

Rethinking Agriculture

in the Greater Mekong Subregion

How to sustainably meet food needs,
enhance ecosystem services and cope with climate change



IWMI
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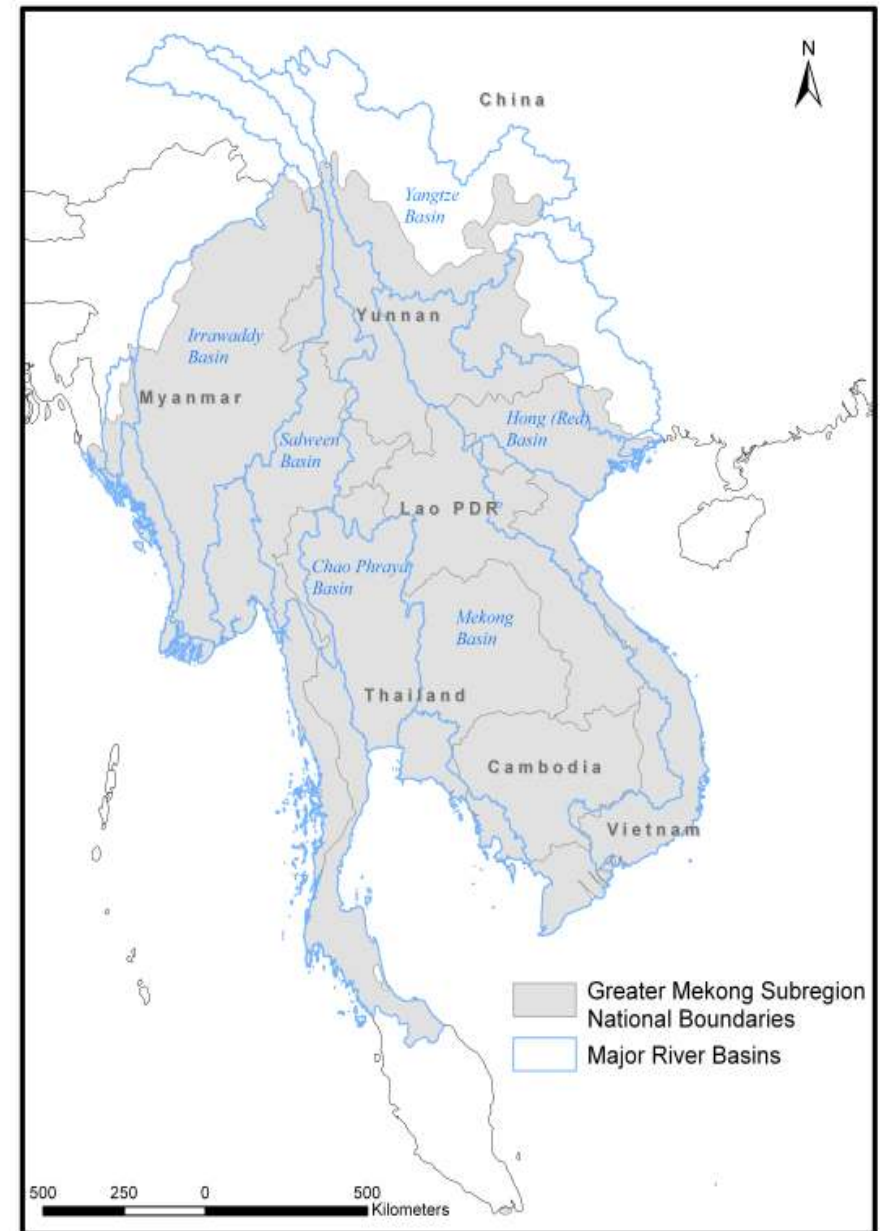
1. Climate is not the only change
2. Plan for uncertainty – build resilience
3. Rain-fed agriculture matters
4. Look after the fish
5. Manage the landscape, not only the field



