

The Council Study: Social and economic approach to cumulative impact assessment

Introduction and overview

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Cumulative Impact Assessment Team
Basin Development Plan (BDP) Programme
Mekong River Commission (MRC) Secretariat

Objectives

As set out for the Council Study as a whole:

1. Further understand the **economic and socio-economic consequences** of water resources development (positive and negative); and
2. **Enhance the BDP process** to support the Member Countries (MCs) in the sustainable development of the basin; and **promote capacity building**, raise awareness and build trust

Scope

Drivers

- ❑ All MRC-related basin-wide **water resource developments**
- ❑ **Exogenous developments** and their **estimated impact** on social conditions in 2007, 2020 and 2040 throughout the basin

Spatial

- ❑ **All areas within the LMB** impacted by water resources development as shown in the next slide

Temporal

- ❑ Impacts of **cumulative developments** since early 20th century up to 2007, 2020 and 2040

Scope - spatial coverage

Basin-wide approach, with particular focus on:

1. A **corridor on both sides of the mainstream** from Chinese border to Kratie
2. The **Cambodia Floodplains** including the Tonle Sap River and Great Lake
3. The **Mekong Delta** in Cambodia and Viet Nam
4. The **coastal areas** directly influenced by the Mekong estuary
5. **Watersheds and forest areas**, where these are included in the proposed developments
6. **Areas vulnerable to climate change**, where these lie outside (i) to (iv) above and where measures are proposed to mitigate the impacts of climate change

Not mentioned in CS Inception Report, but nevertheless required

Scope - sectoral coverage

Water resource developments <i>As incorporated in thematic scenarios</i>	Exogenous developments <i>As can be expected to happen in any event</i>
<ul style="list-style-type: none"> <input type="checkbox"/> Irrigated agriculture (1) <input type="checkbox"/> Agriculture use (including forestry and catchment management) (2) <input type="checkbox"/> Urban and rural water supply and sanitation (3) <input type="checkbox"/> Flood protection and management (4) <input type="checkbox"/> Hydropower generation (5) <input type="checkbox"/> Mainstream navigation (6) <div style="border: 1px solid #ccc; border-radius: 15px; padding: 10px; margin-top: 20px; background-color: #e6f2ff;"> <p><i>This formulation builds on and rationalises the developments listed under the CS Inception Report Section 1.6.1</i></p> </div>	<ul style="list-style-type: none"> <input type="checkbox"/> Non-irrigated agriculture including livestock (2) <input type="checkbox"/> Mining, sand mining and other industrial water use and discharge (3) <input type="checkbox"/> Changes in flood plain land use including urban sprawl, roads etc (4) <input type="checkbox"/> Flood plain asset values (4) <input type="checkbox"/> Capture fisheries and OAAs * <input type="checkbox"/> Aquaculture * <input type="checkbox"/> Electricity distribution * <input type="checkbox"/> Climate change ** <p><i>Exogenous impacts on social conditions:</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Poverty reduction support * <input type="checkbox"/> Externalities, such as remittances etc * <input type="checkbox"/> Migration and demographic change * <input type="checkbox"/> Commodity prices *

Notes: (1-6) addressed by Thematic teams; (*) Cumulative assessment team (Theme 7); (**) CCAI

Our approach

Our proposed approach and methodology:

- ❑ **Triple-bottomed line** integrating social, economic and environmental assessment
- ❑ **Builds on** that used in previous assessments by BDP and IBFM and those already initiated by other teams in the Council Study
- ❑ Addresses development consequences by evaluating **cumulative impacts** at each time step (2007, 2020 and 2040), leading to:
 - A projection of the **overall cumulative consequences** at each time step, enabling consideration of basin-wide distribution of benefits, costs and risks, leading to considerations of **reasonable and equitable use**
 - Alignment with the concept of that the **State of Basin report** can monitor actual development impacts
 - The assessment of incremental impacts between time steps, paving the way for later **exploration of optimal and sustainable development** pathways

