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# Council Study

## Baseline for the Council Study

5<sup>th</sup> RTWG Meeting  
Siem Reap, Cambodia  
13-14 August 2015

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- Proposed Baseline



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## BACKGROUND

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### Objectives

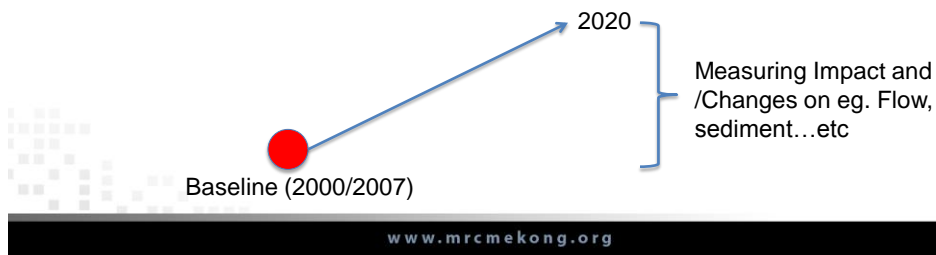
- Present background and rational on the selection of baseline options (2000 vs. 2007)
- Present and discuss on the finding by modeling team to assist RTWG in the baseline selection
- Present next steps

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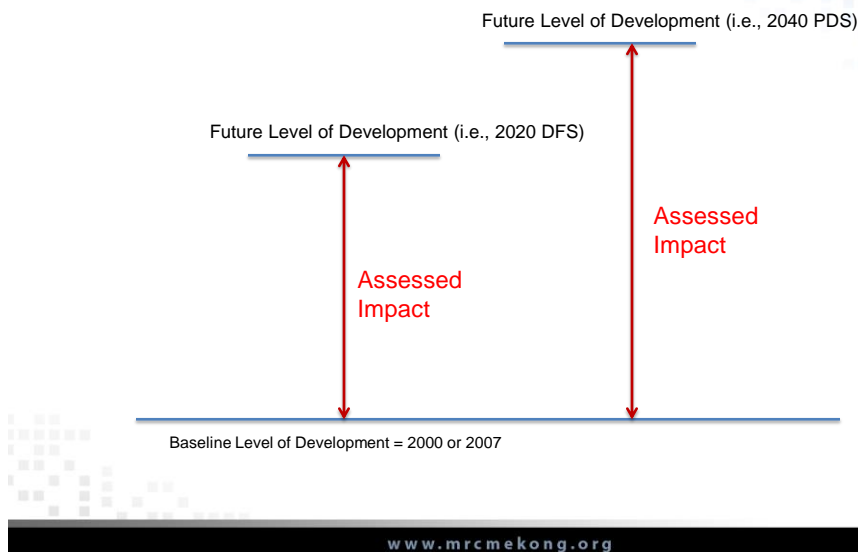


## What is Baseline?

- Reference condition against which change or impact is measured
- For the Council Study - Two Options
  - 2000 level of development
  - 2007 level of development



## Use of Baseline for Impact Assessment in CS





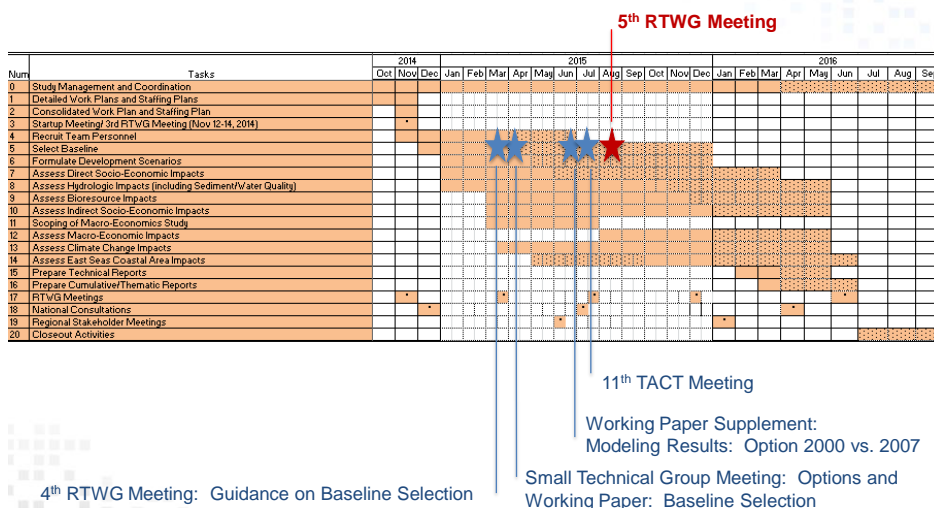
# Factors to Consider for Baseline Selection

