

MRC/BDP 4th Regional Stakeholder Forum
20-22 November
Siem Reap, Cambodia



Formulation of long-term exploratory scenarios *to investigate how regional benefits can be increased*

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Development trends and outlook



The assessment of long term development trends within the Mekong Basin provides a perspective on the challenges ahead:

- Continued **rapid economic growth**, urbanisation, industrialisation and export orientated activities leveraging the region's many comparative advantages in natural resources and human capital
- Continued rapid **reduction in poverty** but with lingering dependency in rural areas on natural resources such as capture fisheries
- Increasing **regional integration** fostered by political commitment and growing intra-regional trade

Development trends and outlook

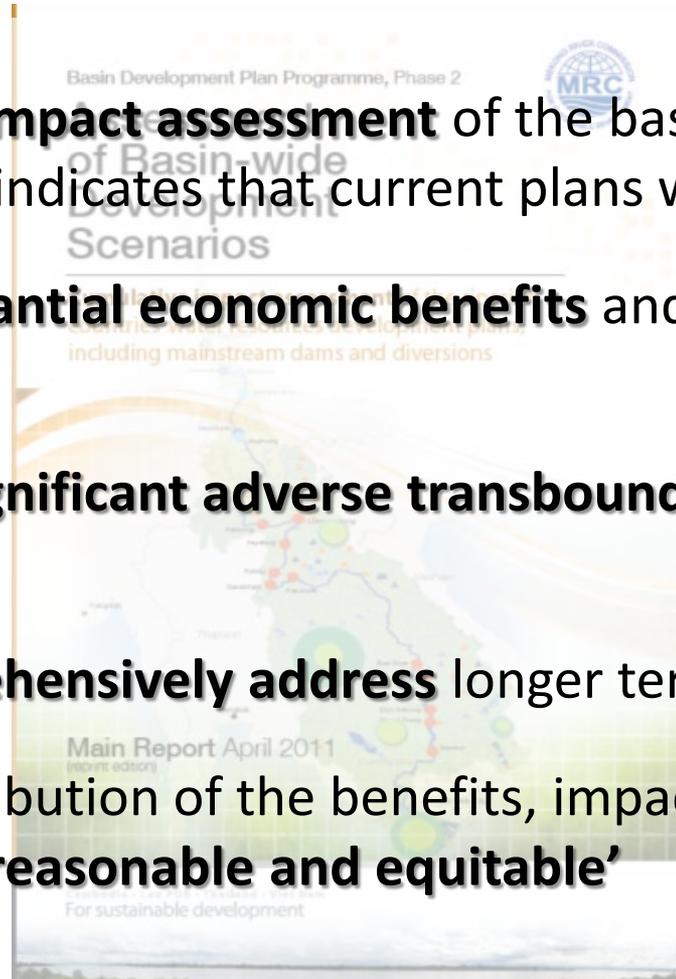
This outlook presents a number of challenges for basin development and management, including **growing demands** for:

- **Energy** and **transport** of goods and people to support economic growth
- **Water abstractions** for domestic, industrial and agriculture use
- **Protection from flood and drought** of increasingly valuable assets
- **Protection of environmental assets** and eco-systems, increasingly valued by a growing affluent and educated population

Assessment of current national plans

MRC's cumulative impact assessment of the basin countries' national plans in 2008-2010 indicates that current plans would:

- Result in **substantial economic benefits** and enhanced dry season flows
- Lead also to **significant adverse transboundary environmental impacts**
- **Do not comprehensively address** longer term development needs
- Given the distribution of the benefits, impacts and risks **may not be viewed as 'reasonable and equitable'**



Addressing long-term needs

The **1995 Mekong Agreement** sets out the intent, inter alia, to:

- To cooperate and coordinate in all fields of **sustainable development** ... in a manner to **optimise multiple uses** and mutual benefits;
- To promote ... the development of the **full potential of sustainable benefits**;
- To **protect the environment**, natural resources, aquatic life and conditions, and ecological balance ... from pollution or other harmful effects; and
- To utilize the waters of the Mekong River system in **a reasonable and equitable manner**.



