

# OVERVIEW OF THE DRAFT BDS 2021-2030

THE 9<sup>TH</sup> MRC REGIONAL STAKEHOLDER FORUM

DAY 2: PREPARATION OF BASIN DEVELOPMENT STRATEGY 2021-2030 AND MRC STRATEGIC PLAN 2021-2025  
06 FEBRUARY 2020, LUANG PRABANG, LAO PDR

Dr. Thim Ly, Chief River Basin Planner, MRCS



# Contents of BDS 2021-2030

1. Introduction
2. Water resources management and development
3. Trends & long-term outlook: environment, social, economic and climate change
4. Strategic needs, risks and responses
5. Basin development pathway
  - Vision toward 2040
  - Sustainable development opportunities toward 2030
  - Sustainable development goals (SDGs)
  - Strategic priorities for basin development & management toward 2030
  - Basin Development Strategy results chain: outcomes and outputs
6. Implementation of the Strategy



**Basin Development Strategy  
for the  
Mekong River Basin**

2021 - 2030

*Complete First Draft of Part I*

1 January 2020

# Outline of Chapter 1: Introduction

**1.1 Purpose and scope of the Strategy**

**1.2 Need for Strategy updating**

**1.3 Approach to Strategy updating**

**1.4 Implementation of the Strategy during 2016-2020**

**1.5 Lessons learned in implementing the Strategy during 2016-2020**

# 1. Introduction

- **PURPOSE:** to guide all actors involved in Mekong water-related issues towards achieving improvements in the environmental, social and economic state of the Mekong River Basin → **to improve the state of the basin**
- **Sets medium term strategic priorities** to strengthen basin management and ensure implementation of opportunities that contribute to optimal and sustainable development pathways
- **Defines outcomes towards 2030 and outputs for the next five years (2021-2025)** to address the basin-wide strategic priorities
- **Needs for BDS Update:** hydropower dam construction on mainstream & tributaries, floodplain development, increased need for water-related emergency situation, increased flood & drought events, development outside water sector, new regional actors, and socio-economic development

# Outline of Chapter 2: Water resources management and development

## 2.1 The Mekong River Basin

## 2.2 Water resources development

## 2.3 Water resources development implications

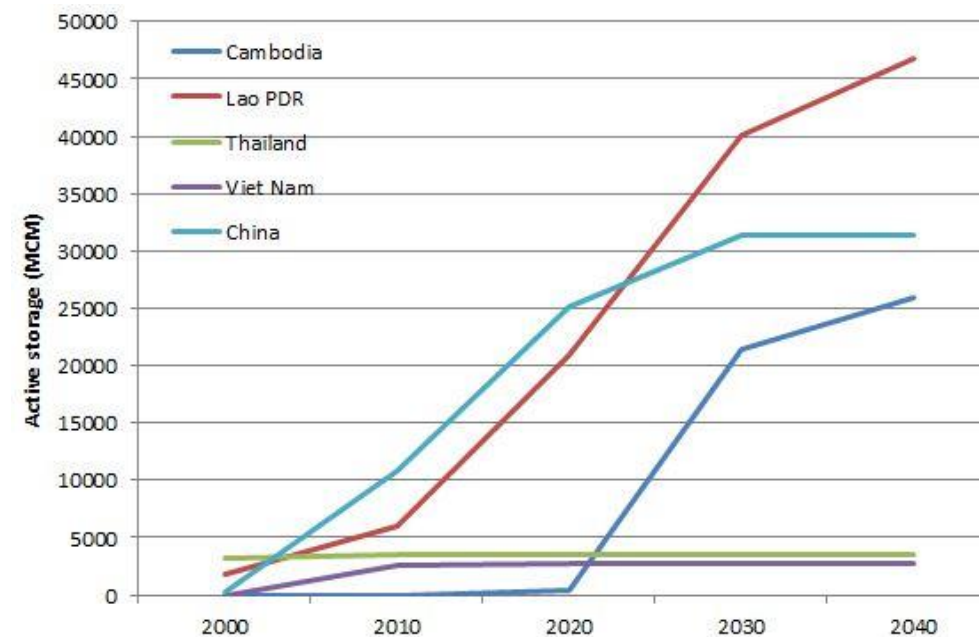
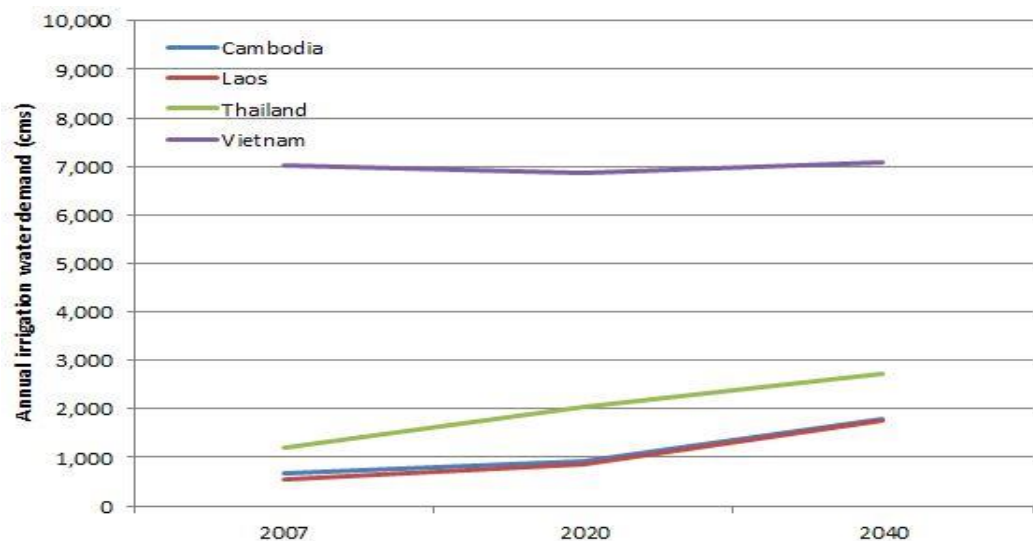
## 2.4 Water resources management