- Technical – This was the focus of the analysis and discussions with the MCs
- Other Factors
  - Compatibility with work of Thematic Teams
  - Budget Available

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# Selecting Baseline - Process



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## BASELINE OPTION 2000 VS 2007

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## Selecting Baseline: 2000 vs. 2007 Options

- IKMP setup and ran the DSF model using 1985-2008 hydrologic period and compare the results for two levels of development (2000 vs. 2007)

	Option 1: 2000 Level of Development	Option 2: 2007 Level of Development
Hydropower	2000 (includes one China Dam: Manwan Dam)	2007 (includes two China Dams: Manwan and Dachaoshan)
Irrigation	2000	2007
Domestic and Industrial Water Use	2000	2007
Land Use	2003	2003

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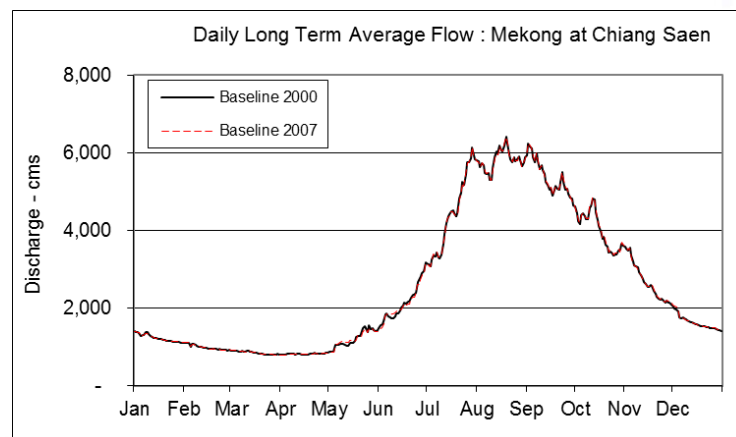
# Modeling Results



- Details of modeling results (flow only) were documented in the working paper (including supplement paper), and discussed during the small technical working group and the 11<sup>th</sup> TACT Meeting
- In summary: The difference in the simulated flows (i.e., hydrologic pattern) in the Mekong River between the 2000 and 2007 models is relatively small
- Conclusion: The results of the modeling analysis does not adequately distinguish the two options and therefore, the results cannot be used solely as the basis for selecting baseline

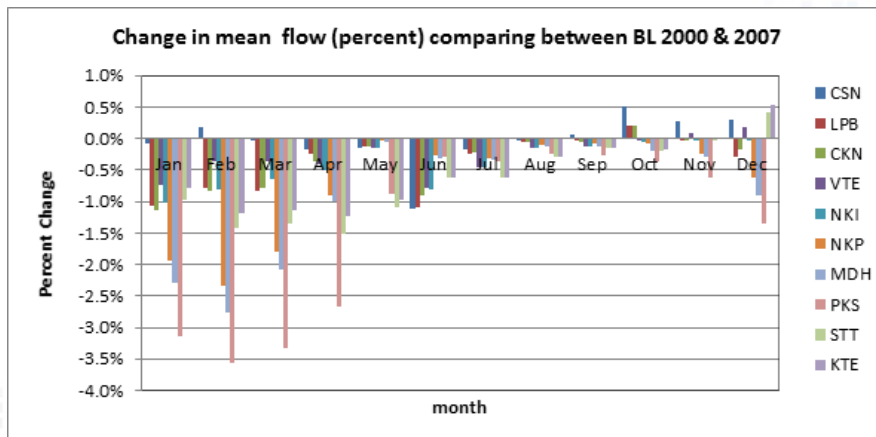
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## Modeling Results – Chiang Saen



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## Modeling Results – Several Locations



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## Views from the Member Countries on the Baseline Selection

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## SUMMARY OF THE VIEWS OF MCS ON BASELINE SELECTION



Meeting	Cambodia	Lao PDR	Thailand	Vietnam	Conclusion
First small Technical group meeting on 21 Apr 2015, OSP	2007	2007	2000 but more analysis on the proposed 2007.	2007	Both options 2000 and 2007 is recommended , M will provide further clarification on each option to TACT.
11 <sup>th</sup> IKM TACT meeting on 14 Jul 2015 at BKK	2007 with land cover 2010	- Due to the concern of effect of flow change and observed data in China part	2000 due to the concerns of effect of the Chinese dam beyond 2000 on flow change	2007	Both options 2000 and 2007 is recommended by TACT to be discussed and considered by RTWG

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## FACTORS TO BE CONSIDERED ON THE BASELINE SELECTION



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## It is necessary to Consider Other Factors



Criteria	Results
Technical criteria based on Modeling Results (Flow)	✓ Flow pattern for 2000 and 2007 has relatively small difference, however year 2007 is closer to the recent date
Compatibility with Work of Thematic Teams	?
Budget Available	?

