI core implementing partners taking into consideration technical capacity, resources availability and common areas of interest. Existing MOUs and agreement with several partners will be reviewed with a view to translate them into concrete action such as with SEA_START RC, ADPC, Mississippi River Commission, ASEAN and JIID for implementation the coming years.
- CCAI 4.1.2 Organising annual meetings with implementing partners, NMC Environment Coordinators, CCAI regional technical working group and LMB government focal points as part of an expanded MRC CCAI technical group to discuss key aspects of CCAI such as climate change projections and modelling, tools and methods for vulnerability assessment and adaptation planning, cost-effectiveness of adaptation options, gender mainstreaming and stakeholder engagement, capacity building and awareness, regional cooperation and exchange and the reporting and monitoring framework.
- CCAI 4.2.2 To meet the needs for effective CCAI implementation in the coming years, a number of riparian professional staff will be recruited, including CCAI coordinator, CCAI programme officer, and CCAI communication officer. A short-term international advisor position will be recruited to provide technical back-up to the OCCA.
- CCAI 4.2.3 Convening the CCAI Steering Committee meeting to review CCAI progress and provide necessary adjustments towards improved CCAI institutional arrangements and implementation, sustainability, workplan and budget.

- CCAI 4.2.4 Providing secretariat support to the MPCC in defining and implementing a work program, including annual meetings, monitoring and reporting on climate change and adaptation in the LMB on a 3 yearly basis. In light of a need to move step by step, a CCAI interim Knowledge Forum will be convened to invite national and regional experts to discuss the potential of the MPCC in providing credibility of the CCAI implementation for this relatively new topic.
- CCAI 4.2.5 A gender specialist will be recruited to oversee preparation and implementation of gender responsiveness plan and its mainstreaming support in collaboration with MRC gender specialist.
- CCAI 4.3.1 Based on a set of performance indicators on cross-cutting issues and CCAI indicators at objective, outcomes and outputs levels, a harmonized system of monitoring and reporting will be developed and used by CCAI network of adaptation project teams and to be consistent with MRC Performance Management System and procedures
- CCAI 4.3.3 It is anticipated that an CCAI annual technical meetings will be planned inviting potential partners for the network of demonstration sites, core partners and Development Partners to discuss promising approaches as well a challenges for climate change adaptation.
- CCAI 4.4.2 Partner donors will be invited to regular CCAI SC meetings.
- CCAI 4.2.3 OCCA continues to prepare and provide supporting documents to solicit additional funding support based on development priority and targets of Development Partners and wider donor network such as GIZ and DFID in close collaboration with ICCS.
- CCAI 4.5.1 The CCAI document 2011-2015 has been prepared based on a review of the CCAI Design and Monitoring Framework during the intermediate phase through national and regional consultations involving the NMCs, line agencies and MRC programmes. The CCAI document 2011-2015 will be finalized for consideration by the JC meeting in March 2011.

Development Partner Reviews or Appraisals Planned in 2011

No Donor Review is being planned but a CCAI Steering Committee meeting will be planned to review CCAI progress and make necessary adjustment for improved CCAI implementation where development partner representatives supporting CCAI will be invited to participate.

3.10. Initiative on Sustainable Hydropower (ISH)

3.10.1. Overview

Purpose

During regional preparations for the MRC Strategic Plan (2011-2015), the accelerating pace of hydropower development in the Mekong was identified as a major interest and challenge for the MRC's mission, and implementing the 1995 Mekong Agreement. At the 3rd Regional Consultation on the Basin Development Plan (BDP) Scenario Assessment, July 2010, it was further emphasised that the Mekong has reached a crossroads on decisions about hydropower in the Lower Mekong Basin (LMB).

The overall goal of the ISH, in relation to goal hierarchy of the MRC Strategic Plan for the 2011-2015 period, is 'cooperation among Member Countries in optimising the contribution that sustainable forms of hydropower offer for national development policies, consistent with implementation of the 1995 Mekong Agreement.'

The two part objective of the ISH is, 'Decisions concerning the management and development of hydropower in the Lower Mekong are placed in a river basin planning and management perspective, applying IWRM principles. MRC and key stakeholders actively cooperate to bring sustainable hydropower considerations into the planning systems and regulatory frameworks of Member Countries, and into project-level hydropower planning, preparation, design, implementation and operation practices.'

It is recognised that the challenge ahead is not only about informing decisions about possible new hydropower schemes, or their design features. It is also to advance and clarify thinking about the sort of cooperation that is needed among Mekong Countries to sustainably manage the growing number of existing hydropower assets in the Mekong basin, as the cumulative and transboundary impacts of these projects are increasingly felt.¹³ Such considerations need to be linked also to wider strategies for sustainable development of the regional power sector.

The policies and legislation of MRC Member Countries, to some extent, already recognise the need to address hydropower sustainability challenges in their planning and regulation systems in an integrated way (i.e. across the economic, social and environmental dimensions) nationally, through bilateral mechanisms, and regionally through implementing the 1995 Mekong Agreement.

Approach

The ISH responds directly to the goal hierarchy of the MRC Strategic Plan 2011-2015 by combining the use of awareness raising and multi-stakeholder dialogue (ISH Outcome 1), knowledge management and capacity building (Outcome 2), imbedding sustainable hydropower considerations in regional planning and regulatory systems (Outcome 3)

¹³ One indication of the relevance, immediacy and scale of the challenge is offered in the recent BDP Scenario Assessment exercise, where the Definite Future Scenario (DFS) sees up to 41 large hydropower schemes on LMB tributary systems by 2015. ¹³ This compares to 15 LMB schemes in the BDP Baseline case for 2000, an increase of 26 large dams. The BDP 20-year Probable Future (PFS) Scenario sees up to 71 large hydropower schemes operating on LMB tributaries by 2030. These would have a combined active daily-to-seasonal storage and flow regulation capacity of 45 BCM, almost double the 23 BCM storage of Lancang-Mekong dams in Yunnan Province in China.

and, hydropower sustainability assessment and adoption of good practice (Outcome 4). At the same time, the ISH must provide the MRC with enhanced capacity to measure and respond to all stakeholders' views about hydropower.

It is clear that many new opportunities to achieve these aims rest with the ongoing institutional and regulatory changes in the power and water resource management sectors of the MRC Member Countries. For instance, the River Basin Committees (RBCs) and Organisations (RBOs) now provided in the national legislation of most countries, can play a central role in these tasks when they become functional overtime. The MRC could then offer overarching support as the regional-level RBO entity.

A further opportunity is to help Member Countries bring the two major decision 'spheres' (or 'worlds') concerned with hydropower decision-making closer together; namely (i) the energy and power sector / regulatory bodies, and (ii) the IWRM water resource and other natural resource management sectors / regulatory bodies.¹⁴ This is important because energy and power considerations often drive major decisions on Mekong water infrastructures. Moreover, sector fragmentation has always been a major challenge in IWRM implementation world-wide.

Strategy

The ISH strategy for 2010 is based on the 2011-2015 ISH strategy to place hydropower on a sustainable footing. This builds on achievements in the ISH from its formulation in 2008 to its first full year of implementation (mid-2009 to mid-2010). The strategy has several aspects. Overall, emphasis is placed on value added outputs that enable the MRC to help Member Countries (i) close gaps between current policy and practice relevant to sustainable hydropower outcomes, (ii) develop capacity to pro-actively draw lessons from the growing pool of regional and international good practice, and (iii) more effectively respond to MRC stakeholders' expectations, including contemporary issues that stakeholders feel are most important to their interests.

Elements of the strategy seek to catalyse, encourage and support efforts of Member Countries to:

- Adopt partnership approaches for dialogue to raise awareness, promote and genuinely advance sustainable considerations in hydropower decision-making;
- Draw effectively on regional and international experience, build confidence and share good practices relevant to all stages of planning and the infrastructure project cycle;
- Introduce and reinforce enabling provisions for sustainable hydropower in national policy and regulatory frameworks, planning systems and related procedures;
- Monitor progress over time introducing sustainable considerations from policy to practice through the use of hydropower sustainability assessments both at the project and basin / sub-basin levels;

¹⁴ A central objective of the ISH in 2011-2015, in this respect, is to enable MRC to help Member Countries better integrate decisions about hydropower management and development with basin-wide Integrated Water Resource Management (IWRM) perspectives, through the established MRC mechanisms and national planning systems, consistent with the 1995 Mekong Agreement.

- Improve 2-way strategic communication between MRC and its stakeholders on hydropower sustainability issues adding value for all stakeholders; and
- Build appropriate capacity in NMC / NMCS and national line agencies for all these aspects, including the capacity of private sector and civil society stakeholder interests engaged.

It is recognised that hydropower is a controversial and often polarised topic in the Mekong region and among MRC stakeholders. No single organisation on its own can bring about sustainable outcomes. To do this requires thinking about water infrastructure as a wider development intervention, with greater attention to the overall development effectiveness of projects and not just seeing infrastructure narrowly as a way to meet growing needs for water and energy services.

Structure

The structure of the Initiative for 2010 follows the Outcome/output structure agreed for 2011-2015, namely outcomes concerned with:¹⁵

- Outcome 1: Awareness Raising, Dialogue and Communication
- Outcome 2: Capacity Building and Knowledge Base Support
- Outcome 3: Regional Planning Support
- Outcome 4: Sustainability Assessment and Financing
- Outcome 5: Effective management of the Initiative

The 2010-2015 ISH outputs, as a whole, aim to construct and maintain a dialogue “platform” and pro-active knowledge network to enable MRC Countries to routinely exchange information, share experience and collaborate on the development/implementation of tools and related capacity building to deliver sustainable outcomes that are beneficial to each countries needs. They also aim to ensure ownership and sustainability of the ISH itself within the MRC Programme structure.

Implementation arrangements

The ISH is managed and executed by the MRC through its Secretariat and implemented through the relevant line agencies in the four Member Countries, coordinated by the four NMC Secretariats, engaging with the private sector, civil society organisations and subject area experts where appropriate. The ISH will continue as a cross-cutting initiative in MRCS now situated in the MRCS Planning Division.

