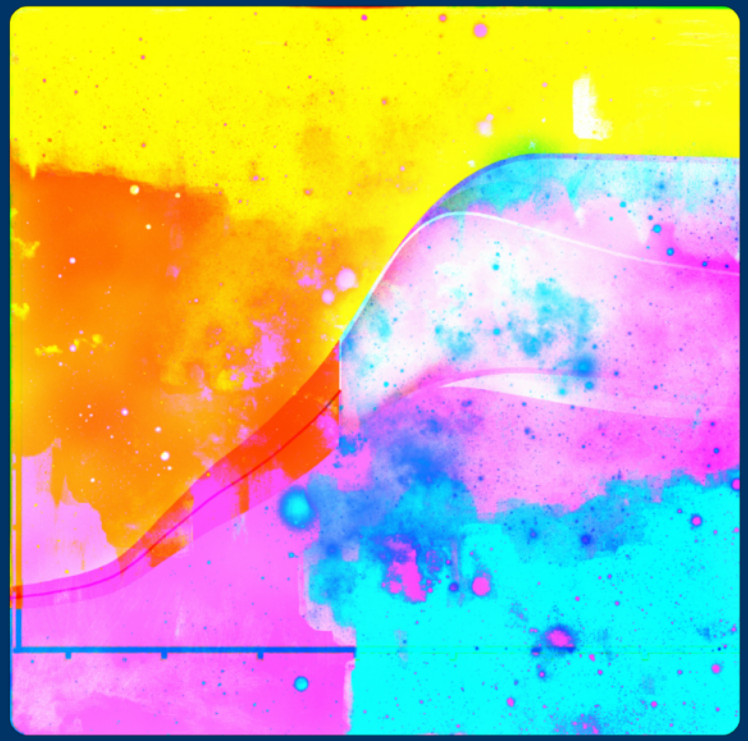

What are the impacts of a 1.5ºC of global warming in Latin America?

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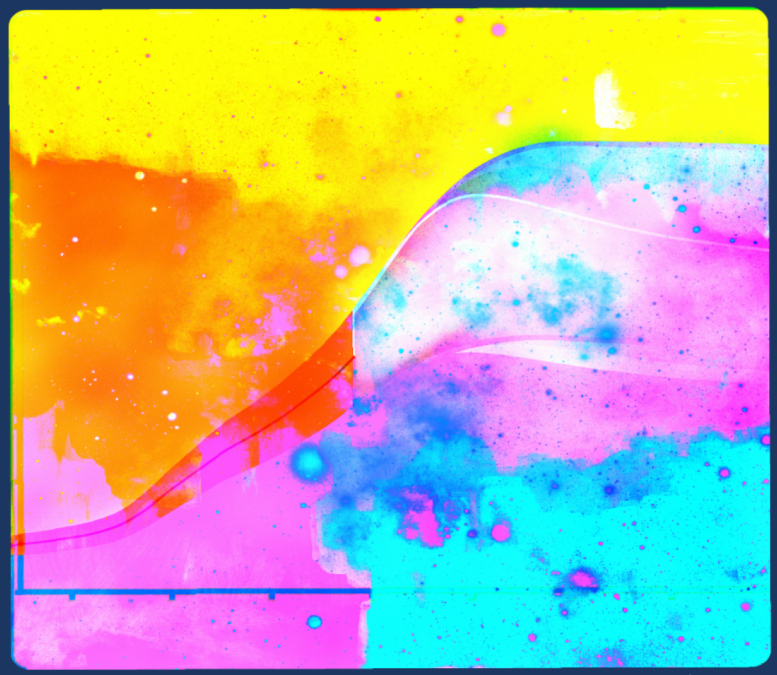
Katowice, 5th of December 2018

ipcc

INTERGOVERNMENTAL PANEL ON climate change

Global Warming of 1.5°C

An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty



WG I WG II WG III

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Ashley Cooper / Aurora Photos

Where are we now?

