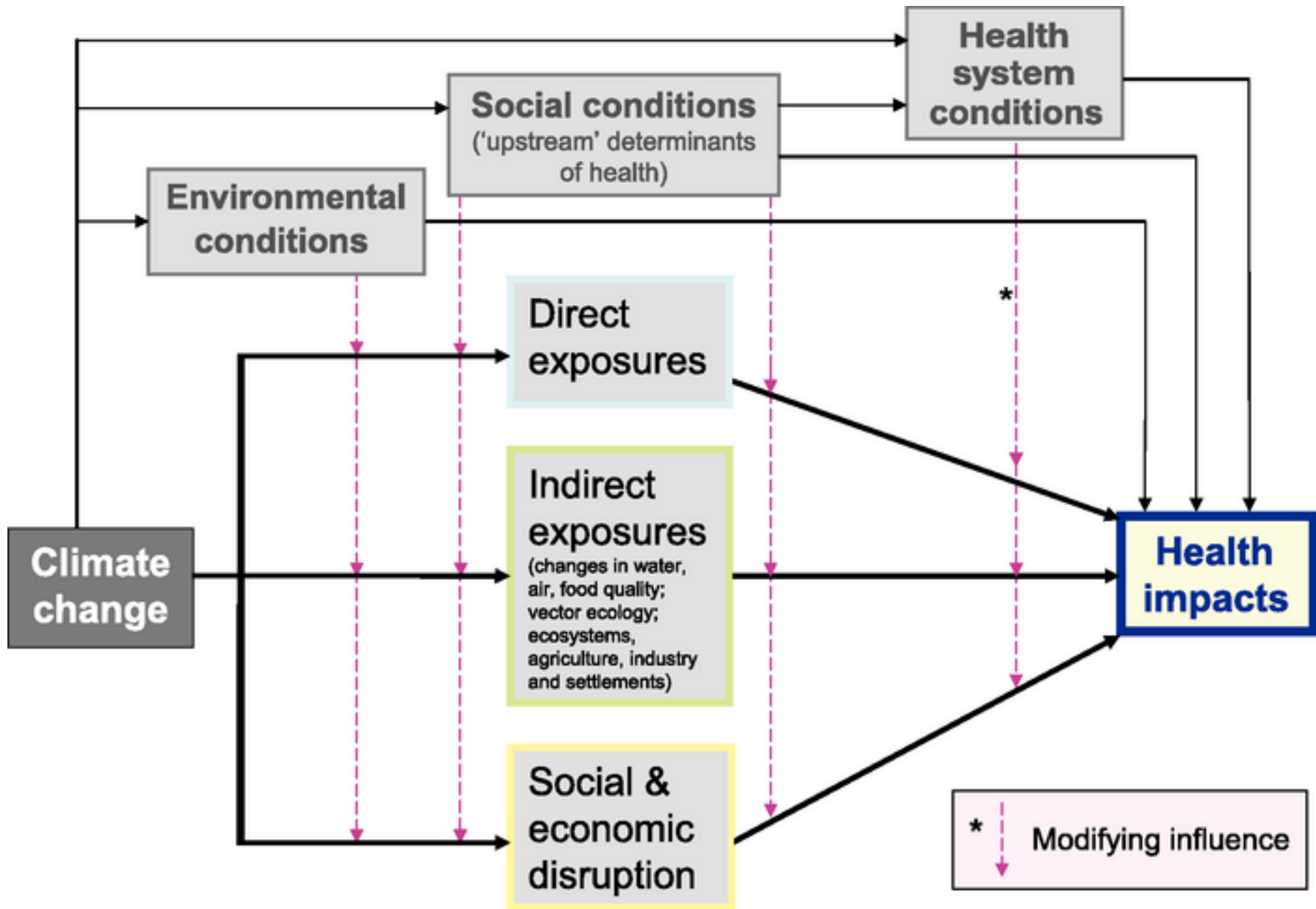


HEALTH IMPACT OF CLIMATE CHANGE IN INDONESIA

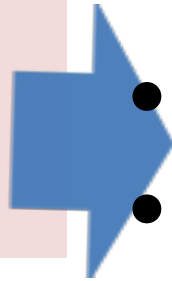
Hari Kusnanto



INDONESIA: an archipelago with 17,508 islands, Sumatera, Java, Borneo, Sulawesi and Papua are bigger islands, with a total of 81,000 km coastal line



INCREASED
TEMPERATURE



forest fire:
acute respiratory
illnesses and eye
irritation



flood:
enteric diseases,
leptospirosis,
distress



INCREASED
RAINFALL



- sea level rise
- intrusion of sea water
- disappearance of small islands
- bleaching of coral reef
- declined fisheries harvest
- storms