Regional level cooperation mechanisms that were set up in 2009-2010 will be further strengthened in 2011, namely:

1. The National ISH Coordinator Network: The coordinators based in NMCS assist in day-to-day, and “as needed” with dialogue around ISH outputs, and with the coordination of information flows between the MRCS and NMCS/line agencies and other NMC stakeholders.
2. Regional Technical Review Group (TRG): This mechanism consists of representatives of NMCS and line agencies reviewing key ISH outputs. 2011 will continue the successful method of cooperation achieved in 2009-2010 on the MRC Preliminary Design Guidance (PDG) of proposed LMB mainstream dams, design of tributary

¹⁵ ISH outputs for 2011-2015 (i) respond to the MRC 2011-2015 Strategic Plan and core river basin management functions that the Plan embodies (ii) extend multi-year outputs in the 2008-2011 ISH Work Plan, and (ii) reflect lessons in ISH implementation to date.

significance studies; consideration of the international Hydropower Sustainability Assessment Protocol (SAP); and, the formulation of the basin/sub-basin rapid hydropower sustainability assessment tool (RSAT).

3. Regional Advisory Committee (AC): This mechanism will provide advice and directional guidance on the strategic outlook for hydropower sustainability, the strategic orientation of the ISH, the 2011-2015 design and implementation strategy and the evaluation of ISH effectiveness. Members of the AC include Development Partners. Observers may be invited to specific AC meetings.

The ISH in 2011 will continue to work with a triangle of partners (i.e. the NMC/NMCS, national line agencies and the MRCS programmes) to deliver its outcomes. In this setting, NMCs play an advisory / decision role in their respective countries and NMCSs coordinate output related workshops, capacity building and stakeholder engagement. National line agencies play a primary role in implementing outputs (e.g. conducting sustainability assessments at basin / sub-basin and project-levels, applying good practice within the country planning and regulatory systems and liaising with hydropower developers / operators).

The ISH undertakes various MRCS roles such as coordination, guidance, technical assistance, regional synthesis, capacity building and fund raising. Regional organisations will be engaged to support knowledge production around the distillation of good practice and the dissemination of tools, with related capacity building to use them. Across outputs, the ISH will directly engage with key stakeholder interests, such as private sector developers, energy regulators and partners at the regional level (e.g. GMS and China) and specifically help bring the energy/power and IWRM basin management policy-makers and practitioners together.

The broader stakeholder engagement strategy is the ISH will work in cooperation with other MRC Programmes to form multi-stakeholder partnerships and outreach, including that for local communities. This will avoid confusion, duplication and capture synergies in engaging all key basin and sub-basin stakeholders of MRC.

Main Outputs

The ISH Outcome and Output structure for 2011 derives from a number of considerations that were brought together in the Initiative Design and Monitoring (LFA) Framework for the whole 2011-2015 planning period.

ISH Outcomes and Outputs for 2011 and beyond are thus a product of (i) the top-down formulation of the MRC Strategic Plan 2011-2015 with responsiveness to the MRC Core Functions and the MRC River Basin Management Functions (ii) continuity with the 2008-2011 ISH work plan by continuance of multi-year Outputs formulated in national and regional dialogue processes in 2008-2009, and (iii) the synthesis of all these factors in the Initiative Design Summary (LFA) Framework.

ISH outputs that have been prioritised for 2011 are noted under the five Outcomes as follows:

Outcome 1: Concerning Dialogue, Awareness Raising and Communication

- Output 1.2a Dialogue has been facilitated through Ministerial briefings, dialogue with developers and financiers, multi-stakeholder forums, Dialogue Partners
- Output 1.2b Raised awareness of risks and opportunities of hydropower development
- Output 1.2c Improved communication and dissemination of MRC Outputs
- Output 1.2d Communication products for MRC/LMB stakeholders
- Output 1.3 Hydropower technical inputs provided to the PNPCA process

Outcome 2: Concerning Building and Knowledge Base Support

- Output 2.1 Technical assistance provided to hydropower developers on safeguards, monitoring and compliance
- Output 2.2a Expanded MRC hydropower knowledge base
- Output 2.4 Capacity building provided to line agencies for implementation of SEAs/CIAs, environmental and social policy implementation, and monitoring of hydropower project development

Outcome 3: Concerning Regional Planning Support

- Output 3.1b Multi-year follow-up to recommendations of SEA and cross-cutting MRC programme work
- Output 3.1d On-going technical cooperation with China

Outcome 4a and 4b. Concerning Sustainability Assessment and Financing

- Output 4.1a Financing mechanisms for sustainability measures for proposed mainstream dams identified
- Output 4.1c Benefit-Sharing mechanisms elaborated at regional, national and community levels and network established
- Output 4.2a "Environmental considerations for sustainable hydropower development" field-tested
- Output 4.2a "Hydropower sustainability assessment (SAP) and basin/sub-basin tool targeted trials

Outcome 5: Effective Management of the Initiative.

- Output 1.1a The Initiative is effectively managed

List of Projects

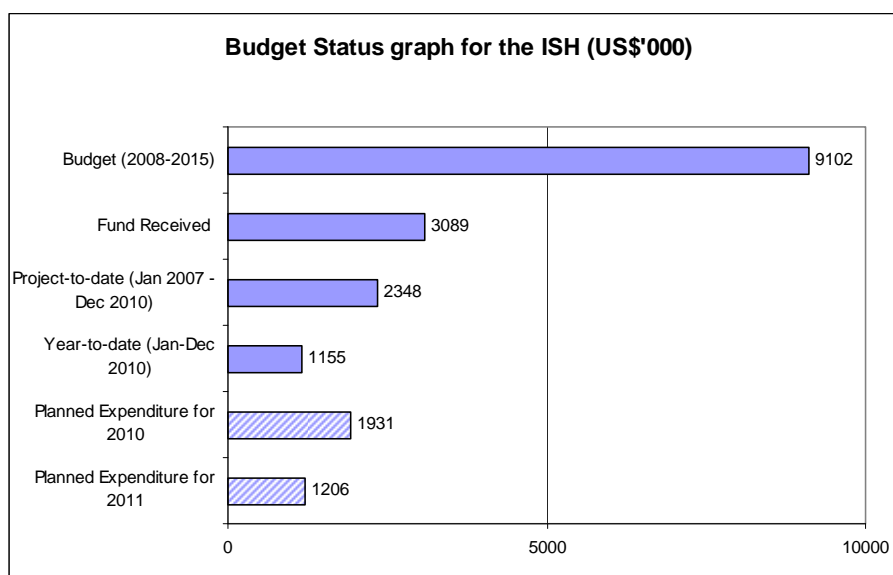
(US\$ 1,000)

Project title	Start date	End date	Budget	In 2011	Development Partner
Past projects					
Initial Analysis of Hydropower Potential in the Lower Mekong Basin in Relation to Cumulative Transboundary Impacts	06/2007	12/2010	500		Japan (JAIF) via ASEAN Fund
The MRC Hydropower Programme	07/2007	12/2015	1,382		Finland
Active and pledged					
The MRC Initiative on Sustainable Hydropower	07/2010	07/2013	2,760	1,207	Belgium

The MRC Initiative on Sustainable Hydropower	Pledge	Pledge	3,600	Pending	Finland
The MRC Initiative on Sustainable Hydropower	Pledge	Pledge	3,450	Pending	Germany

3.10.2. Progress of ISH for 2010

The following graph provides an overview of the budget status of the ISH for the 2008-2015 period. The figures include the budget for the implementation period of 2011, as well as total funds received and expenses on the Project-to-date and Year-to-date.



The indicative ISH budget for 2011 is US\$ 1.2 million, based on requirements and committed and pledged financial support from Development Partners.

Planned and Achieved Outputs for 2010

The MRC uses the ISH to coordinate cross-cutting activities that help Member Countries to incorporate sustainable hydropower considerations in their planning and regulatory systems, and otherwise to better inform decision-making on hydropower management and development through assessment and multi-stakeholder dialogue. Because these outputs are inherently multi-disciplinary in nature, they require close cooperation with many MRC Programmes.

Several activities that are part of the MRC strategic response to the accelerated interest in hydropower in the Mekong were started in 2009 and continued in 2010, as ISH outputs. Prominent among these were:

Strategic Environment Assessment (SEA) of proposed LMB mainstream schemes:

A significant initiative of the MRC coordinated by the ISH involving all MRC Programmes that brought together NMC/NMCS, relevant line agencies and regional stakeholders. The SEA process featured multi-stakeholder engagement and structured dialogue. It incorporated national and regional workshops, information dissemination and site visits. The Final SEA Report and process itself attracted considerable media interest from local to regional and international levels.

China engagement on hydropower sustainability considerations:

The ISH has been an important vehicle to advance MRC cooperation with the People's Republic of China (PRC) on hydropower sustainability issues relevant both to the LMB and the wider Mekong River Basin. In 2010, cooperation with China on hydropower sustainability themes were pursued through P.R.C participation in the SEA of LMB mainstream dams.

- In 2010 the 5-point MRC-PRC cooperation program that was agreed with the China Ecosystem Study Commission for International Rivers (ESCIR) in late 2009, later authorised by PRC Foreign Affairs was implemented.¹⁶
- Technical visits by the MRC modelling team (ISH/IKMP/BDP) and site visits by MRC to the Lancang Mekong dams in China were undertaken in 2010. ESCIR also participated in the region SEA workshops and provided briefings.
- As China noted, these engagements (i) help China gain a better perspective of LMB issues and concerns, and (ii) pave the way for MRC-China cooperation on hydropower sustainability issues of mutual interest in 2011-2015.¹⁷

Hydropower sustainability assessment tool development:

Through the ISH, in cooperation with the MRC Environment Programme (EP), work proceeded on development and trialling of hydropower sustainability assessment tools that Member Countries can apply at project and basin/sub-basin levels.

- In 2010, ISH continued trialling sections of the project-specific hydropower sustainability assessment tool, the Hydropower Sustainability Assessment Protocol (SAP). The SAP is being developed in a multi-stakeholder international process, which captures accepted international good practice.
- In parallel, through the ECSHD partnership (MRC/WWF/ADB), the ISH and EP developed the basin-wide hydropower sustainability assessment tool (RSAT) designed for rapid sustainability assessment and dialogue among key stakeholders in basins/sub-basins, where there may be several existing projects or proposed hydropower projects, or both.

