

Mid-term Review of the MRC Strategic Plan 2006 - 2010

Appendix A

Activities and Outputs of MRC Programmes 2006 to Mid-2008

APPENDIX A

ACTIVITIES AND OUTPUTS OF MRC PROGRAMMES 2006 TO MID-2008

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1 Basin Development Plan (BDP)

Phase 1 of the BDP was a three year programme (2002-2004) that was extended without provision of additional funds until July 2006. A further no-cost extension provided a bridging arrangement up to the start up of the second phase, planned for January 2007. A detailed BDP 2 programme document was approved by the Council in December 2005.

The budget for 2006 to 2010 was \$10.04M. At the end of 2007 funds provided were \$0.935 and programme expenditure was \$0.880M, representing the 2007 expenditure. At May 2008 the funds received were \$3.747M and the project expenditure was \$1.24M.

Component 1: Programme Management and Communication

2007 was a transition period between Phase 1 and Phase 2. The process and results of BDP Phase 1 were reviewed and a regional consultation meeting held in December 2007 endorsed the inception report subject to incorporation of comments. During 2007, the BDP Phase 1 management processes and procedures were reviewed and strengthened. A BDP participation and communication plan was discussed and agreed through a regional workshop in 2008. The first Stakeholder consultation was held in early 2008.

The first joint donor review of BDP2 was conducted in May 2008 with members from DANIDA, SIDA and AusAID. The review concluded with positive assessment for a "solid footing" of the BDP2 despite its understandable delays.

Component 2: Rolling IWRM-based Basin Development Plan

The updating of sub-area reports has been on-going with the aim of having them ready in early 2009. These will include most of the additional information needed for the formulation of basin-wide development scenarios, based on analysis of the strategic development options and the related water resources development projects in each sub-area. Hydropower and irrigation sector reviews were undertaken to provide an updated understanding of the sector development dimension and information on the significant projects. In parallel, the gaps in other sector knowledge are being addressed by the appropriate MRC Programmes such as FMMF, FP and NAP.

Agreement was reached on important technical directions for scenario formulation and assessment. Fast-tracking the assessment of hydrological impacts of some BDP scenarios will be undertaken during 2008. By the end of 2008, the hydrological impact assessment of basin-wide development scenarios, using the DSF, will be carried out.

A Regional Technical Working Group on scenarios and IWRM-based Basin Strategy (RTWG) was prepared. In 2009 the assessments of the formulated development scenarios will be available, providing strategic directions for the long-term water development of the LMB. The project database has been improved to include information of all significant projects with potential transboundary implications, including newly identified projects through the above sector and sub-area activities. A concept of the Project Portfolio, with a classification and screening system, has been prepared to support the BDP2 planning process. Existing and new priority projects will be discussed with the national agencies and MRC Programmes. This will result in an initial 2008 Project Portfolio. Some projects will be selected for further development and promotion.

A substantive outline of the rolling IWRM-based Basin Development Plan will be prepared in 2008 in the context of the Mekong Partnership Programme, with a view to promoting consensus on the purpose, scope and implementation modalities of the plan.

Component 3: Knowledge Base and Assessment Tools

A draft Planning Atlas will be completed in 2008. The BDP assessment framework for basin planning will be completed and agreed with the key stakeholders. BDP2 will support improvement of the DSF and the IBFM process by IKMP and EP respectively.

Component 4: IWRM-based Planning Capacity

A high level study exchange to the Columbia River Basin took place to share experiences on developing multi-purpose water resources development projects, to review the joint

management of the Columbia river basin, and transparent process in hydropower development.

The training needs assessment will be completed and priority training workshops implemented. Building on this, the BDP team, in consultation with the ICBP and the NMCs, will assess the feasibility of building IWRM training capacity in selected existing institutes in the LMB. A start will be made by providing support to selected institutes in the development of training capacity and material needed for the implementation of specific training programmes related to IWRM planning, which would be tuned to the needs of the specific target groups in the Member Countries.

Significant Problems Encountered at May 2008

As of May 2008, the BDP2 had experienced some delays in launching the sector reviews and updating Sub-area reports. On the other hand, major activities to set the approach, process and assessment framework for scenario formulation and assessment are progressing as planned. The BDP2 team has worked closely with National BDP units to monitor the sector reviews and to start updating the sub-area reports to ensure that sufficient and timely inputs are obtained for scenario formulation and assessment of hydrological impacts.

2 Environment Programme

Budget estimate for the Programme (2004-2008) was \$19.228M. At the start of the SP in 2006 funds provided were \$5.474M and programme expenditure was \$5.241M. Four funds were closed in early 2007 resulting in a reduced budget of approximately US\$964,000. At 2007, budget estimate for the revised Programme (2006-2010) was \$15.0M, funds provided were \$6.418M and programme expenditure was \$3.841M. The new Funding Arrangement between AusAID and MRC was signed in June 2008 to support the Climate Change and Adaptation Initiative for the period 2008-2012. At June 2008, budget estimate for the revised Programme (2006-2010) was \$16.0M, funds provided were \$7.42M and programme expenditure was \$3.841M.

Component 1: Programme Management

The first phase (July 2008 - March 2009) of the new Funding Arrangement between AusAID and MRC will be the formulation of Climate Change and Adaptation Framework for the LMB.

Component 2: Environmental Monitoring and Assessment

Development of a water quality index based on water quality monitoring network data was underway in 2006. The QA/QC programme continued testing the analytical accuracy of laboratories participating in the Water Quality Monitoring Network in the Lower Mekong Basin (WQMN). During 2007, a report was completed on requirements to bring the laboratories closer to the international standard ISO 17025 requirements and to improve the data quality and laboratory management. All labs are now monitoring and assessing two additional parameters (chlorophyll-a and faecal coliform).

Draft Indicative Mekong River report cards on water quality and ecological health were prepared for the Mekong river mainstream. In 2007, MRC Technical Paper No 15 – Diagnostic Study of Water Quality in the Lower Mekong Basin was published, which describes baseline conditions for environmental contaminants in the lower Mekong River and its tributaries. Also published was a baseline report on water quality providing a comprehensive analysis of status and trends of water quality over the past 20 years.

The Ecological Health Monitoring completed the first 4-year monitoring cycle in 2008. A first round of samples at selected sites is complete at the beginning of 2008. A synthesis of the first four seasons of completed ecological health monitoring data for the LMB – this will be published as a MRC Technical Series Report. The MRC Technical Paper No 13 – Biomonitoring of the Lower Mekong River and selected tributaries was published in 2008; and a book on identification of freshwater invertebrates of the Mekong River and its tributaries was completed.

The design of the field based studies for the social impact monitoring system was completed in 2006. The second phase of the social Impact Monitoring System started in 2007. By the end of 2008, technical guideline for social impact monitoring will be complete for NMCs consideration. Field studies on verifying the socio-economic indicators will start in the second half of 2008.

Component 3: Environmental Decision Support

The draft Framework for the Guideline for a Transboundary Environmental Assessment System was agreed at a regional meeting in mid-2006. However, at the 24th Meeting of the Joint Committee one member country expressed concern that the text may be perceived as binding which is not the intention of the guideline. The framework continues to be revised during 2008 and capacity building on TbEIA is being undertaken to ensure a better understanding of the tool. Seven transboundary critical areas/issues are identified as a basis for capacity building.

The work plan on the MRC transboundary framework conflict management initiative in the LMB has been completed and is ready for implementation by Member Countries. Priority areas (hot spots) for environmental conflict prevention have been identified and are being discussed with Member Countries with a view to conducting case studies and developing procedures for addressing regional differences and disputes. Training modules for conflict prevention and mediation were partly completed in the first half of 2008 and Regional training held in May 2008.

A draft concept note on environmental considerations for hydropower development was prepared in consultation with WWF and ADB during 2007. The project design and formulation of Environmental Considerations of Sustainable Hydropower Development (ECSHD) started in January 2008 based on the result of previous national consultations. Project implementation of ECSHD is planned to start in 2009.

Component 4: People and Aquatic Ecosystems

Information on values has been collected and added to the wetland map as a tool for BDP 2 in 2006. Assessment of people vulnerable to changes in aquatic resources was initiated to provide a spatial description of vulnerability. Technical guidelines for vulnerability assessment were prepared by an expert team in February 2008. Interaction for cooperation and alignment between EP and BDP on social impact assessment and vulnerability assessment was initiated in June 2008.

As at 2007, MRC-IS Portal wetland maps and information and water quality information were accessible over the internet. Line agency staff have been trained in wetland mapping techniques using remote sensing. Wetland/biodiversity mapping was demonstrated at selected sites of the four countries in the beginning of year 2008. The methodology is now with Member States. Ongoing support was provided during 2007 for the establishment of the Lao PDR's first Ramsar wetlands site.

Work on environmental impact of tourism was initiated in 2006. Three national reports on the environmental impact of tourism were completed in 2007. All four national reports are expected to be completed and approved by the end of 2008.

Component 5: Environmental Knowledge

The Environment Programme Annual Technical Meeting are held to provide a focus on EP activities. Various reports outlined above were published. The State of the Basin Report is planned for 2009, involving BDP, IKMP and other MRCS programmes.

Component 6: Environmental Flow Management

IBFM work in 2006 focused on improving hydrological modelling, sediment and geomorphology, and fisheries. Development of a database driven expert tool was initiated. In 2007, specialist reports for the IBFM predictive tool were ready for trial. National consultations were held to negotiate national pilot studies. A technical report on the assessment methodology for environmental flows was ready in 2008 for testing and adoption under the IBFM process and for further evaluation. Methodology for assessing environmental flows has been completed and is ready for adoption and use by line agencies. Reports on flows assessment under BDP scenarios have continued in order to refine IBFM in order to integrate into the BDP in 2008.

In 2008, work on climate change started and will provide inputs for an assessment of the benefits and costs of water resources development by assessing the consequences of flow changes and climate change in LMB.

Significant Problems Encountered at mid 2008

The programme is significantly under-funded. Some activities had to terminate after the completion in 2008, even though there was still potential for a number of follow-up activities to support Member Countries.

Some activities are conceptually difficult and take up by the Member Countries takes time, mainly due to of the need for prior capacity building. Further efforts should emphasise national capacity building and greater integration of MRC activities into riparian country activities.

3 Information and Knowledge Management Programme (IKMP)

During 2006 the MRC was in the process of formulating the IKMP programme document, which was approved in principle by the MRC Council at its 13th Meeting in December 2006 as a five-year programme. At the end of 2007, the budget (2006-2010) was \$26.5M. At June 2008, the funds received remained at \$12.9M and the project expenditure (April 2006 to Jun 2008) was \$3.32M.

Component 1: Programme Management.

The Initial Draft of IKM Programme Proposal was drafted in June 2006. After national and regional consultation meetings, an updated programme document was approved in principle by the MRC Council in December 2006. The PIP was approved in principle by the IKMP Steering Committee at its first meeting (30 November 2007) with final approval in 2008. During 2008 designing data, information and knowledge products was partly done including a data catalogue, metadata and geo-network.

Component 2: Hydro-meteorological Data.

Processing of the hydro-meteorological data collected from Member Countries is on-going. During 2007 the hydro-meteorological data collected from Member Countries of up to 2005 was being processed. The CD- Rom Hydrological Yearbook for 2003-2004 was produced.

The Appropriate Hydrological Network Improvement Project (AHNIP) was extended to August 2007 with funding from AUSAid. This would cover interim replacement of field equipment, development of policy and strategy framework, and formulation of the project design document to upgrade the AHNIP Network and integration with the Mekong-HYCOS Network. The equipment selection process for interim equipment replacement was finalised in July 2006.

The MOU for management and operation of the AHNIP Network by member countries is regularly renewed. The MOU outlines in detail the roles and responsibilities of all parties and the provision of funds to the line agencies for operation and maintenance of the AHNIP network. With the effective implementation of the MOU, the operation of AHNIP network has been improved. Accurate and reliable data from more than 17 AHNIP stations are now being sent to the MRC Secretariat and delivered to the users every morning.

The Mekong-HYCOS project (the objective of Mekong-HYCOS is to establish and operate a real-time flood information system in the lower Mekong basin) was approved and funded. The project implementation started in September 2006. Activities in 2007 focused on the inception phase, which has designed the Mekong-HYCOS network with 31 stations (first priority), equipment and civil work. Preparation for tendering and contracting was started. In 2008 the focus is on finalising hydro-met observation network, hydro-met equipment and civil works - equipment installation for priority 1 stations (23).

The technical cooperation with China under the Agreement on the provision of Hydrological Information of Lancang / Mekong River in the flood Season was progressed during 2007. The Agreement was renewed in August 2008.

In 2008 work also started on developing a discharge-sediment monitoring project proposal.

Component 3: GIS and Databases

The collection and supply of improved quality, quantity and timely hydro-meteorological information to all programmes, forecasting, monitoring, strengthening and consolidation of the network and capacity involved continued in 2007. For 2008, the first priority is auditing existing data holdings. The second priority is to develop a manual of standards and guidelines for data and information management. The other high priorities are data and information needs assessment; data acquisition and generation plan; new data (acquired and generated); and hardcopy printing services for map and 3D products.

Remote sensed data and a time-series data are being used for the project on Strengthening of Flood Management Capacity for the Kok River in Chiang Rai Province, Thailand. In 2008,

new data was acquired and generated. Support was given to river cross-section surveys in Cambodia and soil mapping in Laos.

The component is also focused on strengthening the capacity for building an MRC integrated GIS.

Component 4: Modelling

The Decision Support Framework (DSF) has been extensively used in the MRC programmes/activities, notably BDP, IBFM and FMM with intensive support of the (TSD) Modelling Team. In parallel, other activities relating to the DSF enhancement and modelling capacity building were also carried-out – capacity building is on-going. Activities relating to DSF enhancement and modelling capacity building are carried-out during 2007, including upgrading the Isis dongle, developing a Reporting Tool Wizard, and DSF Online Support. A tender for DSF modelling services was prepared in 2008. DSF enhancements will be completed in 2008. More details are reported under WUP.

Two other projects were implemented during 2007: namely (1) the Finish Funded Decision Support Services (FINDS) with national case studies developed a Tonle Sap Productivity Model, and (2) a model system for flood forecasting for Kok River Basin. A tender for WUP-FIN modelling services was prepared in 2008.

Component 5: Communications and Knowledge Management

MRC-IS Portal was completed in December 2005 and launched in-house at MRCS in January 2006. The portal includes key information services such as interactive maps, and a geographically enabled metadata explorer with metadata for spatial datasets. The Document Management System (DMS) is a part of MRC-IS Portal. It is designed to improve sharing of and access to documents and provide fully controlled access to wide range of documents. A proposal for external access to the MRC-IS Portal was developed and in 2008 the Portal for external access was built and tested.

A library automation system, the Electronic Library on Web (ELIB) has been implemented at the Documentation Centre. All bibliographical data records have been successfully migrated to the new format. The database can be accessed by both internal and external users.

During 2007, the development of MRC M&E (Monitoring and Evaluation) system was given a high priority by the Council. This is a priority activity for 2008 with the release of a draft proposal in March.

Significant Problems Encountered at mid 2008

Under Component 4, delays have occurred with two international tenders due to technical complexity of tendering. These are expected to be resolved by October 2008.