Addressing long-term needs

The **updated BDS** seeks to address the shortcomings of national plans by establishing **four strategic priorities** for basin development:

- **Regional joint cooperation** and interdependent development increased
- **Essential knowledge** to address development uncertainty and minimise risks acquired
- **Basin-wide optimal development** for multiple use and mutual benefits in water and related sectors enhanced
- **National water resources development** improved

Under the third Priority, the BDS identifies a key strategic action for 2016-20 as:

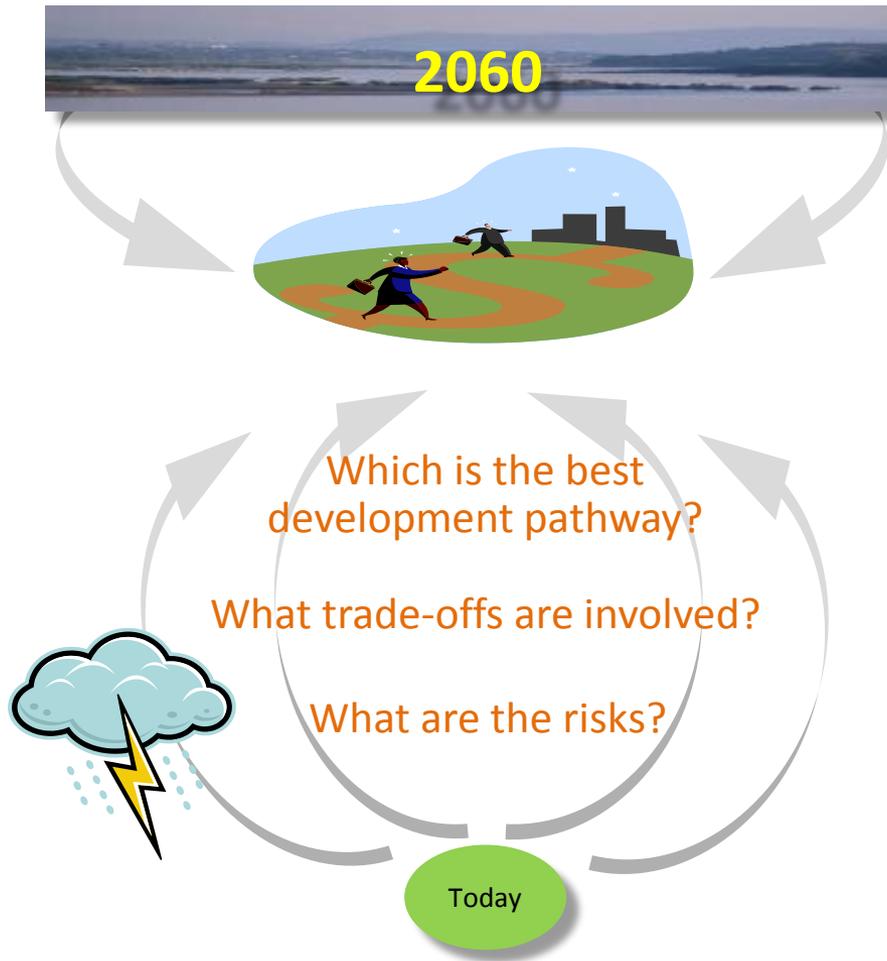
- **Undertake assessment of alternative medium term development plans based on exploratory long-term scenarios**

Intent of exploratory scenarios

Exploration of long term scenarios will:

- Help Member Countries to identify where the opportunities lie to work collaboratively in a manner that **increases mutual benefits whilst reducing costs**.
- Enable **a proactive approach** to be adopted in shaping the future development of the basin to be captured in the next update of the BDS.
- Provide sufficient lead time to **influence the setting of national medium term plans** to better capture the benefits of the cooperation envisaged under the 1995 Mekong Agreement.

