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The U.S. Government's Global Hunger & Food Security Initiative

GLOBAL LEARNING AND EVIDENCE EXCHANGE
CLIMATE-SMART AGRICULTURE

DECEMBER 5-9, 2016 // SIEM REAP, CAMBODIA

Small-Scale Fisheries for Climate Resilience

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SMALL-SCALE FISHERIES UNDERVALUED

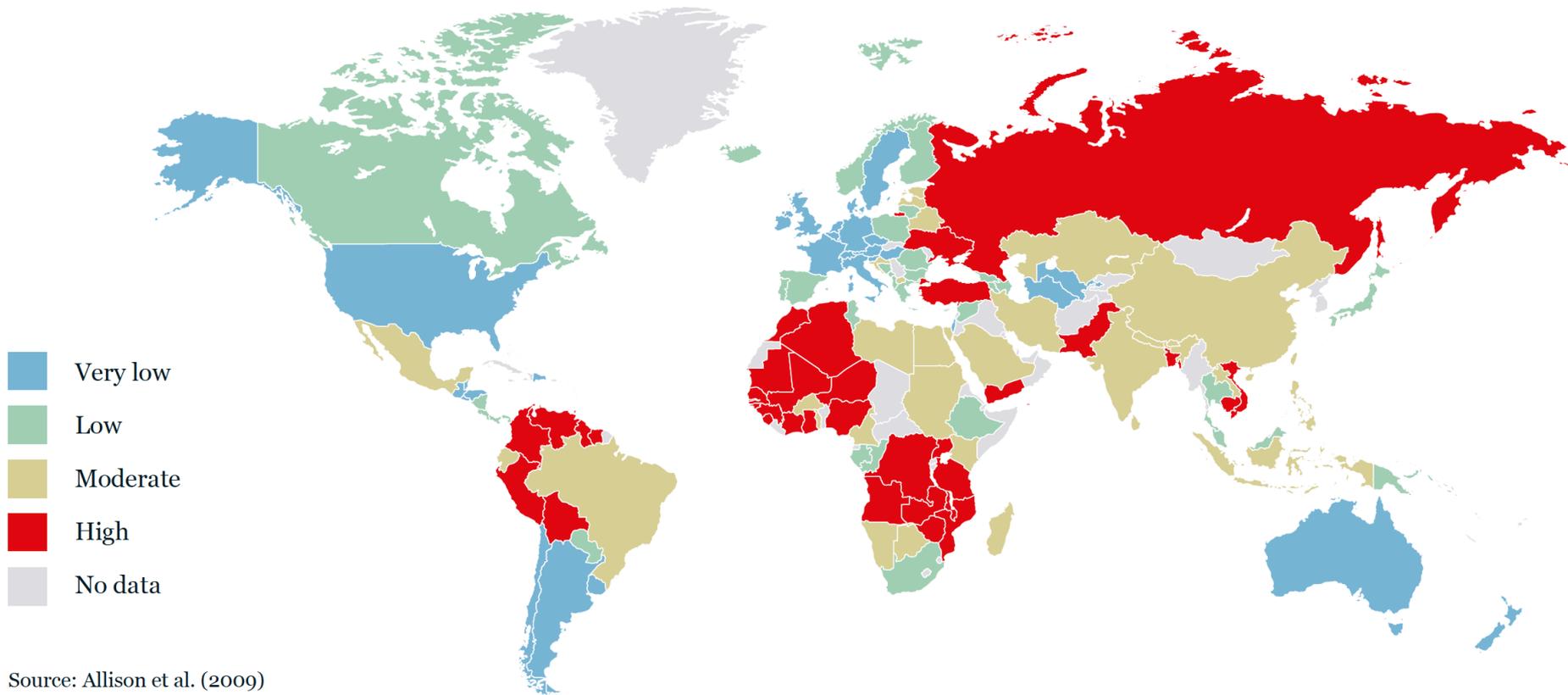
- Small-scale fishing is critical to the food security of developing countries
- 90% of the 120 million employed in fisheries are in small-scale fisheries and almost all (97%) live in developing countries
- In Africa, inland fisheries account for one-third of the 9.9 million metric tons of fish produced each year
- Capture fisheries will remain the dominant supply of fish for many least developed countries for decades (World Bank 2013)





