



IPCC Media Workshop and Press Conference

14 October 2016, 13:00-16:30 pm

Novotel Bangkok on Siam Square



IPCC AR5: Key finding of AR5 for the ASEAN region

Dr. Shobhakar Dhakal

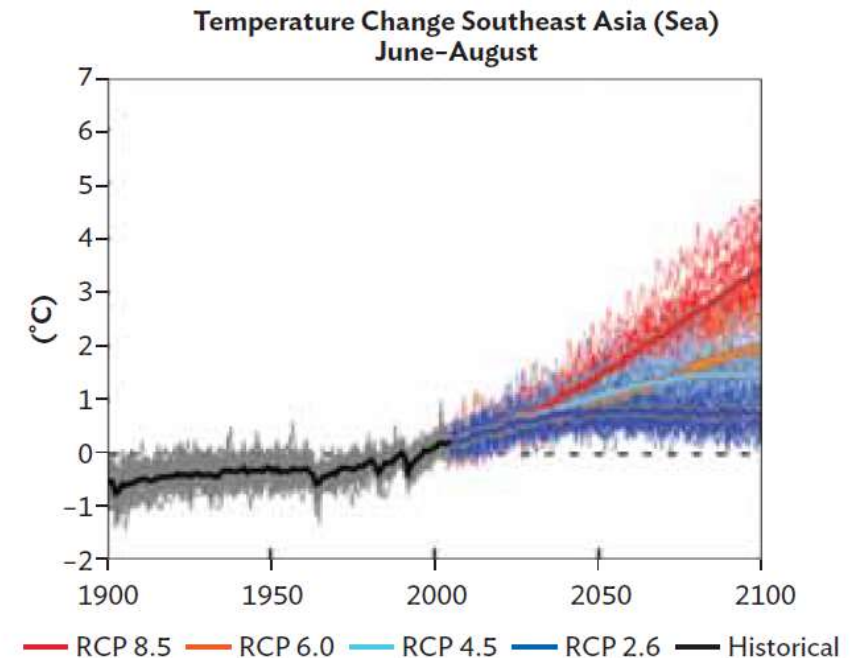
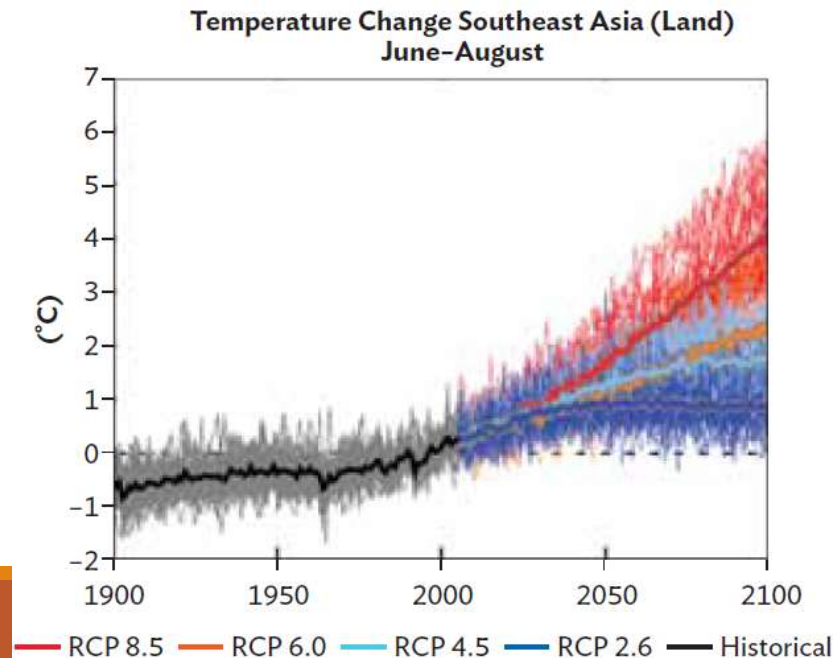
