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Trends and long-term outlook for the Mekong region

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Introduction

The presentation provides an overview of the middle part of the emerging Basin Development Strategy for 2016-2020

Projections of the future and an understanding of long term development needs, opportunities and risks is an essential part of river basin planning

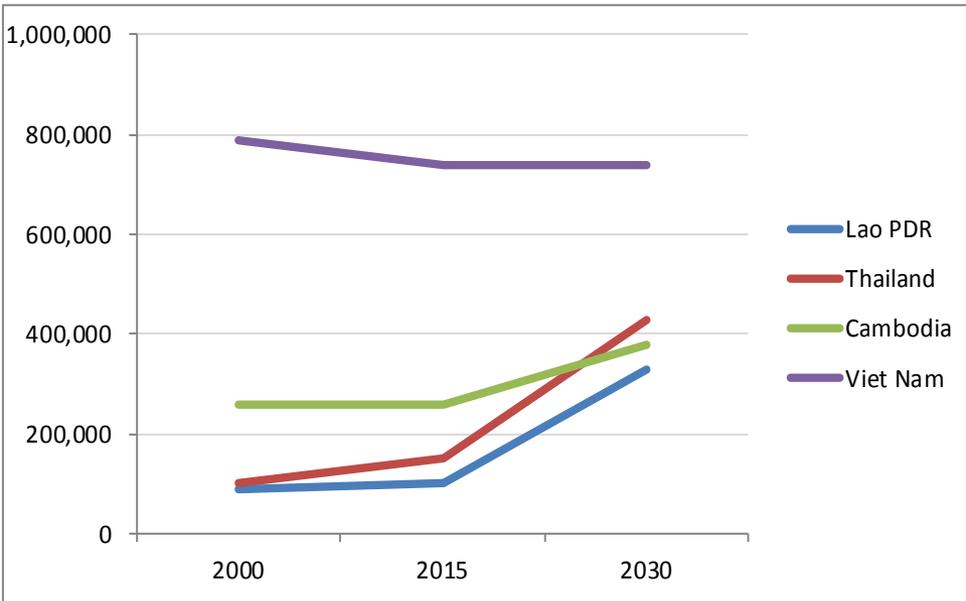
Priorities and short and medium term actions can then be framed within this longer term perspective

