



# ANNUAL REPORT

# 2016

Version 2.0

## Executive Summary

The year 2016 was one of significant change for the Mekong River Commission. The new Basin Development Strategy, MRC Strategic Plan and National Indicative Plans came into being. The programme era came to an end and a new structure for the MRC Secretariat, based on core functions, emerged. The move to one permanent office location was also realized.

The Annual Work Plan 2016 – the first to operationalize the MRC Strategic Plan – was implemented in part, but not fully due to various factors. The first half of 2016 was spent completing the 12 cross-cutting and sectoral programmes. The second half of the year was spent on recruitment of new staff, orientation and beginning implementation of the new Strategic Plan. As was the case with previous first years of the new planning cycle, a funding shortage as well as reform pressures, affected the implementation of activities.

This Annual Report focuses on indicators identified in the MRC SP's M&E system, and is divided into three major sections: outcome reporting, which showcases some, but not all, "evidence of change" in each of the Strategic Plan's 7 Outcomes; progress reporting, which briefly describes the status of progress in completing each output indicator; and Financial Reporting for the year.

### Outcomes

The Strategic Plan's 7 Outcomes showed some examples of achievements over the year.

Work on climate change assessment and basin-wide strategy preparation yielded enhanced capacity in nexus thinking between climate change risks and water resources development, and generated initial ideas for adaptation.

Five joint planning and investment projects in strategically important areas of the basin were agreed to by the Member Countries, signalling more cooperation and cost and benefit sharing for the Mekong's sustainability.

Hydropower studies and tools also gradually increased understanding and capacity for sustainable planning, development, and management. For example, the Rapid basin-wide hydropower Sustainability Assessment Tool (RSAT) proved a practical tool for promoting dialogue in a multi-stakeholder process between Cambodia and Viet Nam in the Srepok Basin.

Lessons learnt from the previous two cases of Prior Consultation on major infrastructure projects on the mainstream (Xayaburi and Don Sahong) paved the way for improved implementation for following cases. After years of work, the Technical Guidelines for Water Quality was approved by the Member Countries, leading to full implementation.

An emergency release of water by China for drought-stricken Lower Mekong Basin countries showed the value of dialogue and cooperation between upstream and downstream riparian countries. Besides sharing hydrological data for the flood season, China also shared additional data with the MRC and worked jointly on an observation and evaluation report.

Finally, a number of MRC reforms were completed, including consolidation of strategic planning, mutual accountability M&E system, new structure of the MRCS, one office

consolidation, completion of new staff recruitment, and progress on financial reforms – all to make the Organization more effective and efficient.

### **Outputs**

The Output Indicators in the Annual Report show the status and progress of activities that contribute to the completion of each indicator. As of the end of 2016, there were varying degrees of progress in completing the indicators.

Many activities and tasks had to be delayed or postponed because of funding or staffing issues. The tables in Part II show when future work is expected to be conducted. Though most tasks are ongoing and are listed as not finished, it can be predicted that most will progress well in 2017.

### **Financial Report**

The Financial Report shows the fiscal status of the MRC, including both Basket and Earmarked Funds for the calendar year along with income and expenditure statements for both.

In the first half of the year, there was a shortage of funding, and management had to freeze all activities that had a negative cash balance. As a result, many activities had to be delayed until later in the year or until 2017. This resulted in an overall expenditure for 2016 of US\$9,143,947, which was only 52% of the planned expenditure for the year. Consequently, it is expected that a budget of approximately US\$5.3 million will be carried over into 2017.

Though there were many challenges and transitions during 2016 for the MRC, after some adjustments and commitments by Member Countries and partners, good progress was made, laying the foundation for full implementation in the years ahead.

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## ABBREVIATIONS AND ACRONYMS

AFD	Agence Française de Développement (French Development Agency)
ARF	Administrative Reserve Fund (of MRC)
AWP	Annual Work Plan
BDS	Basin Development Strategy
CF	Core function
CRBMF	Core river basin management function
CS	Council Study (of MRC)
CSTF	Council Study Trust Fund
CSU	Corporate Services Unit (proposed new structure)
EMU	Environmental Management Unit (proposed new structure)
ED	Environment Division
EU	European Union
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (German Development Cooperation)
FAS	Finance and Administration Section
HRS	Human Resources Section
ICCS	International Cooperation and Communication Section
JAIF	Japan-ASEAN Integration Fund
KfW	German Development Bank
KRA	Key Results Area (of the MRC's Strategic Plan 2016-2020)
LA	Line/implementing agency
LMB	Lower Mekong Basin
MC	Member Country
MIWRMP	Mekong-Integrated water resources management project
MRC-IS	MRC Information System
NIP	National Indicative Plan
NMC	National Mekong Committee
NMCS	National Mekong Committee Secretariat
n/r	Not required
OC	Office of the Chief Executive Officer
OPD	Operation Division
OSP	Office of the MRC Secretariat in Phnom Penh, Cambodia
OSV	Office of the MRC Secretariat in Vientiane, Lao PDR
PD	Planning Division
PU	Planning Unit (proposed new structure)
SDC	Swiss Development Cooperation Agency

SOB	State of the Basin Report
SP	Strategic Plan
TbEIA	Transboundary Environmental Impact Assessment
TD	Technical Support Division
TSU	Technical Support Unit (proposed new structure)
WB	World Bank

## MESSAGE FROM THE CEO

*On behalf of the Mekong River Commission, I am happy to introduce the Annual Report for 2016. First of all, I am proud to be the first riparian appointed to lead the MRC and can assure you that I will work hard to represent all the peoples of the Lower Mekong Basin.*

*2016 proved to be a year of change. This publication is more than just a record of achievements or a list of past yearly numbers. This report will show the many changes, progress made, and lessons learnt during this eventful period for the MRC.*

*During 2016, the MRC transitioned from a programme-based organisation to one that is core-function based. We completed the programmes, but we also had a number of financial difficulties.*

*For me, one of the big challenges was guiding the organization as staff numbers were cut by more than half. The big highlight was the concentration of our offices in one Secretariat Headquarters.*

*Reform can often be painful and difficult; but I feel that we became a stronger, leaner, and more effective organisation because of it. We are now almost fully funded, fully staffed and are ready to for 2017.*

*I take this opportunity to thank our Member Countries, Development Partners, Dialogue Partners, and other stakeholders for their help during this eventful period.*

*As the mighty Mekong River changes direction so does the MRC. The bends and turns are like challenges that may change our course but not our ultimate goal as set out in the Mekong Agreement – the sustainable development of the region we call home.*

Pham Tuan Phan  
Chief Executive Officer

## INTRODUCTION

The Annual Report (AR) highlights in detail selected activities that demonstrate accomplishments, and reports on the progress of most activities by output indicators from the Annual Work Plan (AWP) for the year. The AWP operationalizes the 5-year MRC Strategic Plan.

In this regard, the Annual Report is divided into three major sections:

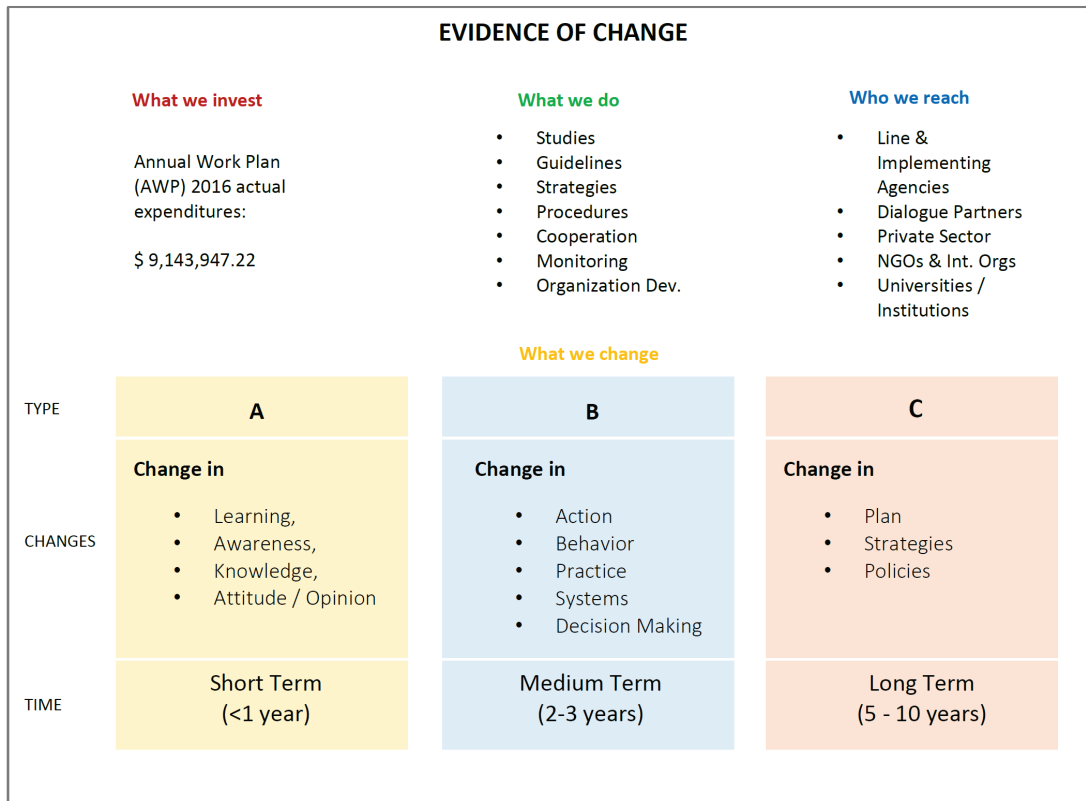
- **Outcome reporting:** Showcasing the outcomes which contain “evidence of change” (in awareness or knowledge, in behaviour or action, in policy or planning) in each of the MRC Strategic Plan’s 7 Outcomes (see figure below), as measured by their indicators. Outcome indicators have been selected based on evidence of change that occurred during 2016 – not all outcome indicators are reported. The stories of change have so far been collected using primarily qualitative methods:
  - Semi-structured interviews with key implementers
  - Document review of available material (existing reports, evaluations, meeting minutes)
  - Information requests sent directly to NMCS and relevant individuals
  
- **Progress reporting:** Annex 1 briefly describes the status of progress in completing each output indicator from the MRC SP. All activities and tasks from the AWP 2016 that contribute to the completion of the indicators are reported.

The report also presents a two-page snapshot of overall progress in completing each output. The percentage of progress is an estimate for the whole timeframe for completing that given output (2016-2020 period). Some outputs, even though of low disbursement, have high percentage progress because they were carried over from the previous planning cycle and are about to be completed in the first couple of years of the new SP period.

- **Financial reporting:** for the year 2016, including income and expenditure for the year by Basket and Earmarked Fund.



## PART I



### MRC Strategic Plan 2016-2020

The MRC Strategic Plan identifies 4 Key Result Areas, 7 Outcomes, 43 Outputs and 169 Activities to be implemented over 5 years. The MRC SP addresses the priorities identified in the Basin Development Strategy 2016-2020 at the regional/basin level. The National Indicative Plans 2016-2020 – one for each country – address the BDS priorities at national levels through joint projects, national projects of basin significance, national activities, and decentralized activities.

During 2016-2020, the MRC strives for the following results:

- Increased uptake, application, and integration of basin-wide evidence into national planning processes (to increase national and basin benefits, while reducing regional costs and moving towards water security)
- More effective stakeholder engagement to strengthen regional dialogue and cooperation
- Greater Member Country ownership of MRC and its processes to strengthen implementation
- More streamlined and efficient MRC operations to improve knowledge management to make better use of limited resources and ensure the MRC continues to offer good value for money

## Challenges to Annual Work Plan 2016 Implementation

The AWP was implemented in a year of transition from a programme-based structure to a new structure based on core functions, as well as reductions in staff and funding, all of which signified a certain amount of uncertainty and risk in implementation of the work plan.

January to June 2016 was a transitional period in which the work plan was carried out by the former structure of four divisions (but no programmes) and key remaining staff. From July 2016 onwards, the work was to see continued implementation by the new structure of four Divisions and the office of the CEO. Fund mobilisation was also a priority – to secure existing pledges and to seek new funds.

Implementing the AWP in 2016 turned out to be slower than expected for several reasons: among them, restructuring of the organisation, human resource constraints and budget shortfalls as well as a management decision to freeze certain activities.

One major issue was reduction in staff at the MRCS. The personnel numbers (consisting of staff and full-time consultants) at the Secretariat was reduced from 170 to 90 for the transition period. In addition, recruitment efforts, both for those applying for positions and serving as panel members, put a heavy strain on the transition staff to implement their planned activities from the AWP during the period from May to August.

In the first six months of the year, however, there was a late transfer of committed funds by certain countries and no new agreements signed with development partners other than Australia and Germany. For this reason, and to avoid similar experiences that happened in the last strategic period of 2011-2015, MRCS management decided to freeze all activities that carried a negative cash balance. The Secretariat had to request borrowing from the Administrative Reserve Fund (ARF) to maintain operations and staff salaries. As a result, the AWP had many activities that were delayed. Staff carried out preparatory and desk work but did not hold consultations with Member Countries to move activities forward.

## OUTCOME 1: INCREASED COMMON UNDERSTANDING AND APPLICATION OF EVIDENCE-BASED KNOWLEDGE BY POLICY MAKERS AND PROJECT PLANNERS

Indicator: Evidence of national and regional decision-making based on or referring to MRC knowledge products

### IMPROVING CLIMATE CHANGE ADAPTATION CAPACITY AT BASIN SCALE

#### Context

Lower Mekong Basin countries have been identified as among the most vulnerable countries in the world in terms of climate change impact, and adaptation to these impacts has been recognised as a high priority issue. The Paris Agreement supports the development of regional adaptation efforts underlining the principles of integration and equity.

The MRC Climate Change Adaptation Initiative (CCAI) focuses specifically on addressing water resource impacts from climate change. It includes the development of the Mekong Adaptation Strategy and Action Plan (MASAP), which assesses basin-wide climate change vulnerability and identifies adaptation measures to support national planning frameworks. Climate change scenarios, building on the Basin Development Plan scenarios, had been defined and used in climate modelling and analysis to illustrate a range of possible outcomes in the future. Basin-wide assessments of climate change impacts on hydrology, floods, drought, hydropower, ecosystems, food security and social and economic circumstances were also conducted. These contributed to the preparation of the draft MASAP in 2016. Assessment results will be shared and discussed with stakeholders in early 2017.

#### Evidence of Change

Through its work on policy analysis, climate assessment and strategy preparation, the CCAI has raised some awareness and influenced regional capacity in improving the nexus understanding between climate change and

water resource management. While Lower Mekong Basin countries have developed capacity in national climate change adaptation, the CCAI has focused on basin scale climate-water relationships.

Regional capacity has been built with the use and analysis of climate change adaptation tools coupled with undertaking scenario analysis given the uncertain future. From 2015 to 2016, about 16 consultations and training sessions were carried out for basin-wide climate change assessments and 11 for strategy preparation at regional and national levels.

This has enhanced regional capacity in understanding vulnerability within sectors of the basin economy and the environment.

*The skills gained result in improved planning abilities, and there is now a community of climate change practitioners that previously did not exist in the water sector*

Although there have been delays in the conduct of assessments and MASAP preparation, the impacts of the CCAI and the finalisation of the MASAP are expected to have benefits in the policy and governance sectors of respective Mekong countries in terms of adapting national plans to address basin scale issues.

The MASAP, once finalized, will contribute to fulfilling the requirements of the Paris Agreement, and the Mekong countries can communicate the work on the MASAP and implementation of it as part of their adaptation efforts. At the same time, the Paris Agreement fully supports the development of the MASAP, underlining the principles of integration and equity and supporting regional cooperation in adaptation efforts. The Paris Agreement also underlines the importance of sharing information and knowledge and of strengthening institutional arrangements. All these elements are also fundamental to the MASAP.

### ***Gender and poverty***

One of the seven strategic priorities identified for the draft MASAP for climate change is to “enable implementation of transboundary and gender sensitive adaptation measures.” To be

effective and efficient, the adaptation measures will need to reflect the differentiated vulnerabilities and needs among different groups of a community (e.g. women, children, elderly, etc.). In designing the identified projects, gender and age awareness as well as equity will be considered.

### **Conclusion**

The basin-wide climate change impact assessment capability, along with work on preparing a regionally supported adaptation strategy, serve as critical initiatives required to plan for an uncertain future. The MRCS collaboration with different line agencies from Member Countries has helped to increase climate change assessment and planning capabilities at both regional and national levels. Ensuring these skills are translated into policy and governance in the near future is key to maximise adaptive capacity.

