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# Socio-economical and eco-environmental impact of cascade reservoirs on Lancang River: a review

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# A brief introduction: Lancang-Mekong river



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The largest and most important river



Flows through six countries: China, Myanmar, Laos, Thailand, Cambodia and Vietnam



Sharing identities and creating cultures



A bond linking countries in the basin



# The Utilization of Lancang-Mekong River



- ▽ Potential installed hydropower capacity is more than fifty million kilowatt
- ▽ Electric power of over three thousand billion kilowatt hour per year
- ▽ A golden waterway shared by all the countries along the river
- ▽ All these developing countries need power and socio-economical benefits



How to utilize the river:  
dams and reservoirs





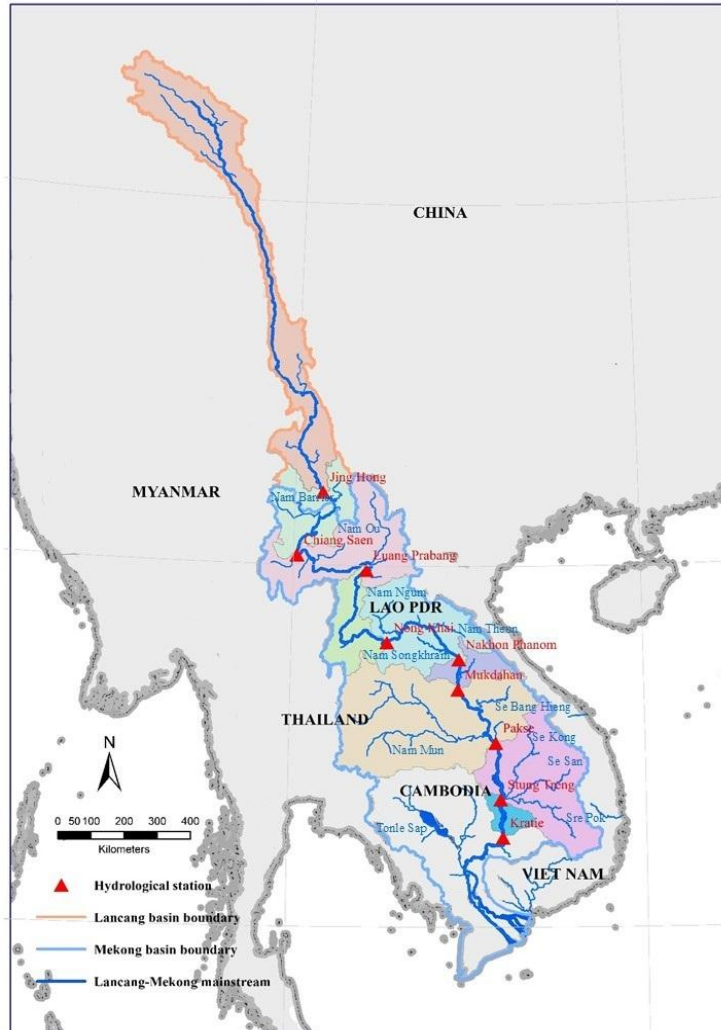
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- ▽ Benefit the region in many aspects
- ▽ During construction, it provides abundant jobs for the local people
- ▽ Massive investment of dams





# Socio-economical benefits



During operation, dams play a more crucial part in the regional development



Electricity generation: relieve the power shortage and bring economic benefit

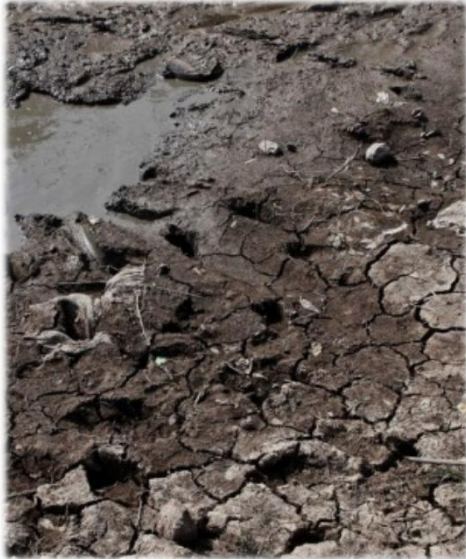


Environmental protection: little carbon emission



The dam is a helpful ways for sustainable development

# Water operation



- ▼ The most significant measures of human beings
- ▼ Cope with water shortage and water disasters
- ▼ Especially important to Lancang-Mekong River: flood and drought happened frequently in the basin over the past centuries