The presentation sets the stage for Parallel Session 3b

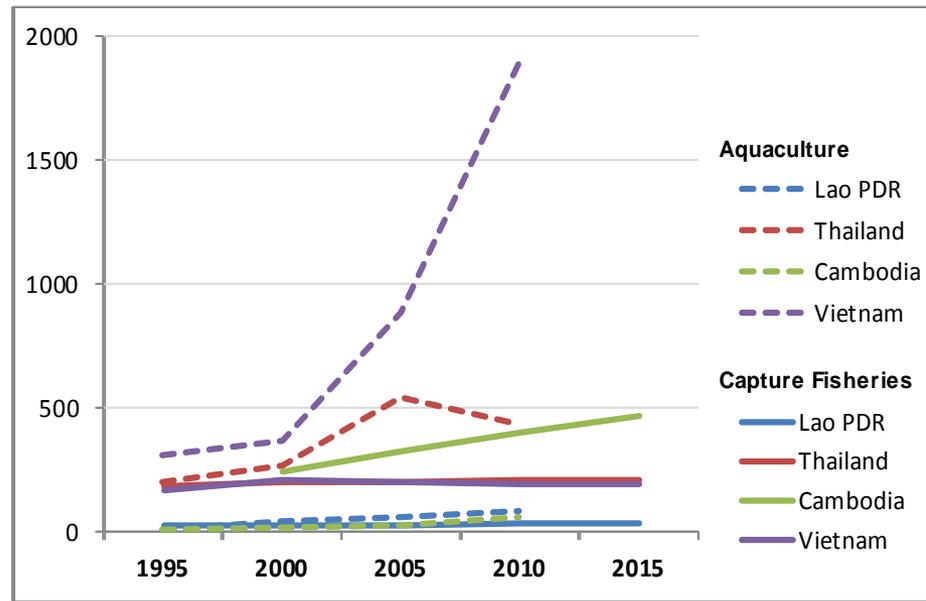
Trends in basin development - examples



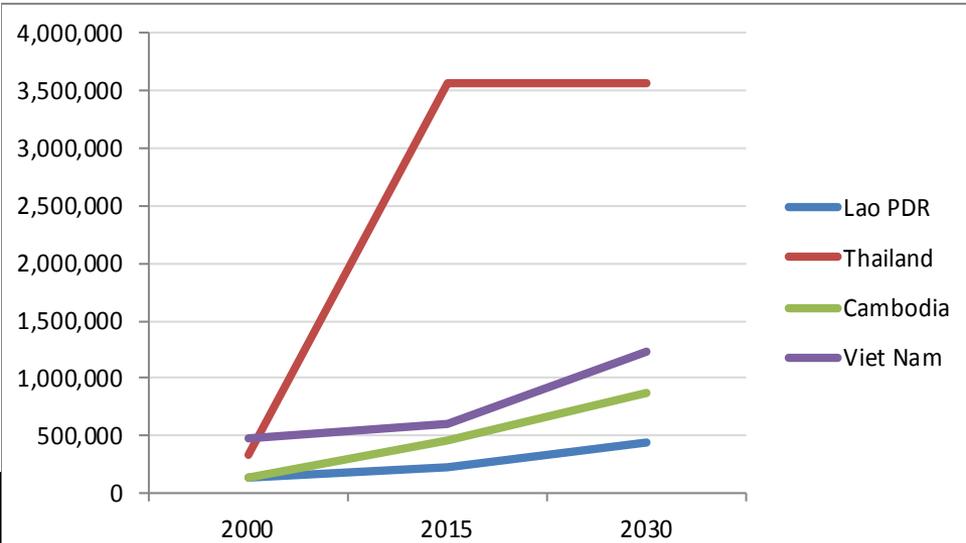
Trends in irrigated agriculture (*dry season irrigation, ha*)



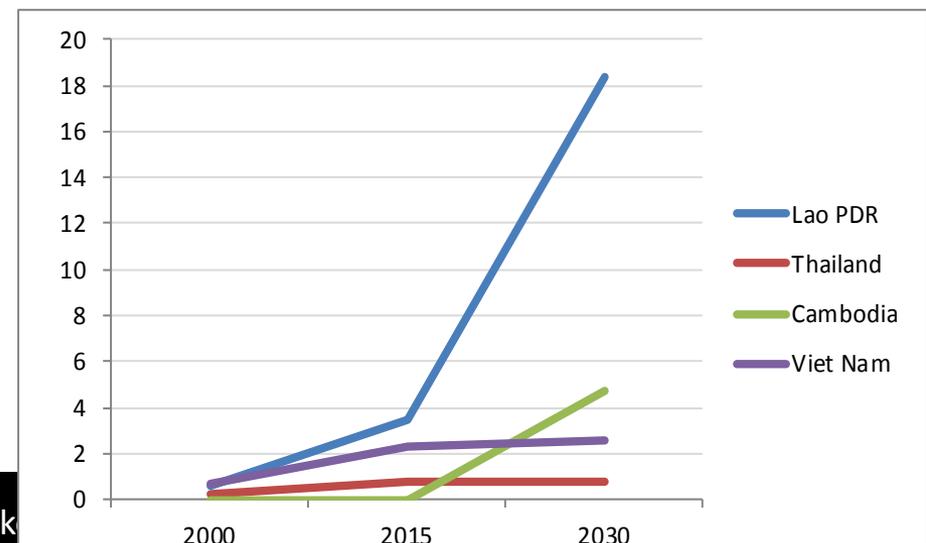
Trends in capture fisheries and aquaculture ('000 tonnes)



Trends in public and industrial water supply (Mm^3)



Trends in hydropower development (*installed capacity, GW*)