## 2.5 Regional cooperation and integration

A more extended PPT of this chapter was presented at the previous Stakeholder Forum. That PPT can be found on the MRC website

# Water resources development

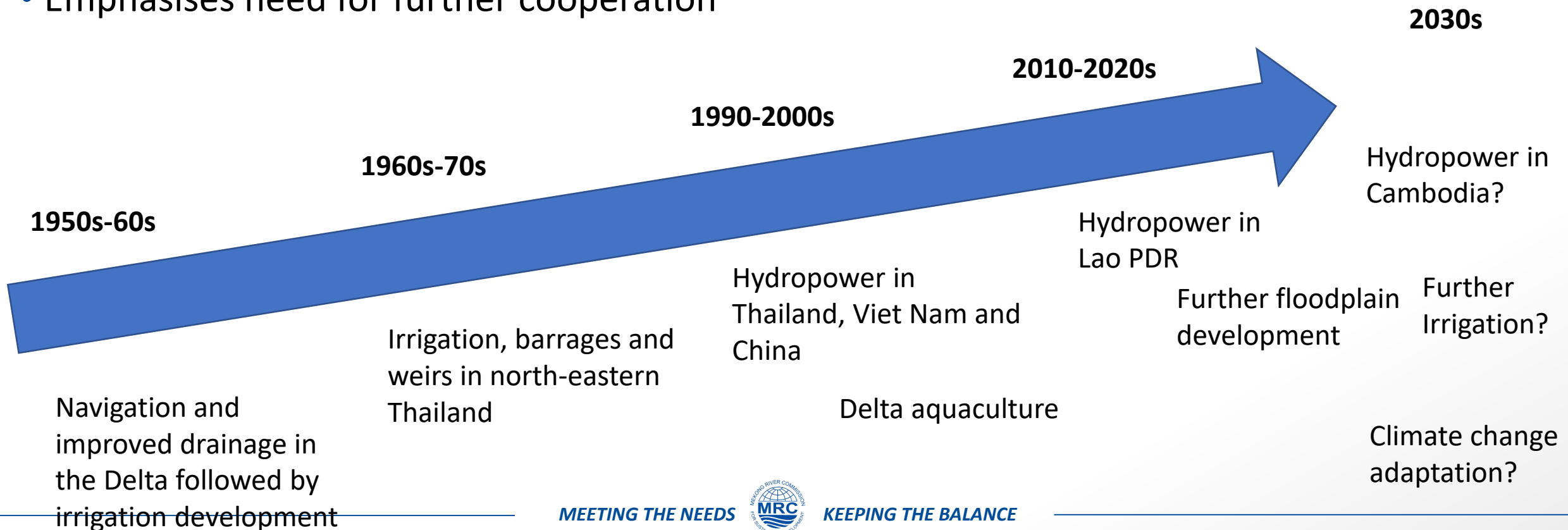
- 446 million km<sup>3</sup> of runoff
  - Amount of water 'used' is still low (12% of annual flow)
  - Current levels of active storage are 14% of Mean Annual Runoff
- Forecast to increase to ~ 22% by 2040



- The Basin is on a **rapid dev't trajectory**
- Hydropower & agriculture are the main future uses of water
- Domestic & industrial use is low, but steep increase expected due to population growth & industrialisation

