

**Draft Meeting Notes**  
**Council Study 5<sup>th</sup> RTWG Meeting**  
**13-14 August 2015**  
**Siem Reap, Cambodia**

**DAY 1**

**I Objective and Opening**

1. The 5<sup>th</sup> RTWG meeting was held in Siem Reap, Cambodia during 13-14 August 2015. H.E. Dr. An Pich Hatda, Deputy Secretary General, CNMC chaired the meeting. Director Tien Truong Hong, the OIC of the Mekong River Commissions Secretariat, as the co-chair started the meeting by inviting H.E. Dr. Hatda to deliver the opening remarks. In his opening remarks, H.E. Dr. Hatda reminded the participants of the importance of RTWG meetings and the important role the RTWG plays in guiding the Council Study to success. Dr. Tien thanked H.E. Dr. Hatda for his opening remarks and further emphasized the importance of the CS and reminded the participants of the history of the Council Study and the primary reason for the delays. This includes the following:
  - Council Study was conceived in December 2011
  - It took one year to develop the Concept Note which was approved in January 2013
  - It took another year to prepare and agree on the TOR on January 2014
  - It took another 10 months to prepare and agree on the Inception Report version October 2014
  - The implementation of the study only started in November 2014 after the MCs agreed to use the October 2014 version of the Inception Report as basis for the implementation (9 months to date)
  - The original plan for the implementation of the Study is 3 years and to be completed by December 2015

Therefore, Director Tien reiterated that the main reason for the delay which is about 1.5 years is due to the long preparation and agreement of the concept note, the TOR, and the inception report. As a result, the CS cannot be possibly completed by the originally planned date which was December 2015. However, after 9 months of implementation with support from the MRCS and MCs, substantial progress has been made as indicated in the agenda. The Council Study Team also recognized the challenges about the remaining time and budget. The total budget needed is \$7.3 million but the secured funding to date is only around \$3.7 million which represents a funding gap of \$3.6 million (note: 2.5 million if accounting for the planned 1.1 million in-kind contribution of the Programmes). If MRC cannot secure additional funds, it is expected that only about \$0.5 million will be left for next year. Director Tien noted that how to deal with this challenge will be discussed in this RTWG meeting.

## **I Presentations and Discussions**

2. H.E. Dr. Hatda invited Dr. Henry Manguerra, the CS Coordinator, to present the agenda for comments and adoption. Cambodia suggested that on progress update, the MRCS should also report the outcome and pending issues from the 4<sup>th</sup> RTWG, especially modelling. H.E. Dr. Hatda emphasized that the first presentation will be the overall progress, but details will be presented by the Programmes.

### ***Presentation on Overall Progress Update***

3. Lao PDR suggested the following:
  - Progress made since RTWG 4 should be presented.
  - Implementation arrangement including coordination between teams and communication with NMCs need to be improved
  - Budget allocation among different teams to be approved by RTWG
  - Performance evaluation of the CS coordinator reported to the JC meeting
4. H.E. Dr. Hatda thanked for the suggestions and replied that in relation to activities managed directly by the Programmes, feedback can be provided directly to the Programmes. Concerning budget, he suggested for the RTWG members to review the ToR of RTWG. The CS Coordinator responded that progress since 4<sup>th</sup> RTWG will be reported on Day 2 of the meeting. Concerning the implementation arrangement and budget, Dr. Tien responded that he agreed with H.E. Dr. Hatda that we need to refer to the RTWG ToR. He also noted that the budget was prepared by the previous CEO, and most of the budget is already obligated to consultants. On performance evaluation, Dr. Tien questioned if it is only for the CS Coordinator or also includes all other CS consultants. He added that performance of international consultants are evaluated based on their ToRs.
5. H.E. Dr. Hatda noted that it is reasonable for the RTWG members to know the budget allocation but approval is the role of the governing body, i.e, Joint Committee and Council. Director So Sophort added that on internal coordination, the MRCS has a mechanism in place which is a monthly internal coordination meeting among the thematic and discipline teams. Every 2 weeks there is also meeting between Senior Management and the CS coordinator which is another mechanism.
6. Cambodia appreciated the progress made with support from the countries and recognized the three dimensions of the challenges – scope, budget, and schedule. They wished to see more clearly the progress of tasks and the results and called for the countries to work together to achieve these results. Concerning delays, Cambodia suggested to be clear on the reasons why certain tasks are delayed. Is it because of internal coordination, lack of technical capacity, or difficulty in coordination with the countries? Cambodia cited as an example of delay was the postponement of the 2<sup>nd</sup> BioRA field visit which has been already agreed before.

***Presentation on Overall Approach and Road Map: Formulation of Development Scenario***

No comments

***Progress Update: Formulation of Development Scenarios – Agriculture and Land Use Change***

7. Lao PDR raised the following questions:

- What methods and tools will be used for each scenario?
- What the differences between the low, medium, and high sub-scenarios?

Mr. Prasong responded that the sub-scenarios are based on the 2040 planned development scenario. The Team will assess 3 plausible levels of implementation of the 2040 plan: 1) all specific plans are implemented, 2) all specific plans plus general plans are implemented and 3) all specific and general plans implemented plus more. These scenarios are referred to as 1) low level implementation, 2) medium level implementation, and 3) high level implementation, respectively.

8. Thailand reminded MRCS to be careful and accurate in the use of the word “agreed” (for example in slide 4 of the presentation). Thailand also noted that as per policy and past practice, Thailand will not provide certain requested data for basins that are not direct tributaries of the Mekong mainstream. Thailand suggested for MRCS to review the JC Meeting Minutes regarding the definition of tributary. The MRCS team needs to recognize that the JC has already said that as policy matter in the JC meeting. So Thailand will not provide requested information by the CS Team on the tributaries in the northeast of Thailand. What they can provide is water use information from tributaries as lumped values at the tributary outlets.