Since 2012, the natural flow regime of the Mekong is changing

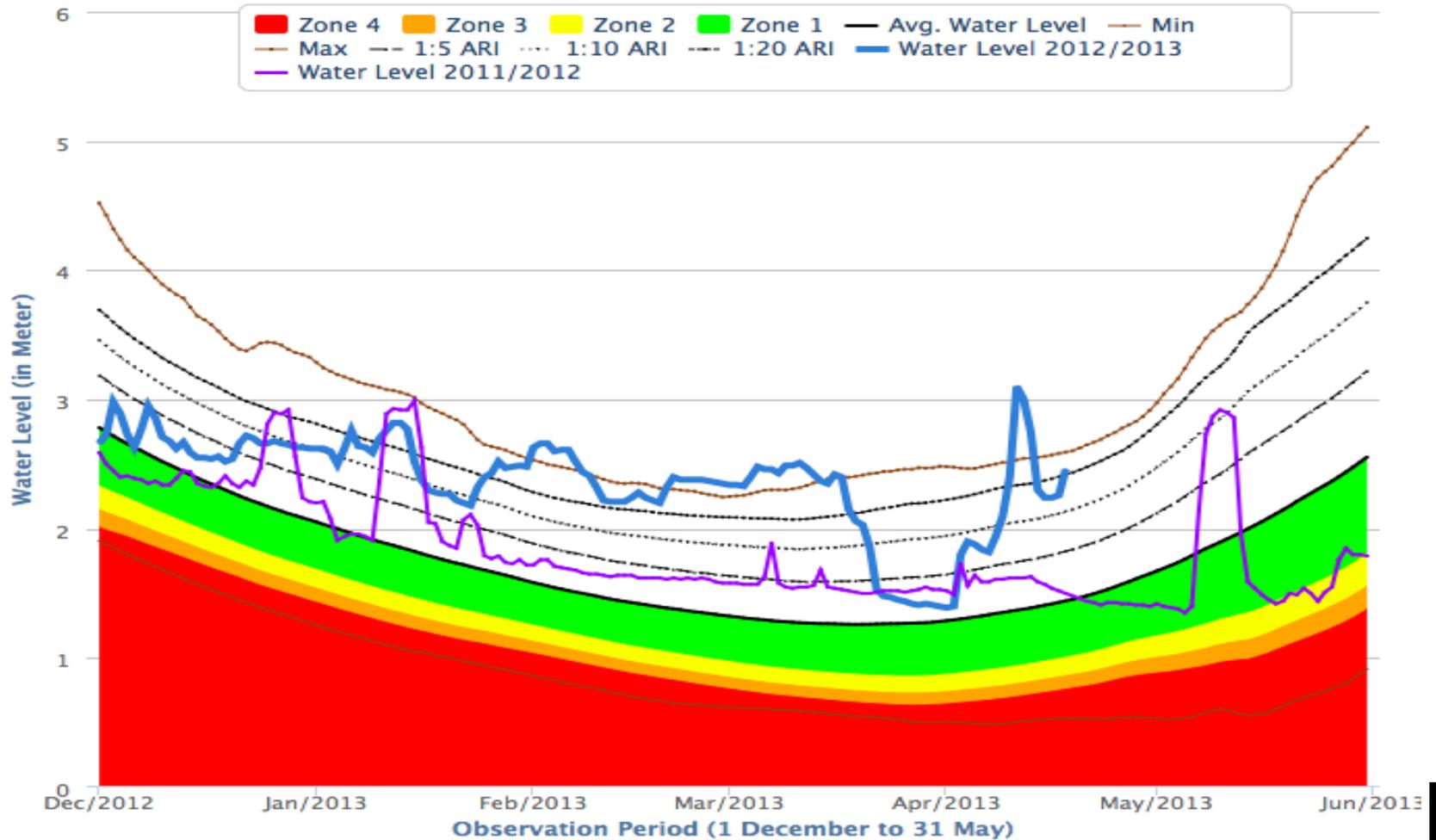


Water Level

Discharge

6A Monitoring – Observed Water Level during the Dry Season at Chiang Saen

Click and drag in the plot area to zoom in