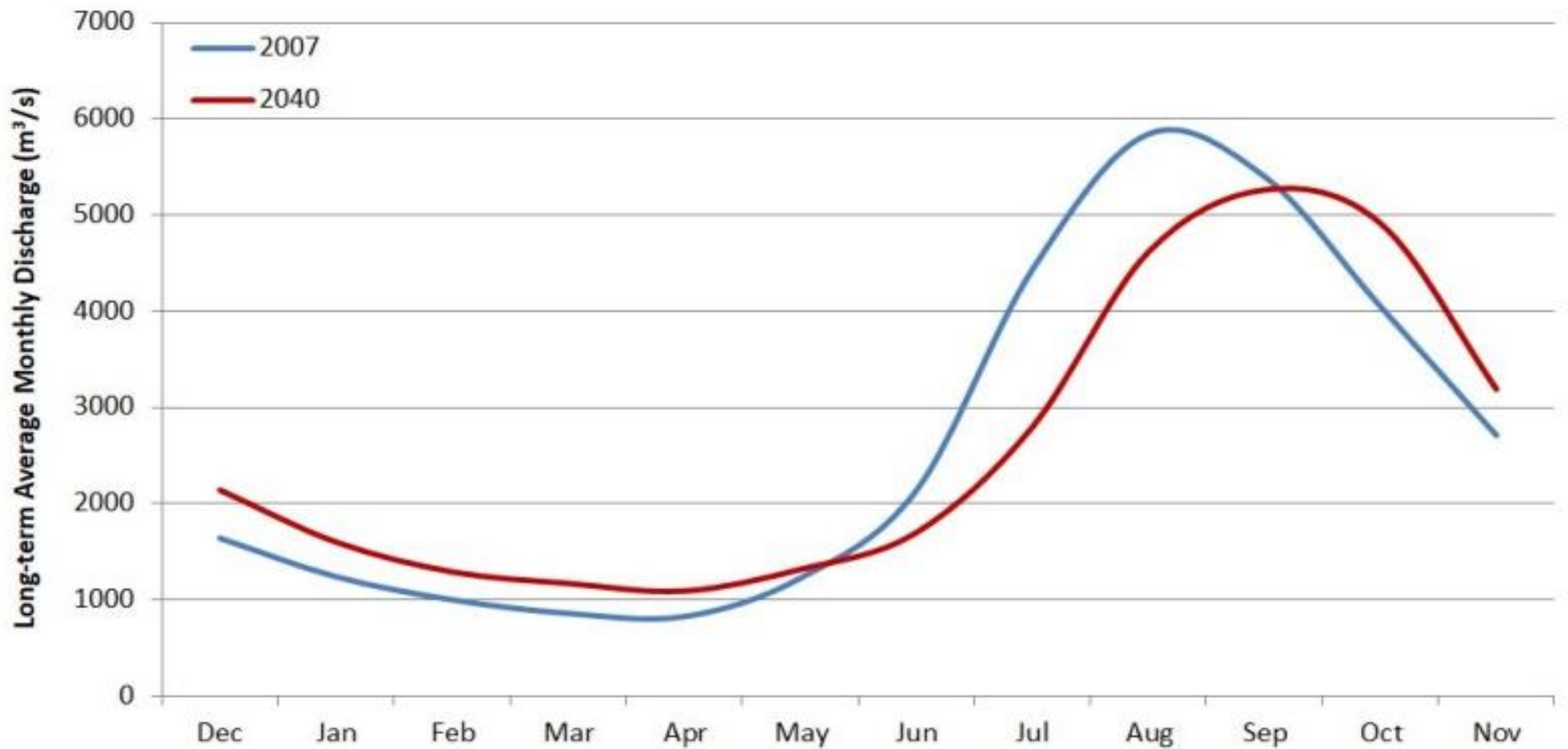
# Water resources development pathway

- Development commenced from the bottom-up
- Expanse agriculture, electricity, reduce salinity intrusion & mitigate floods
- Delayed due to political instability and uncertainty about needs and impacts
- Generation of additional knowledge on benefits/costs/trade-offs in recent years
- Emphasises need for further cooperation



# Hydropower development is changing the flow regime of the Mekong

The changing the flow regime of the basin and this presents both risks and opportunities





# Regional cooperation and integration

- Two key regional water cooperation platforms – **MRC and MLC**
- MRC focuses on integrated water resources management, is **treaty-based with cooperative procedures, protocols and tools**; 4 LMB countries; **knowledge hub and water-diplomacy platform**
- MLC has a broader mandate; joint projects financed through a special fund; establishing data centres in each country; includes all 6 riparian countries, but **is not treaty-based and without cooperative procedures and protocols**
- MLC Water is similarly structured as MRC and the activities of both entities are potentially duplicating

# Other Regional Cooperation Mechanisms

	ASEAN	ACMECS	GMS	LMI	Mekong-Japan	Mekong-ROK
Water-Related Focus Areas	<ul style="list-style-type: none"> <li>- Water supply, demand and management</li> <li>- Water quality and sanitation</li> <li>- Environment</li> <li>- Climate change, extreme events</li> <li>- Governance and capacity building</li> </ul>	<ul style="list-style-type: none"> <li>- Environment</li> <li>- Climate change and disasters</li> <li>- Renewable energy</li> <li>- Natural resource management</li> <li>- Agriculture</li> <li>- Tourism</li> </ul>	<ul style="list-style-type: none"> <li>- Energy</li> <li>- Environment</li> <li>- Climate change</li> <li>- Tourism</li> <li>- Transport</li> <li>- Capacity development</li> </ul>	<ul style="list-style-type: none"> <li>- Environment and water</li> <li>- Agriculture, food and energy security</li> <li>- Data collection, modelling tools, and data and information management</li> </ul>	<ul style="list-style-type: none"> <li>- Water resources</li> <li>- Climate Change</li> <li>- Disasters</li> <li>- Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- Green Growth</li> <li>- Water resource development</li> <li>- Agriculture and rural development</li> <li>- Infrastructure</li> <li>- Knowledge sharing</li> </ul>
Members	Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam; China = Dialogue Partner	Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam	Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam, China (Yunnan Province and Guangxi Zhuang Autonomous Region)	United States with Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam	Japan with Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam	Republic of Korea with Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam

# Future directions for regional cooperation and integration

- **Need for one ‘Mekong-Lancang’ management system** → Increasing regulation and requirements for operational coordination and address potential climate change impacts (floods/droughts)
- **From ‘common interest’ to ‘complementary interest’** to support policy coherence at the *water-food-energy nexus*
- Deeper integration requires **each organisation to clearly articulate its role** and comparative advantage
- Continued improvements in PNPCA and early engagement in project design
- Enhanced cooperation between MRC and MLC Water platforms could facilitate proactive regional planning and coordination of operational management of water infrastructure
- **A deeper institutionalisation of the relationship between MRC and MLC Water**, starting with Joint Basin Expert Groups

# Outline of Chapter 3: Trends and long-term outlook

## 3.1 Environment trends and outlook

## 3.2 Social trends and outlook

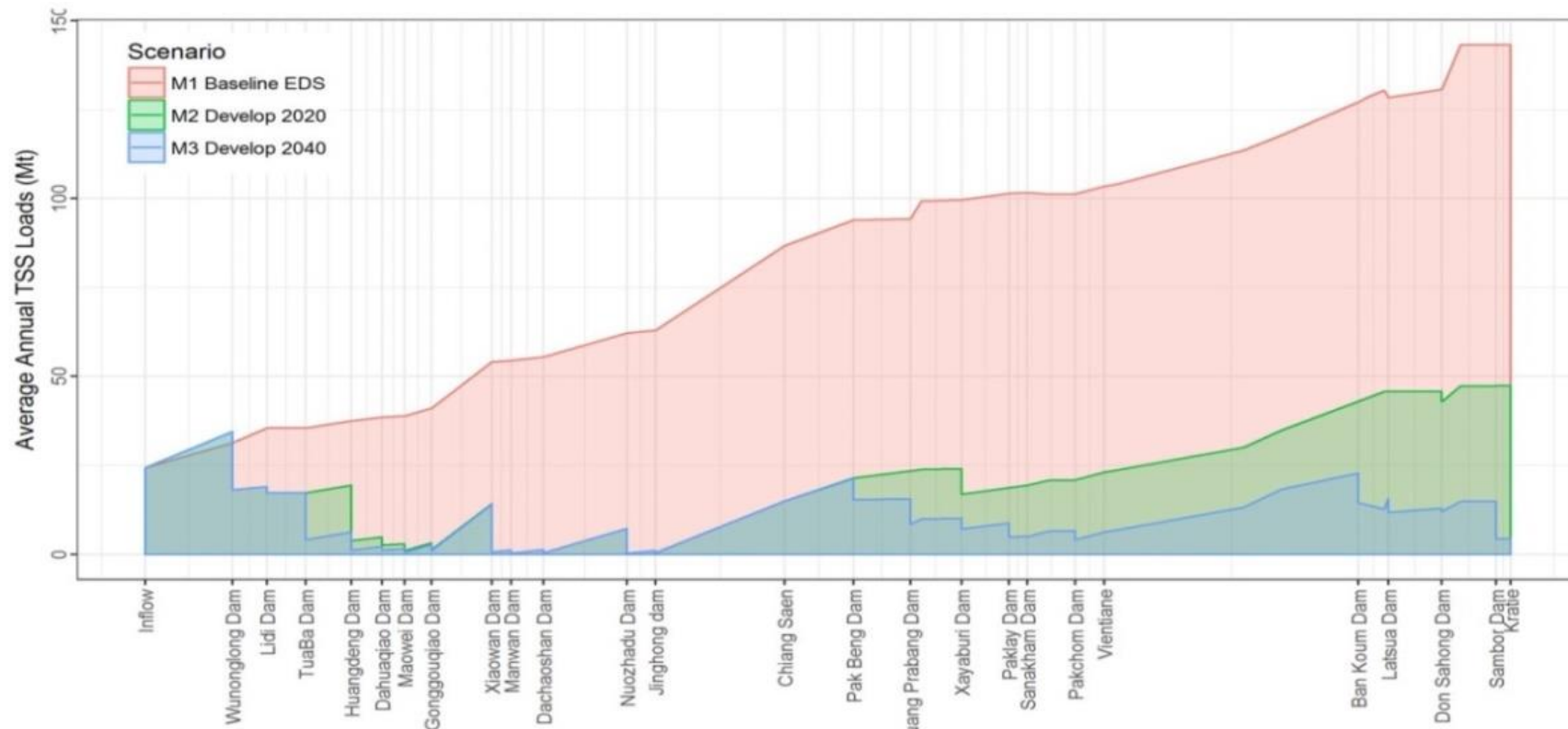
## 3.3 Economic trends and outlook

## 3.4 Climate Change trends and outlook

A more extended PPT of this chapter was presented at the previous Stakeholder Forum. That PPT can be found on the MRC website