9. Viet Nam pointed out that the guidance from the JC on the CS needs to be clear as it will lead to different directions, and the tributary definition should be clearly understood in this study. Cambodia agreed with Viet Nam and requested MRCS to state clearly what JC’s advice is.

10. Dr. Tien pointed out that the CS will study the impacts on mainstream and 15 km from the mainstream on both sides, but we may need the information from the areas farther than 15 km which may include tributaries that are not direct tributaries to the Mekong mainstream. Thailand emphasized that this issue was raised based on Thailand’s perspective alone and not on other Member Countries. Thailand gave an example on a request from MRCS on information on water use from Chi River that Thailand will not provide. H.E. Dr. Hatda suggested the CS team to look at the JC’s minutes so the CS can move forward. Dr. Henry informed the meeting that the Inception Report discusses two geographical scopes one for the impact area of interest, and another for the developments causing the impacts. The impact area includes 15 km buffer of the Mekong Mainstream on both sides, and the entire Delta and Tonle Sap system. However, the geographic area for the developments that are causing the impacts is basin wide which includes all

tributaries. If data required by the model (e.g., SWAT watershed model) cannot be provided, then this will require the team to fill this data gap or identify an adjustment of the modeling methodology. The team is willing to look at this but it will have implications on budget, effort and timeline. H.E. Dr. Hatda suggested the CS team to look for technical solution.

11. Cambodia noted that what Thailand raised is not just technical but also a policy matter. Viet Nam voiced its concern on how the CS can be properly conducted if the countries do not provide sufficient information. For flow modelling, lack of sufficient data could be overcome, but for others like water quality, it may not be possible. Viet Nam is concerned that if Thailand does not provide information, the CS teams will not be able to accomplish the job properly. Viet Nam suggested for Secretariat to report this issue to the JC for their information and decision. Thailand added that the CS should be in line with other programmes practice for requesting similar information in the past such as FMMP.
12. Cambodia emphasized that the task of RTWG is to review the scenarios if they are acceptable. Data should be discussed in technical meeting and with the team, but not during the RTWG meeting. H.E. Dr. Hatda suggested to discuss this issue in another forum. At the end Lao PDR reminded that the CS teams should be careful in using the term “agreed” and further questioned how this thematic team will get the data required and which tools will be used to analyze scenarios and sub-scenarios. Mr. Prasong responded that the team will use available tools in MRCS and will remove the term “Agreed”

***Progress Update: Formulation of Development Scenarios – Irrigation***

13. Lao PDR raised their concern about the linkage among thematic teams. If the data are required for both irrigation and landuse change, have the teams coordinated on this? Lao PDR emphasized that internally thematic teams should be clear together before going further. Lao PDR also noted that 2003 land use is the only land use data available. MRC has land cover data for 2010 but land use and land cover are not the same.
14. Viet Nam questioned the names of sub-scenarios: low medium and high, and pointed out that BDP has used short, medium, and long term instead. Should this be consistent? Viet Nam also raised their concern that data may not be available for 2040. Viet Nam, for example has 5 years plan and direction change which cover 10 years. Mr. Prasong explained that the team uses use low, medium and high for the time being. For sub-scenarios they are different from BDP as we do not focus on time periods like BDP. The sub-scenarios are based only on 2040 planned scenario.
15. Thailand pointed out that by introducing new terms it may cause confusion, and suggested the team to further work on this. Thailand also raised the difficulties and uncertainties involved in determining the level of developments associated with the thematic sub-scenarios. For example, the team could be looking at a large number of

combinations in efficiency and water use and possibly using many assumptions for return flow. Thailand suggested a more arbitrary process similar to BDP approach to determine the level of developments for the thematic sub-scenarios.

16. Dr. Henry explained that in the CS there are two types of development scenarios. The first one includes the three main development scenarios which are consistent with BDP. The other type includes the thematic sub-scenarios. Lao PDR agreed, but mentioned that sub scenarios need to be based on BDP. Dr. Henry responded that sub-scenarios are based on the planned development scenario 2040 which is similar to a BDP scenario. Ms. Ornanong from IKMP added that the modelling team uses modelling to support the CS work. When we model we can make assumption for minimum data set required. We may have the option to use what we already have at MRCS. Collecting additional data will take lot of time. H.E. Dr. Hatda suggested to take note of the progress and mentioned that obtaining complete data set is not always possible. He suggested for the team to discuss with key people of member countries on what additional data would be required from the countries.

***Progress Update: Formulation of Development Scenarios – Hydropower***

17. Thailand commented that the assessment of the long term 2040 planned scenario is more of an academic exercise. In reality we need to deal with energy development plans of the countries which include other alternative sources and not only hydropower.
18. Lao PDR raised their concern on data set from China, and questioned the validity of assumptions used and modeling results.
19. Cambodia supported the consideration of alternative operation of the hydropower dams and its intersection with climate change especially in situations when water is not sufficient. Cambodia understands that China will cooperate in data sharing. Cambodia will also share data on Sesan 2, and asked the team to correct Sasan 2 and Sekong 2 to Lower Sesan 2 and Lower Sekong 2. Cambodia further questioned what scenario will be used, planned or definite scenario, as a basis for the alternative operations. Mr. Voradeth responded that 2040 planned scenario will be used as the basis. Related to Thailand's earlier comment, Dr. Henry clarified that CS is not to predict the conditions or impacts in the future for example in 2020 or 2040. There is so much uncertainty involved which makes this task extremely difficult. The CS objective is to evaluate and understand better the impacts as a result of changes in the levels of development so as to close knowledge gaps. It so happened the the selected changes in levels of development are represented by planned levels in 2020 and 2040. So CS is an academic exercise and more of a scientific study to close knowledge gaps and not a planning study perhaps unlike BDP2. Thailand added that may be we are confusing ourselves by using the wrong term like definite future, which should be indicative future perhaps. H.E. Dr. Hatda added that the terms we used in the last meeting for 3 scenarios need to be clearly explained.