Outlook: sharp drop in fertility rates



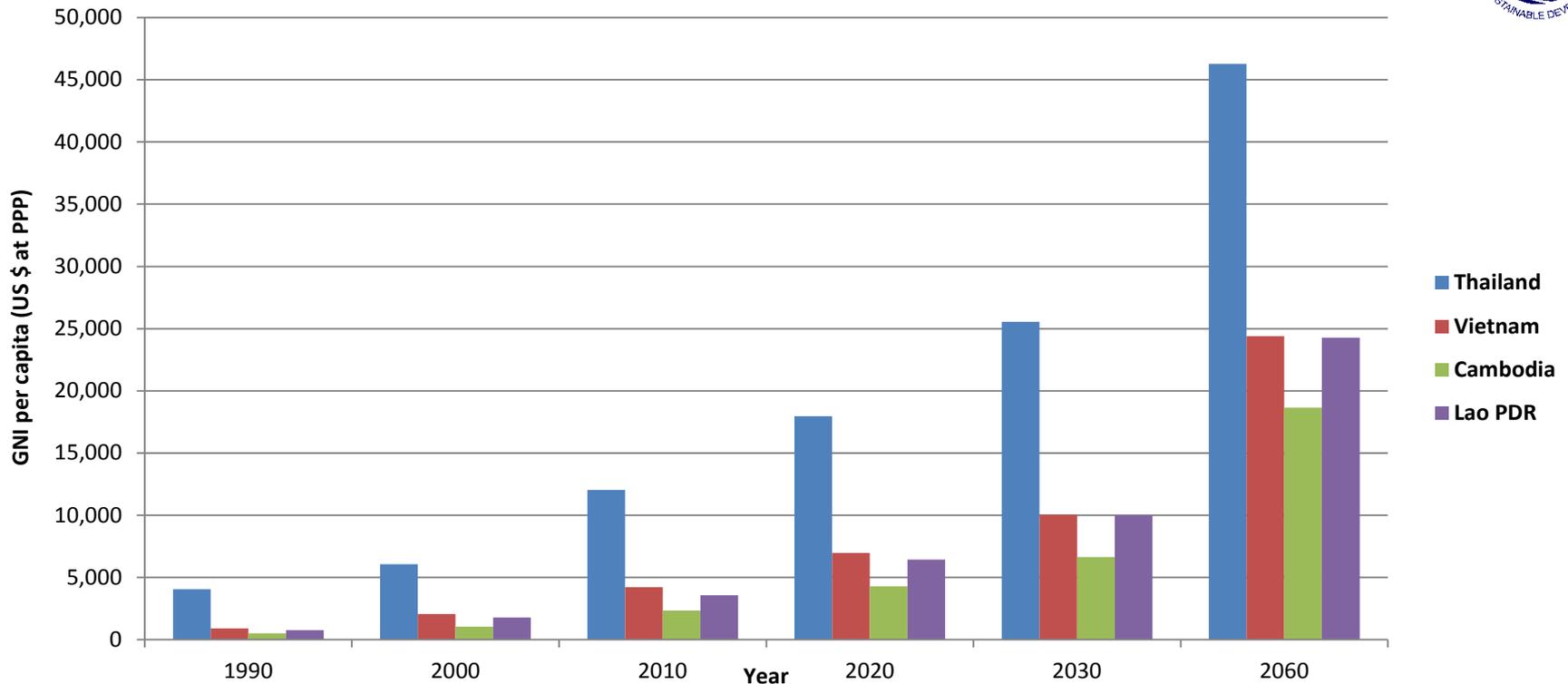
Sharp decline in fertility throughout the Southeast Asia region.

Mean growth rate fell below world average in 1990-95, and just below the average for Asia in 2010-15.