Assessment framework and indicators

Our proposed **assessment framework** is structured to align with the previously agreed Strategic Indicators of the MRC Indicator Framework

Our **assessment indicators** have been selected to:

- ❑ Align with the scope of the **Council Study**
- ❑ Reflect **international best practice** tailored to MRC needs
- ❑ Provide MRC with a **comprehensive overview** of the consequences of water resources at specific time steps
- ❑ Be those that are **responsive to the changes** brought about by water resources development
- ❑ To **maximise use of assembled data** and minimise further data collection needs

MRC Strategic Indicators

Social Dimension

- Condition of livelihoods
- Employment in MRC sectors

Environmental dimension

- Water flow conditions in mainstream
- Water quality and sediment conditions in mainstream
- Status of environmental assets

Economic dimension

- Economic performance of MRC sectors
- Contribution to national economy

Climate change

- Greenhouse gas emissions
- Climate change trend and extreme
- Adaptation to climate change

Cooperation dimension

- Equity of benefits derived from the Mekong River system
- Benefits derived from cooperation
- Self-finance of the MRC
- Level of information sharing and participation

Data sources

Data will be drawn from a variety of sources:

- ❑ **Thematic teams** – thematic components of scenario definitions, quantification of interventions and investment costs; exogenous developments in agriculture, industry and flood plain use and asset values
- ❑ **Discipline teams** – climate change adaptation measures and costs; water level, quality and availability changes; flood characteristic changes; salinity intrusion changes; bio-physical changes and capture fisheries impacts

The social and economic CA teams will additionally access data from:

- ❑ **Socio-economic data** – SIMVA 2010, SIMVA 2014, MRC socio-economic database; BDP Development Trends report supplemented where needed from regional organisations (eg WB, ADB, IMF, UN, UNDP, FAO, etc)
- ❑ **Economic and macro-economic data** – BDP economic databases supplemented where needed from national statistics and regional organisations