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Vulnerability of national economies to potential climate change impacts on fisheries



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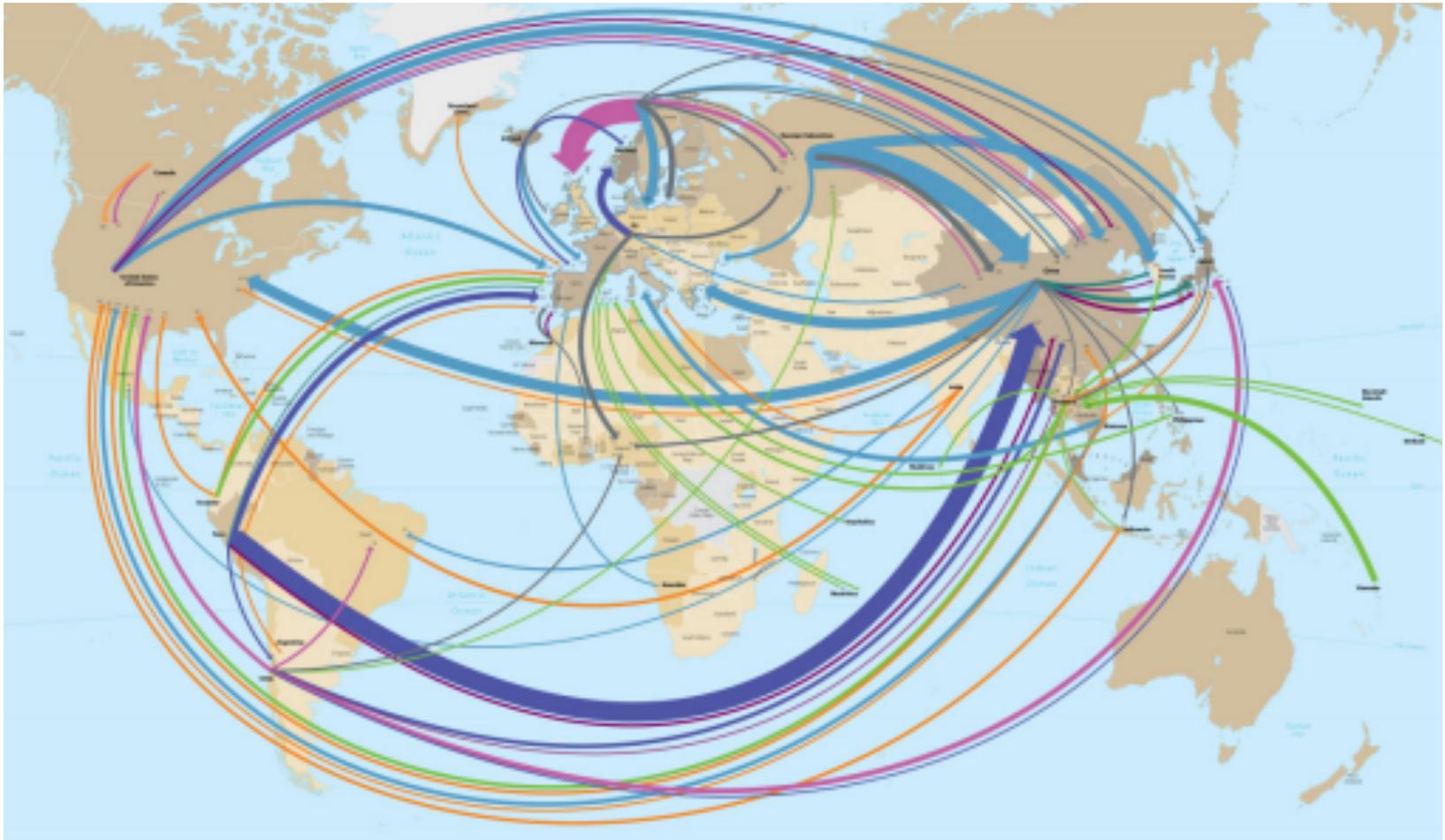
(Allison et al. 2009)