This will slow population growth in the LMB to 83 million in 2060



Outlook: continued strong economic growth



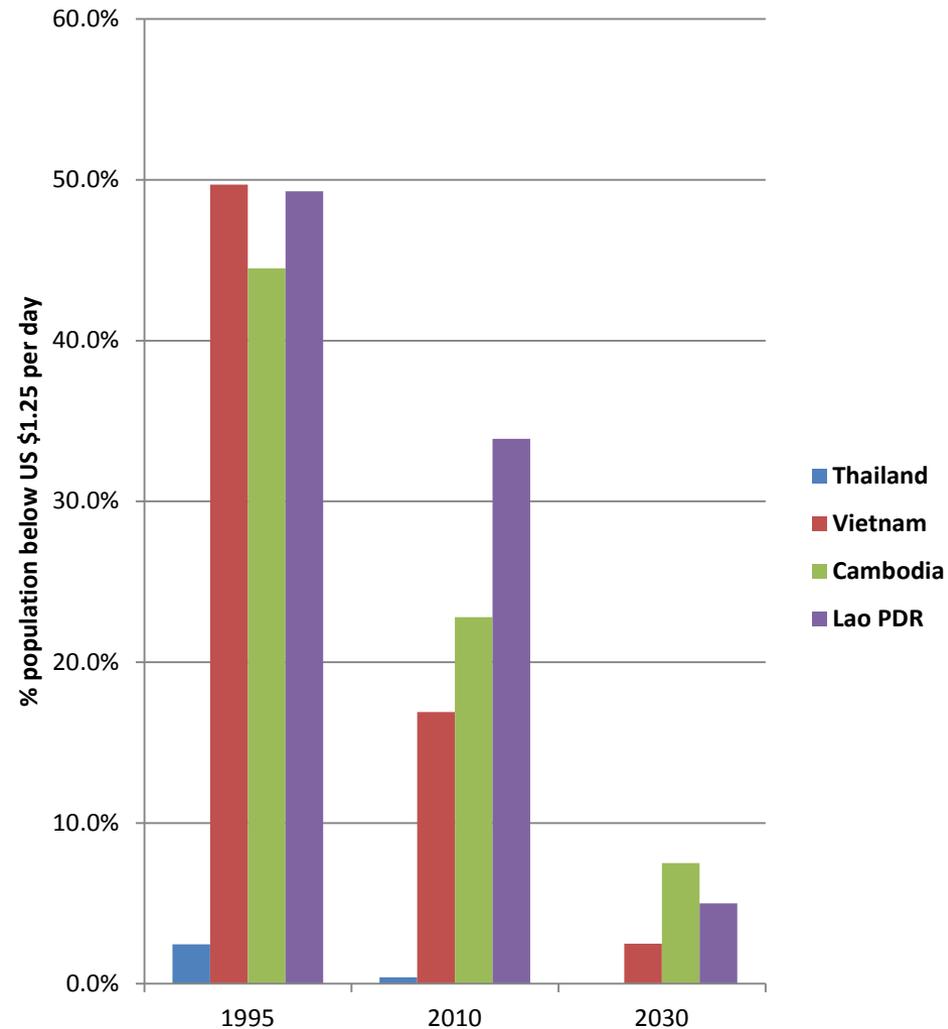
- Continued economic growth by 4-5% per year, with all LMB countries reaching high income status by 2060
- Increasingly, people will live in cities, prompting urban sprawl
- Agricultural production commercializes and remains a major export earner but as a % of GDP, the sector will continue to decline

Outlook: Continued strong reduction in poverty levels



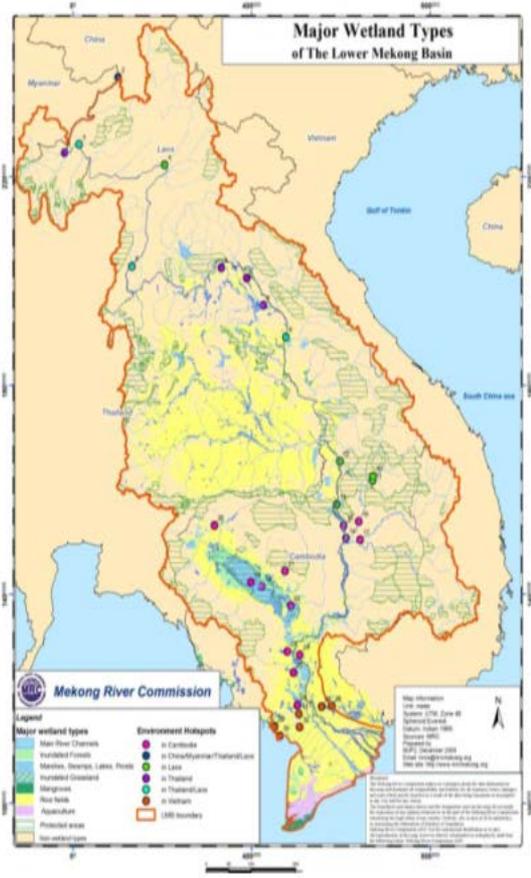
- Poverty could progressively reduce to below 8% in 2030 as a consequence of urbanisation and economic growth
- Food security nationally is unlikely a problem
- But for a declining number of poor people in rural areas, small scale agriculture, agricultural labour, and capture fisheries remain important sources of food and income