Photo credits: Chu Thai Hoanh, David Fredericks

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Greater Mekong Subregion



Mega-deltas



Coasts



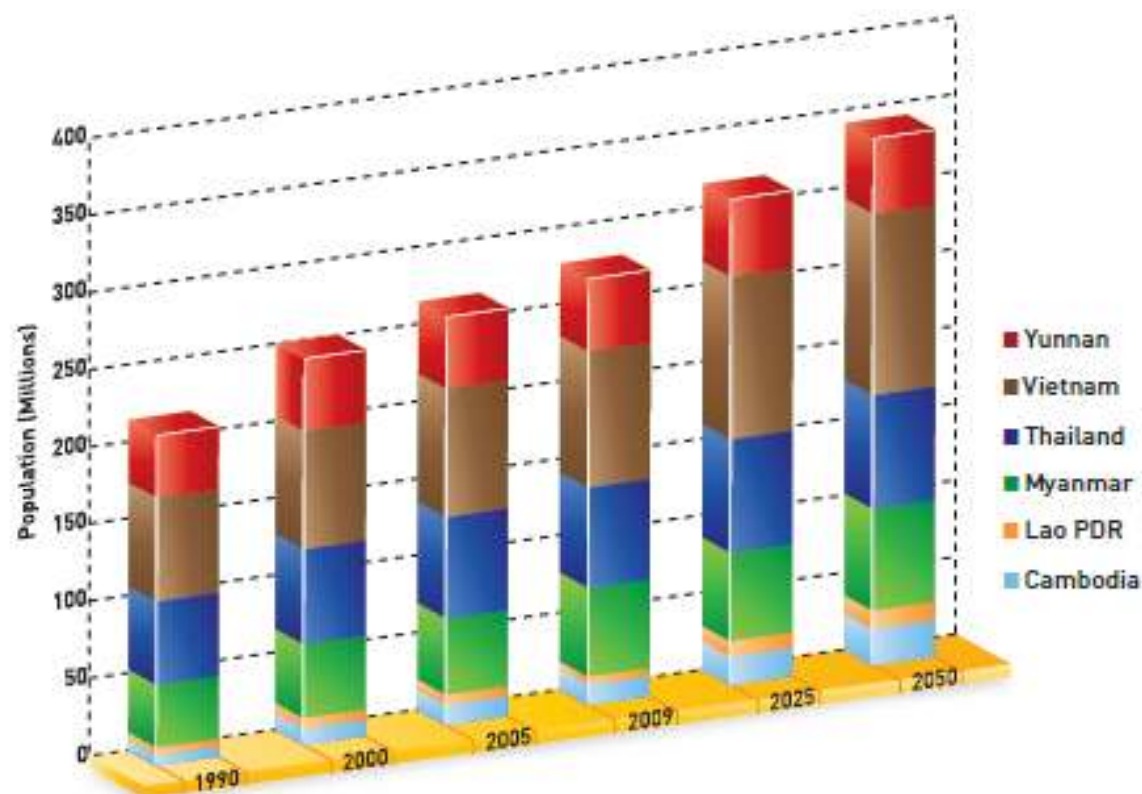
Plains and plateaus



*Uplands – forested
vs intensively used*