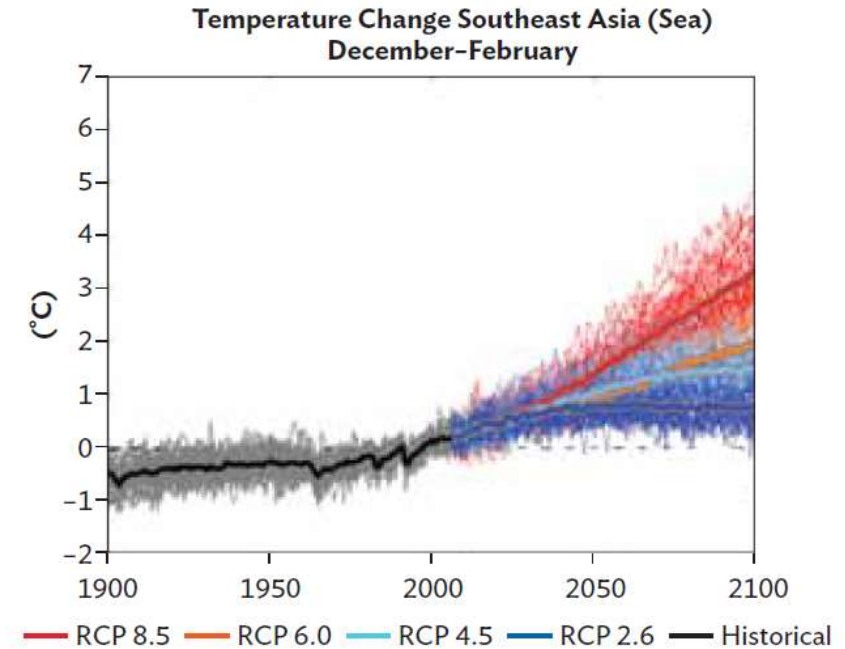
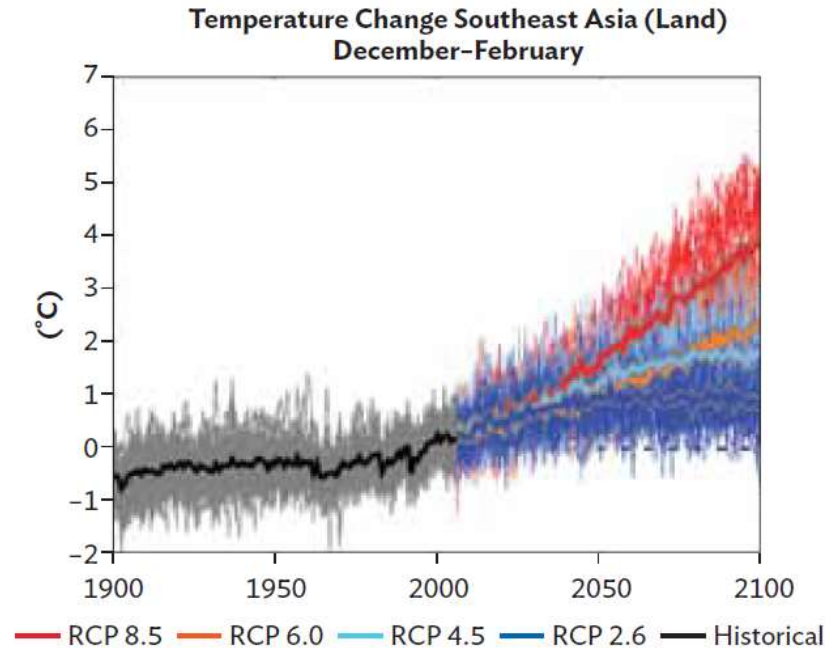
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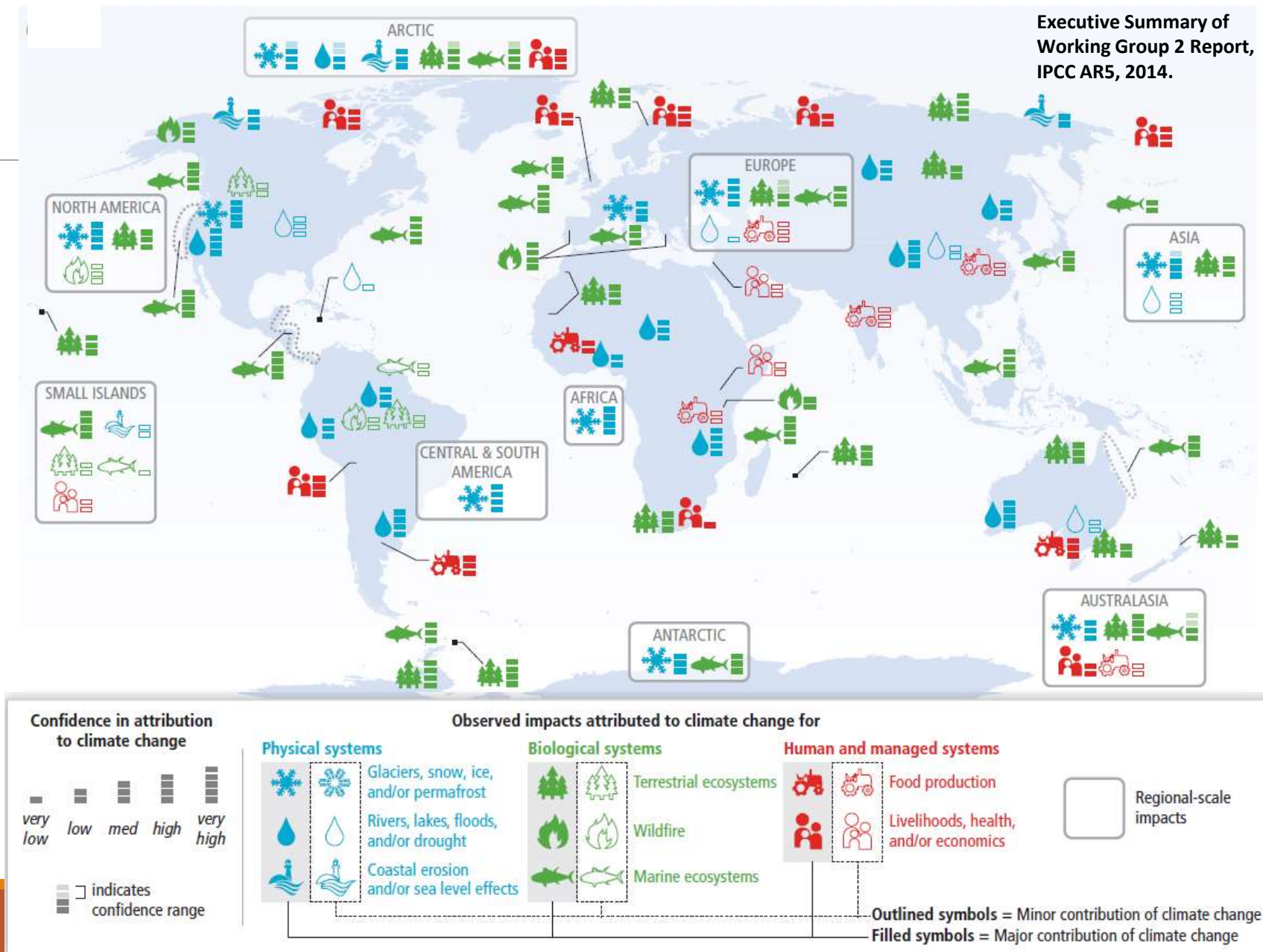
Coordinating Lead Author, IPCC 5th Assessment Report- Mitigation

