

Diskusi Meja Bundar para Pakar: Sains, Politik, dan Etika
dalam Tata Kelola Bencana di Era Antroposen
Universitas Paramadina, 6 Juli 2026

ANTHROPOCENE

Epoh baru “buatan” kita

Daniel Murdiyarso



My Points

1. What is Anthropocene

2. Mega Projects

Mega-rice

MIFEE → Food Estate

Giant Sea Wall

3. Managing Risks

Mitigation

Adaptation

Safeguards

4. Our premises

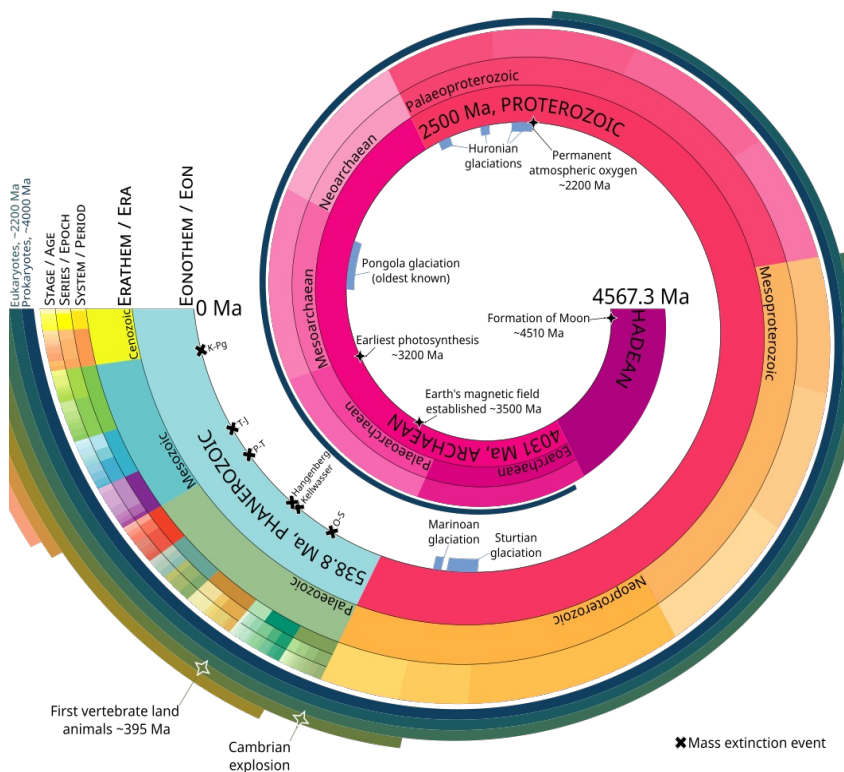
Sains – Politik – Etika?



What is Anthropocene?

🌍 Epoh “baru” yang ditimbulkan oleh kegiatan manusia yang berdampak pada ekosistem,, iklim dan geologi planet bumi

🌍 Diduga mengakhiri epoh **Holocene** yang stabil selama 12.000 tahun terakhir – peradaban manusia