- Since pre-industrial times, human activities have caused approximately **1°C** of global warming.
- At current rate, would reach **1.5°C** between **2030 and 2052**
- **Past** emissions alone **do not commit** the world **to 1.5°C** (*medium confidence)*

Projected Climate Change, Potential Impacts and Associated Risks

1.5ºC versus 2ºC

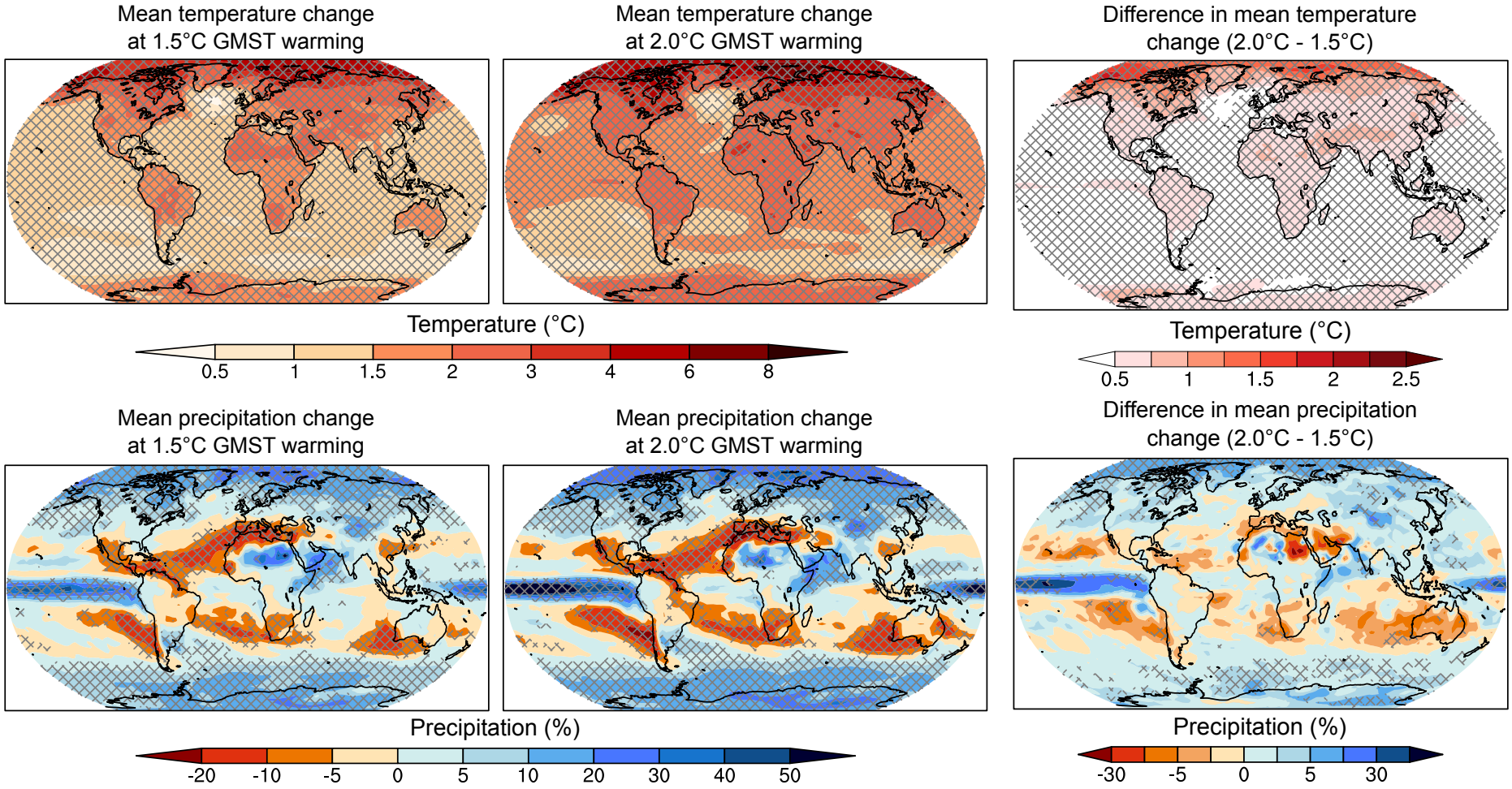


Figure 3.3 Projected changes in **mean temperature** (top) and **mean precipitation** (bottom) at 1.5°C (left) and 2°C (middle)