4 Water Utilization Programme (WUP)

The current WUP was originally scheduled to end in 2006 but an extension of the completion and closing dates of one year to 31 December 2007 and 30 June 2008 respectively was granted in late 2006. Development of a possible new phase of GEF support as a follow up to WUP was undertaken through national and regional consultations.

At the end of 2006, the 2000 – 2006 budget was \$16.124M. Funds received were \$14.976M and project expenditure was \$14.528M. At 2007, the 2000 – 2008 budget was \$17.7M. Funds received were \$15.567M and project expenditure was \$14.753M (at June).

Component 1: Basin Modelling and Knowledge Base

The DSF modelling team through 2006 was actively supporting the preparation of the revised Technical Guidelines for Implementation of the PMFM based on 1) the newly calibrated models, 2) the proposals to simplify and improve the presentation, and 3) the insights gained under IBFM Phase 2. New contracts for continued improvements with the ISIS and SWAT were signed in 2006. Two DSF maintenance contracts were approved, thus enabling urgent bug-fixing and other maintenance activities to be carried out. The IQQM maintenance contract was also under implementation in 2006. Two case studies from each NMC were selected to provide an opportunity for the modelling team to apply the DSF and other models to real water resource management issues in the member countries.

A Programme of DSF modelling training was developed in association with experts from the National Institute for Rural Engineering of Japan and the World Bank Institute. This Programme was executed in May and June 2006, starting with LNMC and CNMC. This continued in 2007.

The WUP-Fin team continued the Phase 2 model set-ups, calibration, validation and application. In addition, a more active participation in the EP-driven IBFM Phase 3 activities was planned.

Component 2: Environmental & Transboundary Impact Analysis,

The results of the Flow Regime Impacts Workshop were synthesised in IBFM Report No. 8 issued in February 2006. This report represents an important milestone in IBFM 2 activities. WUP proceeded with further national consultations and TRG meetings including preparation of revised Technical Guidelines for Implementation of the PMFM (Procedures for Maintaining Flows in the Mainstream). This which constituted completion of IBFM Phase 2 activities. EP is moving forward with their detailed research and stakeholder consultation under IBFM Phase 3.

The formulation of the MRC Drought Management Programme was undertaken in 2006

Component 3: Procedures for Water Utilization

Procedures for Maintenance of Flows on the Mainstream were signed by the Members of the MRC Council on 22 June 2006. Drafting of the Rules for Water Quality was completed.

Component 4: Management and Institutional Strengthening

The WUP supported a scoping mission during May 2006 to assess whether or not the member countries supported a need to move to a new phase of GEF support as a follow-up to the WUP. The study concluded that a second project could be justified, but that the Joint Committee must first determine whether it wants a new GEF-funded initiative and how “country driven” a second project would be designed and prepared.

Mekong Water Resources Partnership Programme (MWARP) Studies: WUP Unit members have participated in review and comment on the formulation of three regional studies being promoted under the MWARP by the World Bank and the ADB.

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

Through the World Bank, the GEF has been supporting the MRC since 2001 through WUP. That programme ended in June 2008. A concept paper for a follow-up project, entitled Mekong Integrated Water Resources Management Project (M-IWRM-P) has been developed. The preparation phase of the M-IWRM-P is to be carried out from mid 2008 to mid 2009 to further identify and prepare project details. World Bank appraisal is planned for May 2009, and the project is expected to be implemented over 2009-2014.

Component 1: Regional component

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.

Component 2: National component

The national component will ensure implementation of IWRM at national and sub-basin levels: it may support (i) Cambodia: delta planning study and design of an integrated rural development project; (ii) Lao PDR: strengthening of water and environmental management in selected sub-basins; (iii) Thailand: capacity building for RBCs 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.

Component 3: Transboundary Component

This component serves the implementation of IWRM at the transboundary project level: it will support (i) Lao PDR-Cambodia joint planning and investment to improve fishery management in the Khone Falls area; (ii) Cambodia-Viet Nam joint planning and investment in flood mitigation, irrigation and drainage in the Cai-Co canal area; and (iii) Thailand-Lao PDR joint planning and investment in river bank protection.

M-IWRM-P and the BDP2 will reinforce each other. BDP2 will provide the elements of the IWRM-based Basin Development Plan. M-IWRM-P will assist the countries with the joint implementation of the Plan components, with support from the MRC, development banks, private sector etc.

The M-IWRM-P planned outputs for 2008 are:

- Finalisation of the project concept and obtaining endorsement from Member Countries.
- Mobilisation of funds (AusAID and Japan PHRD) for the project preparation.
- Initiate the Project identification and preparation at MRCS and the Member Countries.
- Complete the project identification and achieve set targets for the preparation of different components and sub-components.

As of June 2008, the project concept has been finalised and submitted to countries for consultation and endorsement. Funding has been obtained from AusAID for the preparation of the regional component and overall coordination of the project preparation phase. Hiring of short-term experts at MRCS has been initiated. The results on the Japan PHRD to support the preparation of activities in the National and Transboundary components are expected mid 2008.

Significant problems encountered at mid 2008

There have been significant delays in the preparation of the project concept and funds mobilisation, given the downsizing of the WUP staff. With BDP Programme taking the lead during the project pre-formulation and intensive discussion and coordination amongst WB, MRCS and Australia, the project concept has been finalised through three regional meetings with Member Countries. This has been critical for funds mobilisation to support the project preparation.

6 Integrated Capacity Building Programme (ICBP)

Budget estimate for (2006-2010) at the end of 2007 was \$6.6M and funds provided were \$0.24M. Budget estimate at mid 2008 was \$4.5M and funds provided were \$2.1M.

Component 1: Programme Management and Communication

Fund raising activities in 2007 resulted in AusAID's support and preparatory works for the ICBP programme formulation were finalised. MRC and the Murray Darling Basin Commission (MDBC) are preparing the next phase in their long term cooperation, possibly in ICBP.

During 2008, full programme documentation will be developed. Country consultations will facilitate the process. Potential strategic linkages to academia / training bodies will be explored.

Component 2: Integrated Capacity Building

Training Activities

The implementation of the training programme for the Lao support staff funded by UNDP in collaboration with LNMC ended in mid-2006. ICBP implemented training activities for the MRCS staff as well as at local and regional training. The pilot training course on integrated river basin planning (IRBP) was conducted in late 2005 and the training package developed and finalised in 2006. In 2007 and 2008 training activities to MRC staff funded by OEB continued.

In 2008, priority capacity building activities identified during the ICBP preparatory phase will be carried out: (i) Train the Trainer on Integrated River Basin Planning, (ii) In-dept and practical training on Programme/Project planning, (iii) Training workshop on Cross-Cultural Communication, and (iv) Executive Seminar for decision makers on Leadership.

Junior Riparian Professional Programme (JAR)

The JRP Project phase 1 was completed in 2006. A new project document for phase 2 was formulated and the Government of Finland has provided financial support. The JRP preparatory activities will be completed in 2008, including updating of the training material and review of the recruitment process. The first assignment will proceed in late 2008.

Gender mainstreaming

In coordination with Gender Mainstreaming Project Phase II, funded by the NZAID for a three years period (2004-2007), the ICBP assisted in facilitation of Capacity Building in Gender and Development in MRC and the Line Agencies. In 2006, the project carried out national workshops in four MRC member countries. In 2007 gender sensitivity training in the four countries was undertaken in collaboration with NMCs. Four national gender teams were established and national action plans developed. Technical assistance was provided to finalise the action plans, training manuals for the national gender teams were updated and the translation of the MRC Gender Strategy and Policy to Khmer, Thai and Vietnamese was completed. Organisation of the second gender basin-wide workshop will be undertaken during second half 2008. Networking with gender activities in other international organisations will also be undertaken. Three training courses on Gender Mainstreaming in Project Cycle Management will be held in 2008.

An evaluation of the Gender Mainstreaming Project has taken place providing recommendations for a future continuation of gender mainstreaming. All Gender Mainstreaming activities will be completed in December 2008. Funding will be sought to continue the activities from 2009.

Significant Problems Encountered at mid 2008

Lack of funding restricted the work of ICBP in 2007 and part of 2008 but with the support of AusAID the resources have increased considerably. Communication between ICBP and the other MRC programmes is not structured which makes it difficult for ICBP (and MRC) to maintain an overview of the on-going capacity building needs. It was expected that the comprehensive ICBP programme formulation to be conducted during 2008 would address this issue

7 Flood Management Programme

Budget estimate for the Programme (2004-2010) at the end of 2006 was \$21.248M, at the end of 2007 was \$25.492M and at mid 2008 was \$27.363M. At mid 2008 funds provided were \$9.766 and programme expenditure was \$8.273M.

Component 1: Establishment of a Regional FMM Centre in Phnom Penh

The construction of the new building for RFMMC was completed in 2007 and the office subsequently relocated. Communication link between the MRCS and the RFMMC were improved in 2007 with video conference facilities being installed.

The reports on database and data required for the medium term flood forecasts were completed in 2006, which provided an intensive plan for development of the operational database within the RFMMC. A pilot project for sub-basin 2T of Thailand was prepared. Project documentation was prepared, to be funded by the Government of Finland. The ToR for the project "Danida support for FMMP coordination", and four project documents to support for National Flood Units (NFUs) was developed and approved. In 2007, two institutional and technical reports were prepared describing the functionalities of the RFMMC, and a framework for improving the short and medium flood forecasting system. In 2008 an operational database mainly for water level and rainfall data for the flood forecasting purposes was under preparation.

The Hydrological Condition Report for the LMB for 2006-2007 was presented to the JC meeting in May 2007. The annual flood report for 2006 had an emphasis on data analysis and the temporal and spatial nature of floods and flooding in the Mekong region. This enables MRC to build up a complete picture of all aspects of the Mekong flood regime and becomes a valuable source of data on the basin. The report for 2007 year concentrated on the regional flood hydrology of the major tributaries of the LMB.

The USAID/OFDA-funded project "Provision of Flood Early Warning to Flood Vulnerable Communities in the Lower Mekong Basin, Phase 1: Cambodia and Lao PDR" entered its third year and was completed in 2007. Assessment and inventory of flood vulnerable communities in the LMB continued. The 2007 report describes an overview of flood vulnerability and its requirements in terms of provision of flood warning and dissemination; and an overview of institutional framework of member country agencies and Regional Flood Management and Mitigation Center. It outlines general requirements for strengthening the flood early warning information and dissemination systems in the LMB.

A set of maps, animations and time series to present flood extent and behavior will be produced for a part of Chiang Rai project in 2008. A set of guidelines and recommendations for flood mapping and forecasting in the LMB will be produced in 2008. Annual Flood Forum are an on-going activity.

Component 2: Structural Measures and Flood Proofing

Component 2 has joint RNE-ADB funding. The report "Framework for Integrated Flood Risks Management (IFRM) for LMB" enables BDP staff to understand, identify and broadly assess flooding impacts and considerations when evaluating water development and infrastructure projects proposed for inclusion in the BDP. The proposal on the Delft Cluster-WWF-MRCS project on Roads and Floods in the Mekong Floodplain of Viet Nam and Cambodia was approved in 2006. Following this, the contracts between MRCS and NMCs (VNMC and CNMC) were signed to do the pre-flood, flood and post flood surveys. In 2008, guideline on Best Practices for the Design of the Roads in Floodplain Areas in Cambodia and Vietnam, were being produced.

During 2008, best practice guidelines were being produced for (i) flood proofing building and infrastructure in urban and rural areas; (ii) the use, design, construction, O&M of major infrastructure; (iii) to assess the significance of environmental and ecological impacts of infrastructure; and (iv) to select and integrate 'hard' and 'soft' management measures to achieve maximum effective flood risk reduction. A prioritised FMM 'Project Development and Implementation Plan (ProDIP)' is producing a prioritised list of potentially effective 'hard' and 'soft' projects, and their rank in terms of socio-economic and environmental benefits.

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

At National and Regional consultative meetings held in 2006 to discuss Component 3, participants recommended that the MRC would play the role of a facilitator (but not mediator) in resolving differences between countries. This led to the need for the revision of the Component document before finalisation in 2007. ToR for component implementation was also developed.

In 2007 national reports on trans-boundary flood issues identified and prioritised the key issues at the national level to enhance the MRC capacity in addressing trans-boundary issues. The reports provided a list of regionally concerned flood issues, which will be compiled to set out at a general level the focus for Component 3. A comprehensive analysis was undertaken in 2007 on the prevention, mitigation and resolution of differences and disputes between the Member Countries, as well as review of key provisions of international law and practices which may apply under the MRC initiative, or which may facilitate and/or support the interpretation and application of the relevant provisions of the 1995 Mekong Agreement. In 2008 work was underway to compile documents and materials reflecting the laws, regulations, agreements, and practices currently applied by the governments of the four MRC Member Countries as well as those practices of regional organisations other than the MRC (such as ASEAN) to address trans-boundary differences and disputes related to natural resource management.

During 2008, an improved ISIS model will be available as a technical tool for the impact assessment of structural measures on flood conditions.

Component 4: Flood Emergency Management Strengthening

The flood Preparedness Programmes in selected provinces and districts of Cambodia, Lao PDR and Vietnam captures all system needs for improving flood preparedness and mitigation together with an implementation plan, which identifies i) consolidation of response capacities and actions; ii) activities oriented to enhancement of response capacities in the short and medium term; and iii) activities oriented to implementation of mitigation measures in the short and medium term.

Two National Experiences Sharing Workshops on the Flood Emergency Management Strengthening were organised in Cambodia and Viet Nam in 2006.

The second phase of the project "Capacity Building for Preparedness, Planning and Response through the Use of Flood Information Products in the Lower Mekong Basin" (Phase 2) funded by the European Commission Humanitarian Aid Office (ECHO) was completed in three countries (Vietnam, Lao PDR and Cambodia).

Component 5: Land Management

Activities on Land Management officially started on 1 September 2004 and the first phase ended on 31 August 2007. Work of the component in 2006 focused on the generation of more reliable flood probability information. While MRC already has a variety of models for flood mapping purposes, none of them possesses a degree of detail suitable for land use planning. Component 5 therefore acquired large-scale topographic maps covering several districts in Viet Nam and conducted a topographic survey in selected areas of Cambodia. The information derived from these exercises will then be digitised and combined with hydrographic data from various sources to produce models showing the probability of flooding for flood prone areas in Cambodia and Viet Nam.

In 2007, flood probability data sets and the maps at a suitable scale were available for selected pilot area in Cambodia for land use planning purposes. Guidelines and training modules in using improved flood probability information for land use planning were also part of the 2007 work programme.

8 Drought Management Programme

The DMP was developed through a process of consultations involving international and riparian consultants, MRCS staff, and representatives of the MRC Member Countries, during the period May 2006 to March 2007.

The Programme Document was approved for fund raising purposes, and fund raising activities were initiated. The planned activities under the Drought Management Programme in 2007 were the finalisation of a Programme Document and intensifying the fundraising with donors and development partners.