¹⁶ 5-Point: (i) Report & data exchange (ii) technical exchange visits between MRCS modelling staff and PRC experts (iii) MRC site visits to Lancang-Mekong projects (iv) ESCIR participation in SEA workshops (v) research cooperation E.g. case studies.

¹⁷ Ongoing MRC-PRC cooperation as noted by the PRC representatives participating in the final SEA workshop in Viet Nam in June 2010, and in the BDP 3rd Regional Stakeholder Forum in Vientiane, July 2010.

These assessment tools are not only essential to monitor and measure progress in introducing sustainable hydropower considerations in the Mekong region, they are also key to target work on hydropower sustainability improvement in 2011-2015 and beyond. At the same time, the assessment tools offer a clear framework for structured dialogue, awareness raising and capacity building.

International sustainability linkage and profile for the MRC:

Through the ISH, the MRC has played a facilitating and pro-active role in linking Mekong hydropower sustainability activities to hydropower sustainability at international levels.

- The ISH hosted the final meeting of the international multi-stakeholder Hydropower Sustainability Assessment Forum (HSAF) developing the SAP.
- The SAP processes also engage with Mekong regional stakeholders in the non-government and private sectors to reinforce consensus on the transfer of regional and international experience and good practice.

Regional Greater Mekong Sub Region (GMS) sustainably hydropower linkages strengthened:

The ISH has sought to establish strong links with MRC, LMB, and GMS regional level initiatives on sustainable hydropower, notably in response to GMS agreements including those for cross-border power trade, transboundary-environment sustainability and other sustainability domains. These engagements reinforce cooperation on lower Mekong and wider GMS hydropower sustainability challenges, including thinking on linking sustainable development of the regional power sector to sustainable development of the Mekong River basin, and the MRC role in achieving that aim.

Preparations for the MRC Procedures for Prior Notification, Prior Consultation Agreement (PNPCA) concerning the ISH role:

The MRC received the first notification for the consultation component of the PNPCA procedure in 2010:

- Work undertaken through the ISH in 2009-2010 has helped MRC Member Countries and regional stakeholders to prepare for this eventuality (by the outputs previously described such as the SEA of proposed mainstream dams).
- The ISH outputs in 2009-2010 collectively enhance the analysis and information that MRCS can offer the Joint Committee for consideration in a PNPCA process. The ISH has also prepared a number of key strategic briefings for the MRC Joint Committee and Council in 2009, including a briefing on a potential transboundary mechanism for benefit sharing.

Under Output 5: ISH effective management: Key achievements under this Outcome from an initiative management perspective include:

- The ISH National Coordinator network put in place in NMCSs.
- The Regional Technical Review Group (TRG) consisting of technical representatives from each Member Country established and functional in 2010.
- The Regional Advisory Committee formed in early 2010, and which met to review the 2011-2015 plan for the ISH.
- Cross-cutting work pursued across a number of ISH outputs, with other MRC Programmes, NMCS and regional and national stakeholders.

Significant Problems Encountered, Corrective Action Taken

Three major activities in 2010 in terms of budget, MRCS staff time and strategic impact were (i) the SEA of proposed mainstream dams (ii) the development of hydropower sustainability assessment tools mainly for tributary river basin/sub-basin applications, and (iii) engagements with China through the ESCIR mechanism.

The SEA was a complex process that required many consultation sessions with different stakeholder interests. This took time and required rescheduling of activities in response to stakeholder needs. This required a flexible management approach. Similarly there were challenges with the RSAT tool and unplanned steps were required to ensure that Member Countries had a common understanding of the value-added, design and application of the RSAT. The ISH TRG was a particularly useful vehicle to understand and resolve concerns on sustainability assessment outputs.

Relevant JC and Council decisions

In 2010, a number of Joint Committee presentations were made concerning the status and findings of the SEA of mainstream dams as it progressed through different stages. Presentations were also made on cooperation with China achieved through ESCIR.

Development Partner reviews or appraisals carried out in 2010

Six monthly and annual progress reports were prepared for Development Partners. In early October 2010, the ISH Regional Advisory Committee (with Development Partners as members) reviewed the ISH progress and accomplishments for 2009-2010 and endorsed the ISH planning document for 2011-2015.

Development Partners also conducted independent reviews of the ISH in 2010. The Government of Belgium completed its review of the ISH resulting in a commitment to become an ISH Development Partner from mid-2010. In the fourth quarter of 2010, agencies of the Governments of Finland and Germany conducted independent reviews of the ISH status and projected 2011-2015 plans.

These appraisals were to inform discussions on ongoing funding for ISH in 2011-2015 timeframe (in the case of Finland) and the start of funding for ISH as a new Development Partner (in the case of Germany).

3.10.3. *ISH Work Plan for 2011*

The 2011 Work Plan is structured around five mutually reinforcing Outcomes using the Outcome / output structure agreed for 2011-2015. There are a total of 25 Outputs planned for the 5-year period. For 2011-20012, Outputs were further prioritized to broadly centre on MRC support to Member Countries to advance regional and transboundary cooperation through:

- Enrichment and continuous, collaborative update of the MRCS Hydropower Data Base, especially to incorporate more parameters useful to measure sustainable outcomes and needed actions;
- Adoption and use of hydropower sustainability assessment tools, around which awareness raising, shared learning and capacity building can be effectively delivered (in particular basin/sub-basin hydropower sustainability assessment tools);
- Elaboration and support for the introduction of mechanisms for benefit sharing and innovative finance related to sustainable hydropower outcomes in planning / regulatory systems.
- Ensuring agreed follow-up on cross-cutting recommendations emerging from the SEA of proposed LMB mainstream dams, working with and through MRC Programmes and regional partners.
- Cooperation with China on sustainable hydropower themes initiated in 2009-2010 with Ecosystem Study Commission for International Rivers (ESCIR) through SEA processes that have proved highly constructive for data exchange, site visits and confidence building.
- Support to the PNPCA Process.

Based these six priorities as well as overall budget considerations and funding status, the ISH plans a total of 15 multi-year outputs to start, or continue in 2011. These outputs are succinctly described under the five ISH Outcomes:

Outcome 1: Awareness Raising, Dialogue and Communication

It is characterized by a demonstrated increase in awareness of sustainable hydropower and its rationale, increased dialogue among the key stakeholder interests and partnerships being formed to introduce sustainable considerations into LMB hydropower policy and practices.

Output 1.2a Multi-stakeholder Dialogue Facilitated: This output provides briefs and presentations for MRC Bodies, in particular the Joint Committee (JC), Council, formal MRC Dialogue Partners (China and Myanmar) NMC / NMCS and MRCS. It covers ISH work with NMCS to ensure dialogue with relevant line agencies, hydropower developers and project lending entities in the public and private finance sectors, and various multi-stakeholder forums attached to specific ISH Outputs (e.g. information exchange, workshops, ISH Output-based interactions, etc). Among other aspects it aims to encourage functional partnerships to form around various ISH activities and outputs to maximize impact and influence in leading to cooperation for beneficial change.

Output 1.2b Raised Awareness of Risks and Opportunities of Hydropower Development: This output provides a coherent

and logical set of targeted messages and information to raise awareness and respond to concerns and expectations of the various stakeholders interests on the rationale, opportunities and challenges advancing sustainable forms of hydropower (via a comprehensive but simple communication strategy that covers all ISH Outputs, and implementation of the strategy to target messages to the needs of specific stakeholder groups, e.g. regulators and line agencies, RBOs/RBCs, developers and operators, MRC Bodies, regional partners and representatives of NGO/CSO organizations and research networks). MRC will be increasingly called upon to provide well-founded information and clearly understandable explanations of many hydropower-related issues.

Output 1.2c Improved Communication and Dissemination of MRC Outputs: This output supports line agencies of four Member States not only to maintain close communication with each other, but also to share and disseminate MRCS information in a timely manner on the development risks and opportunities of hydropower development relevant to stakeholder interests and their specific roles and responsibilities. This also feeds into the overall MRC communication strategy to make more widely known the outputs produced by the ISH and foster general recognition of MRC as a source of sound and impartial information, opinion and advice.

Output 1.3 Technical Inputs provided to the PNPCA Process: This ISH role as a cross-cutting initiative in supporting technical inputs to the project-specific PNPCA process was elaborated in the PNPCA working group process. Among the activities anticipated for 2011 are (i) collaboration with relevant MRC programmes on technical review of documents and to ascertain conformance to the MRC Preliminary Design Guidance (e.g. fish passage provisions, navigation, sediment management, water quality management and environmental flow provision and safety of dams (ii) preliminary technical review of project documents submitted by developers (i.e. feasibility, and EIA/SIA reports) (iii) when requested by MRCS management, more detailed technical review of specific project features impacting on sustainable performance, for example, with reference to RSAT and SAP tools to do a systematic check (iv) responding to technical questions the Joint Committee requests of MRCS (v) where required, provide technical support for JC visits to the project area, and (vi) contribute to any MRCS work to refine and/or revise the current PNPCA Procedures and guidance on MRCS roles in the PNPCA.

Outcome 2: Capacity Building and Knowledge Base Support

It is characterized by demonstrated improvement in technical capacities of MRC and prioritized national agency staff in hydropower information and data systems and compilation and use of information needed to advance sustainable hydropower considerations.

