Review of the Mekong River Commission's Basin Development Plan Programme Phase 2

Prepared by: Regional Members of the Panel of Experts

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TABLE OF CONTENTS

LIST OF ACRONYMS

ADB	Asian Development Bank
AIP	Agriculture and Irrigation Project
BDP	Basin Development Program
BDP2	Basin Development Program Phase 2
CEO	Chief Executive Officer, MRCS
CPWF	Challenge Program on Water and Food
CTA	Chief Technical Advisor
DOS	Development Opportunity Space
EP	Environment Program
FMMP	Flood Management and Mitigation Program
GMS	Greater Mekong Sub-region
ICEM	International Center for Environmental Management
IKMP	Information and Knowledge Management Program
IISD	International Institute of Sustainable Development
ILO	International Labour Organization
ISH	Initiatives for Sustainable Hydropower
IWRM	Integrated Water Resources Management
JC	Joint Committee, MRC
JCWG	Joint Committee Working Group
LMB	Lower Mekong Basin
MRB	Mekong River Basin
M-POWER	Mekong Program on Water Environment and Resilience
MRC	Mekong River Commission
MRCS	Mekong River Commission Secretariat
NAP	Navigation Programme, MRC
PNPCA	MRC Procedures for Notification, Prior Consultation and Agreement
POE	Panel of Experts[1]
POE1	Panel of Experts 1st Mission by regional members
POE2	Panel of Experts 2nd Mission by all members
POE3	Panel of Experts 3rd/Final Mission
RTWG	Regional Technical Working Group
SEA	Strategic Environmental Assessment
SIMVA	Social Impact Monitoring and Vulnerability Assessment
SPCP	Stakeholder Participation and Communication Plan

[1] Panel of Experts is comprised of the regional members assigned by M-POWER and International members commissioned by the MRC Secretariat.

ACKNOWLEDGEMENTS

The regional members of the Panel of Experts (POE) would like to express our appreciation to many individuals in the Mekong River Commission Secretariat (MRCS), especially the BDP2 Team for providing assistance and support to us during the final mission. Special thanks to the Thai and Lao National Mekong Committees for organising meetings with their Ministers and MRC Council members.

We would like to thank the Mekong Program on Water, Environment and Resilience (M-POWER) governance network and the Challenge Program on Water and Food (CPWF) for their financial and technical support.

EXECUTIVE SUMMARY

The following summarises key findings of the Regional POE members from the review of the MRC Basin Development Plan Phase 2 key products Scenario Assessment Report (September 2010) and the Strategy Document (First Complete Draft – 15 September 2010). The Regional POE convened three times at the MRCS in Vientiane, Lao PDR during 2010 to review the status of work in progress and the BDP2 draft outputs – Development Scenario Assessment Report and Draft IWRM-based Basin Development Strategy.

The POE was tasked to undertake a comprehensive and independent review of these documents for their adequacy of scope, quality, consistency, comprehensiveness, and relevance. Furthermore, the POE was asked to address other key aspects, such as the connectivity and flow from development impact analysis; implementable directions for national planning authorities; ability to inform the Procedures for Notification and Prior Consultation and Agreement (PNPCA); level of synergy with other MRC processes, such as the SEA; and, likelihood of being accepted and implemented by the MRC Member Countries and other stakeholders.

The POE appreciates the efforts of the BDP2 team and representatives from the four MRC Member Countries in implementing the BDP2 program. As embodied in the 1995 Mekong Agreement and MRC Strategic Plan, the BDP should support its Member Countries in cooperation and coordination for the realisation of the full potential of sustainable benefits for all.

MAIN FINDINGS

1. **Narrow scope of BDP2**: The BDP2 Strategy is based on an analysis of scenarios. These scenarios have been developed without setting clear scenario objectives, leading to confusion concerning their purpose and status. Further, the scenarios considered are limited to options for hydropower development and water diversion. They do not consider others, for example, scenarios based on social and economic development variables, such as those that aim to secure and improve livelihoods of fishers or farmers dependent on rain-fed agriculture. The entire BDP2 Strategy flows from those scenarios that are deemed to have an "acceptable level of social and environmental impact", but they do not provide a sufficiently robust basis for taking major water development decisions. The scenario assessment still contains many untested assumptions and areas of uncertainty and insufficient knowledge to conclude that the impacts are within acceptable levels

   Integrated Water Resources Management (IWRM) is presented as the main framework for the BDP2 Strategy and is mentioned numerous times within the draft report and strategy (16 September 2010 version), but has never been properly defined. This is particularly important, given the current externalised consideration of IWRM in the Mekong River Basin despite a great deal of effort to build capacity in this area. Significantly, the strategy does not focus on what needs to be integrated within the basin and who does the integrating and in what way. Therefore, the IWRM spectrum in relation to basin development is poorly reflected in the BDP2 strategy.

2. **Quality of Assessment**: Tools and data for assessing the mean water flows are satisfactory, but those for many physical and environmental impacts are not sufficiently rigorous or

convincing. The inadequacy is likely to lead to an underestimation of the negative impacts on livelihoods of the poor and vulnerable, biodiversity, inland and offshore fisheries, erosion of river banks and coastal shores. Quantification of mitigation measures is completely lacking. In reviewing the BDP2 scenario assessment and strategy reports, the POE has identified a number of major issues that warrant further development and/or clarification:

a. Lack of mitigation strategies;
b. Unrealistic economic valuation, which over-values project benefits, under estimates the environmental costs, and does not adequately factor in the mitigation measures and their costs;
c. Lack of rigor in environmental impact assessment[2];
d. Incomplete social assessment of linkages between poverty, informal economy and ecosystem services[3];
e. Lack of socio environment baseline information, which makes it difficult to monitor change and develop appropriate mitigation measures; and
f. Lack of quantification of risks and uncertainties and their impacts on socio-economic stability.

A detailed discussion is presented in the main report.

3. **Interpretation and Consistency Unclear**: The current draft of the Strategy report is filled with contradictory information with the snapshot summary at the beginning not accurately reflecting the analysis and conclusions in the main body of the report. Many statements in the strategy report are not well substantiated or balanced and are not properly sourced. For example, it is very misleading if we say "2030-20Y-w/o LMD", which means without (w/o) lower mainstream dams, while it actually means including six mainstream dams above Vientiane, which only careful reading reveals.

4. **Lack of Strategic Guidance**: Policy makers need a clear strategy that provides them with the tools to implement their national development plans from a harmonious basin development perspective. What was received by the POE was not a strategy document (16 September 2010 version) that guides development in the basin. It does not provide clear strategic directions or actions to guide better-informed decisions and to operationalise a strategy. The draft strategy fails to clearly describe a strategy, how it is integrated into the Plan, what steps are needed for implementation, and how the countries can benefit from pursuing the strategy. The project portfolio, which is intended as one of the key components of the IWRM-based Plan, has not been updated and was not factored into the POE's review. Given this and the poor experience from BDP1, MRC and BDP need to seriously consider the relevance and practicality of such a "project portfolio". We also found that the BDP assessment and strategy in its current form do not provide adequate technical inputs or guidance for promoting more systematic application of the PNPCA.

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[2] The BDP2 made a reasonable attempt at assessing the environmental impacts, but it missed: i) the role of connectivity between the different units of a river system, which will undermine efforts to protect them as well as maintain the benefits to people depending on them; and, ii) an analysis of options for mitigation.

[3] There are two problems: i) incomplete social assessment that should have demonstrated connection to poor fishers and other subsistence farmers who are to be affected by the changes of flow; and, ii) absence of social baseline data and analysis that could be used to assess and monitor social impacts and risks associated with it..

5. **Complexity of DOS**: The Strategy report describes Development Opportunity Space (DOS) in five to six places, without defining it properly.[4] The complexity of the concept and the lack of clarity in the definition of DOS create confusion in the relation between DOS and BDP. The disconnect between development projects and measures to mitigate their negative effects is often misread as DOS giving license to development, even without mitigation measures in place. The notion of "acceptable transboundary impact" has not been adequately explained and should not be immediately included in the DOS as it may also cause serious consequences. A key issue is "accepted by whom" both internationally and within-country. In short, an attempt to force the strategy to view everything through a rather unclear DOS lens has thus far shackled the analysis and led to contradictory, and often unwarranted, conclusions.

6. **Lack of synergy between BDP and other MRC Processes:** The BDP2 has made great efforts in involving stakeholders, including MRCS programmes, in the development of the Assessment Report and Strategy Document. Despite their efforts, it is clear that the BDP2 products do not adequately reflect the considered positions of the MRCS programmes and have not yet gained acceptance internally. Various internal mechanisms and tools such as the MRC Strategic Environment Assessment (SEA) and its Social Impact Monitoring and Vulnerability Assessment (SIMVA) are expected to inform the consultative aspect of the PNPCA process; but there is a clear mutual exclusiveness between, and contradictory assertions on, the impacts and strategic recommendations in BDP and other MRC documents. Full agreement among different processes and tools should not initially be expected; but failure to acknowledge unresolved differences and contradictions is unacceptable, as these are key pointers for further assessment work and deliberation. Without such attention MRC's credibility as a "knowledge-based river basin organisation" is at stake.