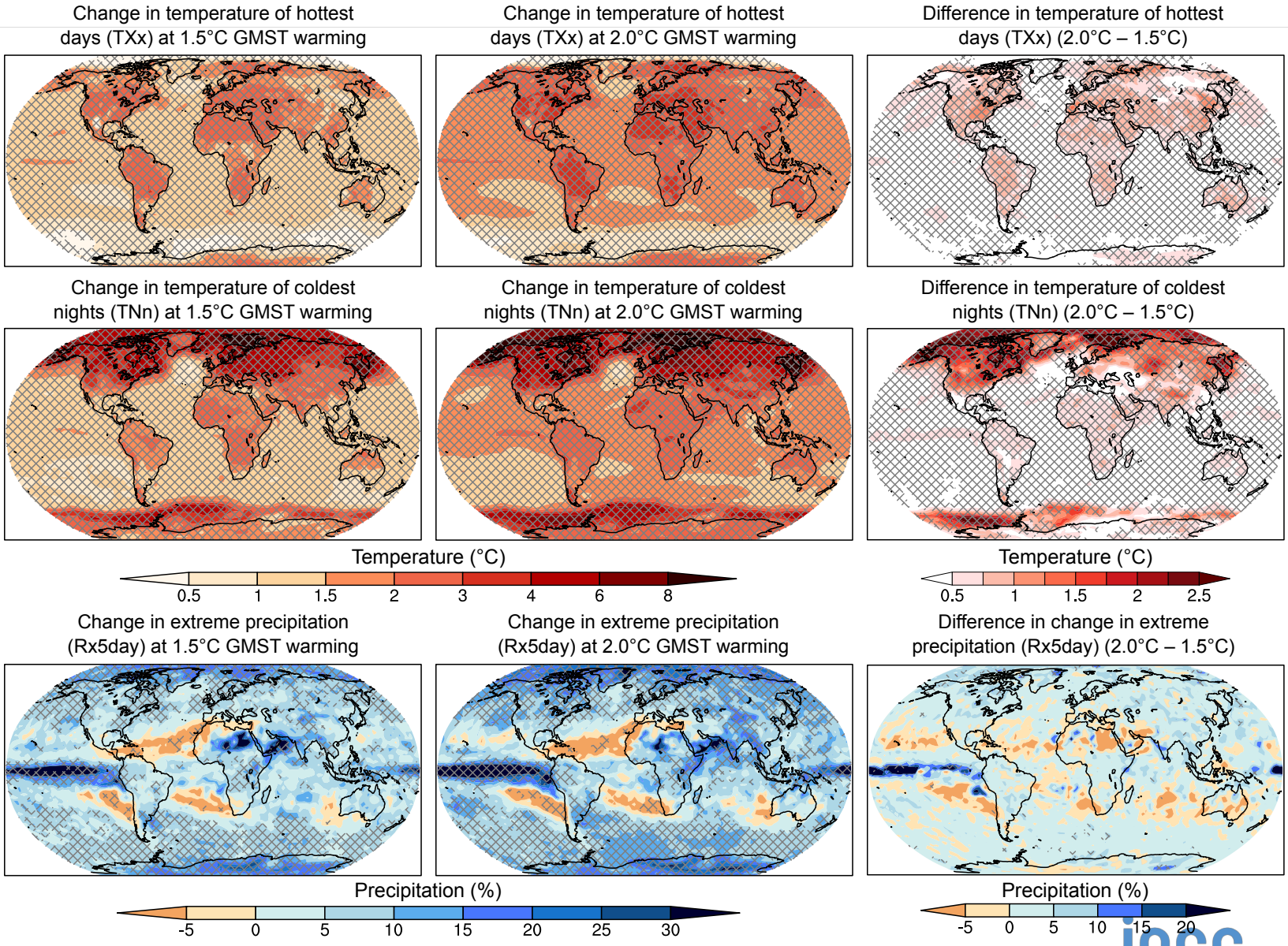


Figure 3.4 Projected changes in **extremes**

Impacts of global warming 1.5ºC versus 2ºC

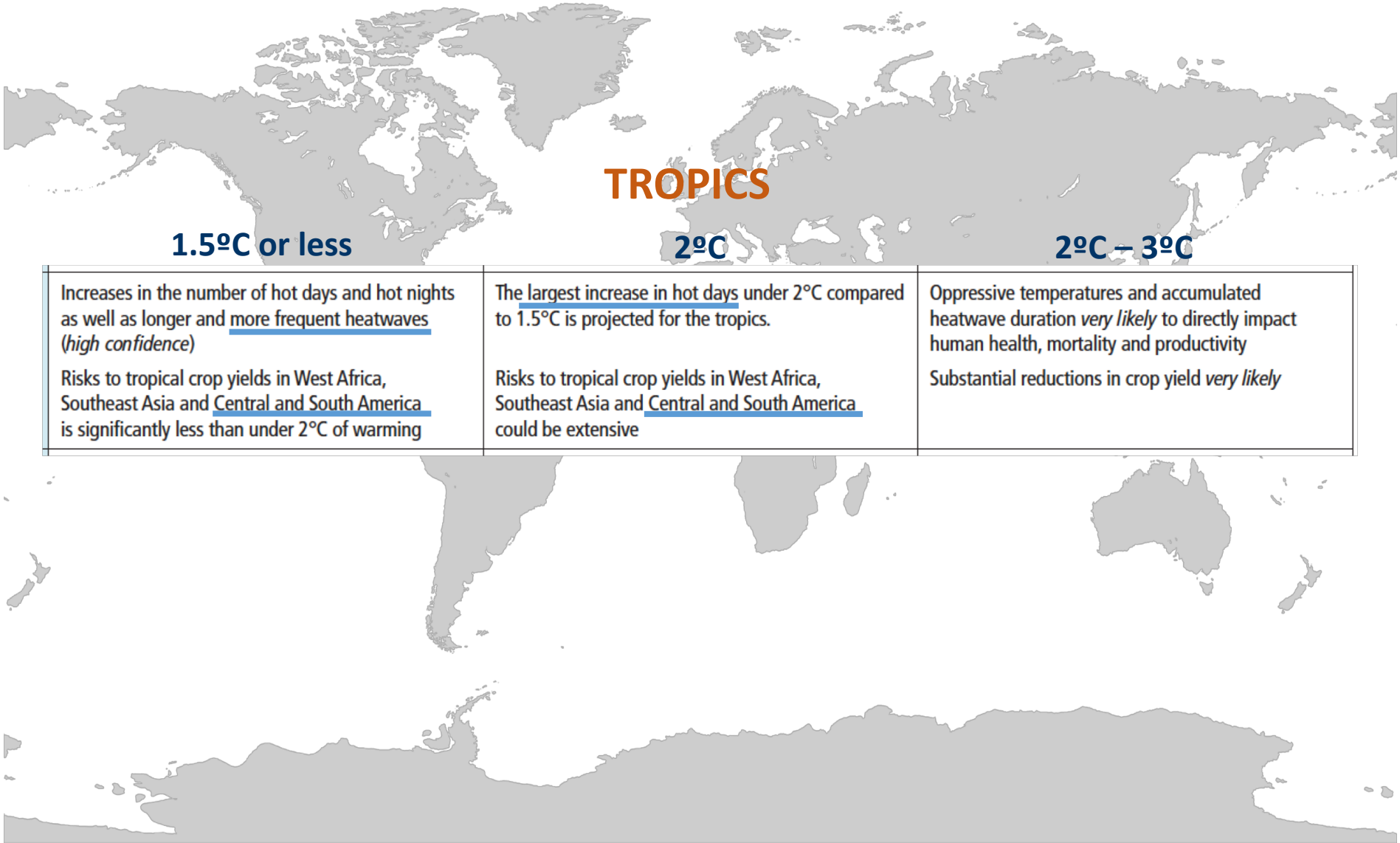
Jason Florio / Aurora Photos

Less risks projected for **terrestrial** and **marine** biodiversity and ecosystems, and their functions and services to human when comparing with 2ºC global warming.

Lower risks for health, livelihoods, food security, water supply, human security and economic growth

Up to several hundred million **fewer people** exposed to **climate-related risk** and susceptible **to poverty** by 2050

Emergence and intensity of regional climate change hot spots



TROPICS

1.5ºC or less	2ºC	2ºC – 3ºC
Increases in the number of hot days and hot nights as well as longer and more frequent heatwaves (*high confidence*)	The largest increase in hot days under 2°C compared to 1.5°C is projected for the tropics.	Oppressive temperatures and accumulated heatwave duration *very likely* to directly impact human health, mortality and productivity
Risks to tropical crop yields in West Africa, Southeast Asia and Central and South America is significantly less than under 2°C of warming	Risks to tropical crop yields in West Africa, Southeast Asia and Central and South America could be extensive	Substantial reductions in crop yield *very likely*