Across Southeast Asia, temperature has been increasing at 1°C per century, coupled with a rising number of hot days and warm nights, and a decline in cooler weather

IPCC, 2014



Already observed impacts of climate change



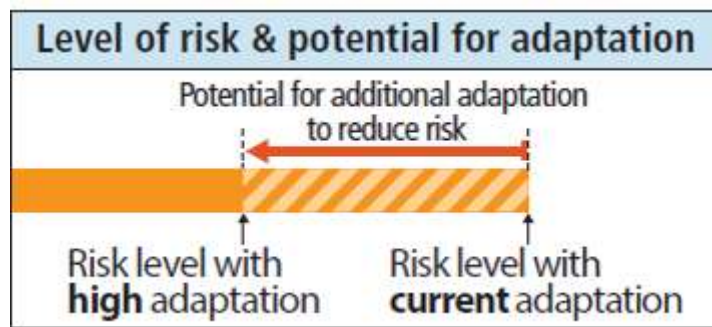
Observation of past events and future projections

Asia

- **Heatwave** (likely that frequency has increased in large part)
- **Droughts** (draught in monsoon Asia and wetter in central Asia)
- **Floods** (enhanced in eastern Asia and India)
-**But no specific observations for SE Asia; lack of attribution studies**

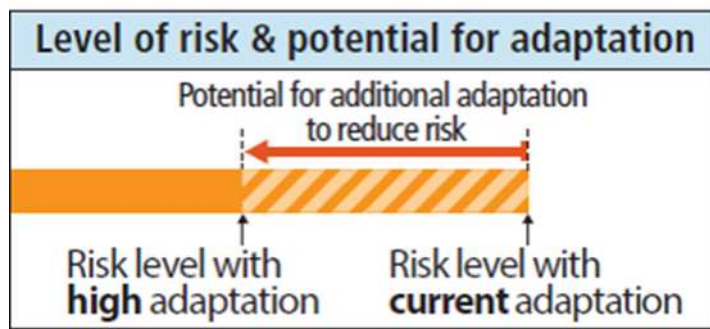
Future projections over SE Asia

- 3-5°C projected temperature increase
- 0.4 – 0.6 m sea level rise
- Increase in precipitation extremes related to the monsoon
- Low confidence on future projections of regional climate extremes



Key risks and adaptation issues and prospects for **Asia** from recent IPCC AR5 report