7. **Inadequate reflection of diverse and contrary views on basin development and its impacts**: A number of representatives of NMCs and selected line agencies have been involved in the BDP2 process and have appreciated the work carried out by the team. However, these experts and policy makers from the riparian countries have diverse viewpoints and needs, which have been articulated in various meetings and in written comments. Many of these points have not yet been well-addressed in the draft documents. Some of the key concerns by the countries include their need to ensure that the BDP2 products provide them enough evidence and validation to arrive at a credible assessment of water-related projects and to negotiate trade offs, mitigation plans and opportunities for benefit sharing. The situation with broader stakeholders in the MRB is even less adequate.

8. **Weak linkage with country planning processes:** Countries have indicated that there needs to be a stronger linkage with national development planning processes, which to date remains rather weak. The current strategy only proposes more studies and more consultations but does not provide any suggestions on prioritisation or practical steps for implementing the strategy in the respective countries. As a result, the POE is not yet convinced that enough work has gone into building an understanding of the strategy to ensure full acceptance by

[4] BDP2 draft Strategy banks on more water in dry season as a result of releases from hydropower dam operations that stored water during wet season, but it fails to discuss other potential impacts such as changes in morphology, fishery and river gardening etc.

policy makers in the MRC Member Countries. The proposed program document for the BDP phase 3 admits that weakness and sets it as their main activity for 2011-2015.

RECOMMENDATIONS

The POE recognises the good work that has been undertaken by the BDP team to reach this stage and the application of the basic IWRM principles focusing on integrated consideration of the economic, environmental, and social values and cooperation and consultation of key stakeholders through the participatory planning process and networking at national and sub-area levels. However, in its current form (15 September 2010 version) the POE does not feel that the BDP2 Strategy is ready to be submitted to the MRC Council for approval.

It is advisable that the MRC spend more time in addressing all relevant comments and concerns obtained from MRCS, Member Countries, and other key stakeholders. This will ensure a robust strategy document that is aligned with national plans and internal MRCS programs and one that is clear and readily understood by decision makers. Enhancing the quality, utility and acceptability of the IWRM based Basin Development Strategy is advised.

NEXT STEPS: FINALISATION OF BDP PRODUCTS

The following next steps should be put in place to improve the BDP2 products:

1. Reconcile and incorporate the MRC's other work**.** The Strategy should be rewritten and informed by the assessments carried out in the SEA, SIMVA, and other studies of the MRC, such as those on fisheries and morphology. Even though SEA is regarded as a 'consultancy report', it has been developed through recognised and scientifically defendable methodologies and a highly participatory process led by the MRC. MRC needs to seriously consider integration and interpretation of the results of BDP2, SEA and other relevant studies.

2. Revise the strategy to avoid claims for achieving sustainable development. Instead, the BDP should speak of the procedures and process that must be put in place if the direction of development is to be pointed towards the goal of sustainability.

3. Shorten the revised Strategy and reduce ambiguous areas. In particular include:

    - Balanced and substantiated analysis of development trends and plans beyond hydropower and irrigation;

    - Clear and concise statements of local, national and transboundary impacts or implications, and proposed options for mitigation – especially of the Definite Future scenario;

    - Concrete and realistic strategic and operational steps for moving the strategy forward towards achieving regional cooperation for sustainable and pro-poor development; and

- Clear definition of DOS, such that it removes the confusion and possible misunderstanding that it endorses project development even without adequate analysis and mitigation measures in place.

4. Adopt one MRC corporate voice in BDP2, addressing all the contradictions, uncertainties and conclude with a clear road-map of the path ahead.

RECOMMENDATIONS FOR THE LONG-TERM

The following long-term recommendations should be considered by MRC and its development partners to improve the BDP:

1. **Scenario Development (more realistic, more comprehensive)**:

   a. Provide more time and effort to provide the necessary facilitation for constructive discussion and agreement on the so called "acceptable" development scenarios in the LMB. During the consultation process, an agreed development scenario with proper mitigation measures should be identified and implemented;[5]

   b. Extend beyond hydropower and irrigation. Additional scenarios for different development objectives such as poverty reduction, food security, and livelihood development should also be considered. The scenario analyses and selections have to be based on "multi-objective" principles; and

   c. Replace DOS by standard and accepted procedures and tools of strategic project assessment, project selections, and list of prioritized project portfolios and their mitigation procedures.

2. **Mitigation:**

   a. Mitigation MUST be planned (starting with the Definite Future scenario) within the broader Mekong sustainable development and reasonable and equitable utilisation framework. BDP2 must include meaningful and practical measures to mitigate the impacts of developments and their risks to affected communities; and

   b. Although impacts from the 'Definite Future' scenario can be considered as a given, it is the responsibility of the MRC to make an effort to achieve deals to minimise those impacts and facilitate agreements. In addition to the follow-up activities related to mitigating the impacts on sedimentation, biodiversity, and ecosystems, the risk due to upstream dam operations and major flood events could cause significant damage to human life and the economies of downstream countries. It is therefore important to ensure that (i) environmental flows are calculated; (ii) benefit sharing mechanisms are put in place; (iii) acceptable mechanisms are put in place to address emergency events (such as insurance,

[5] BDP2 scenario assessment exercise seems to contradict the usual purpose of scenario planning. Scenario exercises should inform rather than substitute for policy analysis, negotiations and political decisions. The scenario logic should be used as a tool to clarify 'trade-offs' among several plausible alternative future pathways of development, instead trying to pick 'winners'.

dam breaks, emergency flow release etc); and, iv) mitigation initiatives are measured at critical points through the basin. This will require the signing and completion of the procedures for addressing those concerns; and the introduction of an insurance scheme as appropriate.

3. **Clarity in Strategic Direction:**

   a. Establish clear and credible "no-go" zones for development; for example, extinction of flagship species is not acceptable. Strategies to realize the no-go zones must be clearly defined; and

   b. Reconcile contradictory and unsubstantiated statements in the BDP document. Given the nature of its mandate, it is important for the MRC to avoid misunderstanding and misinterpretation of the key findings and development direction.

4. **Stakeholder Engagement and Up-take**:

   a. Strengthen stakeholder engagement, including skilled facilitation, improved informal and inter-personal interaction;

   b. Make efforts to address comments made by providing clear and complete documentation trails addressing comments by stakeholders, and establishing processes for addressing rounds of comment from stakeholders;

   c. Strengthen the linkage with and ownership of national line-agencies, especially planning agencies (not limited to water resources agencies) by mapping out government plans with the BDP plan, and devise a coordinated implementation strategy; and

   d. Balance contributions between top-down (MRCS consultants) & bottom-up (sub-area and national contribution). Delivering and integrating the information needed for basin planning and management from MRC Programmes is a challenge that needs to be addressed in the immediate term, and in the next phase. If not, driving basin development planning forward will continue to demand large inputs from external consultants and its acceptability and impacts will remain minimal.

5. Acceptability and Implementation for sustainable impacts:

   a. The MRC and BDP should clearly define a course of action to be undertaken by the Member Countries with clearly outlined timelines and concrete actions for further capacity building of the MRC to serve as a knowledge-based broker; and

   b. Make the strategy document simple, less technical and not too abstract. The strategy should be produced in the four national languages, and include clear, time-bound steps towards implementation and benchmarks for monitoring.

6. **Robust and concrete agreement and recommended actions to be undertaken by the MRC Member Countries must be spelled out clearly. Key agreed upon actions should include:**

a. A more robust analysis and presentation of options and consequences of a certain course of actions for decision-makers in developing trade-off and mitigation measures; and

b. Confirmation of the MRC roles as basin-level broker for inter-country negotiation for advancement of sustainability and facilitation of harmonious relations between neighbours sharing a common resource, and consideration of trade-offs needed to maximise basin-wide benefits and minimise basin-wide risks.

7. **Restructuring:**

A serious attempt should be made to take on board all programmes so that Basin Development Plan is considered as a corporate product of the MRC to better support its Member Countries and stakeholders with high quality inputs for discussion and deliberation. This requires the replacement of the current "silo" structure of the MRCS by more communicative and integrative units with staff with strong integration, and communication qualities.[6]

[6] Similar recommendations were made by the Independent Institutional, Organizational and Financial Review and follow-up activities during 2006-2009. However, the structure and communication issues still persist.

1.0 INTRODUCTION

The POE team convened its 3rd Mission from September 28 to October 8, 2010 to conduct a POE Review of the near final draft of the BDP2 key outputs.

Regional Members of the POE Team commissioned by M-POWER include:

- Dipak Gyawali, Research Director of the Nepal Water Conservation Foundation, and M-POWER Advisor; former Nepal Water Resources Minister;
- To Phuc Tuong, Principal Scientist, Former Head, Crop and Environmental Sciences Division, and Former Interim Deputy Director General, International Rice Research Institute (IRRI);
- Manida Unkulvasapaul, Independent Consultant, retired World Bank Senior Environmental Specialist; and
- Sokhem Pech, Senior Governance Specialist, Co-Chair of M-POWER, Co-Chair of the Panel of Experts;

Kate Lazarus, Coordinator of M-POWER and Multi-stakeholder Platforms Coordinator for the Challenge Program on Water and Food (CPWF), provided back-up supported and liaised between M-POWER and MRCS.