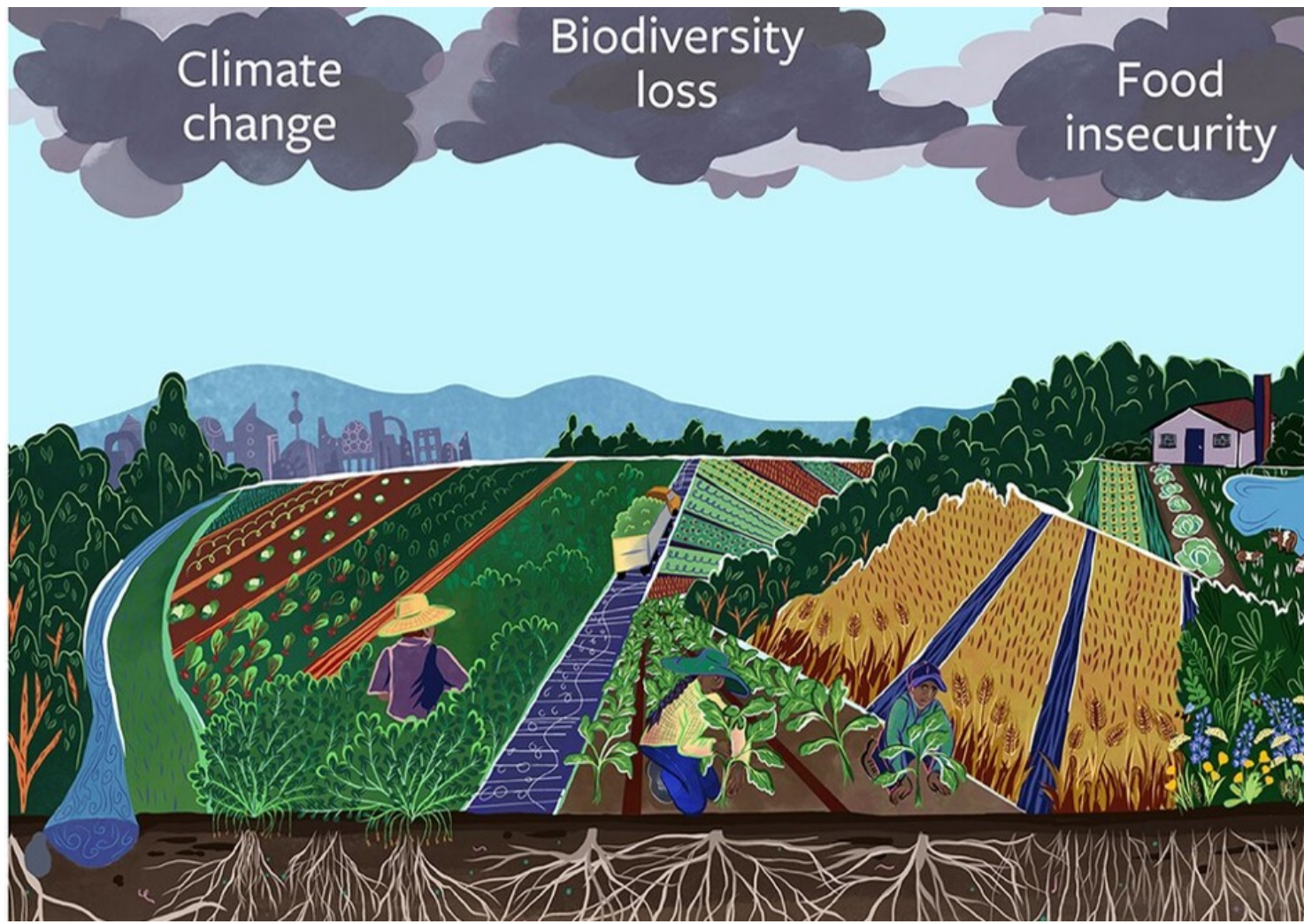
Jaman: $1 \times 10^3 - 1 \times 10^6$
 Epoh: $100 \times 10^3 - 10 \times 10^6$
 Period: $1 \times 10^6 - 10 \times 10^6$
 Era: $10 \times 10^6 - 100 \times 10^6$
 Eon: $100 \times 10^6 - 1 \times 10^9$

- Sejak Revolusi Industri (1750):
mesin uap – batubara – emisi GRK
- Dipercepat 1950:
meledaknya jumlah penduduk
– konsumsi meningkat – uji coba
senjata nuklir
- Tetapi Kongres IUGS (2024), menolak
Anthropocene sebagai epoh baru –
Holocene masih berlaku