20. Viet Nam expressed their appreciation with the sub-scenarios on hydropower operation but raised their concern on the models used to simulate hydropower operations. DSF is not enough. IQQM is used to simulate the flow from Chiang Saen to Kratie, and is not capable to simulate the operation of hydropower in the mainstream. We may need another workshop to discuss how to model the operation of hydropower. Viet Nam added that the data should be hourly data for the operation, as daily data may not be enough to do that. Ms. Ornanong responded supported Viet Nam's statement by saying that IQQM may not be capable for hourly simulation.
21. Lao PDR questioned whether the proposed sub-scenarios by each thematic area follow the 3 main scenarios agreed by RTWG. Dr. Henry responded that thematic sub-scenarios is based on one of the three main scenarios which is the 2040 planned scenario and will be used for to conduct sensitivity type of analysis to understand better thematic-specific impacts. This better understanding is a key to determining potential alternative development and management measures that will enhance positive impacts and reduce negative impacts.
22. During the presentation of the concept for the sub-scenarios, the presenter pointed out that the existing set of data and information (related to Hydropower Projects) will be used by the MRC Modeling Team (MT). In the absence of additional data and information for any particular simulation, the MRC MT will make use of the best Expert Judgement provided by the CS Regional and International Experts. If the MRC MCs wish to contribute additional data or information then they should provide them in a timely manner.

***Progress Update: Formulation of Development Scenarios – Domestic and Industrial Water Use***

23. Thailand mentioned this is not new a new issue, BDP has addressed this before. Domestic and industrial water use is not the major use in the region and is less than 30 percent. Thailand also noted that population of Thailand included in the presented figure is for the entire country. It should only include the population in the LMB which is around 20 million as opposed to 60 million. Lao PDR commented that if we want to have the whole picture of water use, other water uses for agriculture or irrigation should be included. Dr. John Dore mentioned that the Delta Study does not have information on sand extraction and questioned what the team is going to do in getting more data through official channels. He also questioned on realistic effort in getting more information for this thematic area, while other teams are making more progress already. Because of this concern on availability of additional data and the data quality for sand extraction, it was suggested to use only WWF data. Lao PDR questioned how to compare the 4 countries when the development levels are not the same in 4 different countries. H.E. Dr. Hatda raised the question on how the conclusion would be drawn given the different development levels in different countries.

24. Cambodia and Lao PDR suggested to work directly with the MCs in formulating the development sub-scenarios. The MCs agreed in principle to provide required information and data regarding the domestic and industrial water use, particularly data regarding the sand extraction along the Mekong River.

***Progress Update: Formulation of Development Scenarios – Flood Protection/Floodplain Infrastructure***

25. Thailand commented that this is one of the thematic areas that Thailand has difficulty as it is a one sided presentation, without consulting with the national flood coordinator. Concerning scope of work of FMMP for the CS, it is unclear because the Initial Study is mixed up with the Council Study. Thailand noted that the Initial Study focuses on pilot areas only and CS covers a larger area. The presenter was also asked to correct his presentation that Thailand has more than 7 provinces. Thailand also noted the TORs of national consultants only include Initial Study and yet FMMP asked them to work on Council Study. Thailand also raised that when MRCS use the word “we”, it does not necessarily include the NMCs as they do not know certain information. For example, in the presentation it mentioned there will be two stages, but there was no discussion with Thailand on this at all.
26. Mr. Nico from FMMP responded that the team still has some work to do including improving communication internally and with countries. He explained that it is very logical to combine the work of the Initial Study and the CS. The team will have to amend the ToRs of the consultants to include CS tasks. Using the same set of consultants for both Initial Study and CS is the way the team would like to work.
27. Dr. Henry agreed that communication has to be better. The presentation of the team personnel was a bit premature since except for Mr. Johan, none of the other consultants has been contracted for the CS. H.E. Dr. Hatda suggested FMMP to better communicate with the countries.
28. Cambodia took note and asked for clarification on flash flood. Cambodia questioned if flood control function is also considered, and asked the team to clarify what progress has been made concerning flood map. Mr. Nico responded that flash flood is not included as it needs a different approach, and storage will not be taken into account.
29. Viet Nam pointed out that the assessment approach in slide 8 is a bit different from other thematic areas. The 3 scenarios presented are also different from the other thematic areas. Mr. Nico responded that it is not much different in his view. Dr. Henry explained that it may have looked different but it is not. The confusion may have resulted due to FMMP presenting both the formulation of development scenarios (Stage 1) and the assessment part (Stage 2) unlike other thematic teams which focused only on the formulation of development scenarios. Unlike also other thematic teams, FMMP has an additional

assessment role just like the discipline teams. Since FMMP has the expertise, they have the role of determining changes in flood behavior, flood risk and flood damage as a result of changes in levels of developments in the other thematic areas.

