

Mekong River Commission

Mid-Term Review of the MRC Programmes

Climate Change and Adaptation Initiative

April 2014

Final Report

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ABBREVIATIONS AND ACRONYMS

AIP	Agriculture and Irrigation Programme
ASEAN	Association of South East Asian Nations
AusAID	Australian Agency for International Cooperation
BDP	Basin Development Plan Programme
CCAI	Climate Change and Adaptation Initiative
CEO	Chief Executive Officer
CF	Core Function
CIA	Cumulative Impact Assessment
DMP	Drought Management Programme
DSF	Decision Support Framework
EHM	Ecological Health Monitoring
EIA	Environmental Impact Assessment
END	Environment Division
EP	Environment Programme
FAS	Finance and Administration Section
FMMP	Flood Management and Mitigation Programme
FP	Fisheries Programme
GEF	Global Environment Fund
GIS	Geographical Information System
GMS	Greater Mekong Sub-region
HDI	Human Development Index
HPP	Hvdropower plant
HRS	Human Resources Section
IAI	Initiative for ASEAN Integration
ICBP	Integrated Capacity Building Programme
ICCS	International Cooperation and Communication Section
IKMP	Information and Knowledge Management Programme
IPOE	International Panel of Experts
ISH	Initiative on Sustainable Hydropower
IWRM	Integrated Water Resource Management
JC	Joint Committee
LA	Line Agency (National programme implementing agency)
LDC	Least Developed Countries
LMB	Lower Mekong Basin
M&E	Monitoring and Evaluation
MDG	United Nations' Millennium Development Goals
M-IWRMP	Mekong Integrated Water Resource Management Project
MNRE	Ministry of Natural Resources and Environment (of Thailand)
MONRE	Ministry of Natural Resources and Environment (of Vietnam and Laos)
MOU	Memorandum of Understanding
MPCC	Mekong Panel on Climate Change
MRC	Mekong River Commission
MRC-IS	Mekong River Commission's Information System
MRCS	Mekong River Commission Secretariat
NAP	Navigation Programme
NGO	Non-Governmental Organisation
NIP	National Implementation Programme
NMC	National Mekong Committee
NMCS	National Mekong Committee Secretariat
NPV	Net Present Value
O&M	Operation and Maintenance
OEB	Operating Expenses Budget
OSP	Office of the MRC Secretariat in Phnom Penh, Cambodia

OSV	Office of the MRC Secretariat in Vientiane, Lao PDR
PDIES	Procedures for Data and Information Exchange and Sharing
PIP	Programme Implementation Plan
PMFM	Procedures for the Maintenance of Flows on the Mainstream
PMS	Performance Management System
PNPCA	Procedures for Notification, Prior Consultation and Agreement
POP	Persistent organic pollutant
PWQ	Procedures for Water Quality
PWUM	Procedures for Water Use Monitoring
QA	Quality Assurance
RBC	River Basin Committee
RBM	River Basin Management
RBO	River Basin Organisation
RTWG	Regional Technical Working Group
SC	Steering Committee
SDC	Swiss Agency for Development and Cooperation
SEA	Strategic Environmental Assessment
SIA	Social Impact Assessment
SIMVA	Social Impact Monitoring and Vulnerability Assessment
SOB	State of the Basin
TbEIA	Trans-boundary Environmental Impact Assessment
TCU	Technical Coordination Unit
TG	Technical Guidelines
TGA	Technical Guidelines for the Protection of Aquatic Life
TGH	Technical Guidelines for the Protection of Human Health
TGWQ	Technical Guidelines for Procedures for Water Quality
TNMC	Thai National Mekong Committee
TOR	Terms of Reference
VNMC	Viet Nam National Mekong Committee
WB	World Bank

BASIC PROGRAMME DATA

Programme	CLIMATE CH	1ANGE AND ADAPTATION INITIATIVE (CCAI) 2011 - 2015			
Defining	CCAI Prog	Jramme Document: July 2011			
Documents	Programm	ne Implementation Plan: Dec 2012			
Key dates	Prog Doc	PIP Final Draft	PIP Draft revision	Prog Completion	
-	approved	Dec 2012	Jan 2014	Plan 31 Dec 2015	
	Aug 2011				
Financing		From - To		mount (USD)	
Australia (AusAID)*	2009-2013	}	3,508,563	
Australia (AusAID)*	(2011-2013	5)	2,821,753	
Denmark (Danida	ı)	2011-2015	,	909,944.7	
Luxembourg		2011-2015	;	2,600,000	
Sweden (Sida), v	ia EP	2010-2012		545,000	
Finland, via IKMF)	2011-2014		600,000	
Sweden (Sida)		2012-2015		545,000	
Germany (GIZ)		2012-2014		1,737,450	
European Union	Tatallardaat	2012-2015)	6,370,650	
	l otal budget			16,129,798	
	1 1 2012			220.708	
	1.1.2013			229,790	
Development Objective Goal Beneficiaries		 Climate change adaptation planning and implementation is guided by improved strategies and plans at various levels and in priority locations throughout the Lower Mekong. Basin Member Countries guide climate change adaptation planning and implementation by applying improved strategies and plans at various levels and in priority locations throughout the Lower Mekong Basin. National climate change focal agencies, National line agencies of key MRC sectors, National Mekong Committees (NMCs), Local authorities and communities, MRC programmes, Organisations with CC adaptation competences and activities, Development partners who support the CCAI, National and international NGOs, and Private sector. 			
Geographical Coverage		I ower Mekong basin: Cambodia Lao PDR Thailand and Vietnam			
Institutional Fra	mework	· · · · · · · · · · · · · · · ·			
Oversight / decision body		Joint Committee / Steering Committee			
Execution		MRCS			
MRCS oversight		CEO MRC			
Overall management		Programme Coordinator			
Coordination		MRCS/NMC counterparts			
Main Line Agencies (in MCs)		Line Agencies responsible for environment and CC			
Main implementa	tion	CCAL Programme Coordination Meetings			
mechanisms		Work agreements with international and national consultants			
Main linked MRC Progs		All; especially EP, IKMP, IHS, FP, M-IWRMP and BDP			

EXECUTIVE SUMMARY

CCAI has the following outcomes: (1) climate change impact and vulnerability assessment, adaptation planning and implementation in priority locations within the LMB; (2) building knowledge and capacity at different levels (institutional, technical and managerial capacity); (3) regional adaptation strategy supporting national frameworks; and (4) regional partnership and collaboration.

In 2011-2013 CCAI experienced significant delay in implementing activities and difficulty in moving the programme forward due mainly to the lack of staffing and Member Country backing. Disbursement of CCAI in 2013 was still lower than expected but the programme had managed to start running its activities in 2012. A problem in the implementation of the programme is that its activities take place in several different locations which makes the coordination and timing challenging. Flood protection has been conducted together with FMMP and national flood protection agencies. As a scientific issue climate change belongs to CCAI, but some of the modelling has been done in IKMP and FMMP - in different programmes and country and cooperation is not always so smooth. Also international consultants have conducted modelling studies abroad and the results have been submitted to CCAI. The most important possible impacts of the programme in the countries are still unknown as the main products are under preparation. However, the on-going work of CCAI is valuable and promising.

Because of the delayed start, the budget for 2015 is three times higher than for 2013 and 2014. Therefore, it is doubtful that CCAI could be able to use the allocated financial resources meaningfully with the present staffs. A plan of the CCAI team is to use in the implementation more experts of other programmes from e.g. IKMP and FMMP. However, it is unlikely that those programmes would be able to support the CCAI functions enough with staff inputs related to climate change and adaptation. The present staffs are overloaded already now and a new solution should be found to the efficient use of the financial resources. CCAI has prepared a revised PIP and budget, but the MTR is not convinced that these could solve the above problems. There are too many activities planned to start within 1-2 years in the revised PIP and the MTR believes on the contrary that the programme should concentrate on its most important products. It will be necessary to track the spending and make sure that the funds are used to the objectives of the programme. Another possibility is to make a decision to save some of the unused funds for related activities in the core functions set-up in 2016, provided that the donors agree.

The earlier climate modelling work was based on limited observations collected in rather few meteorological stations and also monthly average values were used. As these modelling projects used now out-dated methodologies, CCAI has worked with new climate data sets and up-to-date climate change models. During the remaining time 2014-2015 CCAI is expected to produce detailed information on the impacts of climate change on the Mekong Basin. The most important information that the models generate is the change of river hydrographs – the daily river flow regime today and in the coming years, maybe 50 years ahead. This information is used to predict the volume of water resources and likelihood of catastrophic floods or droughts. The models also predict the impact of climate change on crop yields and food balance. Climate change is linked to an increase in the incidence of extreme weather events; i.e., more frequent extreme winds, heat waves, and torrential rains or heavy snowfalls in the Himalayas. The raising sea level will endanger the nature and societies at the Mekong Delta in Vietnam.

It is necessary to respond to the climate change impacts and develop adaptation and resilience. Using information compiled in the Member Countries and from international sources CCAI has organised demonstration projects introducing and testing adaptation

interventions. Results from the demonstration projects were well received by local governments in the respective provinces.

The most important products of CCAI will be the "1st Report on the Status of Climate Change and Adaptation in the Mekong River Basin" and "Regional Climate Change and Adaptation Strategy". The compilation of the status report is delayed and the expert team (including MPCC) has not been nominated. The strategy document will summarise all the information produced in CCAI – climate change, its impacts on the Mekong basin and its nature and socio-economy. It will also provide information on the needs and technologies to develop adaptation and resilience. This strategy again contributes the MRC long-term Goal "*Member countries manage water and related resources of the Mekong basin in an effective, sustainable and equitable manner*".

Recommendations

Recommendation 2.3:1 The focus areas of CCAI should be: 1) Modelling of climate change impacts on hydrology and floods; 2) Modelling and assessing climate change impacts on ecosystems; 3) Modelling and assessing climate change impacts on agriculture and food production; 4) Assessing climate change impacts on extreme weather events and sea level rise. Less important activities shown in the revised PIP should be left out and unused funds saved for 2016.

Recommendation 2.3:2 MRC leadership should assist the CCAI to immediately organise SC meetings and make clear that the programme cannot use the allocated funds if the approval process is non-compliant. Continuous and timely support from Member Countries is the most important issue for the programme to achieve its expected outcomes in the selected priority areas.

Recommendation 2.4:1 CCAI should not focus its work to practical climate change adaptation interventions only (as e.g. flood protection constructions) which were proposed by the NMCs and LAs in the MTR interviews. CCAI should work with the assessments and sophisticated modelling activities at MRCS as takes place at the moment. In addition, the MTR questions the advisability of trying to immediately have the highest capacity for climate change modelling in the NMCs and LAs of the countries. Later, when the models have been produced, the results can be delivered and also capacity building provided to understand the processes and models.

Recommendation 2.5:1 CCAI should continue working with international consultants and e.g. IKMP and FMMP experts to complete the planned modelling exercises as shown e.g. in the proposed Concept Notes which have not yet been approved by the SC. Thus, the MTR supports the plans proposed by CCAI in this field. So far, the modelling results produced by special experts of climate change and hydrology have been valuable and applicable to the needs of river basin planning and decision-making. Modern datasets, statistical methods and modelling software should be used. This is one of the priority areas.

Recommendation 2.6:1 It is recommended that the adaptation planning should continuously be based on new modelling results about climate change impacts. Consequently, the MTR supports the plans proposed by CCAI to produce information on the impacts of climate change on the hydrology and environment of LMB, in general. The design of adaptation interventions should be accommodated to the magnitude of expected hazards as projected by the models. International experience on the design should be utilized as planned.

Recommendation 2.7:1 "Mekong Regional Climate Change and Adaptation Strategy" will be the final product of the programme and all the other activities should focus to produce material to this document. The status report may be a tentative draft to the strategy. This plan has been proposed by the CCAI team and is supported by the MTR as well. This is a high priority area.

Recommendation 3.6:1 CCAI should concentrate on its priority activities without any burden to decentralise before the end of 2015. CCAI is not a programme which could swiftly be squeezed to a format of core functions typical to River Basin Organisations, and climate change is a typical transboundary and basin-wide phenomenon which has to be addressed regionally. There is little that can be decentralised to the NMCs.

Recommendation 3.7:1 CCAI should have in other programs focal experts committed to work for CCAI or preferably seconded experts from other programs in the CCAI team at Vientiane. Splitting the team on the basis of research technology is not the most productive way of working. This is probably one of the main reasons for the inefficient use of funds allocated.

Recommendation 4:1 CCAI should simplify the recent draft work plan and related budget by selecting the focus areas. The work plan includes a number of activities which should have been started 1-2 years ago but have been delayed (cf. CCAI PD 2011; Table 8: Key CCAI products and milestones for 2011-2015; and Annual Outcome Report 2014). Because of the delays, the focus now should be in the priority areas. Attempting to start the postponed, less important activities at this stage would blur the focus and stretch the limited staff resources to much. There is also overlapping in the activities and some are irrelevant or less meaningful and all of them have significant costs. A recommendation is that CCAI should concentrate on the key activities supporting the strategy preparation and leave out most of the less important activities of the PIP and save the funds using a procedure agreed with the donors.

In Chapter 5 there are the following additional recommendations which are common to several or all programmes and which otherwise are important from the point of view of the programmes.

Recommendation #5.1:

There is no obvious reason why programmes, after the delays so far, should try to spend all the funds available by the end of this programme period. It is recommended that funds that are not spent after normal reasonable programme implementation should be saved so as to safeguard funding for the transition period from programme based to core function based funding of the operations.