% of population below poverty level



Outlook: most wetlands could be lost

- Loss of natural wetlands has been enormous as a result of basin development during last 100 years:
 - Viet Nam lost 99%
 - Thailand lost 96%
 - Cambodia lost 45%
 - Lao PDR lost 30%
- By 2060 the total wetland area may have reduced to less than 25% of the present area
- Of the 32 identified environmental hotspots, 23 are in a fairly good natural condition. 70% of the hotspots may be seriously degraded by 2060



Development needs

- The **long term development needs** related to water resources development and management in the LMB **will be shaped by the changing socio-economic status** of the countries as they move towards high-income status
- These needs will be addressed by current and successive future **national plans**
- These national plans necessarily will have to provide a comprehensive response to:
 - the challenges in all water and related sectors, and
 - leverage the benefits to be gained from regional cooperation

Development needs related to water resources (based on national and regional perspectives)

Main water related needs are:

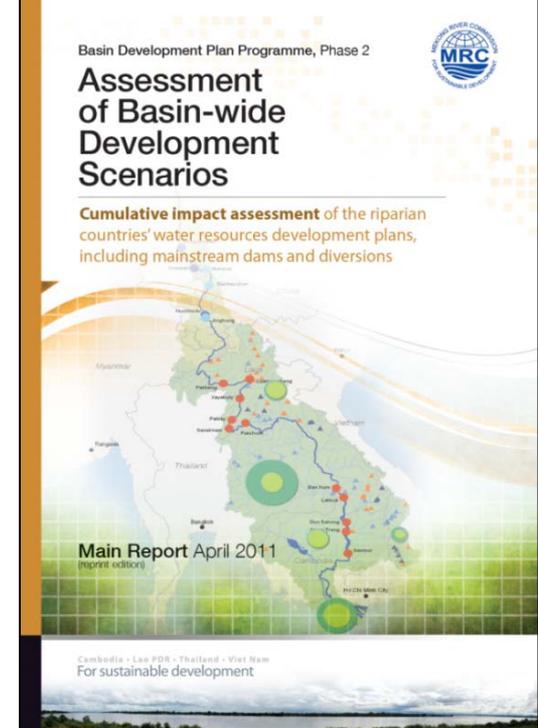
- 1) Meeting basic needs of food and livelihood security
- 2) Resilience against severe floods and droughts
- 3) Environmental protection
- 4) Ensuring energy security
- 5) Providing accessibility for people and goods through improved transportation



How well do national plans address these needs?

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

- The plans would result in substantial economic benefits and enhanced dry season flows
- But the plans would lead also to significant adverse transboundary environmental impacts
- The plans do not comprehensively address the longer term development needs identified above
- Furthermore, the distribution of the benefits, impacts and risked may not be viewed as 'reasonable and equitable'
- A 2014 review of the assessment findings indicated that they remain largely valid



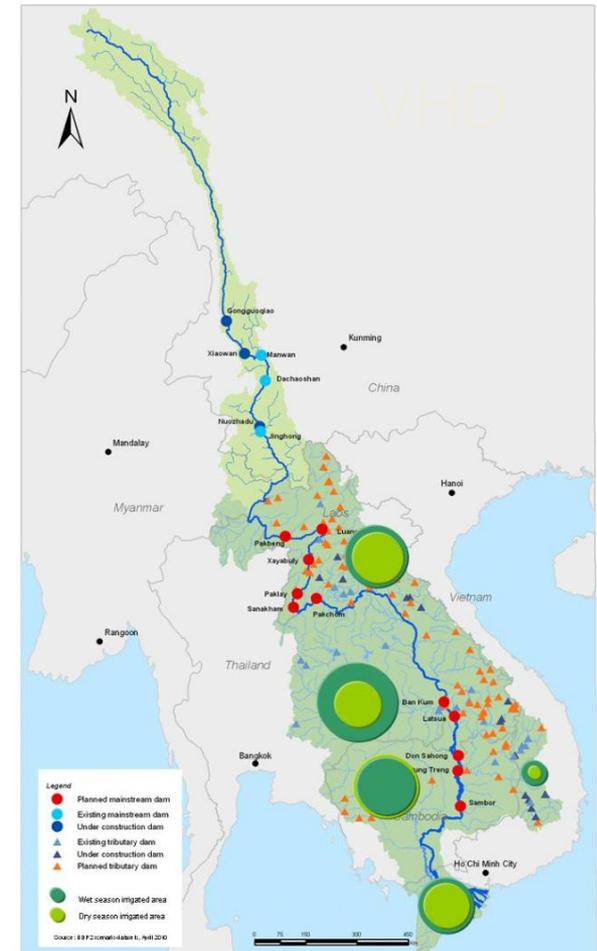
Need to broaden and deepen basin planning