- Output 2.1 Technical Assistance Provided to Hydropower Developers on Safeguards and Monitoring: This output provides guidance for hydropower developers/operators on safeguard themes relevant to the 1995 Mekong Agreement and accepted international good practice. This will target guidance for use by hydropower entities and the LMB line agencies regulating them to help them interpret and meet the various national regulations, with a focus on transboundary concerns. It is important to translate MRC programme work to a technical language that developers / operators and regulators are familiar with and use. This will help maximize understanding and lead to improved adoption of MRC scientific and specialist work.
- Output 2.2a Expanded MRC Hydropower Knowledge Base: This output will update and expand the MRC hydropower database (HDB). With the rapidly changing pace of the hydropower development the MRC database needs to be continuously updated. Additional data beyond what is required for BDP purposes is needed, in particular with regard to (i) reservoir operating policies and related socio-environmental impacts and environmental flows provisions, (ii) use of the HDB to support application of Sustainability Assessment tools (RSAT and eventually SAP) to apply to the full population of hydropower projects (existing to potential), as noted in Output 4.2b. Compilation of non-commercially sensitive sections of MOUs, concession agreements, project developments agreements, power purchase agreements, licenses, certifications and other such documents, in particular those data sets needed for the RSAT / SAP and the BDP scenario assessments and to inform work under other ISH Outcomes. This work will be undertaken in cooperation with BDP/IKMP with ISH responsible for the technical updates.
- Output 2.4 Capacity Building provided: this output aims to systematically organize ISH coordinated support to Member Country line Agencies for implementation environmental and social policy, strategic and project-level studies and monitoring of hydropower project development and management. It responds to the general need to build capacity within the respective line agencies in Member States for (i) hydropower sustainability assessments at the basin /sub-basin levels (ii) strategic environmental assessments (SEAs) of sub-basins (iii) developing environmental and social policies to enhance these aspects of sustainability of projects.

Outcome 3: Sustainable hydropower considerations

These are more systematically and demonstrably incorporated into sector, sub-basin and Mekong regional planning systems and regulatory frameworks.

- Output 3.1b Multi-year follow-up to Recommendations of SEA and Cross-programme work undertaken: This output will respond to substantive recommendations the MRC SEA of mainstream dams offers for MRCS Programme activities in

2011-2015 to address critical gaps in knowledge and uncertainty. This would include, for example, providing for additional tasks and priorities in field data collection, research, analysis and monitoring to address uncertainties in the impacts on fisheries migration, sediment-nutrient balances, safety of dams issues where the MRCS is best positioned as regional basin entity to undertake. These tasks are generally beyond what the other MRC programmes already envisage in their 2011-2015 plans to date, and would continue with the successful approach in 2008-2010 where ISH co-financed priority items relevant to MRC needs to address the accelerated interest in hydropower. Other sub-outputs will respond to recommendations such as updating MRCS database with SEA information and additional analysis needed for implementation of the PNPCA procedures (Output 1.3).

- Output 3.1d Ongoing technical cooperation with China (PRC) on sustainable hydropower implemented: This output provides for follow-on cooperation with ESCIR designated agencies in China on Mekong hydropower sustainability issues. This will build on cooperation from 2009-2010 and provisionally includes further (i) report & data exchange (ii) technical exchange (e.g. short visits by modelling and other staff) (iii) site visits to selected Yunnan dams (iv) ESCIR participation in the key MRC Regional Workshops and (v) other research cooperation, e.g. case studies around the thematic areas (such as in RSAT).

Outcome 4: Hydropower sustainability assessment tools

Tools are in place at project and sub-basin levels to measure and assess progress with sustainable hydropower IO-4b.) Innovative financing mechanisms, especially benefit sharing on LMB hydropower increasingly evaluated and introduced for LMB hydropower projects.

- Output 4.1a Financing Mechanisms for Sustainability Measures for Proposed Mainstream Dams Identified: This output will evaluate potential measures to be adopted to fund sustainability components of proposed mainstream dams to inform planning. This depends also on the Outcome of the first PNPCA. It would be accelerated on a priority basis if called for in the PNPCA process. It will address measures that would probably be jointly undertaken by developers and applied in a coordinated MRC, as a regional organisation, would facilitate discussion amongst governments, developers and financiers to identify these mechanisms and incentives.
- Output 4.1c Benefit-Sharing Mechanisms Elaborated at Regional, National and Community Levels: This output supports sharing of regional and international experience in developing benefit sharing mechanisms at local to national levels and transboundary levels. This would follow the approach set out in the MRC Council Brief prepared by the ISH in 2009. Policy frameworks, laws and regulations for compensation of persons affected by the construction of a hydropower project are generally well established in the MRC Member States. Benefit sharing can be in monetary or

non-monetary forms. Revenue sharing (as a form of Benefit Sharing) during the operational life of the project enhances social and environmental sustainability through contributions to local development and poverty reduction and local actions that synergistically manage catchments in ways that contributed to sustainable performance of hydropower (e.g. tree planting to reduce reservoir sedimentation).

Output 4.2a Environmental Considerations for Sustainable Hydropower Development (ECSHD) project and basin-wise hydropower sustainability assessment tools "workshop" tested: This output supports further development, regional workshops and "workshop trailing" of project and basin level hydropower sustainability assessment tools. After initial trialling in 2010, it is important to increase awareness of the tool via dialogue in multi-stakeholder workshops.

Output 4.2b Targeted application of Hydropower Sustainability Assessment /Dialogue tools at basin / sub-basin and project levels. This output will support full field implementation of the hydropower sustainability assessment tools at basin / sub-basin and project levels. The basin-wise rapid assessment / dialogue tool will be applied after the SAP in a targeted manner to maximize effectiveness working with four primary users, namely (i) newly forming sub-basin river basin entities (expected to be multi stakeholder) (ii) line agencies regulating hydropower in the sub-basin (e.g. economic, environment, social and safety regulation) and, (iii) hydropower developers / operators in the sub-basin. The basin-wise sustainability assessment will be practical and dialogue-oriented. It thus will inform a basin-wise coordination of hydropower operations as well as capacity building and reinforcing of coordination mechanisms and provide concrete exposure to relevant ISH Outputs. From the planning perspective it will practically inform the TOR for heavier tools like CIAs and SEAs and the BDP planning processes. The project-specific tool (the voluntary international IHA Hydropower Sustainability Assessment Protocol - SAP) will be applied in a systematic, targeted manner for all projects in the MRC Hydropower Data base (to limits of available funds) working with NMCS/line agencies and developers on a voluntary basis.

Development Partner reviews or appraisals planned for 2011

Six month progress report for Development Partners and an annual progress report for will be provided. There will be 2 meetings of the ISH Regional Advisory Committee meetings in which Development Partners will participate.

3.11. Mekong Integrated Water Resources Management Project (M-IWRM P)

3.11.1. *Project Overview*

Purpose

The proposed project will strengthen the enabling framework and capacity for IWRM in the Lower Mekong Basin, and strengthen MRC's role as a facilitator of significant water resources development projects, guided by IWRM principles. The objective of the proposed project is to improve the enabling framework and capacity for IWRM in the LMB Countries and strengthen the role of MRC as the facilitator of significant water resources development, guided by IWRM principles. This Objective will be achieved through the implementation and achievement of three identified outcomes as follows:

- A regional enabling framework with water resources planning and management tools, procedures and guidelines, process and capacity is in place to effectively implement the 1995 Mekong Agreement
- Pro-poor transboundary initiatives jointly designed and implemented, applying IWRM principles and demonstrating mechanisms for joint planning and implementation of project identified as part of the MRC-led basin development planning process.
- Strengthened policies, institutional arrangements and capacity for IWRM in LMB countries.

The project will be implemented at the three interlinked components: the regional, transboundary and national.

Approach

The Project will apply IWRM principles and address the Mekong respective challenges by promoting the implementation of IWRM at three levels – regional, transboundary and national. At the regional level, it will bring the BDP including the SEA process, the use of tools and knowledge base, and the implementation of procedures and guidelines into a coherent framework. Developed through the coordinated actions of MRC Programmes in cooperation with the LMB Countries, this framework will provide the opportunity for the MRC to demonstrate that it can act as a facilitator of sustainable and equitable water resources development in the LMB – as envisaged in the 1995 Mekong Agreement – while assisting the LMB Countries to respond to emerging challenges in water resources management. Emphasising the MRC's engagement with line agencies and other relevant partners through a much closer interface between basin level, and national and sub-basin level water resources management, this regional framework will provide enabling factors for IWRM in the LMB Countries.

At the national level, IWRM will be promoted through enhanced national legislation and institutional frameworks, and capacity development for river basin planning and IWRM priority projects. This national capacity development process will be supported by the regional component

capacity building activities, to be implemented by the MRC Integrated Capacity Building Programme (ICBP). While the Project's focus is on the use of tools, procedures and guidelines, ICBP will complement other on-going initiatives to help develop capacities for the LMB Countries in IWRM and effective operation of the MRC as an institutional river basin organisation. The Project will promote cooperation among the LMB Countries in the joint design and implementation of transboundary projects that apply IWRM principles and tools developed through the regional framework in order to promote bilateral cooperation in the LMBs' sub-basins. In this way it shall contribute to both poverty reduction and regional cooperation.

For the first time, MRC's technical assistance is brought together with national efforts on IWRM and with investment projects on-the-ground, thus demonstrating the MRC's contribution to poverty reduction and sustainable use of Mekong water and related resources, together with other partners.

Strategy

The regional component will engage and work closely with stakeholders (line agencies and NMCs, civil society groups, NGOs, the private sector, etc), in each of the four LMB Countries. The transboundary component and its respective projects are directly managed under the umbrella of the regional component. A compact Project Coordination and Management Unit (PCMU) reporting to the Director of the MRCS Planning Division (PLD) has been established. The PCMU will manage the implementation of the regional and transboundary components as well as provide technical assistance to the national component.

The institutional arrangements for the national component in each LMB Country will follow the national policy and organisation of that country and the World Bank (WB), as well as other Development Partners who may join the Project.

The following institutional arrangements have emerged and will be finalised in consultation and agreement between the LMB Countries and the WB.

National Implementation Line Agency: One National Implementation Line Agency (NILA, preferably at national, department level) will be appointed to be responsible for the implementation of each individual output (sub-project) under the national components.