Recommendation #5.2:

It is recommended that:

- MRC revise the rules covering per diems as soon as possible
- Already during the remaining programme period, MCs should cover the costs for national coordination meetings
- MRC moves to the practice that MCs cover the travel costs of their participants to regional meetings
- That regional meetings be held as a rule at MRC premises in Vientiane or Phnom Penh
- NMCs are provided with the equipment for video conferences.

Recommendation #5.3:

It is recommended that:

- MRC revise the rules covering per diems as soon as possible
- Capacity building should not be carried out unless a needs assessment has been completed and there are detailed plans for how capacity building will be carried out and the results monitored
- Plans should be made as soon as possible for decentralizing capacity building at national institutions and LAs

Recommendation #5.4:

The MRC staffing policies should be amended so as to build a strong cadre of staff.

Recommendation #5.5:

MRC should arrange meetings to the extent possible through video conferences and arrange meeting only on the most important issues. This should make it easier to arrange the meetings.

Recommendation #5.6:

It is recommended that:

- The planning and monitoring system based on the logframe approach should be simplified and the focus of reporting should be on outcomes, not activities and outputs which are not very useful for MRCS management or MCs and DPs. Activities and outputs can be monitored at the programme management level. Consideration should be given to developing short and concise 'deviation reporting' for MRCS management
- The logframe approach should not be applied at the strategic level and strategic documents should be kept focused and separate from action plans and implementation
- MRC should develop the accounting system so that expenditure figures can regularly be obtained against outcomes and outputs.

Recommendation #5.7:

It is recommended that plans for transforming MRC into an organisation based on core basin management functions be given high priority so that the proposals could be presented early enough to the DPs so they can decide on basket funding already from the beginning of 2016. Plans for decentralization would accompany the transformation plans.

Recommendation #5.8:

It is recommended that consideration be given to establishing a Trust Fund for financing high level research and studies regarding basin wide or transboundary issues of the Mekong Basin¹. MRC has the vision of becoming a world class International River Basin Org*a*nisation. Therefore it should base its decisions on world class information.

¹ The MTR learned that some years back there were discussions about establishing a Trust Fund at the Asian Institute of Technology, AIT, but the idea fell through. The MTR is not aware of the details. However, this proposal is not related to the previous ideas and this would be a Mekong specific TF. This TF need not be large in size.

FOREWORD

The Mekong River Commission (MRC) was established by the 1995 Agreement on Cooperation for Sustainable Development of the Mekong River Basin, signed by the governments of Cambodia, Lao PDR, Thailand and Viet Nam. The MRC uses a 5-year Strategic Planning approach and implements its main functions through a series of Development Partner (DP)-financed Programmes and the supporting work of three organisational Sections and one Unit within the MRC Secretariat (MRCS).

The current Strategic Plan runs from 2011 to 2015 and MRC is presently carrying out a total of 12 Programmes. The MRC has commissioned parallel mid-term reviews (MTR) of the Strategic Plan and eight of the Programmes (the other Programmes having been covered by other reviews or not needing a mid-term review). At the same time, Danida commissioned a review of Danish support to the MRC (2011 to 2015). Both the Strategic Plan MTR and the Danida review were carried out in December 2013. The MTR of the Programmes was carried out during January and February 2014. The Programmes MTR is covered in eight separate reports, this being the one on the Basin Development Plan Programme (BDP).

The main objectives of the MTR for the 8 Programmes as specified in the Terms of Reference (TOR)² were:

- *"1)* Review the present state of the implementation of the eight Programmes against the goals, outcomes, and milestones set forth in the respective Programme Documents 2011-2015;
- Assess the contribution of each of the eight Programmes towards the achievement of the relevant outcomes and desired results as specified in the Strategic Plan 2011-2015 (MRC SP);
- 3) Assess how effectively the milestones of Annex B of the MRC SP that are allocated to each Programme are being addressed;
- 4) Assess how effectively the coordination mechanism/arrangement between programmes work in achieving their shared outputs/outcomes;
- 5) Make recommendations on how to improve the performance of the Programme implementation, in particular on prioritisation for the Programme's implementation during the remainder of the current planning cycle, taking into account emerging opportunities and challenges, as well as budgetary and other resource constraints at the MRC."

ACKNOWLEDGEMENTS

The Programme Mid-Term Review team would like to acknowledge and express their sincere appreciation and thanks for the invaluable support and collaboration provided by the MRCS CEO, Technical Coordination Unit and other sections, the National Mekong Committees, Line Agencies, Development Partners, Programme teams and some other stakeholders. A full list of people met is provided in an Annex 4.

Tauno Kääriä, Mikko Punkari and Anh Thu Tran Minh (Team A), Steve Gossage and Jorma Koponen (Team B), and Teemu Jantunen (quality assurance and backstopping).

² For ToR, see Annex 5

1 INTRODUCTION

1.1 Context

The Programmes MTR is carried out in the context of:

- Rapid national and regional economic growth with expanding demands for energy (e.g. hydropower) and infrastructure.
- Plans to considerably increase agricultural irrigation.
- Pressures on environmental and ecological sustainability of the Mekong.
- Persistent rural poverty in parts of the river basin.
- Regular droughts and severe floods that affect the Lower Mekong Basin (LMB) countries.
- Concerns about climate change impacts.

The MRC Programmes are designed to address such issues. However, following the declaration of the first MRC Summit the vision is for a changed MRC. It is envisaged becoming financially sustained by the Member Countries (MC) by 2030. This will require a more streamlined and lean organisation. At the same time, referring to international models of other river basin organisations (RBO), there are plans to move from the Programme approach to a "Core Functions" approach, with decentralisation of these to MCs as appropriate.

In addition to assessing the progress made in the Programmes and the contribution they have made to the Strategic Plan 2011-2015 (SP), the MTR also considers the consequences of these wider developments as MRC is in a period of major transition. Furthermore, the Programmes MTR is influenced by the draft reports of the Strategic Plan MTR and the Danida review which have been made available to the MTR team.

The MTR has particularly taken into account the proposals to fast track the transition from Programmes to core functions by the end of 2015 and achieving financial self-reliance already by 2020, which seem to be gaining wide support among the development partners. These developments would have a major impact on the priorities of the Programmes already in the present programme period and they would entail reduced donor financing starting from 2016 and phasing out of their financial support by 2020.

This is the first time that there has been an MTR covering the majority of Programmes. This has provided an opportunity to assess whether there have been common features in the successes or delays and difficulties in the Programmes and to make general recommendations for improved performance.

1.2 Methodology

The coordinated mid-term review of the 8 MRC Programmes was carried out by two subteams with one of 3 experts working from the Office of the Secretariat in Vientiane (OSV) and focusing on the 5 programmes based there, and the other of 2 experts working from the Office of the Secretariat in Phnom Penh (OSP) and focusing on the 3 programmes based there. The Programmes reviewed were the Basin Development Plan Programme (BDP), the Mekong Integrated Water Resources Management Project (M-IWRMP), the Initiative on Sustainable Hydropower (ISH), the Climate Change and Adaptation Initiative (CCAI) and the Environment Programme (EP) based in OSV; and the Information and Knowledge Management Programme (IKMP), Flood Management and Mitigation Programme (FMMP) and Fisheries Programme (FP) based in OSP. The team reviewed the changing development context in which MRC functions, as well as the institutional context which is facing a major transition with movement toward core functions and an RBO model, including decentralisation, as well as greater member country financing and ownership with the foreseeable reduction in development cooperation funding in the future. To provide a common organisational basis for the 8 Programmes a brief assessment of MRC was carried out using the 7-S Framework (developed originally by McKinsey Consultants).

In reviewing each of the Programmes the two sub-teams followed the same basic process and used the same basic tools. This involved:

- Review of documentation (see Chapter 6).
- Individual and group interviews of key Programme and MRC staff using interview guide questions / checklists.
- Individual and group interviews of key National Mekong Committee (NMC) staff, Line Agency staff, DPs and other key stakeholders. The sub-teams prepared coordinated interview guide questions for these, with the OSV sub-team covering all Programmes in Laos and Vietnam, and the OSP sub-team covered all Programmes in Cambodia and Thailand.
- The sub-teams came together for a week to share and triangulate their findings and develop a common approach and basic recommendations.
- Individual team members then focused on specific Programmes for further compilation, updating and analysis of data, synthesis of findings and development of recommendations, in particular to assess:
 - The present state of the implementation of each Programme
 - The contribution of each Programme to the outcomes of the SP, and
 - Each Programme against the MRC core functions.
- The initial key findings and recommendations were discussed and developed further through Programme debriefing meetings and follow up work.
- Individual Programme MTR reports were prepared by respective team members, cross checked by their colleagues and quality assured before submission of the first draft.

1.3 The Climate Change and Adaptation Initiative

CCAI activities are designed to produce data, information, knowledge, methods and tools for Member Countries to use in conducting pilot projects and demonstrating adaptation planning and implementation throughout the region. CCAI will assess how climate change affects important water-related sectors as ecosystem, biodiversity, food security, floods, droughts and hydropower. In this work sophisticated climate and hydrological models are used to generate projections of future conditions.

CCAI recommends adaptation options to address the impacts of climate change, especially the transboundary ones. The CCAI has been and will be piloting and demonstrating adaptation planning and implementation throughout the region. According to the PD, flood protection and drought management are the most important issues. Local demonstration sites have been established to test the methodologies, build capacity, start implementation and provide lessons learned. The ultimate target beneficiaries of the CCAI are the people of the LMB, especially the poorest and most vulnerable communities living along the river banks and on the floodplains of the Mekong mainstream and its tributaries. These are the people who are most at risk from floods and droughts.

CCAI will compile the report "Status of Climate Change and Adaptation in the Mekong River Basin". The final product of CCAI will be the "Mekong Climate Change Adaptation Strategy and Action Plan" which should help the authorities to implement adaptation interventions.

2 PROGRAMME ASSESSMENT

2.1 **Programme rationale**

The assessment reports of the Intergovernmental Panel on Climate Change (IPCC) outline the current understanding of the future climate as precipitation, temperature, extreme weather events and sea level rise. Several climate change modelling activities have been implemented in MRC on the impacts of climate change on water resources. The simulations have shown that the Mekong River countries should seriously consider the negative consequences of climate change.

The results from the climate modelling indicate that the Mekong Region will become slightly warmer and the duration of warm periods will be longer. The annual rainfall in the basin was projected to grow and the changes will be spread unevenly. Rainfall has been estimated to increase in the upper parts of the basin but to decrease in the Lower Mekong floodplains. Floods will increase and become more disastrous. The sea level rise is estimated to have a significant impact particularly in the Mekong Delta, affecting both the flooding and the saline water intrusion. Extreme weather events such as typhoons will also become more common.

Climate Change and Adaptation Initiative (CCAI) was mentioned at the MRC Council 14th meeting in 2007 and since that there was a long preparatory phase. The PD for CCAI as an independent programme was approved by the MRC Joint Committee on August 2011 and the compilation of the Final Draft PIP took another year. Thus, the commencement of implementation was very much delayed. CCAI aims at responding to the challenges created by climate change and its impacts on the hydrological systems, socio-economy and environment.

Rationale for CCAI:

In the LMB context, climate change and adaptation is important and has particular relevance to the MRC because:

- Climate change will have impacts on hydrology, ecology, agriculture, fisheries and aquaculture, navigation and hydro-power development, all of which are core interests to the MRC.
- Biophysical changes due to climate change will impact on people's livelihoods, with implications for sustainable development and the well-being of people of the region.
- MRC develops regional-scale tools and plans which are well suited to analysing basin-wide effects such as those expected under future climate change scenarios.
- Climate change will require actions that can address transboundary effects.
- There is a need for raising awareness about climate change and its impacts and as a neutral regional body, MRC is in a good position to fill that role.

CCAI PD 2011

The Goal of the CCAI is "An economically prosperous, socially just and environmentally sound Mekong River Basin responsive and adapting to the challenges induced by climate change", which reflects the MRC Vision. Inherent in the goal is a commitment to poverty reduction, gender responsiveness and ecological sustainability in adapting to climate change. Consequently, CCAI has many connections to the Millennium Development Goals. A recommendation is to add to the list of CCAI activities e.g. "Modelling climate change and its impacts on future hydrology and other climate-related phenomena at the Mekong Basin" as this work makes an essential part of the programme.

The CCAI Objective is: "Climate change adaptation planning and implementation is guided by improved strategies and plans at various levels and in priority locations throughout the Lower Mekong Basin".

CCAI Stakeholders:

The ultimate target beneficiaries of the CCAI are the people of the LMB, especially the poorest and most vulnerable communities living along the river banks and on the floodplains of the Mekong mainstream and its tributaries. These are the people who are most at risk from floods and droughts, and who depend upon the availability of good quality water for agriculture and fish and other aquatic flora and fauna for their livelihoods. It also includes the people living in the watersheds whose use and management of the natural resources can influence the water quality and availability, and whose vulnerability to extreme climate events threatens sustainable watershed management.

Adaptation to climate change will help to reduce vulnerability and encourage greater resilience amongst these communities. Women, children and the aged are vulnerable sections of the community, and adaptation measures will need to be specially designed to take into account their needs and vulnerability.

Climate change threatens all sectors to a greater or lesser degree and the line agencies in each of the key MRC relevant sectors (agriculture, irrigation and forestry; hydropower; navigation; floods and droughts; fisheries) in each of the LMB countries are key stakeholders, with coordination through the NMCs.