## OUTCOME 2: ENVIRONMENTAL MANAGEMENT AND SUSTAINABLE WATER RESOURCES DEVELOPMENT OPTIMISED FOR BASIN-WIDE BENEFITS BY NATIONAL SECTOR PLANNING AGENCIES

Indicator: Evidence that National Plans benefit from basin-wide strategies and action plans

### JOINT PROJECTS STRENGTHEN TRANSBOUNDARY COOPERATION

#### Context

Optimal and sustainable development within the LMB requires mitigating the risks and seizing the opportunities that the Mekong creates in a manner that conserves the river's functions for future generations. Achieving this goal is essential and urgent. National plans and actions cannot achieve this goal alone as they (1) cannot individually address the long-term water security and environmental needs of the Mekong Basin, and (2) miss the significant opportunities for joint development that could be realised.

Early in 2016, the MRC Council approved the IWRM-based Basin Development Strategy for the Lower Mekong Basin (LMB) for 2016-2020 (BDS 2016-2020). The strategy provides regional and transboundary perspectives for the management of the Mekong Basin, as well as development opportunities and strategic priorities for basin development and management.

The MRC will implement the BDS 2016-2020 at the regional level through the MRC Strategic Plan 2016-2020 (MRC SP) and at the national level through the updated National Indicative Plans 2016-2020 (NIPs).

The NIPs are the primary channel by which basin perspectives, development opportunities, and strategic priorities are mainstreamed into national strategies, plans, policies, and systems. They supplement the national plans with joint projects and national projects and activities that are of *basin-wide significance* and could increase regional

benefits, reduce regional costs, and increase water-related security.

The joint projects involve two or more countries and address issues and opportunities that one country alone could not do as effectively. They are seen as the principal means of *regional benefit sharing* and are targeted to: (i) provide long-term water and environmental security and (ii) achieve optimal and sustainable development, as envisioned in the 1995 Mekong Agreement. The development of joint projects would also increase transboundary cooperation and regional integration.

In 2016, the LMB countries prioritised five joint projects with estimated budgets as follows.

1. Lao-Thai safety regulations for **navigation** (Lao PDR and Thailand) [**\$1,000,000**]
2. **Cross border water resources development** and management, including environmental impact monitoring of the Don Sahong hydropower project (Cambodia and Lao PDR) [**\$1,500,000 with 100,000/year for monitoring**]
3. **Transboundary cooperation for flood and drought** management in the Thai-Cambodian border area in Tonle Sap's Sub-basin (Cambodia and Thailand) [**\$1,200,000**]
4. Sustainable water resources development and management in the Sekong, Sesan and Srepok river basins (**3S Basin**) (Cambodia, Lao PDR, and Viet Nam) [**\$2,610,000**]
5. Integrated flood management in the border area of Cambodia and Viet Nam in the **Mekong Delta** for water security and sustainable development (Cambodia and Viet Nam) [**\$2,730,000 and \$2,000,000 for infrastructure**]

The five joint projects are summarised and annexed in a report that will be used to promote funding and implementation support among development partners. The report was prepared in 2016 and will be finalised in early 2017.

### **Evidence of Change**

Development, consultation, and agreement on the five joint projects took some time. All the projects represent a willingness to cooperate in strategically significant areas of the Mekong. At least two of the projects – on navigation between Lao PDR and Thailand and on the Mekong Delta between Cambodia and Viet Nam – could be seen as breakthroughs in terms of the countries agreeing to cooperate on setting common rules and conducting joint planning. The joint project on the Khonefalls between Cambodia and Lao PDR is also critical in light of the Don Sahong hydropower project. Development and cooperation on the 3S – the most important set of Mekong transboundary tributaries – have a long history, with multiple actors and partners, and the MRC joint project is expected to provide a framework for cooperation with renewed assessment, planning and institutional development.

Change in behaviour or action stemming from the joint projects will require time. To promote the joint projects, various working groups for respective joint projects will be established from 2017. The working groups will include representatives from NMC, line/ implementing agencies, research institutes, and the MRCS. The working groups will work with potential development partners to promote and monitor the joint projects.

All joint projects lead to joint or coordinated investment, underpinned by a legal or institutional framework appropriate to the circumstances, and have a degree of flexibility to cope when those circumstances change. Specific characteristics of the joint projects are:

- Joint investments (sharing costs and benefits) in infrastructure and facilities (for multiple purposes from flood protection and navigation to

energy and irrigation) are often central to achieving a win-win outcome. A specific treaty or agreement is made up by the participating countries to ensure mutual benefits from the project.

- Some joint projects lead to coordinated national actions and investments of a non-structural nature in the respective countries to achieve a mutually beneficial outcome (under a MoU, agreement, or treaty as appropriate), such as navigation aids, monitoring and flood warning systems, and floodplain and watershed management. Also, non-structural investments are preceded by substantial joint preparatory work, such as the development of common rules for navigation, the planning of preservation of natural floodplains, and the development of common standards for the monitoring of water and related resources.

Finally, change in policy and plans is to be seen in long run (up to 10 years) when the development of various strategies and plans identified in the joint projects have been realised.

### ***Gender and poverty***

Throughout the identification process for the Joint Projects, cross-cutting issues were considered, such as poverty alleviation and economic growth, food security, gender equality, climate change and its impacts, institutional development and capacity building, environmental protection and restoration, and disaster risk reduction. As such, most of the identified Joint Projects address and contribute to the UN Sustainable Development Goals (SDGs).

### **Conclusion**

Joint projects have been called for in the Mekong Agreement for a long time and are now being realised. They are a principal form of regional cost and benefit sharing and should become a flagship symbol of cooperation between the MRC Member Countries.

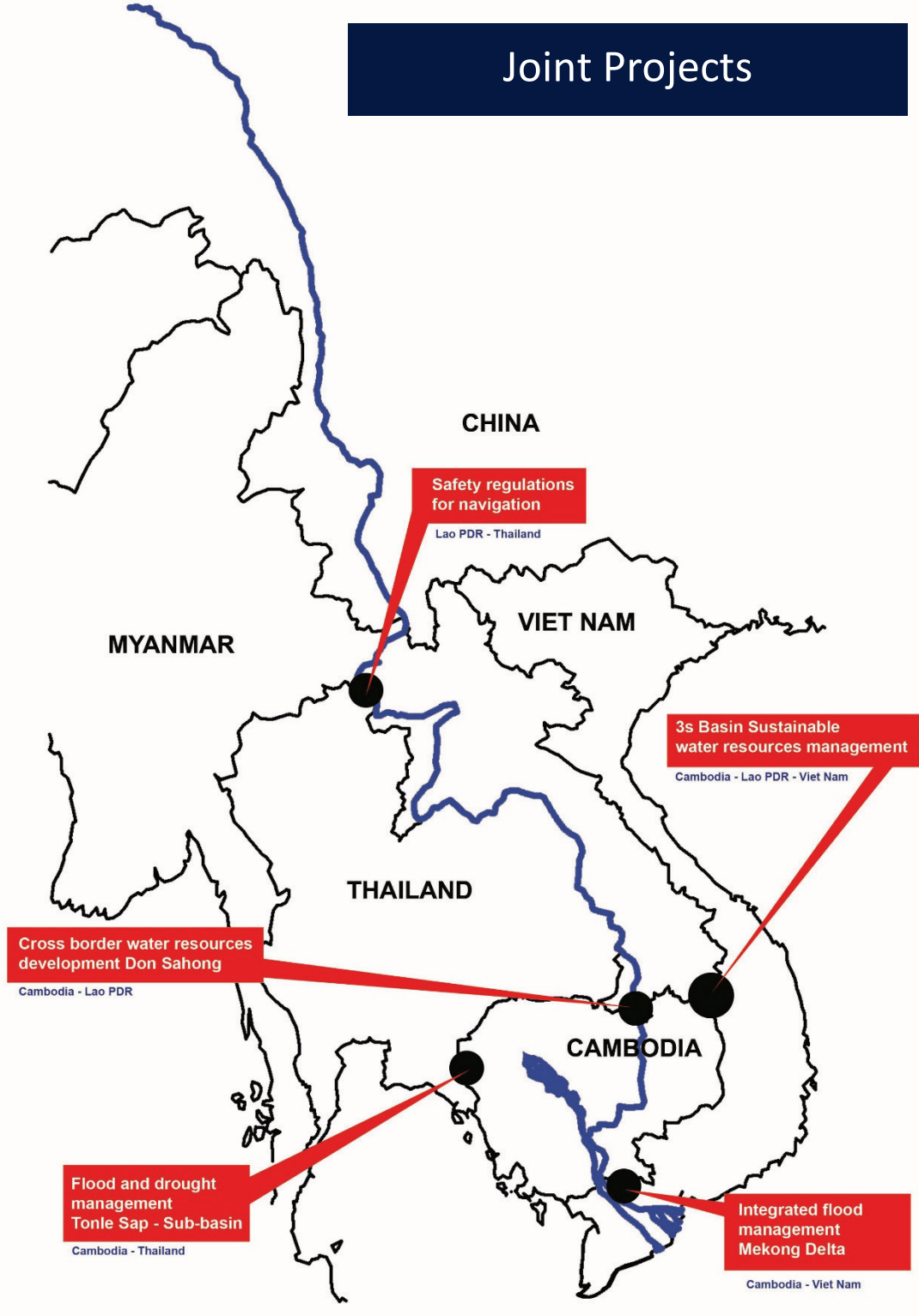
The MRC and the planning departments of the involved national line agencies, who all regularly interact with development partners, will use the identified joint projects report to promote the five joint projects among development partners for funding and implementation support. As required, project promotion will be supported by the MRC Joint Committee at the strategic and policy level, and the MRC Council at the political level.

In addition, the MRC will implement a regional donor meeting and/or a donor meeting in each of the LMB countries to further promote the joint projects. Meanwhile, the MRC is setting up implementation arrangements for the joint projects in consultation with the responsible implementing agencies in the LMB countries.





# Joint Projects



## OUTCOME 3: GUIDANCE FOR THE DEVELOPMENT AND MANAGEMENT OF WATER AND RELATED PROJECTS AND RESOURCES SHARED AND APPLIED BY NATIONAL PLANNING AND IMPLEMENTING AGENCIES

Indicator: Evidence of national and basin benefits in using MRC guidelines and standards

### ENHANCING TRANSBOUNDARY COOPERATION THROUGH A MULTI-STAKEHOLDER DIALOGUE TOOL

#### Context

Challenges from hydropower development from the past as well as that under construction and planned in the future dominate the major tributary basins of the Mekong. Most often, projects were and still are implemented one by one without optimising them from a basin-wide perspective, resulting in issues of coordination, adverse transboundary impacts, and tensions among stakeholders within the implementing country and across borders.

The Rapid basin-wide hydropower Sustainability Assessment Tool, or RSAT, is a multi-stakeholder dialogue and assessment tool designed for a quick and integrative assessment of hydropower development and management issues at a *basin-wide level*. In any hydropower sub-basin there are a number of stakeholder groups with various roles, responsibilities, and interests. The capacity and performance of each of these key stakeholder groups and their level of collaboration and interaction with each other is an important element of sustainable hydropower and water resource development.

A trial of the RSAT tool was conducted in nine river basins of the Member Countries. Recently, Cambodia and Viet Nam agreed to have a RSAT Transboundary Dialogue for the shared Srepok River Basin dam after an assessment was conducted in both upper and lower parts of the river in 2011 and 2013. The Sre Pok River rises in the Central Highlands of Viet Nam and flows into Cambodia through Mondulkiri province, and then joins with the other 3S Rivers to its confluence with the Mekong River near Stung Treng in Cambodia. A

number of large hydropower projects had been built on the Upper Srepok in Viet Nam in the past 10 years, and a major one (the Lower Sesan 2 Hydropower Project) is under construction in Cambodia at the confluence of the Sesan and Srepok rivers. Two other large hydropower projects are planned on the Srepok River section in Cambodia.

#### Evidence of Change

Prior to the RSAT assessment, a score of incidents at the downstream part of the Srepok River were detected such as rapid fluctuations in river levels, changes in flow regime and ecological conditions and sudden flooding. In a series of RSAT assessments carried out between 2010 and 2013 in both Viet Nam and Cambodia, some transboundary issues were recognised and served as a basis for consultations between stakeholders in Viet Nam and Cambodia.

Through a series of preparatory meetings at national and regional levels, CNMC and VNMC agreed to invite relevant and concerned Ministries and authorities at the national level and from provinces in the Srepok River Basin to an RSAT Transboundary Dialogue with the aim of sharing information, understanding of upstream and downstream impacts, and developing transboundary cooperation mechanisms to address priority issues defined by the RSAT Gap Analysis.

RSAT initiated transboundary dialogue (Tb Dialogue) between Cambodia and Viet Nam between 19 – 21 December 2016 in Boun Ma Thuot, Dak Lak, Viet Nam with 10 representatives each from Cambodia and Viet Nam and two observers each from Lao PDR, Thailand, and MRCS. The Tb Dialogue enhanced understanding between upstream and downstream countries.

*Bilateral cooperation was identified, such as a joint study on maintaining minimum flows and water demand for downstream communities, on conservation / protection measures for addressing loss of biodiversity and ecosystem services, and joint action to develop flood and drought management measures in the Srepok River Basin*

Furthermore, both countries also agreed to build capacity of water resource and reservoir managers to use reservoirs for better flood and drought risk reduction incorporating appropriate decision support tools. In addition, both countries agreed that a river basin committee should be established with an international cooperation unit/division to coordinate and cooperate on transboundary issues.

### ***Gender and poverty***

RSAT covers specific impact assessment of hydropower on gender and poverty. It emphasizes the need for proper baselines, disaggregated data by gender and ethnic group and identifies social risks (especially for vulnerable groups) associated with hydropower development. It provides guidance to assess the potentially negative impacts and benefits of hydropower on poverty, nutrition, public health, education and food security,

status of women, men, and children upstream and downstream of projects.

### **Conclusion**

RSAT demonstrates that a practical tool that emphasises dialogue and a multi-stakeholder process can build understanding and lead to good results that address key transboundary issues.

The RSAT assessment and the resulting dialogue included a follow-up assessment to see how recommendations were acted upon, as well as revisiting the affected areas to verify changes and improvements in livelihoods through diminished impacts.

Building on previous work, Member Countries agreed to hold a RSAT regional meeting in early 2017 to draw lessons from the RSAT Tb Dialogue, refine and improve the process, adjust the guidelines for RSAT Tb Dialogue, and to discuss future RSAT assessments.



RSAT Tb Dialogue between Cambodia (right) and Viet Nam (left) for a shared Srepok River Basin, 19-21 December 2016 in Boun Ma Thuot, Dak Lak province, Viet Nam.

## HYDROPOWER STUDIES AND GUIDELINES INCREASED AWARENESS AND CAPACITY FOR PLANNING AND SUSTAINABLE DEVELOPMENT

### Context

The Mekong region is one of the fastest developing regions in the world. Consequently, the rapid growth of national economies has created a sharp rise in the demand for electricity.

While the proportion of power generation from hydropower dams in the energy supply mix is relatively low, the number of hydropower dams to be constructed to meet that demand remains significantly high.

The relationship of hydropower development to social and environmental issues has been identified as an issue of strategic concern by both governments and other stakeholders in the region. Therefore, in order to assist the MCs to continue to develop their respective countries while at the same time achieving the Mekong River Basin's vision of an economically prosperous, socially just and environmentally sound region, the MCs, among other things, have agreed on the need for "Guidelines for Hydropower Environmental Impact Mitigation and Risk Management in the Lower Mekong Mainstream and Tributaries (ISH0306)".

The ISH0306 study aimed to provide avoidance, minimisation and mitigation options that can be used for further planning, design, and implementation of sustainable hydropower development in the Lower Mekong Basin (LMB).

While conducting the study, MRC organised regional hydropower forums to offer essential knowledge to address uncertainties along minimise the risks of identified development opportunities. The emerging results from the ISH0306 as well as other hydropower related Guidelines and Tools were disseminated together with advanced technologies from recent research, in particular the re-designed

hydropower turbines that allow fish to migrate through them.

### Evidence of Change

The preparation, consultation, and development of the studies and guidelines have already brought a wide range of direct benefits to building regional capacities in all areas of assessment avoidance, minimisation and mitigation options within industry and line agencies, raising the awareness regarding possible potential impacts of these developments as assessed by existing studies and global experience on mitigation options appropriate for Mekong hydropower development. Views were expressed in the forums where surveys were also conducted to assess how the participants foresee the usefulness of the various MRC hydropower related tools. In most cases, the answers were not only positive but they also confirmed the need to use them in actual planning of the LMB.

*Particularly, the Preliminary Design Guidance (PDG), which provides sustainability performance guidance for the design and operation of mainstream hydropower projects, has been cited repeatedly by dam designers*

They viewed that such an approach will ensure a more "successful" design of mainstream dams and the acceptance of stakeholders. For example, in 2016 with the Procedures for Notification, Prior Consultation and Agreement (PNPCA) submission of the Pak Beng Dam, the Feasibility Report revealed a strong commitment to comply with the PDG.

