

# **LAST CALL FOR ILLUSIONS**

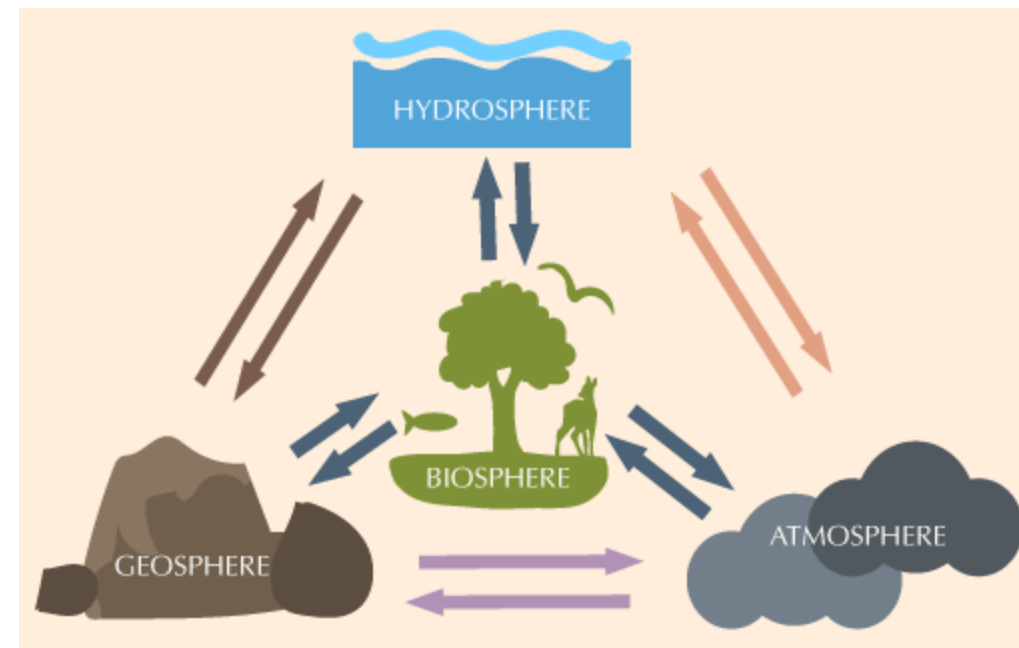
Sarthak Tomar for  
Bhopal Peace and Eco-Justice  
Action Committee

# CONTENT

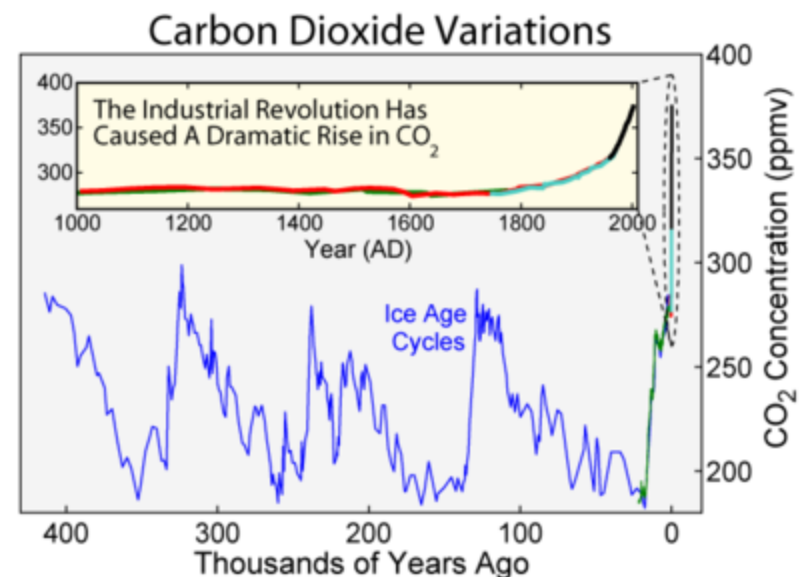
- **WHAT THE IPCC REPORT SAYS**
- **WHAT IT MISSED OUT**
- **INDIAN CONTEXT**
- **FUTURE?**

## EXTERNAL HUMAN FORCING

Earth System: Atmosphere, hydrosphere, cryosphere, geosphere, pedosphere, biosphere, and, even, the magnetosphere—as well as the impact of human societies on these components.