25% more people by 2050



>25% more food

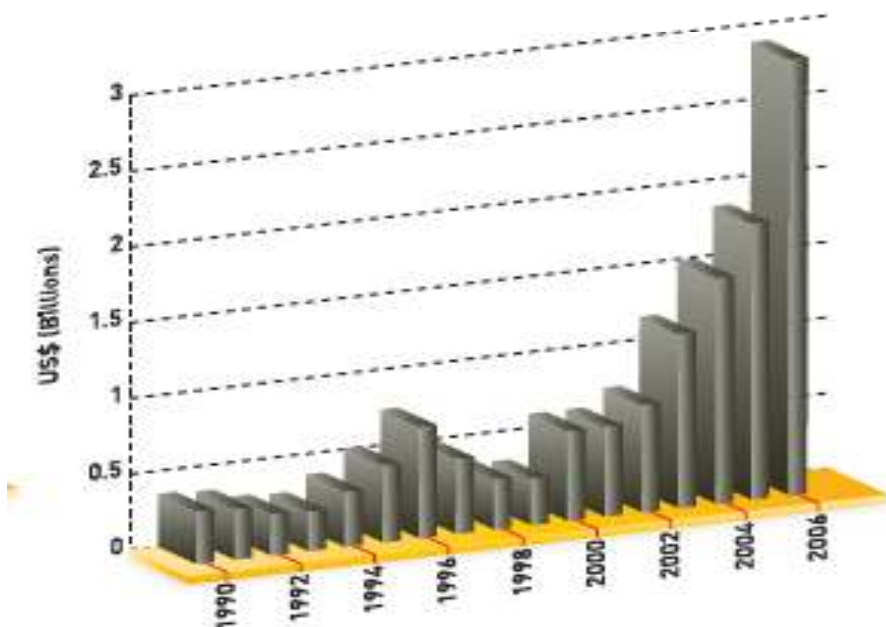


http://commons.wikimedia.org/wiki/File:Bangkok_skyline.jpg

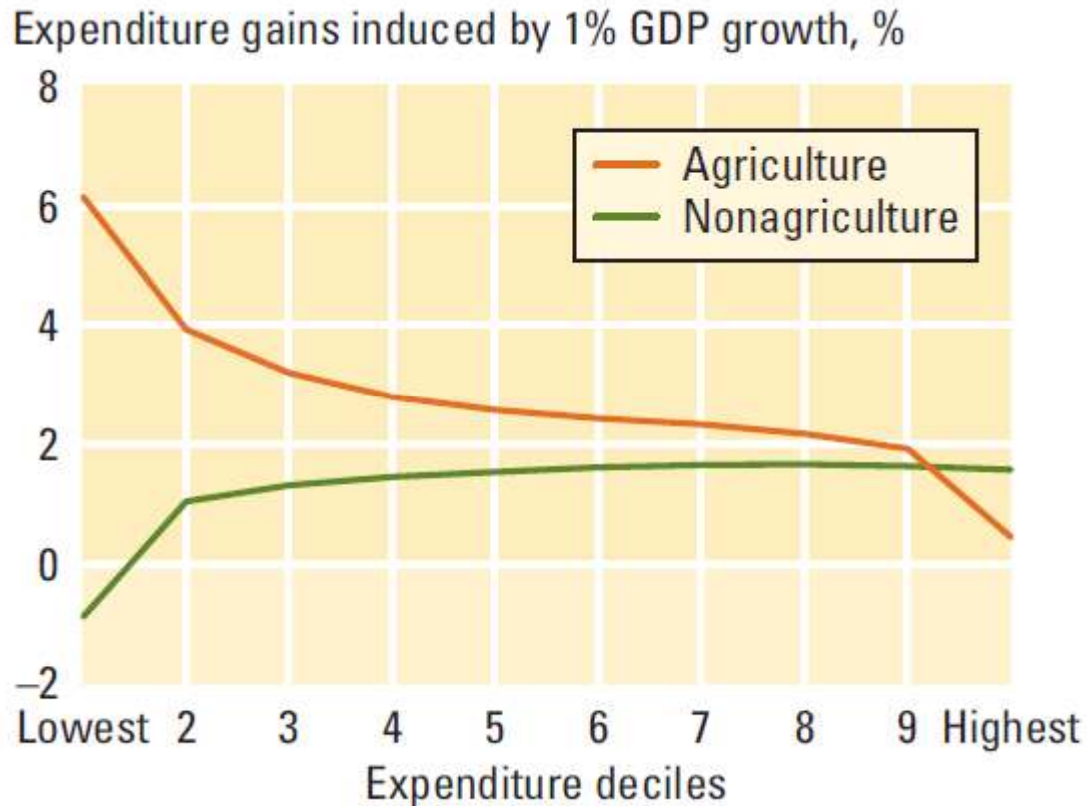
Improving water and land resources management for food, livelihoods and nature