CCAI PD 2011

Several programme documents and the PD of CCAI was done under a name "*Climate Change Adaptation Initiative*" which means that adaptation interventions were the main target of the programme – not addressing climate change itself. The PD of CCAI and all the CCAI products and milestones were written considering <u>only climate change adaptation</u>.

However, the name of the programme should be "*Climate Change <u>and</u> Adaptation Initiative*" which means that also climate change as a phenomenon should be included to the work targets. In later versions of documents the name has been changed.

The description of the goals and the list of expected outcomes remained the same, but "Progress of Outputs" includes a number of activities related to climate change studies and modelling. CCAI Outcomes are as follows:

CCAI Outcomes:

Outcome 1. Member countries and MRC pilot and demonstrate adaptation planning and implementation throughout the region, drawing lessons learned from existing practices and demonstration projects with feedback to improve performance and influence strategies and plans.

Outcome 2. Member countries have improved capacity to manage and adapt to climate change at different levels, including in the use of tools for different adaptation planning stages and methods.

Outcome 3. Member countries and MRC have strategies and plans for adaptation at various levels in place, which are regularly updated and integrated into appropriate development plans, with implementation monitored and reported on a regular basis.

Outcome 4. Member countries and MRC implement regional cooperation, exchange and learning through partnerships in a fully gender responsive initiative with a developed long-term sustainability strategy.

CCAI PD 2011

For example, the modelling activities have been done under the outcome 1 (adaptation planning and implementation) even if the title of the outcome does not reflect that. Output 1.1 mentions that the programme will establish climate change database for the Mekong basin. The adaptation planning, demonstration projects, Food Security Study and Ecosystem & Biodiversity study have also taken place under this adaptation outcome 1. Thus, the original list of outcomes (Annex 1) does not cover all the approaches of the CCAI. Such differences

make the review difficult as essential CCAI activities are not reflected in the list of outcomes. However, at the activity level CCAI has now (JAN 2014) prepared an Annex I "Summary of modifications at activity level" to a revised PIP and it has three activities: 1) CCAI Database; 2) Climate Change Modelling and Analysis System; and 3) Vulnerability and Impacts Assessment Tools.

At the beginning of the programme when the main patterns of climate change impacts became understood, focus was put on ways to develop adaptation and resilience of the communities to the hazards. The earlier climate change projections predicted major increase in floods and thus flood protection was seen as a cornerstone of a climate change adaptation programme. The earlier models were not able to quantify and localise the floods well but the results were informative enough to start the adaptation measures.

Consequently, the rationale of the CCAI was at the beginning focused on adaptation planning. The Member Countries supported adaptation intervention works and financing of demonstration projects in the field. Later the use of new datasets and modelling technologies became necessary in order to understand the needs for adaptation intervention, their dimensions and location. This fact is reflected in the latest CCAI AOR 2013.

2.2 Institutional organisation and management

The CCAI is managed by the MRC Secretariat as a cross-cutting initiative, being implemented also by the Member Countries and related MRC programmes. At the regional level, the CCAI is primarily executed and coordinated by the CCAI Programme of the MRCS. In 2013, there were seven staff members working under the CCAI Programme. In 2013 the following staff members were employed: Programme Coordinator, Chief Technical Advisor, 3 Programme Officers, Technical Officer and Administrative Assistant. Before that there were difficulties in hiring the staff which caused delays in implementation.

The CCAI Steering Committee (SC) was endorsed by the Joint Committee in August 2010. The main role of the SC is to oversee the strategic direction of the CCAI's implementation and to maximise national uptake and benefits. CCAI SC is planned to meet at least once a year.

The permanent and ad hoc membership of the CCAI Steering Committee is as follows:

1. Four permanent members from each of the MRC Member Countries

- Three members will be nominated by the national line agencies responsible for climate change and adaptation; they will come from national climate change focal point and key implementing line agency of whom one will be at the Deputy Director-General level.

- One member will be a representative at Deputy Director or Director level of the National Mekong Committee.

2. The Environment Division of the MRC Secretariat: the Director and the CCAI Coordinator.

3. The Development Partners funding the CCAI will be observers at the Steering Committee meeting.

4. Ad hoc advisors or ad hoc observers nominated by respective NMCs or the Environment Division Director as necessary.

The CCAI Regional Technical Working Group (RTWG) was planned to consist of representatives of the national climate change focal points, the CCAI National Coordinators and relevant experts from the Member Countries, but the group has not yet been established. The CCAI Programme Coordinator will chair the RTWG. The main role of the RTWG is to facilitate the implementation of the CCAI and provide technical linkages with the national activities and expertise among the Member Countries. It focuses on the technical design of CCAI activities to achieve the technical outputs, and proposes adjustments to improve implementation performance.

CCAI decided in 2012 to establish the CCAI national coordination units in the NMCs with the recruitment of a CCAI National Expert and a CCAI Administrative Assistant to support the CCAI National Coordinator. By the end of 2013 these positions were filled in Cambodia, Lao PDR and Vietnam but not yet in Thailand.

The CCAI is managed by the MRC Secretariat as a cross-cutting initiative, being implemented by the Member Countries and related MRC programmes. This fragmentation of the CCAI implementation makes it difficult to review the achievements of the programme and is another slowing factor in the implementation.

The budget of the programme has been fully funded with the support from seven Development Partners which are Australia, Denmark, Luxembourg, Sweden, Finland, Germany and the European Union. The total budget of the CCAI for the period 2011-2015 is US\$ 15.9 million.

2.3 Current state of implementation

CCAI has had a difficult and slow start and only recently managed to work as expected. The Outputs by the end of 2013 were worked on but had a slow progress. CCAI identified possible risks for the implementation and considered correctly that the insufficient support from the Member Countries may inhibit CCAI's comprehensive implementation across all outcomes and detain its integrity and momentum. According to the risks identified in the programme documents, some transboundary issues may be too sensitive to attract the needed level of collaboration by LMB countries for adaptation. In addition, many international organisations become involved in activities related to Mekong climate change and adaptation in the region and created confusion and competition in concepts, tools and approaches. The CCAI staff has now an enormous work load and the situation becomes much worse if the programme wants to use its all of its budget before the end of 2015 by starting delayed as well as new activities.

In 2011-2013 CCAI experienced significant delay in implementing activities and difficulty in moving the programme forward due mainly to the lack of staffing. Disbursement of CCAI in 2013 was still lower than expected although the programme has managed to start running its activities. Varied support from Member Countries has led to a halt in convening the Steering Committee meetings, regional programme coordination meetings and regional consultations, and workshops during the whole 2013. This is one of the main reasons leading to delay of implementation and low disbursement rate (CCAI AOR 2013).

There were some earlier national and regional climate change studies which recognised the general pattern of climate change impacts and e.g. increasing floods were predicted. The CCAI concentrated on adaptation interventions, country-run demonstration projects, as shown in the original lists of activities and outputs. The programme produced risk assessments and demonstrated practical adaptation interventions. The quickest way to involve national teams was to collaborate with FMMP and e.g. national flood protection organisations. The most important adaptation interventions have been planned and implemented by CCAI with contribution from FMMP.

The program has included some international consultancies e.g. on climate and hydrological modelling as well as planning of adaptation interventions based on international knowledge. The implementation has actually been progressing in a sensible way as it is assisted by the modelling team of IKMP (and FMMP) and by international consultants with management and contracting support from CCAI.

The sketch below shows the linkages between the outputs and describes well the present outline of the programme (Figure 1). The chart shows how the work of climate change programme starts with climate modelling, continues with impact analyses, planning of adaptation interventions and ends up in strategy preparation. A problem is that CCAI is at the moment still working with the early components (see the boxes of the flow chart; Figure 1) which should have been commenced three years ago. Several high-quality Concept Notes have been prepared to initiate consultancies on climate data and climate change impacts. Of course these studies should have been the basis to plan adaptation interventions. The climate modelling and impact assessment are regional activities while adaptation is largely a national activity.





Source: AOR 2013, Fig. 3.

There is a plan for training-of-trainers to identify adaptation interventions and also learning-bydoing activities in the demonstration projects. NMCs will ask the participants to prepare action plans to respond to climate change impacts in many sectors. The hydrographical changes in the basin are not yet fully understood and therefore flood and drought risks and other climaterelated hazards (extreme events) cannot be localised. Consequently, the socio-economic vulnerability assessment cannot yet fully be conducted. The operational rules of hydropower plant (HPP) reservoirs (discharge regulation) in the tributaries will also make it difficult to predict the future flood risks as they can be used to reduce flood risks.

Recommendation 2.3:1 The focus areas of CCAI should be: 1) Modelling of climate change impacts on hydrology and floods; 2) Modelling and assessing climate change impacts on ecosystems; 3) Modelling and assessing climate change impacts on agriculture and food production; 4) Assessing climate change impacts on extreme weather events and sea level rise. Less important activities shown in the revised PIP should be left out and unused funds saved for 2016.

Recommendation 2.3:2 MRC leadership should assist the CCAI to immediately organise SC meetings and make clear that the programme cannot use the allocated funds if the approval process is non-compliant. Continuous and timely support from Member Countries is the most important issue for the programme to achieve its expected outcomes in the selected priority areas.

2.4 Achievement of Programme Outcomes

A problem in the implementation of the programme is that its activities take place in several different locations which makes the coordination and timing challenging. As a scientific issue climate change belongs to CCAI, but some of the modelling has been done by IKMP and FMMP - by different programmes in a different country and cooperation is not always so smooth. Also international consultants have conducted modelling studies abroad and the results have been submitted to CCAI.

The most important possible impacts of the programme in the countries are still unknown as the main products are under preparation. However, the on-going work of CCAI is valuable and promising. The results will be applied by the other programmes more or less independently. Splitting the team on the basis of research technology is not the most productive way of working. A model is a tool the use of which should be controlled by a researcher who understands well the questions the model is expected to answer. A model is no more a data processing technology.

The problem of shared responsibilities is also evident in the adaptation interventions. Defining the impacts of climate change on hydrology and other climate-related phenomena belongs scientifically to CCAI, but the modelling is done by other teams and then the intervention guidance e.g. in the flood protection is provided by FMMP. This type of an approach is very challenging for MRC and the cooperation between the programmes.

The above issues have made the capacity building quite challenging. The modelling activities are very technical and CCAI does not have trainers who could have time for training (they must manage the use of the extensive budget of the programme). The other programmes again have just done a technical part and cannot necessarily cover the application of the technology. CCAI has used training-of-trainers methods for capacity building. Some academic institutions could also help in this work. Consideration needs to be given to the contents of capacity building. Obviously there is no need for each country to be able to do climate change modelling, but they need to understand the background of the results.

The scientific part of the work including the modelling of climate change and its impacts takes place between CCAI, other programmes and the consultants. The countries will help in data and information collection, field surveys and workshop arrangements. CCAI has conducted Capacity Needs Assessment, Stakeholder Engagement Framework and Capacity Building Plan to involve the countries to the collaboration. The plans characterize which parts of these activities should be introduced to the countries in the capacity building programs. Training courses covering several topics of the programme have been outlined and the implementation will take place 2014. It is necessary to train modelling in the countries to the extent that national LA experts understand the background, reliability and overall information that the models will produce. In some countries there are a couple of skilled modelling experts but most of them are working outside of the governmental line agencies. To ensure sustainability, they should have access to the NMC training courses.

One of the positive issues in the CCAI is the multidisciplinary approach. Climate change will affect many economic sectors and the natural environment. Communities whose well-being depends on natural resources and ecosystem services will be especially affected. Socioeconomic, vulnerability and gender issues have been included in the CCAI activities. Also climate change impacts on ecosystems and food production have tentatively been analysed. According to the observation of the MTR, the experts of the LAs have received basic information on the importance of climate change issues and they understand well the needs for adaptation and resilience.

A review of the achievements in each Outcome has been presented with rating in Annex 2. In the following chapters the main outcomes of the programme will be analysed in details.

Especially the relevance and importance of the CCAI outcomes to the Member Countries will be assessed.

Recommendation 2.4:1 CCAI should not focus its work to practical climate change adaptation interventions only (as e.g. flood protection constructions) which were proposed by the NMCs and LAs in the MTR interviews. CCAI should work with the assessments and sophisticated modelling activities at MRCS as takes place at the moment. In addition, the MTR questions the advisability of trying to immediately have the highest capacity for climate change modelling in the NMCs and LAs of the countries. Later, when the models have been produced, the results can be delivered and also capacity building provided to understand the processes and models.

2.5 Modelling climate change and its impacts

The first expected outcome from climate change work should be *increased understanding of climate change as a phenomenon in the Member Countries.* This outcome is not included in the CCAI PD, but the programme has had activities in this field. The earlier climate modelling work was based on limited observations collected in rather few meteorological stations and also monthly average values were used. Of course there are number of more recent modelling studies, but probably the baseline data is also a problem in them (e.g. USAID Mekong Adaptation and Resilience to Climate Change). As these modelling projects used out-dated methodologies, CCAI has continued working with new climate data sets and modern climate models.

It is necessary for CCAI to update the climate change impact models. For example, the modern satellite based observation systems and reanalysed global datasets make it possible to increase the accuracy enormously. The new baseline dataset may include daily average temperature, daily maximum temperature, daily minimum temperature and daily precipitation data. The spatial resolution of e.g. 0.2 x 0.2 degrees is possible. Also methods to interpolate climate data have developed during the recent years. The fifth assessment report of the IPCC has published new climate projections and several research organisations have computed a number of more accurate climate models.