Human Forcing:



Effects:

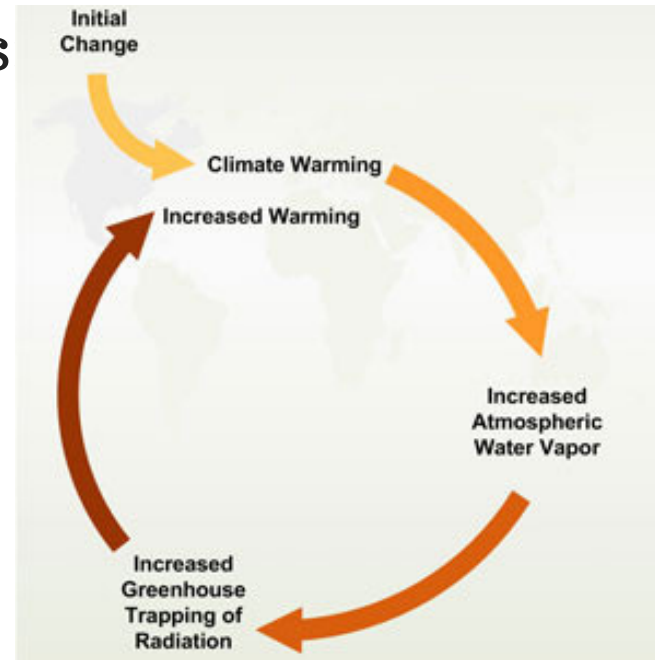
- Temperature Rise.
- Ice Sheet Melting.
- Sea level rise.
- Droughts, Floods.
- Super storms.
- Hamper photosynthesis.
- much more.

## CURRENT STATE

- Human activities are estimated to have caused approximately 1.0°C of global warming.
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- Global warming is likely to reach 1.5°C between 2030 and 2052 if it continues to increase at the current rate.
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- Warming from anthropogenic emissions from the pre-industrial period to the present will persist for centuries to millennia and will continue to cause further long-term changes in the climate system, such as sea level rise, with associated impacts.
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- These differences include increases in: mean temperature in most land and ocean regions, hot extremes in most inhabited regions, heavy precipitation in several regions, and the probability of drought and precipitation deficits in some regions.
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- Climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth are projected to increase with global warming of 1.5°C and increase further with 2°C.