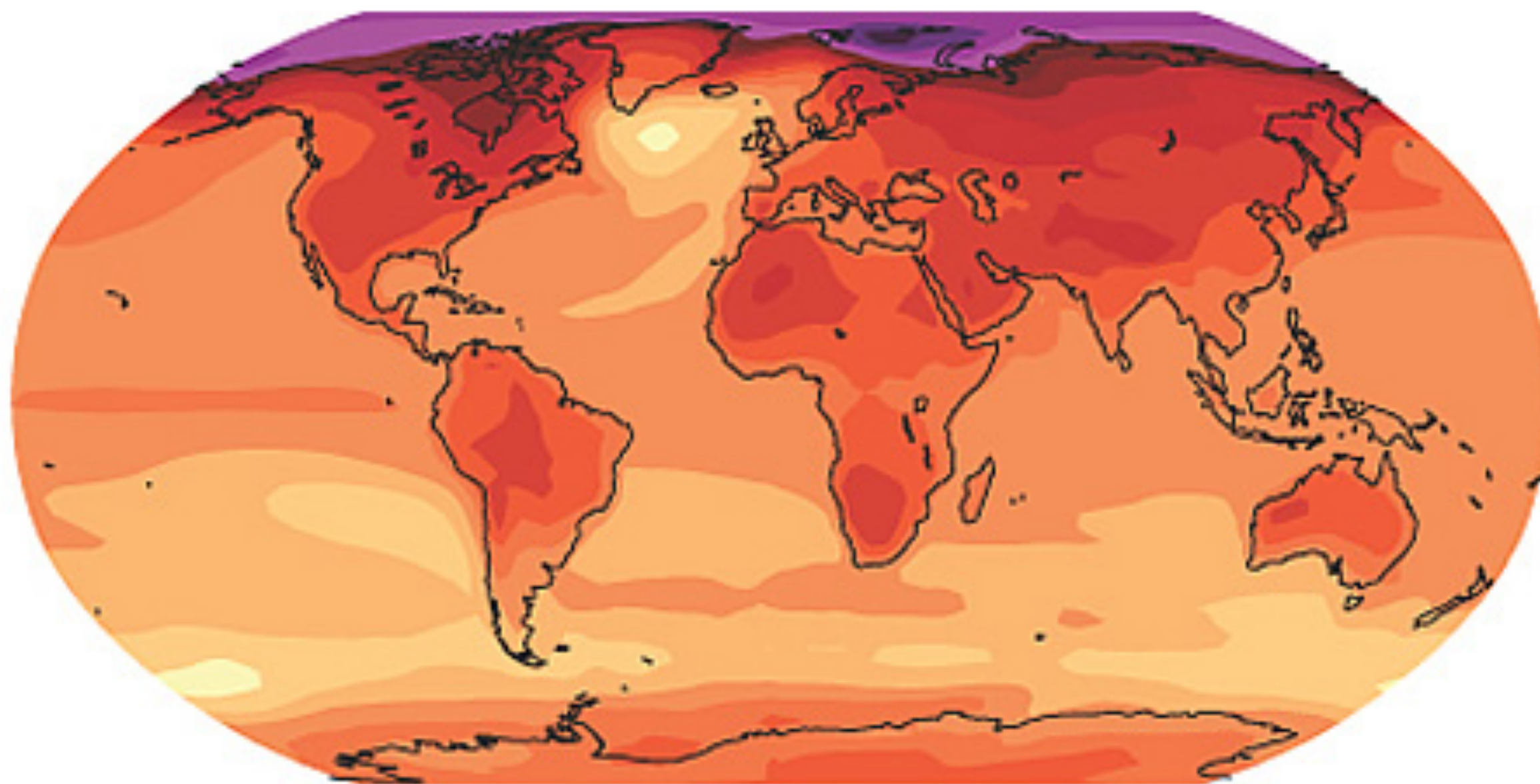


- injuries due to extreme events
- food insecurity and malnutrition
- diarrheal diseases
- increased vector-borne diseases



- floods and landslides
- increased vector capacity
- water contamination
(infectious or toxic agents)