At the policy and planning level, Member Countries also demonstrated the value of engaging with MRC hydropower related work. For example, in the Lao PDR "Five Year National Socio-Economic Development Plan VIII (2016-2020) (8th NSEDP) the Lessons Learnt section described how, "Unsustainable exploitation of the resource base will increase Lao PDR's economic vulnerability and will eventually have an impact on its economy if natural resources remain a dominant source of growth and other sectors clearly lag behind."

*Unsustainable exploitation of the resource base will increase Lao PDR's economic vulnerability and will eventually have an impact on its economy if natural resources remain a dominant source of growth and other sectors clearly lag behind*

Furthermore, it also recognises that at the regional level, *"There is a further and obvious linkage between the natural resources sector and environmental impacts. This is apparent in all natural resources sectors, including land concessions (which have attendant deforestation effects), the riparian impacts of hydropower on fish stocks and floodplain agriculture"*.

In relation to this, in the section "Cooperation Framework in Mekong Agreement on Sustainable Development in the Mekong River Basin", it is reported under the "Achievements towards cooperation under Mekong Agreement on Sustainable Development in the Mekong River Basin" sub-section that Lao PDR has participated and implemented Regional and National activities conducted by many MRC

Programmes where among them is the MRC Initiative of Sustainable Hydropower (ISH).

In short, Lao PDR has brought the MRC Agreement to the forefront of an official Lao PDR government strategic plan, reflecting the result of increased awareness towards sustainable hydropower development and MRC Regional Cooperation.

### **Gender and poverty**

The application of the Guidelines aims to ensure that livelihoods do not worsen and are resilient for adaptation as necessary and the supporting biodiversity is maintained. Ensuring that lives are better, and that poverty is not exacerbated are at the heart of the discussion. Whilst gender was not discussed directly, the guidelines provide practical recommendations for the assessment of socio-economic development. For example, the ISH11 Study ("Improved environmental and socio-economic baseline information for hydropower planning") offers recommendations with a number of relevant socio-economic indicators connected to various mitigation options. These indicators take into account economic development, livelihoods, dependence on water resources, vulnerability and resilience, community living conditions, food security, and benefit sharing.

### **Conclusion**

Hydropower related studies and research have led to the provision of guidelines and a substantial knowledge base on avoidance, minimisation and mitigation options and have added intrinsic value to the achievement of sustainable planning and development of the LMB. Though knowledge alone cannot change behaviour, the more people understand complex and difficult issues, the more likely they are to work together to solve them. With knowledge-based guidelines and tools such as the ISH0306 study and PDG, project planners and implementers can then make better-informed decisions on critical issues and strike

a balance between hydropower development and environmental and social protection in the LMB.

## OUTCOME 4: EFFECTIVE AND COHERENT IMPLEMENTATION OF MRC PROCEDURES BY MEMBER COUNTRIES

Indicator: Evidence of adverse transboundary impacts that were mitigated, minimised, or avoided in basin planning and management by using MRC Procedures

### IMPROVING INFRASTRUCTURE PROJECT CONSULTATIONS THROUGH LESSONS LEARNED

#### Context

Like other international rivers, the Mekong faces difficulties in terms of riparian countries implementing water infrastructure projects in their national territories that may yield adverse impacts in other countries. Unlike other international rivers, especially in the developing world, the Lower Mekong is fortunate to be shared by four riparian countries that had the foresight and commitment to develop procedural rules to manage their common river.

Over the last two decades, the MRC has agreed to five sets of procedures on data sharing, water quality, water flow maintenance, water use monitoring, and water use consultation to support the implementation of the 1995 Mekong Agreement. Adopted in November 2003, the Prior Consultation process of the PNPCA (Procedures for Notification, Prior Consultation and Agreement) has been applied twice in Mekong history, yielding benefits and lessons learned for improvements in the future. PNPCA is a set of three separate processes (notification, prior consultation, or specific agreement) undertaken by the MRC Member Countries for certain projects using water from the Mekong, which may significantly impact on other Member Countries. Such projects may include large-scale irrigation, hydropower, and water supply.

The implementation of the PNPCA and its Technical Guidelines, along with other procedures, are considered a high priority as

they play an important role in water diplomacy with regards to development in the Mekong Basin. The potential for a new Prior Consultation process for a hydropower project or other large-scale developments on the mainstream of the Mekong increases the need to review the lessons learnt from implementation of PNPCA.

The two Prior Consultations, for Xayaburi and Don Sahong hydropower projects provided an opportunity to reflect on the road testing of the process, and to improve future implementation of PNPCA.

#### Evidence of Change

In early 2016, a draft working paper was prepared by the MRCS to outline the complexities in the application of the PNPCA and supporting guidelines. The working paper provided a brief overview of the PNPCA, analysis of the effectiveness of PNPCA implementation and a report on lessons learnt, drawing on the findings from national and regional implementation of the PNPCA and literature reviews.

The working paper was also used as a tool for further dialogue with the four Member Countries, through a one-day Dialogue Workshop on Lessons Learnt from the Implementation of the PNPCA, which was held by the MRC Joint Platform in Bangkok, Thailand, in February 2016 to develop recommendations for improvement. The Dialogue Workshop was attended by 64 participants and was supported by five international experts.

Fruitful discussions occurred around four themes: providing clarity from the implementation of the PNPCA and guidelines; improving the process; developing capacity and improving public perception and participation; learning from international conventions and international case law; and looking to achieve best international practice.

The outcome of the workshop was: clear recommendations to improve the PNPCA process considering Pre-PNPCA, during PNPCA and Post-PNPCA; the use of the MRC Joint Platform as a regular mechanism for information sharing and supporting improved implementation of the PNPCA; and the preparation of guidance notes (in the form of a commentary) to the PNPCA to improve clarity.

The PNPCA lessons learnt workshop aimed to review, identify, and disseminate lessons learnt from the implementation of the PNPCA, thereby contributing to building the capacity of Member Countries and to improve the understanding of the PNPCA process by MRC stakeholders at various levels.

The principal recommendations include:

- Greater clarity regarding the commencement and conclusion of the Prior Consultation process;
- A process for the review and approval of the adequacy of documentation received for Prior Consultation;
- Greater clarity regarding the roles of all actors who have a responsibility for implementing the PNPCA;
- Development of appropriate project information disclosure practices for effective stakeholder participation;
- Greater clarity regarding the role of transboundary EIA;
- Development of a “Commentary” on the provisions of the PNPCA, to supplement the current Guidelines on Implementation of the Procedures for Notification, Prior Consultation and Agreement by placing the key provisions of the PNPCA in the wider context of international best practice in the field.

By mid-2016, with announcement of Lao PDR’s intention to implement the Pak Beng Hydropower Project, the MRCS started preparation and planning in anticipation of the third Prior Consultation process, considering carefully the lessons learnt from the Working Paper, Dialogue Workshop, guidance from the JC and MRC Joint Platform, and feedback from Development Partners and stakeholders. Actions included:

**TABLE 1: KEY ACTIONS FOR IMPLEMENTATION OF THE THREE-STAGE PRIOR CONSULTATION PROCESS**

Pre-Prior Consultation	
	<ul style="list-style-type: none"> <li>• Establish an internal working group and identify available resources</li> <li>• Prepare a checklist for completeness of the submitted documentation based on the Preliminary Design Guidance for LMB Hydropower Schemes and previous technical review report</li> <li>• Prepare documents to support the Prior Consultation Process while at the same time explore the possibility of using available tools for transboundary environmental impact assessment such as TbEIA and RSAT to promote structured analysis and dialogue to consider hydropower sustainability issues in the Mekong Basin-wide context during discussions under Joint Platform activities</li> <li>• Prepare TORs for the international expert groups and national working groups</li> </ul>



	<ul style="list-style-type: none"> <li>• Prepare a Stakeholder engagement/information disclosure plan</li> <li>• Develop a Roadmap for the prior consultation process</li> <li>• Encourage the notifying country on the possibility to share project information early</li> </ul>
<b>Prior Consultation</b>	<ul style="list-style-type: none"> <li>• Providing all available/critical information related to the project on the MRC website in a timely manner</li> <li>• Planning two rounds of stakeholder information-sharing meetings. The first round to be organised at an early stage of the Prior Consultation Process to provide facts and information to key regional stakeholders regarding the process, role of the MRC and the project. The second round to be organised following the completion of the technical review and the development of the draft technical review report</li> <li>• Working closely with the notifying country, including the project developer</li> <li>• Preparing post-consultation engagement plans</li> </ul>
<b>Post- Prior Consultation</b>	<ul style="list-style-type: none"> <li>• This action will be guided by the JC based on the agreement from prior consultation process. Noting that follow up is required with regards to communication of design changes, commencement of construction works and ongoing monitoring of impacts</li> </ul>

On 4 November 2016, under Section 5.3.1 of the PNPCA, Lao PDR submitted notification to the MRCS of its formal intention to undertake the prior consultation for the Pak Beng Hydropower Project, providing project documents and impact assessments. Upon receipt of the notification, the MRCS immediately forwarded the information to the three notified countries and commenced the review of the adequacy of the documents using the checklist of the MRC Preliminary Design Guidance for Mainstream Dams. The official starting date of the Prior Consultation for the Pak Beng Hydropower Project was later agreed at the PNPCA Joint Committee Working Group as 20 December 2016. Other actions planned above will be implemented during the PNPCA process for Pak Beng which extends into the first half of 2017.

### ***Gender and poverty***

Gender and poverty are key issues in the assessment of project impacts. In socio-economic aspects, the terms of reference for

the review supported by international experts covers aspects related to transboundary socio-economic impacts, poverty, and gender that may be caused by the proposed hydropower project.

### **Conclusion**

The implementation of the PNPCA and guidelines so far have provided an opportunity to understand the challenges with their implementation in an international river. The lessons learnt process has created an understanding of the complexity of the issues and the need for action and continual improvement.

The PNPCA and Guidelines represent leading-edge practice internationally with regards to the formal exchange of information and consultation on planned projects or uses between sovereign countries sharing a major river and, as such, represent an excellent example and standard for river basin organisations around the world.



## AGREEMENT ON PROCEDURES FOR WATER QUALITY GUIDELINES PAVED THE WAY FOR FULL IMPLEMENTATION

### Context

Water is the lifeblood for over 65 million people who call the Lower Mekong Basin (LMB) their home.

These people rely on the river's water for their food and health, and riverine communities also count on it for their fisheries, agriculture, and transportation. The quality of the water is also critical to the protection of aquatic life.

If the Mekong is polluted in upstream areas, this may impact the downstream reaches and therefore becomes a transboundary issue.

In order to protect the quality of water for the people, the MRC and its MCs developed the Procedures for Water Quality (PWQ).

The PWQ is one of the five MRC Procedures developed and adopted to assist the MCs in implementing the 1995 Mekong Agreement. The PWQ was adopted in 2011 at the 22nd MRC Council Meeting in Ho Chi Minh City, Viet Nam, with the aim to "establish a cooperative framework for the maintenance of acceptable/good water quality to promote the sustainable development of the Mekong River Basin." As such, the PWQ covers provisions on water quality management and emergency water quality situations.

To assist the MCs in implementing the PWQ, Technical Guidelines on the Implementation of the Procedures for Water Quality (TGWQ) were developed.

To develop these technical guidelines, a Technical Body on Water Quality (TBWQ) was established in 2009 by the MRC Joint Committee (JC) and was made up of experts from the MCs. After 12 meetings and almost seven years, the TBWQ completed its task by finalising and gaining approval from the MRC Joint Committee in November 2016 in Pakse, Lao PDR.

The development of the TGWQ is divided into two periods. The first period (2009-2010) concerned the development of the initial part of TGWQ, while the second period (2011-2016)

was attached to the development of the more advanced second part. Due to the differing natures of routine water quality monitoring, emergency water quality responses and the importance of continuing the water quality monitoring activity, while waiting for finalisation of part II, the MRC Joint Committee on March 2010 in Luang Prabang, Lao PDR agreed for the Secretariat to initiate the implementation of the first part of TGWQ.

### Evidence of Change

There are two levels of implementation of the first part in relation to routine water quality monitoring. The actual monitoring of water quality is being done at national levels by relevant line/implementing agencies of the MCs. These line agencies are the designated water quality monitoring (WQMN) laboratories in the MCs. They are responsible for collecting water samples and analysing key water quality parameters, as agreed by the MCs and the MRC. Assigned to monitor water quality, the designated WQMN laboratories are also responsible for data management at the national level and preparing annual data assessment reports. Water quality data and annual data assessment reports from each MC are required to be submitted to the MRC Secretariat on an annual basis.

At the regional level, the MRC Secretariat (MRCS) is responsible for validating water quality data submitted by the National Mekong Committee Secretariat (NMCS). The MRCS is also responsible for reviewing and providing any feedback on the annual national water quality data assessment report. National water quality data assessment reports are to be kept with the MRCS for record and reference. Validated raw water quality data will be forwarded to relevant officers responsible for the MRC data management for storage and sharing in the MRC data portal. After receiving data and reports from the MCs, the MRCS is responsible for preparing and publishing annual regional water quality data assessment reports (or the Annual Lower Mekong Water Quality Report). The MRCS is also responsible for preparing and publishing the Lower Mekong River Report Card on Water Quality on a

biennial basis. These reports are required per the provisions of the MRC Procedures for Water Quality.

The latest monitoring of the Mekong and Bassac rivers indicates a slight improvement in overall water quality from 2014. The water quality was in Good condition for the Protection and Human Health and Aquatic Life, meaning that water conditions rarely depart from desirable levels. In addition, there were no restrictions on using the river water for any type of agriculture (see the Figures below).

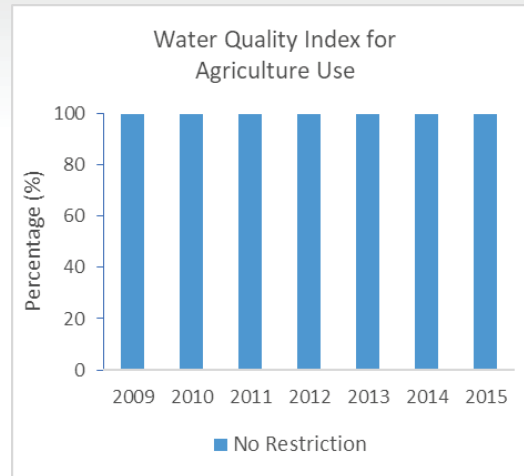
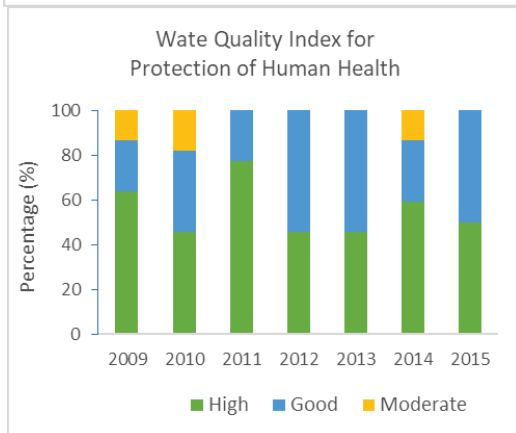
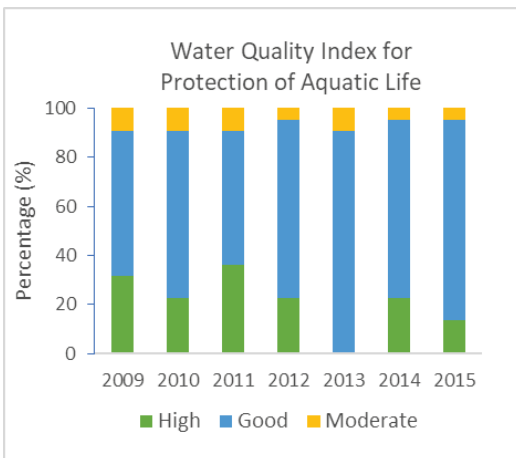


Figure. Water quality index for Protection of Aquatic Life, Human Health, and Agriculture Use



With respect to part II on emergency water quality response, in accordance with Articles 7, 8 and 10 of the 1995 Mekong Agreement and Article 5.2 of the Procedure for Water Quality, the MCs, with technical support from the MRC Secretariat, will immediately act to deal with any transboundary water quality emergency when it occurs, by every means and effort possible.

In implementation of water quality emergency response and management, the Member Countries can refer to the Working Document on Water Quality Emergency Response and Management that was discussed by MCs during 2011-2015 and which can be found in the WQ Guidelines. This working document can serve as a basis for improving the national and regional process on water quality emergency response and management. The Member Countries have agreed to continue to improve this working document, which can serve as the main reference for implementation and improvement of the Guidelines for Water Quality Emergency Response and Management.