Recently CCAI has hired international experts to work with climate baseline and modelling as well as to prepare Concept Notes for modern climate studies. Such studies require specialised experts which are found from international firms or academic institutions. It is still uncertain if some of these Concept Notes will be approved. The MTR supports the plans proposed by CCAI in this field.

CCAI has commissioned a project compiling baseline climate data set and trend analysis in the Mekong Basin. The draft report of the project (2014) includes a high quality homogenous climatic baseline dataset for the Mekong river basin, and analysis of trends in climate over the period 1900-2010. The long-term baseline data is and important basis for the subsequent modelling of future climate projections at CCAI.

At the beginning of the programme, the adaptation interventions were planned using results from climate projections which had poor spatial and temporal coverage and uncertainties were significant (e.g. CSIRO 2008 and MRC 2010A projects). CCAI has launched a project "2nd Assessment of Climate Change Impacts on Flow Regime of the LMB" and a simulation together with IKMP and FMMP that predicts future climate and hydrology using the SimCLIM software. SimCLIM is a software package that links data and models in order to simulate the impacts of climatic variations and change, including extreme climatic events, on sectors such as agriculture, health, coasts or water resources. The assessment of impacts of climate change and Adaptation in the Lower Mekong Basin under preparation will

update this knowledge. The compilation of the status report has been delayed and the expert team (including MPCC) has not been nominated.

CCAI has commissioned in 2012 a review identifying existing climate change monitoring systems and indicators to improve the understanding of climate change impacts. The most important information that will be generated is the change of river hydrographs – the daily river flow regime today and in the coming years. This information is used to predict the volume of water resources and likelihood of catastrophic floods or droughts. CCAI is using this information in the planning of adaptation interventions.

A rapid assessment of impact of climate change on crop yields and food balance using FAO AquaCrop model was commissioned (with GIZ assistance) to test the approach and have a quick over view of future trends on food security. CCAI has commissioned in 2013 a modelling study "Food Supply and Demand under Climate Change in the Lower Mekong Basin" providing an explorative outlook on crop production under climate change, and on food requirements and production under climate change. The analysis was carried out for the 15 principal sub-basins of the Lower Mekong Basin. These studies are important considering the nutrition and income generation of rural population. CCAI has planned and implemented basin-wide assessment of impacts of climate change on ecosystems and biodiversity.

Climate change is linked to an increase in the incidence of extreme weather events; i.e., more frequent extreme winds, heat waves, torrential rains and heavy snowfalls in the Himalayas. These extreme events can lead to disastrous impacts on different sectors of the society. The impact of extreme events on society is not dependent on the vulnerability and exposure of the society to extreme events. Vulnerability and exposure depend on the country's infrastructure, including the capacity to operate efficient early-warning systems. CCAI has a plan to tackle the issues of extreme weather events in 2015 but very little work has been done so far.

The work described above is of highest international quality and the results will certainly have a major impact on the overall understanding of the severity of climate change and, subsequently, on regional and national planning. For information dissemination, CCAI has initiated the preparation of a "*Climate Change Atlas*" and "*CCAI information and data website*" with a glossary of climate change terminology.

Recommendation 2.5:1 CCAI should continue working with international consultants and e.g. IKMP and FMMP experts to complete the planned modelling exercises as shown e.g. in the proposed Concept Notes which have not yet been approved by the SC. Thus, the MTR supports the plans proposed by CCAI in this field. So far, the modelling results produced by special experts of climate change and hydrology have been valuable and applicable to the needs of river basin planning and decision-making. Modern datasets, statistical methods and modelling software should be used. This is one of the priority areas.

2.6 Adaptation interventions

A second main outcome is the increased capacity of the Member Countries to plan and implement adaptation to climate change at different levels, including in the use of tools for different adaptation planning stages and methods.

The adaptation work started early in the programme and some national flood protection departments adopted a new function as a "*climate change department*". Some of such departments continued their routine flood protection work as before but collaborated with MRC. Later CCAI provided special guidance for the consideration of climate change specific phenomena introducing methods and tools for identifying and prioritising adaptation options and assessing socio-economic impacts and vulnerability to climate change.

The CCAI worked on impacts and vulnerability assessments and adaptation planning with initial recommendation on adaptation options. Using information compiled in the Member Countries and from international sources CCAI has organised demonstration projects introducing and testing adaptation interventions. The need for adaptation interventions is based on now out-dated information about climate change impacts, but the on-going modelling work will up-date the knowledge during 2014. The technology of interventions has also been reviewed using lessons learnt from other international and national projects. The teams conducting the demonstration projects have formed a network of collaboration and experiences are shared in replication projects. Flood protection activities were mostly planned and implemented by FMMP and the contribution of CCAI has concentrated on socio-economic issues.

The MTR found that the local demonstration projects were considered as a very good exercise for climate change adaptation planning and implementation. Results from the demonstration projects were well received by local governments in the respective provinces. The CCAI demonstration projects have produced some outcomes while other outputs (database, modelling system, methods and tools for adaptation planning, basin-wide studies on floods and droughts) have not yet been in place to produce the expected outcome.

Recommendation 2.6:1 It is recommended that the adaptation planning should continuously be based on new modelling results about climate change impacts. Consequently, the MTR supports the plans proposed by CCAI to produce information on the impacts of climate change on the hydrology and environment of LMB, in general. The design of adaptation interventions should be accommodated to the magnitude of expected hazards as projected by the models. International experience on the design should be utilized as planned.

2.7 Regional climate change and adaptation strategy

Based on e.g. the studies described above, CCAI will compile a regional report on the "*Status of Climate Change and Adaptation in the Mekong Basin*" which will combine all researches, studies and real implementation work on CCAI in the Mekong region. A Concept Note has been prepared for outlining the contents of the report. This document will be a firm basis for the final output of the programme – the climate change strategy. However, the work has not yet been started – only the list of contents has been prepared.

A "Mekong *Regional Climate Change and Adaptation Strategy*" is one among the key products of Output 3. A Road Map guiding the compilation of the strategy has been prepared. It is planned that the Strategy is to be agreed by Member Countries by the end of 2015. In order to do so, other outputs which form the knowledge base for formulation of the Strategy should be made available by 2013-2014. These outputs include information on the change of climate in the region, appropriate climate change scenarios to be considered for the region and their uncertainties, predictions of the impacts of climate change on hydrology and important water-related sectors of the LMB (socio-economic, ecosystem and biodiversity, food security, floods, droughts and hydropower) and suitable adaptation options to address those impacts, especially the transboundary ones. With all the preparatory work to be done for the strategy, it is unlikely that the result will be available during this programme period. In addition, the Member Countries have national strategic plans considering climate change.

Recommendation 2.7:1 "Mekong Regional Climate Change and Adaptation Strategy" will be the final product of the programme and all the other activities should focus to produce material to this document. The status report may be a tentative draft to the strategy. This plan has been proposed by the CCAI team and is supported by the MTR as well. This is a high priority area.

3 CONTRIBUTION TO THE MRC STRATEGIC PLAN

3.1 Contribution to the MRC SP milestones, outcomes and goals

The long-term MRC Goal is "*Member countries manage water and related resources of the Mekong basin in an effective, sustainable and equitable manner*". CC is a cross-cutting sustainability issue. The SP Goal and Outcomes related to climate change are as follows:

Strategic Plan Goal for 2011-2015 requires consideration of impacts of climate change and integration of climate change adaptation in planning and management of water and related resources, which are the main task of the CCAI. The relevant SP Outcomes are:

SP Outcome 1.3

Sector and cross-sector strategies and plans incorporate climate change adaptation planning and implementation at various levels and in priority locations throughout the Lower Mekong Basin.

SP Outcome 2.2

MRC analysis, modelling and assessment tools are effectively used at appropriate levels of planning, decision-making and operational management.

SP Outcome 2.3

Strengthened and improved forecasting, warning and emergency response systems provide timely information on short and medium term regional forecasts, and increasingly assist the Basin countries in flood and drought forecasting...

SP Outcome 2.4

Key water and water use parameters, trans-boundary impacts and other sustainability issues of water utilisation and management, and threats to livelihoods posed by climate change and other emerging environmental issues are researched, analysed, and assessed for national and regional responses.

SP Goal 2011 - 2015

Underlying the goals and actions set out in this Strategic Plan are certain <u>values and</u> <u>principles of sustainable development</u> shared by the Member Countries. They include:

Dealing with climate change effects: Adaptation and coping with <u>climate change</u> is a regional priority. The MRC aims to provide a platform for knowledge sharing and information exchange to strengthen protection from and adaptation to the changes in the Mekong environment and climate.

The predicted changes in precipitation and temperature will affect the Mekong River flows, e.g. the increased flows in the wet season will heighten the risk of flooding and the longer dry seasons may increase the risk and severity of droughts. The Mekong Delta is especially vulnerable to <u>climate change</u> in terms of sea-level rise and sea water intrusion.

Adaptation to <u>climate change</u> will require both local initiatives and policy and institutional responses.

SP Goal 2011 - 2015

The objective of the CCAI responds to this Goal by providing

CCAI Outcomes: Outcome 1. Member countries and MRC pilot and demonstrate adaptation planning and implementation throughout the region, drawing lessons learned from existing practices and demonstration projects with feedback to improve performance and influence strategies and plans. Outcome 2. Member countries have improved capacity to manage and adapt to climate change at different levels, including in the use of tools for different adaptation planning stages and methods. Outcome 3. Member countries and MRC have strategies and plans for adaptation at various levels in place, which are regularly updated and integrated into appropriate development plans, with implementation monitored and reported on a regular basis. Outcome 4. Member countries and MRC implement regional cooperation, exchange and learning through partnerships in a fully gender responsive initiative with a developed long-term sustainability strategy.

3.2 CCAI Outcome 1: Adaptation planning and implementation

Outcome 1	Member countries and MRC pilot and demonstrate adaptation planning and implementation throughout the region, drawing lessons learned from existing practices and demonstration projects with feedback to improve performance and influence strategies and plans.
Output 1.1	Methods and tools for assessment and adaptation planning are developed and the climate change database for the Mekong basin is established.
Output 1.2	Local demonstration activities and projects in adaptation are established and implemented.
Output 1.3	Basin-wide sectoral and trans-boundary adaptation plans/guides are prepared and piloted.
Output 1.4	Lessons and outcomes of the CCAI adaptation demonstration activities are replicated and up-scaled through local, sector and national development planning.
Output 1.5	Analysis of long-term flood management options for the Cambodian floodplain and Mekong Delta to respond to growing pressures from climate change, sea level rise, land development and upstream development plans is conducted.
Output 1.6	Analysis of drought risk and vulnerability considering climate change is conducted and options for climate change adaptation is developed.

CCAI activities are designed to produce data, information, knowledge, methods and tools for Member Countries to use in conducting pilot and demonstrate adaptation planning and implementation throughout the region. CCAI is monitoring and modelling climate change and its impacts and supports thereby broadly decision-making. All these activities contribute to the **SP Specific Goal 2** "Operational system for basin-wide monitoring, impact assessments, modelling, forecasting and knowledge management to support effective decision making" and the **SP Outcome 2.2** "MRC analysis, modelling and assessment tools are effectively used at appropriate levels of planning, decision-making and operational management".

The Output 1.6 includes also emergency preparedness which contributes the **SP Outcome 2.3** "Strengthened and improved forecasting, warning and emergency response systems provide timely information on short and medium term regional forecasts, and increasingly assist the Basin countries in flood and drought forecasting, operational forecasts for shipping and contingency planning for pollution incidents". CCAI prepares models of e.g. food production and this is related to the **SP Outcome 2.4** "Key water and water use parameters, trans-boundary impacts and other sustainability issues of water utilisation and management, and threats to livelihoods posed by <u>climate change</u> and other emerging environmental issues are researched, analysed, and assessed for national and regional responses".

3.3 CCAI Outcome 2: Capacity building on climate change adaptation

Outcome 2	Member countries have improved capacity to manage and adapt to climate change at different levels, including in the use of tools for different adaptation planning stages and methods.
Output 2.1	Institutional capacity in policy making and planning for climate change adaptation in the LMB Countries is strengthened.
Output 2.2	Tools for adaptation planning and implementation are documented and capacities are built in their application.
Output 2.3	Capacity to monitor and report on progress and performance on climate change and adaptation of LMB governments at all levels and of the MPCC members is built.

This Outcome concerns with building the capacity of LMB institutions, specialists, programmes and communities in adaptation planning and implementation, including in the application of planning and assessment tools developed under Outcome 1. These activities contribute to the **SP Specific Goal 1** "Application of IWRM-based basin development and related sector strategies and guidance".

Three Outputs are related to Institutional capacity (Output 2.1), Capacity in application of tools for adaptation planning (Output 2.2), and Capacity to monitor and report on climate change and adaptation (Output 2.3). These outputs contribute the **SP Specific Goal 4** "*Capacity developed for IWRM policy adoption and implementation within the framework of the MRC mandate*".

3.4 CCAI Outcome 3: Adaptation strategies and plans

Outcome 3	Member countries and MRC have strategies and plans for adaptation at various levels
	in place which are regularly updated and integrated into appropriate development
	in place, when are regularly aparent and integrated into appropriate development
	plans, with implementation monitored and reported on a regular basis.
Output 3.1	Policy frameworks to facilitate and guide adaptation are in place.
Output 0.1	
Output 3.2	A system for monitoring and reporting on the status of climate change and adaptation in
•	the Mekong region is implemented.
Output 3.3	A CCAI communications plan is prepared and implemented.