2.0 KEY OBJECTIVES AND ORGANISATION OF THE POE

The Basin Development Plan Phase 2 Program Document (BDP2) was approved by the Joint Committee (JC) of the Mekong River Commission (MRC) in August 2006 and was launched in January 2007. The purpose of BDP2 is to support MRC and its Member Countries in realising a key provision in the 1995 Mekong Agreement to achieve "*the full potential of sustainable benefits to all riparian countries and the prevention of wasteful use of Mekong River Basin waters, with emphasis and preference on joint and/or basin-wide development projects and basin programmes"* (Article 2, 1995 Agreement).

The BDP2 was designed to support all four goals of the MRC Strategic Plan (2006-2010), with an emphasis on the first goal, "to promote and support coordinated, sustainable, and pro-poor development". The MRC and its development partners have underscored the importance of quality assurance of the BDP2 outputs.

2.1 OVERALL POE OBJECTIVES AND SCOPE

As per the funding agreement between the MRC and the Government of Denmark dated 6 December 2006, an external quality assurance mechanism was to be put in place to provide independent expert comments and recommendations for improving the BDP2 key outputs.

The key objective of the POE is to provide an independent expert review of BDP2 outputs and ensure that the BDP2 process and outputs are of the highest quality, relevance and responsiveness to the prevailing conditions of the region. The POE TOR is provided as Appendix 2. Accordingly, the POE aims to:

- Contribute to the relevance and quality of the aforementioned main BDP2 outputs (which come in the form of reports, models, databases, process, etc), while understanding the purpose, schedule, resources, and the wider context of the BDP2; and
- Provide clear and practical recommendations, based on demonstrable experience and solid rationale, aiming to ensure that the BDP process and its outputs are of the highest quality and reliability.

Furthermore, the POE was asked to address the following aspects:

- Connectivity and flow from the results of the development impact analysis;
- How it responds to the Mekong River Basin (MRB) context;
- Whether it is has clear and implementable directions for national planning authorities;
- Whether it provides clear and complete strategic guidance for preparing the project portfolio;
- How BDP2 can inform the Procedures for Notification and Prior Consultation and Agreement (PNPCA);
- How the BDP2 strategy has informed or been informed by other processes, such as the SEA; and
- Likelihood of being acceptable by the MRC Member Countries and other stakeholders for implementation.

2.2 REVIEW PROCESS

The Regional POE convened three times at the MRCS in Vientiane, Lao PDR during 2010 to review the status of work in progress and the BDP2 draft outputs.

The regional POE members convened from 5 to 14 May 2010 to conduct an initial assessment of key BDP outputs, in particular the data, methods and tools used. The POE engaged in interviews and discussions with the BDP2 team and their consultants, MRCS CEO and other MRCS programme managers and Chief Technical Advisors (CTAs). The POE also attended the Strategic Environmental Assessment (SEA) Regional Consultation from 19-20 May 2010 in Vientiane. The POE's 1st Mission Report consists of initial impressions of the POE 1 team which fed into the POE's 2nd Mission.

From 11-17 June 2010, the regional POE members and the international team met to constitute a single POE.[7] The POE evaluated and reviewed the BDP2's incomplete outputs by reading key documents, asking questions and seeking clarification through meetings with the MRCS CEO, programme staff and consultants/experts, and interaction with members of the Joint Technical Working Group and BDP National Advisory Group from the four MRC Member Countries. The POE's 2 Mission Notes include power-point presentation on key findings and interim recommendations, POE review tables, and a note on emerging issues and sustainable development.

[7] An International POE team was commissioned by the MRC and included Don Blackmore, David Grey and Mark Halle. The Regional POE members included Dipak Gyawali, Sokhem Pech, To Phuc Tuong, and Manida Unkulvasapaul. Lazarus provided support to the POE and liaised with the MRCS. The first mission in May 2010 was carried out by the regional team only. To Phuc Tuong participated in the second and third missions.

The 3rd and final POE mission was convened from 28 September to 8 October 2010 at the MRCS in Vientiane, Lao PDR. It was only at the beginning of this 3rd mission that a complete set of BDP documents[8] was provided to the POE, and this final report is based on the review of the said documents. The POE also had the opportunity to meet with the Ministers and MRC Council Members from Thailand and Lao PDR; and had a joint workshop with members of the JC Working Group on 6th October 2010.

Preliminary findings of the regional and international members of the POE were presented to the Debriefing Meeting chaired by the MRCS CEO at the MRCS. In attendance, were members of the JC Working Group, National Advisory Group (Member Countries), and relevant MRCS programmes' staff. The POE would like to thank the participants for their comments and suggestions.

2.3 KEY BDP2 OUTPUTS

For the 3rd Mission, the POE reviewed and evaluated the latest drafts of the key BDP2 outputs which are listed in Table 1:

Table 1 List and Status of BDP2 Key Outputs

No	Description	Status
1	IWRM-Based Basin Development Strategy for the Lower Mekong Basin (Strategy Report))	First Complete Draft – 15 September 2010.
2	Assessment of Basin-wide Development Scenarios – Draft Main Report and Appendices (Scenario Assessment Report)	September 2010 version
3	Project Portfolio	Not available

The POE also reviewed other secondary documents listed in Section 5 'Documents Reviewed' of this report, for supporting assessment of the BDP2 key outputs.

3.0 MAIN FINDINGS

3.1 INADEQUACY OF SCOPE AND COMPLETENESS

The BDP2 process is encapsulated in its Basin Development Planning Cycle consisting of seven stages (Fig. 1 of the Scenarios Report 9/2010). The first stage of gathering and analysing national and sub-national plans relies on the formally constituted Regional Technical Working Group (RTWG)[9] supported by the NMCs. While legally proper, discussions with the members by the POE

[8] The reports are listed in Table 1. Two additional reports that have strong implications for the BDP2 process include: 1) MRC Strategic Environmental Assessment (SEA) of Hydropower on the Mekong Mainstream, Draft Final Report August 2010 (SEA Report 8/2010), and 2) Basin Development Plan Programme 2011-2015 Programme Document Draft 2 for Discussion, September 2010 (BDP 2011-2015 Plan 9/2010).

[9] Only in September 2010, the RTWG was replaced by the Joint Committee Working Group (JCWG) for reviewing the draft IWRM Based Basin Development Strategy.

indicated shortcomings in terms of depth of interaction and firmness of linkages and feedback with national and sub-national plans and aspirations. The linkages between the national teams headed by their respective National Mekong Committee Secretariats and the broader government they represent were also not felt to be of sufficient robustness.

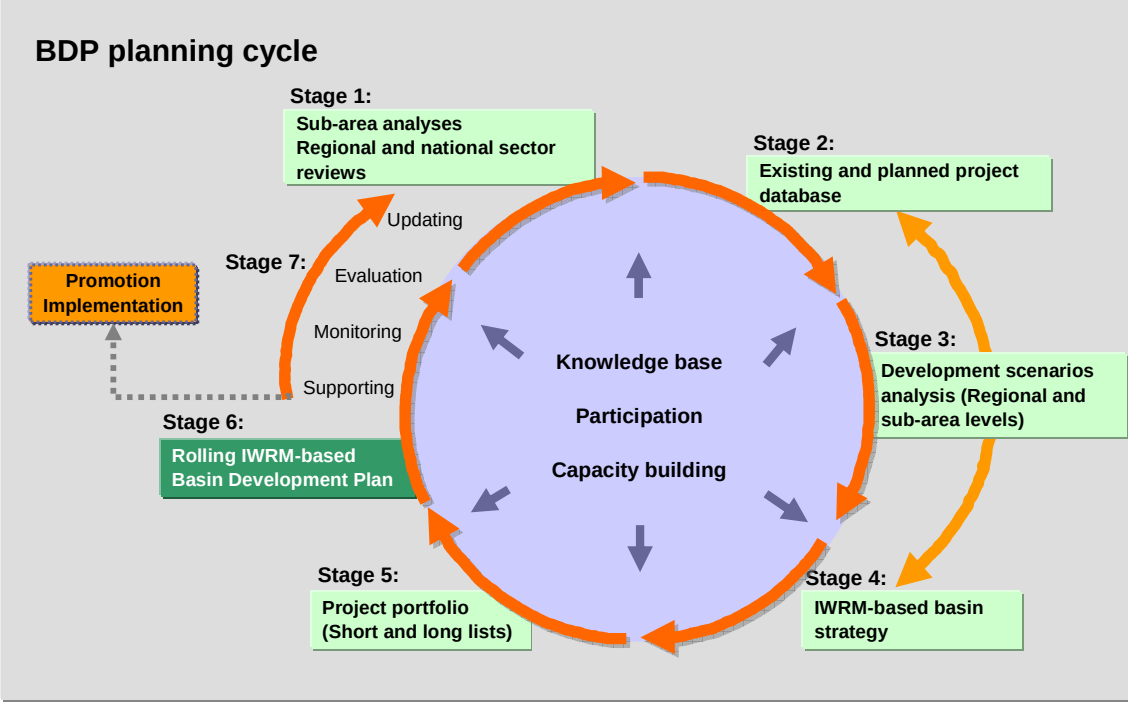

Figure 3.1 BDP Planning Cycle (MRCS, 2010)

There have been some significant achievements in the second stage of the cycle, that of setting up the database of planned and existing projects. However, it is in moving into the third stage of developing scenarios that the difficulties arise. These weaknesses are seen in the development of the scenarios: They were combinations of a series of hydropower and irrigation projects. This has led to a narrowing of the scope of the overall plan, by severely limiting its constricting of IWRM to only hydropower and irrigation, as well as the concept of the development opportunity space (DOS), and provides little by way of trade-offs for policy makers during negotiations, either within a country to offset livelihood losses or between countries within sectors of loss (e.g. fisheries, social consequences of resettlement) or gain (hydroelectricity or expanded irrigation).