Key risk	Timeframe	Risk & potential for adaptation		
		Very low	Medium	Very high
Increased riverine, coastal, and urban flooding leading to widespread damage to infrastructure, livelihoods, and settlements in Asia (<i>medium confidence</i>) [24.4]	Present			
	Near term (2030–2040)			
	Long term 2°C (2080–2100)			
	4°C			
Increased risk of heat-related mortality (<i>high confidence</i>) [24.4]	Present			
	Near term (2030–2040)			
	Long term 2°C (2080–2100)			
	4°C			
Increased risk of drought-related water and food shortage causing malnutrition (<i>high confidence</i>) [24.4]	Present			
	Near term (2030–2040)			
	Long term 2°C (2080–2100)			
	4°C			

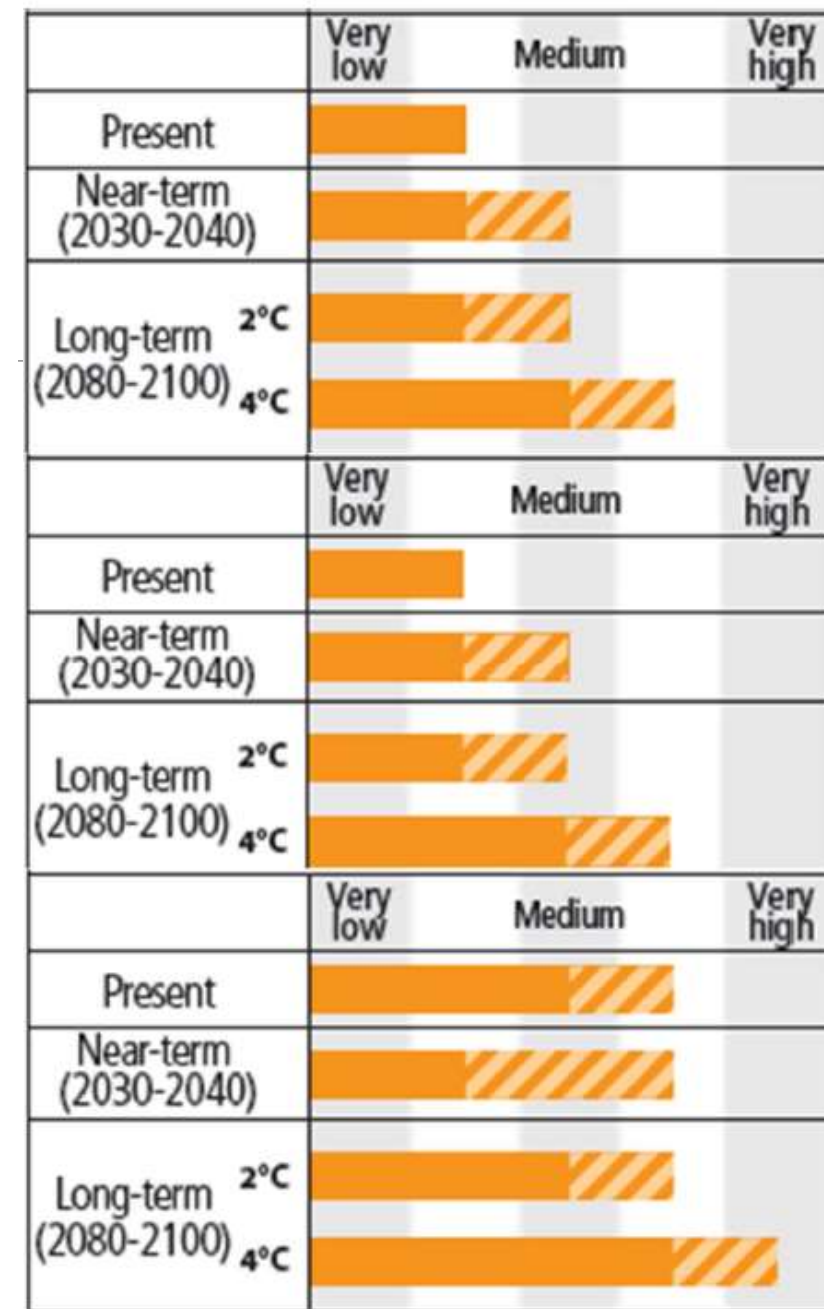


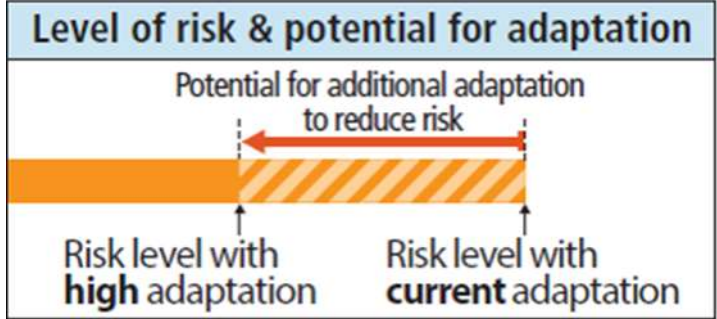
Key risks and adaptation issues and prospects for **Asia** from recent IPCC AR5 report