Having strategies and plans for adaptation in place at various levels is crucial for adapting to climate change as pointed out by the **SP Outcome 1.3** "Sector and cross-sector strategies and plans incorporate climate change adaptation planning and implementation at various levels and in priority locations throughout the Lower Mekong Basin".

The Outputs are planned to consisting of: Policy frameworks to facilitate and guide adaptation (Output 3.1), Monitoring and reporting system on the status of climate change and adaptation in the Mekong region (Output 3.2), and Communications (Output 3.3). These Outputs are related to the **SP Specific Goal 1** "Application of IWRM-based basin development and related sector strategies and guidance". The harmonisation of adaptation and climate change monitoring procedures complements the **SP Specific Goal 3** – "Efficient dialogue and coordination processes between basin countries and other stakeholders for effective regional cooperation".

Within CCAI's scope of work, Output 3.1 on "Policy frameworks to facilitate and guide adaptation" will contain a Mekong Climate Change Adaptation Strategy and Action Plan, regional climate change and hydrological scenarios, a guide to integrate priority regional and transboundary issues into national adaptation plans, guides for local adaptation plans, guides

for integrating climate change and adaptation into SEA and EIA, guides for sector-specific adaptation plans and design standards and action plans for transboundary natural systems. The purpose of these activities is to contribute to the **SP Specific Goal 4** "*Capacity developed for IWRM policy adoption and implementation within the framework of the MRC mandate*".

3.5 CCAI Outcome 4: Regional co-operation and partnerships

Outcome 4	Member countries and MRC implement regional cooperation, exchange and learning through partnerships in a fully gender responsive initiative with a developed long-term sustainability strategy.
Output 4.1	Partnership agreements and working relations are established and maintained with the CCAI core implementing partner organisations.
Output 4.2	Appropriate institutional arrangements, staffing and capacities are in place within the MRCS and NMCs.
Output 4.3	A harmonised system is set up for regular CCAI reporting on progress and plans to the MRC JC and Council, donors and partners.
Output 4.4	Financing for the CCAI is secured for the three five year cycles.
Output 4.5	Regular review and revision of CCAI is conducted.

Regional cooperation, exchange and learning are needed in recognition of the long-term nature of adaptation to climate change and the need for steady and continuous support to Member Countries. The Outputs contribute the **SP Outcome 1.3** "Sector and cross-sector strategies and plans incorporate climate change adaptation planning and implementation at various levels and in priority locations throughout the Lower Mekong Basin".

CCAI develops co-operation, policy adoption and institutional development via five Outputs: Partnerships (Output 4.1), Institutional arrangements, staffing and capacities (Output 4.2), a harmonised system for regular CCAI reporting on progress and plans (Output 4.3), Secured financing for the CCAI (Output 4.4), and Regular review and revision of CCAI (Output 4.5). These activities are related to the following SP Goals:

SP Specific Goal 3 – "*Efficient dialogue and coordination processes between basin countries and other stakeholders for effective regional cooperation*"; **SP Specific Goal 4** "*Capacity developed for IWRM policy adoption and implementation within the framework of the MRC mandate*"; and **SP Specific Goal 5** "*Efficient organizational transition of MRC for implementation of its core functions and full riparianisation of its Secretariat*".

MRC and also CCAI focus on institutional, human resources and financial management and administration of the activities and on supporting policy development required to build the future sustainability of the organisation as it starts the transition to decentralising the programme activities. This work supports the **SP ORGANISATIONAL GOAL 5** "*Efficient organisational transition of the MRC for implementation of its core functions and full riparianisation of its Secretariat*".

3.6 "Decentralisation", "Integration" and "Riparianisation"

CCAI has collaborated with flood management organizations in the countries. In fact, CCAI just joined the existing expert groups and started to provide them with knowledge on climate change adaptation interventions. Demonstration projects were well received also in the province level. In the Member Countries, the CCAI has provided useful examples of provincial adaptation planning that complements the many other programmes for decentralized responses to climate change. The primary impact has been to set an example of developing a provincial and local climate analyses and a preliminary strategy of adaptation. This of course should be a national activity.

CCAI has not been in a favourable position to decentralise its most sophisticated activities, modelling and information management. Climate change modelling needs special expertise and only few experts in the Member Countries are able to join the work. However, the international consultants prefer to conduct their modelling work at home office where they have all the necessary facilities. However, CCAI has tried to organise training events on modelling in the countries. It is questionable how much actual climate change modelling skills need to be developed nationally as climate change is indeed a transboundary or basin wide phenomenon.

It is likely that CCAI should downscale its activities a lot when the core function system will be adopted. Probably the focus then should be on the following: 1) follow-up of international and national climate change knowledge and summarise it; 2) contribution to basin scenarios and strategies; and 3) advisory services related to climate change impacts and adaptation options to the sectors where these may be significant concerns.

CCAI has been concerned about the limited remaining time for the PIP implementation and the agreed roadmap for decentralisation of core functions. Therefore, CCAI will seek approval from SC to re-prioritise its activities and expected outputs.

Recommendation 3.6:1 CCAI should concentrate on its priority activities without any burden to decentralise before the end of 2015. CCAI is not a programme which could swiftly be squeezed to a format of core functions typical to River Basin Organisations, and climate change is a typical transboundary and basin-wide phenomenon which has to be addressed regionally. There is little that can be decentralised to the NMCs.

3.7 Inter-Programme coordination

Coordination with other programmes has intensively been pursued. Several inter-programme working sessions and exchanges were held with other programmes of MRCS to agree on joint work plans (IKMP, FMMP), collect comments on CCAI monitoring indicators (BDP, EP, ISH, IKMP, AIP, FP), inventory of data for baseline assessment (AIP, EP, FP, BDP, FMMP, IKMP), etc. Internal Agreements stating funding for shared outputs and roles of each programme were arranged with DMP and FMMP.

A number of basin wide studies have been planned as a part of the work of CCAI (either directly or through support to other programmes) during the period 2014-2015. These studies include the effects of climate change on flood risk, on drought management, on ecosystems and on food security. CCAI coordinates the studies with other MRC programmes and initiatives in the region. CCAI has prepared Concept Notes and supporting technical background materials and consulted on the approach and issues with MRC member countries.

Because of the delayed start, CCAI has substantial financial resources left for the last two years. A plan of the CCAI team is to use in the implementation more experts of other programmes from e.g. IKMP and FMMP. However, it is doubtful if those programmes would be able to support the CCAI functions enough with staff inputs related to climate change and adaptation. It is also questionable whether the funds should be used for practical flood protection works managed by FMMP (as proposed at the NMC level). It is not necessary to use all the allocated funding during the remaining period if climate change related work cannot be commissioned.

Recommendation 3.7:1 CCAI should have in other programs focal experts committed to work for CCAI or preferably seconded experts from other programs in the CCAI team at Vientiane. Splitting the team on the basis of research technology is not the most productive

way of working. This is probably one of the main reasons for the inefficient use of funds allocated.

4 THE REMAINING PROGRAMME PERIOD

It is doubtful that CCAI will be able to use the allocated financial resources in the present programme period in a meaningful way with the present staff (Figure 2). Because of the delayed start, the budget for 2015 is three times higher than 2013 and 2014. A plan of CCAI is to use experts from other programmes as IKMP and FMMP. However, it is not likely that those programmes would be able to support the CCAI functions so much with inputs related to climate change and adaptation. However, contrary to the understanding of the MTR the CCAI team still believes that with mobilisation of internal and external resources (international consultants or companies), IKMP and FMMP can still implement a main part of the work plan and thus spend significant part of the funds.

In general, there is substantial amount of finance for CCAI considering that only 5 riparian professionals are working at CCAI in the MRCS. So far the performance has been rather modest and CCAI has been inefficient in using the funds. One way to suddenly increase the efficiency is to hire international consultants to conduct various modelling projects. Such information is needed and the models, maps and statistics they can produce could form basis for adaptation and assessment projects in the countries. However, preparing and approving concept notes and ToR's for such work will take a long time and time available will most probably be running out.



Figure 2. The CCAI Expenditure against the Budget 2011 - 2015

CCAI can also strengthen its activities in the countries. From 2012 attempts were made to build up the CCAI national coordination units in the NMCs with the recruitment of a CCAI National Expert and a CCAI Administrative Assistant to support the CCAI National Coordinator. By the end of 2013 these positions were filled in Cambodia, Lao PDR and Vietnam but not yet in Thailand.

Facing change in staffing, pressure to complete the required outputs of the 1st phase 2011-2015 in the remaining two years, and expected structural change following MRC decentralization roadmap, in 2014 CCAI will need to re-prioritise its activities. Continuous and stable support from Member Countries is, more than ever before, the most critical condition for the programme to achieve its long time expected outcomes.

In 2013 the CCAI Design and Monitoring Framework was revised. It sets out the components of the CCAI 2011-2015 including the Goal, 4 Outcomes, 17 Outputs and 42 Activities. The Activities are defined contributing to the achievement of each Output. This Framework also sets out indicators to measure CCAI's progress, achievement and impacts. CCAI has now (JAN 2014) prepared a new draft PIP version and an Annex I "Summary of modifications at activity level" to a revised PIP.

Probably the best option for CCAI would be to focus its work on the high priority activities and make good achievement there, and save the rest of the funds as buffer for 2016. This plan should be discussed with the donors for approval. Furthermore, high focus should be on the preparations to move towards the core functions by preparing related work plans and detailed budgets. It is necessary to find ways how to outsource the scientific part of the climate change research to universities, research institutes and special specialised climate change departments.

Recommendation 4:1 CCAI should simplify the recent draft work plan and related budget by selecting the focus areas. The work plan includes a number of activities which should have been started 1-2 years ago but have been delayed (cf. CCAI PD 2011; Table 8: Key CCAI products and milestones for 2011-2015; and Annual Outcome Report 2014). Because of the delays, the focus now should be in the priority areas. Attempting to start the postponed, less important activities at this stage would blur the focus and stretch the limited staff resources to much. There is also overlapping in the activities and some are irrelevant or less meaningful and all of them have significant costs. A recommendation is that CCAI should concentrate on the key activities supporting the strategy preparation and leave out most of the less important activities of the PIP and save the funds using a procedure agreed with the donors.

5 COMMON ISSUES TO PROGRAMMES

This is the first time that there has been a MTR covering the majority of Programmes. This has brought up issues which are not programme specific, which are common to several or all programmes and which otherwise are important from the point of view of the programmes.

The following considerations are based on foreseeable or very likely developments, such as:

- The transition from programme based operations to core river basin functions
- Decentralization of activities that are not necessary to undertake at the regional level
- Changes in the planning process of MRC
- Reduced donor funding starting from 2016
- Possible cessation of donor funding for programmes after 2015, and consideration of basket funding based on core functions
- Pressure to reach self-financing of MRC by MCs already in 2020.

The present 12 Programmes are funded by the development partners. There are no financial contributions from the member countries. Some of the programme budgets indicate a figure for national or member country contributions but that is understood to be a contribution in kind. Details of those contributions have not been presented and the use is not accounted for.

The total funding for the programmes for the period 2011-2015 is USD 100.9 million. By the mid-term point at the end of June 2013, 40% of the funds have been spent. Over the years 1995-2015 the donor financing of the programmes amounts to USD 323 million.

In general the original programme budgets have been revised down in 2012 and 2013 because of slow implementation during the first two years. In order to plan for full utilisation of the original planned expenditure, the budgets for 2014 and 2015 have been revised sharply up. One programme has prepared a long list of new activities for the remaining period but many of those activities seem artificial and cannot easily be related to reaching the objective of the programme.

The SP MTR concluded that "*it is doubtful that all programmes can complete implementation and spend all their funds by the end of 2015. If, as it is currently planned, programme funding in the next SP period is replaced by core funding on a basket basis, then there will be unspent funds available from the present SP period that may be available for core funding, if the donors agree to such an arrangement.*" After a closer review of the programmes the Programmes MTR agrees with this conclusion, unless funds are spent very carelessly.

In this situation the MTR was unable to make any recommendation on shifting funds from an "overfunded" programme to an "underfunded programme". There was no obvious "underfunded" programme at the time of the review.

Recommendation #5.1:

There is no obvious reason why programmes, after the delays so far, should try to spend all the funds available by the end of this programme period. It is recommended that funds that are not spent after normal reasonable programme implementation should be saved so as to safeguard funding for the transition period from programme based to core function based funding of the operations.

According to the SP MTR "*DPs are considering significant reductions in funding in the 2016-2020 period with some existing donors phasing out funding to MRC from 2020.*" This was confirmed by the interviews that the Programmes MTR had with donors. Not only would there be a reduction in funding but donors would not be willing to continue funding on a programme basis after 2015, not even on a no-cost basis where unspent funds could, as usual, be used

for an extension. Furthermore, there was a growing sentiment that the target of self-financing of MRC by the MCs should be advanced to 2020. There seems to be preparedness to consider basket funding on a core function basis.

This would mean quick and radical changes which should be taken into account already in the remaining programme period. Moving from programmes to core functions will also significantly affect the financial situation of the MRC as programmes have contributed an 11% overhead payment for administration and management. The more savings that could be accrued during the remaining programme period, without hampering the results of the programmes, the more funds there would be available for buffering the transition period into a core functions model.

Moving into the core functions model in MRC's operations also entails decentralization of activities that need not be carried out on a regional basis.