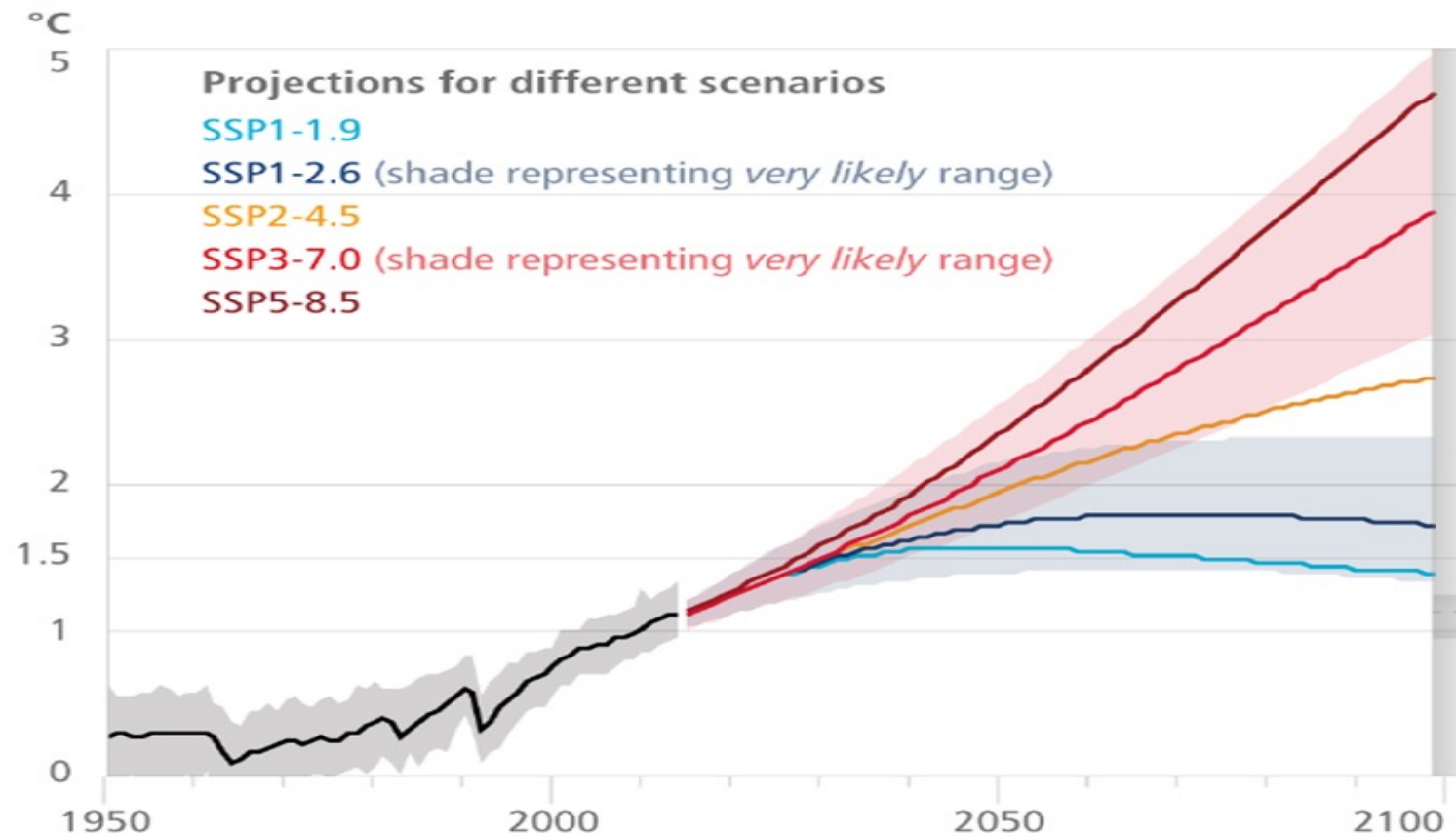
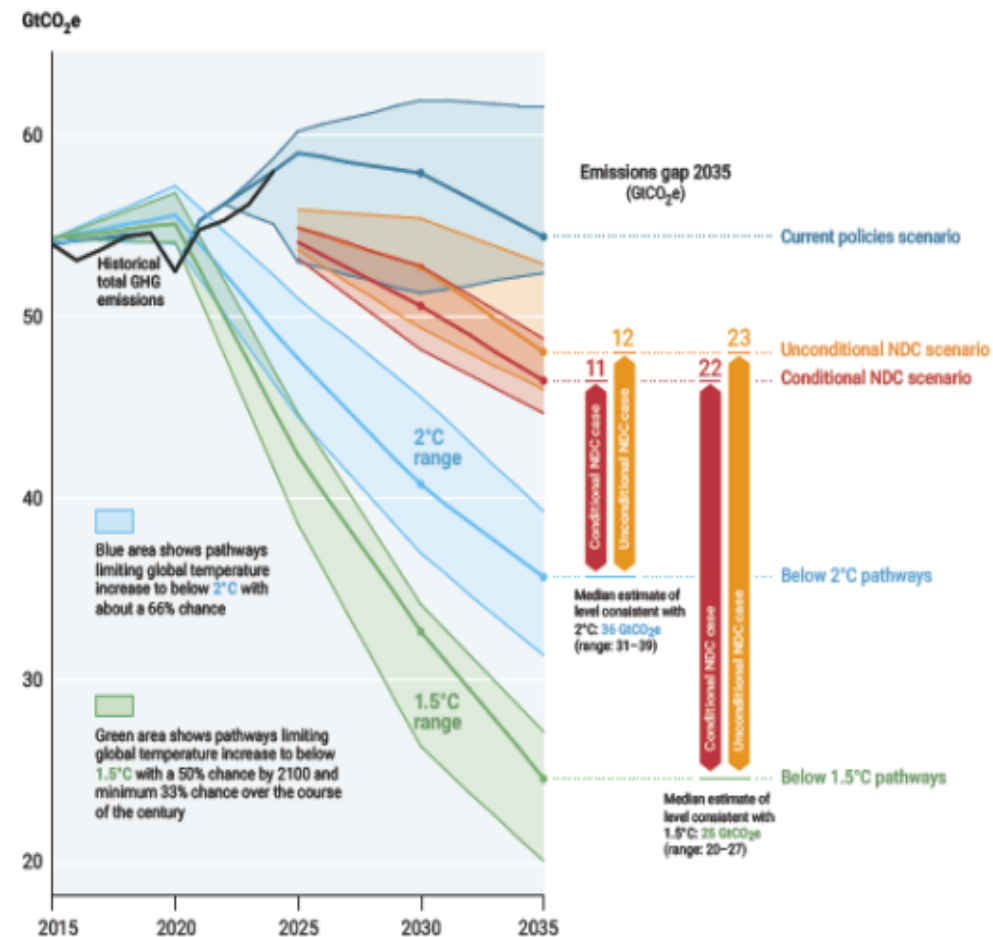