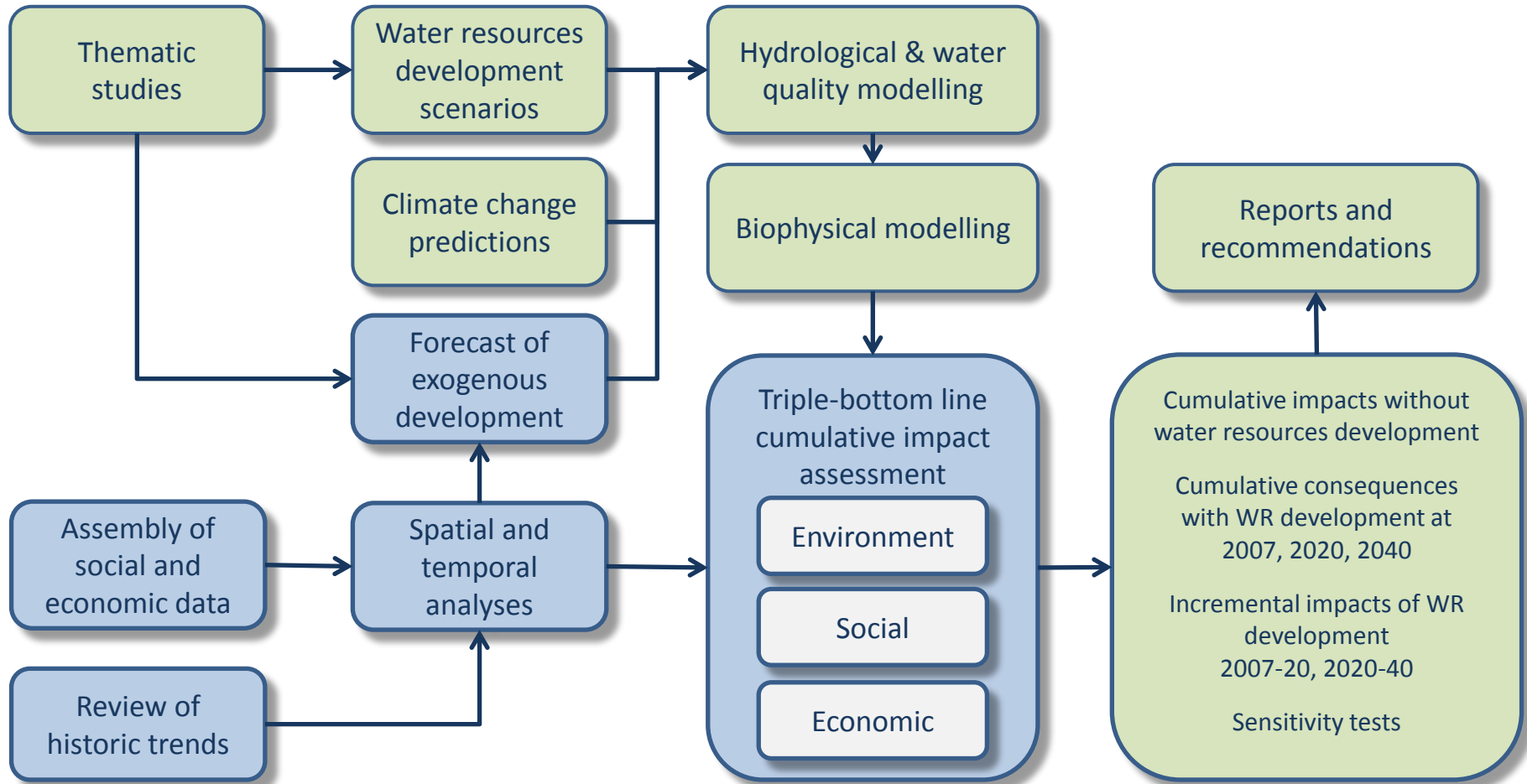
Any data gaps, notably in MRC socio-economic database, will be identified and highlighted in the methodology report, but these are expected to be few.

Key outputs

1. A **cumulative impact assessment report** covering:
 - Impacts without water resource development
 - Consequences of cumulative WR development through to 2007, 2020, 2040
 - Incremental impacts 2007-20, 2020-40
 - Sensitivity tests
 - Summary of findings and recommendations for mitigation actions and further assessment of alternative plans

2. A **comprehensive database** covering:
 - Assessment data, projections etc
 - Relevant spatial layers constructed in support of the analyses