With these considerations in mind the MTR made a rough assessment of the programmes in order to see where possible savings could be made. It was revealed that in most programmes the largest budget item was for meetings and workshops. Funds have been earmarked for covering the costs of a very large amount of national and regional meetings and workshops. This is an area where considerable savings could be made without hampering the objectives of the programmes.

First of all, there is a need to scrutinise carefully the need of all the meetings. The interviews revealed that it seems that many meetings are not fully justified from the point of view of programme implementation. Also, with modern technology there should be much less need for physically gathering to a meeting. NMCs should have the necessary equipment for holding video conferences.

Furthermore, in the course of decentralization national coordination meetings are certainly items that can and should already have been decentralised and covered from national budgets of the MCs.

In addition, MRC should as soon as possible change the rules and bring the rate of per diems down from the UN level closer to the level of national rates in the region. This already would bring down the costs and accrue savings. Also the interviews revealed that it is widely believed that the attractive per diem rates of MRC compared to the national rates and local salaries may be an incentive for arranging meetings that are not always fully justified. Changing the rules would end these rumours.

And finally, MRC should move to the widely accepted practice in international organisations that participating countries cover the travel costs of their participants to meetings and workshops. The organisation covers other meeting costs. Regional meetings should always be held in MRC premises in Vientiane or Phnom Penh. This would make it much easier for Lao PDR and Cambodia to cover the travel costs of their participants. In addition, there would be considerable savings in the costs of participation from MRCS. The international practice should be adopted that whenever meetings are held outside the premises of the organisation the host country covers the meeting costs.

Recommendation #5.2:

It is recommended that:

- MRC revise the rules covering per diems as soon as possible
- Already during the remaining programme period, MCs should cover the costs for national coordination meetings

- MRC moves to the practice that MCs cover the travel costs of their participants to regional meetings
- That regional meetings be held as a rule at MRC premises in Vientiane or Phnom Penh
- NMCs are provided with the equipment for video conferences.

Another large item in the programme budgets is capacity building. The MTR is of the view that there could be considerable savings in this area as well. There could be cost savings in the benefits to the participants if the rules would follow what is proposed with meeting costs. While the MTR is not disputing the notion that particularly the poorer countries may need capacity building there are certain questions to be raised about it.

First of all, is it the role of a regional organisation like MRC to provide capacity building to national institutions and agencies in the member countries? Capacity building at MRCS and NMCs is not questioned. There are differing views on the question but the question alone should be a reason for seeing capacity building as one of the first items to be decentralized. The MCs would have to cover the costs in any case after self-financing and capacity building on a national basis would most probably cost-wise be more efficient.

Second, the MTR did not find hard evidence on the outcomes of capacity building activities. The improvement of the capacity has generally not been assessed or measured. It seems that capacity building activities may also not have been planned in the most effective way. Only in a few cases has a capacity building needs assessment been carried out but at a late stage so that only few activities have been based on the results of the needs assessment. The MTR did not find evidence that capacity building efforts would have changed the working patterns of people in the LAs. Thus the outcomes of capacity building must be questioned.

The interviews revealed that there are also haphazard practices in carrying out capacity building activities. There have been occasions where only one or two of the participants to a training course have ever before had experience in the subject matter of the training, and perhaps only one or two, if any of the participants continue in the said field when back in the country. This is a waste of funds. Another programme complained that generally speaking the basic level of the participants to the training course was so low that they could not benefit anything from the course, with a few exceptions.

The programmes do not have a chance to screen the participants beforehand. Participants are chosen by the NMCs but the selection process is not transparent. The MRC Programme Manual is clear on capacity building activities: "*The programme manager/officer should ensure that only suitable candidates are selected for training measures, in consultation with the NMC and the line agencies.*"

Recommendation #5.3:

It is recommended that:

- MRC revise the rules covering per diems as soon as possible
- Capacity building should not be carried out unless a needs assessment has been completed and there are detailed plans for how capacity building will be carried out and the results monitored
- Plans should be made as soon as possible for decentralizing capacity building at national institutions and LAs

A third area where one could seek for savings in the programmes is consultancies, which also represent a large chunk of the programme budgets. Consultants are, however, most often hired for a substantive input in the programmes and therefore cuts in consultancy services would have a direct impact on the substance of the programmes.

Savings could be sought by replacing international consultants by regional ones but according to interviews there have occasionally been difficulties in finding qualified regional consultants. Also the fees of the most qualified regional experts are close to the international level.

Considerable savings could be obtained if the tasks now undertaken by outside consultants would be performed by MRCS or NMCS staff members. The profile and qualifications of staff members are, however, at present generally not such that they could undertake the assignments of the consultants. Their tasks are largely related to programme management and administration rather than specific substantive topics.

Also the personnel policies of MRC are not conducive to building up the required expertise within the secretariat. Recruitment of staff members from the region is not done on an open basis. NMCs have a central role in proposing staff members to be recruited and the selection process in the countries is not transparent.

Furthermore, the 1995 Agreement sets a limit to the service period of riparian staff and contracts are made only on a 3-year basis. In addition, there is an annual not so transparent performance assessment of all staff members. These features of the personnel policy do not provide the type of job security that would attract best qualified people to seek employment at MRCS.

Recommendation #5.4:

The MRC staffing policies should be amended so as to build a strong cadre of staff.

Generally speaking the overall progress of the programmes has been clearly less than planned. There are several reasons for the slow progress. In some programmes there was a spill-over of activities from the previous phase to the early period of the present phase which delayed the start of the present phase implementation. Other programmes experienced shortage of funds in the beginning of this period. Progress in others was blocked for other reasons.

However, one common feature in the programmes is slow management processes which also the SP MTR noted. The SP MTR noted that "*The requirement of unanimity in decision making… and the comprehensive role of the NMCs in consultation, approval and clearance of multiple aspects of MRC work.*" The Programmes MTR studied this issue further.

After wide national and regional consultations MRC approved the Programming Manual which describes an efficient and effective programme management process. The starting point for MRC interventions should be the needs and priorities of the riparian Governments. The linkage to national concerns is crucial, according to the Manual.

Therefore, and in order to safeguard that the needs and aspirations of the MCs are duly taken into account, the identification, preparation and formulation of programmes must be carried out in a consultative and interactive manner which involves all the NMCs and through them the relevant LAs in national and regional consultations on several occasions in the process.

The Programme Manual foresees several levels and steps of consultations but at the same time warns programme preparation teams of "workshop anticipation" (stakeholders expect to participate in a workshop); "workshop tourism" (inappropriate participants in terms of level of responsibility, technical expertise, English language skills, etc.); and "workshop fatigue" (key people are obliged to attend too many workshops).

The result of the preparation phase is a Proposal which is presented for approval. The Manual notes that according to "Article 18 of the 1995 Agreement, every new programme or intervention to be undertaken by MRC has to be endorsed by the MRC Joint Committee and approved by the MRC Council". The Council approval represents the formal agreement by the MRC governing bodies that the CEO may seek funding and technical assistance for the Programme. Once, the Programme is approved, the detailed arrangements like developing a detailed project documents and grant agreements are the responsibility of the MRC Secretariat.

After the high level approval of the Programme programme management is clear. "*MRCS is the Executing Agency of all MRC Programmes and is responsible for the planning and overall management of programme and project activities, reporting, accounting, monitoring and evaluation of the programme or project*". Once a programme/component/project has been approved and funding arrangement are in place, the execution of the programme/project is under the direct responsibility of the designated Programme Manager/Officer.

The Programme Manual spells out the role of NMCs and LAs in the implementation of programmes. The Manual does not see that NMCs would have any consultation role in the implementation of programmes, obviously because the programme has been approved at the highest level and implementation has been delegated to MRCS. Why should NMCs then demand a consultative role in details of the implementation process, as they have done, which is a heavily delaying factor?

The Programme Manual does not speak of a programme Steering Committee but as most programmes have established on the role of finding a compromise in a programme implementation matter should be with the Steering Committee which represents both MCs and DPs, rather than reverting to lengthy and expensive national and regional consultation processes.

Another delaying factor in programme implementation is the difficulty to arrange meetings in practice. This may be related to the large number of MRC programmes and related large amount of meetings (too many meetings at the same time).

Recommendation #5.5:

MRC should arrange meetings to the extent possible through video conferences and arrange meeting only on the most important issues. This should make it easier to arrange the meetings.

The Programme Manual introduced the logical framework approach as the official planning procedure in MRC. All programmes and their components must be designed using this format. The Manual explains the logical thinking process one has to go through in designing a programme. Work plan is a separate planning and management tool from a logframe. According to some interviews the logframe approach was introduced at the insistence of DPs. The logframe is also the basis for monitoring progress in the programmes.

The logframe approach was developed for better preparation and monitoring of development projects and programmes. However, a very mechanical application of the logframe tends to direct the attention of programme managers more to the level of activities and outputs rather than the more important level of outcomes and impact. This is apparent from the difficulties the programmes in general have in reporting on the outcomes of the programmes.

The logframe was developed for the project level but MRC has applied it also to the strategic level in SP 2011-2015. The result was that the strategic focus was blurred by the details of the logframe outcomes, outputs and indicators. This made it difficult to grasp the nature of the SP

2011-2015 document which was testified not only by the MTR team but also by many programme staff members according to the interviews.

The introduction of the logframe at the SP level also made to monitoring system very complicated and heavy. The SP matrix was developed on top of the programme matrixes and the result was that there was over 2000 indicators that programme officers had to follow and report on. When this was realized the number of indicators was cut down to "only" over 1000. Programme officers have complained about the heavy, cumbersome and time-consuming system.

There are plans for a simplified planning system of MRC. The basis for the planning would be the Status of the Basin report which should be developed into a high quality baseline report. The strategic choices would be presented in a development scenarios report which should present opportunities and risks. The scenarios report should be the basis of high level strategic decision making which would result in a Strategy document on basin development and management. The strategy would be implemented through an Action Plan which would include the necessary regional action and that of MRC as well as national actions as far as the basin and transboundary activities are concerned.

According to the interviews there are plans to introduce the logframe approach also to the Strategy document to be prepared. In view of the MTR this project level tool should not be applied to the strategy level. The scenarios and Strategy documents are high level documents to be considered at the ministerial level. At that level the focus of the document should be very clear and should not be blurred with details of outcomes, outputs and indicators. The logframe approach could be used in a not so heavy way on the action plan level. It should be noted that the logframe is not an organisational management tool once MRC moves into the core functions set-up.

In the progress reports the programmes describe the achievements made and estimate the progress in terms of an estimated percentage of implementation. The estimate is not based on clear factual steps but it gives an indication of what the programme "feels". While this seems an acceptable way of estimating progress, in the absence of clearly measurable steps, it would be also helpful if the programmes would also include an estimation of whether the result can be achieved within the planned programme period.

As regards monitoring through expenditure figures, the MRC accounting system cannot produce expenditures against planned outcomes and outputs. Expenditures are of course not linear during the implementation period but such expenditure information would give an additional indication of the progress made and possibilities of achieving results by the end of the budget period. Now MRC can only produce expenditure figures based on the budget lines of the Salomon accounting system. Some programmes maintain a manual record of expenditures against outcomes and outputs which in this time and age seems rather primitive.

There is a need to develop reporting on funds allocated from one programme and implemented by another one. Now it is difficult to trace the use of funds or assess the results achieved.

Recommendation #5.6: It is recommended that:

• The planning and monitoring system based on the logframe approach should be simplified and the focus of reporting should be on outcomes, not activities and outputs which are not very useful for MRCS management or MCs and DPs. Activities and outputs can be monitored at the programme management level. Consideration should be given to developing short and concise 'deviation reporting' for MRCS management

- The logframe approach should not be applied at the strategic level and strategic documents should be kept focused and separate from action plans and implementation
- MRC should develop the accounting system so that expenditure figures can regularly be obtained against outcomes and outputs.

As there is a strong likelihood that DPs will not continue financing of MRC on a programme basis after 2015 MRC and the programmes should give high priority to concluding the preparations on moving to the core functions set-up. The plans should be ready early enough for the DPs to assess whether they will be willing to continue their support on a basket funding basis and can have funds released already in the beginning of 2016.

The recruitment of a consultant to undertake an institutional study for the core functions set-up should be concluded as soon as possible because it is very possible that the new set-up will require also institutional changes.

The organisational units that will carry out the core functions should have their mandates and terms of reference as well as the longer term work plans and detailed annual work plan for 2016 with the corresponding budgets ready at an early stage. In the view of the MTR that should be a sufficient basis for the DPs to consider basket funding.

Recommendation #5.7:

It is recommended that plans for transforming MRC into an organisation based on core basin management functions be given high priority so that the proposals could be presented early enough to the DPs so they can decide on basket funding already from the beginning of 2016. Plans for decentralization would accompany the transformation plans.

The move towards core basin management functions is a step in the direction of MRC taking an RBO role. Comparable RBOs in Europe for instance to not undertake deep going assessments or research work. The RBOs use the information developed by universities and research institutions in the countries or internationally.

It is clear that sustainable management of the Mekong basin requires much more research and information than is presently available to MRC. However, the universities and research institutions in the region are not at present undertaking such research and developing the information and may not have the required funds to do so. It is likely that a self-financed MRC would not have the funds to undertake the work.

In order to address the issue, MRCS should in the new structures develop knowledge management services that would collect all the internationally available information on the river and the basin and keep that information available for MRC and the MCs and others.

