



Mekong water resources development: emerging trends and plans

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Structure of presentation

- Present situation
- Emerging trends and plans
- Conclusions

Water resources development so far



- Millions of poor people use the natural resources of the Mekong River Basin for their food security and livelihoods
- Mekong's water resources development are still largely undeveloped
- Overall, the status of the water and related resources in the Mekong Basin is still good
- The hydrological regime of the mainstream can be considered to be in, or very close to, its natural state

Emerging trends and plans

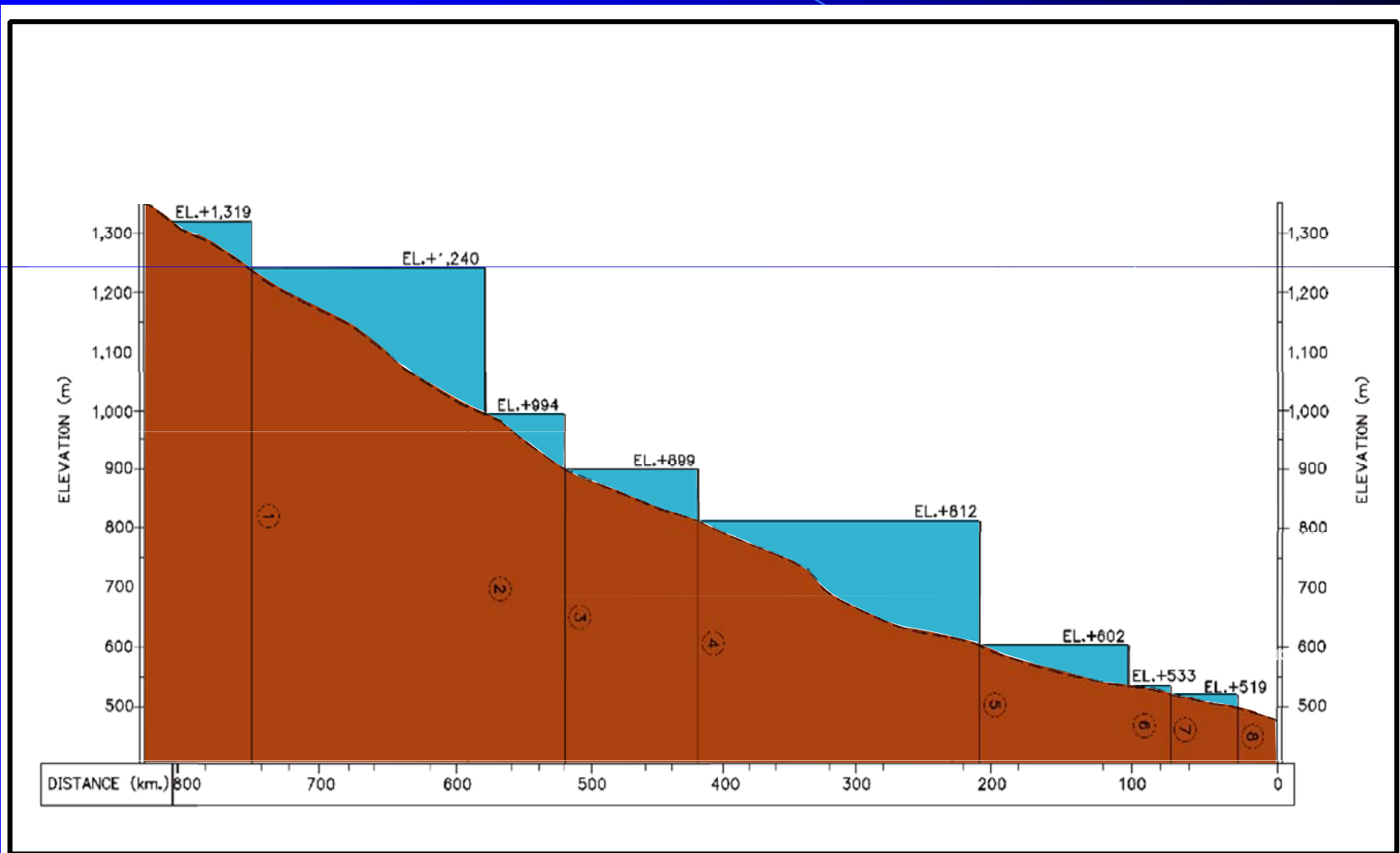


- Global developments
- Developments in the Upper Mekong Basin
- Developments in the Lower Mekong Basin
- Development partners