Key Drivers

- Climate Change:
- Biodiversity Loss and extinction
- Altered Biomass

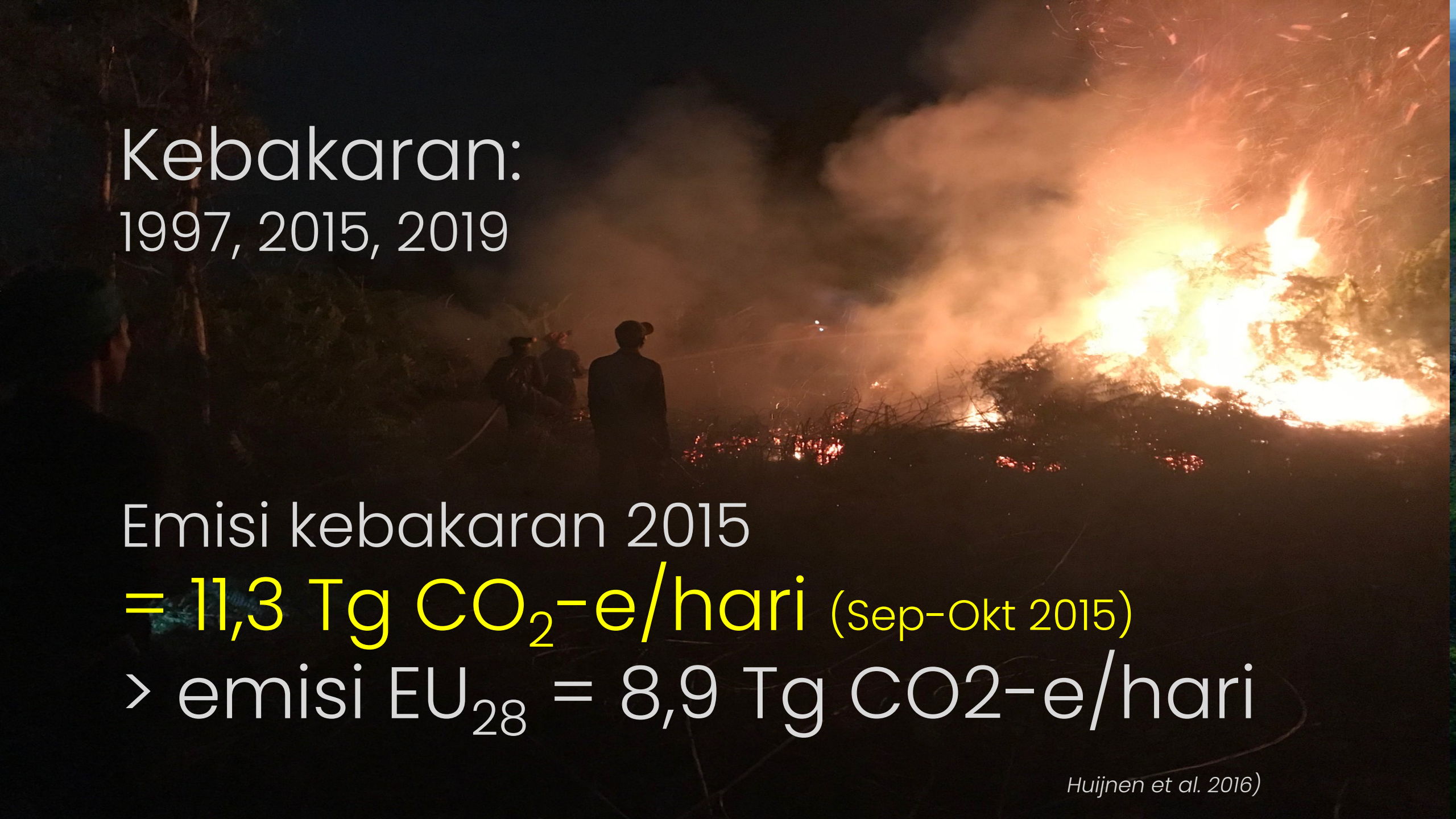


Anthropogenic Emissions



—

MEGA PROJECTS

A large fire is burning at night, with bright orange and yellow flames rising into the dark sky. Thick smoke is billowing from the fire. In the foreground, several people are standing, their silhouettes visible against the bright light of the fire. The scene appears to be a controlled burn or a wildfire in a forested area.