Increased risk of flood-related deaths, injuries, infectious diseases and mental disorders (medium confidence)

Increased risk of water and vector-borne diseases (medium confidence)

Exacerbated poverty, inequalities and new vulnerabilities (high confidence)

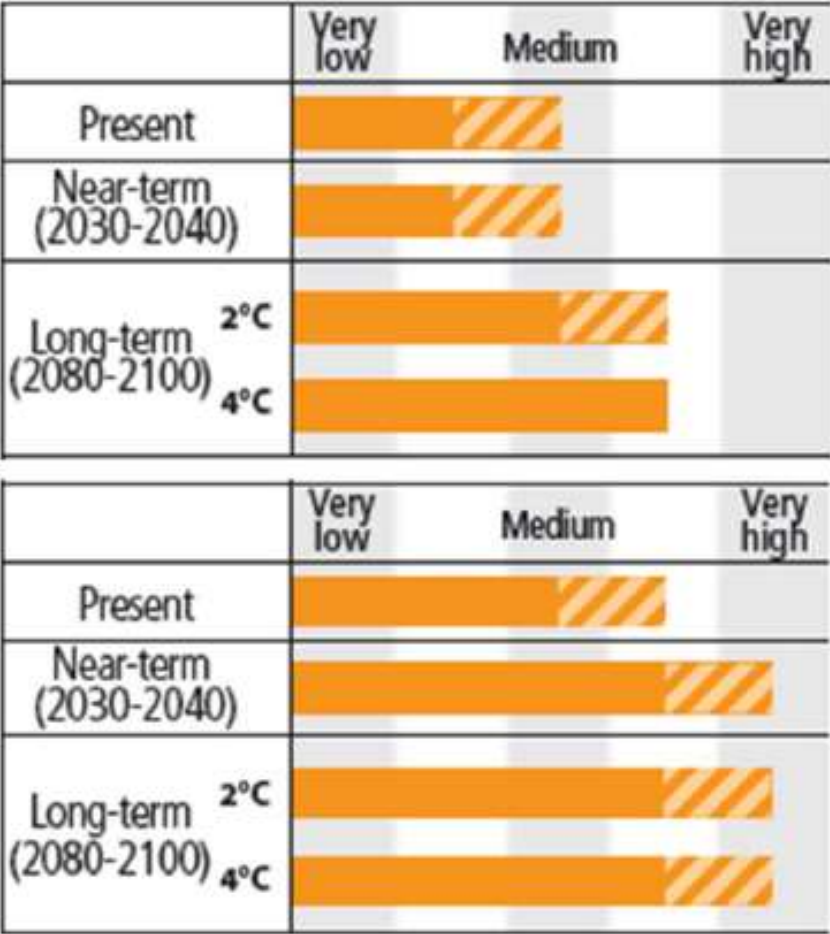


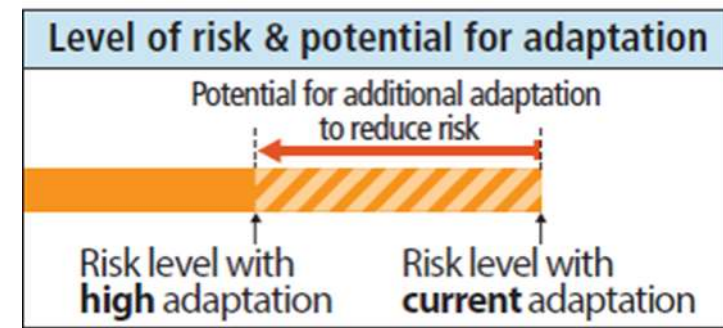


Key risks and adaptation issues and prospects for Asia from recent IPCC AR5 report

Increased risk of crop failure and lower crop production could lead to food insecurity in Asia (medium confidence)