In addition, consideration should be given to the establishment of a Trust Fund (TF) for research on the side of MRC. DPs could support the TF while their financing for the MRC core functions would diminish. The TF would be based on basket funding but those who have special budget funds for climate change or other particular issues could earmark their funds within the TF. MCs would of course also be welcome to contribute to the TF as would other donors such as the WB, ADB etc. The TF need not be overly large. All contributors would be on the decision making Board while the TF would be managed by MRCS.

MRCS as well as the regional countries (including China and Myanmar) could apply for funds for their own basin wide or transboundary research needs. Universities and research institutes could also apply for funds by submitting a research plan on subjects covering the basin or transboundary issues. In approving proposals preference would be given to those where two or more regional universities or research institutions would be involved and further preference would be given if international universities or institutions would be partners in the research. This approach would over time develop the regional capacities and knowledge. The information would be available to all on an open platform. MRC would decide how it would wish to make use of the information.

Recommendation #5.8:

It is recommended that consideration be given to establishing a Trust Fund for financing high level research and studies regarding basin wide or transboundary issues of the Mekong Basin³. MRC has the vision of becoming a world class International River Basin Organisation. Therefore it should base its decisions on world class information.

³ The MTR learned that some years back there were discussions about establishing a Trust Fund at the Asian Institute of Technology, AIT, but the idea fell through. The MTR is not aware of the details. However, this proposal is not related to the previous ideas and this would be a Mekong specific TF. This TF need not be large in size.

6 MAIN DOCUMENTS REVIEWED

Mekong River Commission (2009). Climate Change and Adaptation Initiative: Framework Document for Implementation and Management. Vientiane: Mekong River Commission.

Mekong River Commission (2011) CCAI Climate Change Adaptation Initiative 2011-2015 Programme Document.

Mekong River Commission (2012) CCAI Climate Change and Adaptation Initiative (2012) Programme Implementation Plan (PIP) 2011-2015

Mekong River Commission (2014) CCAI Climate Change and Adaptation Initiative. (2014) Annual Outcome Report. January – December 2013.

Etc.

CCAI Goal 2011-2015 An economically prosperous, socially just and environmentally sound Mekong River Basin responsive and adapting to the challenges induced by climate change				
CCAI Objective 2011-2015 Member Con improved st	untries guide climate change a trategies and plans at various l	daptation planning and implementat evels and in priority locations throug	tion by applying shout the Lower	
CCAI Outcomes 2011-2015	↑	↑	1	
Outcome 1 Member countries and MRC pilot and demonstrate adaptation planning and implementation throughout the region, drawing lessons learned from existing practices and demonstration projects with feedback to im- prove performance and influence strategies and plans.	Outcome 2 Member countries have improved capacity to manage and adapt to climate change at different levels, including in the use of tools for different adaptation planning stages and methods.	Outcome 3 Member countries and MRC have strategies and plans for adaptation at various levels in place, which are regu- larly updated and integrated into appropriate development plans, with implementation monitored and reported on a regular basis.	Outcome 4 Member countries and MRC implement regional cooperation, exchange and learning through partnerships in a fully gender responsive initiative with a developed long-term sustainability strategy.	
Output 1.1: Methods and tools for assessment and adaptation planning are developed and the climate database for the Mekong basin is established. Output 1.2: Local demonstration activities and proje adaptation are established and implemented. Output 1.3: Basin-wide sectoral and trans-boundary adaptation plans/guides are prepared and piloted. Output 1.4: Lessons and outcomes of the CCAI aday demonstration activities are replicated and up-scale through local, sector and national development plan Output 1.5: Analysis of long-term flood management options for the Lower Mekong Basin to respond to g pressures from climate change, sea level rise, land development and upstream development plans is co Output 1.6: Analysis of drought risk and vulnerabil considering climate change is conducted and option climate change adaptation is developed.	Output 2.1: Institutional capacity in policy making planning for climate char adaptation in the LMB Countries is strengthene Output 2.2: Tools for adaptation planning and implementation are documented and capacit built in their application growinged inning.ed growingconducted litylity ns forevents for adaptationevents implementation are documented and capacit built in their application progress and performance climate change and adaptation progress and performance climate change and adaptation	I Output 3.1: Policy 0 ng and frameworks to facilitate a and guide adaptation are in place. i place. 0 i ed. Output 3.2: A system for 0 ind on the status of climate a ind on the status of climate a change and adaptation in I I ties are the Mekong region is 0 implemented. Output 3.3: A CCAI I communications plan is prepared and a ptation implemented. a	Output 4.1: Partnership agreements and working relations are established and maintained with the CCAI core implementing partner organisations. Output 4.2: Appropriate institutional arrangements, staffing and capacities are in place within the MRCS and NMCs. Output 4.3: A harmonised system is set up for regular CCAI reporting on progress and plans to the MRC JC and Council, donors and partners. Output 4.4: Financing for the CCAI is secured for the three five year cycles. Output 4.5: Regular review and revision of CCAI is conducted.	

ANNEX 1. Programme Results Chain

ANNEX 2: Progress towards achievement of Programme Outcomes

OC #	EP Outcome Name	Narrative description of achievement with justification (for legend, see next page)	Rating #1
1A	Member countries and MRC pilot and demonstrate adaptation planning and implementation throughout the region, drawing lessons learned from existing practices and demonstration projects with feedback to improve performance and influence strategies and plans.	Achievements of this Outcome are progressing but still limited. The demonstration projects completed have produced some outcomes while other outputs have not yet been in place. Overall the CCAI local demonstration projects were considered as a very good exercise for climate change adaptation planning and implementation. Results from the demonstration projects were well received by local governments in the respective provinces. Meanwhile capacity building and introduction of impact assessment and adaptation options were considered useful results. Stakeholder involvement in the CCAI 1st batch demonstration projects was especially a success. The 1st batch demonstration projects have been able to engage not only governmental staff but also experts from NGOs (such as Red Cross in the project in Cambodia, WWF in Thailand) and research institutions (such as NAFRI in Laos and Khon Kaen University, Rajamangala University of Technology, and E-San University in Thailand).	2
1B	Modelling climate change and its impacts on the basin and creating databases on climate change and its impacts (Output 1.1; modified)	The outputs include database, modelling system, methods and tools for adaptation planning, basin-wide studies on ecosystem and biodiversity, food security, floods and droughts. There are several on-going activities implemented together with IKMP, FMMP and international consultants. The tentative results are promising and important. The modelling technology used is of highest international standards. Less successful have been the databases on ecosystems and biodiversity.	1
2	Member countries have improved capacity to manage and adapt to climate change at different levels, including in the use of tools for different adaptation planning stages and methods.	Achievement of this Outcome was still limited. Although few prioritised training and exchanges were organised in 2013 and previous years, delay in agreement on the CCAI Capacity Building Plan, Stakeholder Engagement Framework, Trainings of Trainer Project (ToT) has postponed the conduction of comprehensive capacity building activities. This is therefore limiting the achievement of this Outcome. (the capacities produced by the demonstration projects are assessed in Outcome 1)	3
3	Member countries and MRC have strategies and plans for adaptation at various levels in place, which are regularly updated and integrated into appropriate development plans, with implementation monitored and reported on a regular basis.	Achievement of this Outcome was on track but limited. Necessary outputs are being developed but not yet in place to produce the expected outcomes. Those outputs include a Mekong Climate Change Adaptation Strategy, appropriate regional climate change and hydrological scenarios, guides for adaptation planning and a basin-wide monitoring and reporting system to facilitate and guide the regional cooperation on climate change adaptation planning. Various reviews in 2013 confirmed the urgency of the above outputs. Once they are made available and disseminated properly through various communication channels of the CCAI, Member Countries and CCAI Development Partners, the outcome will be significant.	2
4	Member countries and MRC implement regional cooperation, exchange and learning through partnerships in a fully gender responsive initiative with a developed long-term sustainability strategy.	Achievement of this Outcome was noticeable. Relevant institutional and partnership arrangement for making CCAI an effective regional initiative has been well progressed. A dedicated team recruited at regional level and an enhanced coordination with other programmes of MRCS are important outputs of CCAI in 2013. Cooperation with UNECE Water and Climate Programme in 2012 on international experiences in transboundary adaptation is another key result which has opened up relevant and timely dialogues between the MRC and other international river basins having pilot projects on transboundary adaptation such as the Rhine. As soon as the continued exchange and learning with these international river basins is pursued in the next years, good practices, experiences and lessons learned from these basins can be gathered and referred to in development of a relevant and practical Mekong regional adaptation strategy. Engagement of relevant national climate change agencies and institutions was also progressed well. The national Line Agencies especially the National Climate Change Focal Agencies regularly participated in CCAI Steering Committee and consultations. They have showed strong interests not only in receiving data, information and tools produced by CCAI but also participating more in the CCAI implementation. CCAI gender responsiveness approach has been established and already recognised. The GIZ-MRC Cooperation Programme for example has submitted an entry for the GIZ Gender Prize competition 2014 presenting "the excellent efforts of CCAI".	1

Notes:

As at December 2013. For legend of rating, see below. #1. As determined by MTR team according to the assessment system explained in this MTR. **Source**: Programme reports and assessment of the MTR team.

Rating system:

No	Rating statement	Notes	Notional response needed	Rating
1	On track as planned.	Satisfactory to highly satisfactory.	Continue.	1
		Notionally, from about 80% to 100% by EOP.		
2	Behind schedule. Limited outcomes	Partly satisfactory.	Increase effort to rectify	2
		Notionally, from about 25% to 75% by EOP.	shortcomings.	
3	Poor performance and/or outcomes.	Unsatisfactory to highly unsatisfactory.	Urgent corrective action	3
		Notionally, below about 20% by EOP.	needed.	
4	Unable to assess: No information, OR the	N/A (meaning "not available" or "not	Make assessment and take	N/A
	activity was cancelled for some reason.	appropriate".	appropriate action or n/a.	

ANNEX 3: Expenditures in 2013

CCAI Expenditures in 2013 by Outputs (without management fee)

ID	Description	Expenditure
Outcome 1	Adaptation planning & implementation	039
Output 1.1	Methods, tools and database	186,317
Output 1.2	Local demonstration activities	114,695
Output 1.3	Basin-wide studies & guides	40,459
Output 1.4	Replication & upscaling	11,067
Output 1.5	Flood adaptation	89,842
Output 1.6	Drought adaptation	32,742
Outcome 2	Capacity Building	
Output 2.1	Institutional capacity	257,567
Output 2.2	Tool application	-
Output 2.3	Monitoring and reporting capacity	-
Outcome 3	Adaptation strategies and plans	
Output 3.1	Policy framework	13,590
Output 3.2	Monitoring system	35,754
Output 3.3	Communication *	7,379
Outcome 4	Cooperation, exchange and learning	
Output 4.1	Partnership	12,097
Output 4.2	Institutional arrangement	1,119,223
Output 4.3	Monitoring & Evaluation	18,987
Output 4.4	Financing & sustainability	217
Output 4.5	Review & revision	-
	Grand total	1,939,934.76

CCAI Expenditures in 2013 by Budget Lines

Budget line	Description	Expenditure
		US\$
11-00-00	Int. consultants	268,421.95
12-00-00	Int. staff (MRCS)	215,021.22
13-00-00	Support staff	25,186.98
15-00-00	Official travel	107,692.52
16-00-00	Project Evaluation	29,475.18
17-00-00	Riparian consultants	253,315.39
18-00-00	Riparian prof.staff	336,978.00
18-00-01	Director of ENVD	108,956.09
21-00-00	Sub-contracts	82,116.92
30-00-00	Training /workshop	418,070.85
41-00-00	Expendable equip.	5,126.66
42-00-00	Non-expendable equip.	78,846.23
43-00-00	Construction	-
51-00-00	Oper. & maintenance	2,060.00
52-00-00	Reporting costs	281.27
53-00-00	Miscellaneous	8,385.50
57-00-00	Contingency	-
	Subtotal	1,939,934.76
70-00-00	MAF (*)	208,976.96
	Total	2,148,911.72

ANNEX 4: List of people met

Mekong River Commission Secretariat (OSV)

- Hans Guttman, Chief Executive Officer, MRC Secretariat.
- Sourasay Phomavong, Director, Technical Support Division, MRC Secretariat.
- Vitoon Viriyasakultorn, Technical Coordination Advisor, Technical Coordination Unit, MRC Secretariat.
- Santi Baran, Senior M&E Specialist, Technical Coordination Unit, MRC Secretariat.
- Nguyen Nhu Hue, Policy Coordination Officer, ICCS, MRC Secretariat.
- Chavalit Vidhauamon, Senior Aquatic Ecology Specialist, MRC Secretariat.
- Douangchanh Lopaying, CCIA Programme Officer.
- Henrik Larsen, International Technical Advisor, MRC Secretariat.
- Kongmeng Ly, Water Quality Programme Officer, MRC Secretariat.
- Nguyen Huong Thuy Phan, Climate Change Adaptation Initiative, Programme Coordinator, MRCS.
- Nguyen Nhu Hue, Policy Coordination Officer, ICCS, MRC Secretariat.
- Nguyen Van Duyen, Coordinator (Environment Programme), MRC Secretariat.
- Phattareeya Suanrattanachai, Socio-economic Specialist, MRCS.
- Phetsamone Southalack, , MRC Secretariat.
- Piriya Uraiwong , Project Coordinator (MIWRMP), MRC Secretariat.
- Piseth Chea, Information Management Programme Officer, MRC Secretariat.
- Praivan Limpanboon, Participatory Planning and Institutional Specialist, MRC Secretariat.
- Ros Hoy, Capacity Development and Monitoring Specialist, MRC Secretariat.
- Simon Krohn, International Technical Advisor, MRC Secretariat.
- Sophearin Chea, Programme Officer (MRC Procedures and Policies ICCS), MRC Secretariat.
- Thim Ly, Officer, MRC Secretariat.
- Ton Lennaerts , Chief Technical Adviser, BDP, MRC Secretariat.
- Vathana Prum, Senior P, M&E Specialist, MRC Secretariat.
- Vitoon Viriyasakultorn, Technical Coordination Advisor, MRC Secretariat.
- Xiong Tsechalicha, Senior Environmental Specialist, MRC Secretariat.