Global trade and investment

Rubber imports to China



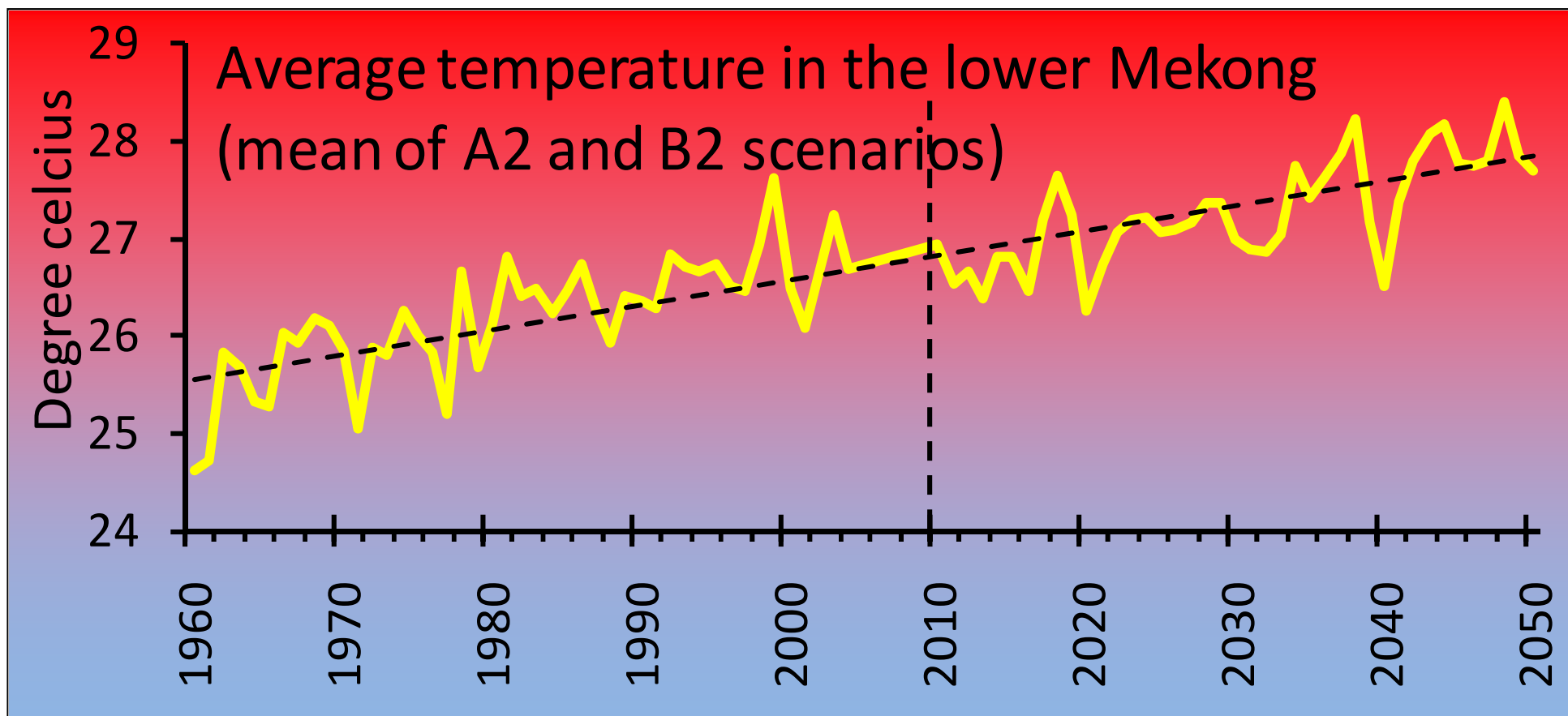
Agriculture for Development