30. Viet Nam pointed out that the countries only agreed in principle with 3 main scenarios, and asked if in addition, the thematic teams will formulate additional thematic sub-scenarios. H.E. Dr. Hatda confirmed that this is correct. Dr. Henry explained that at a minimum all thematic teams will collect data to support the 3 agreed main scenarios. But in the presentations of the thematic teams, they focused mainly on the formulation of thematic sub-scenarios. Dr. Henry explained that unlike other thematic teams, FMMP is not proposing thematic sub-scenarios at this time.
31. Thailand mentioned since 4th RTWG in March, the countries heard nothing from FMMP. Later FMMP coordinator requested FMMP national coordinator to identify national consultants to work on the Initial Study, not the Council Study, which is our concern. Thailand needs to know from FMMP the schedule and work plan ahead of time and reiterated the need to work with FMMP national coordinator. Dr. Tien explained that FMMP is a bit special from others as they also conduct the Initial Study, and MRCS wants to take advantage of it. So, we contracted an international consultant who can support both the IS and the CS, and we may have to do the same for national consultants. He instructed FMMP to work with national team to clarify scope of the national consultants.
32. Lao PDR agreed with Viet Nam on scenarios and sub-scenarios, but also mentioned that it is still unclear to them how 24 sub-scenarios can contribute to the 3 scenarios. Lao PDR also asked what tools or analysis will be used for these sub-scenarios and if IKMP agrees with the 24 sub-scenarios that they have to work on. Dr. Henry explained how the sub-scenarios are related to the 2040 planned scenario and that all scenarios will be assessed using the set of assessment tools that include DSF, WUP-FIN, eWater Source, DRIFT, and the socio-economic methodology that is yet to be defined.

#### ***Progress Update Formulation of Development Scenarios – Navigation***

33. No comments received. NAP pointed out that the allocated budget of USD 50K for the Navigation Team can only be used for national experts and data collection. An additional amount of USD 170K is required to hire a Waterway Engineer, Transport Economist, and Socio-Environmental, including travel and consultations.

#### ***Progress Update: Hydrologic, Sediment, and Water Quality Modeling including the following:***

- ***Specific Use of WUP-FIN model***
- ***Specific Use of eWater Source model***
- ***Baseline Selection***



34. Thailand reported that they are in the process to send national assistant modeler, and plan to complete this process within this month. Thailand questioned how many people are in WUP-FIN team, and mentioned that many times they requested WUP-FIN and eWater for documents. Ms. Sopheap responded that she only works with Mr. Jorma and does not know how many are in the team, but will check. She will also follow up on documents and tools and will send them as requested. The eWater Source document on IQQM conversion is already available and will be sent to the countries as requested.
35. Lao PDR indicated that they accept the modeling approach but indicated that they requested documentation during 10<sup>th</sup> TACT and 11<sup>th</sup> TACT meeting but did not receive them. Lao PDR noted that their questions need to be addressed before they can fully accept WUP-FIN. Lao PDR also did not understand the proposed approach to use Delta study results. Lao PDR also requested information on the eWater Source IQQM conversion. Lao PDR also stated that baseline data has not been approved as presented.
36. Mr. Suthy from IKMP responded that they are in the process of employing staff for WUP-FIN team. Mr. Jorma is currently the technical lead of the CS hydrological team and is now preparing the requested WUP-FIN documents and will be sent to the countries by Friday (14 August 2014) He reiterated that the modeling approach which includes WUP-FIN were approved at 2 levels, during 10<sup>th</sup> TACT and 4<sup>th</sup> RTWG meetings. Remaining technical details in the use of WUP-FIN will be discussed including addressing countries concern during next week's meeting on WUP-FIN (20 August 2015). Concerning eWater source, the data transfer tool has been developed and is currently being tested. Its operation has been demonstrated to the national modelers. The hydrological period 1985-2008 has been approved in principle during the 4<sup>th</sup> RTWG and the team has been using it. H.E. Dr. Hatda stated that we need to use the tools we have, as we have invested millions of dollars in developing these tools.
37. Lao PDR raised that WUP-FIN has been tested by the modelling team, but its use by the countries were not successful for example during training in 2010. During a one week training in WUP-FIN, nothing was accomplished because time was spent instead in troubleshooting several runtime errors. There is no proper user manual that includes the runtime errors. Lao PDR believes that the same situation happened during the TNMC training. This is why Lao PDR cannot accept this model for the CS until their concerns are addressed.
38. Viet Nam raised their concern on sediment transport which the modeling team also mentioned as a limitation especially for zones 4 and 5 during the 11<sup>th</sup> TACT meeting. Viet Nam requested the team to make sure that WUP-FIN can cover this and should be raised in the upcoming WUP-FIN meeting. Viet Nam indicated that the the comparison of flow to determine the completion of the task of converting IQQM in eWater Source is not enough. The analysis should include calibration performance. On the successful use of WUP-FIN, Viet Nam mentioned that it also depends on the skill of the people who are

using it. Concerning the modelling expert from Viet Nam, it is not easy to find as they are all busy and not available, but will try.

39. Mr. Suthy Responded to Lao PDR that the WUP-FIN model works well and will be demonstrated in the upcoming WUP-FIN meeting. He also mentioned that Mr. Jorma promised to develop an intensive manual. He responded to Viet Nam that discussion on calibration will be in the WUP-FIN meeting agenda next week.
40. On the Delta Study as questioned by Lao PDR, Mr. Suthy responded that he had a discussion with Mr. Jorma and he suggested to use sediment data from the Delta Study to fill the data gap, since there is limited data on sediment especially in zone 5. Viet Nam did not agree with the third option on Modeling Approach for Zone 5 Viet Nam Delta and Cambodia floodplain that involve the use of the Delta Study results because it will not work when assessing several scenarios. Cambodia added that without a model, we will not be able to assess scenarios. Cambodia therefore agreed to continue to use WUP-FIN to complement DSF. H.E. Dr. Hatda summarized that we need to make decisions to keep the Council Study moving and at the same time we also need good tools. He requested the RTWG to provide support to help the team moving forward as we are working against time.