Mekong River Commission Secretariat (OSP)

- So Nam, Programme Coordinator, FP, Fisheries, Programme Office.
- Peter Degen, International Technical Advisor, FP, Fisheries, Programme Office.
- Theerawat Samphawamana, Programme Officer (M&E), FP, Fisheries, Programme Office.
- Buoy Roitana, Programme Officer, FP, Fisheries, Programme Office.
- Nguyen Hai Son, Programme Officer, FP, Fisheries, Programme Office.
- Malasri Khumsri, Fisheries Management and Governance Specialist, FP, Fisheries, Programme Office.
- Ngor Peng Bun, Capture Fisheries Specialist, FP, Fisheries, Programme Office.
- Kong Sovanara, Aauaculture Specialist, FP, Fisheries, Programme Office.
- Chhut Chheana, Consultant for FP, Fisheries, Programme Office.
- Heng Suthy: , IKMP Cordinator, IKMP, Programme Office.
- Felix Seebacher: , Int TA Hydrology, IKMP, IKMP, Programme Office.
- Khem Sothea: , OIC Hydro-team, IKMP, IKMP, Programme Office.
- Chin Sosamphors, M&E Assistant, IKMP, IKMP, Programme Office.
- Nguyen Dinh Dat: , Head of Modelling Team, IKMP, IKMP, Programme Office.
- Lim Sopheap: , Modeler, IKMP, IKMP, Programme Office.
- Inthavy Akkharath: , Modeler, IKMP, IKMP, Programme Office.
- Leang Heng: , Manager MRC Knowledge Hub, IKMP, IKMP, Programme Office.
- Toch Bonvongsar, Consultant, PWUM, IKMP, IKMP, Programme Office.

- Huon Rath, PDIES Consultant, IKMP, IKMP, Programme Office.
- Kit Chantola, Database Manager, IKMP, IKMP, Programme Office.
- Nicolaas Bakker, International Technical Advisor, FMMP, FMMP, Programme Office.
- Thien Vu Minh, Hydrodynamic Modellor, FMMP, FMMP, Programme Office.
- Phung Katry, Flash Flood Expert, FMMP, FMMP, Programme Office.

Development Partners

- Rachel Jolly, First Secretary (Development Cooperation), Australian Embassy.
- John Dore, Senior Water Resources Specialist, Australian Embassy.
- Nguyen Kim Quy, Senior Programme Manager, Embassy of Denmark.
- Delphine Brissonneau, Programme Officer, European Commission, Bangkok.
- Kati Veijonen, , Embassy of Finland, Bangkok.
- Srin Boonyoung, , Embassy of Finland, Bangkok.
- Hans Peter Kueppers, Head of Development Cooperation, Embassy of the Federal Republic of Germany.
- Philipp Magiera, Programme Coordinator (MRC-GIZ Coopertaion Programme), Deutsche Gesellschaft für Internationale Zuzammenarbeit (GIZ).
- Ulrika Åkesson, First Secretary, Senior Programme Manager (Environment and Climate Change), Swedish Embassy, Bangkok.
- Anna-Maria Oltorp, Head of Development Cooperation Section, Swedish Embassy, Bangkok.
- Phothong Siliphong, National Programme Officer, Swiss Agency for Development and Cooperation (SDC).
- Christoph Muziol, Senior Regional Advisor Land Governance, Swiss Agency for Development and Cooperation (SDC).
- Sarah BIEBER, AOR / Environment Office, USAID Regional Development Mission for Asia.
- Klomjit Chandrapanya, Senior Mekong Affairs Advisor, USAID Regional Development Mission for Asia.
- Alfred Nakatsuma, Director, Regional Environment Office, USAID Regional Development Mission for Asia.

Cambodia National Mekong Committee and Line Agencies

- H.E. Watt Botkosal, DSG CNMC, National Coordinator for BDP and IWRMP. , CNMCS.
- H.E. So Sophort, Deputy Secretary General, CNMC and National Coordinator for ISH, CNMCS.
- H.E. Kol Vathana, Deputy Secretary General, CNMC and National Coordinator for CCAI, CNMCS.
- Hak Sokheat, National FMMP Coordinator, CNMCS.
- Heng Bauran, GIS and Database Expert (IKMP), CNMC, CNMCS.
- Ku Khemlin, IKMP National Cordinator, CNMCS.
- Mak Solieng, National Natural Resources Planner, BDP Unit and MOWRAM, CNMCS.
- Meng P. Kuu, National Natural Resources Planner, BDP Unit and MOWRAM, CNMCS.
- Ou Sophanna, Dept of Personnel and HR Development, CNMCS.
- Peon Vuthyrak, National Coordinator for EP, CNMCS.
- Sok Khom, National Coordinator for FP, Fisheries Programme, CNMC.
- Tang Sophat, Chief of ASEAN Office (BDP), Dept of Planning and International Cooperation, MOWRAM.
- H.E. Mao Hak, Deputy Director General of Technical Affairs, Department of Hydrology and River Works, MOWRAM.
- Yin Savuth, Director, Department of Hydrology and River Works, MOWRAM.
- Peou Phalla, Deputy Director, Department of Meteorology, MOWRAM.

- Chhun Seiha, Vice Chief, Office of Vulnerability Assessment and Adaptation, Min of Environment.
- Pech Romnea, Deputy Director General, Dept of Agriculture, MAFF.
- Yin Savuth, Deputy Director, Dept of Hydrology and River Works MOWRAM.
- Theng Marith, Director of Regulations (ISH), EAC, Min of Mines and Energy.
- Ngoun Kong, Deputy Director General, Min of Environment.
- Chhug Phen, Acting Director, Inland Fisheries Research and Development Institute (IFReDI).
- Nhim Sophea, Deputy Director, MOWRAM.
- Kaing Khim, Deputy Director General and National Technical Manager for FP, Fisheries Administration MAFF.
- Eric Baran, Senior Scientist, World Fish Centre.

Laos National Mekong Committee and Line Agencies

- Aloune Sayavong, Deputy Secretary General, LNMCS.
- Boulap Phethany, National FMMP Coordinator, LNMCS.
- Khonekeo Kingkhamsang, EP Coordinator, LNMCS.
- Oulaphone Ongkeo, , LNMCS.
- Phebamone Khanophet, IKMP Coordinator, LNMCS.
- Sivannakone Malivarn, Director GMS Cooperation Division (MONRE) and CCAI National Coordinator, LNMCS.
- Thongthip Chandalasane, Deputy Director (Mekong Basin Development Plan Division), LNMCS.
- Xaysomphone Souvannavong, CCAI National Expert, LNMCS.
- Ketsana Xaiyasarn, National Programme Coordinator (MRC-Fisheries Programme Technical Support Division), MONRE.
- Khanmany Khounphonh, Deputy Director General (Department of Metereology and Hydrology), MONRE.
- Lamphone Dimanivong, Deputy Director, Ministry of Energy and Mines.
- Sinthavong Viravone, Deputy Director, Living Aquatic Resources Research Center.
- Sommano Phounsavath, Director, Fisheries Division, Ministry of Agriculture and Forestry.
- Souphonh Khattiyavong, Technical staff, Department of Environment and Social Impact.
- Apichai Sunchindah, Development Specialist, On assignment in Laos.

Thailand National Mekong Committee and Line Agencies

- Burachat BUASUWAN, Plan and Policy Analyst, National Coordinator FMMP, TNMCS.
- Nuanlaor WONGPINBWARODOM, Plan and Policy Analyst, TNMCS.
- Suchart SIRIJUNGSAKUL, Civil engineer, National Coordinator for IKMP, AIP, ICBP, TNMCS.
- Arinchawich SAENGNAKTHAM, Ass to National AIP Coordinator, TNMCS.
- Buree SUWANARAT, Natural Resources Planning Specialist for BDP, CCAI, EP., TNMCS.
- Khanittha POOTHONG, Policy and Planning Analyst, TNMCS.
- Marc SRIKHAO, Foreign Relations Officer, TNMCS.
- Nirat Phuriphanphinyo, Civil engineer, National Coordinator for ISH, TNMCS.
- Panporn SUWAN, Civil Engineer, Natl Coordinator BDP and M-IWRM, TNMCS.
- Panut MANOONVORAVONG, Geologist (ISH and IKMP), TNMCS.
- Paramin SANSONGSAK, Technical support for BDP, IWRM, CCAI, EP, TNMCS.
- Ratda SIHATAIKUL, Foreign Relations Officer, TNMCS.
- Ruamporn NGAMBORIRUK, Policy and Planning analyst, National Coordinator for EP, CCAI, FP, TNMCS.
- Rutima ARAMRUNG, Policy and Planning Analyst, TNMCS.

- Karun PREMVUTI, Hydrologist, HYDROMET / IKMP, Bureau of Research Devpt and Hydrology, Dept of Water Resources.
- Naruepon SUKUMASAVIN, Aquatic Ecology Expert, National Technical Coordinator (in LA) for FP., Department of Fisheries, Ministry of Agriculture and Cooperatives.
- Wandee PATTANASATIENPONG, Scientist, HYDROMET / IKMP, Bureau of Research Devpt and Hydrology, DWR.

Viet Nam National Mekong Committee and Line Agencies

- Dr. Tran Duc Cuong, Deputy Director-General, VNMCS.
- Nguyen Thi Thu Linh, Deputy Director-General, National BDP Coordinator, VNMCS.
- Dr. Lam Hung Son, National CCAI Coordinator, VNMCS.
- Dr. Nguyen Anh Duc, National M-IWRM-P focal point, VNMCS.
- Le Thi Huong, National ICBP Coordinator, VNMCS.
- Nguyen Hong Phuong, National IKMP Coordinator, VNMCS.
- Nguyen Huy Phuong, National ISH Coordinator, VNMCS.
- Nguyen Thi Ky Nam, National EP Coordinator, VNMCS.
- Nguyen Van Bang, National FP Coordinator, VNMCS.
- Pham Tuong, National FMMP Coordinator, VNMCS.
- Bui Duc Long, Chief of Division, National Center for Hydro-meteoroligical Forecasting, HMS (Central, Highland and Southern regional), MONRE Vietnam.
- Bui Tuan Hai, Researcher, Institute of Water Resources
- Planning, MARD.
- Dang Thanh Lam, Deputy Director, Southern Institute for Water Resources
- Planning, MARD.
- Dang Thanh Mai, Deputy Director of Center, National Center for Hydro-meteoroligical Forecasting, HMS, MONRE.
- Dang Thi Kim Nhung, Chief of Planning, Institute of Water Resources Planning, MARD.
- Dr. Thai Gia Khanh, Deputy Director, Institute of Water Resources Planning, MARD.
- Khuc Thi Ngoc, Officer, Centre for Water Resources Planning and
- Investigation, MONRE.
- Le Thi Kim Nhung, Chief of Division, Institute of Water Resources Planning, MARD.
- Nguyen Chi Cong, Deputy Director Genenal, Centre for Water Resources Planning and
- Investigation, MONRE.
- Nguyen Huy Thang, Officer, Center of Environmental Monitoring, Viet Nam Administration of Environment, MONRE .
- Nguyen Ngoc Vinh, Deputy Director, Southern Regional Hydro-Meteorological
- Center, MONRE .
- Nguyen Son Hai, National FP Technical Manager, Directorate of Fisheries, MARD.
- Nguyen Thu Phuong, Officer, Department for Water Resources Management, MONRE.
- Nguyen Van Sang, Deputy Director, Research Institute for Aquaculture No.2.
- Nguyen Vu Trung, Deputy Chief of Division, Department of Pollution Control, Viet Nam Administration of Environment, MONRE.
- Pham Anh Tuan, Deputy Director General (General Directorate of Fisheries), Ministry of Agriculture and Development Vietnam.
- Pham Hoai Linh, Officer, Ministry of Trade and Commercial .
- Pham Huy Hoang, Officer, Sub-National Institute of Agricultural Planning and Projection, MARD.
- Pham Thanh Long, Deputy Director, Sub Institute for Hydro Meteorological Science and Environment.
- Tran Minh Khoi, Deputy Chief of Division, Southern Institute of Water Resources
- Planning, MARD.
- Tran Thi Diem, Officer, Centre for Water Resources Planning and
- Investigation, MONRE.

- Truong Quang Dai, Officer, Department for Water Resources Management, MONRE.
- Van Phu Chinh, Deputy Director, Department for Dyke Management, Flood and Storm Control, MARD.

MRC Strategic Plan MTR Team

- Nigel Hawkesworth, Team Leader, Strategic Plan MTR Team.
- Kari Sann, Consultant, Strategic Plan MTR Team.
- Bruce Hooper, Consultant, Strategic Plan MTR Team.

Danish Support Review Team

- Kurt Morck Jensen, Team Leader, Danish Support Review Team.
- Palle Lindgaard Jorgensen, Consultant, Danish Support Review Team.
- Verner Kristiansen, Consultant, Danish Support Review Team.