The fourth stage takes the scenarios developed in the third stage and, using what is called an IWRM-based approach, develops a strategy "to share, use, manage and protect the basin's resources in a sustainable and equitable way". The BDP2 has reached this point with the first complete draft of the Strategy Document 9/2010 made available for discussion, which is the core element of POE's review and this report.

The fifth stage of preparing a short and long list for a project portfolio has not been done. The sixth stage is to prepare the 50-year Rolling IWRM-based Basin Development Plan addressing planning requirements over the next 20 years that are updated every five years. The seventh stage constitutes the reviews and updates of the national and sub-national sector plans. As an overall planning cycle, this framework expands the knowledge base through participation and capacity

building and can be said to be suited to the needs of the countries of the LMB. The problem lies in the execution of each of the stages, their adequacy and comprehensiveness.

One understands the imperatives of practicality that moved the consultative process to have decided to focus on only these two subjects, and to take an 'IWRM-based' approach in its work rather than a more comprehensive integration of additional sectors and subject matters. Unfortunately, this screening process left out vital concerns that are crucial for statesman-like decision-making by the governmental leadership of the LMB.

The BDP2 Strategy does not contain mitigation options for the "definite future" and other scenarios and its implementability is the main concern of the POE and other critical critiques. The current BDP2 Strategy document is not in a position to bring to the negotiation table items for trade-off discussions between riparian countries and sectors (for example, fisheries and livelihood, food and energy security, and proposed alternatives of comparable values), and non-water related issues related to trade, to create additional trade-off options.

3.2 SOUNDNESS AND ADEQUACY ISSUES

A major shortcoming of the BDP2 Strategy report is the forcible manner in which the concept of "Development Space" (later "opportunity" was inserted to become DOS) is made into the framework around which the Strategic Plan and IWRM is developed[10]. As a result of the hydraulic paradigm adopted at the outset, "development" has come to mean "construction of new hydropower projects". Such a framing places all other possible developments and alternative resource management strategies into a secondary category, including overwhelmingly important ones such as capture fisheries that sustain large sections of the poor. It does not help in "integrating" other serious concerns into the planning process. It is therefore advised to remove this inadequate framing in defining the basin strategy.

While the BDP2 Strategy has IWRM sprinkled throughout liberally, what has not been defined adequately is what needs "integrating" within the Mekong Basin when the development of its hydropower and irrigation are pursued. The report has merely "assessed" the impact of these developments on other sectors. To prevent its platitudinous use, the draft has to define what are the subject matters that need integrating into decision-making in water resources development so that it is not carried out in a fragmented manner. In the case of the Mekong, hydropower development (which is placed as the primary concern of the report) needs integrating with fisheries, agriculture, environment and poverty alleviation among others. Integration also needs to be done between analytical disciplines such as engineering with sociology, aquatic ecology, transportation and international relations.

After defining what needs integrated planning, decisions and delegations of that planning need to be clearly made to agencies or coalitions of interested parties. Processes for achieving resolution of outcomes are also needed. The BDP2 Strategy report assumes that because some government agencies from one sector (hydropower) may be participating in the review programs, there is integration happening by itself within the various government departments and the wider civic

[10] See paper by Mark Halle (2010) on the Development Opportunity Space submitted to the BDP2 as one of the documents of the International POE Team.

movements concerned about impact on issues outside of hydropower. If IWRM is to be used to define the BDP2 Strategy, it has to be clearer on the framework of integration.

A fundamental premise of the IWRM approach is to include in the analysis and planning of water resources management hitherto ignored aspects, especially social and environmental concerns that have bedevilled the sector, caused conflicts and resulted in delays and losses to projects underway. By downplaying these aspects in the scoping of the study, BDP2 has severely limited its usefulness to the policy makers who cannot afford to ignore these issues.

3.3 QUALITY

3.3.1 Quality of methodology, tools and knowledge base used for assessing hydrology, physical and environmental impacts

Tools and data for assessing the mean water flows are satisfactory, but those for many physical and environmental impacts are not adequately rigorous or convincing. This inadequacy likely leads to huge underestimation of the negative impacts on livelihoods of the poor and vulnerable, biodiversity, inland and offshore fisheries, erosion of river banks and coastal shores. Quantification of mitigation measures is completely lacking.

The mechanisms chosen to prepare the review of options are to assess a set (13) of scenarios. The purpose of the scenario analysis is to quantify how different water resources developments impact on economic, environmental and social objectives of the LMB countries. The scenario impacts on hydrology are assessed through the MRC Decision Support Framework (DSF) and its suite of simulation models. Based on hydrological changes, the BDP2 team used 42 criteria to evaluate the scenarios against 13 economic, environmental and social objectives. This is indeed a data intensive process.

In spite of the challenges with data availability, the BDP2 and Integrated Knowledge Management Programme (IKMP) are confident in data quality and model results. The MRC and BDP2 as well as other programs have built up a collection of data on the basin that should continue to improve. The quality of hydrological impacts are considered acceptable, given the circumstances, but the long term scenarios may not be that relevant given many uncertainties. The BDP's methodology was not able to assess the risk of mismanagement of hydropower projects or dam breaks due to natural disasters. The impact of heavy rainfall due to typhoons and other storms often forces the dam operators to abruptly release water from reservoirs that are stored to capacity.[11]

[11] Lessons from the typhoon Ketsana (end of September 2009) show that mismanagement can cause misery to vulnerable communities. Most of the dams have not been designed to take into consideration major natural disasters such as earthquakes or floods. Even where they have been considered, the imperatives of maximizing revenue obliged the dam operators to keep a reservoir as full as possible (and thus maximize hydropower generation as well as irrigation water availability). Records from around the world indicate that flood protection (which does not bring in revenue) tends to be neglected in multipurpose projects. In recent years a number of earthquakes have taken place across Asia resulting in impacts to numerous dams (Mongabay.com, 2008; Brewer, 2008; Vijay and Ramesh, 2005; Hough and Martin, 2001). For example, the 12 May 2008 earthquake in Sichuan province of China (7.9 magnitude) seriously damaged hydroelectric dams and caused serious social and economic losses. Sixty-nine dams were in danger of collapse, 310 were at "high risk," and 1,424 posed a "moderate risk" (Brewer, 2008). China said it would spend more than $1.3 billion per year fixing vulnerable dams, many of which were poorly constructed (Mongabay.com, 2008; Brewer, 2008).

The agricultural assessment overlooks new threats to the "sustainability of agriculture" that accompanies high input/high cropping intensity: Pests and diseases, in particular plant hoppers and associated viral diseases, which have occurred over the last 5 years. Because of these threats, there have been directives to limit a third crop of rice. The assessment should provide a clearer vision for the future "supply, demand and price outlook" of major commodities (e.g. rice), labour availability, and labour costs, which are expected to increase sharply in the future. The assessment on the benefit of rice-based systems is probably too optimistic. Large areas of the Basin are planted or expected to be planted with coffee, rubber, and other plantation crops and there is inadequate discussion about this area in the assessment.

The environmental impact analysis was expected to be made in the context of hydrological change and connectivity of water flow, water quality, sediments, wetland functions, fisheries, ecological hot spots, the Tonle Sap, and flagship species. The methodological flow is sound, provided that good quality data and skills and the right aptitude for interpreting the results are available. Unfortunately, MRC data and information in key non-hydrological parameters such as sediment, and morphology are scarce and present knowledge is limited on impacts of reduced sediments on water quality, river erosion, and coastal morphology. These are exacerbated by the very weak connection (sharing of information, data, and methodology) between BDP2 and other programs (FP, EP, SEA, Navigation, Watershed, etc.).

Data and methodology for assessing the impact of different scenarios beyond the water flow are not adequately convincing. This is amplified by differences between the results obtained by the BDP2 and other Programs and studies within the MRC, such as SEA. The shortcomings and inadequacy of the BDP2's methodology for assessing environmental changes are highlighted in Bravard and Goichot's (2010 – at 3rd BDP Stakeholders Forum) critical review of the BDP2's strategy report. These inadequacies lead to underestimation of the negative consequences of the scenarios on fisheries, biodiversity, bank erosion (including high populated cities), coastal fisheries, coastal mangrove and marine fish habitat.