Projected Temperature Increases Middle Emissions Scenario, 2080 - 2099



°F

0

1.8

3.6

5.4

7.2

9

10.8

12.6



°C

0

1

2

3

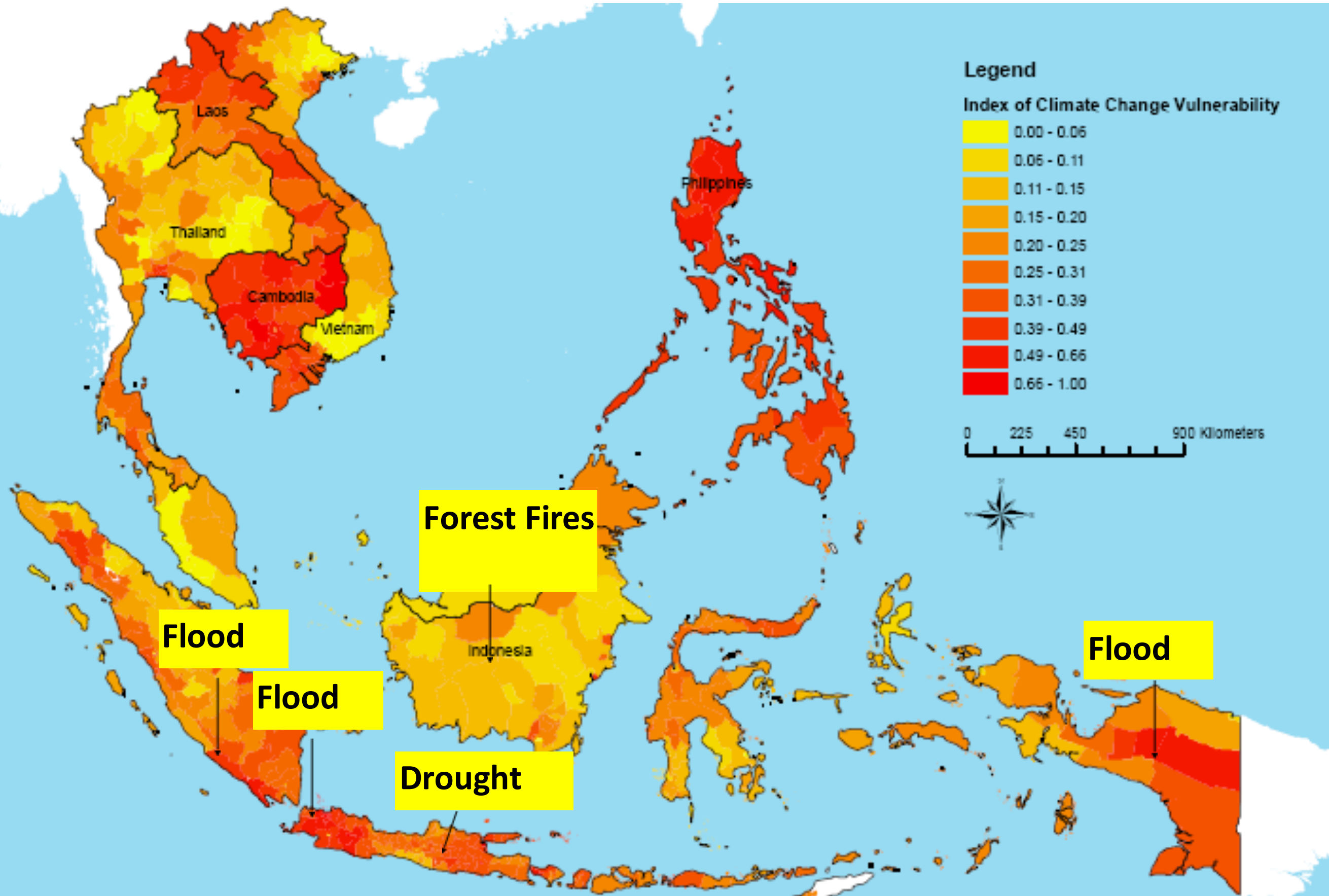