Kebakaran:
1997, 2015, 2019

Emisi kebakaran 2015

= 11,3 Tg CO₂-e/hari (Sep-Okt 2015)

> emisi EU₂₈ = 8,9 Tg CO₂-e/hari



Giant Sea Wall



Koko drama

OPINION • ACADEMIA

The lucrative Giant Sea Wall: A megaproject worth questioning

The Giant Sea Wall would be a perfect disaster, destroying fish spawning grounds and local and migratory waterbird habitats.

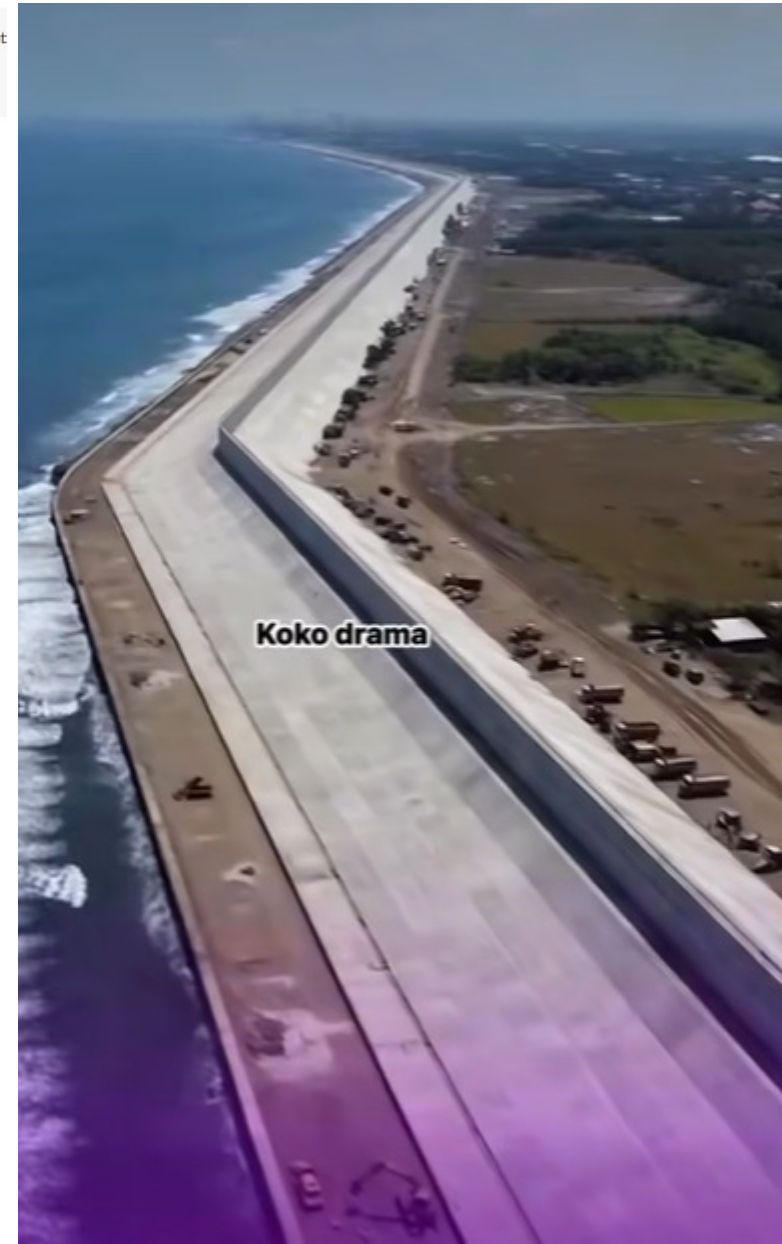
Daniel Murdiyarso (The Jakarta Post)