- The assessment findings indicate that the current national plans are sub-optimal
- The basin planning and assessment approach need to be broadened and deepened to optimise basin development through:
 - Studies that will serve to **reduce knowledge gaps**, such as MRC's Council Study and the Viet Nam initiated Delta Study
 - **Joint exploration and assessment** of alternative basin-wide development scenarios in the light of the expected future water resource management needs
 - Further identifying and capturing options for **regional benefit sharing**
 - **Guidelines** that promote best practice
 - Effective and appropriate application of **MRC Procedures**, including the PMFM, PWQ, and PNPCA

Three steps to 'optimising' basin development

- 1) Exploratory scenarios for the long-term (2060), investigate future development needs and opportunities and risks
- 2) Based on the insights gained, alternative scenarios for medium term plan (2030) will be formulated
- 3) When the results demonstrate significant increases in national benefits and decreases in transboundary impacts, the countries will have powerful incentives to adapt current national plans

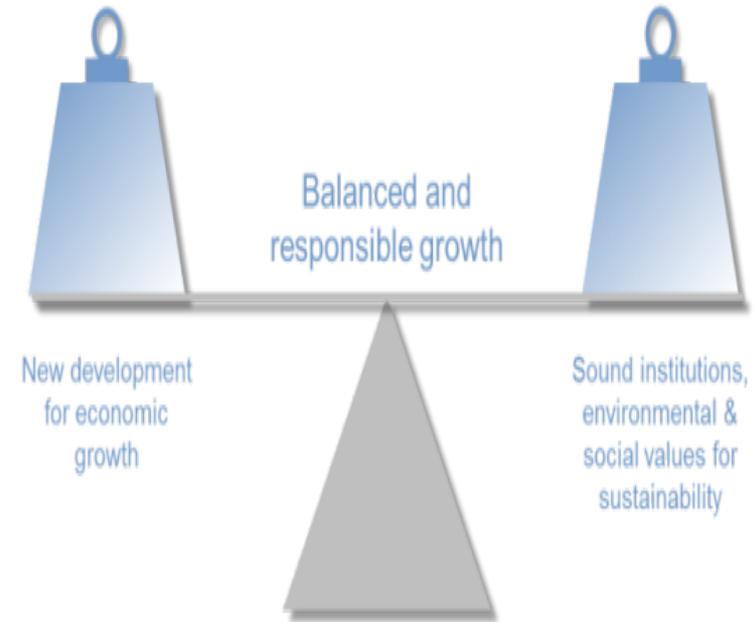


Anticipated key trade-offs



In the context of the long-term outlook and development needs, the following major trade-offs are anticipated:

- Balancing economic benefits with social and environmental protection
- Balancing the increase of reservoir storage with natural storage
- Balancing mainstream and tributary hydropower development
- Balancing development of flood plains with preservation for flood storage and environmental protection purposes



These and other trade-offs will be examined through exploratory scenarios

Anticipated results



- Common understanding of what transboundary impacts and risks may be considered acceptable: “**lines in the sand**”
- Clearer identification of the development opportunities and their inter-dependencies in the Basin Development Strategy
- **Regional sector strategies** that increase regional benefits and reduce regional costs
- More **regional benefit sharing**: a range of projects of basin-wide significance and some joint investment projects
- ‘**Deal structures**’ between countries based on negotiations of benefits and trade-offs
- **Adaptation of national plans** to capture the benefits from cooperation

In conclusion

- The Mekong Basin is entering a period of unprecedented change as the basin countries seek to address the long term development needs of their peoples
- At the same time, the countries are increasingly aware that a balance has to be maintained between economic gain and environmental and social protection to ensure optimal and sustainable outcomes for all riparians
- The draft update of the Basin Development Strategy seeks to address these challenges and assist the countries in realising their aims in cooperating in developing and managing the Mekong Basin
- We look forward to your feedback on the draft Strategy and to help us ensure the long term aims of the basin countries can be achieved

Thank you