In terms of mechanisms and tools to be used for water quality emergency response and management, the MCs and MRC Secretariat will make best use of the existing national and regional relevant mechanisms and tools. This is to align with national legal and institutional frameworks, avoid duplication, provide for flexible, effective and efficient use of resources,

maintain sustainability of the implementation and strengthen cooperation between the MRC and other regional organisations to respond to and cope with transboundary water quality emergencies in the Mekong.

The MCs also recognise some existing mechanisms and tools for emergency responses including the ASEAN Agreement on Disaster Management and Emergency Response, which all four MRC Member Countries are party to, and the Standard Operating Procedures for Regional Standby Arrangements and Coordination of Joint Disaster Relief and Emergency Response Operation under the ASEAN cooperation framework. As long as the ASEAN mechanisms are expanded to cover water quality emergency issues, as stipulated in the ASEAN Vision 2025 on Disaster Management, the MRC MCs will look at utilising the mechanisms to cope with trans-boundary water quality emergencies.

The National Mekong Committees plan to explore and interact with the National ASEAN Focal Point on Disaster Management in their respective countries with the support of the MRCS to build up the cooperation between MRC and ASEAN in water quality emergency response and management. At the regional level, the MRC Secretariat shall enhance its interaction with the ASEAN Coordination Centre for Humanitarian Assistance on Disaster Management for the same purpose.

### **Gender**

In the Lower Mekong Basin, women are usually responsible for housework, which consumes water. The water quality monitoring network (WQMN) provides information on water quality at different areas that helps women find access to clean water. In addition, the WQMN provides job opportunities for women. Currently, there are several women working at water laboratories of the Member Countries, analyzing water samples, and contributing to promoting the water quality network.

### **Conclusion**

*The finalisation of the  
Technical Guidelines for  
Water Quality in 2016  
marks an important  
achievement in MRC  
cooperation*

This will clearly contribute to our joint efforts on maintenance of the Mekong to acceptable and good water quality. When these guidelines are combined with other mechanisms it will help make life safer and healthier for those who call the region home, while at the same time promoting the sustainable development of the Mekong River Basin.

## OUTCOME 5: EFFECTIVE DIALOGUE AND COOPERATION BETWEEN MEMBER COUNTRIES AND STRATEGIC ENGAGEMENT OF REGIONAL PARTNERS AND STAKEHOLDERS ON TRANSBOUNDARY WATER MANAGEMENT

Indicator: Evidence of stronger engagement with China and Myanmar

CHINA WATER SUPPLEMENTARY  
RELEASE SIGNALS INCREASING  
COOPERATION

### Context

Observation of global land and ocean temperatures reveals that 2015-2016 are the warmest years on record. The El Niño 2015-2016 is recorded to be the strongest and has already created weather chaos around the world, including the Lancang-Mekong Basin, which have been hit by abnormally dry conditions. Consequently, the countries in the Lancang-Mekong Basin have suffered in various degrees from the drought caused by the effects of the super El Niño since the end of 2015. Equally, the Mekong Delta is particularly subject to severe drought, and water levels of the Mekong River dropped to very low levels, which affected agricultural and fisheries production in the region and the livelihoods of riparian people.

In this context, cooperation with China on releasing supplementary water from their dams was an important undertaking. Despite suffering from water shortages itself, China implemented its emergency water supplementary release from its cascade dams in the Lancang River to the Mekong River by increasing the water discharge from Yunnan's Jinghong Reservoir in 'three phases': (1) from 9 March to 10 April 2016, with an average daily discharge of no less than 2,000 m<sup>3</sup>/s; (2) from 11 April to 20 April 2016 with the discharge of no less than 1,200 m<sup>3</sup>/s; and (3) from 21 April to 31 May 2016 with the discharge of no less than 1,500 m<sup>3</sup>/s.

### Evidence of Change

Hydrological data sharing between the MRC and China has been limited to the flood season. Other forms of cooperation include annual dialogue meetings, exchange visits, the participation of China in MRC technical meetings, and two joint technical symposiums.

Cooperation over the supplementary water release was not only limited to the act itself but also it was the very first time MRC and China jointly collaborated in assessment of the effects of the release, and preparation of a report. In the Joint Observation and Evaluation of the Emergency Water Supplement, Chinese and MRCS researchers exchanged and shared data from 22 hydrological stations for water levels and discharges along the Mekong mainstream, including one station in China. In the course of this study, besides regular hydrological data sharing, additional daily water level and discharge for the dry season of 2016 and its long-term average of 1960-2009 and 2010-2015 from both sides were exchanged and used in the analyses within the report.

Similarly, the methodology for the analyses were jointly developed and adopted. They analysed together the cause of the drought in the Lancang-Mekong Basin, the impact of the Lancang cascade reservoirs operation on dry season flows, hydrological influence of the supplementary emergency water on the Mekong mainstream, and variation in the Mekong's water level during the emergency period, among other aspects.

The study found that the supplementary water release was effective, increasing water levels and discharge at most stations along the Mekong mainstream and maintaining it above the long-term average most of the time and even higher than the long-term maximum

level in March and April. Equally, the supplementary water also contributed to alleviate salinity intrusion in the Mekong Delta, decreasing the maximum salinity level in the delta area by varying degrees.

### Conclusion

During conduct of the Joint Observation and Evaluation, discussion and exchange between the Mekong River Commission and China were collaborative and friendly. This laid a good foundation for further cooperation between China, the Mekong River Commission Secretariat and its Member Countries in other areas, including the joint research ON Hydrological Impact of the Lancang Hydropower Cascade on Downstream Floods and Droughts.

For the Joint Research, China and MRC will invite experts from Myanmar to participate. At the 20<sup>th</sup> Dialogue Meeting in July 2016, MRC and Myanmar discussed potential cooperation in areas of hydrology, hydrodynamics, modelling, GIS, navigation,

basin planning and bringing MRC experiences to share for the development of the Ayeyarwady river.

*The MRC along with China and the International Water Management Institute (IWMI) have recently agreed to conduct another study on hydrological impacts of the Lancang hydropower cascade on downstream extreme events, such as floods and droughts in the dry season*

**Table 7 | Contribution of accumulated volume at Jinghong to that at stations along the Mekong mainstream during the emergency water supplement of 2016.**

Station	Travelling time	Moving band of 32 days	Discharge (m <sup>3</sup> /s)	Volume (billion m <sup>3</sup> )	Ratio of Jinghong
Jinghong	+0 day	10 Mar to 10 Apr	2,170	6.00	100%
Chiang Saen	+1 day	11 Mar to 11 Apr	2,199	6.08	99%
Luang Prabang	+4 days	14 Mar to 14 Apr	2,237	6.18	97%
Nong Khai	+9 days	19 Mar to 19 Apr	2,361	6.53	92%
Nakhon Phanom	+12 days	22 Mar to 22 Apr	3,262	9.02	67%
Mukdahan	+13 days	23 Mar to 23 Apr	3,748	10.36	58%
Pakse	+15 days	25 Mar to 25 Apr	3,781	10.45	57%
Stung Treng	+17 days	27 Mar to 27 Apr	3,726	10.30	58%

## OUTCOME 6: BASIN-WIDE MONITORING, FORECASTING, IMPACT ASSESSMENT AND DISSEMINATION OF RESULTS STRENGTHENED FOR BETTER DECISION-MAKING BY MEMBER COUNTRIES

Indicator: Quality (timeliness and accuracy) of MRC forecasting information in critical or emergency situations

### MRC FLOOD FORECASTING DELIVERS VALUE

#### Context

Flooding is one of the most important issues facing the Mekong, making flood forecasting one of the MRC's key core river basin functions. In this regard, two important routine responsibilities continued; namely i) produce 7-day lead time river monitoring on a weekly basis during dry season from November 2015 to May 2016 for 22 mainstream stations along the river and daily 5-day lead time flood forecast for flood season from June-October 2016, and ii) provide flash flood information to the MRC Member Countries.

For the latter, the MRCS Regional Flood Management and Mitigation Centre in Phnom Penh along with the Hydrological Research Centre (HRC) in San Diego, California, USA have implemented a flash flood guidance system (FFGS) to help mitigate flash flooding. This

information has been available since 2009 to users in the Member Countries but is also available for other users who can use the data for other purposes, such as research or interventions related to flood risk assessment.

Lastly, the flood team produced the Annual Mekong Flood Report (AMFR) since 2005, with information on flood impact and damage occurring in the Lower Mekong Basin. The reports summarize statistics of socio-economic loss affected by floods in each member country. The AMFR serves as a reference for awareness on flood related damage and trends in the Lower Mekong Basin.

#### Evidence of Change

A large number of people have been accessing flood forecasting information on the MRC website. In 2016 alone, according to website statistics, nearly three million visited the MRC flood webpage.

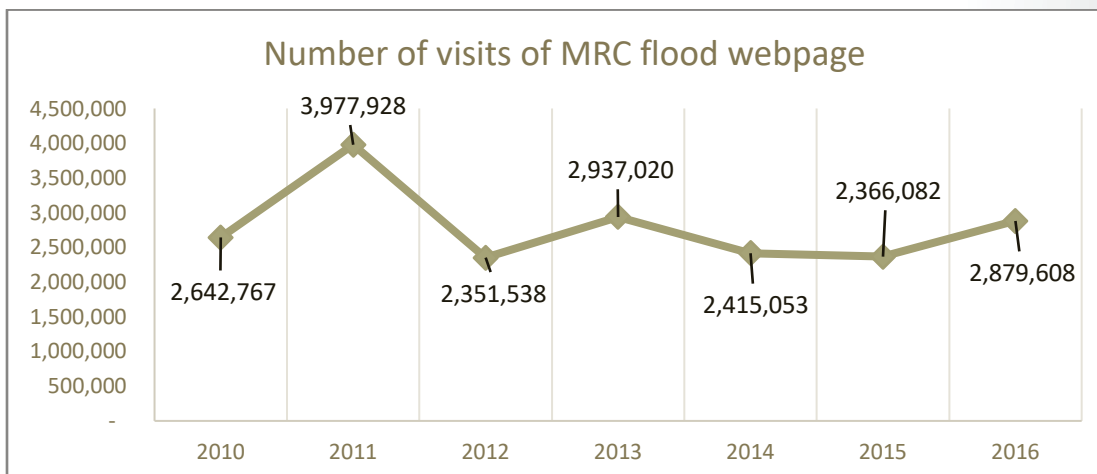


Figure 2: number of visits of MRC flood webpage (2010-2016)



Meanwhile, recognising the value and usefulness of the system, MRC Dialogue Partner Myanmar expressed interest in becoming part of the system. Myanmar was involved in training in 2015 and participated in the first Steering Committee Meeting of the Flash Flood Guidance System held in Cambodia in late 2016.

### **Conclusion**

Flood forecasting is a core business of MRC. While accuracy of river forecasting for 4-day and 5-day lead times, especially at stations in Thailand is still limited, improvement of the system is being considered with recalibration of the current system with additional input and assessment of other more robust forecasting methods. Furthermore, satellite rainfall forecasting is currently verified with ground rainfall and the results will be fed to medium and long-term river forecasting. The flood team will also be working on calibration of GSMaP with JAXA for rainfall-runoff simulation.

## OUTCOME 7: MRC TRANSITIONED TO A MORE EFFICIENT AND EFFECTIVE ORGANISATION IN LINE WITH THE DECENTRALISATION ROADMAP AND RELATED REFORM PLANS

Indicator: Extent to which MRCS organisational structure supports integrated water resources planning & implementation (IWRM Framework)

### KEY ORGANISATIONAL REFORM TARGETS ACHIEVED IN 2016

#### Context

Sustainability of the Organisation was high on the agenda for the First MRC Summit in 2010, where the Prime Ministers of the four Member Countries committed to MRC's self-sufficiency by 2030. This again was reaffirmed at the Second MRC Summit in 2014, which gave momentum to the reform process. Although MRC had worked on reforms for some time, it was 2016 that witnessed the realisation of key objectives and targets in strategic planning and monitoring, mode of operation, as well on the financial and administrative fronts.

#### Evidence of Change

First, the MRC consolidated its multiple programme planning processes (about 13) into one starting with the preparation of the Basin Development Strategy at the basin scale, to be implemented through the MRC Strategic Plan at the organisational level and National Indicative Plans at the national level. The one streamlined strategic planning approach achieved much needed integration, incorporated nexus thinking, minimised duplication and engaged broader stakeholders in a systematic fashion. The new Monitoring and Evaluation (M&E) Framework also streamlined the number of indicators (from almost 2,000 in the previous period to 100+) and emphasised mutual accountability between regional and national implementation. The new M&E also highlights the need to focus on outcomes or beneficial changes and to present and promote "evidence of change".

Second, the MRC continued to decentralise core river basin management function activities mostly related to routine monitoring from the MRC Secretariat to the Member Countries. Despite some challenges, 2016 saw Member Countries implementing the activities that had been decentralised, including monitoring real-time hydromet parameters, monitoring rainfall and water levels, and commitment to provide national socio-economic data for basin planning purposes. The updated and finalised National Indicative Plans also incorporated the decentralised and decentralising activities, further institutionalising the countries commitment to funding and implementation in the years ahead.

Third, a leaner structure of the MRC Secretariat with one Headquarters location in Vientiane was implemented. Moving from 13 programmes into four divisions and one Office of the CEO promoted better alignment of work and collaboration among staff. The integration into one HQ decreased operational costs and at the same time increased efficiency.

Fourth, optimising human resources with better gender balance occurred. The MRCS prepared and consulted on the staffing composition for the new structure and recruitment plan and carried out the biggest recruitment effort in its organisational history. At the end of the year, the MRC had 64 full-time staff, reduced from almost 200 in the previous period. The gender balance for professional staff was improved, with 45% female and 55% male staff compared to 32% and 68% in 2012.

Fifth, the MRC shifted its mode of operations from donor-dependent programmes to basket-fund, core function-based activities increasingly funded by countries. With this new approach, the MRC had the flexibility to allocate funds to priority areas. The reform

better controlled the cost of meetings and interventions and ensures accountability and transparency.

Finally, the MRC achieved self-financed targets for the period 2016-2020 much earlier than its target of 2030. By end of 2016, Development Partners committed US\$32.1 million with financial agreements as well as pledging

another US\$15.6 million for the current strategic cycle of 2016-2020. The Member Countries also committed at least US\$12.5 million for 2016-2020, an increase of US\$3 million from the 2011-2015 cycles. Altogether, the MRC secured more than 90 per cent of the financial requirements of US\$65 million in the current strategic cycle.

### **Conclusion**

The MRC made great strides in 2016 to improve the efficiency of the organisation. With a new structure in place, most staff recruited, finance secured, operating out of one Headquarters, and a new enhanced M&E system focusing on results and mutual accountability, the MRC is ready to tackle the challenges of transboundary resources development and management. It is expected that 2017 will be a year of implementation and realisation after a difficult period of reform and transition in the previous year.

## MRCS FINANCIAL REPORT FOR 2016

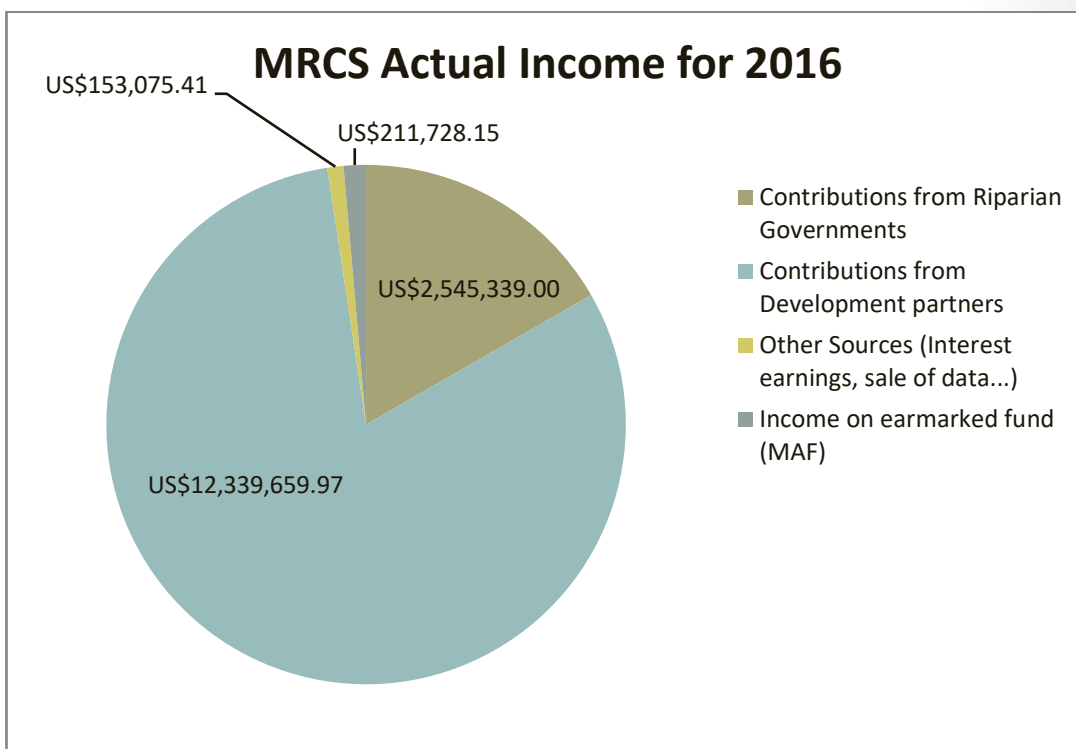
This report aims to provide a brief on the financial status of the MRCS, including Basket Fund (BF) and Earmarked Fund (EF) for the period from January to December 2016.