Overall approach

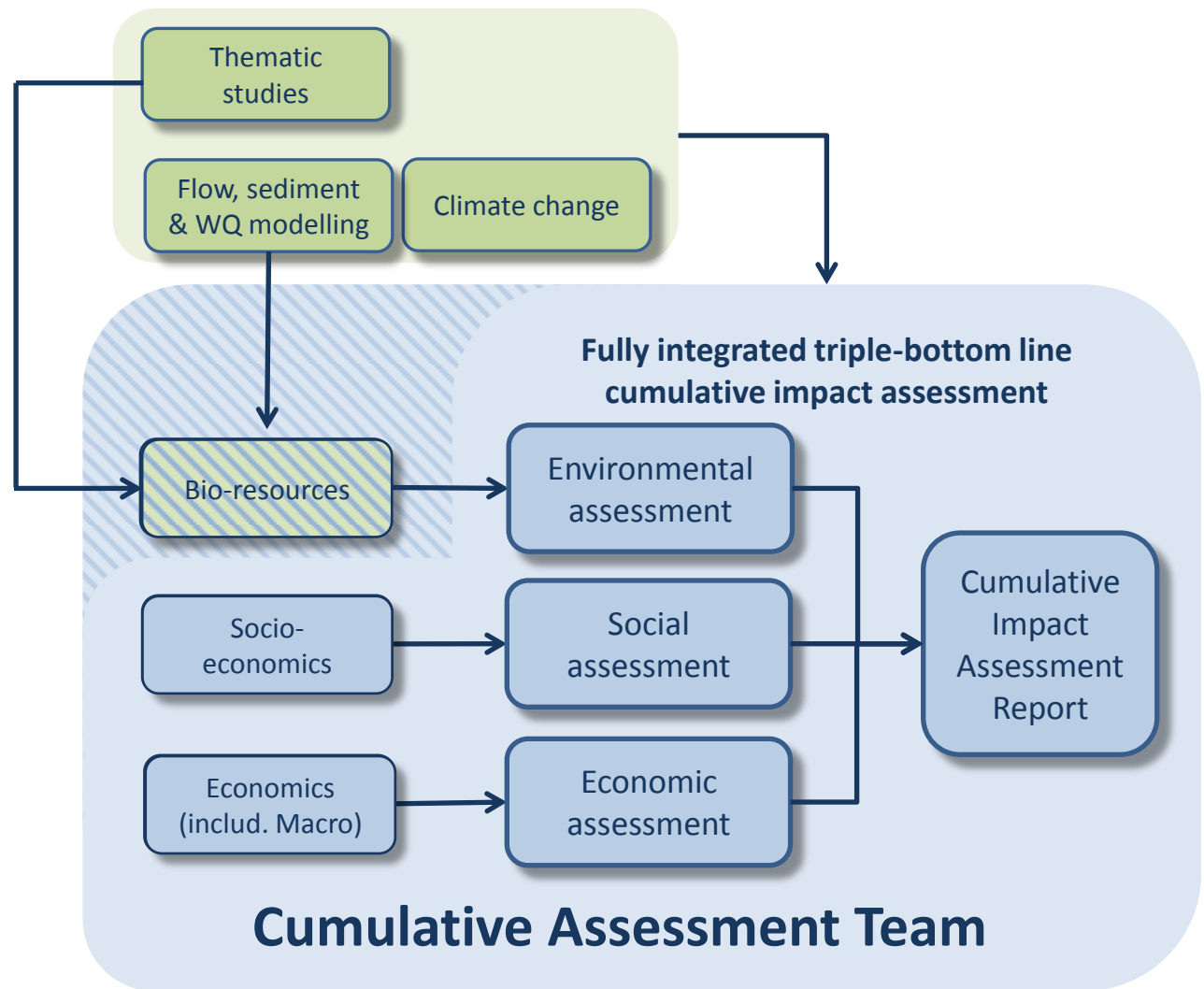


Arrangements for Cumulative Impact Assessment

Currently, environmental approach (ie bio-ra) prepared separately to socio-economic and economic

When scenarios are assessed, socio-economics and economics join Cumulative Assessment Team

Taking a basin-wide approach suggests environment should become part of an integrated CIA



Next steps

- ❑ **Assimilation of feedback** from this mini-workshop
- ❑ **Preparation of draft report(s)** on approach and methodology for social and economic cumulative impact assessment for the Council Study
- ❑ Discussion of draft report with **RTWG**
- ❑ **Finalisation** of report

Response to the objectives

In summary, our proposed approach leads to:

- ❑ A **transparent and replicable process** for cumulative impact assessment of water resource development within the LMB
- ❑ A **succinct set of data** established and preserved for future assessments
- ❑ A **definitive list of assessment and monitoring indicators** for the agreed Strategic Indicators of the MRC Indicator Framework to support **future assessments** and frame **State of Basin** monitoring and reporting
- ❑ Through involvement in designing, developing and implementing the assessment process, **building regional capacity** to undertake future assessments; and
- ❑ Through reporting and interpretation of the findings of the assessments, establish a **platform for the Member Countries to explore different pathways** towards optimal and sustainable development of water and related natural resources within the LMB in line with 1995 Mekong Agreement objectives

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Introduction and overview to social and economic approach to cumulative impact assessment

Thank you for your attention