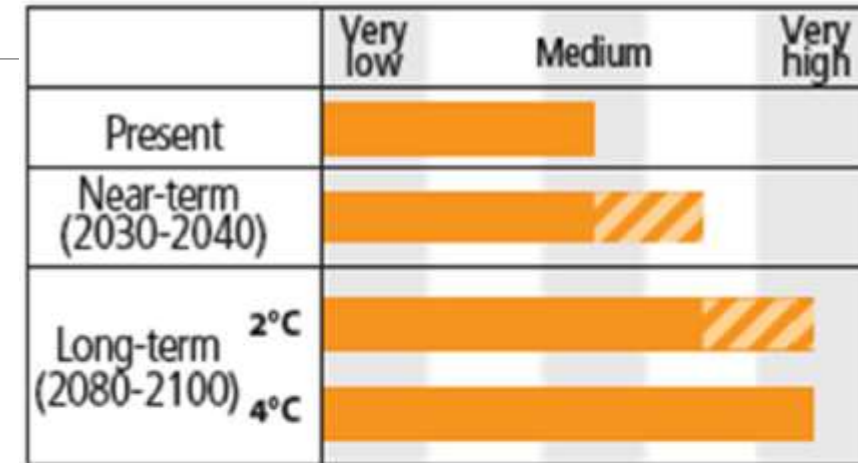
Key Risks in Asia
Water shortage in arid areas of Asia (medium confidence)



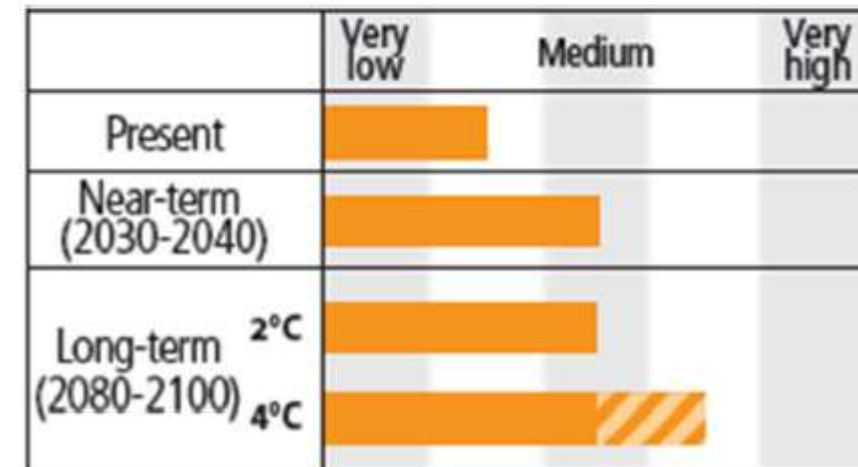


Key risks and adaptation issues and prospects for **Asia** from recent IPCC AR5 report

Coral reef decline in Asia (high confidence)



Mountain-top extinctions in Asia (high confidence)



South East Asia's future risks

1. Key areas of concern

1. Warmer temperature
2. More intense precipitation events
3. Large variations of rainfall and temperature associated with ENSO
4. Changes in monsoon
5. Sea level rise
6. Warmer ocean & acidification