In the Annual Work Plan 2016, the total budget was planned for \$17,518,577, out of which \$8,333,921 was for activities using the Basket Fund and \$9,184,656 was for activities using the Earmarked Fund.

As of the period ending 2016, the MRCS had received a total funding of US\$15,249,802.53 that included US\$8,781,598.86 for the Basket Fund (BF), and US\$6,468,203.67 for the Earmarked Fund (EF), equivalent to 82% of the total planned budget for the year.

The overall expenditure for the period was US\$9,143,947.22, equivalent to 52% of the planned expenditure budget for the year. This included US\$5,160,243.80 for the Basket Fund and US\$3,983,703.42 for the Earmarked Fund, excluding a cash advance of US\$94,367 for the Council Study. The low expenditure was caused by the focus on reforms as well as minimal cash on hand for activity implementation in the year.

The Chart below displays the proportion of funds contributed by Member Countries and Development Partners for the year. The chart indicates that the majority of contributions were from Development Partners followed by Member Countries.



The table below shows the overall financial statement of the MRCS for the period from January to December 2016. The first section indicates the income for the period detailing the source of income. The second part details expenditure by output combining Basket and Earmarked Funds.

**Mekong River Commission**  
**Income and Expenditure Statements (Overall Basket and Earmark Fund)**  
**Ending December 31, 2016**

INCOME	Planned Budget 2016	Year -to-date Actual receipt	Variance/ Outstanding	Disbursement rate %	USD
Contributions from Riparian Governments	2,569,756.00	2,545,339.00	24,417.00	99%	
Contributions from Development partners	15,203,503.00	12,339,659.97	2,863,843.03	81%	
Contribution from Other Sources (Interest, sale of data)	280,676.00	153,075.41	127,600.59	55%	
Income from earmarked fund (MAF)	463,126.00	211,728.15	251,397.85	46%	
<b>Total Overall Income</b>	<b>18,517,061.00</b>	<b>15,249,802.53</b>	<b>3,267,258.47</b>	<b>82%</b>	

OVERALL EXPENDITURE AS OF DEC 16		Planned	Actual expenditure	variance	%
<b>Output codes</b>					
Output 1.1	Drought / crop production	122,500.00	57,240.28	65,259.72	47%
Output 1.4	Development scenario	2,237,259.34	1,566,383.43	670,875.91	70%
Output 1.7	Study on transboundary	10,000.00	3,612.16	6,387.84	36%
Output 2.1	Review regional power	-	-	-	-
Output 2.2	Flood management strategies	760,000.00	-	760,000.00	0%
Output 2.3	Fisheries strategy (BFMS)	85,895.27	38,854.94	47,040.33	45%
Output 2.4	Regional benefit sharing &	2,069,975.00	1,020,488.71	1,049,486.29	49%
Output 2.5	MASAP	812,937.80	596,907.99	216,029.81	73%
Output 2.6	BDS & NIPs	25,000.00	18,352.64	6,647.36	73%
Output 2.7	Navigation Master Plan	3,500.00	-	3,500.00	0%
Output 2.9	Drought management strategy	92,200.00	46,813.47	45,386.53	51%
Output 3.1	Preliminary design guidance &	500,000.00	410,335.84	89,664.16	82%
Output 3.2	Flood risk management	-	-	-	-
Output 3.3	Waterborne transport	20,000.00	-	20,000.00	0%
Output 3.4	Support sustainable	80,000.00	16,671.58	63,328.42	21%
Output 3.6	Watersheds management	105,000.00	18,693.32	86,306.68	18%
Output 3.8	Drought adaptation guidelines	15,000.00	-	15,000.00	0%
Output 3.9	Wetlands management	283,800.00	4,373.48	279,426.52	2%
Output 3.10	Guidance for design &	60,000.00	45,288.72	14,711.28	75%
Output 3.11	Guidelines for fish-friendly	50,000.00	38,404.00	11,596.00	77%
Output 3.12	Transboundary EIA guidelines	377,971.00	69,870.70	308,100.30	18%
Output 4.1	Support implementation of	90,000.00	37,025.13	52,974.87	41%
Output 4.2	Support Joint Platform and	345,486.13	54,060.88	291,425.25	16%
Output 4.3	Strengthening understanding &	-	-	-	-
Output 5.1	Strengthening cooperation	20,000.00	-	20,000.00	0%
Output 5.2	Partnerships with ASEAN, GMS	70,000.00	19.21	69,980.79	0%
Output 5.3	Regional Stakeholder Forum	35,000.00	-	35,000.00	0%
Output 6.1	Routine monitoring and	1,573,029.91	126,477.04	1,446,552.87	8%
Output 6.2	Information system and	65,000.00	3,510.00	61,490.00	5%
Output 6.3	Update modelling, analysis and	217,373.00	12,161.36	205,211.64	6%
Output 6.4	SOB and technical reporting	530,749.73	101,219.87	429,529.86	19%
Output 6.5	Data portal management and	20,000.00	8,450.00	11,550.00	42%
Output 7.1	MRCs structural reform	150,280.00	13,362.00	136,918.00	9%
Output 7.2	MRCs human resource reform	100,000.00	43,457.56	56,542.44	43%
Output 7.3	MRCs financial reform	100,000.00	41,493.39	58,506.61	41%
Output 7.4	M&E and reporting system	60,000.00	33,425.78	26,574.22	56%
Output 7.5	SP preparation and support of	36,000.00	29,120.23	6,879.77	81%
<b>Subtotal</b>		<b>11,123,957.18</b>	<b>4,456,073.71</b>	<b>6,667,883.47</b>	
<b>Operations / Governance,</b>		<b>6,394,619.82</b>	<b>4,687,873.51</b>	<b>1,706,746.31</b>	
<b>Subtotal</b>		<b>6,394,619.82</b>	<b>4,687,873.51</b>	<b>1,706,746.31</b>	
<b>Overall Total Expenditure</b>		<b>17,518,577.00</b>	<b>9,143,947.22</b>	<b>8,374,629.78</b>	<b>52%</b>

The overall expenditure for the period was US\$9,143,947.22, equivalent to 52% of the planned expenditure budget for the year 2016.

The table below displays the overall expenditure by expenditure category for the period ending December 2016. The information in this table corresponds with the above table in order to provide more detailed expenditure.

<b>Expenditure By Category as of ended Dec 16</b>	<b>Planned</b>	<b>Actual</b>	<b>Rate</b>
Salary and Fee	3,201,758.98	2,530,377.35	79%
Employment Benefit Cost	1,051,143.30	879,731.65	84%
Contractual Services	282,147.24	139,333.25	49%
General Operating Expenses	634,263.02	279,041.48	44%
Personnel Recruitment	116,000.00	48,066.91	41%
National/Riparian Consultants	3,343,571.55	1,816,885.49	54%
International consultants	3,067,327.77	1,630,420.21	53%
Official Travel	630,132.07	73,375.09	12%
Governance Meeting Expenses	359,703.00	250,615.43	70%
National Consultation Meeting	1,553,150.70	617,407.56	40%
Regional Consultation Meeting	1,617,395.61	468,308.69	29%
Support to Decentralization & NIP	72,000.00	69,117.98	96%
MOU with NMC	1,155,860.17	97,422.01	8%
Capacity building to NMCs	40,000.00	-	0%
Training	10,000.00	-	0%
International conference/workshop	30,000.00	-	0%
Project equipment	136,773.61	26,494.13	19%
Contingency	5,621.84	5,621.84	100%
MAF	211,728.15	211,728.15	100%
<b>Total Expenditure as of 31 Dec 16</b>	<b>17,518,577.00</b>	<b>9,143,947.22</b>	<b>52%</b>

The below section provides financial information and explanation for each fund linked to the above tables.

#### **Basket Fund (BF) Financial Status**

Of the total US\$8,781,598.86 received, the contribution from the Member Countries totalled US\$2,545,339.00 and contributions from development partners US\$5,900,969.59, while other sources of income totalled US\$335,290. This funding shows a significant commitment from the Member Countries as well as development partners for the implementation of MRC planned activities.

On the expenditure side of the account, as of December 2016, a total of US\$5,160,243.80 has been recorded. Thus, the organisation has only disbursed approximately 62 percent of the total planned budget of US\$8,333,921 for the year 2016.

The delay was mainly caused by the focus on reform, shortage of cash on hand as well as a commitment to complete former programmes in the first half of 2016. Human resource constraints contributed to the delay in implementation of the planned activities for the year. During the year, the recruitment process for the new structure took 3-4 months, with many new key personnel only joining the Secretariat during the last few months of the year.

The table below provides financial information on the Basket Fund breakdown by output for the same period ending December 2016.

**Mekong River Commission**  
**Basket Fund (BF) Income and Expenditure Statements**  
**Ending December 31, 2016**

	Approved Budget 2016	Year-to-date Actual Receipt	Variance/ Outstanding	USD Disbursement rate %
<b>INCOME</b>				
Contributions from Riparian Governments	2,569,756.00	2,545,339.00	24,417.00	99%
Contributions from Development partners (DPs)	6,060,000.00	5,900,969.59	159,030.41	97%
Contribution from Other Sources (Interest income and sale of data)	743,802.00	335,290.27	408,511.73	45%
<b>Total income for Basket Fund</b>	<b>9,373,558.00</b>	<b>8,781,598.86</b>	<b>591,959.14</b>	<b>94%</b>

<b>EXPENDITURE</b>		Planned	Actual expenditure	Variance	%
<b>Output codes</b>					
Output 1.1	Drought / crop production study	-	-	-	-
Output 1.4	Development scenario assessments (incl Council	500,000.00	331,177.02	168,822.98	66%
Output 1.7	Study on transboundary impacts	-	-	-	-
Output 2.1	Review regional power demand and integration	-	-	-	-
Output 2.2	Flood management strategies	60,000.00	-	60,000.00	0%
Output 2.3	Fisheries strategy (BFMS)	35,000.00	37,704.14	(2,704.14)	108%
Output 2.4	Regional benefit sharing & transboundary projects	40,000.00	-	40,000.00	0%
Output 2.5	MASAP	20,000.00	13,174.54	6,825.46	66%
Output 2.6	BDS & NIPs	25,000.00	18,352.64	6,647.36	73%
Output 2.7	Navigation Master Plan	-	-	-	-
Output 2.9	Drought management strategy	-	-	-	-
Output 3.1	Preliminary design guidance & sustainable	500,000.00	410,335.84	89,664.16	82%
Output 3.2	Flood risk management guidelines	-	-	-	-
Output 3.3	Waterborne transport guidelines	-	-	-	-
Output 3.4	Support sustainable hydropower on tributaries	80,000.00	16,671.58	63,328.42	21%
Output 3.6	Watersheds management	-	-	-	-
Output 3.8	Drought adaptation guidelines	-	-	-	-
Output 3.9	Wetlands management	-	-	-	-
Output 3.10	Guidance for design & operation of irrigation	-	-	-	-
Output 3.11	Guidelines for fish-friendly irrigation	-	-	-	-
Output 3.12	Transboundary EIA guidelines	-	-	-	-
Output 4.1	Support implementation of Procedures and	10,000.00	2,000.00	8,000.00	20%
Output 4.2	Support Joint Platform and Procedures Working	272,705.00	12,921.50	259,783.50	5%
Output 4.3	Strengthening understanding & capacity to	-	-	-	-
Output 5.1	Strengthening cooperation with Dialogue Partners	20,000.00	-	20,000.00	0%
Output 5.2	Partnerships with ASEAN, GMS and other	70,000.00	19.21	69,980.79	0%
Output 5.3	Regional Stakeholder Forum establishment	35,000.00	-	35,000.00	0%
Output 6.1	Routine monitoring and forecasting	707,129.00	50,488.61	656,640.39	7%
Output 6.2	Information system and database management	65,000.00	3,510.00	61,490.00	5%
Output 6.3	Update modelling, analysis and assessment tools	40,000.00	2,532.74	37,467.26	6%
Output 6.4	SOB and technical reporting	50,000.00	40,389.46	9,610.54	81%
Output 6.5	Data portal management and knowledge/info	20,000.00	8,450.00	11,550.00	42%
Output 7.1	MRCS structural reform	10,000.00	-	10,000.00	0%
Output 7.2	MRCS human resource reform	100,000.00	43,457.56	56,542.44	43%
Output 7.3	MRCS financial reform	100,000.00	41,493.39	58,506.61	41%
Output 7.4	M&E and reporting system	60,000.00	33,425.78	26,574.22	56%
Output 7.5	SP preparation and support of finalisation of NIPs	36,000.00	29,120.23	6,879.77	81%
<b>Subtotal</b>		<b>2,855,834.00</b>	<b>1,095,224.24</b>	<b>1,760,609.76</b>	
<b>Operations / Governance, Dialogu and Donor</b>		<b>5,478,087.00</b>	<b>4,065,019.56</b>	<b>1,413,067.44</b>	
<b>Subtotal</b>		<b>5,478,087.00</b>	<b>4,065,019.56</b>	<b>1,413,067.44</b>	
<b>Total Expenditure for Basket Fund</b>		<b>8,333,921.00</b>	<b>5,160,243.80</b>	<b>3,173,677.20</b>	<b>62%</b>

The table below displays the expenditure by category for the period ending December 2017.

<b>Basket Fund Expenditure By Category as of ended Dec 16</b>	<b>Planned</b>	<b>Actual</b>	<b>Rate</b>
Salary and Fee	2,617,790.41	2,193,065.90	84%
Employment Benefit Cost	897,299.60	752,478.31	84%
Contractual Services	173,075.24	129,905.25	75%
General Operating Expenses	487,106.76	260,069.71	53%
Personnel Recruitment	116,000.00	48,066.91	41%
National/Riparian Consultants	961,828.00	629,102.23	65%
International consultants	776,960.00	560,553.31	72%
Official Travel	480,924.00	35,602.41	7%
Governance Meeting Expenses	359,703.00	250,615.43	70%
National Consultation Meeting	224,946.50	34,319.28	15%
Regional Consultation Meeting	568,058.50	148,694.20	26%
Support to Decentralization & NIP	72,000.00	69,117.98	96%
Support to NMC	598,229.00	48,652.88	8%
<b>Total Basket Fund Expenditure as of 31 Dec 16</b>	<b>8,333,921.00</b>	<b>5,160,243.80</b>	<b>62%</b>

### Earmarked Fund (EF) Financial Status

In 2016, the MRCS received US\$6,468,203.67 from Development Partners who earmarked their funding for certain activities/projects. This is inclusive of interest income of US\$29,513.29 for the year. This is approximately 71% of the US\$9,143,503.00 planned budget for the AWP 2016.

As of 31 December 2016, total expenditure under the Earmarked Fund was US\$3,983,703.42, which is equivalent to 43% of the total planned budget.

The table below shows the Earmarked Fund expenditure by output for the period January to December 2016.