Intent of exploratory scenarios



Projections for the future – development trends

Long term development needs for the MRC sectors

Exploratory scenarios

The assessments will help determine the best pathway to optimal and sustainable development of the Basin

Identified trade-offs

From the 2010 scenario assessment we know broadly how major infrastructure developments and climate change affect mainstream flows, environmental and social conditions and the economic benefits that arise from these developments

Some impacts were difficult to quantify and important studies have been launched to improve MRC's understanding of these impact relationships (eg Council Study, Viet Nam delta study, etc)

So in principle we will be able to construct and examine the **implications of long term scenarios that favour alternatively** economic benefits, social protection and environmental protection

Identified trade-offs

The draft update of the BDS goes further and identifies **four specific areas** where trade-offs should be assessed:

(1) Balancing economic benefits with social and environmental protection

- *Assessment of long term scenarios that favour alternatively economic benefits, social protection and environmental protection to better **understand where an appropriate balance may lie***
- *Recognising that levels of vulnerability are expected to fall over time, assessing the implications of **alternative development phasing** by delaying projects with greater adverse social impacts until greater resilience has been built*

(2) Balancing the increase of reservoir and natural storage

- *Exploring the role of water storage (reservoirs, natural lakes and wetlands, areas of the floodplain, groundwater etc) in meeting future societal needs to determine **how much additional storage will be required** in the long term*

Identified trade-offs

(3) Balancing mainstream and tributary hydropower development

- *The location, size and manner of operation of hydropower developments have **different transboundary impacts** on capture fish migration, on rural livelihoods, on sediment trapping and on the extent of flow re-regulation.*
- *Exploratory assessments will contribute to promoting **appropriate selection and sequencing over time** of mainstream and tributary hydropower projects and sustainable development of the basin*

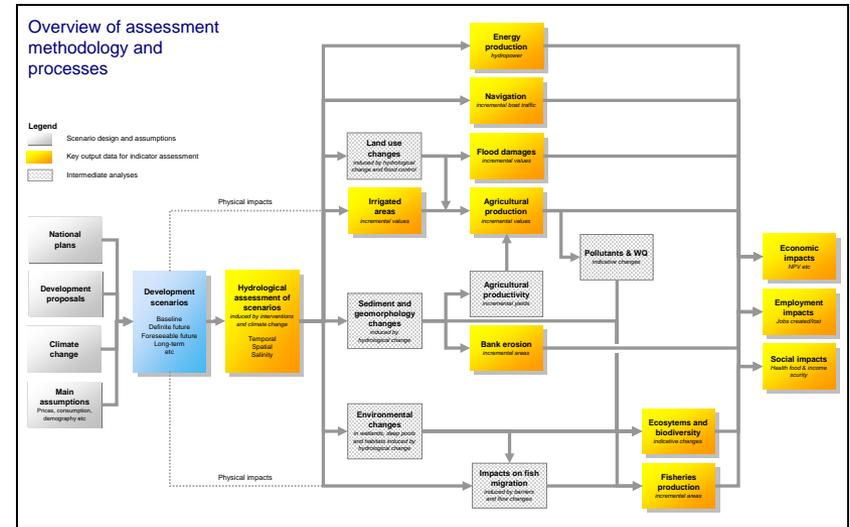
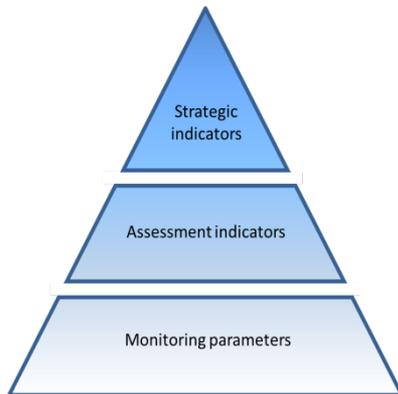
(4) Balancing development of the Cambodian flood plains with preservation for flood storage and environmental protection

- *A multi-sectoral assessment of options as to how best to manage floods in the medium to long term , taking into consideration **competing land use demands***
- ***Issues include** preservation of certain wetland areas against encroachment, potential benefits of alternative infrastructural solutions, and the impacts of future flow regimes on channel and coastal stability.*

Assessment approach

The approach to assessment of exploratory scenarios will be based on:

- The general approach adopted in 2010, updated where new information is available and adapted as needed for long term assessments



- The MRC Indicator framework which will define the required assessment indicators

Assessment approach

The approach to assessment of exploratory scenarios will also:

- Be undertaken through a **participatory process** in which the countries will be engaged principally through the established Regional Technical Working Group (RTWG); and
- **Will underpin** much of the work associated with regional benefit sharing (*addressed in the next presentation*)

The next steps include the detailed formulation of a range of long term scenarios to explore that will comprehensively examine the identified trade-offs



Thank you