Emergence and intensity of regional climate change hot spots

Rainforests

1.5ºC or less	2ºC	2ºC – 3ºC
Reduced biomass, deforestation and fire increases pose uncertain risks to forest dieback	Larger biomass reductions than under 1.5°C of warming; deforestation and fire increases pose uncertain risk to forest dieback	Reduced extent of tropical rainforest in Central America and large replacement of rainforest by savanna and grassland Potential tipping point leading to pronounced forest dieback (*medium confidence*)

Central American forest: 3ºC-4ºC or global warming replacement of rainforest by savannah and grassland

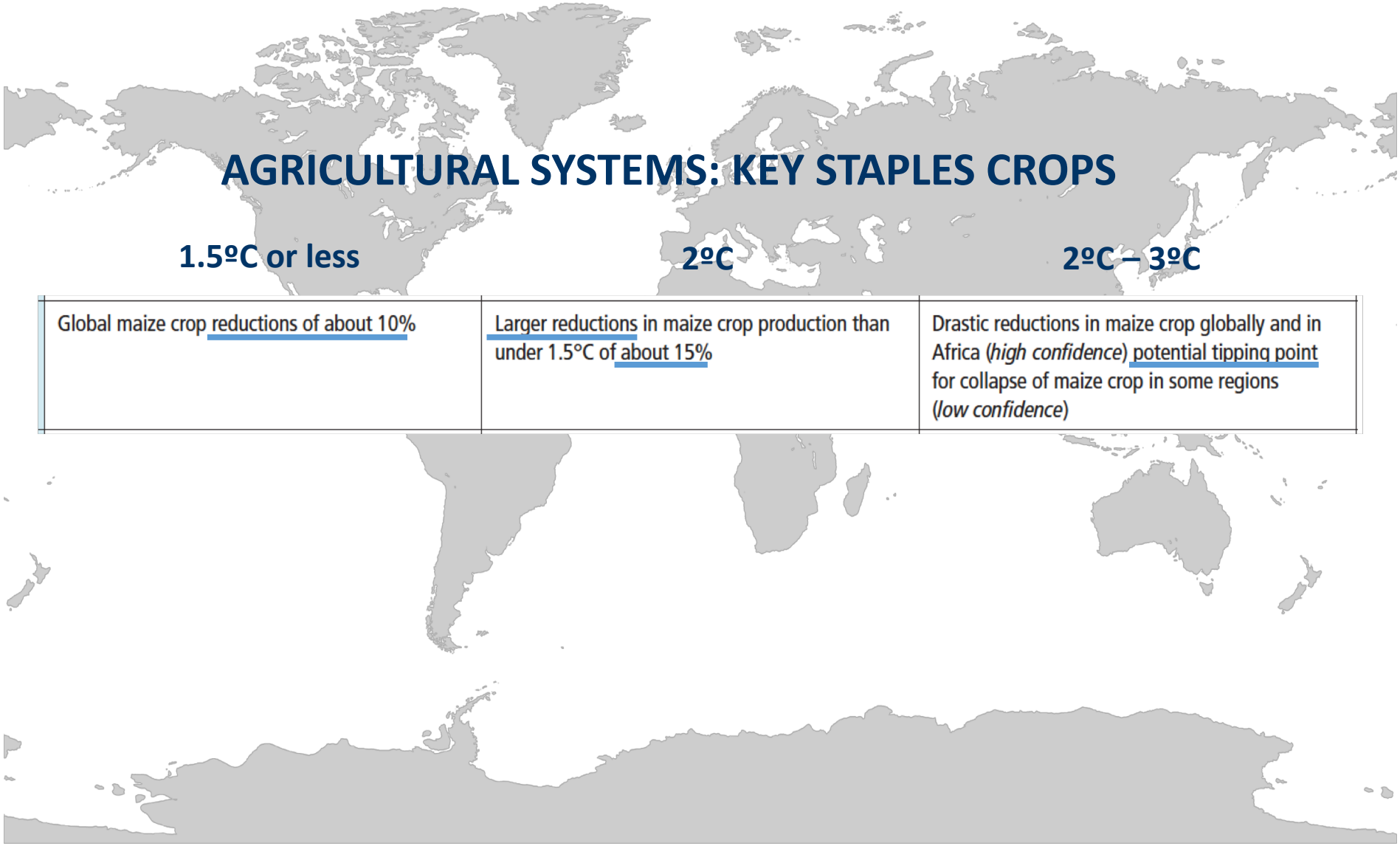
Amazon tipping point: 3ºC-4ºC or global warming or 40% of deforestation