Mekong River Commission  
Earmarked Fund (EF) Income and Expenditure Statements  
Ending December 31, 2016

	Approved Budget 2016	Year-to-date Actual Receipt	Variance/ Outstanding	Disbursement rate %	USD
<b>INCOME</b>					
Contribution from DPs as earmarked fund	9,143,503.00	6,438,690.38	2,704,812.62	70%	
Interest income from DPs fund (earmarked fund)	-	29,513.29	(29,513.29)	-	
<b>Total Income for Earmarked Fund</b>	<b>9,143,503.00</b>	<b>6,468,203.67</b>	<b>2,675,299.33</b>	<b>71%</b>	

<b>EXPENDITURE</b>		Planned	Actual expenditure	Variance	%
<b>Output codes</b>					
Output 1.1	Drought / crop production study	122,500.00	57,240.28	65,259.72	47%
Output 1.4	Development scenario assessments (incl Council	1,737,259.34	1,235,206.41	502,052.93	71%
Output 1.7	Study on transboundary impacts	10,000.00	3,612.16	6,387.84	36%
Output 2.1	Review regional power demand and integration	-	-	-	-
Output 2.2	Flood management strategies	700,000.00	-	700,000.00	0%
Output 2.3	Fisheries strategy (BFMS)	50,895.27	1,150.80	49,744.47	2%
Output 2.4	Regional benefit sharing & transboundary projects	2,029,975.00	1,020,488.71	1,009,486.29	50%
Output 2.5	MASAP	792,937.80	583,733.45	209,204.35	74%
Output 2.6	BDS & NIPs	-	-	-	-
Output 2.7	Navigation Master Plan	3,500.00	-	3,500.00	0%
Output 2.9	Drought management strategy	92,200.00	46,813.47	45,386.53	51%
Output 3.1	Preliminary design guidance & sustainable	-	-	-	-
Output 3.2	Flood risk management guidelines	-	-	-	-
Output 3.3	Waterborne transport guidelines	20,000.00	-	20,000.00	0%
Output 3.4	Support sustainable hydropower on tributaries	-	-	-	-
Output 3.6	Watersheds management	105,000.00	18,693.32	86,306.68	18%
Output 3.8	Drought adaptation guidelines	15,000.00	-	15,000.00	0%
Output 3.9	Wetlands management	283,800.00	4,373.48	279,426.52	2%
Output 3.10	Guidance for design & operation of irrigation	60,000.00	45,288.72	14,711.28	75%
Output 3.11	Guidelines for fish-friendly irrigation	50,000.00	38,404.00	11,596.00	77%
Output 3.12	Transboundary EIA guidelines	377,971.00	69,870.70	308,100.30	18%
Output 4.1	Support implementation of Procedures and	80,000.00	35,025.13	44,974.87	44%
Output 4.2	Support Joint Platform and Procedures Working	72,781.13	41,139.38	31,641.75	57%
Output 4.3	Strengthening understanding & capacity to	-	-	-	-
Output 5.1	Strengthening cooperation with Dialogue Partners	-	-	-	-
Output 5.2	Partnerships with ASEAN, GMS and other	-	-	-	-
Output 5.3	Regional Stakeholder Forum establishment	-	-	-	-
Output 6.1	Routine monitoring and forecasting	865,900.91	75,988.43	789,912.48	9%
Output 6.2	Information system and database management	-	-	-	-
Output 6.3	Update modelling, analysis and assessment tools	177,373.00	9,628.62	167,744.38	5%
Output 6.4	SOB and technical reporting	480,749.73	60,830.41	419,919.32	13%
Output 6.5	Data portal management and knowledge/info	-	-	-	-
Output 7.1	MRCS structural reform	140,280.00	13,362.00	126,918.00	10%
Output 7.2	MRCS human resource reform	-	-	-	-
Output 7.3	MRCS financial reform	-	-	-	-
Output 7.4	M&E and reporting system	-	-	-	-
Output 7.5	SP preparation and support of finalisation of NIPs	-	-	-	-
<b>Subtotal</b>		<b>8,268,123.18</b>	<b>3,360,849.47</b>	<b>4,907,273.71</b>	
<b>Operations / Governance, Dialogu and Donor</b>		<b>916,532.82</b>	<b>622,853.95</b>	<b>293,678.87</b>	
<b>Subtotal</b>		<b>916,532.82</b>	<b>622,853.95</b>	<b>293,678.87</b>	
<b>Total Expenditure for Earmark Fund</b>		<b>9,184,656.00</b>	<b>3,983,703.42</b>	<b>5,200,952.58</b>	<b>43%</b>

The table below displays the Earmarked Fund expenditure by expenditure category for the period ending December 2016.

<b>Earmarked Fund Expenditure by category</b>	<b>Planned</b>	<b>Actual</b>	<b>Rate</b>
Salary and Fee	583,968.57	337,311.45	58%
Employment Benefit Cost	153,843.70	127,253.34	83%
Contractual Services	109,072.00	9,428.00	9%
General Operating Expenses	147,156.26	18,971.77	13%
Projects Equipment	136,773.61	26,494.13	19%
National/Riparian Consultants	2,381,743.55	1,187,783.26	50%
International consultants	2,290,367.77	1,069,866.90	47%
Official Travel	149,208.07	37,772.68	25%
Training	10,000.00	-	0%
National Consultation Meeting	1,328,204.20	583,088.28	44%
Regional Consultation Meeting	1,049,337.11	319,614.49	30%
International conference/workshop	30,000.00	-	0%
Capacity building to NMC	40,000.00	-	0%
Support to NMC	557,631.17	48,769.13	9%
Contingency	5,621.84	5,621.84	100%
Management and Administration Fees (MAF)	211,728.15	211,728.15	100%
<b>Total Earmark Fund Expenditure as of 31 Dec 17</b>	<b>9,184,656.00</b>	<b>3,983,703.42</b>	<b>43%</b>

### Financial Management Related Progress

MRCS is planning to update and revise the current financial manuals as well as administration and procurement manuals. The current financial manual was approved in 2006 and has not been updated since. Over the years, MRCS has implemented several changes, rendering some of the items in the financial manual obsolete. Two examples of these changes are the new financial system that MRCS introduced in 2016 and the Accounting Methodology from Cash Accounting moving toward Modified Accrual Accounting.

In 2017, the following parts of the financial manual will be updated:

- Updating all the financial management, internal control, and fiduciary requirements in accordance with the Modified Accrual Accounting basis.
- Updating the MRCS Financial Management System, budgets arrangement and budget management guidelines.
- Updating the name and role of authorities of each responsible person to ensure that they are in line with the new organisational structure.
- Simplifying the manual to ensure ease of understanding for staff and external parties.
- Ensuring the manual is in line with the new Earmark and Basket Fund guidelines.
- Updating the procedures to strengthen fiduciary control and ensure procedures support the implementation of each activity.
- Ensure that the manual is synchronised with the other manuals, such as the administration manual, procurement manual and HR manual.

On the accounting software, as reported previously, Phase 1 of the new Financial Management Information System (FMIS) with new accounting software (MS Dynamics NAV 2015) was completely installed in early 2016. The MRCS has been using the system since mid-February 2016 to record financial data. However, due to the ongoing restructuring process, during which the new financial team was not fully established, there were delays in some activities in the financial reform process. At the end of October 2016, with key personnel in place, financial reform was resumed. The finance team has been working closely with the software company to fine-tune the accounting system to make it consistent with the new reporting requirements as well as performing the 2016 year-end account closure process.

Furthermore, the audit process for 2016 only started in January 2017, since which time the team has been working intensively with external auditors from KPMG, PWC and Russell Bedford in order to fulfil all the transparency and fiduciary requirements of our Member Countries and Development Partners. The audit report for 2016 therefore faced some delays and will be completed by June 2017.

## CONCLUSION

In 2016, MRC made significant progress in operational, structural, staff and financial reforms. The programme era came to an end and core river basin functions took over. The MRCS received a new face with its three technical divisions, one administrative division, and the Office of the CEO in one permanent office location. Staff numbers were reduced and new staff recruited. The new Basin Development Strategy, MRC Strategic Plan and National Indicative Plans came into being and for the first time, MRC operated under a Basket Fund.

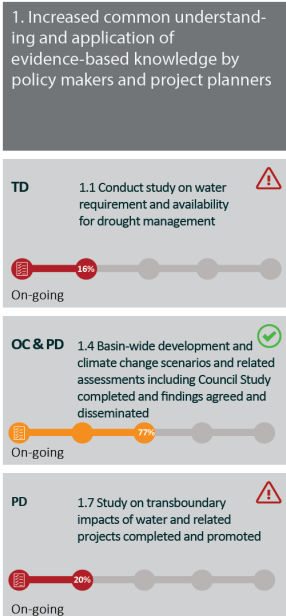
This major transition had its downsides: the Annual Work Plan for 2016 was too ambitious. The implementation of the new plan could only start in the second half of 2016, as the first half was spent completing the 12 cross-cutting and sectoral programmes. During the second half of the year, implementation was delayed due to the recruitment process. On top of that, a funding shortage affected implementation. As a consequence, the overall expenditure for 2016 was US\$9,143,947, just 52% of the planned expenditure for the year.

In the future, MRC needs to adapt its work plans to fit the organization's capacity, prioritize activities, and identify and plan measures to mitigate risks. With its new set-up, MRC is now equipped to accelerate implementation in 2017. Outstanding activities from the Annual Work Plan 2016 and a budget of approximately US\$5.3 million will be carried over into 2017. Accordingly, the Annual Work Plan 2017 needs to be adapted. Activities need to be prioritized and possible risks and how to tackle them taken into account.

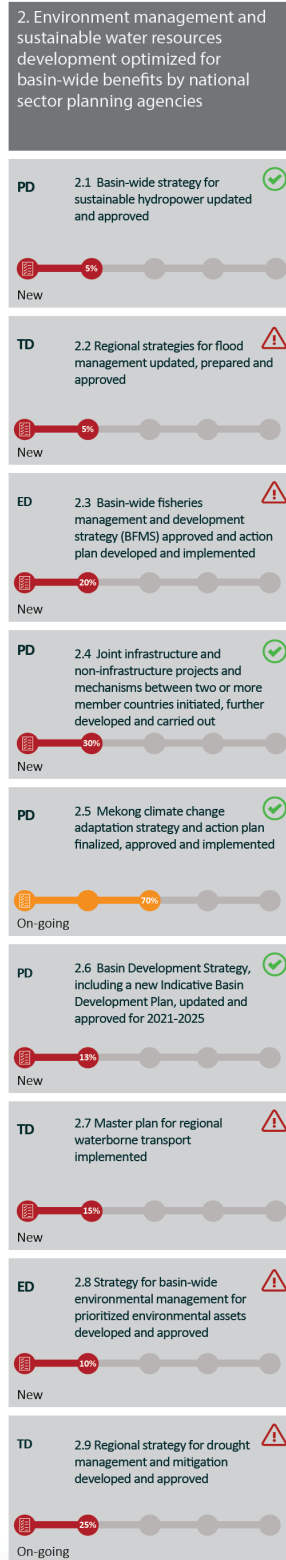
## PART II

### OVERVIEW OF OUTPUT PROGRESS

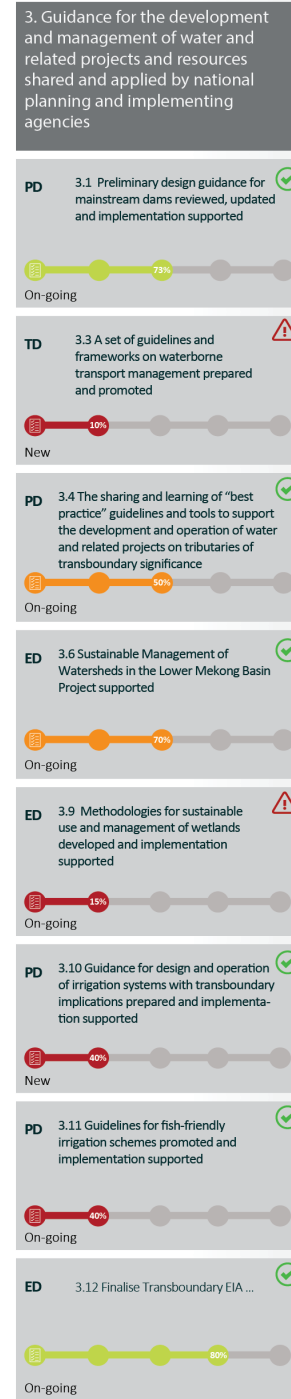
#### STUDIES



#### STRATEGIES

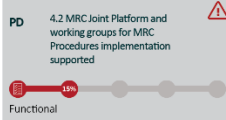
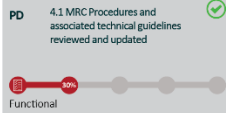


#### GUIDELINES



### PROCEDURES

4. Effective and coherent implementation of MRC Procedures by Member Countries



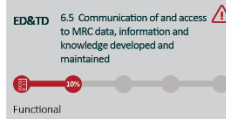
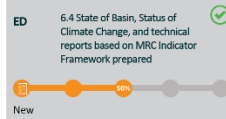
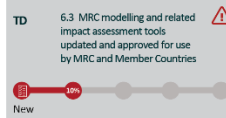
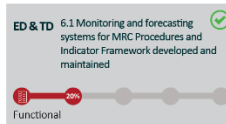
### COOPERATION

5. Effective dialogue and cooperation between Member Countries and strategic engagement of regional partners and stakeholders on transboundary water management



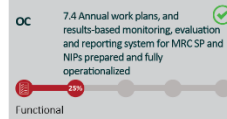
### MONITORING

6. Basin-wide monitoring, forecasting, impact assessment and dissemination of results strengthened for better decision-making by Member Countries



### ORGANIZATION

7. MRC transitioned to a more efficient and effective organisation in line with the decentralisation Roadmap and related reform plans



Division / Office	% of Completion Scale	Output Type	Status
AD: Administration Division ED: Environmental Management Division OC: Office of CEO PD: Planning Division TD: Technical Support Division	<p>Not Yet Started</p> <p>Completed preparatory work</p> <p>Half way done</p> <p>Completed most of the work</p> <p>Completed</p>	<p><b>On going:</b> 0-100% </p> <p><b>New:</b> 0-100% </p> <p><b>Functional:</b> +20% / year </p>	<p><b>On Track</b> </p> <p><b>Delayed</b> </p>

Some activities have been implemented according to plan and some were delayed because of various reasons. The table below provides an explanation on the Outputs/activities with low or no disbursements.


Output	Explanation
2.2 Flood management strategies	This work was awaiting the progress of the Initial Studies phase 2, which was not implemented in 2016 due to no funding.
2.4 Regional benefit sharing & transboundary projects	Only two regional meetings were carried out during the second half of 2016 using the World Bank fund for the IWRM project allocated for the joint projects. In addition, a contract for an international expert was initiated during the







	fourth quarter of 2016 but the outputs and payment will be produced and made in 2017.
3.4 Sustainable hydropower on tributaries	Activity was delayed due to shortage of funds during the first half of 2016 causing planned meetings to be delayed and some meetings will be shifted for implementation in 2017.
4.1 Support implementation of procedures	Work has been carried out in-house for the updated draft technical guidelines, comprehensive information report and PMFM website, but the 13 <sup>th</sup> TRG meeting was postponed until 2017.
4.2 Support Joint Platform and working groups	One notification of PNPCA process was submitted by Lao PDR for the Pak Beng Hydropower Project in November 2016. However, meetings and contracts of national and international experts will be carried out in 2017.
5.1 Cooperation with Dialogue Partners	Cooperation with China and Myanmar took place through exchange of visits (which used another budget line in terms of travel), Dialogue Meeting (which used the governance meeting budget line), and the collaboration on the supplementary water release, which did not require expenditure.
5.2 Partnerships	No activities occurred with regional partners in 2016 due to staff transition and reform.
5.3 Regional stakeholders	No regional stakeholder activities organized in 2016 due to minimal activities being implemented.
6.1 Routine monitoring and forecasting	Budget was planned for various monitoring activities, including fisheries and sediment but they were not implemented due to lack of cash on hand.
6.2 Information system and database	Activities not carried out due to lack of staff and recruitment of new specialist, who came on board only in late 2016.
6.3 Modelling, analysis, and assessment	Activities not carried out due to lack of staff and recruitment of new modellers, who came on board only in late 2016.
6.5 Data portal management and knowledge dissemination	Activities not carried out due to lack of staff and recruitment of new specialist, who came on board only in late 2016.
7.1 MRCS structural reform	Most of the structural reform work was accomplished in-house by MRCS staff (SP Team) and did not require consultancy. The planned retreat for the JC and MRCS senior management was postponed to 2017.
7.2 HR reform	Recruitment process was partly supported financially by GIZ (three consultants working with HR) thus reducing the direct cost to MRC.

	The update of the HR and associated manuals was postponed to 2017.
7.3 Financial reform	The new financial system faced some delays in terms of implementation and continued into 2017 – thus not spending all the budget.
7.4 M&E	M&E work was partly supported financially by Australia thus reducing the direct cost to MRC (at a time when cash on hand was short).