4

5

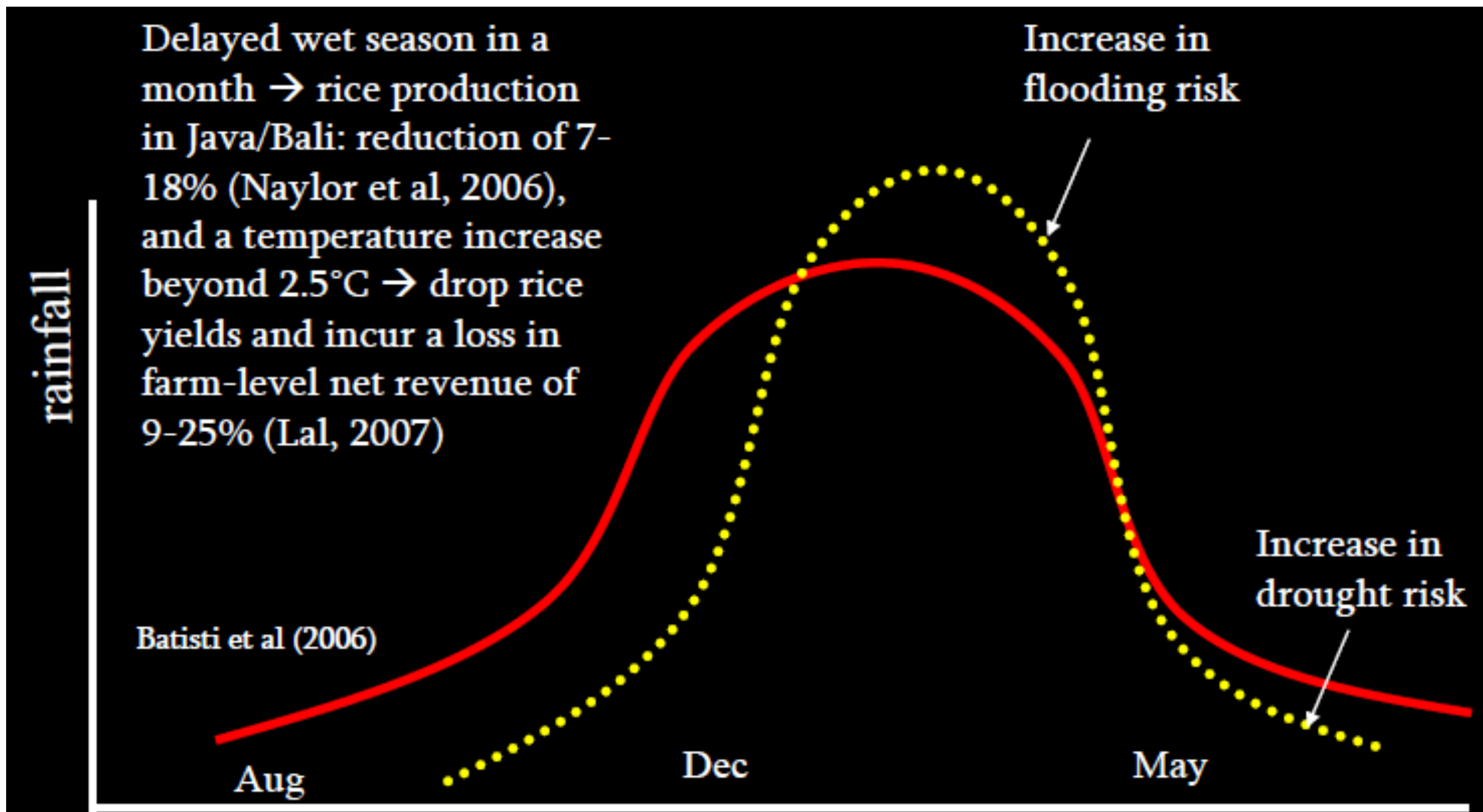
6

7

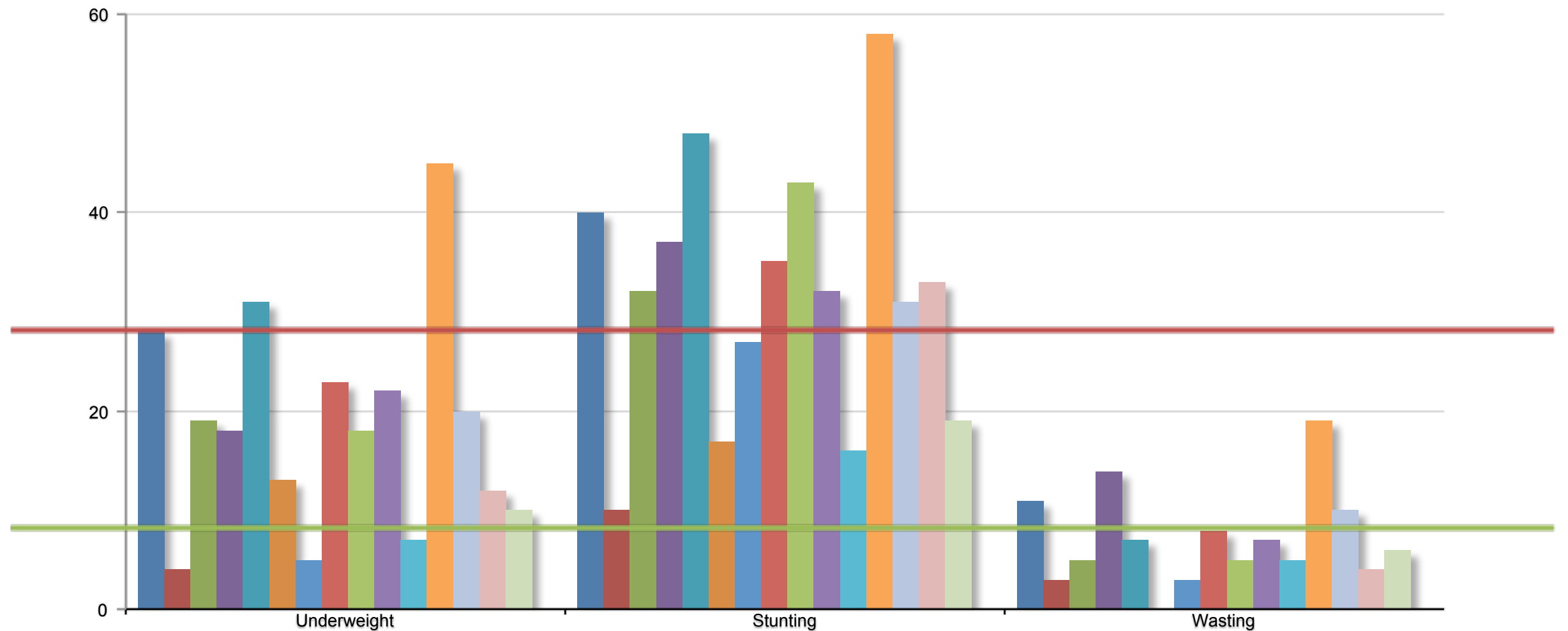
Climate Change Vulnerability



DELAYED WET SEASON: RISKS OF FLOODING AND DROUGHT