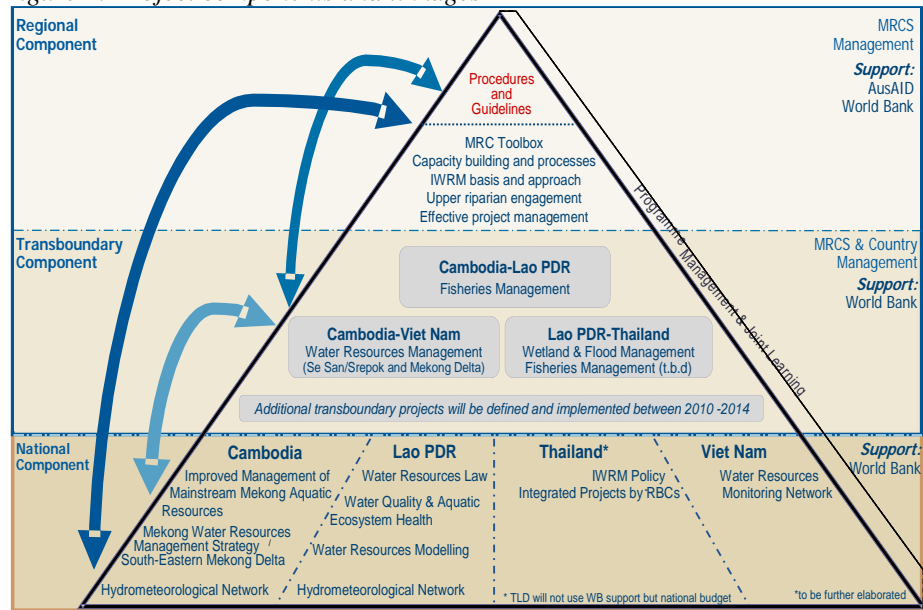
A Stakeholder Engagement Plan, established for each output (sub-project) will integrate other participating line agencies and national, provincial and district level RBOs or RBCs, as well as other stakeholders.

Structure

The project activities are structured under three components that reinforce each other to achieve the project's objectives.

The following figure 1 shows how the components are linked into a single initiative.

Figure 1: Project components and linkages



Component 1: Regional component or Outcome 1

This component will create an enabling framework for the implementation of IWRM at the interface between the basin and national levels: this component will support (i) regional tools; (ii) procedures and guidelines; (iii) processes and capacity to implement procedures and guidelines; (iv) upper riparian engagement and (v) overall project coordination and oversight. The Project is complex with many stakeholders each with diverse interests and capacities. Strong emphasis has been placed on the establishment of different mechanisms for communications, dialogue, negotiation and consensus building in each component. For the regional component, a thorough analysis of stakeholders as the first step is critical in order to engage relevant line agencies and other stakeholders with responsibilities, authorities and accountability in the development and application of procedures and tools, while capacity building will address various required knowledge and skills including those to overcome cultural limitations in open dialogue and negotiation. On the other hand, internal mechanisms emphasise incentives for, and accountability of, participating MRC Programmes.

Component 2: Transboundary Component or Outcome 2

This component serves the implementation of IWRM at the transboundary project level: candidate projects include support for (i) Lao PDR-Cambodia joint planning and investment to improve fishery management in the Khone Falls area; and (ii) Cambodia-Viet Nam joint planning and investment in flood mitigation, irrigation and drainage in the Cai-Co canal area. More transboundary project initiatives will be identified through transboundary dialogues.

The transboundary level is managed under the umbrella of the regional component. The budget and project implementation will be channelled through the MRCS (PCMU). The LMB countries will elaborate project details during an inception phase with facilitating support from the MRCS and relevant MRC Programmes. The transboundary projects - that have to be agreed between the involved countries - will be submitted for approval to the M-IWRMP PSC before implementation. Due to the fact that the

transboundary projects are supported by the WB, the project implementation in principle will follow the WB procurement, and fiduciary rules and procedures.

Component 3: National component or Outcome 3

The national component will ensure implementation of IWRM at national and sub-basin levels: it will support (i) Cambodia: delta planning study and design of an integrated rural development project; (ii) Lao PDR: strengthening of policy, institution and capacity of the Water Resources and Environment Administration for coordination and oversight of water resource management and priority IWRM actions in selected sub-basins; (iii) Thailand: capacity building for River Basin Committees and the implementation of pilot projects in the Northeast; and (iv) Viet Nam: development of a model for river basin management in the Central Highlands and implementation of priority IWRM projects. At national level, Project implementation will follow the WB procurement, and fiduciary rules and procedures. With support from the NMCS, the national implementation line agencies shall be responsible for planning, managing and supervising the projects, which will be designed and implemented by private sector consultants and contractors.

With different preparation modalities and timeframes, it is important to ensure flexibility in Project implementation arrangements to respond to emerging needs.

Implementation Arrangements

The MRC together with its Member Countries will be primarily responsible for the implementation of the regional and trans-boundary components, which will also provide overall coordination, management and oversight for the Project. However, all three Project components (regional, trans-boundary and national) need to be linked appropriately to achieve the Project's objective and outcomes in a coherent framework. Since March 2010, the PCMU has been set up at the Planning Division of the MRCS to carry out routine activities of the Project and coordinate with Member Countries, Development Partners and relevant programmes, sections at the MRCS.

All three components and their respective activities need to be closely coordinated to ensure they proceed in harmony and that implementation proves effective. The achievement of this goal will be overseen by a multi-tiered layer of management entities comprised of the following:

- Project Steering Committee (PSC) at the Project level;
- National Project Committees (NPCs) in each of the four LMB Countries for national and trans-boundary components; and
- Coordination Management Meetings.

Project Steering Committee. A Project Steering Committee (PSC) reporting to the MRC Joint Committee was established to monitor Project implementation, facilitate Project coordination and supervision, and provide guidance to involved entities. The scope of the PSC will cover all three components of the Project. For the regional component, the PSC will focus on steering the directions and supervising the implementation. For both the national and trans-boundary components it will focus on aspects related to coherence and linkage between the three components, joint learning, integrating procedures, dissemination to line agencies, context monitoring and risk management, and sustainability. The PSC will comprise four

representatives from each Member Country (one member should be a representative of the national project committee) and two MRCS representatives (the CEO or his designated representative and the Director of the MRCS PLD). In addition, representatives from the Development Partners will be observers at the PSC meetings. The involvement of relevant selected stakeholders and the civil society might be taken into account at a later stage of the project. The PCMU will provide secretariat and facilitating services to the PSC.

The PSC will guide and support the PCMU in the periodical aggregation and integration of the results and experiences of all Project activities, and interactions among the many agencies involved in the Project, with the view of producing recommendations for the improvement of the performance of water and related resources management at the basin, national and sub-basin levels. The Terms of Reference for the PSC has been elaborated and agreed by the countries.

National Project Committees (NPC): Due to the multi-sectoral nature of the Project, the establishment of a National Project Committee (NPC) in each of the LMB Countries will be essential. The membership could be drawn from relevant line agencies, provinces, RBCs and others as appropriate to the national context. Also a representative of the MRCS will participate in the NPCs. The Project's country focal point, which has national coordinators in place, will provide the necessary administrative support to the NPC. The main tasks of the NPC are: to monitor progress in output (sub-project) preparation and implementation, to approve output (sub-project) preparation for WB appraisal, and to provide guidance to the NILA, if necessary.

In addition to the assemblages of the PSC, Coordination Management Meetings between the national coordinators/focal points (Coordination Meetings) will be organised every three months in order to ensure an efficient information exchange on the national as well as trans-boundary activities and their statuses. The meetings also serve the integration of all components in the overall Project framework. Those meetings will be facilitated by the PCMU in close coordination with the national coordinators/focal points.

Coordination and integration requirements arising from the implementation of related outputs (sub-projects) under the trans-boundary component will be taken up in regular joint meetings of the respective NPCs, NILAs and Stakeholder Forums. The PCMU will participate in these joint coordination meetings as observer and will also facilitate them.

Besides the coordination mechanisms outlined above, the MRCS internal coordination between the MRC Programmes, units and sections will take an important role to ensure the achievement of the Project's aim.

At national level, Project implementation will follow the WB procurement, and fiduciary rules and procedures. With support from the NMCS, the national line agencies shall be responsible for planning, managing and supervising the projects. Further, the WB funded activities within the regional and trans-boundary components also need to follow the WB procurement rules managed through the MRCS.

Main Outputs

The main outputs of the three interlinked components throughout the entire project life are follows:

Outputs under regional component:

- Output 1.1 Regional water resources planning and management tools and knowledge base are refined and developed for basin-wide IWRM.
- Output 1.2 Water utilisation procedures and technical guidelines are finalised and implemented at all LMB levels.
- Output 1.3 Capacity for IWRM implementation is in place at both the national and MRCS levels and M-IWRMP reporting/exchange.
- Output 1.4 IWRM basis and approach established at all LMB levels.
- Output 1.5 Upper riparian engagement is enhanced.
- Output 1.6 Effective Project coordination, oversight and joint learning.

Outputs under transboundary component:

- Output 2.1 Transboundary IWRM dialogue is facilitated through regional support during the inception phase of the respective projects.
- Output 2.2 Cambodia-Lao PDR: Mekong mainstream fisheries management at Stung Treng/Kratie to Champasak is in place and sustainable livelihoods created for poor communities.
- Output 2.3 Cambodia-Viet Nam: Water Resources Management in the Se San and Srepok sub-basins. A joint early warning system regarding flood/drought events is developed. A management and planning tool including a knowledge base that is closely linked to the MRC Toolbox and the key management issues of the sub-basins is in place. Joint capacity on river basin management is enabled.
- Output 2.4 Cambodia-Viet Nam: Water Resources Management in the Mekong Delta. Dialogue and collaboration towards harmonized water resources investment in the Mekong Delta, considering possible transboundary impacts is fully established. In addition, a project proposal on a possible joint water resources development in the Delta is identified and prepared. A mechanism to share/exchange hydro-meteorological data as well as a Mekong Delta management and a planning tool including a knowledge base closely linked to the MRC Toolbox are developed. Joint capacity on river basin management is enabled.
- Output 2.5 Thailand-Lao PDR: Wetland and Floodplain Management. Human impacts on wetlands in the regions are identified, an inventory of mainstream disconnected wetlands is

developed and mitigation measures are outlined (details on outputs and activities will be further elaborated).

Output 2.6 Further transboundary projects can be formulated and submitted for funding under the WB budgets. Respective outputs are expected and will be defined.

Outputs under national component:

Output 3.1 Cambodia: Improved aquatic resources management in regionally significant areas; Mekong Water Resources Management Strategy supported and implemented through South-Eastern Mekong delta utilisation; Investment on a hydro-meteorological network (APL2).

Output 3.2 Lao PDR: Water resource management policy developed and institutions strengthened.

Output 3.3 Thailand: IWRM policy and institutions are strengthened; priority investment implemented to meet national and local needs.