# FEEDBACK AND HOTEARTH

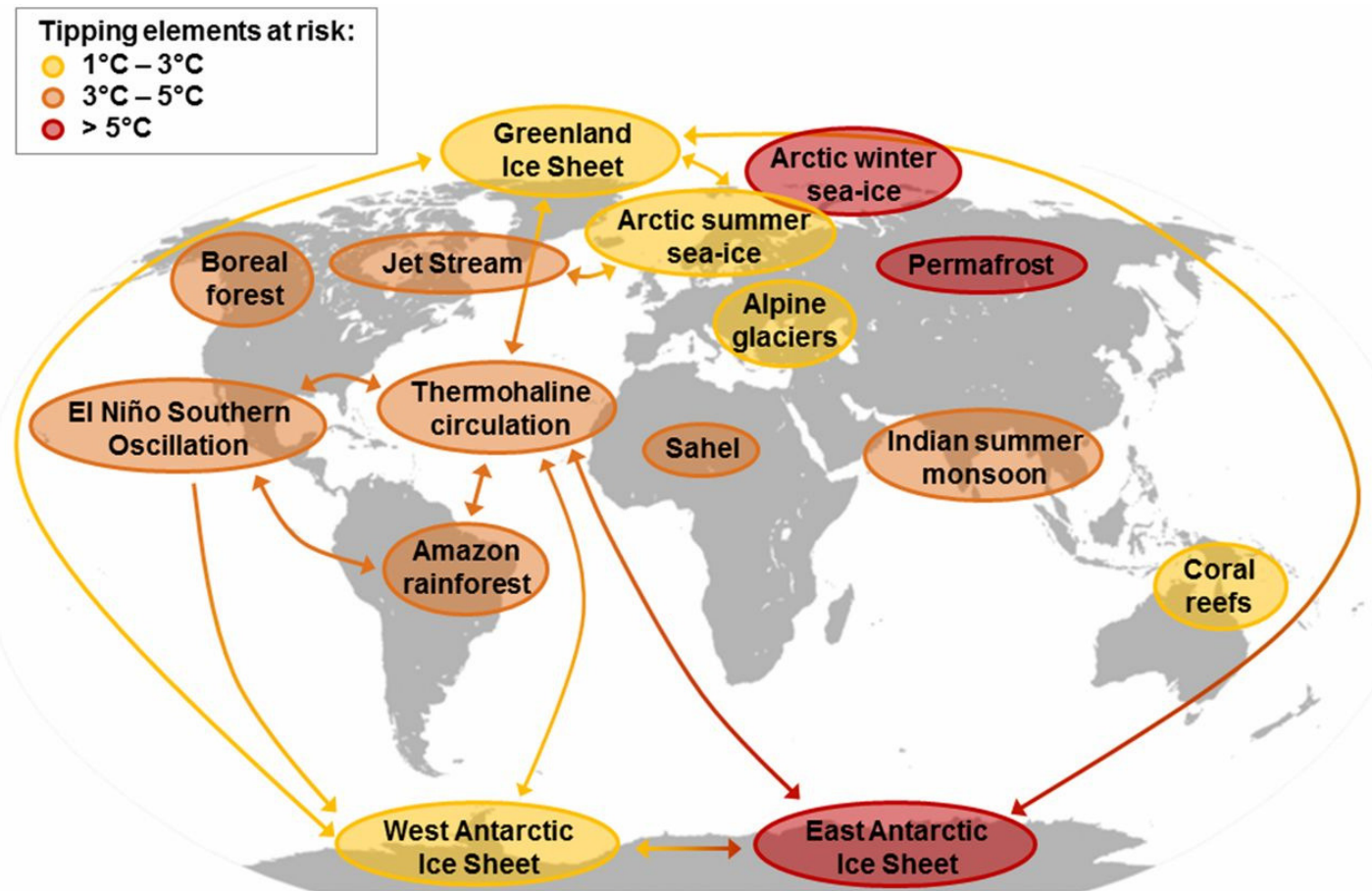
## 1. Feedback Mechanisms



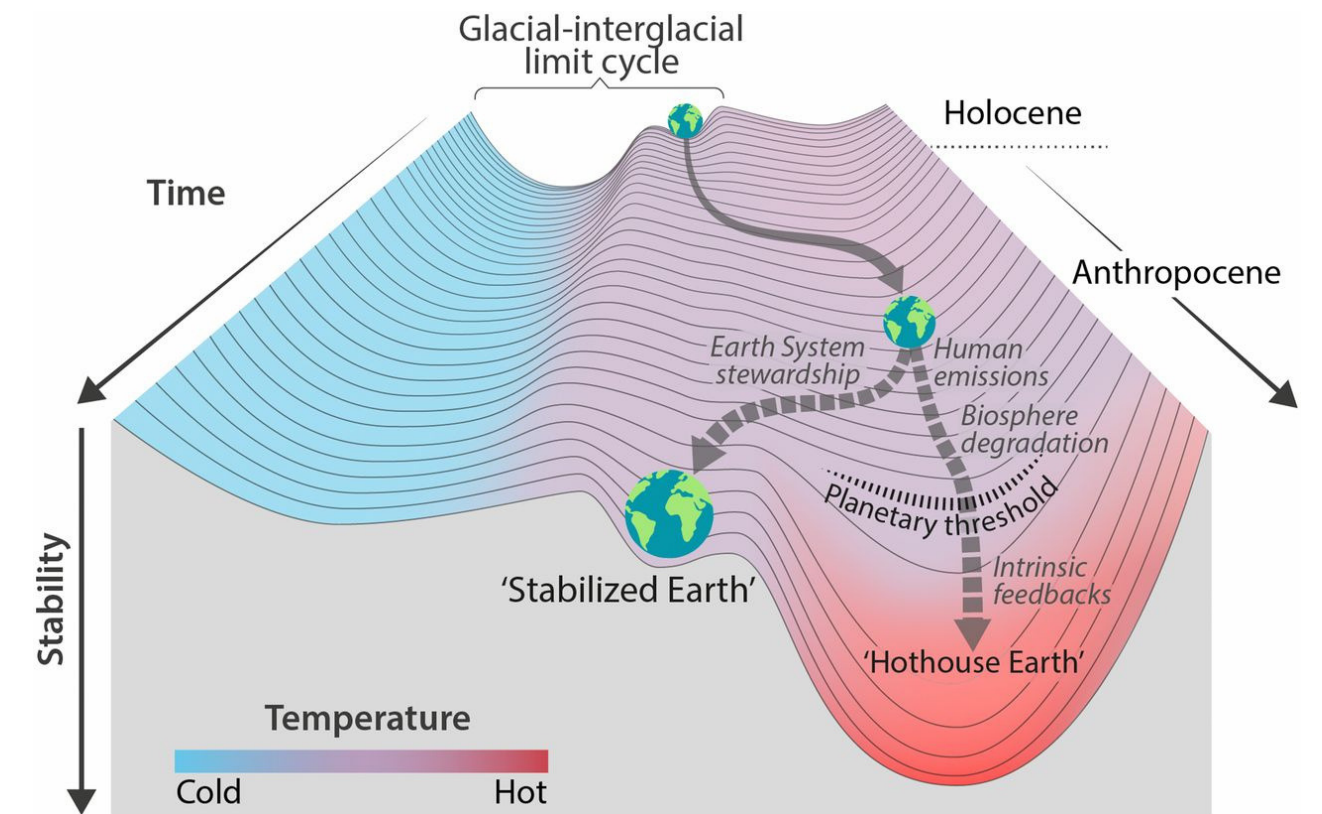
## Examples

- Permafrost - Methane.
- Photosynthesis - CO<sub>2</sub>
- Weak Carbon Sinks.
- Water currents, etc

## 2. Tipping Point:



## Hothouse Earth:



## **UPDATED CURRENT STATE**

We very likely will cross **a major tipping point at 1.5° c** - Expected around 2030.