These issues/concerns were raised during the consultation of various stakeholders (local community, government, NGOs). Yet, scenario analysis does not provide information or options for mitigation and compensation of the identified impacts (even if they are underestimated), especially for the definite future (DF), which could be considered during the next 5 years and should be included in the BDP2 strategy and 5 year plan. Additional data/studies related to sediment transport, nutrients, and ecological values of the hot spots and flagship species in connection with local livelihoods and climate change should be carried out as a follow-up to address stakeholder concerns.

3.3.2 Quality of methodology, tools and knowledge base used for assessing socio-economic impacts

Economic Assessment

In reviewing the BDP2 Scenario Assessment Report, the POE found the economic analysis based on premises that ignore how economies such as those of Southeast Asia function over a long (20 year) period of time. The economic assessment seems to be based on present *ceteris paribus* ('Other things being equal or unchanged') conditions being projected rather uncritically into the future, leading to an optimistic projection of current market conditions into the long-term future. The primary failure in the economic analysis methodology currently used lies in not appreciating

the changes in the *ceteris paribus* conditions that will occur as the vast informal economy of the Mekong – the primary users of other values such as fisheries, agriculture, navigation and environmental services – moves into the formal. This has led to the report's over-valuation of hydropower project benefits over agriculture or fisheries. Under present conditions, hydropower is much valued. It is demanded by a voracious industrial sector as well as unmet demands of commerce and households in the region.

As the informal economy moves into the formal, a process that is expected to be significant in the next two decades, currently underpriced products of agriculture and fisheries will begin to approach values similar to those of already industrialised societies (e.g. beef or vegetables in Japan). Given that other regions of the world too, might probably be shifting away in this period from mixed "subsistence and semi-commercial" farming to more fully commercial farming, arguing that a prosperous industrialised Mekong Basin can import its food from less developed parts of the world might not be tenable. In such a likely scenario, the value of water to agriculture and fisheries (and hence its economic price) will be far more vital than water for electricity production. After all electricity can be produced from a variety of sources, even renewable ones such as solar and bio fuel, or even nuclear: Fish and rice are unthinkable without water.

It is within this context that the POE wishes to draw attention of the BDP2 team to the comments quoted below in the Hirsch/Larry Haas critique which the team must seriously engage with. Unless adequately answered, this criticism has the potential for completely undermining the basis for BDP2's hydraulic approach which pushes hydropower to the front of the queue over other current and potential uses in its scenario and strategy report.

> According to MRC's presentations, notably the presentation at the BDP Stakeholder Forum (July 2010) by Larry Haas, if all the mainstream dams were to be built by 2030 (i.e. within the 20 year foreseeable future scenario), they would contribute 6 per cent of the power needs of Thailand and Vietnam. The power demand growth projections in the Lower Mekong Basin are of the order of 5 to 10 per cent per annum. This means that the entire cascade of Lower Mekong Dams will at best serve the function of catering for 12 months' increase in power demand, after which the need to find alternative sources or savings will be back to where it was a year earlier. The SEA indicates that the incremental loss of fisheries from the construction of mainstream dams will be at least 600,000 tons per annum and will be up to more than twice that, or about 40 per cent of the total catch. This raises a fundamental strategic question for BDP, MRC and the lower Mekong countries: Is the loss of freshwater fisheries equivalent to at least 1.5 times that of the entire Amazon Basin, or the whole of West Africa, worth sacrificing for one year's increment in power supply growth?

The net benefit analysis is misleading in so far as it overvalues hydropower with externalisation of the cost to affected communities and undervalues many other ecosystem goods and services to be affected. The apparent over confidence of "high benefits" from irrigated agriculture comes from relatively high expected yield in the Mekong Delta of Vietnam and relatively low labour costs, though labour costs are expected to increase dramatically in the next 20 years. There are other losses that have not yet been captured in the numbers. For example, the "gestation time" of the infrastructure development has not been factored in. There is likely to be a major cost due to the loss of off-shore fisheries – with some of the scenarios – that is not quantified at all. The loss from fisheries is much undervalued compared with the results in the SEA report.

There are assumptions regarding aggregate benefits to countries that might need further disaggregation. For example, while much of the hydropower investments in developing dams on

the tributaries will go to Laos, it does not necessarily mean that the benefits will all accrue to Laos. Depending upon the investment structure and the nature of the power purchase agreement, much of the benefit will go to the investor in terms of dividend and interest payments, which may not be primarily Lao, and the benefits of electricity use (and the difference between the high end market price and the softer export price) will go to the consuming country.[12] Unless this is teased out, policy discussions on tradeoffs will not be fruitful.

Furthermore, as mentioned earlier, significant mitigation and compensation costs due to these developments, which are expected to be high financially and politically, are not included in the economic valuation. The costs, commitment and capacity of the country to implement the key measures are an issue to be addressed by national decision makers which the BDP2 economic analysis must take into consideration to be more relevant. Since beneficial and negative impacts of the scenarios differs among the countries, it might be necessary to devise a "benefit sharing mechanism" such as Payments for Environmental (or Ecosystem) Services (PES).

The BDP economics will be scrutinised widely, which is why the underlying assumptions, inclusions and exclusions need to be more clearly explained. The POE also needs this unpacking of embedded assumptions spelled out clearly in the report before it can assess the economic contribution in greater detail.

Social Assessment

The social assessment is considered inadequate. The methodology is difficult to understand, and the conclusion could lead to different interpretations and non-constructive debate due to its complex nature. Social impacts will involve both direct and non-direct impacts and require due attention during planning and implementation. The affected population will include those living along the river, who will be affected by daily and seasonal changes in water level, as well as those who are identified as vulnerable in the scenario assessment. Ethnicity, cultural values, and other indirect impacts are also key elements of social assessments. The social analysis should therefore cover other important impacts such as resettlement, land acquisition, livelihood restoration, and the consequences to ethnic peoples. It should focus more on some likely scenarios to understand the extent of the negative social consequences. What should be done about them, and at what cost? But the methodologies used do not answer questions related to such vital issues as livelihoods, lack of access to key resources, and subsequent social impacts. The social consequences due to the shift in the local community from informal subsistence farming and fisheries into employed formal wage labour are immense and not captured in the analysis. The BDP2 should review the guidelines on social safeguards applied by international agencies (e.g. the World Bank, the ADB, the ILO) and design the scope of an assessment that could be done within the present timeframe and budget as well as identify priority follow-up actions.

Given these weaknesses of the methodology and sensitivity of social issues, the numbers of potentially affected populations in each country could be higher than those given in the BDP

[12] The SEA suggested that most of the country benefits from hydropower development as indicated in the scenario analysis go to the investor/financiers during the first 20-30 year concession period and only a small amount (less than 19%) of benefits go to the country before trickling down to the people.

(ranging from 800,000 people for DF; 1.5 million for Foreseeable Future Scenario (FF) without mainstream dams; and 2.5 million for FF with mainstream dams). These numbers should be crafted carefully. Given the many associated uncertainties, it may be better to improve the quality and credibility of the assessment of potential impacts for the Definite Future scenario by conducting more detailed surveys in "hot spot" areas so there is solid background for discussion, and mitigation measures that could be considered. Other scenarios that should be considered are the 20- year scenario without dams and 20-year scenario with mainstream dams. Since poverty is prevailing in the LMB, it is important to assess the impact of proposed plans on the poverty of vulnerable communities.

3.3.3 Quality of assumptions and assessment of risks and uncertainties

Even within the limitations of the hydraulic paradigm, there are a set of assumptions in the scenario framing that further limit the scope and policy relevance of the BDP2 reports. There are assumptions regarding the Upper Mekong Basin (UMB) Lancang cascade in China that need to be better analysed and justified if the plan is not to rest on shaky foundations. It is assumed that all eight of the UMB dams will be built to the current specifications to provide the assumed level of storage which will be available to the countries of the LMB. First, there is no agreement to that effect between LMB countries and China. Second, the operating rules of the reservoirs are not known, i.e. whether these plants will be operated as base load or peaking plants or something in between, a fact that will affect downstream discharge. Third, which part of the cascade, i.e. which of the last dams, will be maintained as a re-regulating reservoir and when? And fourth, what if China decides to ask for benefit sharing from its investments upstream?

One underlying assumption is that not only all the Chinese dams but also all the dams mentioned in the national plans will be built to current specifications, and that these form the basis of the "definite futures" scenario.[13] All too often the initial lists in the national plans are wish lists that, on further investigation, may not turn out to be feasible on financial, geo-technical or social and environmental grounds. Some finessing of these plans to give a spectrum of possibilities to the "definite future" and "foreseeable future" would make the scenarios more robust.

The BDP2 reports made many "bold" assumptions, which do not appear to be scientifically sound or verified. For example "the nutrient reduction due to reduced sediment will be compensated by increased pollution due to agriculture"; or "the river will seek to re-establish its sediment balance by scouring, it indicates that it will only be a question of patience before it comes back to its original balance". These assumptions underscore the need to ensure that the information provided is scientifically credible and properly sourced.