### ***Presentation on Baseline***

41. Cambodia suggested that in selecting different years for baseline, we should look into advantages and disadvantages in terms of the effectiveness of the scenarios. The selection of baseline should be based on technical reason, not on time and budget. Mr. Suthy responded the advantage of year 2000 is the flow is closer to natural condition. The advantage of year 2007 is that it is near current conditions and we have more information available.
42. Thailand pointed out that the comparison of 2000 vs. 2007 modelling results is not acceptable since the results show no significant difference in flow. Thailand believes that significant impacts have occurred in Chiang Saen from 2000 to 2007 as a result of the China dams from one dam to two dams. The comparison cannot be simply done in terms of “average” flow statistics and should investigate impacts at upper, middle and lower parts of the Mekong River. Thailand prefers the year 2000 option. Mr. Suthy responded that the team stopped using the word “significant”, but for example, in this case, used the term the “difference is relatively small” to describe the simulated flows between 2000 and 2007 options.
43. Lao PDR questioned why we are considering only two options and why not other options. Mr. Suthy responded that the baseline has been discussed during WUP and BDP2 selected 2000 because it was closer to national flow conditions. But now we have more information for 2007 that is why the CS Team proposed 2007. Lao PDR further asked if other thematic areas also will use the same baseline. Mr. Suthy responded that yes.

44. Viet Nam agreed to use 2007 because baseline should be the year that is closer to present. The year 2007 reflects better the current situation of the basin. Mr. John Dore mentioned that for the Delta Study, 2007/2008 was originally selected as the baseline but has since been replaced by 2013. He further expressed his observation that we tend to get stuck with the word “baseline”. Baseline is simply a reference against which future impacts are assessed. It does not mean that changes in conditions before the baseline are not important. He suggested to use the term “reference” instead if it helps.
45. Lao PDR indicated that they have just received the revised technical note from the Modelling Team on baseline, and need time to look and discuss internally before providing comments. Lao PDR is leaning to the 2000 option. H.E. Dr. Hatda suggested to consider time and budget required to deliver the CS. It was noted that the data currently being collected by the thematic teams includes 2007 and not 2000. Mr. Suthy asked if the teams can proceed with modeling 2007 early development scenario in case the countries cannot agree on baseline yet.
46. Mr. Philipp (GIZ) raised his concern that the CS is just like a patient who needs lot of doctors and medicines. Work has been done already but the same issues are being re-discussed. He is not certain what kind of outcome to expect from this meeting. He hoped that by tomorrow, this will be rectified and a decision will be made.

## **DAY 2**

### ***Day 1 Recap***

47. Thailand indicated that the statement related to tributary and its implication on what data they can provide for the Council Study as a matter of policy and practice should be clearly attributed to Thailand only. Thailand is not imposing this practice on other countries.
48. Lao PDR clarified their earlier suggestion that CS budget should be reported to RTWG but not for approval. For each thematic, Lao PDR does not want to say “agree in principle”, as we need time to discuss with MCs on sub-scenarios before we can agree. Lao PDR agreed with Viet Nam on their comments on progress on modelling and their disagreement in the use of Delta Study results. Lao PDR reiterated that in the TACT meeting on modelling approach, the issues discussed in the TACT meeting need to be addressed before coming to the 5<sup>th</sup> RTWG, but this did not happen, so Lao PDR cannot accept this.
49. Dr. Tien responded that in getting agreement with countries, we agreed that each thematic team should work directly with the countries like what AIP has already done. So the

thematic teams that have not worked with the countries before should begin working with the countries immediately. H.E. Dr. Hatda reiterated that we have agreed on 3 main scenarios during the 4<sup>th</sup> RTWG meeting, but some thematic teams have not worked with the countries yet on sub-scenarios, so they should begin immediately. Dr. Henry noted that it is in the work plans of the thematic teams for them to work closely with their national counterparts on the formulation of development scenarios.

50. Lao PDR pointed out that the MRCS has not yet answered the questions raised in the TACT meeting. Lao PDR proposed baseline (or reference) to refer to natural condition of the flow regime.
51. Dr. Anoulak from BDP added that on baseline we talked about reference flow regime which could be chosen as close to natural conditions or close to any given conditions (depending on the objective of the assessment). When we talked about “baseline” (or reference flow regime), we are talking about two aspects: the hydrology period and the year of the infrastructure. In BDP 2 scenario assessment, the countries agreed on the hydrology period of 1985-2000 and the infrastructure up to 2000. The objective of BDP2 was also different from the Council Study: in BDP2, it was to assess the planned developments only; in the CS, we look at the planned developments as well as past development. For the CS, whatever the hydrological period the countries choose, we need to ensure that the infrastructure (whether keeping as as of 2000, or extending to as of 2007) in the DSF include all major developments from the pre-development period up to that given year (2000, or 2007).
52. Dr. Henry pointed out that the choice of reference (baseline) does not necessarily preclude the past. CS can always choose to conduct a retrospective assessment of the past. He suggested however, not to use the current modelling approach for this retrospective assessment since its use may not be feasible. He added that a simpler methodology that take advantage of MRC indicator framework can be used instead He suggested that in the final report, we could have three distinct parts 1) Full impact assessment of planned developments in the future using the modeling approach, DRIFT, and socio-economic assessment methodology, 2) Change in flow, sediment, and water quality between 2000 and 2007 using the modeling approach, and 3) a retrospective assessment of the past using a simpler methodology that takes advantage of observed data, past studies, and expert opinions to quantify selected indicators from the MRC Indicator Framework similar to the methodologies used in the State of the Basin report.
53. Viet Nam mentioned that they have already provided an assistant modeler and will provide a national modeller soon. Viet Nam reiterated the importance of studying sediment transport and the need for good tools to be able to do it properly. Viet Nam also suggested that a discussion between CS and the Mekong Delta Study will be useful to discuss how Delta study results can be used Viet Nam also mentioned that the statement related to the tributary definition should be clearly shown as from TNMC not from all other countries.