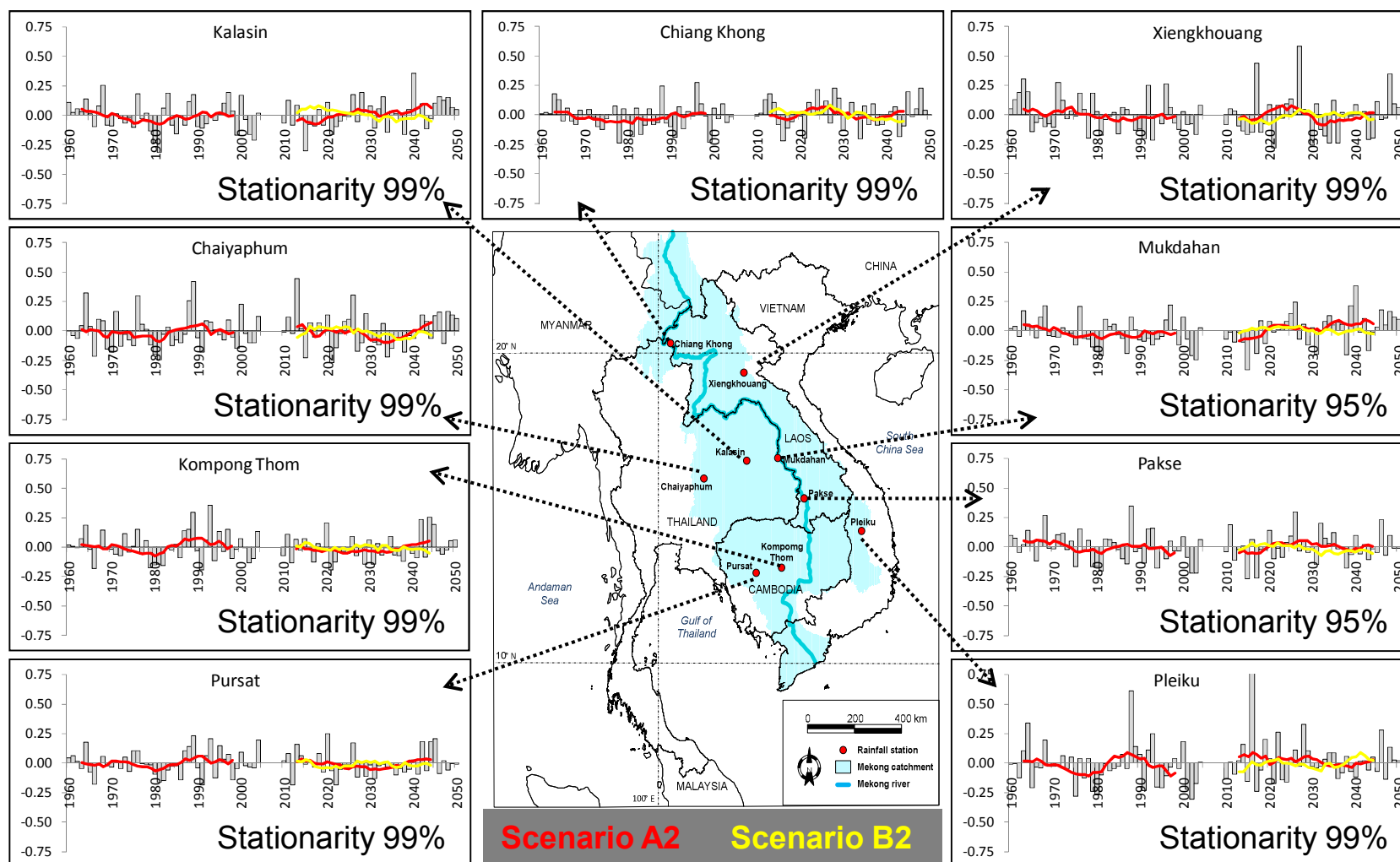
“GDP growth in agriculture benefits the poorest half of the population substantially more”