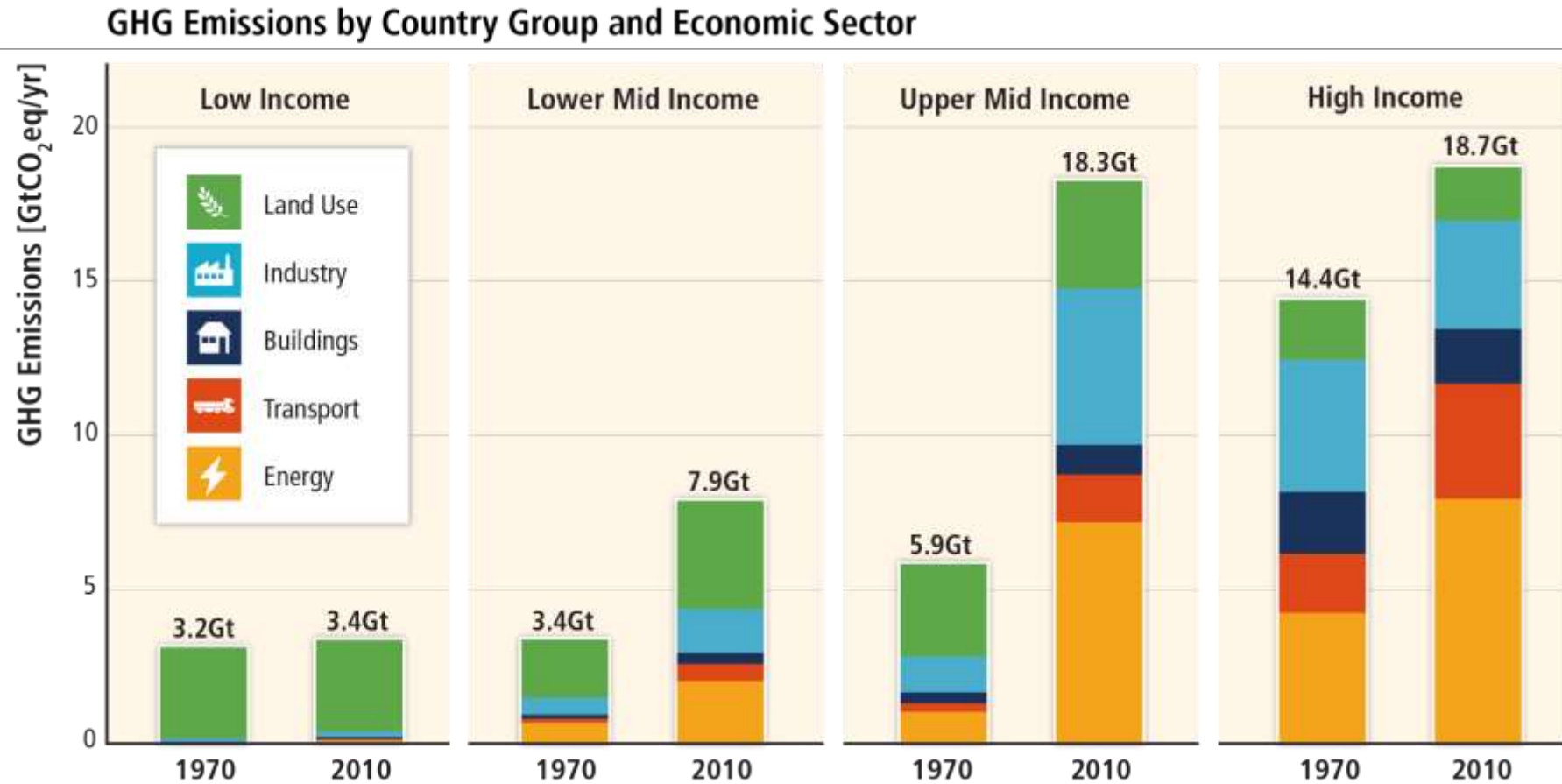
2. Risk concern range from coastal and river flooding, with the potential for widespread damage, to heat-related mortality, to water and food shortages following drought

3. Due to projected sea level rise, a million or so people along the coasts of South and Southeast Asia will likely be at risk from flooding

Key areas of adaptation already happening in SE Asia: Examples

- I. Development Planning considering Adaptation
- II. Early Warning Systems of climatic events
- III. Mangrove Reforestation
- IV. Water Resources Management
- V. Others

Regional patterns of GHG emissions.