In 2008 a revised and down-scaled DMP Start-up Project was prepared. The fundraising activity for the start up continued. Depending on availability of funds in 2008, the following further activities may be conducted:

Drought report: compilation of a concise report on the hydrologic characteristics of Mekong basin droughts, as well as their socio- economic dimension. This document would provide background information for fundraising activities. It is based on a previous internal report of the MRCS, more recent research presented at the regional consultation workshop on the programme as well as research collaboration with IWMI.

- Start-up activities, including setting up of programme management structure, identification and start up of priority (quick impact) activities.

9 Agriculture, Irrigation, and Forestry Programme (AIFP)

Phase 2 of the Programme started in December 2005. A Joint Working Group Meeting was organised in March 2006 to draft and agree on the work plan 2005 – 2008. In 2006, the Programme Document was finalised and submitted. The programme budget (2006-2010) at 2007 was \$10.4M, the funds committed totaled \$8.3M and the programme expenditure was \$5.714M. The budget at mid 2008 was \$22.037M, the funds committed totaled \$8.559M and the programme expenditure was \$7.325M.

Component 1: Watershed Management Component (WSMC) – GTZ Watershed Management Project (WSMP)

In 2006 capacity needs assessments for watershed management in Lao PDR, Cambodia and Viet Nam were conducted. A process design for the introduction of a results-based monitoring system for the WSMP was initiated. Work on a Watershed Management Resource Kit continued. An analysis of existing institutional arrangements for watershed management on national, province and district level in Laos was started.

In 2007, policy analysis and institutional development was undertaken. Mekong Info was maintained. Watershed Management Resource Kit Version 1.0 was finalised and the main parts translated into riparian languages for capacity building. Database and information system needs assessment in Thailand and Laos was undertaken. Watershed Management learning centers in all four pilot watershed areas were established. Approximately thirty capacity building workshops were conducted.

During 2008, the drafting process for the Policy Analysis Report was initiated. Watershed Committees will be initiated in Cambodia, Laos and Viet Nam. Draft Watershed Management Resource Kit version 2.0 will be finalised and approved for publication, fully translated into riparian languages and used for Capacity Building. Learning Centers will be established, equipped, and move to operational level.

Under this component the evaluation of second phase of WSMP and proposal for third phase will be conducted. A result-based Monitoring system for WSMP will also be established. In March 2008, an independent evaluation mission to review the WSMP was undertaken. The mission acknowledged that most of the objectives will be achieved by the end of 2008. The team also formulated recommendations for a third phase, to begin in December 2008

Component 2: Irrigation and Agriculture.

The progress made since during 2006 under the project to Demonstrate Multi-functionality of Paddy Fields (DMPF) includes the following:

The report on Demonstrate Multi-functionality of Paddy Fields over the Mekong River Basin for the funding support 2003 was submitted in January 2006.

Final report on Data Collection by Cambodia was completed. Final reports on data collection from four Member Countries have been submitted.

An analysis of selected functions of paddy fields was identified in Thailand and Viet Nam.

The DMPF project was agreed to be extended to November 2007. The Japanese donor (MAFF) agreed to fund reallocation from 2004 and 2005.

The project also sponsored the MRC Secretariat officers and line agencies from Member Countries to participate in the Fourth World Water Forum in Mexico.

In 2007, analysis of the functions of several paddy fields (i.e. flood mitigation, soil conservation, nurturing aquatic ecosystems and socio-economic issues) was undertaken and the result presented to the Symposium of International Network for Water and Ecosystem in Paddy Fields (INWEPF) in July, and the fourth regional workshop of DMPF in August 2007.

In 2008, guidelines for efficient irrigation water use will be drafted and presented to Member Countries for review. A follow-up project has been formulated and the project goes into implementation.

Improvement of Irrigation Efficiency on Paddy Field (IIEPF)

2006 progress included the followings:

A regional workshop to finalise the project document, and discuss the outline of the forthcoming activities. The project document were finalised.

Collaboration with FAO was agreed on: a) providing technical comments through participation to the workshops, b) transferring an irrigation scheme appraisal technique through RAP training workshop and its on-the-job training, and c) identifying appropriate consultants to draft guidelines.

Summary project report and revised project document were submitted to the donor in June. Both documents were approved.

Four day training workshop for Rapid Appraisal Process (RAP) jointly developed by FAO was held in July. RAP is a tool to allow professional staff to systematically and quickly determine key indicators of irrigation projects performance. Irrigation scheme appraisal is part of IIEPF field observation.

Subcontracts for fieldwork were concluded with the member countries. Fieldwork started from the 2006 dry season irrigation and will continue to cover the next rainy season in all the Member Countries.

In 2007, intensive dry season data collection at field level in four pilot sites was completed, and interim reports from most of the member countries were also completed. Another series of field level observations covering the rainy season will be completed in early 2008. A report will be published in 2008. A brief report focusing on dry season water balance analysis is planned for the 3rd Southeast Asia Water Forum and the Paddy and Water Environment (PWE) Journal.

CGIAR Challenge Program on Water and Food (CPWF)

Four CPWF Small Grants for Impact projects, each worth about US\$75,000, were contracted in 2006, as were 2 additional major projects (each worth more than US\$1 million). The Projects in the Mekong were completed by August 2007.

The CPWF Basin Focal project (BFP) aims to develop water poverty and water productivity maps and data for the Mekong River Basin. The MRC is a partner in this initiative. In 2006, the CPWF held the International Forum on Water and Food in Vientiane, where the event was hosted by the MRC. BEF was completed by the end of 2007.

The Programme continues to monitor and evaluate eight first call projects in the basin. This includes evaluation of reports and site visits (two in 2007). The CPWF's second open call has been completed, and it is likely that additional Mekong projects will be successful.

2007 was dominated with designing a proposal for the CPWF's Second Phase, and drafting of its mid-term plan. The CPWF has undergone an external review, the results of which were presented to the programme in August 2007.

Eight projects are finished or are due to the end in 2008. Three projects in the Mekong basin have newly started. Ways to best use projects outputs have been identified and the outputs are matched with specific individuals and their institutions to obtain impact. For other several projects continuous monitoring and evaluation is provided. A final Basin Focal Project workshop was held in Vientiane in 2008 in conjunction with the initial Basin Advisory Committee meeting.

10 Navigation Programme (NAP)

In 2006, the NAP Work Plan was converted into a PIP. Which was approved in March 2007. The programme budget (2006-2010) in 2006 was \$20.632M and in 2007 was \$20.16M. At mid 2008, the funds committed totaled \$3.909M and the programme expenditure was \$2.667M.

Component 1: Socioeconomic Analysis and Regional Transport Planning.

The Project, "Hydrodynamic and morphological impacts of channel dredging in Tonle Sap Lake" started in June 2006 and was completed in 2007 providing a firm basis for evaluating the sustainability of dredging.

In 2007, a Condition Surveys was initiated of Dangerous Areas for Navigation Improvement from the Cambodia-Viet Nam border to Can Tho Port on the Mekong/Vam Nao/Bassac Rivers in Viet Nam. The tendering process was completed in 2008 and the field survey is expected to start at mid-June 2008. Also in 2007, a Condition Surveys was initiated of Actual Condition Surveys of Dangerous Areas for Navigation Improvement between Phnom Penh Port and Kampong Cham in the Cambodia. The field survey started in April 2008. Also in 2008, an Actual Condition Survey was initiated of dangerous areas for navigation (hot spots) between Houei Sai and Luang Prabang in the Lao PDR and Thailand. The tendering process is on-going, the field survey started in July 2008. The outcome of these condition surveys includes a detailed engineering design and preparation of full set of bidding documents for manufacturing and installation of aids to navigation in priority areas (Component 3).

Component 2: Legal Framework for Cross-border Navigation.

Through the project Master Plan for Waterborne Transport on the Mekong River System in Cambodia, a comprehensive legal study of the current regime on the Mekong River between Cambodia and Viet Nam was completed, which resulted in a renewed draft Agreement for cross-border navigation. This draft Agreement is under negotiation between both countries. During 2008 the negotiations reached the final stage.

During the formulation of the PIP, the member countries asked for MRC's assistance in conducting a study to provide recommendations for establishing a legal framework for cross-border navigation between Lao PDR and Thailand on the stretch down stream of Luang Prabang. TOR for this study have been prepared.

A comprehensive comparison was made with the Scheldt Cross-border Navigation Cooperation between Belgium and the Netherlands during a Working Visit to Europe in June 2007.

Component 3: Traffic Safety and Environmental Sustainability.

In 2006 aids to navigation consisting of buoys, beacons and shore marks to international standard were installed on the stretch of the Mekong River between Phnom Penh Port and the Cambodia-Viet Nam border. The national counterparts in Cambodia perform normal maintenance and operational repairs for all aids to navigation and were fully trained. In 2007 a comprehensive aids to navigation system composed of 56 buoys and 8 lead structures was put in place along this stretch of River. Navigation is possible 24 hours a day with lighted buoys and beacons installed.

As at 2008, there are no environmental protection measures, no provisions for pollution mitigation, and no contingency plans in place for the Mekong River. Work on this output will involve a risk assessment of major ports and waterway safety hazards, and an estimation of risk levels. The assessment will include potential for oil spills and accident prevention, focusing on agreed rules, regulation, procedures and training. It will also cover contingency planning.

Component 4: Information, Promotion and Coordination.

In 2006 the Management Information System for Phnom Penh Port was developed and made operational. A further output was the presentation of the Navigation Programme in one of the local topic session (water and transport) of the Fourth World Water Forum in Mexico City.

In 2007, the Management Information System (MIS), Phase I, for Phnom Penh Autonomous Port was put in place. The MIS maintains a database of goods movement into, through and out of the port and is used by all port departments and related agencies such as customs, shipping lines, freight forwarders, shipping agents, trucking companies and others. All aspects of the port's commercial operation, environment, safety and security will be enhanced through the implementation and operation of the MIS. The next step is MIS II focusing more on container tracking and software applications for billing and tariff management. This will also involve a comprehensive training package.

China has officially accepted a formulation mission by MRC navigation experts for the purpose of establishing a cooperation project on navigation. MRC and China have agreed to jointly organise a series of seminars on Waterway Safety and Navigation Improvement. Preparation is now being made for the First Seminar which will be held in Jinghong, China, in October 2008.

In 2008 work will start on the installation of tidal stations and civil works for upgrading the existing stations. So far, ship masters and pilots at the estuaries do not have any feedback on the real time water levels at the estuaries. As the larger ships can only pass the bar during high tide, the exact water level needs to be known. The Navigation Programme will assist in financially supporting the installation and hardware of two hydrological stations, one at Cua Tieu, the Mekong river mouth and one at Cua Dinh Anh, the Bassac river mouth. The MRC HYCOS project under IKMP will cover the first three years of the operations of the hydrological stations.

Component 5: Institutional Development.

In 2006 the Navigation Advisory Body was established and the first meeting among the NAB members organised.

Significant Problems Encountered at mid 2008

Even though 2008 some additional funding of \$1M from Australia for NAP was secured, the most significant problem of the NAP is still the lack of funds.

11 Hydropower Programme (HP)

The MRC Hydropower Development Strategy (HDS) was launched at a workshop in October 2001. In spite of its significance, the Hydropower Programme has played a modest role compared to that of other sectors. The programme had very limited resources at its disposal up to 2005. Therefore, a wider Hydropower Programme was under formulation since December 2004. In 2005, a Task Force was established at the MRC Secretariat for the development of a new HP. A programme document defining objectives, structure, outputs etc. was expected but no funding was forthcoming.

In 2007 funding for programme formulation and start-up of implementation was finally secured:

- A contribution of the MRC Water Management Trust Fund towards programme formulation.
- A Finnish contribution to the formulation and implementation of HP programme, covering the period 2008 to 2011.
- The project 'Initial Analysis of Hydropower Potential in the Lower Mekong Basin in Relation to Cumulative and Transboundary Impacts' funded by the Japan ASEAN Integration Fund (JAIF), which will support formulation and implementation of the programme.

In addition EP, BDP and FP are addressing some aspects of hydropower development and operation.

Programme formulation and start-up of implementation of the HP programme during 2008 will include initiation of "Track 1", aimed at improving understanding of the regional implications of hydropower projects, in mid-July 2008 (with available programme funds) and completed by December 2008. This will include:

- A Discussion Brief on the HP, refining the strategic orientation of the programme, discussed at the informal Joint Committee Meeting in June 2008.
- Expert group discussion, determining options for mitigating the barrier effects of mainstream dams, in early September 2008.
- Regional consultation, informing the formulation of HP and assessing and disseminating activities under Track 1, in late September 2008.
- Development of a coordinated MRC database on proposed and existing hydropower projects, to include technical information and also copies of EIAs, social studies and survey data compiled by individual projects (mainstream and tributary).
- Start-up of the full HP programme.

12 Fisheries Programme

The Fisheries Programme Phase 2 was initiated in January 2006. The budget for the Programme (2006-2010) at 2006 was \$13.13M and at the end of 2007 available funding was \$6.731M. The budget at mid 2008 was \$14.7M, funding provided was \$6.9M and project expenditure \$4.089M.

Component 1: Programme Management and Communication.

Several communication products were produced and disseminated during the first half of 2006. These included publications in the Technical Series and the Technical Advisory Body's Management Recommendation Series; the regular newsletter *Catch and Culture* (in English and riparian languages); and a film on the fisheries of the Mekong delta (similar films for Lao and Thailand are currently being finalised). In addition, translation and publication of technical and Development Series publications in riparian languages had continued. One of these is the Khmer version of the book on "Fishing Gears on the Cambodian Mekong". All documents were available in hard copy, as well as posted on various websites.

In 2006, a vast array of publications were produced including Conference Series, MRC Technical Papers, *Catch and Culture* newsletters, Omnibus edition of "*Catch and Culture*", books and a film.

In 2008 the Technical Symposium on Mekong Fisheries papers will be published in the MRC Conference Proceedings. An Expert Group Meeting was organised on the barrier effect of dams on fish migration, and possibilities for mitigation. 2008 communication products will include a photographic book titled "*The Living Mekong*", "*Catch and Culture*" omnibus editions in riparian languages, 3 issues of "*Catch and Culture*" newsletter; and "Fisheries Information in the LMB, Version 3".

The Technical Advisory Body on Fisheries Management (TAB) continued the implementation of its work plan. The FP continued to provide input into several regional planning initiatives, such as the integrated basin flow management studies being organised by the EP and WUP, and a range of activities coordinated by the Mekong Wetlands Biodiversity Programme.

Several important activities planned as part of the FP Phase 2 were not able to be initiated in 2007 as planned because of the funding gap (the FP Phase 2 has funding to approximately 52% of the full budget). In 2007, Sida agreed to fund the FP for the three years 2007-09. These funds became available to MRC in late June 2007. One important element of the Sida-funded work is the fisheries valuation study – a three year project to define the value of the fisheries of the Mekong.

Component 2: Fisheries Management and Governance.

The major activity for the TAB in 2006 was the implementation of a series of three-day learning events on regional fisheries management conducted in Member Countries, targeting mid-level provincial fisheries managers. A series of research training activities (on fisheries ecology, economics and management) was completed at the fisheries institute in Cambodia. Further on-the-job training had also been completed particularly within other components. About 25 capacity-building events on local and national levels (all four countries) were held during 2008.

The programme continued to provide a platform for the development of co-management activities in all MRC-member countries.