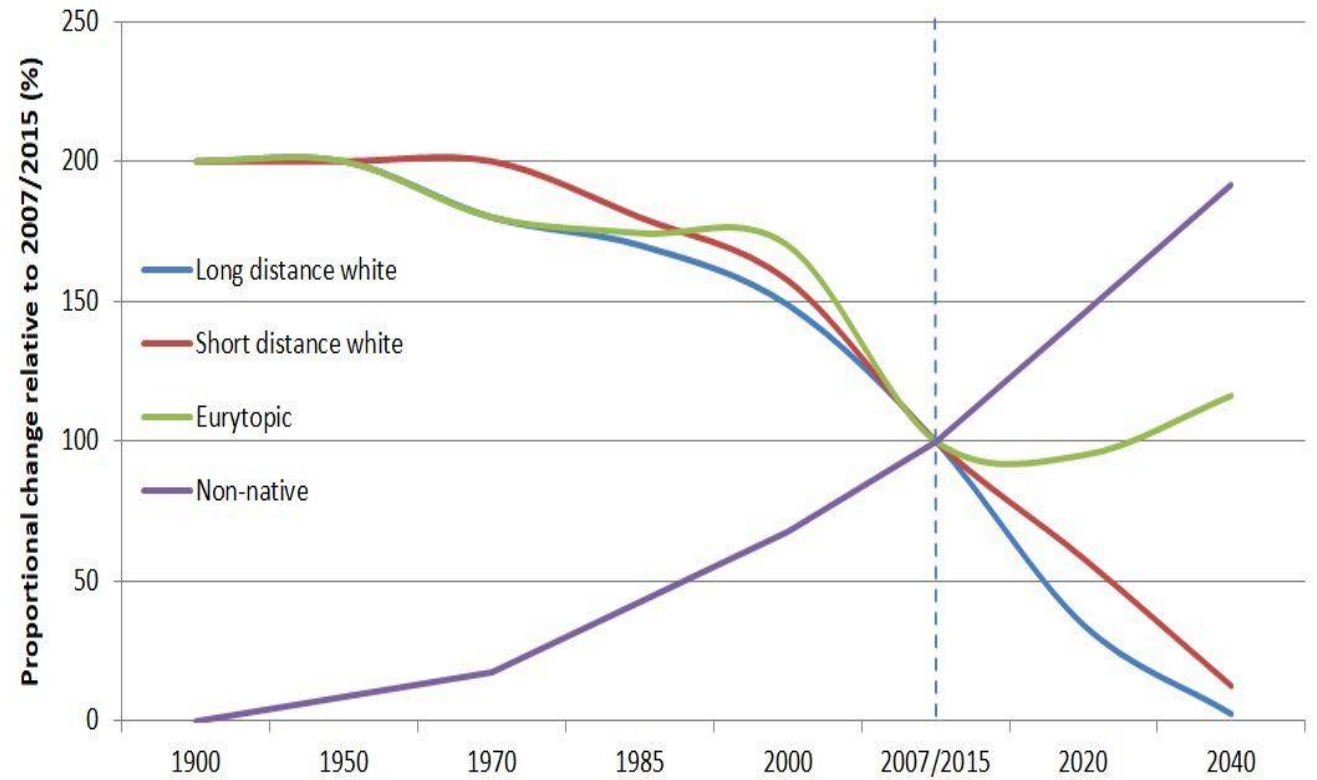
# 3.1 Environment trends and outlook (1)

- **Water quality** is generally good, but future pressures with urban & industrial development, fertilizer, low flow could bring new risks from algal blooms and low dissolved oxygen
- **Sediment transport** dropped dramatically from 85 MT/y to 10.8 MT/y at Chiang Saen between 1994 and 2013; the suspended sediment load could disappear at Kratie by 2040



## 3.1 Environment trends and outlook (2)

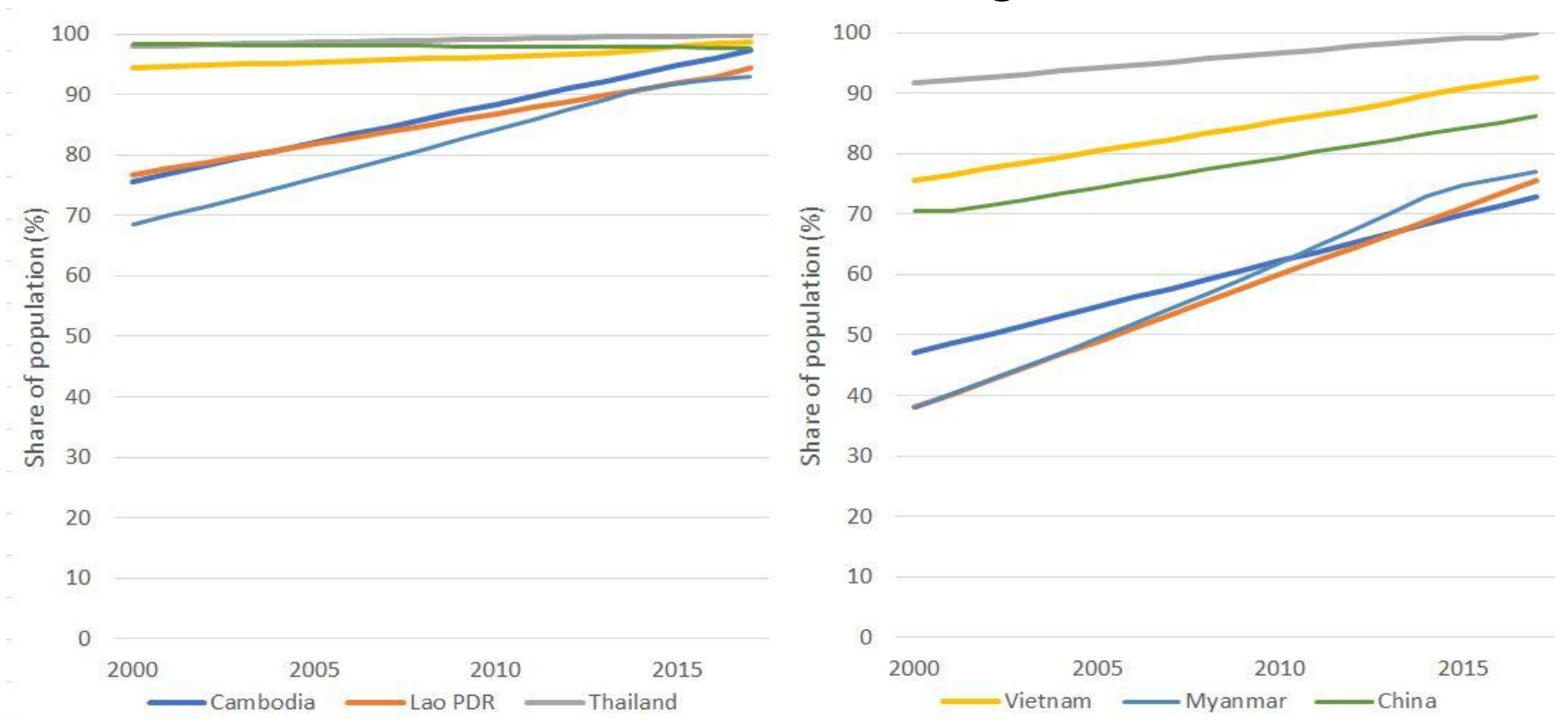
- **Wetlands** are severely threatened and gradually being degraded or lost completely
- **Total biomass of fish** estimated to decline by around 50% over the last 100 years due to rice farming expansion, deforestation, intensive fishing, hydropower dev't etc.
- Outlook for **native fish** is projected to decline by 25-80% by 2040 with some valuable migratory species extinct
- **Non-native species** likely to benefit