# Water operation



Reallocate the water: change the temporal distribution of water



Store water during rain seasons, and supply water in dry seasons



More developing potential for agriculture and industry



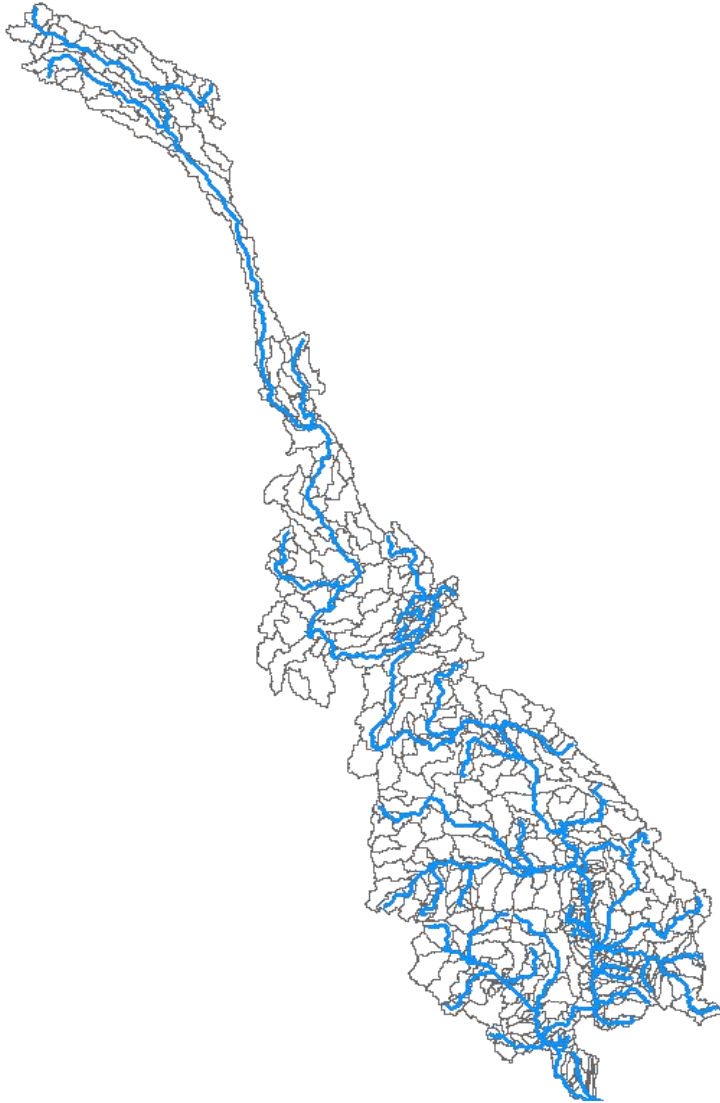
food security



# Cooperation and water supplement



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- An example: 2016 drought and the emergency water.
- A major drought occurred in the Mekong including Cambodia, Thailand and Vietnam.
- To combat this drought, Chinese government coordinated the upstream dams to release water to the downstream.
- The benefit of the dam as transfer and supplement.
- With the cascade reservoirs on Lancang-Mekong River, we can proper control the river to make use of it and prevent the possible disasters.



# Environmental impact





# Environmental impact



impacts on fish migration



electricity generation without carbon emission



we should consider dams as a useful measure for sustainable development







# Thank you

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