54. Cambodia questioned if baseline is selected to be 2007, then Early Development Scenario 2007 does not make sense anymore. Cambodia also mentioned that the result of the Delta Study should be independent from and not mixed with the CS. Concerning Thailand's opinion related to the tributary definition, although Thailand indicated that it is their own opinion, Cambodia believed that all countries need to agree together. Cambodia suggested that the internal communication in MRCS and with the countries need to be more specific about this particular issue.
55. Thailand commented that certain issues need to be addressed before this meeting, but the MRCS failed to do that that is why we are having this problem. Thailand suggested that immediate actions need to be taken and report to the JC by the OIC MRCS. On information sharing, Thailand indicated that it is up to the countries, but Thailand will follow on what they have been providing for flood forecasting and modelling. Thailand appreciated the additional information provided by Dr. Henry to assist in the selection of baseline option between 2000 and 2007. Option 2007 as a reference condition may have been acceptable to Thailand if all these information on additional analysis were available in the technical note. Thailand further explained that we need to have something from this Study to report to our people on what happened upstream. That is why we prefer the year 2000. Thailand agreed with Lao PDR to change the term "baseline, and suggested the term "Reference Period for Assessment"
56. H.E. Dr. Hatda reminded that all members of RTWG should review the ToR of RTWG and Inception Report to understand that this mechanism is established to help the JC. He suggested the RTWG members to make best use of their capacity. He summarized that the CS will use the 3 main scenarios and thematic teams will continue working with the countries on the thematic sub-scenarios.
57. Thailand suggested MRCS to have an action plan for pending issues under TACT. Dr. Tien explained that the presentations from thematic teams were not clear as they did not provide enough information on what have been done before coming to this meeting. That is why we are having this problem, and will take this as a lesson learnt. Regarding the suggestion from Thailand to use "reference period", Dr. Tien sought further clarifications as follows: The 2000 year will be used as a reference year to compare the impacts with that of the year 2007 and then 2007 is used as reference year to compare with that of 2020 and 2040 years. Thailand confirmed this interpretation of Dr. Tien. For Lao PDR's suggestion we can only look at flow for its natural condition, but not others like land use, ecology, etc. We need agreement so we can move ahead.

**H.E. Dr. Hatda suggested a separate meeting during coffee, with 2 representatives from each country**

58. H.E. Dr. Hatda reported that a follow-up meeting later in the day during the break will be conducted to a) confirm their understanding of the concept proposed by Dr. Carr (Australian expert) on using the term “reference period”, b) discuss suggestions for improvement of the working paper

***Progress Update – Climate Change Scenarios for the Council Study (Dr. Phan)***

59. No comments on this presentation. H.E. Dr. Hatda mentioned that the countries have already agreed with the approach before and they appreciated the level of engagement of the countries with CCAI during the process.

***Progress Update – Scoping Mission for the Socio-Economic and Macro-Economic Assessment***

60. Viet Nam commented that collecting data and information on socio-economic is a challenge and asked how the team is going to collect data and information. Thailand is worried of duplication of work on the MRC indicator framework. Dr. Anoulak responded that the lack of data was a challenge that BDP2 faced. In addition, the analysis before did not take into account exogenous developments which are developments outside the water sector. However, we have more data now including the socio-economic database and SIM/VA work. The methodology that will be developed will not require collection of new data. The Indicator Framework has an indicative list of indicators. The proposed scoping mission will not work further on MRC Indicator Framework but will focus on reviewing what indicators are relevant for the CS. Lao PDR took note of the progress and will talk more at the mission.

***BioRa Overall Progress Update Report***

61. Viet Nam questioned if there is a plan to organize Field Visit 2 again after it was postponed.

62. Lao PDR recommended that the BioRA work should be under EP, based on the ToR (Inception Report p. 68-69). Lao PDR referred to the ToR and Inception Report that the lead programme shows EP should be the lead and not FP. Mr. Peter Degen from the FP responded that Dr. Chavalit from EP is part of the team and we work together with EP closely. Lao PDR pointed out that BioRA is not only about fisheries, that is why they think the BioRA Team should be under the EP. Cambodia is of the opinion that who leads the BIORA is not important, because it is under MRCS, and suggested not to change to avoid any additional delays. Later in the discussion, it was discovered that Lao PDR was using the July 2014 version of the Inception Report and not the latest October 2014 version where FP is designated to lead the BioRA Team.