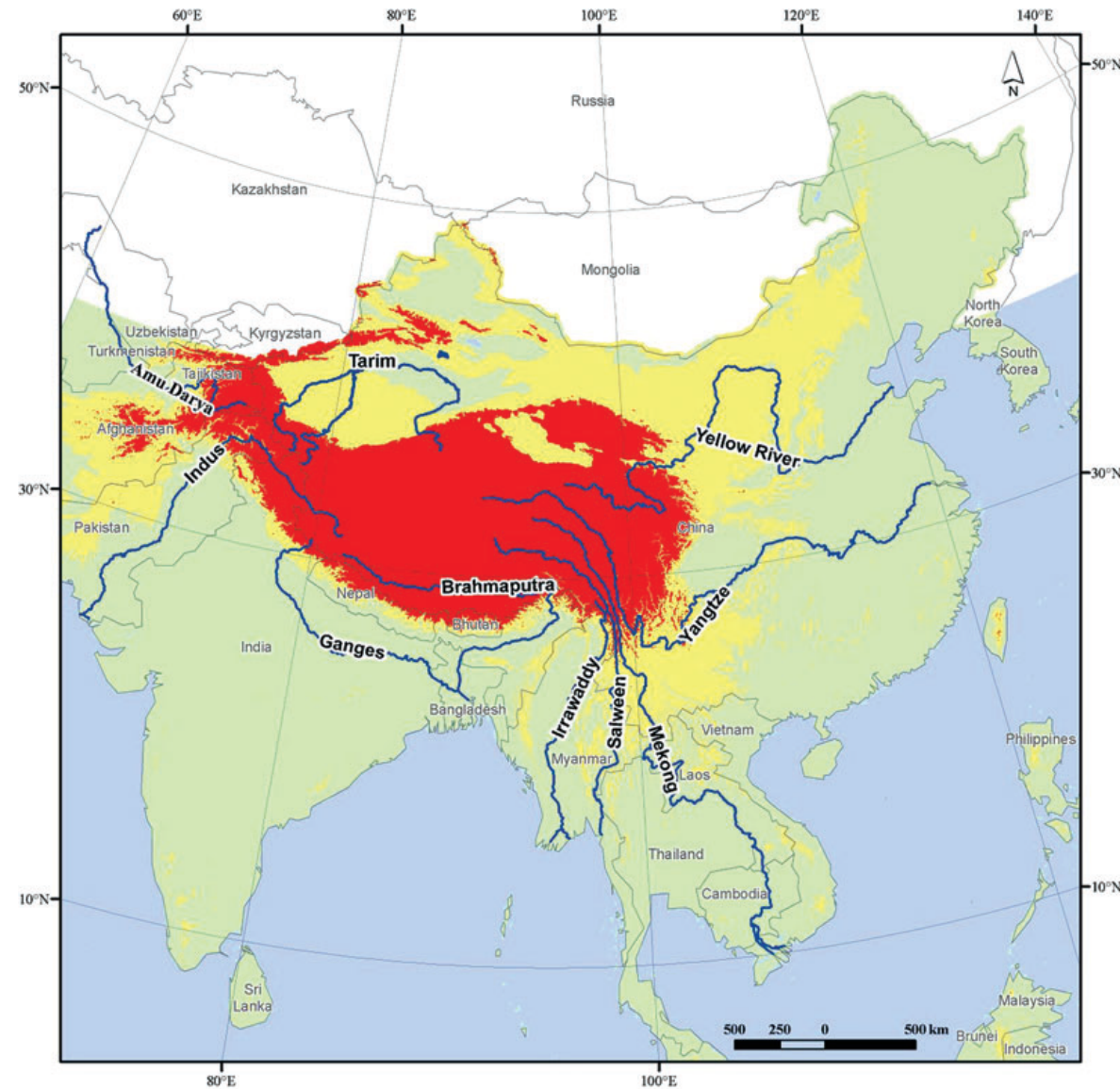
There are about **6** more tipping points before 1.5° c. When crossed will trigger irreversible cascading effect towards Hothouse Earth.

"Based on this framework, we argue that social and technological trends and decisions occurring over the next decade or two could significantly influence the trajectory of the Earth System **for tens to hundreds of thousands of years** and potentially lead to conditions that resemble planetary states that were last seen several millions of years ago, conditions **that would be inhospitable to current human societies and to many other contemporary species.**"

"However, these (signs of) transformations are still in initial stages, and the social/political tipping points that definitively move the current trajectory away from Hothouse Earth have not yet been crossed, while **the door to the Stabilized Earth pathway may be rapidly closing.**"