Global developments

- Global developments that will influence land and water use decisions and affect the resources of the Mekong Basin and its users include:
 - Fluctuating oil and natural gas prices
 - Global food shortages and rising prices
 - Global climate change
- All of these trends provide additional incentives for the development of significant water infrastructure

Developments in the Upper Mekong Basin



Developments in the Upper Mekong Basin (2)

- In particular the Xiaowan and the Nuozhadu hydropower projects, with almost 25 km³ of active storage, will cause a seasonal redistribution of flow from the wet season to the dry season
- This makes downstream run-of-the-river hydropower projects in the mainstream more attractive and opens up the possibility for major expansion of irrigation
- The above storage dams will also reduce sediment transport in the Mekong mainstream

Developments in the Lower Mekong Basin (LMB)

- Current national policies and plans show that the LMB countries are all following common and consistent principles in the development and management of water resources to reduce poverty, boost economic growth, and meet the MDG
- In particular the countries' hydropower and irrigation development plans will significantly impact on how the basin's resources are used and consumed.

Developments in the Lower Mekong Basin (2)



| Situation | Active Storage (mcm) | Total Active Storage (mcm) | Comments |
|-------------------------------------|----------------------|----------------------------|--|
| Baseline | 9,628 | 9,628 | |
| Upper Mekong Dams | 23,193 | 32,821 | |
| Definite Future | 11,132 | 43,953 | Mainly because of Lao dams that are under construction |
| LMB 20-Year Plan | 28,213 | 72,166 | Mainly because of planned Lao dams |
| LMB 20-Year without mainstream dams | 23,307 | 67,260 | |

Developments in the Lower Mekong Basin (3)



| Country | Increases in Irrigation in the Dry Season (hectares) | | |
|------------------|--|------------------------|---------------|
| | Current Situation | 20- Year Plan Scenario | Increase in % |
| Lao PDR | 99,319 | 332,646 | 235 |
| Thailand | 171,768 | 279,831 | 63 |
| Cambodia | 260,815 | 378,012 | 45 |
| Vietnam | 740,304 | 740,304 | 0 |
| LMB total | 1,272,206 | 1,730,793 | 36 |

Developments in the Lower Mekong Basin (4)



- Development plans of this size and scope bring with them both 'synergies' between sectors and projects, and 'trade-offs', where benefits for one area or activity create dis-benefits for another
- The sourcing of the ambitious irrigation plans depends on the re-regulation of water from the wet to the dry season by hydropower storage reservoirs
- But development of dams and irrigation on the floodplains will adversely impact biodiversity and capture fisheries
- The challenge is to assess the pros and cons in a basin-wide context

Population growth

- Projected population growth suggests that by 2020 the population of the Lower Mekong Basin will increase from 65 million to reach 78 million
- The associated electricity demand and increasing food requirements will continue to increase pressures on the basin's water resources within the dry season
- Also, increasing living standards means changes in attitudes to flooding and food shortages, which require different approaches and policies to both flood protection and irrigation expansion on the delta flood plains in Cambodia and Vietnam

New investments and development assistance



- The role of the private sector in the development of water and related resources has been increasing, which present opportunities and challenges:
 - Private project developers bring funding and expertise
 - They are more opportunity-driven with relatively short planning cycles
 - They have disincentives to develop projects through processes open to public scrutiny
- When private sector projects begin to dominate, the government requires strong regulatory systems and enforcement capacity

Conclusion (1)

- These trends and developments can easily lead to unsustainable resource development and transboundary impacts if sound IWRM practices are pushed aside in the hurry to capitalize on development opportunities
- First of all, an integrated basin perspective is required against which the ambitious national plans can be assessed to ensure:
 - an acceptable balance between economic, environmental, and social outcomes in the basin
 - mutual benefits to the riparian countries and their people.

Conclusion (2)

- Second, the increasing pressures on the basin's resources call for those aspects of IWRM that aim at greater common features between the policies and practices of the riparian countries, as well as greater integration/coordination between the national line agency policies and processes.
- The IWRM-based Basin Development Strategy, which the riparian countries started to prepare, will provide a basin-wide IWRM approach to guide the accelerated development in a sustainable way.



Thank You