In 2007, about 650 farmers from 11 farmer organisations in Soc Trang, Viet Nam, were trained in approximately 90 formal events and a great number of exchange visits, focusing on multiple water-uses and good governance in mixed rice-shrimp farming areas. In 2008, further development and expansion of localised IWRM was provided. Documentation of lessons learned from participatory fisheries management on local, provincial and national levels from more than 80 sites in four riparian countries was initiated.

The TAB promoted a regional workshop on management and conservation of the Mekong Giant Fish Species in 2007. The TAB also undertook a study tour to the inland fisheries of Myanmar.

Support is provided to implementation of TAB 2 Work Plan (2007- 2009), such as implementation of two regionally coordinated strategies for improved transboundary fisheries management (deep pools; giant catfish); commissioning of 2 studies on regional fisheries issues; preparation and implementation of 3rd TAB Management Workshop; preparation of 2nd study tour for the TAB for Fisheries Management.

Component 3: Fisheries Ecology, Valuation and Mitigation.

In 2006 the FP worked with a consortium of partners in developing conservation strategies for the giant Mekong catfish. This included technical work in developing models which may assist in indicating the conservation status of the species, as well as the more practical aspects of implementing a moratorium on fishing for the species in northern Thailand and Lao PDR. In 2006 FP assisted fisheries consultants to develop a project on fish passage (facilities enabling fish to pass upstream and downstream of barriers) in Lao PDR. While the project was based in Lao, the FP ensured the project had broader regional applicability, and that fisheries technicians in other countries would have observer status. The project was planned to start in 2007 for 2-3 years.

A project was also being prepared to review and analyse the data from three fisheries that had been monitored in the Mekong for approximately 10 years. An initial scoping study was conducted in 2006. A major field study on compiling statistics and information on fisheries production in the Mekong delta was completed in 2007.

2008 activities include establishment of data collection procedures for fisheries valuation studies; production of a technical report on the rice field fisheries in Battambang, Cambodia; analysis of data in fisheries databases and publish results; publish a catalogue of water management projects in the LMB; and a symposium on mitigation measures for large rivers conducted in conjunction with FAO.

Component 4: Aquaculture of Indigenous Mekong Fish Species.

Research and development on artificial propagation and husbandry techniques for 9 priority fish species has yielded positive results. Cooperative work with CIRAD (the French international agricultural agency) showed breeding capability, particularly in Lao PDR. In 2008, biological synopses of nine indigenous Mekong fish species will be published, providing essential background for further development of aquaculture techniques for the species.

In 2008, genetic inventory of two species of indigenous Mekong fish will be completed – this will provide the basis for selective breeding programmes. As well, propagation techniques of at least two Mekong indigenous fish species will be defined and published.

Significant Problems Encountered at mid 2008

The new focus on proposals for dams on the mainstream has required FP to produce information specifically related to the possible impacts of dams on fish migration, spawning and fisheries production. One element will be on identifying important fish spawning grounds along the length of the Mekong mainstream in the MRC Member Countries. Similarly, the FP will bring forward plans for generation of information on methods for mitigating the impact of dams on fisheries. The first step will be the production of a document outlining common mitigation practices elsewhere in the world and their applicability in the Mekong region.

Mid-term Review of the MRC Strategic Plan 2006 - 2010

Appendix B

Assessment of Strategic Plan Key Actions and Outputs

APPENDIX B

ASSESSMENT OF STRATEGIC PLAN KEY ACTIONS AND OUTPUTS

Key Action / outcome	Pgm	Priority	Status (mid 2008)	Assess ment	Comment
GOAL 1: To promote and support coordinated, sustainable, and pro-poor development					
Objective 1.1 To establish a system for analysing water demand, water supply and water use in the basin to support the basin development planning process					
1.1.a Upgraded modelling toolkit and decision support framework (DSF)	WUP	High	The DSF has been extensively used in the MRC programmes/activities, notably the BDP, the Integrated Basin Flow Management (IBFM), and FMM with intensive support of the (TSD) Modelling Team. DSF enhancement and modelling capacity building was routinely carried-out. A tender for DSF modelling services was prepared in 2008. In parallel, other activities relating to the DSF enhancement and modelling capacity building are also carried-out including upgrading the Isis dongle, developing a Reporting Tool Wizard, and DSF Online Support.	✓	Still need more works on the "Impact assessment tools" and "trade-off" mechanism
1.1.b Water supply and demand maps	WUP	High/Medium	Not being explicitly done - this is part of Drought Pgm which is not funded. However, water use generally is part of BDP and water use for irrigation is being undertaken under AIFP	?	Need more works on "water demand maps"
1.1.c Basin-wide water resources development scenarios and options	BDP	High	Work on sub-area reports aims to have updated reports ready in early 2009. These will include most of the additional information needed for the formulation of basin-wide development scenarios, based on analysis of the strategic development options and related water resources development projects. Hydropower and Irrigation sector reviews have been undertaken to provide an updated understanding of the sector development dimension and information. In parallel, the gaps in other sector knowledge are being addressed by other Pgms. Training has been provided on (1) scenario-based planning & use of assessment tools, (2) IWRM principles in planning including the preparation of water & related resources strategies and identification of the associated projects, and (3) identification & facilitation of trade-off. BDP team, in consultation with ICBP and NMCs, will assess the feasibility of IWRM training capacity in some existing institutes in the LMB.	✓	Development scenarios have been delayed. Needs more work on impact assessment and trade-off mechanisms
1.1.d A series of water accounts and verifiable water use indicators to guide decision-making and development strategy formulation	BDP	Medium	These aspects are covered in the DSF. The DSF is assisting planners to assess both the magnitude of changes brought about through natural and man-made interventions in the water resource system, as well as the impacts that these will have on the natural environment and upon people's livelihoods. The DSF achieves this by being able to model the behaviour of the river system under a wide range of different interventions. The DSF also provides a set of analytical tools by which to assess how these will affect key environmental and social indicators	?	Needs more work on water accounts and indicators
Objective 1.2 To establish processes and mechanisms enabling the balancing of trade-offs between economic and political net benefits of different sectors, areas, and regions; and benefits from environmental and social protection					
1.2.a Baseline thematic maps of water and related resource and beneficiaries	BDP	Medium	Appropriate maps are being developed through the IKMP. Information on values has been collected and added to the wetland map as a tool for BDP Phase 2.	?	
1.2.b Consolidated trade-off analysis of development scenarios based on assessed and quantified net impacts on economic, ecological and social values	BDP	High	A discussion paper is was prepared in 2007 on the assessment framework for basin planning in BDP Phase 2. In 2009 when the assessments of the formulated development scenarios are available, the BDP will be able to provide strategic directions for the long- term development of water and related resources in the LMB. The knowledge base and assessment tools allow trade-off analysis	✓	Needs concentrated effort to complete
1.2.c Process of discussions on trade-offs and mutual benefits in basin development, including forum/ policy dialogue meeting.	BDP	High	A BDP participation and communication plan has been discussed and agreed. The existing ten sub-area studies were reviewed with TOR considered by the NMCs to strengthen the role of key stakeholders in the formulation and evaluation of basin-wide development scenarios and the IWRM-based basin strategy, and promote consensus and acceptance of the outcomes.	✓	Needs concentrated effort to complete
Objective 1.3 To produce a regularly updated rolling plan applying the planning process for identification, categorization and prioritization of projects and programmes					

1.3.a An IWRM based rolling plan	BDP	High	The gaps in the sectoral knowledge base for basin planning are identified and work packages for other MRC Programmes prepared. The existing ten sub-area studies were reviewed and draft terms of reference prepared for the implementation of the next steps in sub-basin planning. A plan is prepared for the consolidation of the existing long list of projects and the promotion of the shortlisted projects. A substantive outline of the rolling IWRM-based Basin Development Plan will be prepared in 2008	✓	Needs concentrated effort to complete
1.3.b Collaborative basin development planning processes for project identification and prioritisation in water related sectors	BDP	High	Several meetings were held to discuss and agree on important technical directions for scenarios formulation and assessment, namely, the discussion paper on Approach and Overall Process to formulate and assess basin-wide development scenarios and BDP assessment framework. A concept of the Project Portfolio, with a classification and screening system, has been prepared. Existing and new priority projects will be discussed with the appropriate national agencies and MRC Programmes. This will result in an initial 2008 Project Portfolio. Some projects will be selected for further development and promotion.	✓	Needs concentrated effort to complete
1.3.c Integrated Water Resource Management (IWRM) Strategy supported by assessed development scenarios and options	BDP	High	The draft outline of the IWRM-based basin-wide strategy was discussed with the involvement of NMCs, national line agencies, MRC programmes. Such strategy will be enhanced with the strategic directions for the long-term development of water and related resources in the LMB once the assessed development scenarios are available in 2009. All BDP work is being guided by the MRC agreed IWRM Strategic Directions. The strategy must usefully guide the implementation of IWRM principles and practices at the basin, national and sub-basin levels.	✓	
1.3.d MRC projects and programmes database	BDP	High	The data base is established with projects entered. BDP2 highlighted that the gaps in other sector knowledge are being addressed by the appropriate MRC programmes such as FMMP, FP and NAP. The BDP will support the improvement of the DSF and the IBFM process by IKMP & EP, respectively. The project database has been improved to include the relevant data and information of all significant projects with potential transboundary implications, including any newly identified projects through the above sector and sub-area activities.	✓	Initial assessments only are likely to be completed
1.3.e Cumulative impact assessment studies of development scenarios	BDP	High	Being met by BDP with collaboration of other Pgms. The knowledge base and assessment tools allow identification of cumulative impacts. It is expected that by the end of 2008, the hydrological impact assessments of basin-wide development scenarios using the DSF will be carried out.	✓	Likely to be completed for metadata

Objective 1.4 To screen, formulate and promote wise development options at the transboundary and basin levels for preparation and implementation by other appropriate development agencies

1.4.a Support to identification and preparation of balanced sustainable development options in partnership with donors, development partners and investment banks.	BDP	High	Being met by BDP with collaboration of other Pgms. For example, the Integrated Flood Risks Management report (IFRM) for LMB, prepared by FMMP, enables BDP staff to understand, identify and broadly assess flooding impacts and considerations when evaluating water resource development and infrastructure projects proposed for inclusion in the BDP. The Project Portfolio, a classification and screening system, will assist, with existing and new priority projects discussed with the appropriate national agencies and MRC Programmes. This will result in an initial 2008 Project Portfolio. Some projects will be selected for further development and promotion.	✓	
1.4.b Support to Line Agencies with knowledge and expertise in preparation of project proposals, focusing on joint and basin-wide projects and national projects with significant basin impacts	BDP	Medium	BDP has been assisting Countries with the updating of sub-area reports ready for early 2009. These will include information needed for the formulation of basin-wide development scenarios, based on analysis of the strategic development options and the description of the related water resources development projects in each sub-area	✓	
1.4.c Project promotion and fund-raising services for joint and basin-wide projects	BDP	Medium	A concept of the Project Portfolio, with a classification and screening system, has been prepared to support the BDP2 planning process. Existing and new priority projects will be discussed with the appropriate national agencies and MRC Programmes. This will result in an initial 2008 Project Portfolio. Some projects will be selected for further development, promotion and for fund raising. The new Funding Arrangement between AusAID and MRC was signed in June 2008 to support the Climate Change and Adaptation Initiative for the year 2008-2012. The first joint donor review of BDP2 was conducted in May 2008 with members from DANIDA, SIDA and AusAID. The review concluded with positive assessment on "solid footing" of the BDP2 despite its understandable delays.	?	Needs concentrated effort to complete this aspect in the term of this SP

Objective 1.4.1 To support sustainable land and water development through more effective and integrated utilization of agricultural, irrigation, drought, and watershed management systems

1.4.1.a Watershed management policy guidelines and proceedings	AIFP	Medium	Final draft on analysis of existing policies and legal framework for watershed management and final draft of proposals for optimising the institutional framework for watershed management prepared. Guidelines for efficient irrigation water use drafted and presented to member countries for review at wrap-up workshop in mid-2008. This also completes this three-year project.	✓	
1.4.1.b Best practices on watershed management and technologies	AIFP	Medium	Draft Watershed Management Resource Kit version 2.0 finalised during 2008 and approved for publication, fully translated into riparian languages and used for Capacity Building. Learning Centres will be established in all four pilot watershed area, equipped, and the move from establishment to operation	✓	
1.4.1.c Support to line agencies on identification and preparation of BDP watershed management projects	AIFP	Medium	Although the Pgm has a component dealing with identification and management of watershed issues, the explicit identification of issues and projects for the BDP does not appear to be a specific Pgm outcome	?	
1.4.1.d Basin-wide irrigation efficiency improvement strategy	AIFP	Medium	This is being achieved through the project: Improvement of Irrigation Efficiency on Paddy Field. Analysis of several paddy fields' functions was completed and the summary result was presented at the symposium of International Network for Water and Ecosystem in Paddy Fields (INWEPF) and the 4th regional workshop of Demonstration of Multi-functional Paddy Fields (DMPF). Intensive dry season data collection at field level in four pilot sites has been completed, and interim reports from most of the member countries are also completed. Another series of field level observations covering rainy season is on-going and will be completed in early 2008. The report will be published in 2008. A brief technical report focusing on dry season water balance analysis is planned to be published to 3rd Southeast Asia Water Forum and the Paddy and Water Environment (PWE) Journal.	✓	
1.4.1.e Institutional and managerial guidelines to improve irrigation efficiency	AIFP	Medium	This is being achieved through the project: Improvement of Irrigation Efficiency on Paddy Field. Guidelines for efficient irrigation water use is drafted and presented to Member Countries for their review. A follow-up project is formulated and the project goes into implementation.	✓	
1.4.1.f Assessment of irrigation efficiency in the basin	AIFP	High	Although the updated spatial database of irrigation scheme provides the whole picture of about 12,000 irrigation schemes in LMB and estimated irrigation water use in LMB, an overall basin assessment is not a specific Pgm outcome	?	
1.4.1.g Assessment of groundwater potential for irrigation	AIFP	Low	Not being done	X	
1.4.1.h Support to line agencies in identification and preparation of BDP priority irrigation development and rehabilitation projects	AIFP	Medium	Although the Pgm has a component dealing with irrigation efficiency, the explicit identification of issues and projects for the BDP does not appear to be a specific Pgm outcome	?	