## 3.2 Social trends and outlook

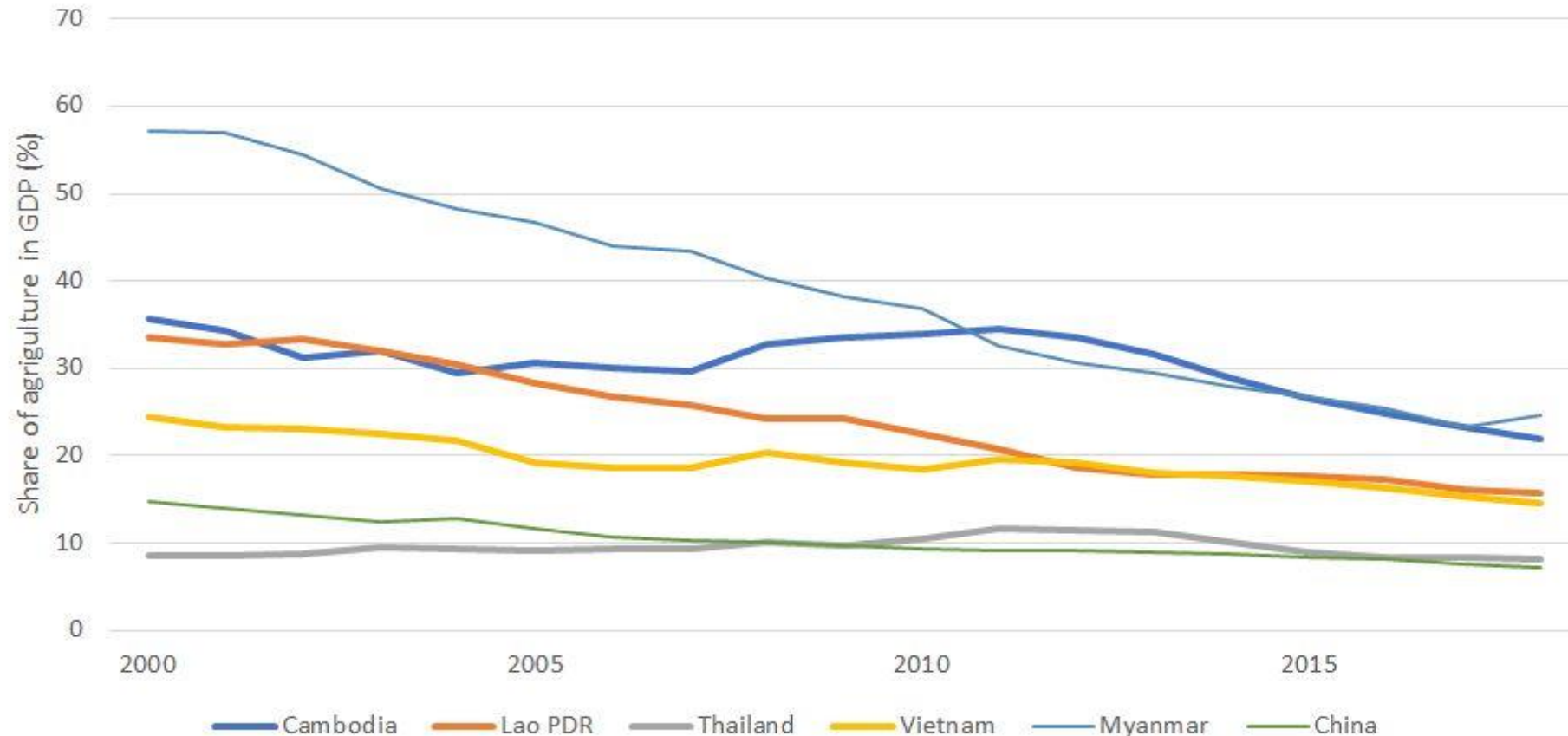
- Food security has improved over the last 20 years: all LMB countries meet more than 100% of dietary energy needs
- Access to improved water sources, sanitation and electricity has increased substantially since 2000, yet variations exist between countries; rural areas lag urban communities