Output 3.4 Viet Nam: River Basin Organisation for Sesan River Basin will be established and operational. Priority investment for WRM monitoring network will be strengthened and effectively implemented.

Project Phases, Funding and Management

Phase	Timing	Funding (US\$ million)	Management
Project formulation	Dec 2007- May 2008	World Bank (0.02), FAO (0.02)	MRCS/BDP2
Project identification and preparation	July 2008– November 2009	AusAID (0.5), PHRD (1.0), MRC TF (0.09), Thailand (0.05)	MRCS, LMB countries
AusAID appraisal of Regional component and Bank pre-appraisal	May 2009		Australia
World Bank project appraisal	December 2010	World Bank	World Bank
Project implementation	2009-2014	AusAID (6.0), IDA/APL1 (31.5) , Thailand (20.0), LMB countries in kind (2.2),	MRCS, LMB countries

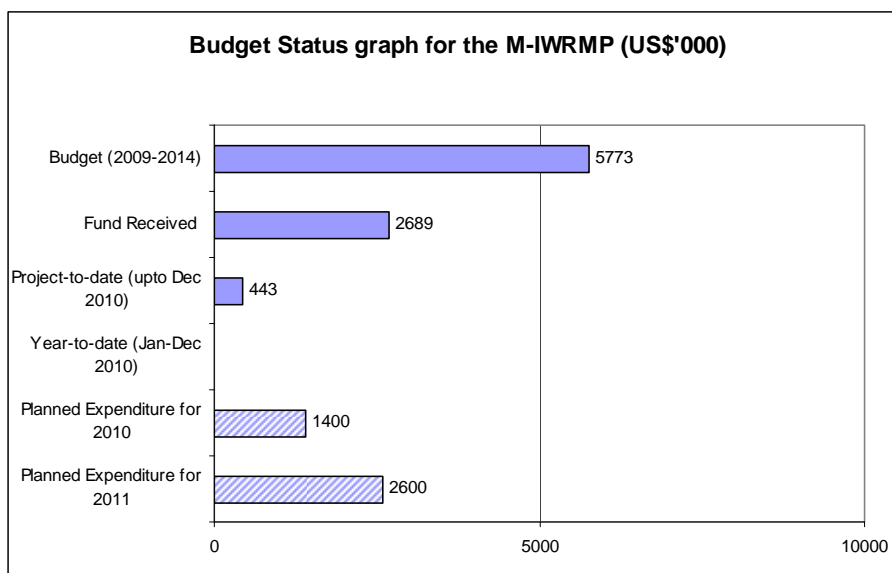
List of agreements/projects

(US\$ 1,000)

Project title	Start date	End date	Budget	Balance Dec 2010	Donor(s)
Active projects					
Australian contribution to the implementation phase of the M-IWRM Project (2009-20014)	07/2008	12/2014	5,773	5,326	Australia
World bank support			Under discussion		

3.11.2. Progress of M-IWRM Project in 2010

The following graph described the project budget status including the planned expenditure for 2011, the expenditure from January to August 2010 (year to date), the expenditure from the date of implementation phase (project to date), fund received and the budget pledged. This graph reflects only budget status under the AusAID fund for the Regional Component. The WB's grant to MRCS for the Mekong IWRM Project in support of the Regional and Transboundary Component will be committed after the Project Appraisal by the World Bank Board by end of 2010.



Planned and Achieved Outputs for 2010

The project's Inception report including the Work Plan and Project Implementation Plan was approved from the 1st Project Steering Committee in July 2010. This approval has paved way for the full implementation of the project. It is worth mentioning from the outset of this planned and achieved outputs that the PCMU reported just on the planned and achieved outputs of the regional component; while the transboundary and national components are expected to be fully appraised for funding by the World Bank Board under the funding mechanism of grant to the MRCS to manage the transboundary component, and through the combination of loan and grant to Cambodia, Lao PDR and Viet Nam. Thailand's activities will be funded through their government budget. Therefore, the planned and achieved outputs for 2010 are as follows:

- Output 1.1 Regional water resources planning and management tools and knowledge base have been refined and developed for basin-wide IWRM. IKMP is working toward the release of tool boxes; the TCU is working on the significant tributaries and expected to be completed by early 2011.
- Output 1.2 Water utilisation procedures and technical guidelines have been finalised and implemented at all LMB levels. Prepared mechanism for the implementation of Prior Consultation (PNPCA procedure) of the Xayaburi mainstream dam; finalisation of all pending procedures (PWQ) and all technical guidelines; promote its use and implementation at all MRC levels.

- Output 1.3 Capacity for IWRM implementation is in place on both the national and MRCS levels and M-IWRMP reporting/exchange. Consultancy for the development of a Capacity Development Strategy will be in place and consultancy report will be available by the end of 2011 for the implementation of the capacity gaps/needs at all MRC levels for the procedures.
- Output 1.4 IWRM basis and approach have been established at all LMB levels. The preparation work for developing approach for environmental impact risk and disaster risk assessment will be finalised by the tripartite World Bank, FMMP and the M-IWRMP.
- Output 1.5 Upper riparian engagement is enhanced. Initiatives to engage China and Myanmar are being identified such as workshop, exchanges of information and other dialogues.
- Output 1.6 Effective Project coordination, oversight and joint learning. The PCMU, PSC has been established and perform its full functions. National Project Oversight Committee and TOR for the national project coordinator will be agreed; M&E scheme will be in place.
- Output 2.6 Further transboundary projects can be formulated and submitted for funding under the WB budgets. Respective outputs are expected and will be defined. Transboundary dialogues have taken place between Cambodia and Vietnam, Cambodia and Lao PDR, Thailand and Lao PDR. The international consultancy will be involving in the written up the transboundary project proposals with close interaction with LMB countries. The expected proposal will be submitted to PSC by the end of 2011 for approval.

Development Partner Reviews and Appraisals planned in 2010

World Bank appraisal for the M-IWRM-P is completed in December 2010 and it is ready for negotiation which will be taken place in mid March 2011. The project preparation process with Member States will be monitored by regular meetings of the supervision committee comprising of MRCS, the World Bank and AusAID.

3.11.3. M-IWRMP Workplan for 2011

The Work Plan for 2011 has been prepared according to the overall Work Plan for the entire project Work Plan 2009-2014. Since the planned outputs and activities for 2011 are aligned to the overall PIP, thus it is divided into three interlined components of regional, transboundary and national as follows (The Gantt Chart is attached):

Work plan under regional component:

- Output 1.1 Regional water resources planning and management tools and knowledge base are refined and developed for basin-wide IWRM. The work is continuous toward the end of 2014.

- Output 1.2 Water utilisation procedures and technical guidelines are finalised and implemented on all LMB levels. The involvement of all MRC programs and MRC level are in full elaboration and implementation of the procedures. The work is continuous.
- Output 1.3 Capacity for IWRM implementation is in place on both the national and MRCS levels and M-IWRMP reporting/exchange. Report progresses on each procedures' implementation and monitoring indicators are in placed to assess the progress. The work is continuous.
- Output 1.4 IWRM basis and approach established at all LMB levels. The approaches to environmental impact risk and flood risk model are established and pilot areas are identified for the testing of the applications.
- Output 1.5 Upper riparian engagement is enhanced. Cooperation modalities will be identified through workshop, exchanges of technical cooperation or joint planning.
- Output 1.6 Effective Project coordination, oversight and joint learning. The three tire project components'working mechanism are agreed and in placed to make sure the smooth project execution and synergies.

Work plan under transboundary component:

- Output 2.1 Transboundary IWRM dialogue is facilitated through regional support during the inception phase of the respective projects. Joint transboundary project proposals are submitted to PSC for evaluation and funding approval.
- Output 2.2 Cambodia-Lao PDR: Mekong mainstream fisheries management at Stung Treng/Kratie to Champasak is in place and sustainable livelihoods created for poor communities. Lessons are learnt and shared amongst the LMB.
- Output 2.3 Cambodia-Viet Nam: Water Resources Management in the Se San and Srepok sub-basins. A joint early warning system regarding flood/drought events is developed. A management and planning tool including a knowledge base that is closely linked to the MRC Toolbox and the key management issues of the sub-basins is in place. Joint capacity on river basin management is enabled. Lessons are learnt and shared amongst the LMB.
- Output 2.4 Cambodia-Viet Nam: Water Resources Management in the Mekong Delta. Dialogue and collaboration towards harmonized water resources investment in the Mekong Delta, considering possible transboundary impacts is fully established. In addition, a project proposal on a possible joint water resources development in the Delta is identified and prepared. A mechanism to share/exchange hydro-meteorological data as well as a Mekong Delta management and a planning tool including a knowledge

base closely linked to the MRC Toolbox are developed. Joint capacity on river basin management is enabled. Lessons are learnt and shared amongst the LMB.

- Output 2.5 Thailand-Lao PDR: Wetland and Floodplain Management. Human impacts on wetlands in the regions are identified, an inventory of mainstream disconnected wetlands is developed and mitigation measures are outlined (details on outputs and activities will be further elaborated). Lessons are learnt and shared amongst the LMB.
- Output 2.6 Further transboundary projects can be formulated and submitted for funding under the WB budgets. Respective outputs are expected and will be defined.

Work plan under national component:

- Output 3.1 Cambodia: Improved aquatic resources management in regionally significant areas; Mekong Water Resources Management Strategy supported and implemented through South-Eastern Mekong delta utilization; Investment on a hydro-meteorological network (APL2). Lessons are learnt and reported to PCMU through the national Mekong IWRM-project coordinator.
- Output 3.2 Lao PDR: Water resource management policy developed and institutions strengthened. Lessons are learnt and reported to PCMU through the national Mekong IWRM-project coordinator.
- Output 3.3 Thailand: IWRM policy and institutions are strengthened; priority investment implemented to meet national and local needs. Lessons are learnt and reported to PCMU through the national Mekong IWRM-project coordinator.
- Output 3.4 Viet Nam: River Basin Organisation for Sesan River Basin will be established and operational. Priority investment for WRM monitoring network will be strengthened and effectively implemented. Lessons are learnt and reported to PCMU through the national Mekong IWRM-project coordinator.