PREMIUM Jakarta • Sat, October 11, 2025



A person walks on a cracked wall on May 7, 2024, in Kalibaru, Cirebon, North Jakarta. Residents of the area fear that the wall, which was built to protect the area from waves and tides, could collapse at any time. (Jakarta Post by Alfar)

Every government seeks a large-scale project to define its legacy, as seen with Indonesia's Mega Rice Project (MRP), Merauke Integrated Food and Energy Estate (MIFEE) and the Nusantara capital city project.

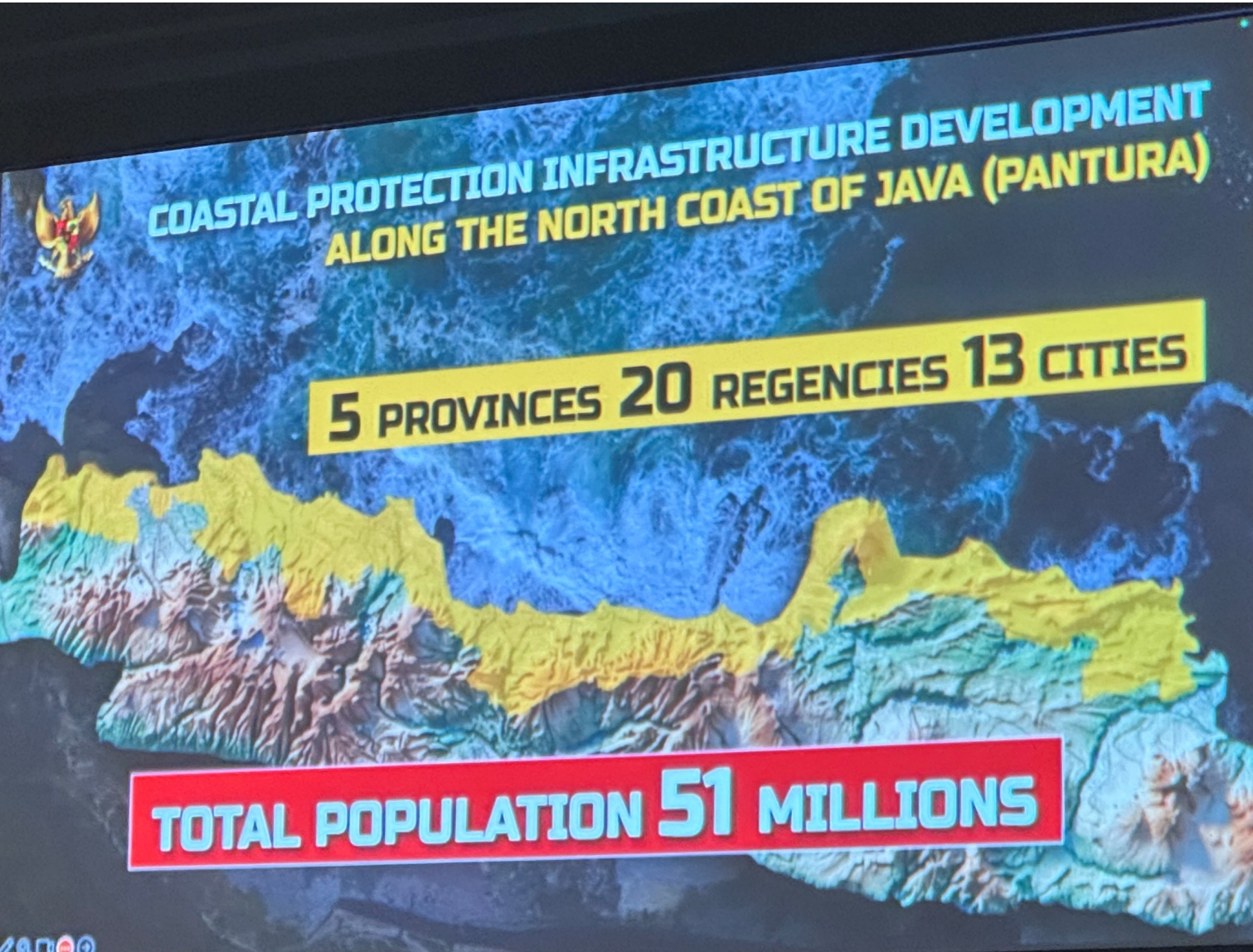


Koko drama

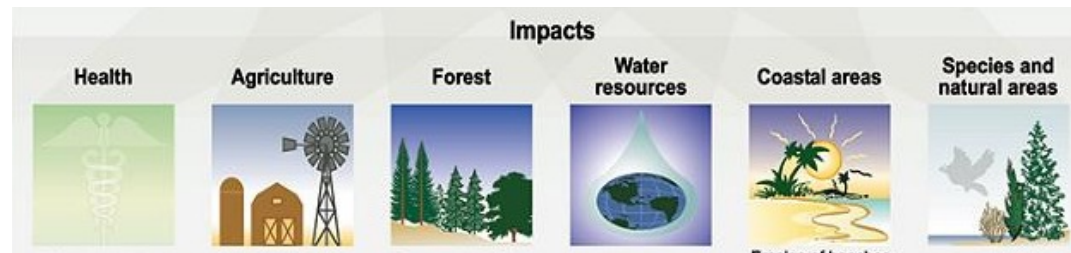
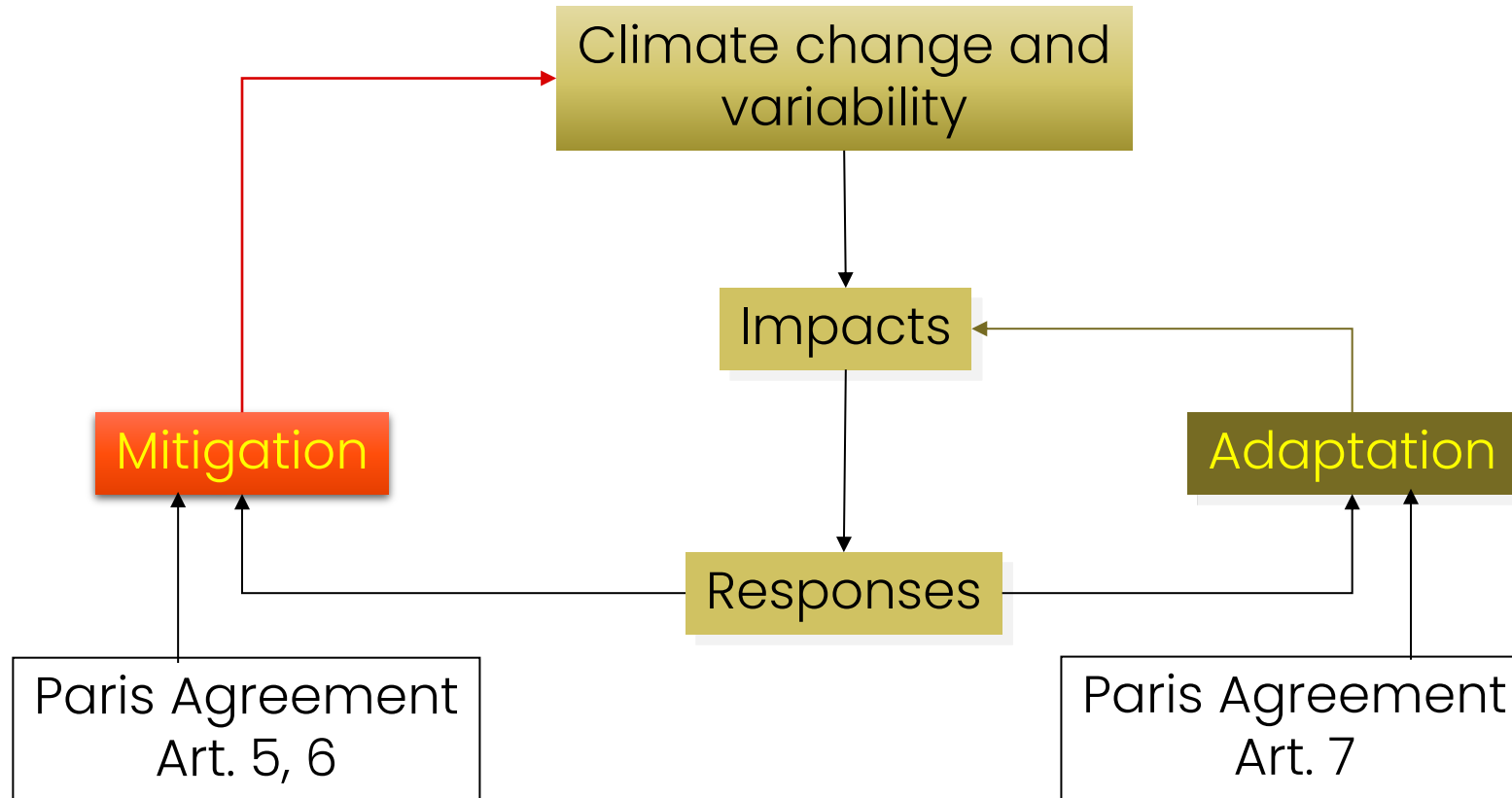
Done Deal?