Objective 1.4.2 To assist in the development of the basin's hydropower potential to ensure safeguarding of the environment and social interests while meeting the Basin's increasing need for energy

1.4.2.a Review and update assessment of hydropower potential in the Mekong Basin	Operation Division (HP)	Medium	As part of BDP, a hydropower sector review has been undertaken to provide an updated understanding of the sector development dimension and information on the significant projects. Part of start-up of implementation of the HP programme during 2008 will include development of a coordinated MRC database on proposed and existing hydropower projects, to include technical information and also copies of EIAs, social studies and survey data compiled by individual projects (mainstream and tributary). Cooperation structures with hydropower segments in the riparian countries will be established and advice on the planning, development and operation of hydropower plants in the LMB will be provided in close consultation with the riparian governments and the BDP.	?	HP has been significantly delayed. Needs concentrated effort to complete
1.4.2.b Update basin-wide hydropower development strategy	Operation	Medium	This will be taken up in the HP in conjunction with BDP	✓	HP has been significantly delayed

	Division (HP)				
1.4.2.c Update hydropower database of planned and existing dams	Operations Division (HP)	High	The MRC Hydropower Development Strategy (HDS) was launched in October 2001 but lack of funding has prevented meaningful progress. In 2007 funding for programme formulation was made available. The implementation of the 'Initial Analysis of Hydropower Potentials in the Lower Mekong Basin in Relation to Cumulative Trans-boundary Impacts' started in the second half of 2007 with action to recruit a riparian project manager and international technical advisor, but the positions are, however, not yet filled. The 'Initial Analysis of Hydropower Potential in the Lower Mekong Basin in Relation to Cumulative and Transboundary Impacts' funded by the Japan ASEAN Integration Fund (JAIF) will support formulation and implementation of the Hydropower programme. In addition EP, BDP and FP are addressing some aspects of hydropower development and operation through their own programmes. The HP start-up activities includes development of a coordinated MRC database on proposed and existing hydropower projects, to include technical information and copies of EIAs, social studies and survey data for individual projects (mainstream and tributary).	?	Needs concentrated effort to complete
1.4.2.d Impact assessments of hydropower projects	Operations Division (HP)	High	The EP prepared a draft concept note on environmental considerations for hydropower development in consultation with WWF and ADB during 2007. The project design and formulation of Environmental Considerations of Sustainable Hydropower Development (ECSHD) started in January 2008 based on the result of previous national consultations	?	Needs concentrated effort to complete
1.4.2.e Best practices to mitigate negative impacts of hydropower focusing on environmental and social impacts	Operations Division (HP)	High	Initial activities under the HP will address the issues of determining options for mitigating the barrier effect to natural migration of fish and other aquatic life, and the consequent livelihood implications to communities upstream and downstream, and include identifying financing mechanisms and incentives to promote adoption of effective mitigation measures and improved sustainability performance for mainstream projects	?	Needs concentrated effort to complete

Objective 1.4.3 To achieve more active and efficient river transportation through increased freedom of navigation to increase social development, international trade and tourism opportunities

1.4.3.a Regional master plan for navigation	NAP	High	Preparation of a Regional master plan for regional waterborne transport and development of rural water transport (transport model + socio-economic outcome analysis) is a Pgm activity but has not been completed and no immediate specific actions are planned. The Pgm assisted with the preparation of "Design of the Master Plan for Navigation on the Mekong River System in Cambodia" which started in 2005, together with the other national navigation strategies and plans, which should feed into the formulation of the Regional Master Plan (Comprehensive Investment Programme) for waterborne transportation. There is agreement with China to set a master plan for navigation and the first seminar between China & MRC is to be held in Oct 2008. The explicit identification of issues and projects for the BDP is not a specific outcome of the Pgm.	?	
1.4.3.b Legal Framework for Cross-border Navigation	NAP	High	A comprehensive legal study on the current regime of the Mekong River between Cambodia and Vietnam to assess and evaluate the existing 1998 Hanoi Navigation Agreement was completed. The negotiations between Cambodia and Vietnam on establishing a legal framework for cross-border navigation, with the MRC's facilitation, reached final stage. Both parties are now making necessary consultations with their respective governments for finalizing and eventually signing. As requested, the ToR was developed to conduct a study to provide recommendations for establishing a legal framework for cross-border navigation between Laos and Thailand on the stretch downstream of Luong Prahbang.	✓	
1.4.3.c Aids to Navigation Systems	NAP	High	A number of Condition Survey was initiated of dangerous areas for navigation. The outcomes include a detailed engineering design and preparation of full set of bidding documents for manufacturing and installation of aids to navigation in priority areas. For example, aids to international standard navigation, consisting of buoys, beacons and shore marks were installed and operational on the stretch between Phnom Port and Cambodia-Vietnam border. Cambodia will perform maintenance and operational repairs. Activities between Houay Say and Luang Prabang are on-going	✓	

1.4.3.d Traffic safety management system	NAP	High	A comprehensive aids to navigation system composed of 56 buoys and 8 lead structures was put in place along the Mekong River between Phnom Penh Port and the Cambodia-Viet Nam border. Navigation is possible 24 hours a day with lighted buoys and beacons installed. MRC and P.R. China agreed on a new level of cooperation in the field of Navigation. They agreed to Jointly organize a series of seminars on Waterway Safety and Navigation Improvement. Some necessary documents were prepared for the planned workshop in Jinhong in October 2008.	✓	
1.4.3.e Improved risk and emergency management capacity as related to navigation	NAP	High	As at 2008, there are no environmental protection measures, no provisions for pollution mitigation, and no contingency plans for the Mekong River. Planned work on this output will involve a risk assessment of major ports and waterway safety hazards, and an estimation of risk levels. Under the cooperation between Upper & LMR navigation between MRC and China, with a focus on Waterway Safety and Environmental Protection, a second Regional Seminars on Waterway Safety, Navigation Improvement and Environmental Sustainability in Jinhong, China in October 2008.	✓	
1.4.3.f Navigation emergency management plan	NAP	High	Planned work under the Pgm, linked to risk assessment, will develop a scope for oil spill and accident prevention focusing on establishing rules, regulation, procedures and training. It will also cover contingency planning	✓	
1.4.3.g Navigation pollution control system and environmental management tools and best practices for navigation and river works	NAP	High	See key actions 1.4.3.e & f. Another important activity will be the study and implementation of pilot projects to better understand and mitigate morphological changes resulting in riverbank instability, including causes, impacts and solutions. One such activity will study the impacts of dredging in the Tonle Sap Lake. Other activities will include the development of pilot studies to reduce the potential for riverbank erosion in the Lao PDR, Thailand and Vietnam. There is also activities of the upper channel cooperation between China, Myanmar, Lao PDR and Thailand	✓	
1.4.3.h Mekong River Navigation Information Systems	NAP	Medium	The NAP has provided a substantial array of information on river navigation and transport systems. The Management Information System (MIS) for Phnom Penh Port (phase 1) was developed and operational, maintaining a database of goods movement into, through and out of the port is used by all port departments and related agencies such as customs, shipping lines, freight forwarders, shipping agents, trucking companies and others. All aspects of the port's commercial operation, environment, safety and security will be enhanced through the implementation and operation of the MIS. The next step is MIS II focusing more on container tracking and software applications for billing and tariff management.	✓	
1.4.3.i Support to line agencies in identification and preparation of BDP priority navigation development projects	NAP	Medium	The NAP has produced a vast amount of scientific information and capacity building on which navigation and river transport development can be based. However, the explicit identification of issues and projects for the BDP does not appear to be a specific Pgm outcome	?	
Objective 1.4.4 To build regional flood and drought management capacity for prevention, minimization or mitigation of people's suffering and economic losses due to floods and droughts					
1.4.4.a Flood probability maps	FMMP	High	Component 5 of the Pgm is explicitly addressing this issue. Component 5 has acquired large-scale topographic maps covering several districts in Viet Nam and conducted a topographic survey in selected areas of Cambodia. In 2007, flood probability data sets and the maps at a suitable scale were available for selected pilot area in Cambodia for land use planning purposes. There appears to be no activities for 2008 & 2009	?	
1.4.4.b Fully operational flood forecasting and warning system using a comprehensive data set	FMMP	High	In 2007, two institutional and technical reports were prepared which describe the required overall and specific functionalities of the RFMMC and a framework for improving the short and medium flood forecasting system. In 2008 an operational database mainly for water level and rainfall data for the flood forecasting purposes was under preparation. The annual flood report for 2006, emphasising data analysis and the temporal and spatial nature of floods and flooding in the Mekong region, was prepared. This enabled MRC to build a complete picture of all aspects of the Mekong flood regime and becomes a valuable source of data for the FMMP and a solid source of information for all those involved in flood management and mitigation in the basin.	✓	
1.4.4.c Hydro-meteorological monitoring network (real-time)	FMMP (with IKMP)	High	Mekong-HYCOS aims to establish and operate a real-time flood information system in the lower Mekong basin. In 2008 the focus is on finalising hydro-met observation network, hydro-met equipment and civil works with equipment installation for 23 priority stations	✓	

1.4.4.d Hydro-meteorological data base	FMMP (with IKMP)	High	Component 2 of IKMP provides primary data necessary for all functions of the MRC, including hydrographic data for flood management	✓	
1.4.4.e Hydro-meteorological year book (bulletin, CD ROM)	FMMP	High	During 2007 the hydro-meteorological data collected from Member Countries of up to 2005 was being processed. The CD-Rom Hydrological Yearbooks up to year 2003-2004 have been produced	✓	
1.4.4.f Annual hydro-climatic assessment report	FMMP	Medium	Reports are prepared each year. The Hydrological Condition Report for the LMB for 2006-2007 was presented to the Twenty-fifth Meeting of the MRC Joint Committee, May 2007	✓	
1.4.4.g Guidelines for flood proofing and mitigation measures	FMMP	High	During 2008, best practice guidelines were being produced for (i) flood proofing building and infrastructure in urban and rural areas; (ii) the use, design, construction, O&M of major infrastructure; (iii) to assess the significance of environmental and ecological impacts of infrastructure; and (iv) to select and integrate 'hard' and 'soft' management measures to achieve maximum effective flood risk reduction. Flood probability information available for selected pilot area in Cambodia: The flood probability data sets and the maps at a suitable scale are available for land use planning purposes. Guidelines and training modules in using improved flood probability information for land use planning will be available.	✓	
1.4.4.h Transboundary flood mediation and coordination mechanisms	FMMP	High	A comprehensive analysis was undertaken in 2007 on the prevention, mitigation and resolution of differences and disputes between the Member Countries, as well as review of key provisions of general international law and of practices adopted by the international community, which may apply to relations between the Member Countries as well as all riparian Countries, or which may facilitate and/or support the interpretation and application of the relevant provisions of the 1995 Mekong Agreement. The National reports of perspectives on transboundary flood issues identified and prioritised the key issues at the national level to enhance the MRC capacity in addressing trans-boundary flood issues. The Regional report on trans-boundary flood issues of the LMB provides a list of regionally concerned trans-boundary flood issues, which will be compiled to set out at a general level the key issues of focus for the FMMP-Component 3. This will be done through bilateral / regional discussions between the NMCs and concerned National Line Agencies.	✓	
1.4.4.i Flood emergency management and preparedness system with full coverage	FMMP	High	Component 4 of the Pgm is explicitly addressing this issue. Flood Preparedness Programmes in selected provinces and districts of Cambodia, Lao PDR and Viet Nam moved to the implementation stage. The project "Capacity Building for Preparedness, Planning and Response through the Use of Flood Information Products in the Lower Mekong Basin" (Phase 2) has been completed successfully in Viet Nam, Lao PDR and Cambodia. The programmes capture all system needs at this level for improving flood preparedness and mitigation together with an implementation plan, which identifies i) consolidation of response capacities and actions; ii) activities oriented to enhancement of response capacities in the short and medium term; and iii) activities oriented towards implementation of mitigation measures in the short and medium term.	✓	
1.4.4.j Land use planning and management guidelines	FMMP	High	While some land use planning activities have been undertaken (see key actions 1.4.4.a) and best practice guidelines for structural development are covered at key action 1.4.4.g, the preparation of land use planning and management guidelines is not an explicit outcome of the Pgm	?	
1.4.4.k Support to line agencies in identification and preparation of BDP priority flood management projects identified through BDP	FMMP	High	Although the Pgm has components dealing with identification and management of flooding issues, and with flood impact assessment of BDP projects, the explicit identification of issues and projects for the BDP does not appear to be a specific Pgm outcome	?	
1.4.4.l Drought forecasting and early warning system based on detailed data	DP	High	Not being done - Drought Pgm not funded.	X	
1.4.4.m Drought risk maps	DP	High	Not being done - Drought Pgm not funded.	X	
1.4.4.n Drought mitigation and management policy guidelines	DP	Medium	Not being done - Drought Pgm is not funded	X	

Objective 1.4.5 To maintain productive Mekong fisheries and enhance aquaculture of indigenous species for increased food security and economic output

1.4.5.a Report on commercial fish species and production	FP	Medium	The Pgm has produced a vast amount of scientific information and capacity building on which fisheries development can be based. Publications in the Technical Series and the Technical Advisory Body's Management Recommendation Series; the regular newsletter <i>Catch and Culture</i> (in English and riparian languages); and a film on the fisheries of the Mekong delta (similar films for Lao and Thailand are currently being finalised). In addition, translation and publication of technical and Development Series publications in riparian languages had continued. One of these is the Khmer version of the book on "Fishing Gears on the Cambodian Mekong". 3 Technical Series papers published: (1) Consumption and yield of fish and other aquatic animals from LMB, (2) Triggers for fish immigration, and (3) importance of fisheries in Delta, Viet Nam. A major field study on compiling statistics and information on fisheries production in the Mekong delta was completed.	✓	
1.4.5.b Inland fisheries development strategy	FP	High	Several fisheries development strategies, at country level and for particular fisheries, were already available. National partners would build on these activities to determine whether a regional strategy would complement the national strategies, or whether the necessary components were already covered at national levels. The FP worked with a consortium of partners in developing conservation strategies for the giant Mekong catfish, including technical work in developing models which might assist in indicating the conservation status of the species, as well as the more practical aspects of implementing a moratorium on fishing for the species in the Mekong in northern Thailand and Lao PDR. Establishment of data collection procedures for fisheries valuation studies has been undertaken and documentation of lessons learned from participatory fisheries management on local, provincial and national levels from more than 80 sites in four riparian countries. A project on fish passage is underway (facilities enabling fish to pass upstream and downstream of barriers) in Lao PDR, but of broader regional applicability and with fisheries technicians in other countries having observer status. The project started in 2007 for 2-3 years and will review and analyse the data from three fisheries that had been monitored for approximately 10 years.	✓	
1.4.5.c Increased capacity of local and national fisheries bodies	FP	High	The TAB, that is now well established and operational, continued implementing a series of three-day learning events on regional fisheries management in Member Countries, targeting at mid-level provincial fisheries managers in the national languages. With positive results, the TAB is looking to extend the activity in its next 3-year work programme. A series of research training activities (on fisheries ecology, economics and management) was completed at the fisheries institute in Cambodia. These activities provided specialised training at all stages of projects design and implementation as well as in institutional management of the projects. Further on-the-job training had also been completed particularly within the Fisheries Management and Governance and Aquaculture of Mekong Indigenous Fish Species components. During 2008 about 25 capacity-building events on local and national levels (all four countries) were held	✓	
1.4.5.d Technologies for aquaculture of indigenous species adopted	FP	Medium	In 2008, biological synopses of nine indigenous Mekong fish species will be published, providing essential background for further development of aquaculture techniques for the species	✓	
1.4.5.e Coordination services in the field of sustainable fisheries development	FP	Medium	The FP is bringing forward plans to generate information on fish mitigating and the impact of dams on fisheries. The first step will be the production of a document outlining common international fish passage practices and their applicability in the Mekong region. A project on fish passage is underway (facilities enabling fish to pass physical barriers) in Lao PDR, but of broader regional applicability and with fisheries technicians in other countries having observer status. The project started in 2007 for 2-3 years and will review and analyse the data from three fisheries that had been monitored for approximately 10 years. Also, an expert group meeting is being organised, in conjunction with the HP, on the barrier effect of dams on fish migration, and the possibilities for mitigation.	✓	
1.4.5.f Support to line agencies in identification and preparation of BDP priority sustainable fisheries development projects	FP	Medium	The FP has produced a vast amount of scientific information and capacity building on which fisheries development can be based. Although the FP continues to provide input into several regional planning initiatives, such as the integrated basin flow management studies being organised by the EP and WUP, and a range of activities coordinated by the Mekong Wetlands Biodiversity Programme, however, the explicit identification of issues and projects for the BDP does not appear to be a specific Pgm outcome	?	