World Bank 2008

Temperatures are rising



Rainfall variable, but no trend



Percentage deviation of annual rainfall from long-term average

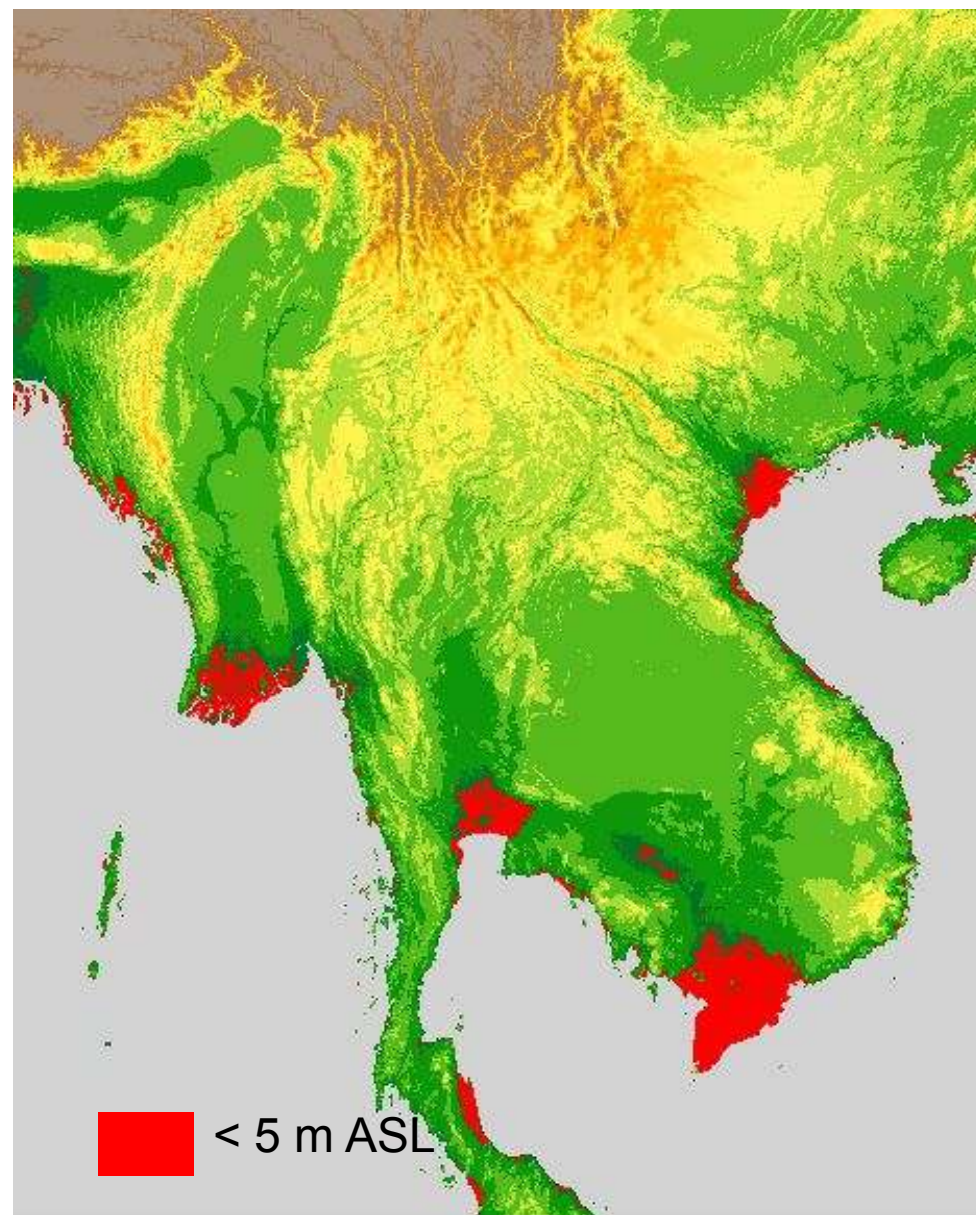
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Sea level rise