## OUTCOME BY OUTPUT INDICATORS

 Complete

 Incomplete








OUTCOME 1: INCREASED COMMON UNDERSTANDING AND APPLICATION OF EVIDENCE-BASED KNOWLEDGE BY POLICY MAKERS AND PROJECT PLANNERS	
INDICATOR	STATUS TO DATE
<i>Output 1.1 (TD)</i>	Conduct study on water requirement and availability for drought management
 Water requirement for each crop in drought prone areas of the LMB is assessed, (2) water availability in the area is modelled, and (3) water requiring gap for each crop of the drought prone areas is calculated for drought management work.	The script is being developed in collaboration with NASA team but still has bugs to be solved.
<i>Output 1.4 (OC&amp;PD)</i>	Finalise scenario assessments (incl. Council Study and Climate Change)
 Integrated assessment of development impacts of six thematic sectors under the Council Study completed and findings endorsed by the JC	Approach and methodologies for the assessment developed. Development scenarios for sectors and overall formulated in 2016 and will be agreed in 2017. Integrated assessment will be conducted in 2017.
 Exploratory and alternative basin-wide scenarios (with and without climate change) are formulated and the assessment results endorsed by the JC	Will not be started until the completion of the Council Study.
 Scenario assessment results used for the finalisation of the regional and basin-wide sector strategies and for the preparation and negotiation of updated BDS for 2021-2025	Will start in 2019.
<i>Output 1.7 (PD)</i>	Conduct study on transboundary impacts of irrigation projects
 Study report on trans-boundary impacts of irrigation project is completed	This report is being carried out under the Council Study.
 Study report on groundwater management is completed	This will be the new activity proposed for implementation in the newly funded project by the Japanese Government during 2017-2020. The project proposal will be developed in 2017.



■ Areas with potential on trans-boundary impacts of irrigation projects identified	This report is being carried out under the Council Study.
■ Areas with potential development for agricultural groundwater use identified	The concept notes of two pilot projects for “transboundary agricultural water use in LMB” and “developing road map and assessing necessary capacity for management of two transboundary aquifers” were drafted. The projects’ proposals will be developed and provided to MCs for comments in 2017. Then the pilot projects will be implemented in the newly funded project by the Japanese Government during 2017-2020.
■ Guidance for groundwater sustainable yield management for production is available	Not yet. This will be a new activity proposed for implementation in the new funded project by the Japanese Government during 2017-2020. The project proposal will be developed in 2017. The guidance should and will be developed after results from the two transboundary pilot projects are available.

**OUTCOME 2: ENVIRONMENT MANAGEMENT AND SUSTAINABLE WATER RESOURCES  
DEVELOPMENT OPTIMISED FOR BASIN-WIDE BENEFITS BY NATIONAL SECTOR PLANNING AGENCIES**

INDICATOR	STATUS TO DATE
<b>Output 2.1 (PD)</b>	<b>Update basin-wide strategy for sustainable hydropower</b>
■ Basin-wide Hydropower Strategy is updated	Preliminary concept was initiated.
■ Basin-wide Hydropower Strategy is endorsed by the JC and approved by Council to be incorporated into national plans	Not yet. The concept note for updating basin-wide strategy for sustainable hydropower will be prepared in 2017.
<b>Output 2.2 (TD)</b>	<b>Update flood management strategies</b>
■ Regional flood management and mitigation strategy is updated	Not yet. <b>To start after the completion of the Initial Studies Stage 2.</b>
■ Specific Regional Strategies are prepared (for XBF, NMK, CAM-THA and CAM-VN floodplain-delta)	The Initial Studies stage 1, which was completed, contributes to regional strategies preparation. The stage 2 of the Initial Studies will be implemented in 2017.
■ Regional strategies are endorsed by the JC and approved by Council to be incorporated into national plans	Not yet.
<b>Output 2.3 (ED)</b>	<b>Finalise &amp; Promote Basin-wide Fisheries Management &amp; Development Strategy (BFMS)</b>

<p> BFMS endorsed by the JC and approved by the Council</p>	<p>The final version of the BFMS had been prepared following national and regional technical meetings, as well as a regional stakeholder consultation workshop and the 22<sup>nd</sup> TAB meeting. The final version will be submitted to the JC for endorsement in 2017.</p>
<p> BFMS action plan is agreed by TAB (Technical Advisory Body on Fisheries Management in the LMB)</p>	<p>Not yet started as no budget was available during reform and transition period.</p>
<p> Relevant guidelines defined in the BFMS is endorsed by TAB</p>	<p>Not yet started as no budget was available during reform and transition period.</p>
<p><i>Output 2.4 (PD)</i></p>	<p><b>Support regional cost and benefit sharing &amp; transboundary projects</b></p>
<p> No. of benefit sharing projects in water and related sectors</p>	<p>Five joint projects were identified and agreed by the MCs. They include 1: navigation safety between Lao PDR and Thailand; 2: cross-border water resources development and management between Cambodia and Lao PDR; 3: transboundary cooperation for flood and drought between Cambodia and Thailand; 4: sustainable water resources development and management of the 3S between Cambodia, Lao PDR and Viet Nam; and 5: integrated flood management in the Delta between Cambodia and Viet Nam. The five joint projects are summarised and annexed in a report that will be used to promote the joint projects for funding and implementation support among development partners.</p> <p>Under the World Bank M-IWMP Core Transboundary Projects, the joint transboundary issues for IWRM in the Sesan-Srepok and the Mekong Delta and fisheries management in the Mekong-Sekong were agreed to and draft joint issues papers prepared.</p>
<p> Number of deals identified and further developed</p>	<p>Not yet.</p>
<p> Number of deals implemented as joint projects</p>	<p>Not yet.</p>
<p><i>Output 2.5 (PD)</i></p>	<p><b>Finalise the Mekong Adaptation Strategy and Action Plan (MASAP)</b></p>
<p> MASAP is endorsed by the JC and approved by the Council</p>	<p>Sector assessment reports (hydrology, flood, drought, hydropower, ecosystem, biodiversity, food security, and socio-economics) were in the final stage of reviewing and finalising and will be incorporated into the status report on climate change adaptation for the MASAP.</p> <p>The first draft of MASAP was prepared. Consultations will take place in 2017 and the final draft is expected to be completed by mid-2017 after a stakeholder forum meeting.</p>

<p>■ National government agencies integrate actions of the MASAP into their national planning of climate change and adaptation</p>	Not yet. This work will be initiated after approval of the MASAP by the MRC Council by the end of 2017 or early 2018.
<p>■ Basin-wide and sector strategies incorporate relevant actions of MASAP</p>	Not yet. To be carried out in 2018.
<p><b>Output 2.6 (PD)</b></p>	<p><b>Promote the Basin Development Strategy</b></p>
<p>■ Updated BDS, including a BDP, is prepared</p>	Not yet. To be carried out in 2018-2019.
<p>■ Updated BDS is endorsed by the JC and approved by the Council</p>	Not yet. To be carried out in 2019-2020.
<p><b>Output 2.7 (TD)</b></p>	<p><b>Promote and implement Master Plan for Regional Waterborne Transport</b></p>
<p>■ Master Plan is endorsed by the JC and approved by the Council</p>	The Master Plan for Waterborne Transport was agreed by Member Countries.
<p>■ LAs include the Projects into their regular planning cycle for implementation</p>	Lao PDR and Thailand included the safety and emergency response actions in a planned Joint Project under the National Indicative Plans 2016-2020.
<p>■ Number of Associations for ports, fleets are established</p>	Viet Nam has established port and inland waterway associations.
<p>■ Cargo throughput through the ports increases at least 30% in 5 years' time</p>	Navigation Statistic Survey to be conducted in 2017.
<p><b>Output 2.8 (ED)</b></p>	<p><b>Prepare Strategy for basin-wide environmental management for prioritised environmental assets</b></p>
<p>■ Inventory of basin-wide environmental assets prepared</p>	Not yet as it was not planned in 2016.
<p>■ Agreement on number and status of environmentally valuable areas basin-wide</p>	Target in 2018.
<p>■ Strategy prepared</p>	This will be included in AWP 2018.
<p>■ Strategy endorsed by the JC and approved by the Council</p>	This will be included in AWP 2020.
<p>■ At least 1 transboundary protected area established.</p>	Targeted for 2020.
<p>■ Percentage of natural wetlands and hotspots with management plans.</p>	Information forthcoming starting in 2018.
<p><b>Output 2.9 (TD)</b></p>	<p><b>Prepare drought management strategy</b></p>


<p>■ The regional strategy for drought management and mitigation is prepared and endorsed by the JC and approved by the Council to be incorporated into national plans.</p>	<p>Not yet.</p>
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**Outcome 3: Guidance for the development and management of water and related projects and resources shared and applied by national planning and implementing agencies**

INDICATOR	STATUS TO DATE
<b>Output 3.1 (PD)</b>	<b>Review Preliminary Design Guidance for Mainstream Dams**</b>
<p>■ The updated PDG is prepared</p>	<p>Not yet. To be started in the second half of 2017.</p>
<p>■ The updated PDG is endorsed by the JC</p>	<p>Not yet. To be endorsed in 2018/2019.</p>
<p>■ Proposed mainstream HP projects address principles and recommendations in the PDG</p>	<p>Project documents from the submitted Pak Beng project (November 2016) show the developer’s attempt and commitment to comply with the PDG.</p>
<b>Output 3.3 (TD)</b>	<b>Prepare water borne transport guidelines and frameworks</b>
<p>■ Number of Cross-border Transportation Permit issued by competent authorities of Cambodia and Vietnam</p>	<p>1 cross border transportation permit issued by Viet Nam and Cambodia.</p>
<p>■ Single stop formality for vessels engaged in transit transportation applied</p>	<p>Not yet started. However, Viet Nam and Cambodia are discussing with relevant agencies for the procedures to start single stop formality for vessels engaged in transit transportation.</p>
<p>■ Adequate pilotage services to vessels requesting assistance are provided basin-wide</p>	<p>Not yet started.</p>
<p>■ Proposed standards for construction of ships and equipment on board, and the same standards for storing and carrying dangerous goods, crew certification, etc. are legally adopted basin-wide</p>	<p>Existing national legal frameworks for these standards are being reviewed.</p>
<p>■ Proposed technical guidelines are promoted and used basin-wide</p>	<p>Not yet started.</p>
<p>■ Lao PDR and Thailand use the same safety rules and regulations</p>	<p>Not yet started.</p>









<b>Output 3.4 (PD)</b>	<b>Promote guidelines and tools to support the development and operation of water and related projects on tributaries</b>
<p>■ Guidance for water projects on tributaries of transboundary significance are shared and jointly learned and updated</p>	<p>A draft guiding manual on RSAT Transboundary Dialogue was prepared and presented to MCs at the regional meeting on 15 September 2016. Cambodia and Viet Nam agreed to conduct RSAT Tb Dialogue for the shared Srepok River Basin following this guiding manual. The RSAT Tb Dialogue was conducted in Boun Ma Thout, Dak Lak Province, Viet Nam between 19 and 21 December 2016 after a series of Joint Preparatory and National Preparatory meetings. Ten representatives from different disciplines each from Cambodia and Viet Nam and two observers each from Thailand and Lao PDR participated at this RSAT Tb Dialogue. There were exchanges of information and agreement on priority issues related to institutional arrangements and capacity on transboundary issues, equitable benefit sharing, and a way forward to improve greater coordination and cooperation on transboundary issues on flow, flood, and drought. A number of concrete workable recommendations were developed in which Tb Dialogue participants from Cambodia and Viet Nam will bring up to relevant/concerned ministries and entities for action to better manage the reservoir of the dam upstream of the river in order to minimise negative effects downstream.</p>
<p>■ Existing and proposed projects on tributaries of transboundary significance address principles and recommendations from MRC guidance and tools</p>	<p>Not yet. Waiting for final results of the pilot project.</p>
<b>Output 3.6 (ED)</b>	<b>Promote watersheds management</b>
<p>■ Watershed management website is operational and actively used by stakeholders</p>	<p>The website is operational with all materials/documents/reports/tool kits of MRC-GiZ watershed project uploaded. The website was promoted to the relevant stakeholders in 2016.</p> <p>The website and lessons learned from the former Watershed Management Project will be promoted at the upcoming regional technical workshop on Sustainable Watershed Management in the LMB- “An exchange of experiences and lessons learnt on sustainable watershed management” to be conducted in August 2017. This workshop has the objectives to (1) share knowledge and best practices, present findings, draw conclusions and facilitate exchange of experiences, from SUMALOM Nam Ton and other MRC Member Countries and (2) identify key challenges and priority actions to further sustainable watershed planning and management in the LMB.</p>

<p>■ Funding of pilot project is secured</p>	<p>The pilot project “Institutional Support Project for Upland Watershed Management” for Lao PDR, prepared under the former Watershed Management Project, has been integrated into the Lao NIP 2016-2020 and funding is being sought.</p>
<p><b>Output 3.9 (ED)</b></p>	<p><b>Develop methodologies for wetlands management</b></p>
<p>■ The increasing use of LMB wetlands database by external partners</p>	<p>Not yet started.</p>
<p>■ The increasing use of assessment methodologies by relevant LAs</p>	<p>Delayed until the end of 2016.</p>
<p>■ The number of LA experts trained in wetland management</p>	<p>This may be reconsidered as capacity building activities were cancelled due to reform and transition.</p>
<p><b>Output 3.10 (PD)</b></p>	<p><b>Develop guidance for design &amp; operation of irrigation systems</b></p>
<p>■ The guidelines for the design and operation of irrigation systems are agreed by Member Countries</p>	<p>Not yet started.</p>
<p>■ The guidelines for the design and operation of irrigation system tested in MCs</p>	<p>Not yet started.</p>
<p>■ Guidelines for design and operation of irrigation system are applied in national policy for irrigation planning, designing, evaluation and operation</p>	<p>Not yet started.</p>
<p><b>Output 3.11 (PD)</b></p>	<p><b>Finalise guidelines for fish-friendly irrigation</b></p>
<p>■ Guidelines for fish friendly irrigation schemes adopted and agreed by MCs to be adapted in national policy for irrigation planning, designing, evaluation and operation.</p>	<p>Draft guidelines for fish friendly irrigation schemes had been adopted and agreed by MCs, and the first-round testing of the draft guidelines in pilot areas in MCs will be implemented in the newly funded project by the Japanese Government during 2017-2020.</p>
<p>■ First round testing of draft guidelines in pilot areas in MCs completed and guidelines revised accordingly</p>	<p>Not yet. The proposal of first-round testing will be developed in 2017 to collect comments from MCs. The first-round testing of draft guidelines will be implemented during 2017–2018.</p>
<p><b>Output 3.12 (ED)</b></p>	<p><b>Finalise Transboundary EIA (TbEIA) Guidelines, composing of Framework, Technical Guidance, and Institutional Support</b></p>

<p> TbEIA framework is endorsed by the JC</p>	<p>Pilot project (Se San Case Study in Cambodia and Viet Nam) and national legal and institutional reviews (four national reports) were conducted to support the further development of the TbEIA Technical Guidance and Framework. Based on the Se San Case Study, two national reports were prepared for testing the applicability of updating the draft TbEIA Framework (2010) and the draft Technical Guidance (2012).</p>
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<b>Outcome 4: Effective and coherent implementation of MRC Procedures by Member Countries</b>	
<b>INDICATOR</b>	<b>STATUS TO DATE</b>
<b>Output 4.1 (PD)</b>	<b>Support implementation of Procedures and technical guidelines</b>
<p> The Technical Guidelines for the PMFM are updated, finalised, and agreed</p>	<p>The PMFM and its draft Technical Guidelines were agreed to be implemented in a learning-by-doing approach for 2011-2015. During this period, the PMFM Implementation Report 2011-2015 and PMFM Comprehensive Information Report were successfully prepared. Following a 5-year implementation experience, the draft Technical Guidelines for the PMFM were also updated. These documents have been circulated to the MCs and main comments and suggestions have been addressed in their final versions in 2016. The updated draft Technical Guidelines of the PMFM will be discussed and finalised at the 13<sup>th</sup> Meeting of the Technical Review Group (TRW) of the Procedures for the Maintenance of Flows on the Mainstream in 2017.</p>
<p> The Technical Guidelines for the PWQ are finalised and agreed</p>	<p>The Technical Guidelines for PWQ were finalised and agreed by the MRC JC on 22 November 2016.</p>
<p> Relevant MRC Procedures and Technical Guidelines including PNPCA are reviewed as part of the Joint Platform</p>	<p>The Working Paper for lessons learnt from the implementation for PNPCA was prepared and the Dialogue Workshop on PNPCA Lessons Learnt was held in February 2016 under the MRC Joint Platform. The next step is the development of a commentary on the provisions of the PNPCA and its technical guidelines.</p>
<b>Output 4.2 (PD)</b>	<b>Support Joint Platform and Procedures Working Groups</b>
<p> The number of pending/challenging issues related to more than one procedure tabled and resolved by the Joint Platform</p>	<p>The 3<sup>rd</sup> meeting of the Joint Platform was organised in October 2016 where a number of issues were tabled and discussed. A work plan to address some key issues was agreed to.</p>
<p> The number of pending issues specific to each procedure resolved by respective technical working groups for each Procedure</p>	<p>The Technical Guidelines for PWQ were finalised and agreed by the MRC JC on 22 November 2016. The Technical Guidelines for PMFM was updated following learning by doing implementation and comments from MCs.</p>