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## Factor: Compatibility with Thematic Teams



2000	2007
<p><u>Not aligned</u> with Thematic Teams task of collecting data to support approved development scenarios (2007 EDS, 2020 DFS, and 2040 PDS)</p> <p><u>If baseline 2000 is selected:</u></p> <p>Additional data collection for year 2000 is necessary by each Thematic Teams.</p>	<p><u>Aligned</u> with the Thematic Teams task of collecting data for the development scenarios.</p> <p><u>If baseline 2007 is selected:</u></p> <p>Current data collection by thematic team can be used.</p>

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## Factor: Available Budget



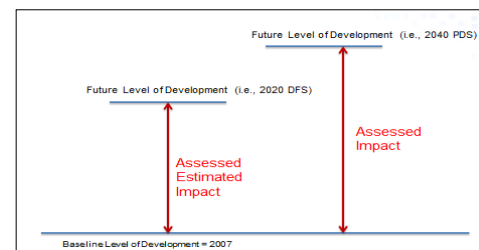
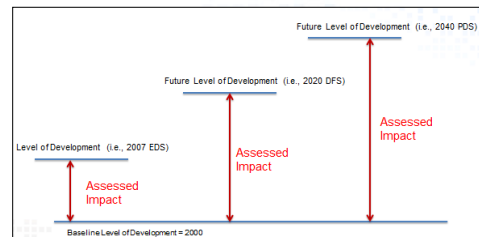
2000	2007
Involves higher level of effort and therefore <u>NOT compatible</u> with the current budget constraints of the Council Study. <b>Additional Budget and Effort by each thematic team are needed.</b>	Involves lower level of effort and therefore <u>compatible</u> with the current budget constraints of the Council Study.

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## Why Difference in Level of Effort



- Number of scenarios to be assessed and data collected
- Other Considerations
  - Modelling improvement efforts (including DSF/eWater Source for sediment and water quality and WUP-FIN) is on 2007
  - Baseline data (ecosystem, socio-economic, sediment, water quality) for 2007 are more available than 2000 because of recent additional data collected (e.g., SIM/VA).



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## PROPOSED BASELINE FOR FURTHER CONSIDERATION AND DECISION

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### Proposed Baseline = 2007 for RTWG's Consideration

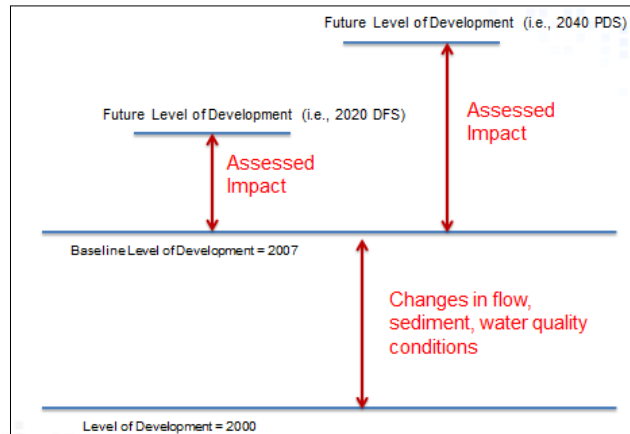
- Option 2007 is more preferable than option 2000. because of :
  1. Flow patterns are relatively small differences
  2. This baseline is close to the recent situation for a better assessment of the impact.
  3. It fits very well with the current level of effort, time and budget for each thematic team.
- Therefore, Secretariat Council Study Team is recommending to the MCs to select option 2007

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## Additional Analysis (2000 vs. 2007)



- Modeling of flow, sediment, and water quality using 2000 option will be conducted to fully understand the changes during this period and address concerns of MCs



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## Next Steps (Remainder of 2015)



- The choice of baseline will allow the Modeling Team to fully focus on the following next steps:
  - Complete setup/calibrate/validate the full suite of models for the Council Study (DSF, WUP-FIN, eWater Source)
  - Work with thematic teams to incorporate 2007 infrastructure data on 2007 baseline model
  - Simulate Baseline Conditions
  - Prepare Technical Report on Baseline Conditions

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## Next Steps (Remainder of 2015)



- However, If baseline is not selected, Then
  - Modeling Team will require guidance from MCs on what additional analysis needed to assist MCs in selecting baseline
  - In addition, modeling team will begin modeling the conditions associated with one of the approved development scenarios: Early Development 2007

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## The RTWG is specifically requested to:



- Take note on the progress of the work on baseline options, findings, and proposed options and provide guidance on next steps for the implementation of modeling work particularly on baseline related work
- Agree on the baseline for the Council Study between option 2000 and 2007

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Thank You



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