Decision-making always occurs under tremendous uncertainties, natural and social, and it is more so in water resources with its multiplicity of issues. The robustness of plans and their value for

[13] These numbers on dam size as well as turbine and generator parameters were given by "feasibility or pre-feasibility reports". Unfortunately, in the actual detailed engineering phase, either the geology is not sound, or the market demand for energy has changed, or the developer just cannot get all the money required, and thus what is built becomes significantly different. Therefore the exact amount of dam-regulated water which will come down the Mekong in the future is uncertain.

policy purposes are judged by the insights they provide into the nature of uncertainties as well as the portfolio of risks. The BDP2's approach to risk and uncertainties, with its incomplete and narrow technocratic focus, does not do justice to the gravity of the subject. 'Risk and Uncertainties' should be treated separately in the report. Uncertainties relate to the state of knowledge or lack thereof, and can (and should) be reduced through better use of physical and social science research

BDP2 documents tend to overlook the plural perspectives on risk perception. While considering the developers' risk, BDP2 ignores the risk perspectives of those in the informal and subsistence economy. A plural perspective on risks, and their differentiation from uncertainties, is important because the definition of what the problem is can be quite different, and thus the proposed solution even more divergent. These divergences can affect national and regional water policies, driving their implementation from success to impasse. For example, if one's concern is the high risk to poor farmers dependent on capture fisheries, changes in river and sediment flow regimes become the starting point of analysis. If, on the other hand, one's concern is to assure high returns on investments from sale of electricity, the problem of silt and sediment is quite secondary and is often excluded from consideration. Policy makers who face these conundrums in everyday decision-making are helped only if the BDP is able to lay out the menu of potential risks more clearly.

The BDP2 strategy document, as it is intended to be used by governments of the region, must be able to advise the governments on the divergent perspectives of risk by both businesses (e.g. delay in hydropower construction) and civic movements (e.g. poor farmers with reduced incomes and inadequate nutrition). The current Strategy document stands biased towards the perspectives of hydropower developers, and is not adequately sensitive to those of civic movements or even governments who must face the risk of social unrest if these issues are improperly handled.

The BDP acknowledged the "inevitable risks and uncertainties associated with the assumptions made in the scenario assessment and the accuracy of the forecasted impacts". It set aside Chapter 5 of the "Scenario Assessment report" to discuss how the four categories of risks and uncertainties[14] would influence the outcomes of the scenario analysis.

In each of the discussion points, the BDP2 report begins by acknowledging that there is considerable lack of knowledge, data availability, and risks due to mismanagement of reservoirs. But the conclusions vary widely from the cautionary note when they state: "the evaluated risks and uncertainties for the foreseeable future will not change the impact results substantially, nor the overall strategic decisions that may be influenced by the particular assessment". The POE suggests that vigorous quantitative analyses are needed to justify this statement.

3.3.4 Quality of BDP2 Strategy for operationalisation

The regional members of the POE shared the concern of the international POE members over the quality of the September 2010 Draft Strategy for its lack of consistency, balanced analysis of the trends and impacts, and its lack of key elements of a good strategy.

[14] These include: (i) the accuracy and availability of tools and data, (ii) the timing of implementation and water resources development, (iii) uncertainties with morphological impacts, and (iv) uncertainties about how future developments outside the water resources sector would influence the outcomes of the scenario analysis.

The snapshot summary in the beginning is at wide variance with the analysis and conclusions in the main body of the report. Many statements in the strategy report are not well substantiated or balanced and are not properly sourced. For example, it is very misleading to say "2030-20Y-w/o LMD" (meaning without (w/o) lower mainstream dams), when it actually means including six mainstream dams above Vientiane, which only a careful reading reveals.

The POE observed that the mechanism chosen by BDP2 to prepare the review of options, to maximise benefits and minimise risks, and to seek the correct balance among the three pillars of sustainability is a set of scenarios. The notion of sustainable development in the BDP is the product of a chosen and agreed level of water development, which in turn determines the bounds within which development may be planned and implemented.[15]

The BDP2 chose DOS to ensure and operationalise sustainable outcomes. This approach presents several problems. It does not provide, at the beginning, a clear decision on MRC Member Countries' objectives, and a process that eliminates routes that do achieve agreed objectives. It does not provide any workable mechanism to collaboratively find a balance among a range of human needs over the long term and consideration of "pro-poor development".[16]

Secondly the Strategy dangerously oversimplifies causality, assuming that, if projects follow IWRM guidelines and are placed within a broader sustainable development framework or the DOS, the project is therefore considered sustainable.

3.4 REVIEW OF BDP2 PROCESS

The POE is concerned about whether the BDP2 has informed or been informed by other important processes. This section reviews the linkages with other MRC processes, national planning processes and engagement with diverse stakeholder groups.

3.4.1 Linkages between BDP and other MRC processes

3.4.1.1 MRC Programs

The BDP2 Assessment Report relied on inputs from hydrological and climatic data from IKMP, fisheries projections from FP, hydropower projections from ISH, irrigated agriculture projections (AIP), and flood control and mitigation (FMMP).

There is an obvious omission of relevant information on navigational issues (NAP), and on analysis of social and environmental impacts of wetland function from the Environment Program (EP).

The POE is aware that not all MRC programs were able to deliver the information (social and economic data) that the BDP2 needed for its assessments. To compensate, the BDP2 relied on

[15] Halle Mark, 2010. A Note on the Development Space from a perspective of Sustainable Development, submitted to MRCS as part of the International Panel of Experts Report to MRCS Basin Development Plan, Vientiane, Lao PDR.

[16] Halle Mark, 2010. Understanding the Concept and Use of the Development Opportunity Space in the IWRM-Based Basin Development Strategy for the Lower Mekong Basin, submitted to MRCS as part of the International Panel of Experts Report to MRCS Basin Development Plan, Vientiane, Lao PDR.

international and national consultant expertise. The EP also conducted social and economic vulnerability assessments along selected vulnerable corridors.

The POE is also aware that not all of the comments from the MRC programs were adequately taken into account by the BDP2 in its assessments. The POE observed from the MRCS program discussion at the MRCS on 30 September 2010 that some key MRC programs unveiled their disappointment with the assessment – inadequacy in scope, quality of interpretation and integration. These are valid comments that should have been taken on board earlier in the process and the BDP2 is far from being a corporate product of the MRC, which it needs to be.

3.4.1.2 Strategic Environmental Assessment (SEA)

The SEA of the Mekong mainstream dams has been a year-long process initiated by the MRCS CEO and led by the MRC Initiative on Sustainable Hydropower (ISH). The MRC hired a consultancy group, ICEM, to develop and carryout the SEA with the final report submitted in August 2010. Whilst the SEA is a more focused programme on the mainstream dams, there are direct parallels between the SEA and BDP2 products that need to be coordinated in their findings. The SEA was implemented in parallel with the BDP2 process and included a number of consultations with internal and external stakeholders. The SEA covers the 12 mainstreams, while the BDP2 considered only 11 mainstream dams in its Foreseeable Future scenario.

The preliminary results of the SEA were presented at a regional consultation in May 2010, at a time when the BDP2 and its consultants were in the process of finalising the scenario assessment. Whilst the SEA draws on the BDP2 scenarios to inform their analysis, there are obvious discrepancies in the analysis, assessment and conclusions in the BDP2 and SEA reports. There are currently no results from the SEA findings included in the BDP2 strategy whilst one of the goals of the SEA was to inform the BDP2 Strategy.

The POE did not observe any meaningful efforts in reconciling and drawing the best possible understanding or findings for developing valid and rigorous assessment by both teams.

Here are some main differences and contradictions that need to be reconciled:

- Some of the SEA wetland valuations were quoted in the BDP2 wetland assessment report, but not others.
- Fishery assessments of BDP2 and SEA contradict each other in some aspects.
- There are different considerations of sediment and nutrient issues.
- Energy: The two reports have widely varying assessments of the energy scenario, especially in comparison with 'other river benefits'.

One of the key recommendations from the SEA is the proposal that the MRC prepare a Mekong Mainstream Plan through wide consultation with LMB countries. This is proposed as a different output than the current Basin Development Plan. According to the SEA a "gap was identified during the SEA that there is no analytical framework defining critical stretches of the Mekong River from an ecological, cultural or social viewpoint which needs special management measures and against which development – hydropower, irrigation, water abstraction and diversion, and industry – can be assessed." This SEA proposed that this Plan would contrast to the BDP in that it would provide a framework against which developments can be assessed. The SEA presents the

BDP as a series of development scenarios to assess which levels of development will be acceptable. Alternatively, the Mekong mainstream Plan is presented as a resource management and development proposal assessment framework, whilst the BDP is seen as a development instrument.(SEA p. 134). The serious contradiction in analysis and recommendations in the BDP2 and SEA may potentially discredit the MRC as an organisation.