63. Thailand commented that the word “we” should be used only when countries are involved. However, countries were not involved for example, in the internal BioRA workshop in July. Thailand added that we did not engage in Field Visit 2, because we thought that the proposed site did not reflect their needs, not only Chiang Saen as proposed but also Nhong Kai. The MRCS should also consider country perspective, so we can respond to civil society groups. Thailand indicated that the team should share the agenda on Knowledge Capture workshop planned in September with the countries, as the countries lack this information now. Sharing information on the CS web site is not sufficient.
64. Dr. Tien pointed out that the version of Inception Report that Lao PDR uses is the draft version (July 2014) before the final one that the MRCS sent to countries. The version that was agreed during the 3<sup>rd</sup> RTWG as a basis for implementation is the October 2014. In this version, the lead for the BioRA Team was changed from EP to FP. Dr. Tien indicated that the change was necessary because EP was already leading the Domestic/Industrial Water Use thematic team and has limited capacity. However, EP remains to be part of the team. For this reason, Dr. Tien recommended to keep the current arrangement, i.e. FP still takes a lead for the BioRA theme.
65. Lao PDR requested that the documents in the MRC website should be updated to reflect this information. Dr. Henry responded that the Inception Report in the CS Web Site is the correct version. However, earlier documents such as the ToR and Concept Note are the original versions that will have information that are contrary to the latest version of the Inception Report. Dr. Henry stated that when conflicting information are found among these documents, the Inception Report (October 2014) version should supersede the older documents because the Inception Report reflects the recent changes and agreements made by the countries.
66. Viet Nam shared their view that they care more about the work that need to be done ahead, no matter who takes the lead, and shared the view with MRCS that EP is limited with capacity. They also pointed out the work has been ongoing under FP but this will change next year when MRC Programmes will no longer exist. Thailand shared the views of Cambodia and Viet Nam that the MRCS should know best about internal capacity and availability of resources. Thailand cares more about communication between Secretariat and NMCs. Thailand wishes to learn the agenda of the upcoming Knowledge Capture workshop, and asked how we are going to share technical reports with the countries. H.E Dr. Hatda summarized that we should stay with the same Programme FP and that we need to be output oriented.

***Invited Presentation: Mekong Delta Study Progress Update***

67. VNMC reported that all models are almost finished and DHI is now preparing the assessment report and will be submitted by the end of August. The reports will be sent to the countries for comments in early September. They also mentioned that a series of workshops will be held in Viet Nam in September.

### ***BioRA Technical Progress Presentations***

- Overview of DRIFT and use of response curves
- Preparation meeting and field trip 1
- selection of indicators and focus area
- status and trends assessment
- BioRA DRIFT DSS Setup and Response Curves

68. Lao PDR questioned why the CS Team is not using Ecological Health Monitoring tool instead of DRIFT. Dr. Cate responded that Ecological Health Monitoring tool has a very different purpose which is for monitoring, unlike DRIFT which is for assessment of scenarios, However, the team uses the data from Ecological Health Monitoring when building the response curves.

69. Lao PDR proposed that DRIFT should be tested before using it for the CS as proposed by a JC member during the JC meeting. Dr. Chaiyuth from Thailand clarified DRIFT has been tested to some extent in the past. He said he was involved in IBFM before and would like to provide additional information by supporting Dr. Cate that the countries know something about DRIFT already, but it was a smaller version. MRC has looked at this issue before. Eight reports were also produced during that project, jointly prepared by WUP and the EP. However, he also pointed out that Thailand requested to provide more information on DRIFT, but it is not in their record. He noted that Thailand is currently learning on its own how to use DRIFT but the software has expired twice, and need more support from the team. Dr. Chaiyuth also mentioned that there was a joint meeting with UNEP on transboundary water issue, and DRIFT was also introduced.

70. Viet Nam acknowledged the tool, especially the response curves. They questioned how independent review of the response curves can be done? Viet Nam further questioned how we can transform the time series from external model to DRIFT. Viet Nam also mentioned that DRIFT seems to be suitable to large river basin as well and requested any publications to further support this.

71. Cambodia agreed that DRIFT is suitable and as they have mentioned in past RTWG meeting, they appreciate this new tool/model as it potentially extends the capacity of the countries. Cambodia believes the use of DRIFT will provide good results. They suggested that understanding of DRIFT need to be extended to the countries as soon as possible. They questions how is DRIFT is integrated with DSF/WUP-FIN.



72. Lao PDR mentioned that they appreciate new tool and do not reject DRIFT, but it should be tested before applying in the CS. Dr. Cate responded that she fully supports Lao PDR in testing DRIFT but pointed out that testing of DRIFT is not in the team's ToR and may require significant additional effort from the BioRA Team. Dr. Henry added that we fully support the testing of DRIFT, but right now, the BioRA Team is still in the process of developing DRIFT for LMB, so there is really nothing to test yet. The plan is to complete DRIFT for LMB (minus the Delta) by the end of the year and after that will be a good time to test it. He added that there is no point to test DRIFT developed for another basin.
73. Dr. Cate responded to Thailand that the reason DRIFT expires is for version control, to ensure countries will always have the latest version of DRIFT being developed for LMB. Dr. Cate does not want earlier versions of DRIFT to persist and proliferate and cause further communication and version control problems. Once DRIFT is stable (i.e., development of DRIFT for LMB is complete), the expiration date will be removed. On independent review of DRIFT, Dr. Cate stated that anyone who knows environmental flow can do it and in fact suggested already a list of people who can do the review to Dr. Henry. Dr. Cate suggested that if resources are tight, it may be better to focus on testing the DRIFT by the countries with some expert help, than investing the resources on independent third-party review. In transforming the data, DRIFT has the necessary tools to transform the data provided by IKMP into a format required by DRIFT. Dr. Cate will provide a copy of a 2015 publication on DRIFT applied in Okavango Basin as per request by Viet Nam.