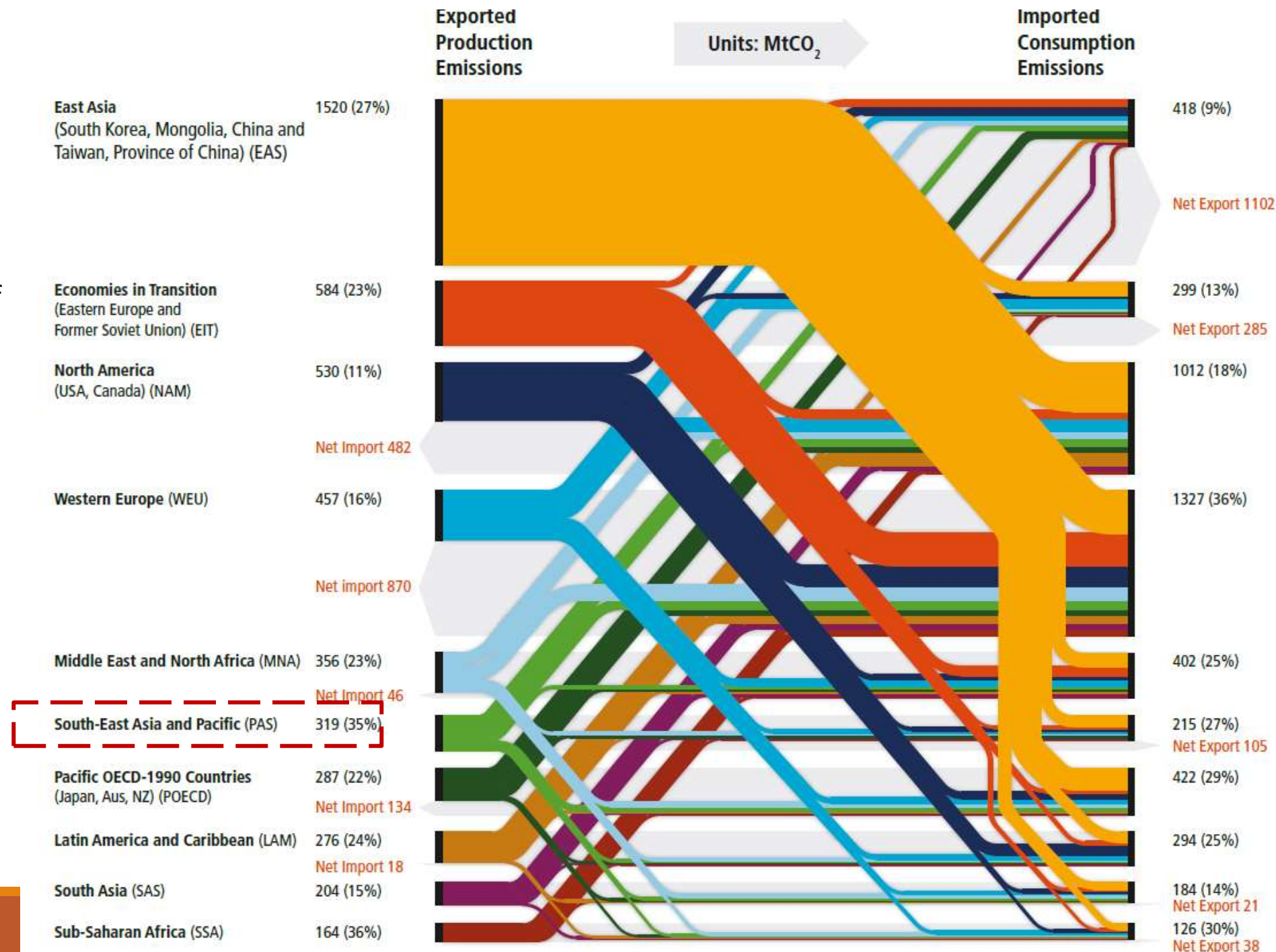


Based on Figure 1.6

IPCC, 2014

Net transfer of CO₂ emissions between world regions in 2007.

Flow widths represent the magnitude of emissions (in MtCO₂) released by left-hand side regions that have become embodied in the goods and services consumed by the regions listed on the right-hand side



ASEAN NDCs

Country	Target type	GHG emissions reduction target	Target year	Reference year	Conditions for implementation
Lao	Actions and activities	Share of renewable energy to 30% of energy consumption by 2025; forest cover to 70% by 2020	2025	N/A	Requires technical and financial support as low interest loans to deliver the mitigation and adaptation actions
Cambodia	Some targets but actions and activities	0 - 27%	2030	BAU	The target is “conditional upon the availability of support from the international community... in the form of financing, capacity building, and technology transfer” (estimated to USD 1,27 billions)
Indonesia	Reductions from BAU	29-41%	2030	BAU	A further emission reduction of 12% (from 29%) is conditional on international assistance, especially through “bilateral cooperation covering technology development and transfer, capacity building, payment for performance mechanisms, technical cooperation and access to financial resources”.
Myanmar	Actions and activities	Significant reductions in GHG emissions, but further analysis needed for quantification	2030	N/A	Support for capacity-building, technology development and transfer, and financial resources from the international community
Philippines	Reductions from BAU	0- 70%	2030	BAU	Conditional on the extent of financial resources, including technology development and transfer, and capacity building

ASEAN NDCs

Country	Target type	GHG emissions reduction target	Target year	Reference year	Conditions for implementation
Singapore	Emission intensity of GDP	36% GHG emissions per unit of GDP	2030	2005	N/A
Thailand	Reductions from BAU	20-25%	2030	BAU	The upper end target is “subject to adequate and enhanced access to technology development and transfer, financial resources and capacity building support through a balanced and ambitious global agreement under UNFCCC”
Viet Nam	Reductions from BAU	8-25%	2030	BAU	The upper bound requires “bilateral and multilateral cooperation, and implementation of new mechanisms under the Global Climate Agreement”
Malaysia	Emission intensity of GDP	35-45%	2030	2005	Upon receipt of climate finance, technology transfer and capacity building from developed countries
Brunei	Actions and activities	63% energy consumption reduction from BAU by 2035; 10% renewable in power generation mix by 2035; specific measures in transport and forestry sectors	2035	N/A	

Final remarks

1. Better attribution to past events, better future projection and impact studies are necessary for risk-informed decision – flooding, heat, water shortages, coastal areas are key risks for SE Asia
2. Effective risk management and adaptation must be tailored to local and regional needs and circumstances of SE Asia
3. Emissions from SE Asia is rising; also SE Asia is net emission exporter
4. The mitigation pathways must be found- complete decarbonization of energy system, best practice technology upscaling, innovative policies, better coordination and cooperation are necessary.
5. INDC are good starting points but it is obvious that more ambitions are needed for the region for low climate stabilization pathways (author's opinion)