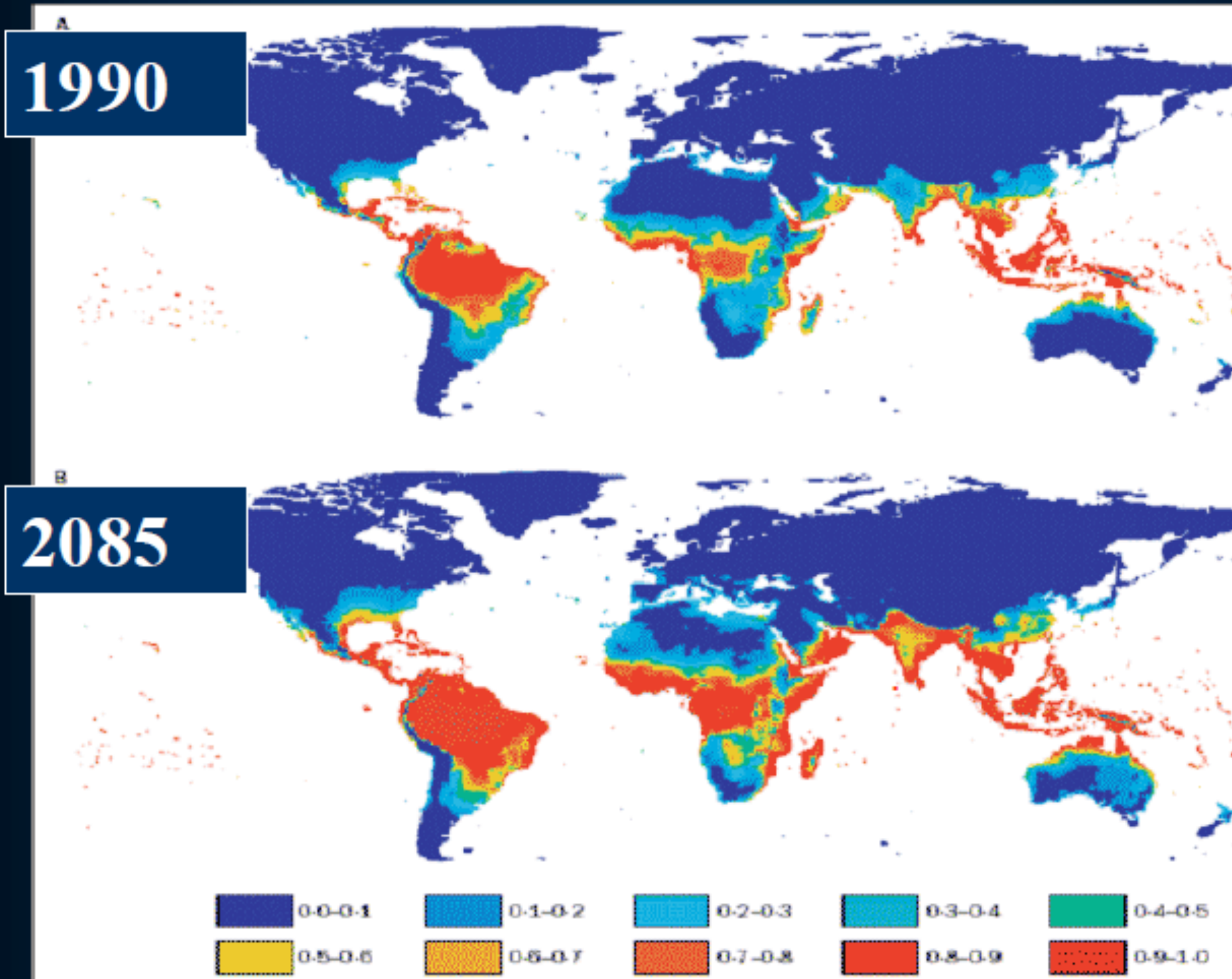


Prevalence of undernutrition in the East Asia Pacific Region (SOWC 2012)

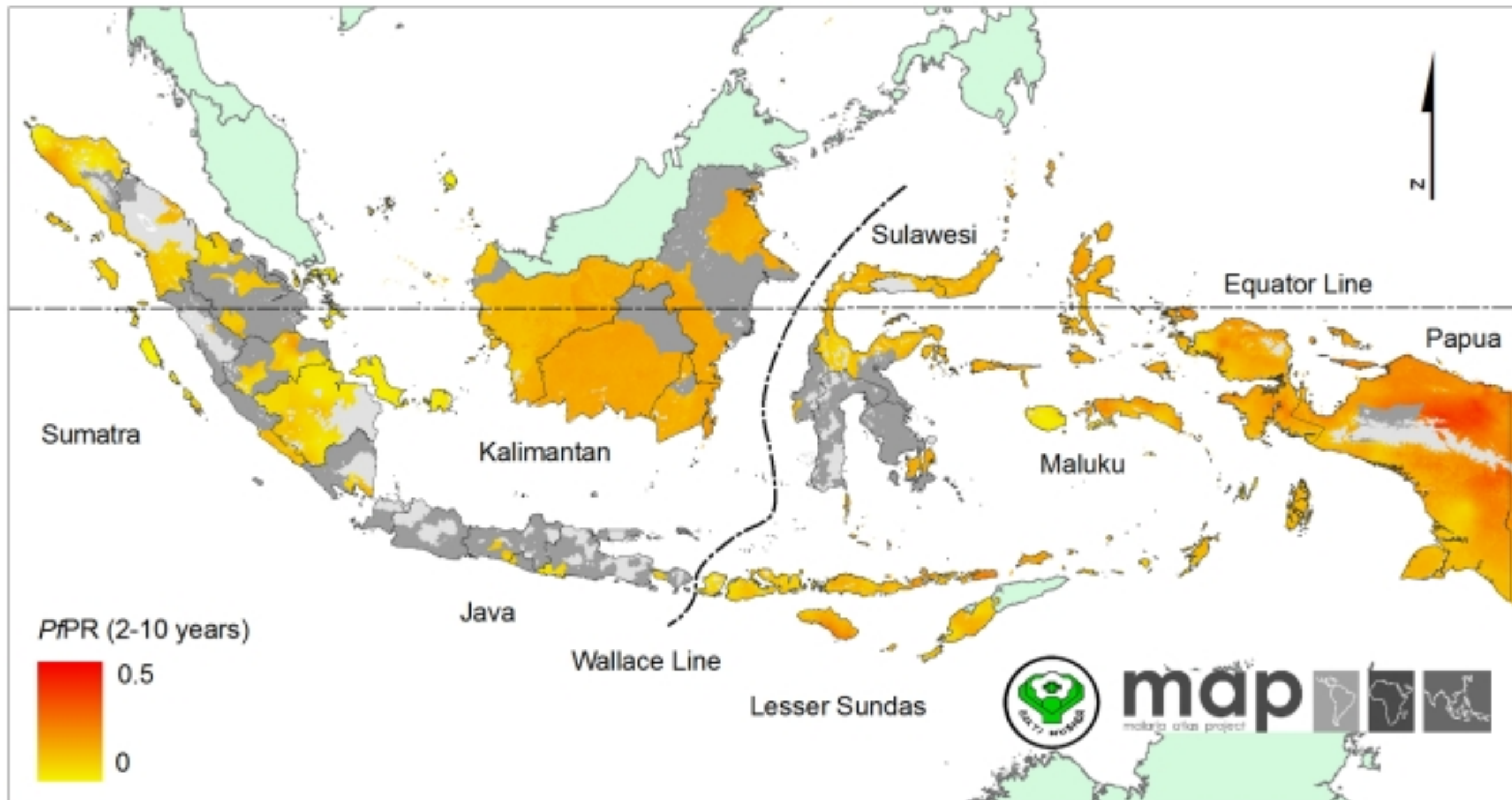


Indonesia Laos Malaysia Mongolia Myanmar PNG Philippines Thailand Timor L

Estimated population at risk of dengue fever under “standard” climate change scenario: 1990, 2085