700 km

Rp 1.750 T
(US\$ 104 B)



Managing Risks



Our premises

In short



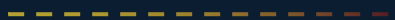
Sains



Matang

Kredibel

Telinga yg
mendengar?



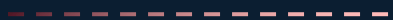
Politik



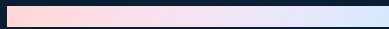
Kekuasaan

Militeristik

Kemana wakil
rakyat?



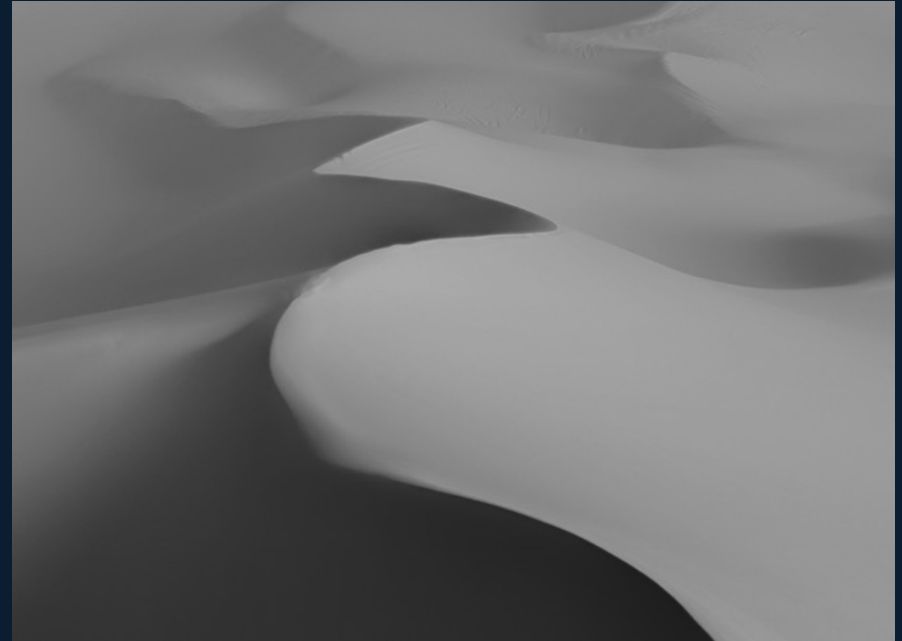
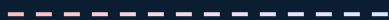
Etika



Bencana
kemanusiaan

Bukan teknis

Musyawarah?



DÉJÀ VU