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MAP OF GLOBAL SEAFOOD TRADE



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INTRA-REGIONAL FISH TRADE

- The African fisheries sector employs 12.3 million people (27% women)
- In 2011, the value of pan-African fish trade was USD 24 billion
- Improving intra-regional fish trade will help improve food security and reduce poverty
- Priorities include market and trade infrastructure and policy frameworks
- Gains for climate resilience must consider the whole food system, not just production





RESPONDING TO CLIMATE CHANGE IN PACIFIC ISLAND FISHERIES

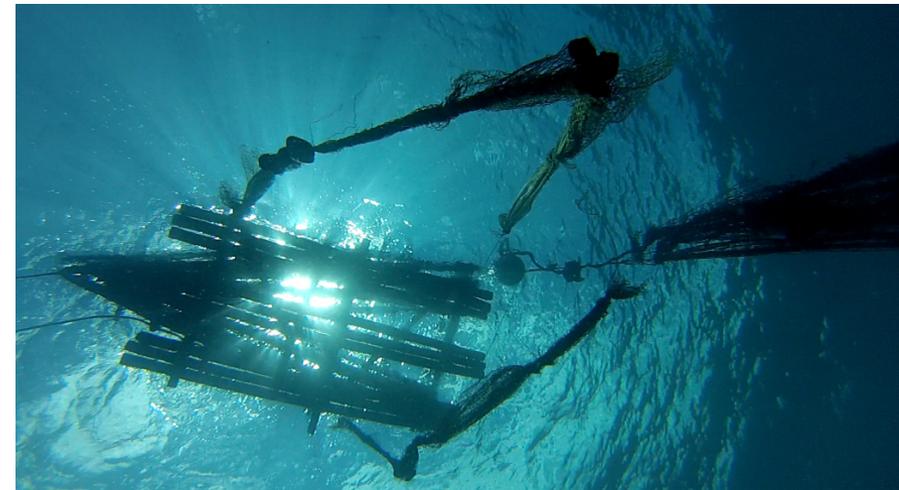
- Higher sea temperatures would:
 - cause tropical tuna species to move eastward
 - reduce the number of fish that spawn successfully
 - harm vital fish habitats
- Profound changes are required:
 - all stakeholders must work together to develop alternate livelihood options
 - research is needed to identify more resilient food systems