1960 – 2010: ~20 cm

2010 – 2050: ~30 cm

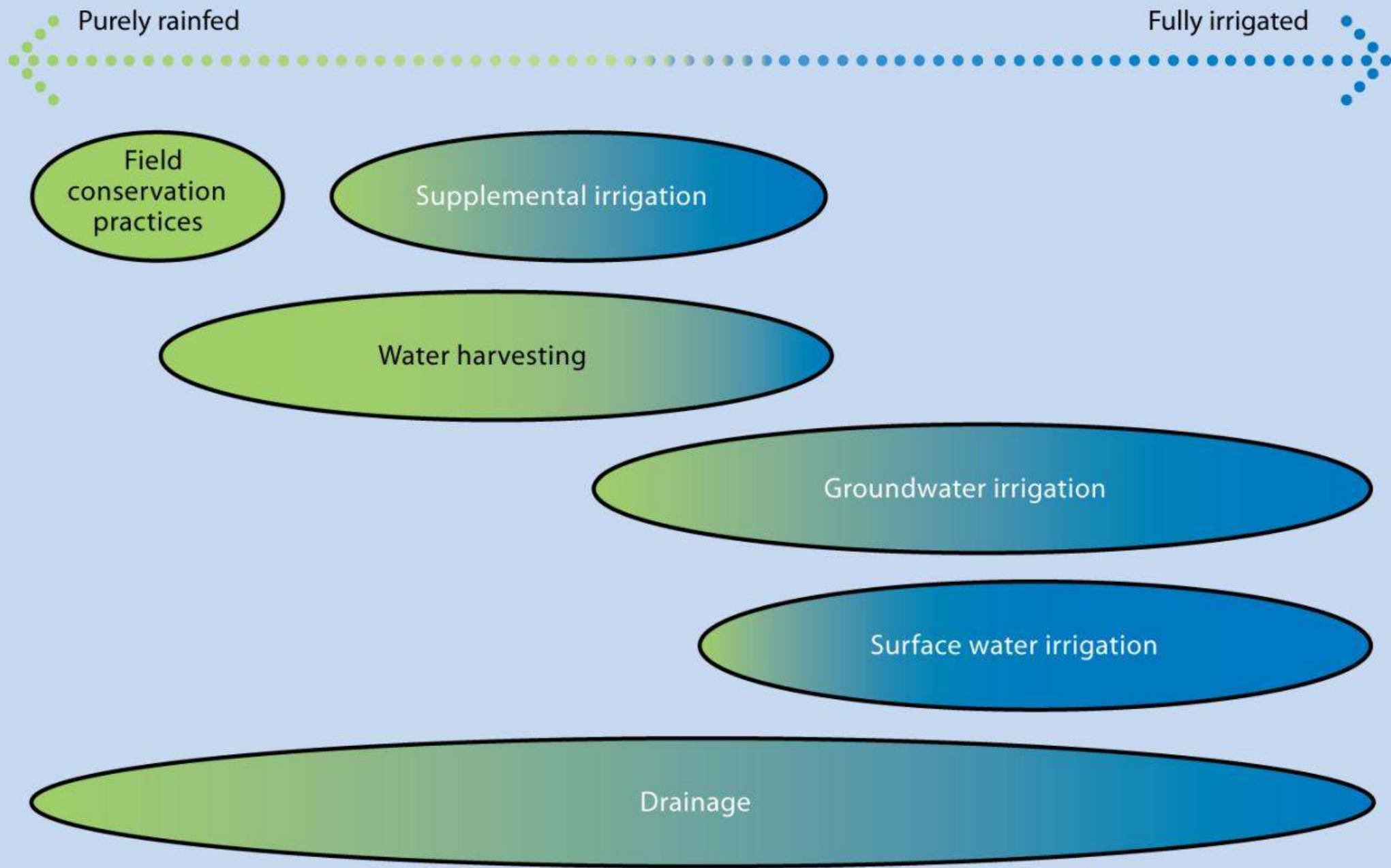
By 2100: >1 metre







Improving water and land resources management for food, livelihoods and nature



Water management is more than irrigation



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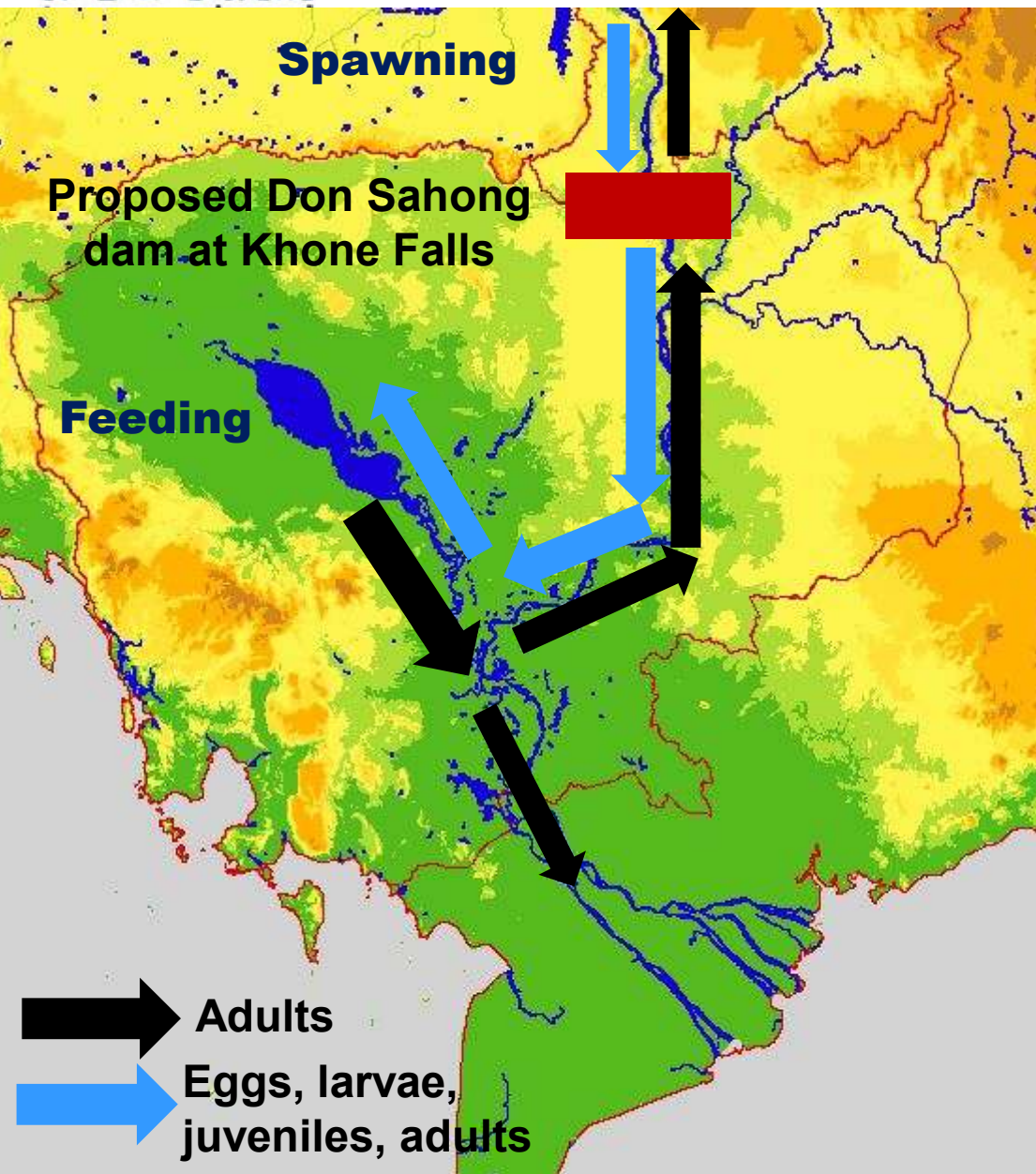


Fish and dams

60-90 % of migrating fish must pass upstream to maintain viable populations

We were unable to find evidence in the literature to suggest that the necessary rates of upstream passage success to sustain even the small species ... have been achieved elsewhere
Halls and Kshatriya (2009)

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