➥ **stronger** El Niño events

➥ **droughts** in Central America and areas of South America (particularly vulnerable)

➥ **floods** in South America

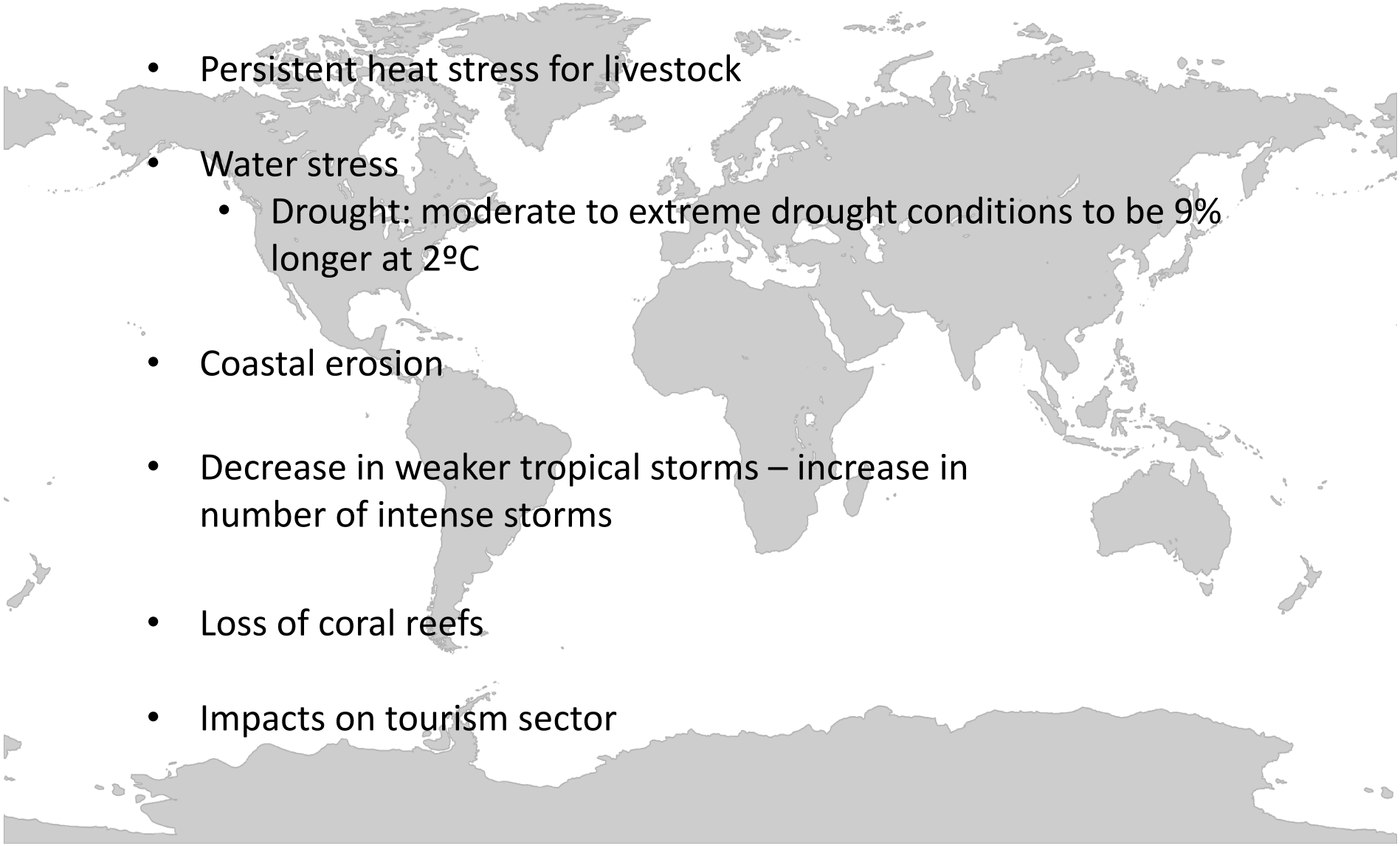
Emergence and intensity of regional climate change hot spots