Share of (a) urban and  
(b) rural populations  
with access to at least  
basic drinking water



## 3.3 Economic trends and outlook

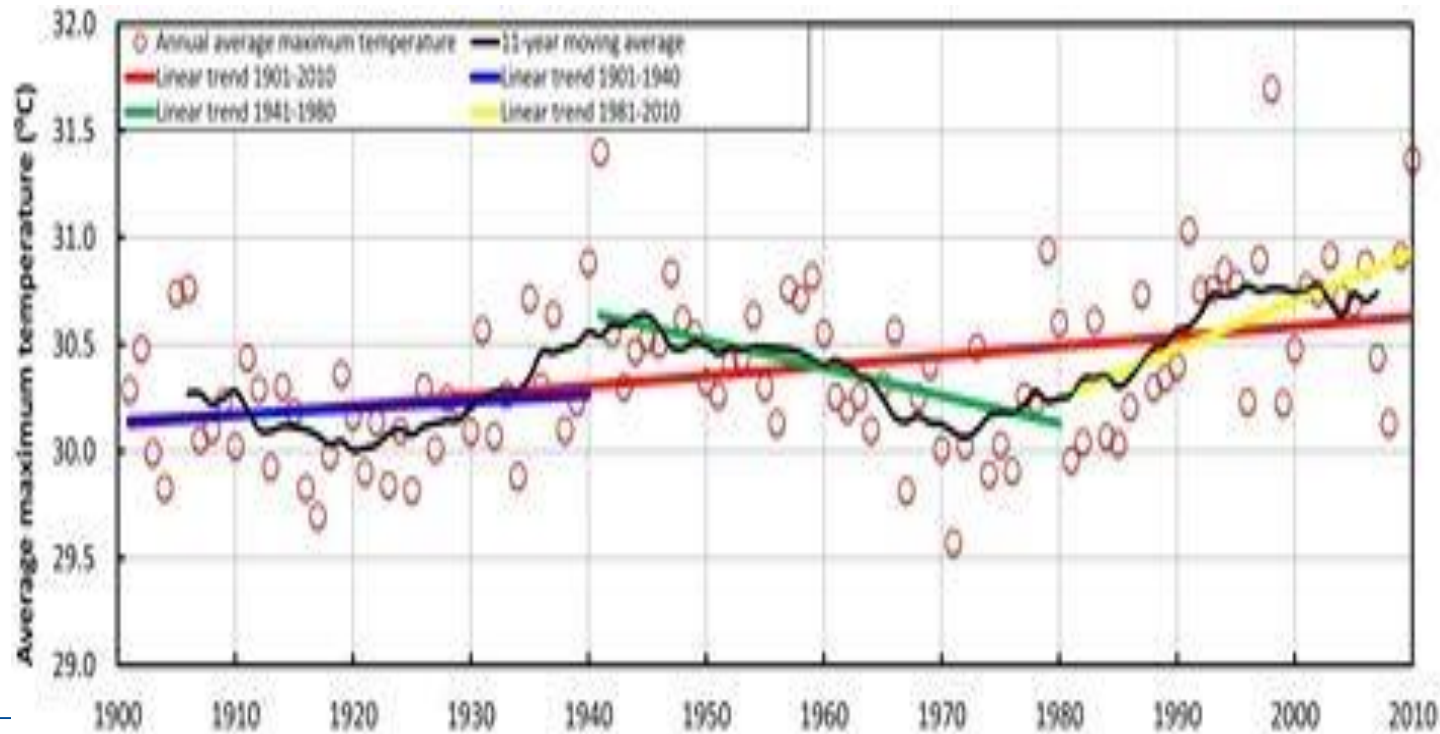
- **Agricultural sector** growing strongly, but a smaller share of the overall economy
- **Manufacturing and services sectors** growing much faster
- **Global food demand and rising prices** likely to continue to attract foreign investment for increasing (irrigated) agriculture





## 3.4 Climate change trends and outlook

- Average annual **basin-wide temperatures** increased over historical record, sea-level is rising
- Average temperatures will continue increasing and could be up to 3.4 degrees warmer by 2060
- **Basin development will interact with climate change**, in some cases mitigating the impacts, and in some cases exacerbating them



# Outline of Chapter 4: Strategic needs and responses

- 4.1 Implications of recent regional assessments and studies**
- 4.2 Need for proactive regional planning and joint action**
- 4.3 Need for coordinated operational basin management**
- 4.4 Need for enhanced data collection and management**
- 4.5 Strategic risks and challenges**

A more extended PPT of this chapter was presented at the previous Stakeholder Forum. That PPT can be found on the MRC website