**Outcome 5: Effective dialogue and cooperation between Member Countries and strategic engagement of regional partners and stakeholders on transboundary water management**






INDICATOR	STATUS TO DATE
<b>Output 5.1 (OC)</b>	<b>Strengthen cooperation with Dialogue Partners (China &amp; Myanmar)</b>
<p> The agreement between the MRC and China is maintained and updated</p>	<p>The latest agreement on data sharing for flood season, renewed in 2013, has been maintained and water level and rainfall data was shared during the flood season of 2016. Furthermore, during the collaboration on the Joint Observation and Evaluation of the Emergency supplementary Water release, additional daily water level and discharge for the dry season of 2016 and its long-term average of 1960-2009 and 2010-2015, from both sides were exchanged and used in the analyses within the report.</p>
<p> Additional protocol/agreement with China on exchange of dam operation information concluded</p>	<p>The issue was raised with Chinese counterparts at bilateral meetings. China said further discussion was needed. The MRC will prepare a concept on the issue for further discussion at the Dialogue Meeting in 2017.</p>
<p> The number of joint technical workshops held in collaboration with China</p>	<p>The 3<sup>rd</sup> Joint Technical Symposium between MRC and China, coordinated by the Ecosystem Service Commission for International Rivers (ESCIR), will be held in 2017. In 2016, joint working sessions were held between MRC and China on the Chinese supplementary release of water during the drought situation.</p>
<p> The number of Chinese experts working at the MRC</p>	<p>None.</p>
<p> The number of joint technical workshops held in collaboration with Myanmar</p>	<p>None. MRCS had been invited and plans to participate in the State of Basin Assessment workshop in Myanmar in 2017 to exchange lessons and explore collaboration.</p>
<p> The number of Myanmar experts working at the MRC</p>	<p>None.</p>
<b>Output 5.2 (OC)</b>	<b>Implement partnerships with ASEAN, GMS, and other organisations</b>
<p> MOU with ASEAN updated in accordance with BDS directions</p>	<p>New MOU drafted and sent for consultations under the appropriate ASEAN mechanisms, such as the ASEAN Working Group on Water Resources Management (AWGWRM), which is under the auspices of the ASEAN Senior Officials on the Environment (ASOEN). It is expected the MOU will be finalised in 2017 following consideration and agreement by the MRC governance bodies.</p>
<p> Yearly dialogue meetings with ASEAN held</p>	<p>No formal meetings. However, MRCS and ASEAN Secretariat held regular communications on renewing the MOU. In addition, the CEO met with the Lao Minister to the PM Office in his capacity as Lao ASEAN Senior Officials Meeting Leader and Chair of ASEAN 2016.</p>






















■ MRC representatives participate in ASEAN meetings	None.
■ ASEAN representatives participate in MRC governance technical meetings and stakeholder forums	None.
■ MRC-ADB Partnership Agreement updated in accordance with BDS directions	Not yet started. Will be done in 2017.
■ Annual dialogue and regular technical meetings held between ADB and MRC	No formal meetings.
■ MRC representatives participate in GMS Meetings	None.
■ ADB representatives participate in MRC governance/ technical meetings and stakeholder forums	None.
■ The number of funded RIF water-related projects that are in line with BDS	None.
<b>Output 5.3 (OC)</b>	<b>Support Regional Stakeholder Platform</b>
■ Establishment of Regional Stakeholder Platform	Concept for enhanced stakeholder engagement prepared and will be finalised in 2017. Principles and actions from the concept have started to be implemented.
■ The level of satisfaction of stakeholders with MRC process and procedures	Did not conduct in 2016.
■ The level of satisfaction of stakeholders with MRC products and services	Did not conduct in 2016.
■ Yearly common stakeholder forum held; specific working groups (for private sector, for research organisations, for CSOs) set up and meetings held	None.





**Outcome 6: Basin-wide monitoring, forecasting, impact assessment and dissemination of results strengthened for better decision-making by Member Countries**

INDICATOR	STATUS TO DATE
<p><b>Output 6.1 (ED&amp;TD)</b></p> <p>■ Data for required parameters are monitored by Member Countries and when needed delivered to MRCS according to agreed schedules and standards</p>	<p><b>Conduct routine monitoring and forecasting</b></p> <p>Water quality data of 2015 was sent to MRCS by Member Countries in 2016 for preparation of the annual water quality report. Water quality data of 2016 from Member Countries is expected to be sent to MRCS by early 2017.</p> <p>The monitoring data and national reports of 4 MCs on ecosystem health monitoring were sent to MRCS in early 2016. Due to the transition period of MRCS, the regional report of EHM 2015 has not been completed yet, but it will be done in 2017. The MoUs for implementing EHM in 2017 were under preparation and the field survey will be started in March 2017.</p> <p>Among the 4 types of fisheries monitoring, only Dai fisheries could be carried out in 2016 while the other 3 monitoring (Fish Abundance and Diversity Monitoring; Lee Trap Monitoring; and Fish Larvae Monitoring) could not be done due to shortage of funds, so fishing season or another suitable time for monitoring was missed. For monitoring in 2017, data and reports will be sent to MRCS early the following year.</p> <p>Data from key mainstream stations are received from MCs even though some delays happened at certain stations. About 80-85% of committed data have been received for the dry seasons of November 2015-May 2016 and November 2016-May 2017.</p>




<p> Decentralisation of monitoring is implemented according to the Roadmap</p>	<p>Water quality monitoring for Thailand and Viet Nam has been fully decentralized. For Cambodia and Lao PDR, the Drafts of Handover Agreements on decentralisation of Water Quality Monitoring have been prepared and sent to Cambodia and Lao PDR for their comments and agreement. It is expected that agreement will be obtained in 2017.</p> <p>The Handover Agreements for EHM have been prepared and sent to all MCs for their comments and agreement. Due to the MRC reform process, the process of concluding handover documents was delayed. With a responsible officer now on board, MRCS will revise the handover document based on comments from the 4 MCs and send it to them for approval in 2017.</p> <p>Draft handover document (agreement and ToR) has already been drafted and sent to MCs for their feedback and agreement. As of 2016, the handover document has not been signed by the 4 MCs. The main reason is due to the MRC reform process; the responsible staff members have been replaced at both regional (MRCS) and national levels (NMCs). Consequently, the new staff members need some time to learn before they can fully perform the process. MRCS will revise the handover document based on comments from the 4 MCs and send it to them for approval in 2017.</p> <p>Decentralisation of rainfall and water level monitoring, data collection and transfer were completed for Viet Nam and Thailand. For Cambodia and Lao PDR, handover will be done by July 2017.</p>
<p> The MRC monitoring and forecasting systems for required monitoring parameters established and maintained</p>	<p>River Forecasting System is regularly maintained and updated with data provided from MCs. From November to May, the system generated 7-day forecasts on Monday every week, and from June to October 5-day forecasts every day.</p>
<p> The level of end-user's satisfaction with quality of flash flood and river flood forecasting and drought warnings</p>	<p>Not yet conducted and user satisfaction survey to be conducted in 2017.</p>
<p><b>Output 6.2 (TD)</b></p>	<p><b>Manage Information system and database</b></p>
<p> The percentage of regional datasets received that are quality assured</p>	<p>NA.</p>
<p> The percentage of assured data sets which have been uploaded to MRC-IS</p>	<p>98% of datasets had been uploaded to MRC-IS.</p>

	The level of quality, reliability, and consistency of the MRC-IS datasets	Will be measured in 2017.
	The amount of new data shared by Member Countries for basin-wide assessments that are deposited into MRC regional databases	30 datasets have been shared by MCs during 2016.
	The percentage of real-time data received that is used in forecasting	Real-time data has been received from MCs with varied percentages from each country.
	The records of shipping accidents are available among the Member Countries	Will receive data in 2017.
	River Information Services (RIS) architecture is used by shipping operators, port stevedores and river authorities	Not yet started.
	All Member Countries use the same standard for collecting data on waterway traffic, dangerous goods, ship arrival times, etc.	Not started yet.
<b>Output 6.3 (TD)</b>		<b>Maintain modelling, analysis, and assessment tools</b>
	Updated DSF/MRC toolbox version is endorsed and available for use	The DSF/MRC Toolbox has been available and in use at MRCS and Member Countries. MRCS has integrated new functions by engaging with WUP-FIN and Source Model and to update the Knowledge Base (KB) with climatic data, rainfall, discharge, water level and water quality and baseline model simulation. Further improvement is planned for 2017.
	Effective modelling services support the Council Study	Model Enhancement (calibration improvement on discharge and water quality), Input modelling data improvement, Knowledge Base update, technical reports for various modelling work, DSF integration with two new modelling packages (Source and WUP-FIN) on water quality, provision of baseline modelling outputs for the thematic, social, economic, environmental, and cumulative assessments were conducted. In 2017, the main scenarios model formulation (2007, 2020 and 2040) with and without climate change will be accomplished by the end of March.










 Improvement and enhancement DSF model on sediment, water quality and nutrients	DSF (SWAT and ISIS) baseline models have been upgraded and recalibrated for water quality, sediment, and nutrients. However, since IQQM model of DSF has not developed further to deal with water quality, eWater Source has been engaged in DSF by enhancing DTT and linking with impact tools of WUP-FIN 3D-EIA.
 Maintain and enhance MRC DSF model and toolbox	Updated the Knowledge Base, models and tools completed.
 Effective modelling and impact assessment services to other MRC units/teams and dialogue partners	Modelling support to the ISH0306 study, flood forecasting and Joint Observation and Evaluation of the supplementary water release.
<b>Output 6.4 (ED)</b>	<b>Prepare SOBR and technical reports</b>
 The State of Basin Report is prepared including a web-based interactive version	The draft State of Basin Report (SOBR) has been completed by the Secretariat with consultation from the MRC Member Countries. To prepare the 2018 SOBR and future edition, the MRCS SOBR Core Team has been established with a work plan and outline agreed.
 The State of Basin Report is endorsed by MRC JC and disseminated	Not yet started as the 2018 SOBR preparation started in 2017 and will be finalised by the end of 2018.
 The number of bulletins, technical reports and publications prepared and published	NA
 The end user satisfaction of bulletins, technical reports, and publications	NA
<b>Output 6.5 (ED&amp;TD)</b>	<b>Manage Data Portal and knowledge/info dissemination</b>
 The number of national, regional, and international fisheries organisations benefiting from MRC quarterly newsletter Catch and Culture	Three Issues of MRC Newsletter “Catch and Culture” Volume 22 were prepared and two Issues printed and disseminated to over 650 national, regional, and international subscribers.
 The number of visitors accessing the MRC-IS platforms	There were 5000+ visitors to the MRC-IS platform during 2016.
 The number of data uploaded and downloaded	There were 507 download requests for 2016.
 The level of satisfaction by the system users	User satisfaction survey to be conducted in 2017.

 The number of organisations and individuals actively engaged with the Knowledge Hub	There are more than 400 organisations and individuals actively engaged with the Knowledge Hub: Mekong info, web portal, and community website. This is based on google analytic results on the active user access to MRC website.
 The number of people benefiting from MRC Learning Services	User satisfaction survey to be conducted in 2017.
 User feedback (positive and negative) on technical information dissemination and learning services	User satisfaction survey to be conducted in 2017.
 Functional and operational communication network is maintained for transboundary emergency alert, response, and mitigation.	NA.

**Outcome 7: MRC transitioned to a more efficient and effective organisation in line with the Decentralization Roadmap and related reform plans**

INDICATOR	STATUS TO DATE
<i>Output 7.1 (AD&amp;OC)</i>	Implement MRCS structural reform
 TORs of the new organisational units and JDs of all staff positions are in place	Description of functions and tasks of the new MRCS organisational divisions were prepared. All JDs for new staff of the new structure were prepared and endorsed by the Joint Committee, and these were used for recruitment. Following the decision on one office of the MRCS in Vientiane and the MRC Regional Flood Management and Mitigation Centre (RFMMC) in Phnom Penh, the JDs for the Head of the Regional Flood Management and Mitigation Centre and 3 general support staff were prepared and used for recruitment.
 New organisation structure is in place with clear linkages to Member Countries	New structure is completed. Linkages to Member Countries in terms of Expert Groups and working groups will be set up in 2017.
 Work flows and processes are updated to reflect the structural and operational changes	Completed.

<p>■ The number (or percentage) of MRC organisational units that adopt and apply MRC Gender tools</p>	<p>Mainstreaming Gender into Policy and Decision-Making Processes was used in the MASAP development, for example one of the seven strategic priorities for basin-wide adaptation to climate change is: Enable implementation of transboundary and gender sensitive adaptation measures (#3).</p> <p>Mainstreaming Gender into Flood Projects was used in the design and implementation of the four flood pilot projects in the Lower Mekong countries such as using sex disaggregated data collection; identifying different impacts on women and men, inviting women to attend project activities and having women as the main beneficiaries.</p>
<p>■ The number (or percentage) of LAs that adopt and apply MRC Gender tools</p>	<p>NA</p>
<p><b>Output 7.2 (AD)</b></p>	<p><b>Implement MRCS human resource reform</b></p>
<p>■ New staff plan is approved</p>	<p>Staffing plan was approved by the JC with a total of 66 staff but following the one office decision, this was reduced to 64 fixed-term staff. During the transitional 2016 period, MRCS experienced its biggest shift of staff (of former structure) from fixed-term contracts to service contracts. For the new recruitment, the announcement for 60 posts was made in April 2016, and by December most staff were recruited. The first riparian CEO was recruited in January 2016 and all 4 Directors were on board by July 2016 (Cambodia, Thailand, and Viet Nam) and August 2016 (Lao PDR.) 14 General support staff and 28 Riparian Professional staff were recruited by the end of 2016.</p>
<p>■ New Performance Appraisal Review is in place</p>	<p>Not yet. New PAR system will be developed in 2017.</p>
<p>■ A reduction in staff turnover</p>	<p>The number of staff reductions in 2015 was 76 (53.2%) but dropped to 39 (47.4%) in 2016. This was due to the organisational reform.</p>
<p>■ HR policies and manuals are revised in accordance with the staffing reform plan (part of the overall reform implementation plan)</p>	<p>Not yet. HR Policies and manuals will be revised in 2017.</p>
<p><b>Output 7.3 (AD)</b></p>	<p><b>Implement MRCS financial reform</b></p>
<p>■ Basket fund &amp; overseeing committee (Budget Committee) is established</p>	<p>Basket Fund and Budget Committee were established and became operational in 2016. Operational Guidelines for the Basket Fund were approved by the JC in January 2016. The recently approved BF guidelines are still in operation and may be considered for updating again in June 2017 where applicable.</p>

<p> MS Dynamic Solomon is upgraded or changed with new accounting system and accounting method</p>	<p>The new accounting software was installed in early February 2016; however, there are some bugs that need to be fixed, which the finance team is working on with the company to resolve the issues. Changing accounting methods from Cash Accounting to Accrual accounting is to be reconsidered to establish whether it is suitable or not in practice.</p>
<p> New management reporting tools are in place</p>	<p>Not yet. In 2017, the finance team will be working on the financial report templates, which could be computer generated by the new accounting system.</p>
<p> The MRCS administrative, financial and procurement manuals are revised in accordance with the new administrative and financial system</p>	<p>Not yet. In 2017, TOR for the revision will be drafted and consulted with Member Countries and then the manuals will be revised.</p>
<p> Increase in Member Country contributions to MRCS during 2016-2020</p>	<p>According to the agreed current contribution formula (until 2018), Member Countries have already increased contributions from the last Strategic Plan period (2011-2015) for this period (2016-2020) – at least \$3 million more.</p>
<p> Financial plan for Member Country contributions to MRCS towards achieving the 2030 target adopted by the Council by 2020</p>	<p>Not yet.</p>
<p><b>Output 7.4 (OC)</b></p>	<p><b>Prepare and implement AWP, CFDs, and M&amp;E</b></p>
<p> RBM&amp;E system manual is revised and approved</p>	<p>The manual is completed. It was presented and shared at National and Regional levels.</p>
<p> The extent to which the national &amp; regional RBM&amp;E reports are evidence-based</p>	<p>Developed Evidence of Change tools (3 levels of change) for the divisions to implement SP outputs. The Annual Report 2016 highlights evidence of change in key activities.</p>
<p> The extent to which the RBM&amp;E reports are used for management decision making</p>	<p>2016 Mid-year Report was used to support MRCS senior management and Member Countries in decision making on the AWP 2016 implementation, AWP 2017 planning as well as budget management.</p>
<p><b>Output 7.5 (PD)</b></p>	<p><b>Support to NIPs</b></p>
<p> National Indicative Plans 2021-2025 are prepared and ready for national approval in 2020</p>	<p>Not yet. Preparation will start in 2019.</p>