Development Partner Reviews and Appraisals planned in 2011

Joint development partner review will be encouraged. A joint review will aim at assessing the overall progress of the M-IWRMP with regard to activities and outputs; and assess and analyse the major concerns, risks and assumptions for the success of the M-IWRMP

3.12. Watershed Management Project (WSMP)

3.12.1. *Project Overview*

In recent years, The MRC-GIZ Watershed Management Project (WSMP), in close collaboration with the MRC Programmes, NMCs and the countries' line agencies, set up an integrated watershed management system through supporting capacity and institutional development in selected pilot areas in all four lower Mekong countries.

The MRC-GIZ WSMP is due to end in May 2011, with the continuation of a new KfW funded MRC, with a pilot watershed management project in Nam Ton watershed in Lao PDR. The new KfW funded project will build upon GIZ funded watershed management project. This new project will be a combination of technical assistance providing the ground and financial assistance implementing solutions for watershed issues.

Purpose

The proposed project will strengthen the planning, coordination and piloting replicable development solution for sustainable watershed management and IWRM Principles. The objective of the proposed project is to capture the regional interests/relevance in which project could pilot replicable development solution that includes:

Degradation: sustainable natural resources co-management; sustainable finance of (forestry) conservation measures; benefit sharing of larger scale contract farming and water resources infrastructure, e.g. hydropower levies, mining and rubber concessions to alleviate rural poverty; and the supporting role of administrative decentralisation.

Migration: population pressure triggered resource degradation; coping mechanisms, lessons for large scale water resources projects.

Approach

The Project will apply IWRM principles and address the Mekong respective challenges by promoting the implementation of IWRM at the regional and watershed level.

At the regional level (MRCS), the project will focus on regional analysis/research and upscaling replicable development solutions from the Nam Ton pilot watershed project.

At the watershed level (Nam Ton Pilot Project), the project aims to "secure watershed function of the Nam Ton watershed and to improve livelihoods in the Nam Ton Project area". The project will also facilitate regional water resources development by supporting regional analysis (lessons learned).

For the first time, MRC's technical assistance is brought together with national efforts on IWRM and with investment projects on-the-ground, thus demonstrating the MRC's contribution to poverty reduction and sustainable management of Mekong and its tributary water and related resources.

Strategy

The regional part will engage and work closely with WREA and Nam Ton Pilot watershed area in Lao PDR. The project is consisted of two parts: The regional part (Project Part 2 - PP2) will be directly managed by MRCS. The national pilot Project (Project part 1 - PP1) will be managed by WREA/MAF/Local stakeholders with the support from the Technical Assistant/Consultant team and will be oversight, facilitated and supported by PP2 in the areas that capture regional interests/relevance.

Project Part 2 (regional), Watershed Management Project (WSMP)/MRC-KfW Focal Point reporting to the Director of the MRCS Planning Division (PLD) has been established. The WSMP will manage the implementation of the regional part (PP2) as well as facilitate and coordinate technical assistance to the Nam Ton Pilot project upon the request by PP1.

Project Part 1 (national) will be managed by the Project Office (PO) WREA and an additional Project Office (PO) in MAF and reporting to the Project Steering Committee (PEA).

Structure

The project activities are structured under three components that reinforce each other to achieve the project's objectives.

Project Part 2 (Regional) will facilitate the Regional Analysis and upscaling activities for replicable development solutions. Its key focus areas are:

Output 3:

- Basin-wide Analytical Framework for watershed management
- Development solution, e.g., in areas of migration and degradation
- Upscaling

As well as:

- Institutional development
- Capacity Building
- Collection of baseline and policy analysis

The regional activities will be re-visited during the first year (inception phase) to clarify the scope, role of MRCS and identify priorities areas based on available funding and resources together with Project part 1.

Project part 1 (National) covers all Project measures within the Project area, and will be carried out by Lao Government and the local people:

- Output 1: Communities are assisted to establish and execute sustainable village based land use planning.
- Output 2: Farmers are supported to use appropriate farming systems

It is crucial for MRCS to facilitate and monitors the outputs related to the emerging water resource development and management of regional interests/relevant to ensure replicable development solution for regional up-scaling activities.

Implementation Arrangements

The MRC will primarily be responsible for the implementation of Project Part 2 (Regional), and at the same time oversight, coordinate and facilitate the implementation of Project 1 (National, Nam Ton Pilot Project).

Project Part 1 and Part 2 and their respective activities need to be closely coordinated to ensure they complement and support each other and that implementation proves effective. The achievement of the Project will be overseen by a multi-tiered layer of management entities comprised of the following:

- Project Steering Committee (PSC) at the Project level;
- Project Office (NPCs) in both WREA and MAF for Project part 1 (national);
- MRC-KfW Focal Point (Project part 2, Regional), and
- Coordination Management Meetings between PP1 and PP 2 (Monthly basis)

The Project Steering Committee (“PSC”), consisted of Ministry of Agriculture and Forestry (“MAF”), Ministry of Planning and Investment (“MPI”), Ministry of Finance (“MOF”), MRC, Laos National Mekong Committee (“LNMC”), National Land Management Authority (“NLMA”), Lao Women’s Union, district and provincial representatives, GIZ (as optional member) has a chairman of PEA and holds semi-annual meetings. Its functions comprise the discussion and approval of the annual Plan of Operation for both Project parts.

The Steering Committee shall be established by the Project Executing Agency latest at the beginning of the Project. The composition of the committee shall be consistent with requirements for project implementation and can be finally agreed upon before establishment.

The Project Office (PO) is located within the PEA on the national level. The PO consists of a National Project Coordinator (seconded by WREA) and a Deputy Project Coordinator (seconded by MAF). The PO shall be responsible for overall financial management of the Project.

An additional Project Office (“POMAF”) will be located within MAF which is to be complemented by project office structures on the local level. They will be staffed by GoL and will be responsible for Project implementation.

The MRC-KfW focal point will be located within the Planning Division. The focal point shall assure flow of information and coordination between different MRC programmes in order to facilitate upscaling and research. The focal point will be staffed with one riparian project officer. His/ her tasks include implementation of Project Part II and the coordination of MRC activities with Project Part I.

Main Outputs

The main outputs of the two project parts throughout the entire project life are follows:

Outputs under Project Part 1 (National):

Output 1: Communities are assisted to establish and execute sustainable village based land use plans.

- Capacity building and Environmental awareness raising
- Preliminary land use zonation
- First prioritisation of intervention measures and areas
- Watershed and village development planning and final land use zonation
- Land allocation to households and communities (both agricultural and forest land)
- Natural resource management and management of National Protection Area
- Research and extension work of the Faculty of Forestry
- Support to *Kum Ban* centres
-

Output 2: Farmers are supported to use appropriate farming systems.

- Capacity building on district and farmers' level
- Irrigation systems
- Rangeland management
- Aquatic resource management
- Agro-forest / Tree crop plantation development (through deposit accounts)
- Establish village-based delivery mechanism for small-scale productive investments

Outputs under Project Part 2 (Regional):

Output 3: Support to regional analysis and upscaling.

- Basin-wide analytical framework
- Development solutions, e.g. in areas of migration and degradation
- Upscaling

The following measures are required for more than one output:

- Institutional development
- Capacity building
- Collection of baseline data and policy analysis

The above outputs will be further defined and detailed during the inception phase of both Project Part 1 and Part 1. The Inception phase for PP1 will be from October 2010 to 30 March 2011. The inception phase for PP2 will be from 1 March to 30 March 2011.

Project Phases, Funding and Management

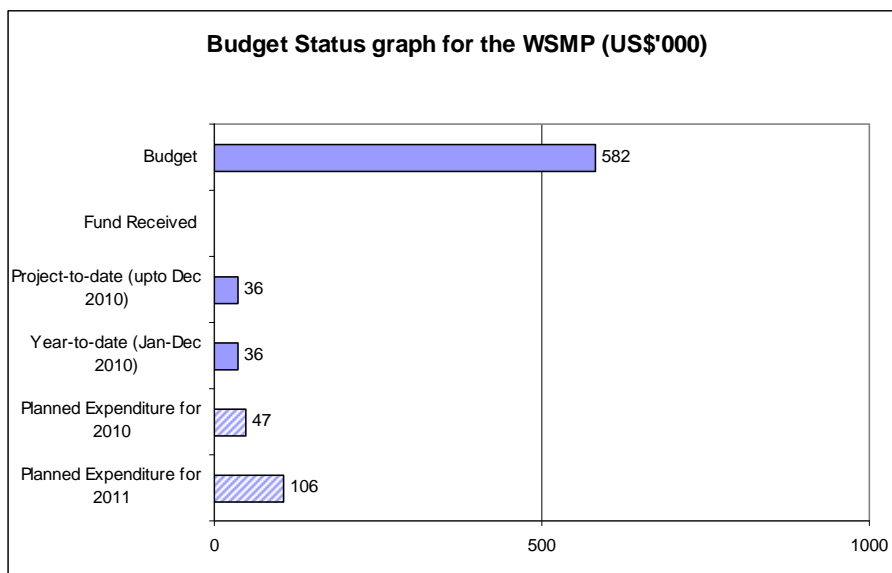
Phase	Timing	Funding (EUR million)	Management
Project formulation/ Pre-Feasibility study	Dec 2005	KfW	KfW
Project formulation/ Feasibility study	Jul- Oct 2007	KfW	KfW
Project identification and preparation (Inception Phase) - PP1	Oct 2010 - Mar 2011	KfW	GoL (WREA/MAF)
Project identification and preparation (Inception Phase) - PP2	Mar 2010 - Mar 2011	KfW	
Project implementation	Mar 2011 - 2018	KfW	MRCS and GoL (WREA/MAF)

List of agreements/projects

Project title	Start date	End date	Budget (EUR million)	Balance 2010	Donor(s)
Active projects					
German Financial Cooperation with the Mekong River Commission Sustainable Management of Watersheds in the Lower Mekong Basin (2009-2018)	06/2009	12/2018	Total: 5,11m PP1 (GoL): 4,6m PP2 (MRCS): 0.5m	MRCS (473,0000)	Germany through KfW

3.12.2. Progress of WSMP Project in 2010

The following graph described the project budget status including the planned expenditure for 2011, the expenditure from January to August 2010 (year to date), the expenditure from the date of implementation phase (project to date), fund received and the budget pledged. This graph reflects only budget status under the kfW fund for the Regional Part (PP2). The KfW's grant to National Part (PP1) GoL/WREA/MAF have been committed and will be directly transfer to GoL through Ministry of Finance to the Project Executing Agency (WREA) for the project implementation starting October 2010.