The POE sees the need for ensuring more collaborative data/information/knowledge flow from and to other MRC programmes, such as the Environment Program, and the Initiative for Sustainable Hydropower, among others, to ensure information is properly incorporated and interpreted. Good analysis and assessment of the power sector, economic systems, hydrology and sedimentation, navigation, fisheries, and social systems are available in SEA and SIMVA that should be used to inform the BDP2 Assessment and Strategy

3.4.2 Linkages with national Processes

The POE observed that JCWG members have indicated that there needs to be a stronger linkage with national development planning processes, which to date remains rather weak. The current strategy only proposes more studies and more consultations but does not provide any suggestions on prioritisation for practical steps for implementing the strategy in the respective countries. As a result, the POE is not yet convinced that enough work has gone into building an understanding of the strategy to ensure full acceptance by policy makers in the MRC countries.

The MRC needs to strengthen the linkage with and ownership by, national planning agencies by mapping out the governments' plans with the BDP2 plan, and devising a coordinated implementation strategy. MRC need to thoroughly assess the necessity of BDP by those agencies and stakeholders beyond the NMCSs, the national planning reality and commitment and readiness to embed BDP into national planning and budgeting processes.

3.4.3 Linkages with stakeholders; quality and update of comments

Within the BDP2 program, a Stakeholder Participation and Communication Plan (SPCP) was developed to guide the BDP in: a) the development and implementation of methodologies and practices for public participation; b) improving interaction with national planning and line agencies; and c) improving and consolidating dialogue on shared development opportunities and transboundary issues with stakeholders.

The POE has been impressed by the stakeholder involvement in the process to develop the BDP2 strategy which saw an engagement of over 56 meetings at different levels reaching out to the NMCSs, selected line agencies, NGOs and private sector among others. There were also three regional BDP stakeholder forums where national and international participants were invited to express their concerns and offer suggestions. Whilst the engagement with the countries was through more targeted committees (e.g. the RTWG or JCWG), to reach 'external' stakeholders, the BDP2 often facilitated very large forums. These forums were useful for sharing information and enabling various views to be articulated. However, despite the tremendous efforts by the BDP2 team, the POE is also concerned about the quality of stakeholder engagement as it was very difficult to have targeted and more meaningful discussion around the BDP2 strategy for a number of reasons. These include: a) most sessions were often conducted in large plenary, not enabling

many voices to be heard; b) documents were often circulated at the last minute and participants did not have time to read in advance; c) similar people attended the large forums and BDP2 was not able to reach different stakeholder groups. More targeted roundtables with harder to reach stakeholder groups (e.g. representation from local communities, especially potentially affected people) would have been useful for the development of the strategy.

The POE is not clear about how well the BDP process has incorporated comments and/or suggestions generated from the stakeholder forums, numerous meetings and the web. Discussions during the POE missions indicated problems with the process of responding to, and/or incorporating comments into the BDP.

3.5 RELEVANCE AND UTILITIES

3.5.1 Relevance to MRB Context

Even though the BDP2 is a necessary step in the journey towards sustainable development, in its present form it is far from being an effective planning tool. The Joint Committee needs a document that it can use as a blueprint to identify, categorise and prioritise projects and programmes, and to seek assistance for implementation as appropriate to developing the Mekong River Basin.

BDP2 is intended to support cooperation among the Mekong countries to materialise their aspirations (inscribed in the 1995 Mekong Agreement) for cooperation and coordinated or joint planning for balanced and socially just development in the Mekong River Basin. As already noted, the limited development scenarios prevent a comprehensive listing of projects. The exclusion of important sectoral concerns distorts the prioritisation of projects. In particular, the assessment falls short with respect to the livelihoods of local communities which are directly related to poverty reduction and conservation of natural resources and are important components of national poverty reduction strategies of the countries in the region.

Development of hydropower to its maximum benefit can also contribute to poverty reduction in the Lower Mekong Basin only if there is an effective mechanism for risk and revenue management, and for benefit distribution.

3.5.2 Likelihood of acceptance by MRC Member Countries and other stakeholders

It is uncertain if the BDP2 strategy (draft September 2010) will be accepted by the countries at this stage, especially for countries under extensive scrutiny by local people and NGOs.

Endorsement by the JCWG of the strategy report appears to be the first step towards a possible signing by the Council which will signify a formal acceptance of the country. Despite the JCWG endorsement (and even the signing by the Council), it does not mean that the scenario which is defined as acceptable by the countries can be moved forward without facing objections and/or questions from local population and/or international NGOs. The Definite Future scenario and all the mainstream dams will create significant impacts on local communities, and Mekong mainstream development has been high on the NGOs/local community monitoring agenda.

Acceptance by the other stakeholders is also unlikely due to the following reasons:

- The analysis is inadequate to "provide confidence that water can be allocated and used without significant unforeseen transboundary impacts". It is likely that the government (if the proposed strategy is signed) must be able to provide the rationale for all the conclusions as well as the next steps (who does what and who pays?).

- Contradictory messages between the BDP2 and SEA. For examples, the key messages and recommendations of the SEA to defer the mainstream dam for 10 years is contradictory to many of the BDP2 conclusions regarding the potential impacts of the mainstream dams. Despite an extensive explanation about DOS, the Strategy fails to convince the POE as to why the 20 year development (including the six upper mainstream dams), should be included in the DOS, and notification only would then be necessary from the MRC perspective.

- Lack of clarity as to who was termed in the strategy as "countries" – is the position expressed truly a "national position", or just that of individual members who attended meetings or workshop?

- The BDP2 Strategy focus too much on the DOS application which is too complex and difficult to understand (even for those more technically adept) and it is likely to cause confusion, misinterpretation, and unconstructive debate. In particular, the DOS concept has not been discussed with local communities and the technical jargon and terms need clarification and acceptance by local people. The transboundary issue and DOS concept is likely to be difficult to understand by the affected population and general public and the DOS concept could be perceived as a licence to develop, without adequate consideration to avoid, prevent, and/or mitigate negative impacts on the local environment and local people.

- It is noted that although the assessment and draft strategy were presented and distributed in the countries as well as at the 3rd BDP2 Stakeholder Forum, it cannot be concluded that that the BDP strategy has been accepted by stakeholders.

- There is no clear guidance as yet on how to achieve balanced development, realistically measure benefits and manage risks; nor is there a practical framework for promoting more systematic application of the PNPCA in the IWRM-based Basin Development Strategy. The "Manual of IWRM Practices at the Basin Scale" covers more than 50 identified IWRM issues, but most of the guidelines intended for the manual are yet to be developed. Only few of those Guidelines are in various stages of development. While recognising the usefulness of IWRM Guidelines, the POE expresses concern over the sheer number of the guidelines. What are incentives for encouraging more systematic and widespread adherence to this Manual by both government agencies and developers? Incentive mechanisms (financial, technical and reputational risk and incentives) must be in place and enforced to encourage compliance.

3.5.3 Clear and complete strategic guidance for preparing a project portfolio

There is currently a lack of a project portfolio which is intended as one of the key components of the IWRM-based Plan. There is no clear indication from the BDP2 Strategy on the strategic guidance and timeline for completing the project portfolio, since the current strategy places unnecessary emphasis on the DOS. Given this and the poor experience from BDP1, MRC and BDP

need to seriously consider the relevance and practicality of such a "project portfolio". The lack of such a portfolio and the path to it has serious implications for decision-making regarding the PNPCA, as discussed below.

3.5.4 Informing the consultative aspects of PNPCA

The BDP2 processes are expected to provide a platform for reconciling national and basin perspectives and ensuring compliance with the agreement and other procedures. However, there is no clear guidance on a practical framework for promoting more systematic application of the PNPCA in the BDP2 Strategy (September 2010 version).

The recent submission of the notification on the proposed Xayaburi mainstream dam is a clear test for the MRC and the Secretariat. The existing IWRM-based Basin Development Strategy only declares an intention to develop further regulatory process to improve the PNPCA, and identifies the need for a roadmap for negotiation of projects outside of the "DOS" (page, 59). This section of the Strategy not only fails to provide a basis for supporting consultative aspects of the PNPCA, but is also potentially misleading by indicating that the DOS is a licence to dam or divert water.

Currently the BDP Strategy is in direct contradiction to the PNPCA process in that the PNPCA process is meant to facilitate and coordinate decision-making around the key water related projects. The current draft of the BDP strategy, in the way that it is written (especially in the 'snapshot' section), gives licence to the countries to build the six mainstream Mekong dams above Vientiane (20-year scenario without lower mainstream dams) subject to simple notification only.

The SEA Report (August 2010) suggests some important considerations/recommendations for improving the process of the notification, prior consultation and agreement as defined in the existing PNPCA and its technical guidelines. The wealth of information already accumulated within the MRC could play a role in contributing to this discussion and ensuring that thorough environmental, social and economic analysis is completed for any project that becomes notified through the PNPCA.

Some of these can be taken up by the BDP2, such as additional information for the PNPCA process - feasibility studies and ESIA reports, MRC's Preliminary Design Guidance for hydropower development on the Mekong mainstream, the BDP reports and assessments of impacts of various development scenarios, and any other MRCS studies and technical documents considered useful and relevant. This suggestion will certainly require a stronger role and capacity of the MRCS to facilitate the process.