AGRICULTURAL SYSTEMS: KEY STAPLES CROPS

1.5ºC or less	2ºC	2ºC – 3ºC
Global maize crop reductions of about 10%	Larger reductions in maize crop production than under 1.5°C of about 15%	Drastic reductions in maize crop globally and in Africa (*high confidence*) potential tipping point for collapse of maize crop in some regions (*low confidence*)

Small Islands: Caribbean



- Persistent heat stress for livestock
- Water stress
  - Drought: moderate to extreme drought conditions to be 9% longer at 2ºC
- Coastal erosion
- Decrease in weaker tropical storms – increase in number of intense storms
- Loss of coral reefs
- Impacts on tourism sector

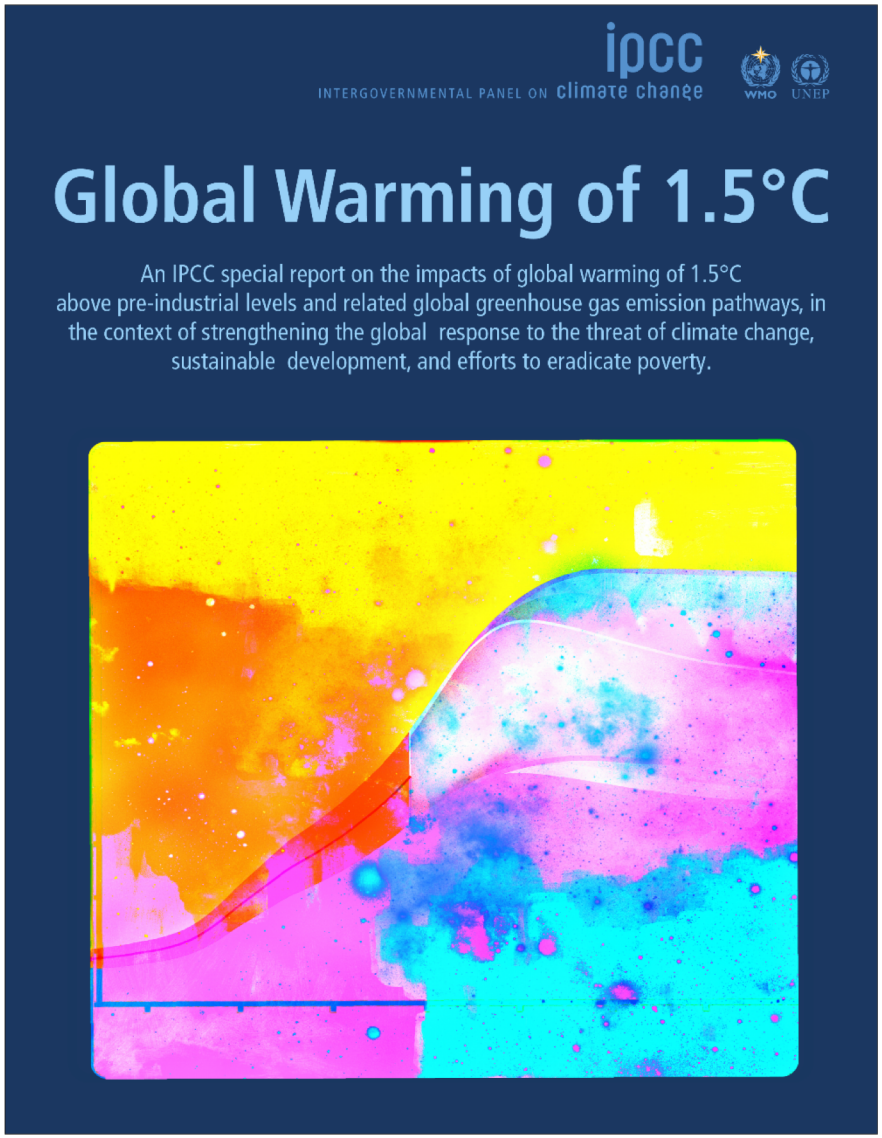
Summarizing

Tropical region is one of the hotspots when considering 1.5ºC – 2ºC

Amazon rainforest plays a crucial role in the climate system, but is also affected by climate change

We are still on time to avoid the impacts of 1.5ºC or higher levels of warming!

Ashley Cooper / Aurora Photos



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Summary for Policy Makers

10 Frequently Asked Questions

5 Chapters

Glossary