Objective 1.4.6 To develop the tourism potential of the Mekong benefiting local economies

1.4.6.a Tourism development strategy to benefit local people	Operati on Division	Medium	Key action/output not being done - Tourism Pgm is not funded. Tourism activities are linked with related projects carried out under the ADB's initiatives for tourism sector of the GMS and those being carried out by the Transport, Communications and Tourism Division of UNESCAP, especially the Mekong/Lancang River Tourism Planning Study.	X	
1.4.6.b Development of tools and best practices to reduce negative impacts of tourism on environment and social conditions	Operati on Division	Medium	Under the EP, work on environmental impact of tourism was initiated in 2006. The assessment on environmental impact of tourism will be completed when the regional report on environmental impacts of tourism in the LMB is finalised in June 2008. The regional report will synthesise the findings of the national reports and will highlight regional scale aspects of tourism development, current and anticipated environmental impacts of tourism sector, and prioritised actions. Recommendations will be made on, options for the development of an MRC tourism programme, and the role and responsibility of the MRC to address impacts	✓	
1.4.6.c Support to line agencies in identification and preparation of BDP priority sustainable tourism development projects	Operati on Division (HP)	Medium	Not being done - Tourism Pgm is not funded.	X	

Objective 1.4.7 To assess domestic water supply and sanitation options to ensure adequate protection and improvement of peoples' lives and the environment

1.4.7.a Report on domestic water supply and sanitation needs in the basin	Operati ons Division	Low	Not being done	X	
1.4.7.b Water supply and sanitation development strategy	Operati ons Division	Low	Not being done	X	
1.4.7.c Support to identification of BDP priority water supply and sanitation projects	Operati ons Division	Low	Not being done	X	

GOAL 2. To enhance effective regional cooperation**Objective 2.1 To increase MRC's function as a transparent and effective cooperation mechanism among Member States and to develop and demonstrate enhanced linkages, compatibility and complementarities of partnerships with other regional organisations and initiatives such as GMS, the World Bank's MWRAP, ACMECS, ASEAN, etc., including sub-basin organisations**

2.1.a Increased cooperation between MRC Member States	ICCS	High	The Pgm structure is assisting with the generation of increased cooperation. Some Pgms have national units under the NMCs which are functional parts of the Pgm team. Others have national Pgm directors/coordinators and a coordinating body.	✓	
2.1.b Partnership agreements (MoUs) with developments partners, International River Basin Organisations, and research institutions	ICCS	High	Many Pgms also maintain MOUs with international organisation for sharing common activities and providing support. For example the long term agreement with the Murray Darling Basin Commission under WUP	✓	

Objective 2.2 To complete, adopt and make applicable mechanisms, procedures and guidelines as required under the 1995 Mekong Agreement

2.2.a Technical guidelines for implementing the procedure for maintenance of flows on the mainstream	WUP done by EP)	High	Methodology for assessing environmental flows has been completed and is ready for adoption and use by line agencies. Planning workshop on integrated basin flow management (IBFM) has been conducted and national consultations held on pilot studies on IBFM. A technical report on the assessment methodology for environmental flows was ready in 2008 for testing and adoption under the IBFM process and for further evaluation. Reports on flows assessment under BDP scenarios have continued in order to refine IBFM in order to integrate into the BDP in 2008. See also EP, key action 3.5.d	✓	Lack of practical/implementable technical guidelines
2.2.b Guidelines for transboundary environmental impact assessment	WUP (done by EP)	High	The draft Framework for the Guideline for a Transboundary Environmental Assessment System was agreed in mid-2006. However, at the JC one member country raised one issue with the language used. The framework continues to be revised in 2008. A better understanding of the TbEIA tool by learning and sharing experiences was promoted in February 2008 at a regional seminar. In 2008, capacity building on TbEIA is being emphasised. Seven transboundary critical areas/issues are providing a basis for this. See also EP, key action 3.4.c	✓	Lack of practical/implementable technical guidelines
2.2.c Procedures for water quality	WUP	High	Procedures for Water Quality were endorsed by Joint Committee in 2006 and approved by MRC Council. They are pending the decision of the Thai government cabinet.	✓	Guidelines approved waiting Thai country endorsement
2.2.d Technical Guidelines for implementing the procedures for water quality	WUP	High	Guidelines under development based on Procedures – expected to be finalised by 2010	✓	Need practical/implementable technical guidelines.
2.2.e Adopted procedures are implemented	WUP	High	Not all procedures are approved. Implementation of the adopted procedures and their relevant guidelines depends very much on each member country. The dissemination activities of those legal documents were carried out during the WUP Start-up project, but some NMCs wish to have further dissemination activities.	✗	Need practical/implementable technical guidelines

Objective 2.3 To identify potential transboundary issues for negotiation, mediation and conflict prevention; and develop mediation and conflict management capacity

2.3.a Increased capacity for managing transboundary issues	WUP	High	This is being achieved through virtually all Pgms. Many have a specific component dealing with trans-boundary issues. A better understanding of the TbEIA tool by learning and sharing experiences with other basins was promoted in February 2008 at a regional seminar. In 2008, capacity building on TbEIA will be emphasised. Seven transboundary critical areas/issues of the Mekong River Basin are identified providing a basis for initiating capacity building for 2008.	✓	Lack of practical/implementable technical guidelines
2.3.b Development of awareness of tools and approaches to mediation and conflict management in natural resources issues	WUP (Done by EP and FMMP)	High	The EP work plan on the MRC transboundary framework conflict management initiative in the LMB has been completed and is ready for implementation by Member Countries. Priority areas (hot spots) for environmental conflict prevention have been identified and discussed with Member Countries, and proposed standard terminology was translated into riparians languages. Training modules for capacity building of conflict prevention and mediation were partly completed under EP in the first half of 2008. Under FMMP, work is underway on a compilation of the laws, regulations, agreements, and practices currently applied by the four Member Countries, as well as for regional organisations (such as ASEAN) to address trans-boundary differences and disputes directly and indirectly	✓	Lack of practical/implementable technical guidelines
2.3.c Inventory of issues and areas with potential for conflicts in use and impacts related to water	WUP (Done by many Pgms)	High	Most programmes are directly involved in identifying and dealing with issues (or hot spots) - there are numerous examples where the work of the MRCS has assisted in improving trans-boundary or country level natural resource management. One of the main mechanism for identifying issues is through the BDP. The 10 sub-area reports will include information needed for the formulation and analysis of basin-wide development scenarios, based on the strategic options each sub-area. Seven trans-boundary critical areas/issues of the MRB have been identified providing a basis for initiating capacity building for 2008. A regional training session on Transboundary Waters Dispute Prevention and Management was held in May 2008. By the end of 2008, pilot areas will be selected to be used in a learning and information exchange process on conflict prevention.	✓	Lack of practical/implementable technical guidelines

2.3.d Development of mechanisms to address environmental issues	WUP (Done by many Pgms)	High	This is being achieved through virtually all Pgms based on identified knowledge gaps. IBFM work in 2006 focused on improving hydrological modelling, sediment and geomorphology. FP development of a database driven expert tool was initiated.	✓	Lack of practical/implementable technical guidelines
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Objective 2.4 To promote and improve dialogue and collaboration with China and Myanmar.

2.4.a Increased cooperation with upstream riparian countries through joint studies and projects	OCEO	High	MRC and P.R. China have agreed on a new level of cooperation in the field of Navigation. The Fishery TAB also undertook a study tour to the inland fisheries of Myanmar. Technical cooperation with China under the Agreement on the Provision of Hydrological Information of Lancang / Mekong River in the Flood Season progressed well. The information provided under the Agreement is reliable for the timely flood forecasting operations of the MRC Secretariat. The present Agreement is now under consideration for renewal.	✓	Currently incomplete/lack of practical/implementable mechanisms/clear agenda
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GOAL 3. To strengthen basin-wide environmental monitoring and impact assessment

Objective 3.1 To improve monitoring of the environmental condition of the Mekong River basin, focusing on water quantity and quality, ecological health and social impact

3.1.a Environmental water quality monitoring system	EP	Medium	Work on water quality monitoring network continues with improved quality and high efficiency. All national laboratories are now able to analyse two new additional water quality parameters. Assessment of laboratories indicates an improvement of competence to standards. In 2007, the EP published MRC Technical Paper No 15 – Diagnostic Study of Water Quality in the Lower Mekong Basin, which describes baseline conditions for environmental contaminants in the lower Mekong River and its tributaries. Also published a baseline report on water quality: a comprehensive analysis of status and trends of water quality in the Lower Mekong Basin over the past 20 years. MRC Technical Paper No 13 – Biomonitoring of the Lower Mekong River and selected tributaries was also published.	✓	
3.1.b Social impact monitoring system	EP	High	The 2nd phase of Social Impact Monitoring (SIA) System is ongoing and by end of 2008, the technical guidelines for SIA will be ready for NMCs' consideration. Field studies on verifying the socio- economic indicators will start in the second half of 2008	✓	
3.1.c Mekong River ecological health monitoring system	EP	High	The Ecological Health Monitoring for the Lower Mekong Basin completed the first 4-year monitoring cycle in 2008, which is to be published as an MRC Technical Paper report on aquatic ecological health. Draft Indicative Mekong River report card – ecological health: has been prepared in an easy to read document to inform the people of the Lower Mekong Basin of the water quality conditions of the Mekong river mainstream.	✓	
3.1.d Model of the Mekong Basin's aquatic ecosystems	EP	Medium	Core environmental features have been incorporated into the DSF model	✓	

Objective 3.2 To regularly report on the environmental condition of the Mekong River basin and disseminate this information widely

3.2.a Updated environmental status report	EP	High	The final draft 2007 Biomonitoring Report was completed in January 2008. A technical report synthesising the first four seasons of completed ecological health monitoring data for the Lower Mekong Basin has been started. See also Key Action 3.2.c	✓	
3.2.b Updated State of the Basin Report	EP	High	Preparation of a SoB assessment is part of the BDP 2008 Pgm outcome	✓	
3.2.c Updated Basin Report Cards on environmental and social conditions	EP	High	Draft Indicative Mekong River report cards were prepared to inform people of the water quality and ecological conditions of the mainstream Mekong river.	✓	

3.2.d Guidelines on best environmental management practices	EP	Medium	The Pgm has produced a vast amount of technical information and capacity building on environmental issues and management practice. However, the explicit preparation of a range of best practice guidelines does not appear to be a specific Pgm outcome	?	
Objective 3.3 To raise awareness of MRC, NMCs, and line agencies on transboundary and basin-wide environmental issues and to increase the capacity to address them					
3.3.a Training modules on the use of EIA, SEA, and other tools	EP	Medium	A wide range of training activities has been undertaken	✓	
3.3.b Environmental educational kits	EP	Medium	The Pgm has produced a vast amount of technical information and capacity building on environmental issues and management practice. However, the explicit preparation environment education kits does not appear to be a specific Pgm outcome	?	
3.3.c Environmental awareness on transboundary issues	EP	High	The Components of the EP all generate transboundary environmental awareness in collaboration with NMCs. The risk assessment focuses on transboundary concerns on water quality and the results finalised in early 2007. The Programme took the lead in coordinating awareness raising and capacity development in conflict management and mitigation. A transboundary impact diagnostic study was initiated for Sesan, Sre Pok and Sekong sub-basins. The publications of the FP also generate awareness of fish conservation	✓	
Objective 3.4 To ensure that development initiatives are planned and implemented with a view to minimize negative environmental impacts					
3.4.a To support line agencies in identification and preparation of BDP priority environmental management projects and protection	EP	High	Although priority areas (hot spots) for environmental conflict prevention have been identified and are being discussed with Member Countries, and EP has components dealing with identification and management of environmental issues and with environmental assessment of BDP projects, the explicit identification of issues and projects for the BDP does not appear to be a specific Pgm outcome	?	
3.4.b Upon request of Member States, screening of projects for environmental impacts (technical support to project level SEA, independent review of EIA)	EP	High	Although the Pgm has components dealing with environmental assessment of projects, screening of country-based projects for environmental impacts does not appear to be a specific Pgm outcome	?	
3.4.c Promote and support the implementation of transboundary EIA	EP	High	Component 3 of the Pgm is explicitly addressing this issue. The draft Framework for the Guideline for a Transboundary Environmental Assessment System (2005 milestone) was agreed to in a regional meeting in mid-2006, with one concern. The framework continues to be revised.	✓	
Objective 3.5 To ensure that social, economic and environmental concerns are incorporated into basin-wide water resources development strategies					
3.5.a Strategic environmental impact assessment (SEA)	EP	Medium	SEA aspects have been incorporated into the DSF model	✓	
3.5.b Environmental impact assessment (EIA)	EP	Medium	EIA preparation is the responsibility of the Countries proposing a development. However, the draft Framework for the Guideline for a Transboundary Environmental Assessment System is seeking to ensure a consistent approach to EIA preparation. As well, MRC analysis will provide a vast amount of technical information and analysis on which a meaningful EIA can be produced.	✓	No clear definition on regional EIA
3.5.c Promote stakeholder discussions to identify valuable assets in water resources which are to be protected	EP	High	Component 4 of the Pgm is explicitly addressing this issue. Information on values was collected and added to the wetland map as a tool for BDP Phase 2 in 2006	✓	

3.5.d Providing information and knowledge to decision makers through the IBFM process on economic benefits and environmental and social impacts of development as related to changes in the flow regime.	EP	High	Component 5 of the Pgm is explicitly addressing this issue. In 2007, specialists reports for the IBFM predictive tool were completed and were ready for trial and use by other programmes, and eventually line agencies. Reports on flows assessment under BDP scenarios has continued to refine IBFM in order to integrate into the BDP in 2008.	✓	No clear assessment/acceptable indicators
3.5.e A set of spatial tools to enable planners to take into consideration environmental and social aspects of development plans and projects. Initially covering, wetlands, protected areas, vulnerability and dependence on aquatic resources.	EP	High	Although the Pgm has components dealing with various environmental information and techniques, and capacity development of government staff in field survey and GIS for wetlands was undertaken (line agency staff have been trained in wetland mapping techniques using remote sensing), an explicit set of spatial tools for use by planners, as described, does not appear to be a specific Pgm outcome,	?	