PARTICIPATORY RESILIENCE ASSESSMENT: SOLOMON ISLANDS

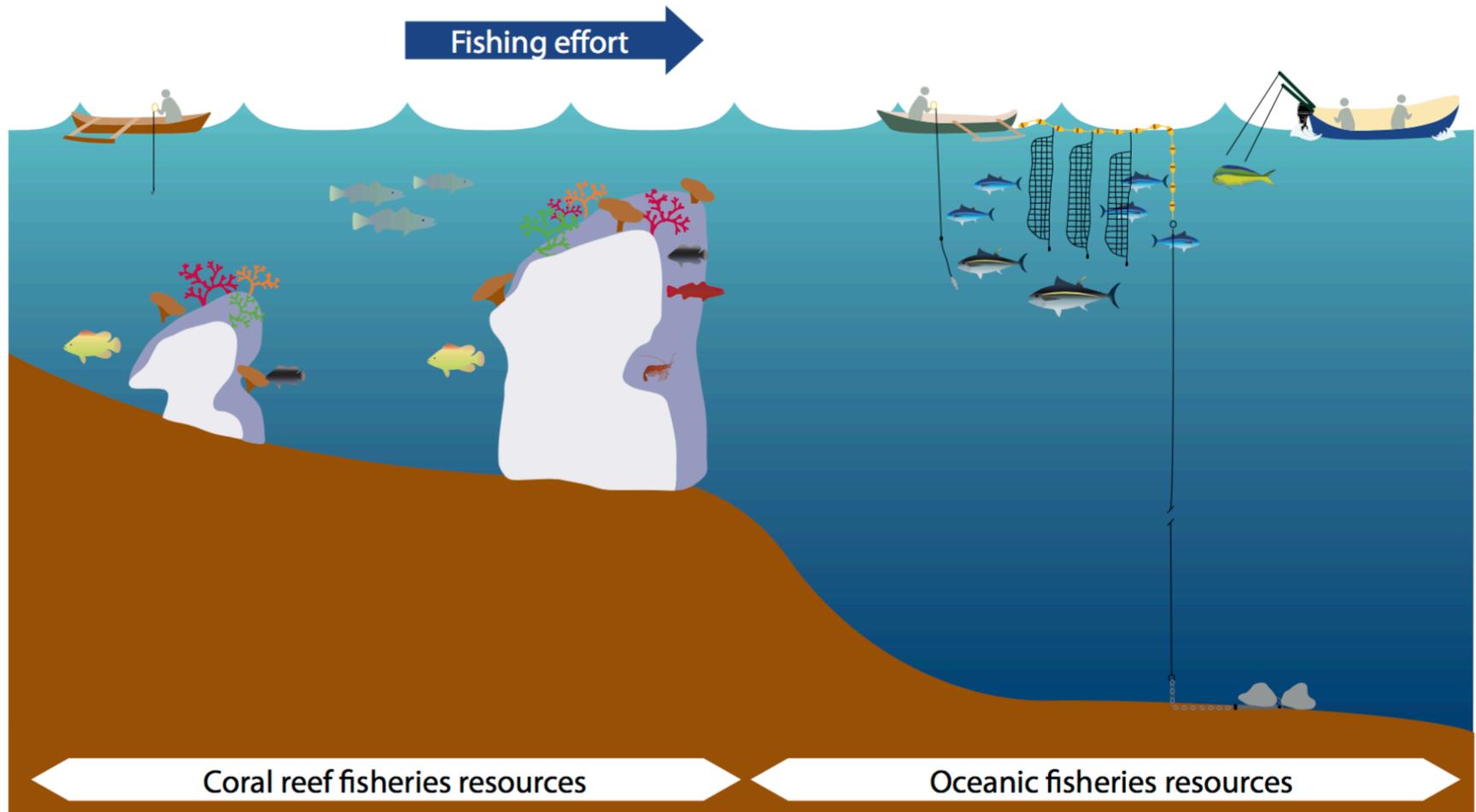
- In Solomon Islands, more than 80% of people depend on subsistence agriculture and fishing
- Small-scale inshore fisheries are threatened by population growth, overfishing and climate change
- Community members identify threats to coastal communities and sources of resilience
- In Langalanga lagoon, mangrove replanting and off-shore fish aggregating devices are protecting food supplies and livelihoods





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SPC 2014 (cited in Bell and Taylor 2015)



FISH AGGREGATING DEVICES IN TIMOR LESTE

- Data collected before and after deployment of a pilot fish aggregating device
- Fishers caught four times the quantity of fish per trip around the FAD (19.2 kg) than on the reef (4.8 kg) and almost twice as much as from nearby deep water (11.7 kg)





ENHANCING WILD PRODUCTIVITY IN FISH-RICE SYSTEMS

- In Cambodia, initial results measured from improved management of 40 community fish refuges
- Average fish catch from rice field fisheries increased 9%
- This directly benefitted 86,372 people
- Government policy has embraced the approach for scaling





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KEY MESSAGES

- Wild capture fisheries represent an often undervalued dimension of inland and coastal landscapes
- Innovations in small-scale fisheries management and governance can increase adaptive capacity
- These constitute “no regrets” investments



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