## **2. Preparation meeting and field visit 1**

No comments received

## **3. Selection of indicators and focus area**

74. Thailand indicated that they do not have difficulty with the technical issues. Their issue is in the process of making conclusions without the engagement of the countries. An example is the decision made regarding the proposed sites to be visited for the proposed Field Visit 2. They believed that there are developments in Lao PDR that caused changes in the flow regimes and these areas have been left out from the proposed field visit. So the question is how the experts will be able to develop DRIFT without visiting those areas. Thailand also indicated that the BioRA reports posted in website mentioned that the model of time series has been completed already, but without disseminating it properly with countries. This process needs to be improved. Thailand is very interested in learning more about erosion impacts in particular.
75. Dr. Cate responded that the team will work to improve communication with the countries. Concerning the proposed (but cancelled) Field Visit 2, the sites we proposed to the

countries were just suggestions, as we had to cover a lot of areas in a short time. The proposed itinerary was discussed during Field Trip 1 and solicited feedback and suggestions from countries for over two months. Concerning the agenda for the next knowledge capture workshop, it is not available yet but will be shared with countries as soon as possible.

76. Lao PDR did not have any feedback on the progress but raised that cooperation between MRCS and the countries have not been very well since the last RTWG (e.g., the issues of why BioRA is under the FP and not the EP and testing of DRIFT). Lao PDR reminded that objective 3 of the CS is about capacity building. Dr. Cate responded that the workshops held in July 2015 involved teaching the national consultants on how to use DRIFT. H.E. Dr. Hatda suggested the team to find ways for the countries to learn more.

#### **Break for another private meeting**

77. As the plenary meeting could not agree on the baseline for the Council Study and in the common understanding and use of the term “baseline” for the Council Study, the Chairman convened a private meeting with the participation of only two key members from each member country. After the private meeting the Chairman reported to the plenary meeting that the countries propose to use the term “**reference period**” instead of baseline, and requested the MRC Secretariat to prepare a working paper to ensure the concept “reference period” is well understood by the countries, and then to work with the countries to successfully select a reference period for the Council Study based on this common understanding.

#### **4. Status and trends assessment**

No comments received.

#### **5. BioRA DRIFT DSS Setup and Response Curves**

78. Lao PDR questioned if the team could share work details on 8 focus areas, and will the team conduct survey in the areas? Dr. Cate responded that there will be no survey, but the team will use existing information. Dr. Cate also noted that the BioRa Technical report 2 will be available on Monday (18 August 2015) next week

#### ***Council Study Overall Schedule, Next Steps, and Recap***

- ***Progress related to key decision from 4<sup>th</sup> RTWG (No Comments received)***

- *Overall schedule and next steps*

79. Thailand suggested to organize a technical forum to discuss the various technical reports to improve communication. They questioned when and how technical results will be disseminated. MRCS needs to have more details on how MRCS is going to modify the agenda of the planned knowledge capture workshop. If it is only intended for MRCS, there need to have another workshop to engage the countries. Thailand suggested that the interim products should be in a clean state where countries are involved in the process. H.E. Dr. Hatda requested the meeting to comment on the extension of CS and interim reports
80. Viet Nam in principle agreed with the proposed revised implementation plan and looks forward to the interim deliverables/products, including DRIFT, before the interim report. Viet Nam also looks forward to have national consultation on key products. Viet Nam raised their concern for Phase 2, especially during the transition, as it is uncertain when additional funding will be available. Extension of 6-9 months is not a big issue, but the interruption is the issue.
81. Cambodia supported the proposed schedule and Phase 2. They also expressed concern on upcoming team composition and suggested that perhaps SWP can help especially when additional consultants cannot be identified. Cambodia supported Viet Nam for national consultation to get inputs from the countries and need budget for this.
82. Dr. Henry responded that the Knowledge Capture workshop planned in September is meant for international and national experts and MRCS to work further on developing response curves and populating DRIFT. However, a separate meeting with the countries to disseminate information about DRIFT will be planned. The request from Viet Nam for DRIFT report to be reviewed was also well noted. The MRCS will look into the budget for national consultations as requested.
83. Dr. Tien reminded the meeting that we should be aware of financial situation from 2016. Currently, the remaining CS budget is \$1.6 million, but this budget is committed already and is expected to be spent mostly by the end of the year. Outside of the U.S. contribution which is 500k, we do not expect additional contribution from DPs. We put CS in the SP 2016-2020 and so we can use the basket fund to address the funding gap. If the DPs agreed with SP, the budget may still not be available during the first half of 2016. Of the 4.5 million from DFAT already committed to the basket fund, only about 2 Million is allocated for MRC activities. Therefore, based on his experience, Dr. Tien indicated that he does not expect to have additional budget for the CS during the first 6 months of 2016. He further added that starting from 2016 the MRCS will have a new structure and there will be no more Programmes, so the implementation arrangement will have to be modified.

84. Thailand took note of the situation and will report to the JC, and suggested that we may have to scale down the activities of the CS. Thailand noted that the CS now have two coordinators and asked if CS need two coordinators? MRC need to submit for JC's consideration.
85. Lao PDR took note of the overall schedule and will report to the JC, and supported Thailand on down scaling of the activities, and added that if we agreed to use DRIFT we may not need other tools. Dr. Henry mentioned that the Secretariat will continue to work on revising the implementation schedule that will be presented in the upcoming JC including incorporating suggestions from this RTWG meeting. He asked what would be the mechanism for the countries to review the revised implementation schedule before the next JC meeting. H.E. Dr. Hatda instructed to bring this directly to the JC without countries further input. Thailand suggested that this issue can be discussed with the JC when Dr. Tien visits the JC in the 4 countries during the next two weeks.