GOAL 4. To strengthen the Integrated Water Resources Management capacity and knowledge base of the MRC bodies, NMCs and line agencies and other stakeholders

Objective 4.1 To improve management systems to allow MRC to operate as a highly effective, transparent and innovative International River Basin Organisation

4.1.a Management policies, systems and manuals	OCEO	Medium	These are periodically updated and provided throughout the Secretariat.	✓	
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Objective 4.2 To establish a technical coordination capacity for preparing and coordinating the implementation of MRC's Work Programme applying IWRM principles

4.2.a Technical coordination advisor and efficient programme coordination mechanisms in place	OCEO	High	A technical coordination advisor has been appointed.	✓	Still room for improvement
4.2.b Annual work programmes	OCEO	High	Preparation of the annual work programmes has been enhances with additional information to assist JC decision making	✓	
4.2.c Harmonized project progress reports	OCEO	Medium	A unified output monitoring system was introduced throughout MRC programmes during the first and second quarters of 2007. This helped harmonise delivery structures throughout all programmes and align programme outputs towards the goals of the Strategic Plan. Project reporting is done so as to meet the contractual arrangements of donors and to provide integrated corporate information. The appointment of the Technical Coordination Advisor has assisted this process.	✓	No clear format yet

Objective 4.3 To enhance and maintain a common GIS-based information and knowledge management and dissemination system to support all MRC activities

4.3.a Operational information system and information management and dissemination tools (GIS, remote sensing, portal) supporting all MRC programmes	IKMP	High	This output is under implementation and will be in operation at the end of the IKMP programme. IKMP has a strong focus on the collection and supply of improved quality, quantity and timely information and maps to all programmes, forecasting, monitoring, strengthening and consolidation of the network and capacity involved. The first priority is auditing existing data sets. The second priority is to develop a manual of standards and guidelines for data and information management. The other priorities are: data and information needs assessment; data acquisition and generation plan; new data (acquired and generated); and hardcopy printing services for map and 3D products. The Pgm is also focused on strengthening the capacity for an MRC integrated GIS, making use of remote sensed data and time-series data	✓	
4.3.b Information and datasets provided to outside users	IKMP	High	Output is under implementation and will be operation at the end of the IKMP programme. MRC-IS Portal includes key information services such as interactive maps, and a geographically enabled metadata explorer with metadata for spatial datasets. The Document Management System (DMS) is a part of MRC-IS Portal. In 2008, the MRC-IS Portal for external access was built and tested. The Electronic Library on Web (ELIB) contains all bibliographical data records which can be	✓	No clear format yet

			accessed by both internal and external users		
Objective 4.4 To maintain partnerships with leading organizations, universities and civil society stakeholders for programme-focussed collaboration of common interest					
4.4.a Network of partners (universities, research institutes, civil society and other interested and relevant organizations) established	ICCS	High	The MRCS is increasingly using partners to assist in the delivery of Pgm outputs. For example, BDP will assess the feasibility of building IWRM training capacity in selected existing institutes in the Lower Mekong Basin.	✓	No clear focal point
4.4.b Assessment of research priorities to support MRC's mission	OCEO	Medium	This is being coordinated by IKMP, but operational Pgms also include this as a core activity	✓	Without clear format/focal point/responsible party
Objective 4.5 To strengthen the human resources capacities of the MRC, NMCs and the line agencies					
4.5.a Capacity needs assessment reports	ICBP	High	The final report on the MRC's Integrated Training Strategy and Programme in was completed before this SP (in 2003). From 2008, priority capacity building activities identified during the ICBP preparatory phase will be carried out: (i) Train the Trainer on IRBP (ii) In-dept, practical training on Programme/Project planning, (iii) Cross-Cultural Communication, and (iv) Executive Seminar for decision makers on Leadership	✓	
4.5.b Training modules and toolkits	ICBP	High	The Pgm has had a strong focus on "train the trainer" capacity development, providing the skills for more local in-country training based on common material	✓	Completed for only some topics/issues
4.5.c Training sessions and study tours for JC, NMCs, MRCS staff and line agencies	ICBP	High	There has been a wide range of training activities provided by ICBP and the other Pgms at all levels. There have also been a number of international study tours, and international partnerships involving capacity development	✓	Lacks clear direction and scope
Objective 4.6 To develop and update as new knowledge becomes available regional assessment tools (EIA, SEA, DSF, TB-EIA, RAM, SIA etc.) for all development projects to be implemented in the lower Mekong River basin					
4.6.a Regional assessment tools available and promoted for use by NMCS and Line Agencies	ICCS	High	The Pgms focus much of their work in providing tools for the use of NMCs and line agencies. The DSF, EIA, TB-EIA, SEA, RAM SIA, etc were established by particular program and training, including on-the-job training, was organised both at national and regional levels.	✓	Without clear scope/coverage/practical tools
4.6.b Training/orientation sessions in the use of assessment tools for NMCs and line agencies	ICCS	High	This a central aspect of most Pgms.	✓	Without clear scope/coverage/practical tools

✓ Key Action/output will in all probability be met, although some require substantial work to do so

✗ Key Action/output assessed as NOT to be met

? Unclear if the Key Action/output will be met

Mid-term Review of the MRC Strategic Plan 2006 - 2010

Appendix C

Recommendations of the Organisational, Financial and Institutional Review

APPENDIX C

RECOMMENDATION OF THE ORGANISATIONAL, FINANCIAL AND INSTITUTIONAL REVIEW

- 1) The MRC Council and Joint Committee should strengthen the mechanisms for on-going policy dialogue among the member countries and with the donors on:
 - the role of MRC in basin management and development within the scope of the 1995 Agreement
 - the role of MRCS in sustainability assessment of basin initiatives
- 2) Common guidelines for the roles and responsibilities of NMCs and NMCSs should be further clarified and made specific. These guidelines should specify the respective roles of MRCS and NMCS with regard to programme implementation.
- 3) An analysis needs to be made of the NMC/NMCS access to national planning processes, and of how this access can be improved.
- 4) The capacity of NMCS staff needs to be developed, especially in English proficiency and programme coordination.
- 5) A uniform contract system for NMCS staff should be applied by MRCS.
- 6) Riparianisation of most ICCS positions should be a high priority. Donors should continue their funding of the positions in the medium-term.
- 7) Delegation of many personnel and administrative matters should take place.
- 8) The first term of appointment of the CEO should be five years, subject to an annual assessment.
- 9) A more open and participatory style of management should be initiated in MRCS in order to effectively mobilise the potential of all staff members.
- 10) Within the context of the 1995 Agreement and the job description of the CEO, there should be greater clarity about the JC's role in management and organisational issues.
- 11) The selection process for the Directors should be by open nation-wide competition among government agencies. The selection criteria should include experience from previous work in the management of international organisations. The CEO should be involved in the selection process.
- 12) The Directors should no longer work as heads of divisions, but would take part in the central management of MRCS with a much enhanced role as representatives of the NMCs.
- 13) MRCS management should review its practices in the control of information with a view to maintaining credibility, and ensure a participatory approach in editing information that involves the report writers.
- 14) The MRC should consider adopting the proposed organisation structure
- 15) The following functions and capabilities should be incorporated into the MRCS organisational structure: human resources management, monitoring and evaluation, legal services, socio-economic assessment, and dispute management.
- 16) A monitoring and evaluation strategy, including a framework for country reporting against measurable performance indicators should be developed and implemented as a priority
- 17) Key cross-programme policy and coordination roles should be created / assigned within the programmes in the areas of planning and socio-economic analysis, flow/quantity management, environment, trans-boundary rules and procedures and information and decision support. Activities would be coordinated by the Technical Coordinator in the office of the CEO.
- 18) An in-depth analysis of long term MRCS core functions should be undertaken, with a view to full OEB funding of these.
- 19) The costs for the Communications Office and for some specialised technical services provided by the Technical Support Division should be included in the OEB; i.e. the costs should not be allocated to individual projects as per the current practice.

20) Donors should all pay the 11% rate for the management and administration fee. The rate should be adjusted downwards over a period of time, as member countries accept increasing responsibility for funding the OEB in full.

21) DSA rates should be adjusted downwards to 75% of the UN rates, and these reduced rates should apply to all activities in MRCS.

22) In the future, donors should pay very careful attention to how travel and workshop expenditures are budgeted, and these budgets should be reviewed and revised annually by MRCS.

23) To assure MRCS' financial sustainability and to show commitment to MRC, the member countries should fully fund the total long-term core budget requirements by 2014. This means that the schedule of contributions and the allocation formula agreed in 2000 needs to be comprehensively revised.

24) While trying to avoid overlaps in the existing training provision spread across the MRC programmes – and focusing as much as possible on cross-cutting competencies – renewed efforts should be made to secure funding for implementing the MRC Integrated Training Strategy and Programme; meanwhile, donors should be encouraged to approve a degree of consolidation of some scattered capacity building budgets in order to provide a more generic and harmonised training programme across MRCS and NMCSs.

25) MRCS should establish a unified Human Resource Management Section, covering human resource development policies and procedures, personnel administration, employee services, and staff development programmes.

26) In order to make recruitment as open and competitive as possible, MRCS's staff selection processes should be reviewed and any NMCS role in reviewing applications should be discontinued. Recruitment should be open to civil society as well as government.

27) The NMCSs should develop and implement orientation programmes for staff recruited from their countries, before they take up their posts at MRCS, in order to familiarise them with the policies, roles and responsibilities of the NMCs and their relationship with line agencies engaged in MRC promoted projects and programmes. These NMCS orientation activities should be seen as complementary to the orientation package developed by MRCS.

28) A review of the MRC appraisal system should be held, in order to clarify the intentions of the staff appraisal system, to base it more on individual competency analyses, to relate it more closely to staff selection criteria, to utilise it more precisely in establishing individual capacity building plans, and to develop an orientation programme on its implementation for all supervisors.

29) The salary review mechanism should be reviewed in order to achieve more equity in the treatment of different staff categories.

30) In as much as staff might feel that they are not getting fair hearings in cases of dispute – and to prevent relatively minor differences from becoming major problems – MRCS management should formulate formal grievance procedures.

31) The MRC Secretariat should not be re-located every five years, and a decision should be taken on a permanent location of MRCS.

32) If the MRCS remains in Vientiane, the regional Flood Centre, the Flood Management and Mitigation Programme, and the Navigation Programme should be permanently located in Phnom Penh.

33) The MRC should implement the key recommendations of the [riparianisation] roadmap, but the pace of implementation should be quickened; in particular, a riparian Chief, FAS should be appointed by end of 2009; and a riparian CEO should be appointed by mid-2010.

34) A policy interpretation of Article 33 should be developed for consideration by the JC, with a view to maintaining unique organisation skills and to ensuring knowledge transfer; all member countries should allow staff to stay at MRCS for second term of three years when appropriate; and a more liberal policy should be applied for extensions beyond six years.

35) MRC should move towards the situation of full riparianisation by beginning to work on a unified salary structure that is appropriate for the region.

36) MRC should initiate or update formal agreements with major regional development initiatives and organisations, clarifying the strategic relationships and the mechanisms for implementation, including key focal points.

37) MRC should consider formalising a stakeholder (NGO and civil society) consultative process as part of its annual meetings.

38) MRCS should better specify its collaborative partnerships with research organisations through formal MOUs or partnership agreements detailing agreed access, contact points and mechanisms, and the ownership and dissemination of project outcomes.

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Appendix D

MRC Notification Process and Procedures

APPENDIX D

MRC Notification Process and Procedures

The *Procedures for Notification, Prior Consultation and Agreement* sets out the principles, scope and processes by which the member states provide notification and prior consultation on certain water resource developments (MRCS, 2003). The NMCs have the function of acting as liaison between the MRCS and the country line agencies.

Notification is the provision of information by a member country on a proposed use to the Joint Committee. Notification procedures apply to intra-basin use and inter-basin diversions on the tributaries, including Ton Le Sap, and intra-basin use during the wet season on the mainstream.

Prior consultation is notification plus additional data and information that would allow the member states to discuss and evaluate the impact of the proposed use upon their uses of water and any other affects. Prior consultation is an information sharing process, but does not create a right to veto the use or a unilateral right to use water without taking into account other riparian rights. The JC may request the MRCS to assist in the evaluation of the proposed use and possible impacts. The JC may reach an agreement on the terms and conditions of the proposed use.

Any inter-basin diversion during the dry season requires specific agreement by the Joint Committee. This agreement applies to each project. Agreement under this category must be reached by the member states prior to the project's implementation. The various categories for Notification, Prior Consultation and Agreement are summarised in Table 1.

Table 1. Summary of Procedures for Notification, Prior Consultation and Agreement

	Water uses covered	Provision of information on a proposed use	Notification plus evaluation of use and impacts	Agreement by JC prior to implementation
Notification	Intra-basin use and inter-basin diversion on the tributaries, including Tonle Sap.	X		
	Intra-basin use during wet season on the mainstream.	X		
Prior Consultation	Inter-basin diversion from mainstream during wet season.	X	X	
	Intra-basin use on the mainstream during the dry season.	X	X	
	Inter-basin diversion of the surplus quantity of water during the dry season.	X	X	
Agreement	Any inter-basin diversion project during the dry season.	X	X	X

The *Procedures for Notification, Prior Consultation and Agreement* do not explicitly place notified uses into the BDP project data base, but rather into the MRCS data and information system. That is, the agreed *Procedures for Notification, Prior Consultation and Agreement* are not the modality for input into the BDP database. Furthermore, the MRCS and BDP cannot evaluate these projects unless requested to do so by the JC.

Source: MRC internal Report on Enhanced Cooperation between The Mekong River Commission and International Financial Institutions for Sustainable Development in the Mekong River Basin

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Appendix E

Plan of Action to Implement the Joint Declaration on ASEAN-China Strategic Partnership for Peace and Prosperity

APPENDIX E

Plan of Action to Implement the Joint Declaration on ASEAN-China Strategic Partnership for Peace and Prosperity

Pursuant to the Joint Declaration of the Heads of State/Government of the Association of South East Asian Nations and the People's Republic of China on Strategic Partnership for Peace and Prosperity signed at the Seventh ASEAN-China Summit on 8 October 2003 in Bali, Indonesia, this Plan of Action is formulated to serve as the "master plan" to deepen and broaden ASEAN-China relations and cooperation in a comprehensive and mutually beneficial manner for the next five years (2005-2010) with the view to strengthening the strategic partnership for regional peace, development and prosperity and playing a proactive role to tap the opportunities and meet the challenges of the new millennium.

This Plan of Action will also support the implementation of the Declaration of ASEAN Concord II, signed in Bali on 7 October 2003, leading to an ASEAN Community.

In the light of the above, ASEAN and China will pursue the following joint actions and measures (*Note: some words added to aid clarity*):

2.9 Mekong River Basin Development Cooperation

- 2.9.1 Strengthen cooperation under the framework of the Greater Mekong Sub-region (GMS) and ASEAN-Mekong Basin Development Cooperation (AMBDC); and
- 2.9.2 Develop the Singapore-Kunming Rail Link.