Planned and Achieved Outputs for 2010

- Project Inception Report - under preparation, to be finalized by end of March 2011.
- International conference on Watershed Management in Chiang Mai, Thailand 9-11 March 2011, under preparation/organization. Either Conference Proceedings or MRC Technical Report will be prepared.

Development Partner Reviews and Appraisals planned in 2010

No reviews and appraisal has been undertaken for 2010. The project preparation process for PP 1 and PP2 will be monitored by regular meetings of the coordination committee comprising of MRCS, GIZ and WREA/MAF, as well as occasional communication with KfW as needed.

3.12.3. *WSMP Workplan for 2011*

The Work Plan for 2011 will be prepared during the inception phase of the PP1 and PP2 for 2011 - 2017. The Gantt Chart will also be prepared and finalized during the inception phase.

As the Project's Inception report is currently being prepared, the outputs/activities for 2011 will be determined and finalized at the inception workshop for both PP1 and PP2 at the end of March 2011.

The International Conference on Watersheds "From Local Watershed Management to Integrated River Basin Management at National and Transboundary Levels" on 9-11 March 2011 in Chiangmai, Thailand is intended to explore a range of critical issues facing watershed management in the basin and lead to initiatives and partnership to take forced under Project Part 2.

Development Partner Reviews and Appraisals planned in 2011

The project preparation process for PP 1 and PP2 will be monitored by regular meetings of the coordination committee comprising of MRCS, GIZ and WREA/MAF. Final review and non-objection by Donor on the inception report and workplan will be required in order to proceed with the implementation

3.13. MRC Water Management Trust Fund

3.13.1. Programme Overview

Rationale

The nature of the work of the MRC requires that it is able to respond with some flexibility to emerging demands and the need for formulating new projects, activities and initiatives as new problem settings require to be cast into the ongoing integrated programme. Only on that basis can the MRC Secretariat seek both approval and funding to address emerging challenges in Integrated Water Resources Management in the Mekong region. The established programme funding mechanism and the annual approval process through Council however do not provide for such flexibility and a supplementary mechanism was needed and hence, the MRC Water Management Trust Fund (WMTF) was established.

Moreover, the role of the MRC as a facilitator for consensus building in transboundary water resources development requires for it to be able to provide technical advisory services, facilitation through workshops, and neutral high-quality technical information through specific studies and consultancies in response to such short-term facilitation needs.

Finally, the MRC requires long-term strategic orientation to provide the best substantive and organizational response to longer-term regional water resources development and integration challenges. This requires premium-quality short-term expertise to develop strategic concepts on the basis of a consultative and participatory process.

Objective

The Objective of the MRC Water Management Trust Fund is to provide strategic and flexible support to MRC programme development and a facility for the MRC to develop and implement its programme responding to short-term demand of member countries in fulfilling its mandate in transboundary water resources management and development.

MRC Water Management Trust Fund Activity Tracks

The WMTF works on three activity tracks in support of the 1995 Agreement: (i) Strategic Policy Development; (ii) Transboundary Mediation Facility; and (iii) Responsive Programme Development.

Strategic Policy Development:

- Consultant services in support of strategy development and implementation;
- High-level comparative studies on water resources policy issues;
- Expert and Advisory Panel on Mekong IWRM;
- Liaison travel of management to IWRM global and regional events; and
- IWRM Trust Fund Management and Coordination.

Transboundary Mediation Facility

- Multi-party study visits;
- Studies on transboundary mediation options and approaches in the Mekong;
- Environmental Impact Assessments expertise, information or studies upon request of Member Countries; and
- Facilitation of Member Countries consultation processes under the MRC Procedures for Notification, Prior Consultation and Agreement.

Responsive Programme Development

- Programme development consultancies;
- Programme development and review workshops; and
- Cross-cutting evaluation consultancies.

Use and Implementation Arrangements

For activities below US\$ 100,000 the use of funds of the WMTF are authorized by the Chief Executive Officer of MRC within the Trust Fund's Activity Tracks in support of the 1995 Mekong Agreement: (i) Strategic Policy Development; (ii) Transboundary Mediation Facility; and (iii) Responsive Programme Development. For any activity with a budget of or above US\$ 100,000 approval of the Joint Committee is to be sought.

The WMTF makes use of the project format for each activity drawing upon the Fund to facilitate implementation and monitoring. These projects are screened against the above-agreed funding criteria for separate funding tranches by donors and approved either by the Chief Executive Officer of MRC or by the Joint Committee.

The standard MRC budget policy is to be applied, namely that no advance of funds is possible against funds not yet received. No overspending beyond the level of funds available is authorized. The funds disbursement policy is the same as for MRC projects and programmes, in particular the same signature authority procedures and checks and balances apply.

The overall coordination and annual reporting responsibility for the WMTF rests with the MRC Secretariat International Cooperation and Communication Section.

In implementing an activity under the WMTF, recruitment and procurement of services follow the MRC standard procedures as set out in Personnel Manual and Procurement Manual. A special emphasis is placed on the involvement of regional and local experts to give them an opportunity to participate.

Monitoring and Reporting

The WMTF makes use of the established and transparent substantive and financial reporting system of the MRC which is geared towards multiple-donor funding formats and agreement-based reporting.

Donor contributions in towards the WMTF are re-traceable and drawn upon under the conditions agreed upon in the funding agreement with the WMTF Donor.

3.13.2. Progress on the Water Management Trust Fund in 2010

In the past, the WMTF has been used to complete a number of crucial activities that could not have been funded through the MRC regular budget. The WMTF was instrumental in implementing the recommendations of the Independent Organisational, Institutional and Financial Review of the MRC, which brought about important structural changes to make the organisation more effective. In 2010, a number of new recommendations were implemented, in particular for the improvement of the human resources system and to achieve the full riparianisation of the MRC Secretariat. The Organisational Review has been one of the most significant work undertaken by the MRC in recent year to improve its own functioning. The use of the WMTF for this type of unplanned work has proven particularly effective and has reinforced the necessity of maintain a flexible funding mechanism for strategic policy developments.

Since its creation in 2006, the WMTF has been supported by three main Donors, France, Denmark and Finland and it received contributions amounting to US\$ 2,505,760. The latest agreement to support the WMTF was signed between the Ministry for Foreign Affairs of Finland and the MRC on 8 March 2010 and contributed to the WMTF with 1,000,000 EUR, equivalent to US\$ 1,400,000. This contribution is the largest made so far to the WMTF and is not earmarked. The implementation of the recommendations was funded by the Danish contribution to the WMTF. These funds also supported the development of the new MRC Strategic Plan 2011-2015.

The Finnish and French contributions to the WMTF were used by the Environment Programme to work on Technical Guidelines of the Procedures for Water Quality. The Procedures are about to be endorsed by the four MRC Member Countries in 2011, so the Technical Guidelines are almost completed.

The latest contribution from Finland was used to partly support the organisation of the First Summit of the MRC held in Hua Hin in April 2010. This high level meeting marked the 15th anniversary of the MRC. The Prime Ministers of the four MRC Member Countries reaffirmed their commitment to the work of the MRC. The Finnish contribution also allowed the MRC to send a representative to the International Conference on Transboundary Aquifers organised by the ISARM in Paris on 6-8 December 2010 as part of MRC's initiative to scope out its future role in transboundary groundwater management which has close links to surface water management.

The funding status of the WMTF at the end of December 2010 is presented in the following figure:

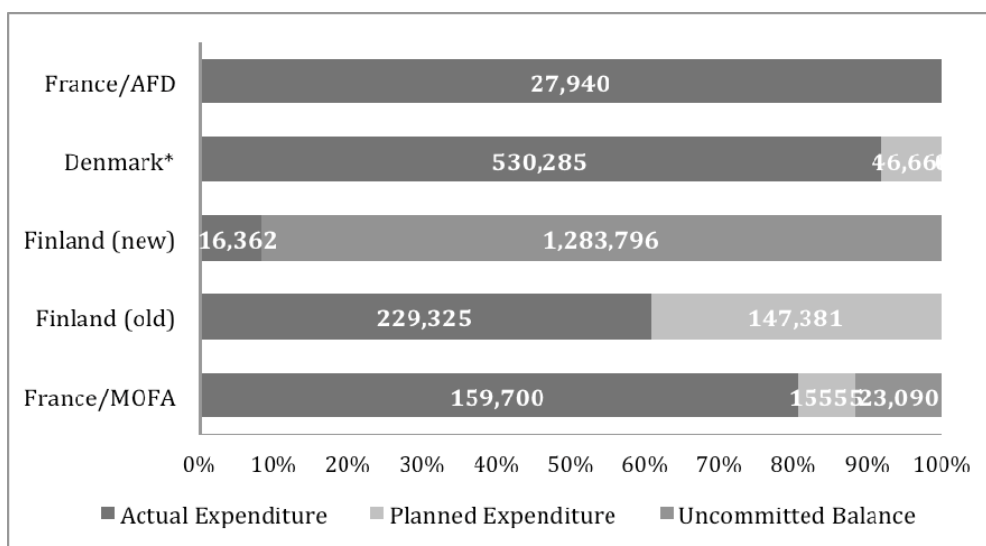


Figure: Status of the WMTF (end of December 2010, in USD)

3.13.3. *Planned outputs for the Water Management Trust Fund in 2011*

In 2011, the earlier agreements on support to the WMTF and the latest one with the Government of Finland will continue to December 2013. In 2011, the MRC will focus on completing all the activities initiated so far.

The new Finnish funding has not yet been allocated as the nature of the fund is that it needs to respond to emerging needs and not be planned over an annual basis like other programme funds. A number of new tasks will be fully or partially funded starting in 2011, especially to support the implementation of the new MRC Strategic Plan as well as the Communications and Disclosure Policy and issues arising from the ongoing Prios Consultation process that need urgent attention on a transboundary scale.



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