MALARIA ENDEMICITY IN INDONESIA



Social and Economic Policies

Institutions (including medical care)

Living Conditions

Social Relationships

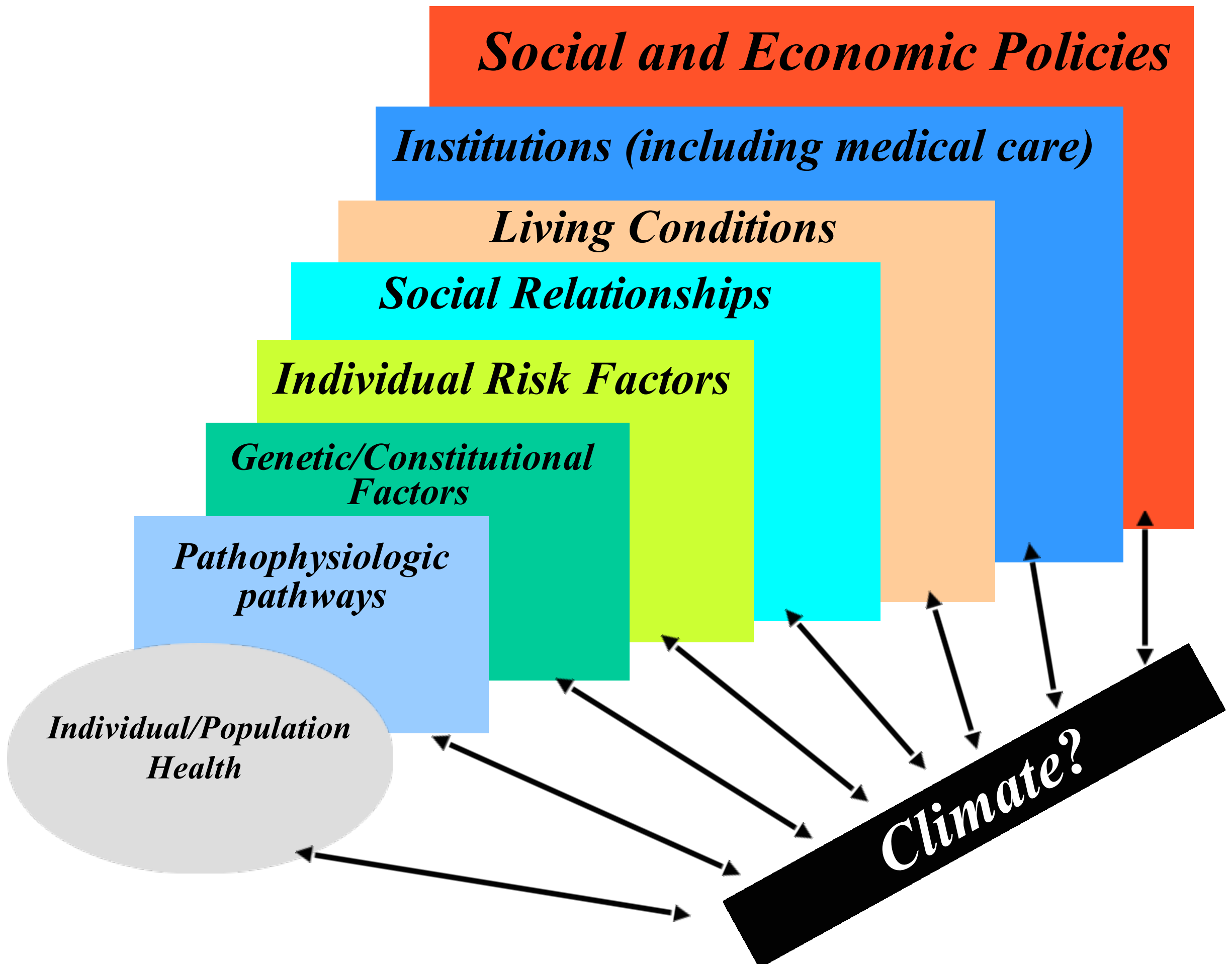
Individual Risk Factors

*Genetic/Constitutional
Factors*

*Pathophysiologic
pathways*

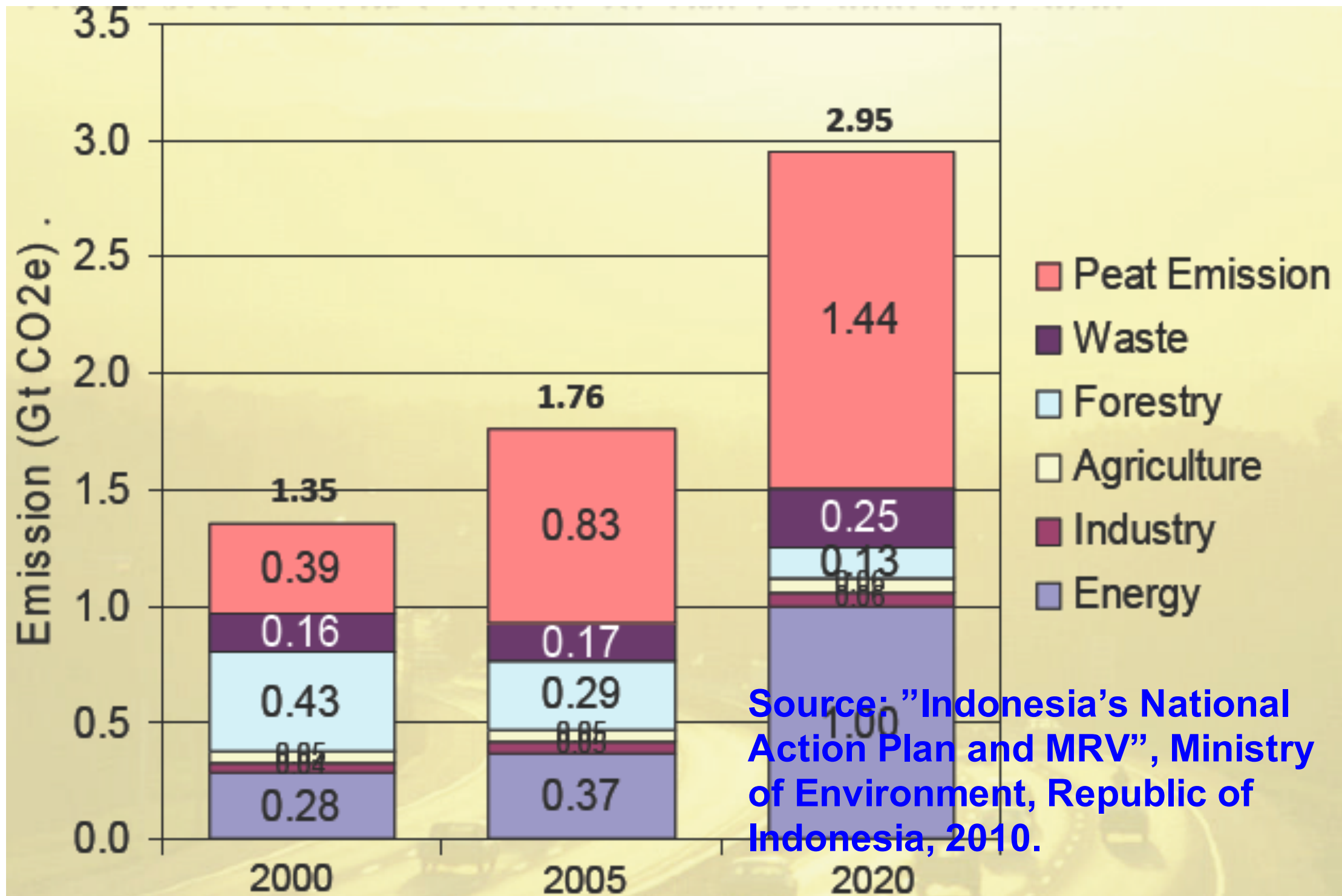
*Individual/Population
Health*

Climate?



MITIGATION AND ADAPTATION TO CLIMATE CHANGE IN INDONESIA

Estimated net greenhouse gas emissions in Indonesia



Source: "Indonesia's National Action Plan and MRV", Ministry of Environment, Republic of Indonesia, 2010.

Source emissions from peat, forestry, energy and waste. Source peat emissions using the study results van der Werf et al (2007).

Key policy issues

Mainstreaming

Financing scheme/
Policy coordination

GHG inventory

Mitigation

LULUCF

Energy

Transportation

Adaptation

Water Resource

Agriculture

Vulnerability assessment

Marine,
Coral &
Fisheries

Water Supply &
Sanitation

Disaster
management

Cross sectoral issues

Understanding climate change impact; Mainstreaming; Spatial Planning; CDM; Co-benefits; Fiscal Incentives; Early Warning Systems