# RESOURCES WARS

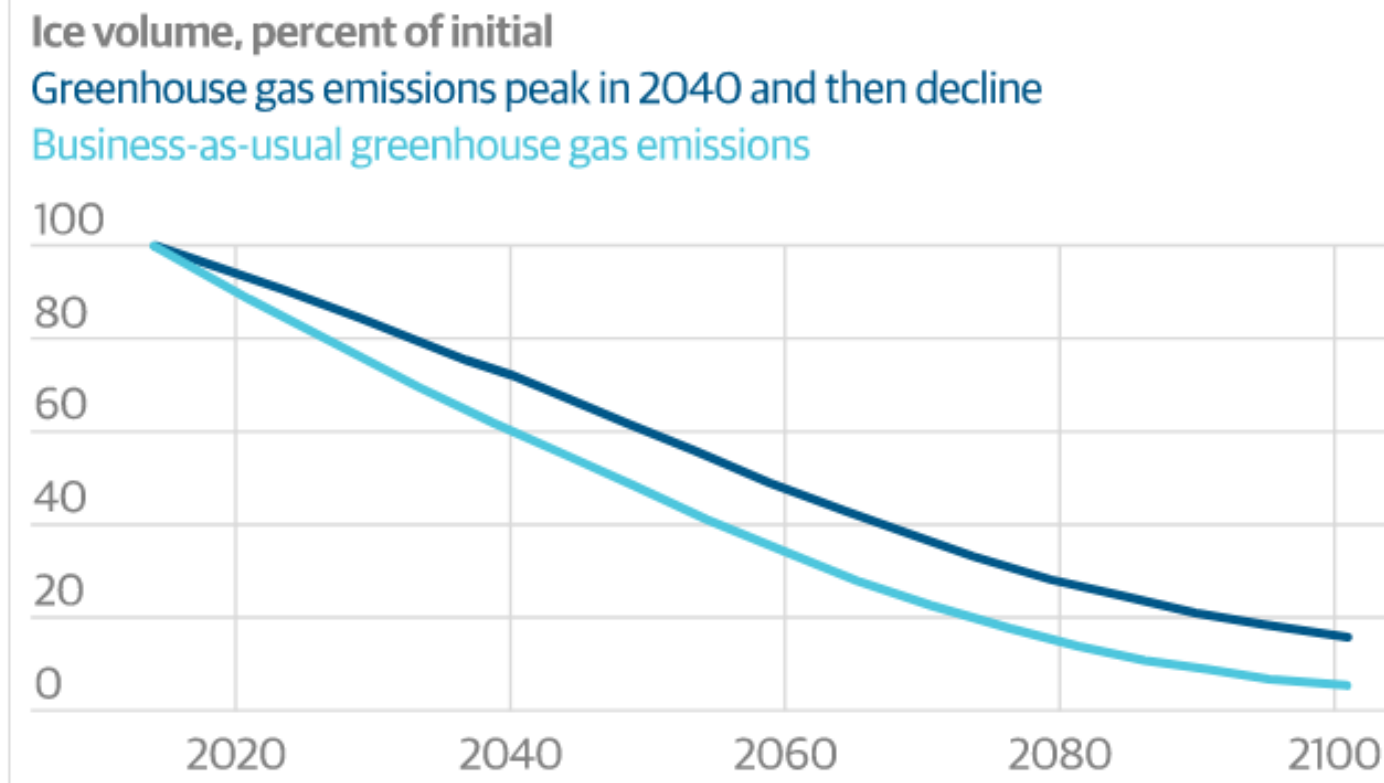
## WATER:



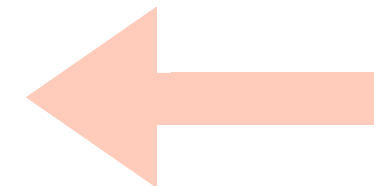
Hindu Kush Glaciers

- 5,500 Glaciers.
- 10 River systems.
- Ice sheets disappearing fast.
- 3 million people without clean drinking water, **today**.
- India controls rivers that feed Pakistan. Two rival nations armed **Nuclear arsenal**.
- Bangladesh, flat, low-lying, and located within the delta region between two very large rivers—the Ganges and the Brahmaputra. Floods and climate refugees.

### Everest regional glacier change



Doesn't take into account feedbacks and cascading effect



## RESOURCES WARS

### SOIL :

- Deforestation reduces soil diversity.
- Increase in desertification of soil.
- Photosynthesis becomes difficult at high temperature.
- Coupled with severe water shortages = **food shortage**.

### "Climate Fascism" :

- African conflicts.
- Maoist militancy in Red Corridor - Drought Corridor.
- Attitude towards Bangladeshi migrants of Indian state.
- Communal violence.
- Militarization of state and society.

### All this is on top of :

- Heat waves.
- Extreme weather conditions.
- New diseases.



# "Unprecedented change in all aspect of human life"?

FUTURE?



United States withdrawal from the Paris Agreement



Indian plan of keeping coal primary source of energy till 2040.



Yazidis Fleeing ISIS in Syria



Mendocino Complex Fire, California, Aug. 5, 2018

# FUTURE?