3.5.5 Future of BDP

The POE has reviewed the Programme Document of BDP Program 2011-2015 (draft September 2010) and believes that before initiating any discussion on the next phase, MRC and its development partners need to seriously assess the countries' needs for BDP or other forms of regional planning frameworks to determine the best fit for their national planning and investment decision-making process.

The proposed risks and risk management strategy in the draft programme document are found to be inadequate, since: a) some of those risks identified are more deeply rooted within a complex regional and national institutional and organisational set-up; and b) the suggested risk

management and mitigation measures would fail to contribute to addressing the risks. The risk assessment and management of the BDP and MRC should be more rigorously analysed so that the most appropriate and effective risk management and mitigation approaches are be identified.

The suggested Institutional arrangements in BDP2 seem to fail to take into account the lesson learnt from BDP1: Poor linkage with the national planning agencies and national planning processes. The NMCs, as inter-ministerial committees, are not functioning in many countries, and NMC Secretariats are often identified as the "main advisory and decision-making bodies" in the countries. As a result, the active involvement of the planning agencies, sector agencies and other key stakeholders is severely curtailed.

4.0 CONCLUSION AND RECOMMENDATIONS

The POE recognises the good work that has been undertaken by the BDP team to reach this stage and the application of the basic IWRM principles focusing on integrated consideration of the economic, environment, and social values and cooperation and consultation of key stakeholders through the participatory planning process and networking at national and sub-area levels. **However, in its current form, the POE does not feel that the BDP2 Strategy is ready to be submitted to the MRC Council for approval.** It is advisable that the MRC spend substantial time in addressing all relevant comments and concerns obtained from MRCS, Member Countries, and other key stakeholders. This will ensure a robust strategy document that is aligned with national plans and internal MRCS programs and one that is simple and understood by decision makers. Enhancing the quality, utility and acceptability of the IWRM based Basin Development Strategy is advised.

The recommendations are divided into two sub-sections, namely i) what is required between September 2010 to the finalisation of BDP2 products; and ii) the future of the BDP.

4.1 RECOMMENDATIONS FOR NEXT STEPS

The following next steps should be put in place to improve the BDP2 products:

1. Reconcile and incorporate the MRC's other work**.** The Strategy should be rewritten and informed by the assessments carried out in the SEA, SIMVA, and other studies of the MRC, such as those on fisheries and morphology. Even though SEA is regarded as a 'consultancy report', it has been developed through recognised and scientifically defendable methodologies and a highly participatory process led by the MRC. MRC needs to seriously consider integration and interpretation of the results of BDP2, SEA and other relevant studies.

2. Revise the strategy to avoid claims for achieving sustainable development. Instead, the BDP should speak of the procedures and process that must be put in place if the direction of development is to be pointed towards the goal of sustainability.

3. Shorten the revised Strategy and reduce ambiguous areas. In particular include:

    - Balanced and substantiated analysis of development trends and plans beyond

hydropower and irrigation;

- Clear and concise statements of local, national and transboundary impacts or implications, and proposed options for mitigation – especially of the Definite Future scenario;

- Concrete and realistic strategic and operational steps for moving the strategy forward towards achieving regional cooperation for sustainable and pro-poor development; and

- Clear definition of DOS, such that it removes the confusion and possible misunderstanding that it endorses project development even without adequate analysis and mitigation measures in place.

4. Adopt one MRC corporate voice in BDP2, addressing all the contradictions, uncertainties and conclude with a clear road-map of the path ahead.

4.2 RECOMMENDATIONS FOR THE LONG-TERM

The following long-term recommendations should be considered by MRC and its development partners to improve the BDP:

1. **Scenario Development (more realistic, more comprehensive)**:

   a. Provide more time and effort to provide the necessary facilitation for constructive discussion and agreement on the so called "acceptable" development scenarios in the LMB. During the consultation process, an agreed development scenario with proper mitigation measures should be identified and implemented;[17]

   b. Extend beyond hydropower and irrigation. Additional scenarios for different development objectives such as poverty reduction, food security, and livelihood development should also be considered. The scenario analyses and selections have to be based on "multi-objective" principles; and

   c. Replace DOS by standard and accepted procedures and tools of strategic project assessment, project selections, and list of prioritized project portfolios and their mitigation procedures.

2. **Mitigation:**

   a. Mitigation MUST be planned (starting with the Definite Future scenario) within the broader Mekong sustainable development and reasonable and equitable utilisation framework. BDP2 must include meaningful and practical measures to

[17] BDP2 scenario assessment exercise seems to contradict the usual purpose of scenario planning. Scenario exercises should inform rather than substitute for policy analysis, negotiations and political decisions. The scenario logic should be used as a tool to clarify 'trade-offs' among several plausible alternative future pathways of development, instead trying to pick 'winners'.

mitigate the impacts of developments and their risks to affected communities; and

b. Although impacts from the 'Definite Future' scenario can be considered as a given, it is the responsibility of the MRC to make an effort to achieve deals to minimise those impacts and facilitate agreements. In addition to the follow-up activities related to mitigating the impacts on sedimentation, biodiversity, and ecosystems, the risk due to upstream dam operations and major flood events could cause significant damage to human life and the economies of downstream countries. It is therefore important to ensure that (i) environmental flows are calculated; (ii) benefit sharing mechanisms are put in place; (iii) acceptable mechanisms are put in place to address emergency events (such as insurance, dam breaks, emergency flow release etc); and, iv) mitigation initiatives are measured at critical points through the basin. This will require the signing and completion of the procedures for addressing those concerns; and the introduction of an insurance scheme as appropriate.

3. **Clarity in Strategic Direction:**

a. Establish clear and credible "no-go" zones for development; for example, extinction of flagship species is not acceptable. Strategies to realize the no-go zones must be clearly defined; and

b. Reconcile contradictory and unsubstantiated statements in the BDP document. Given the nature of its mandate, it is important for the MRC to avoid misunderstanding and misinterpretation of the key findings and development direction.

4. **Stakeholder Engagement and Up-take**:

a. Strengthen stakeholder engagement, including skilled facilitation, improved informal and inter-personal interaction;

b. Make efforts to address comments made by providing clear and complete documentation trails addressing comments by stakeholders, and establishing processes for addressing rounds of comment from stakeholders;

c. Strengthen the linkage with and ownership of national line-agencies, especially planning agencies (not limited to water resources agencies) by mapping out government plans with the BDP plan, and devise a coordinated implementation strategy; and

d. Balance contributions between top-down (MRCS consultants) & bottom-up (sub-area and national contribution). Delivering and integrating the information needed for basin planning and management from MRC Programmes is a challenge that needs to be addressed in the immediate term, and in the next phase. If not, driving basin development planning forward will continue to

demand large inputs from external consultants and its acceptability and impacts will remain minimal.

5. **Acceptability and Implementation for sustainable impacts:**

   a. The MRC and BDP should clearly define a course of action to be undertaken by the Member Countries with clearly outlined timelines and concrete actions for further capacity building of the MRC to serve as a knowledge-based broker; and

   b. Make the strategy document simple, less technical and not too abstract. The strategy should be produced in the four national languages, and include clear, time-bound steps towards implementation and benchmarks for monitoring.

6. **Robust and concrete agreement and recommended actions to be undertaken by the MRC Member Countries must be spelled out clearly. Key agreed upon actions should include:**

   a. A more robust analysis and presentation of options and consequences of a certain course of actions for decision-makers in developing trade-off and mitigation measures; and

   b. Confirmation of the MRC roles as basin-level broker for inter-country negotiation for advancement of sustainability and facilitation of harmonious relations between neighbours sharing a common resource, and consideration of trade-offs needed to maximise basin-wide benefits and minimise basin-wide risks.

7. **Restructuring:**

   A serious attempt should be made to take on board all programmes so that Basin Development Plan is considered as a corporate product of the MRC to better support its Member Countries and stakeholders with high quality inputs for discussion and deliberation. This requires the replacement of the current "silo" structure of the MRCS by more communicative and integrative units with staff with strong integration, and communication qualities.[18]

5.0 DOCUMENTS REVIEWED

No	Description	Status
1	IWRM-Based Basin Development Strategy for the Lower Mekong Basin	First Complete Draft – 15 September 2010
2	Assessment of Basin-wide Development Scenarios – Draft	September 2010 version

[18] Similar recommendations were made by the Independent Institutional, Organizational and Financial Review and follow-up activities during 2006-2009. However, the structure and communication issues still persist.

	Main Report and Appendices	
3	MRC SEA for Hydropower on the Mekong Mainstream	Draft Final Report of August 2010
4	Programme Document - Basin Development Plan Programme 2011-2015 -	Draft 2 September 2010
5	Critique of draft Basin Development Strategy by Phil Hirsh	Presented at BDP2 3rd Stakeholders Forum, Vientiane July 29 -30, 2010.
6	Critical review of BDP environmental assessment - Ensuring ecosystem integrity and ecosystem services.	Critical review by International NGOs at the BDP2 3rd Stakeholders Forum, Vientiane July 29 -30, 2010.
7	Summary note of the 2nd Meeting of JC WG on IWRM-based Basin Development Strategy, 24th September 2010	
8	Summary of Comments From the National Consultations, July 2010	