## 4.1 Implications of recent regional assessments and studies

- The planned water related development will make an adequate contribution to long-term food and energy security but less so to water security:
    - *The assessed risks of floods and droughts, due to climate change and reduction of the delta floodplains, need to be addressed soon*
  - **The trade-offs between the economic and environmental dimensions of water resources development are much larger than needed**
    - *They are the result of independent national planning and*
    - *Reactive regional planning based on the same set of development projects as are nationally planned*
- **NEEDs: Proactive basin planning and joint actions**

## 4.2 Need for proactive basin planning and joint action (1)

- A more proactive regional planning approach **does not only consider postponing or modifying environmentally damaging projects but also proposes new projects** for economic development and environmental protection to:
  - *Increase synergies and reducing trade-offs at the basin level that increase each country's benefits*
  - *Minimize transboundary harm*
  - *Provide comprehensive response to climate change and related water security (flood and drought mitigation)*
- **Thus, “making the pie bigger for all countries and sharing the bigger pie fairly”**
- **New project proposals** will include:
  - **National projects of basin-wide significance**
  - **Joint projects by 2 or more countries**

## 4.2 Need for proactive basin planning and joint action (2)

- The joint projects and national projects of basin-wide significance will be identified through the **assessment of a few basin-wide alternative development scenarios** ('adapted national plans')
- Basin countries can **compare the cumulative assessment results** of the adapted national plans with those of the current national plans in terms of national economic benefits, impacts, long-term water security, etc.
- This will provide the rationale and incentives for each country for:
  - **Discussing trade-offs, joint projects and benefit sharing with other countries**
  - **Considering whether to modify their national plans** to greater mutual benefit (and move towards more optimal and sustainable development at the basin level)



## 4.3 Need for coordinated operational basin management

Some transboundary (Tb) operational basin management services are already in place in the Mekong Basin:

- River Monitoring
- Implementation of the Procedures for Maintenance of Flows on the Mainstream (PMFM)
- Flood forecasting



As the Mekong Basin becomes more developed and regulated by dams, there is **increasing need for coordination of other operational basin management** that may have **Tb aspects**:

- **River flow management**
- **Sediment management**
- **Prevention of disasters and management of emergencies**
- **Coordination of design and management of hydropower cascades**

## 4.4 Need for enhanced data collection and management

- There is a need for basin-wide cooperative action to consolidate and **upgrade the monitoring and information system** to a level that is fit-for-purpose for proactive regional planning and operational basin management
- There is considerable scope for **prioritization, re-alignment, enhancement and removal of redundant hydro-meteorological stations and sediment and water quality sampling locations** to enable more cost-effective
- There is a need for **compatible and modern Decision Support System (DSS)** to create opportunity for each country to verify regional modelling and assessment results to test new proposals for water resources development and management
- There is scope for the use of **modern earth observation technology**, for the DSS
- **The basin countries manage the network and collect the data** according to agreed protocols and methodologies and share those with regional water actors → **Towards ONE river basin information management system**

## 4.5 Strategic risks and challenges (1)

- The overarching risk that could affect the implementation of the BDS 2021-2030 strategy is related to cooperation between the countries and their regional water cooperation platforms, the MLC/LMWRCC and the MRC/MRCS:
- The higher level of cooperation that is required may not be achieved in the near term because of insufficient trust and confidence among all parties
  - People in downstream countries have concerns that increasing upstream water storage could be used against them by **holding dry season flows**
  - Upstream countries are concerned over constraints on **sovereign actions**
  - There seem to be also **trust issues** related to MRC/MRCS as well as LMC/LMWRCC



## 4.5 Strategic risks and challenges (2)

- There is no simple remedy for insufficient trust:
  - Common understanding and **trust will come with increasing regional integration**
  - Taking steps along this pathway will provide positive feedback that **builds trust and creates new opportunities**
- **Much depends on the political commitment of the basin countries and the technical and diplomatic skills of the leadership within the MLC and MRC to drive a practical process towards achieving the BDS aims**
- Important will be also:
  - Systematic multi-stakeholder engagement
  - More openness from countries and developers
  - Addressing unbalanced and incorrect journalism and advocacy (which can feed mistrust and affect regional relations)

# Outline of Chapter 5: Basin development pathways

**5.1 Shared Mekong River Basin Vision towards 2040**

**5.2 Sustainable development opportunities**

**5.3 Sustainable development goals**

**5.4 Basin Development Strategy results chain**

**5.5 Description of each Outcome and Output**

This PPT will address only Section 5.2 as the other sections will be presented in the next presentation on the BDS results chain

# Outline of Section 5.2: Sustainable development opportunities

The development opportunities have been broadened to include:

- Hydropower development
- Expansion of irrigated agriculture
- Navigation development
- Leveraging the value from regionally significant environmental assets
- Flood and drought mitigation
- Alternative livelihood development
- Other opportunities

**Also the conditions and guidance for capitalizing on the opportunities have been updated and improved**

# Outline of Chapter 6: Implementation of the Strategy

**5.1 Implementing sustainable development opportunities**

**5.2 Implementing strategic priorities**

**5.3 Engagement of broader stakeholders**

**5.4 Funding of BDS implementation**

**5.5 Monitoring, evaluation and reporting**

The PPT for this chapter will be presented after lunch

# Thank you