2.9.1.1 Transportation

- 2.9.1.1.1 Build railways and roads from Kunming to Yangon and Myitkyina;
- 2.9.1.1.2 Improve the roads from China's Yunnan province to Viet Nam and the railway links between China and Viet Nam;
- 2.9.1.1.3 Carry out possibility study of building railway links from China to Laos and Myanmar;
- 2.9.1.1.4 Consider implementing measures to improve navigational safety on the Lancang-Mekong River in a sustainable manner through consultations among the riparian countries, while undertaking to preserve the environment and unique way of life of the people who live along the river;
- 2.9.1.1.5 Consider the further expansion of the Environmental Impact Assessment of the navigation channel improvement project on the upper Mekong River, and share information with the lower Basin countries;
- 2.9.1.1.6 Consider the possibility to open more aviation routes in the sub-region at an appropriate time; and
- 2.9.1.1.7 Carry out preliminary study on the missing rail link between Phnom Penh and Loc Ninh, the missing section in Cambodia which is part of the Singapore-Kunming Rail Link.

2.9.1.2 ICT

- 2.9.1.2.1 Promote international cooperation in terms of investment and human resources development on ICT; and
- 2.9.1.2.2 Explore the possibility of establishing a GMS information highway.

2.9.1.3 Trade

- 2.9.1.3.1 Launch the experimental project of one stop inspection under the Agreement for Facilitation of Cross Border Movement of Goods and People between and among GMS Countries whose modalities are subject to consultation and consensus among countries concerned so as to facilitate trade; and
- 2.9.1.3.2 Explore the possibility study of setting up commodity markets in major border

cities and other distribution centres in ASEAN and China.

2.9.1.4 Tourism

- 2.9.1.4.1 Explore the possibility of establishing a regional tourism corridor with a view to making tourism a key industry in the region.

2.9.1.5 Electrification

- 2.9.1.5.1 Implement the GMS Inter-Governmental Agreement on Regional Power Trade (IGA) and speed up the formulation of Sub-region Power Trade Operating Agreement (PTOA);
- 2.9.1.5.2 Promote GMS transnational electric power networking conducive to environmental and social well-being; and
- 2.9.1.5.3 Enhance cooperation on rural electrification.

2.9.1.6 Environmental Protection

- 2.9.1.6.1 Enhance cooperation on the protection of bio-diversity in the sub-region and explore the possibility of establishing a bio-diversity corridor;
- 2.9.1.6.2 Promote forestation in Lancang-Mekong River basin and Honghe River basin to bring soil erosion under control;
- 2.9.1.6.3 Work towards managing and monitoring water quality of Mekong river;
- 2.9.1.6.4 Establish nature reserves to protect rare species, among others, through the mechanism of the relevant environmental instruments, such as the ASEAN Agreement on Transboundary Haze Pollution and the ASEAN Declaration on Heritage Parks;
- 2.9.1.6.5 Continue to protect the environment and promote sustainable use including the equitable access and benefit sharing of the sub-region's shared natural resources and their biodiversity;
- 2.9.1.6.6 Promote exchange of information and strengthen cooperation concerning the use of water in the Lancang-Mekong River, with a view to achieve sustainable development of all riparian countries; and
- 2.9.1.6.7 Promote cooperative activities to address global warming.

2.9.1.7 Public Health

- 2.9.1.7.1 Establish an integrated prevention and control system for communicable and non-communicable diseases;
- 2.9.1.7.2 Promote Alternative Development (AD) to check drug production and distribution; and
- 2.9.1.7.3 Strengthen cooperation to prevent production and spread of counterfeit drugs.

2.9.2 Other Sub-regional Initiatives

- 2.9.2.1 Support other sub-regional development initiatives and welcome Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy (ACMECS) as further means to narrow the development gap.

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Appendix F

Regional Consultation Meeting on the Mid Term Review of the MRC Strategic Plan Vientiane,
Lao PDR, 21 October 2008 - Comment/Response Matrix

**Regional Consultation Meeting
 on the Mid Term Review of the MRC Strategic Plan
 21 October 2008, Vientiane
 Comment/Response Matrix**

Organisation providing Comment	Comment	Proposal for how the comment will be dealt with
1 To what extent has the Strategic Plan been met		
Cambodia	The paper does not really deal well with <u>the upper Mekong Countries</u> .	The Report will be strengthened to stress the importance of efforts for greater cooperation with the Upper Countries in the remaining term of the SP and for the next SP.
IDPs Thailand Viet Nam	<u>Monitoring and evaluation system</u> The importance of an M&E system - the MRC does not have a systematic method for gathering and sharing information on the results, performance, outcomes and impacts of its activities and Programs. The M&E system has been agreed to since 2006 and the SP said that one should be developed. In 2008, why do we still not have such a system. Shares concerns over the lack of an M&E system.	The Report will acknowledge the importance of the M&E system, and set out current activities for the preparation of such a system for the MRC over the next 18 months, including progressive milestones. A major consultancy to develop this system will be let in November 2008.
IDPs	The <u>communication systems</u> have improved, but there are still much improvements to be made.	The Report will acknowledge the importance of better communication and interaction with all stakeholders, and set out current activities for the preparation of a policy on stakeholder involvement in MRC governance bodies, including progressive milestones. A major consultancy to undertake this work is currently underway.
IDPs Thailand	<u>WUP</u> : The 'unfinished business' of the Water Utilisation Program means higher strategic goals cannot be achieved. WUP activities went to the very core of the MRC as set out in the 1995 Agreement. They were fundamental to MRC operations, especially the DSF. So when WUP ceased because funding	The Report will acknowledge the importance of the finalisation of activities initiated under WUP, and will set out current activities for the continuation and finalisation of all of the WUP initiatives.

	<p>ceased, this caused unacceptable delays and loss of momentum in critical areas.</p>	
<p>Thailand, Viet Nam</p> <p>Cambodia</p> <p>Viet Nam</p>	<p><u>Figure 2 in the Draft Report</u> In the development of the SP, Annex 1 was not subject to Regional consultation. Therefore, the priorities for the key tasks that it contains cannot be taken as being supported by the Member Countries. As well, all Goals are equally important, so it is not legitimate to say that an activity in one goal is more (or less) important than an activity in another goal.</p> <p>As the SP was approved by Council, we have to accept Annex 1 as also being approved by Council. We can only agree to re-prioritise the key actions.</p> <p>The 75% result for the high priority key activities in Figure 2 appears optimistic.</p>	<p>A separate version of Figure 2 will be provided for each Goal, with no overall amalgamation of results.</p> <p>The methodology for Figure 2 (revised as discussed above) will be clarified. The fact that this is only one means of assessing achievements will be emphasised.</p>
<p>IDPs</p> <p>Thailand</p> <p>Viet Nam</p>	<p><u>Role of MRC</u> MRC should be “taking a lead role”. This is based on the 1995 Agreement and the unique position this provides to the MRC. MRC does not have a regulatory or enforcement role but is the inter-Government body to inform Country policies and decisions and provide other guidance and to provide leadership in some areas.</p> <p>The <u>lead</u> role is for the countries, which are happy to work hand in hand with the MRC.</p> <p>The MRC should have a role that facilitates implementation of an agreed investment programme for the development of the Basin.</p>	<p>The CEO explained that the MRC is taking a lead role for some activities, eg for establishing a process to prepare EISs for the mainstream dams; and for assessing the impact of proposed dams on fisheries. As well, the MRCS is meeting with the various hydropower developers to set out the provisions and requirements of the 1995 Agreement.</p> <p>The Report will discuss the role of the MRC and the on-going work to define the MRC core functions.</p>
<p>Cambodia</p>	<p>The MRC signs <u>a great many MOUs</u> with other organisations. These should be reviewed for continuing relevance.</p>	<p>This comment is noted and will be taken up and implemented by the MRCS.</p>
<p>Thailand</p>	<p>The <u>MRC role in times of flood</u> is to provide efficient and effective flood forecasts to the Member Countries. Flood warning is the responsibility of the Member Countries.</p>	<p>This information was noted.</p>
<p>IDPs</p>	<p><u>Delays with progress</u> With a few exceptions, program development and implementation is almost universally slower than expected,</p>	<p>Delays and constraints will be acknowledged in the report and reasons for the main delays explained.</p>

Cambodia	The Report should clarify the constraints to progress.	
2. Alignment of Programmes		
Cambodia	The Country is unclear whether or not the Review should include <u>financial management aspects</u> of the MRC	Financial management was not a part of the JC agreement for undertaking the Review. There are other mechanisms for ensuring financial accountability of the activities and programmes of the MRC. There are regular financial reports to the JC and to Council. There is the annual independent audit of the accounts by Price Waterhouse. As well, there are financial audits to meet the requirements of the funding IDPs, which may include an independent audit.
IDPs	While the programmes do align with the 1995 Agreement, the problem is that the fundamental intent of the Agreement is not being applied because <u>there are many parts of WUP which remain unfinished</u> . Dams are being developed without any MRC involvement despite the intent of the Agreement.	The Final Report will acknowledge the importance of the finalisation of activities initiated under WUP, and will set out current activities for the continuation and finalisation of all of the WUP initiatives.
IDPs	The Programmes generally align with the SP; it is <u>progress that remains the issue</u> . IDPs acknowledge that provision of funds and their modality does affect progress, but it is difficult in the current environment to move to basket funding. But there is much that MRC can do to change this position.	The current provisions in the Report on IDPs and funding will be reviewed to see how they can be strengthened to provide a clearer path forward.
IDPs	<u>Internal coordination between programmes in the MRCS should be improved</u> – there still appears to be a “silo” mentality.	The CEO explained that much had been done to enhance the coordination between programmes. This will be explained in the Report.
IDPs	Given the unique mandate of the MRC, there is much that can be done for it to <u>better align itself with other Regional initiatives</u> . The Climate Change work by the EP is a good example of this.	The CEO acknowledged that much can be done to strengthen cooperation with other Regional activities and was looking for the Review to provide some guidance on this aspect. This will be provided in the Report.
3 Priorities for the remaining period of the SP		
Laos	<u>Countries need time for consultation</u> The implications of the prioritisation for the remaining period have significant implications for Laos. Therefore, there is a need	The CEO explained that the record of the Meeting would be sent to meeting Participants, and that comments on the Draft Report would be sought. This would allow time for Countries to consult

Thailand	<p>for greater Country consultation on these aspects of the draft Report. It is difficult to prioritise now if we do not have a clear picture of where we are at today. If we do not get a good assessment of this SP how can we go ahead and prioritise for the remaining period or for the next SP?</p>	<p>further on the Draft and provide a firmer basis for considering priorities.</p>
Thailand	<p><u>Tourism and Drought</u> have been long-standing issues for the MRC. But now is perhaps the time to look at these issues from a different perspective and to see how they can be dealt with without necessarily starting a programme. For Drought, the JC has said that some activities should be undertaken in-house (eg hydrological analysis) or by other Programmes. MRCS or the NMCs should take the lead in the hydrological analysis.</p>	<p>The CEO explained that it was up to the MRCS to consider and set out the proposed activities under the Drought and Tourism Programmes to see how they can be incorporated into other programmes and activities. This point will be included in the Report.</p>
Laos	<p>Laos is strongly supporting <u>the development of eco-tourism opportunities</u> and this is a critical aspect of its economic growth. Perhaps this aspect can be taken up in the BDP – this will be important to Laos. If the Tourism Programme is dropped, then this may mean that the EP activity that is considering the environmental aspects of tourism will be dropped.</p>	<p>See the above comment. As well, the CEO explained that even if the Tourism Programme was dropped then the EP activity would continue.</p>
IDPs	<p>Some existing MRC <u>Programs should be rationalised</u>, given the pressure of critical work in other areas. The two obvious candidates are the Tourism and Drought Programmes, which do not have any tangible funding support.</p>	<p>See the above comment.</p>
USAid	<p>Care should be taken with the proposed <u>split of the AIFP</u> into an AIP, with catchment management move elsewhere. Before any decision is made on this, the reasons for amalgamating these components in the first place should be carefully reviewed.</p>	<p>The CEO explained that there had not been a decision to split the Programme. These comments will be taken into account in the MRC considerations of this issue.</p>
Thailand	<p>In <u>Figure 5</u> of the Draft Report, the Drought and Tourism Programmes should be included.</p>	<p>Figure 5 will be changed as proposed.</p>
IDPs	<p>The implementation of the <u>Independent Organisational, Financial and Institutional Review</u> of MRCS and the National Mekong Committees must continue and be given priority.</p>	<p>The Draft Report supports this comment. The Report will be revised to provide an indication of the main implementation activities.</p>

IDPs	In relation to a <u>separate HP</u> , there are strong arguments for and against. On balance the IDPs think that a separate programme might create duplications and competition with other Programmes. However, in the end this is a MRC decision.	The Report will maintain the current agreement by the MRC, that is, a separate HP to drive the hydropower response and provide immediate focus. The IDPs comments and reasoning will remain in the IDP paper.
IDPs	The <u>hydropower work</u> must maintain a close engagement with China.	This comment is noted and will be taken up by the HP.
IDPs	Programs such as <u>IKMP and EP</u> should be given higher priority in the remaining period of the Strategic Plan	The Draft support supports this comment.
4. Preparation of the next SP 2011-2015		
Thailand IDPs	The information in the Draft Report is food for thought at this stage – Countries are not ready for discussions yet. It is too early to discuss any substance. However, the process will be critical, especially regarding consultation.	The CEO explained that a proposal for the development of the next SP would be provided to the first JC meeting in 2009, setting out the overall process. In relation to the involvement of all stakeholders the current consultancy on the preparation of a policy on stakeholder involvement in MRC governance bodies will greatly assist. The Report will reflect these comments.
Thailand	The Member Countries should get together to do a <u>joint SWOT analysis</u> to provide a good context for the development of the next SP.	This suggestion will be included in the Report.
Thailand IDPs	<u>Capacity to prepare SP</u> It is important that the capacity for the next SP comes from the MRSC and the NMCs and Country people who know the MRC well The MRSC should identify in-house resources and perhaps use the ICBP to develop strategic planning capacity in the MRSC, NMCs and maybe in some line agencies. The problem with the last SP was that the capacity was simply not there. So next time we must make sure that the capacity is right.	These comments will be incorporated in the Report.
IDPs	It will be essential that the <u>M&E system</u> is well established for the next SP.	The Report will acknowledge the importance of the M&E system, and set out current activities for the preparation of such a system for the MRC over the next 18 months, including progressive milestones. A major consultancy to develop this system will be let

		in November
IUCN	<p>The next SP must tease out the lessons learned from the development of the current SP. Particular issues for IUCN are:</p> <ul style="list-style-type: none"> - the MDGs and how they are treated is an important question; - how the SP can contribute to pro-poor development, rather than National economic development which may have a trickle down effect to the poor; - the involvement of civil society – the SP provides an opportunity to move on this; and - the suggestion in the Draft Report to include environmental conservation is supported. IUCN would like to work with the EP on Regional Ramsar sites – the MRC should provide the Regional platform for this. 	These suggestions will be included in the Report.
UNDP	<p>The SP will provide an opportunity to develop indicators for the MDGs, probably as part of a larger Regional programme. Greater emphasis on climate change is also needed.</p>	These suggestions will be included in the Report.
5. Content, format and structure of Report		
Cambodia	The report should have a summary of the initial lessons learned from the Review	An Executive Summary will be included
Cambodia	Please clarify what is meant by the statement that “hydropower should have highest priority”.	This will be clarified in the Report.
Thailand	Please explain the meaning of “regional transition” period in the first dot point of paragraph 23.	This will be clarified in the Report.