

Climate and environmental challenges





**WHAT IS
CLIMATE CHANGE?**

Green Development

- **Economic growth with environmental sustainability**
- **Meeting current needs without hurting future generations**
- **Responsible use of natural resources**
- **Reducing environmental impacts**
- **Addressing climate change**
- **Supporting economic growth and social progress**

Overview of the **National Green Growth Strategy of the Lao PDR till 2030**



1. High Vulnerability to Climate Change:.

- By 2050, temperature estimated to rise by 0.5–0.7°C, rainfall will increase by approximately 14%. Increase in frequency and intensity of natural disasters.

2. Key Adaptation Strategies:

- Policies and strategies to adapt to climate change and manage natural disasters: National Adaptation Plan for Action (NAPA), Strategic Plan on Disaster Risk Management, the National Committee for Disaster Management (NCDM).

Overview of the **National Green Growth Strategy of the Lao PDR till 2030**



3. Promoting Resilience and Reducing Vulnerability:

Improve awareness, capacity and understanding of officials and organizations involved in climate adaptation. Promoting diversified through environmentally sustainable and disaster-resilient practices.

4. Low-Carbon Economic Growth:

Promoting economic growth with low greenhouse gas emissions. Energy-saving technologies that produce less waste and contribute to climate change mitigation. Protection and expansion of carbon sinks, such as forests and soil.

Overview of the **National Green Growth Strategy of the Lao PDR till 2030**



1. Investment Environment and Management:

- Facilitate investments contributing to sustainable development. Reduce environmental and social impacts from approved projects.

2. Rural Development and Poverty Reduction:

- Inclusive and fair economic growth to reduce poverty, especially in rural areas.

3. Gender Roles and Women's Advancement:

- Ensuring gender equality through education and socio-economic opportunities for women. Mainstreaming gender considerations into national and local policies.

The Environment and Climate Change Challenges in Lao PDR

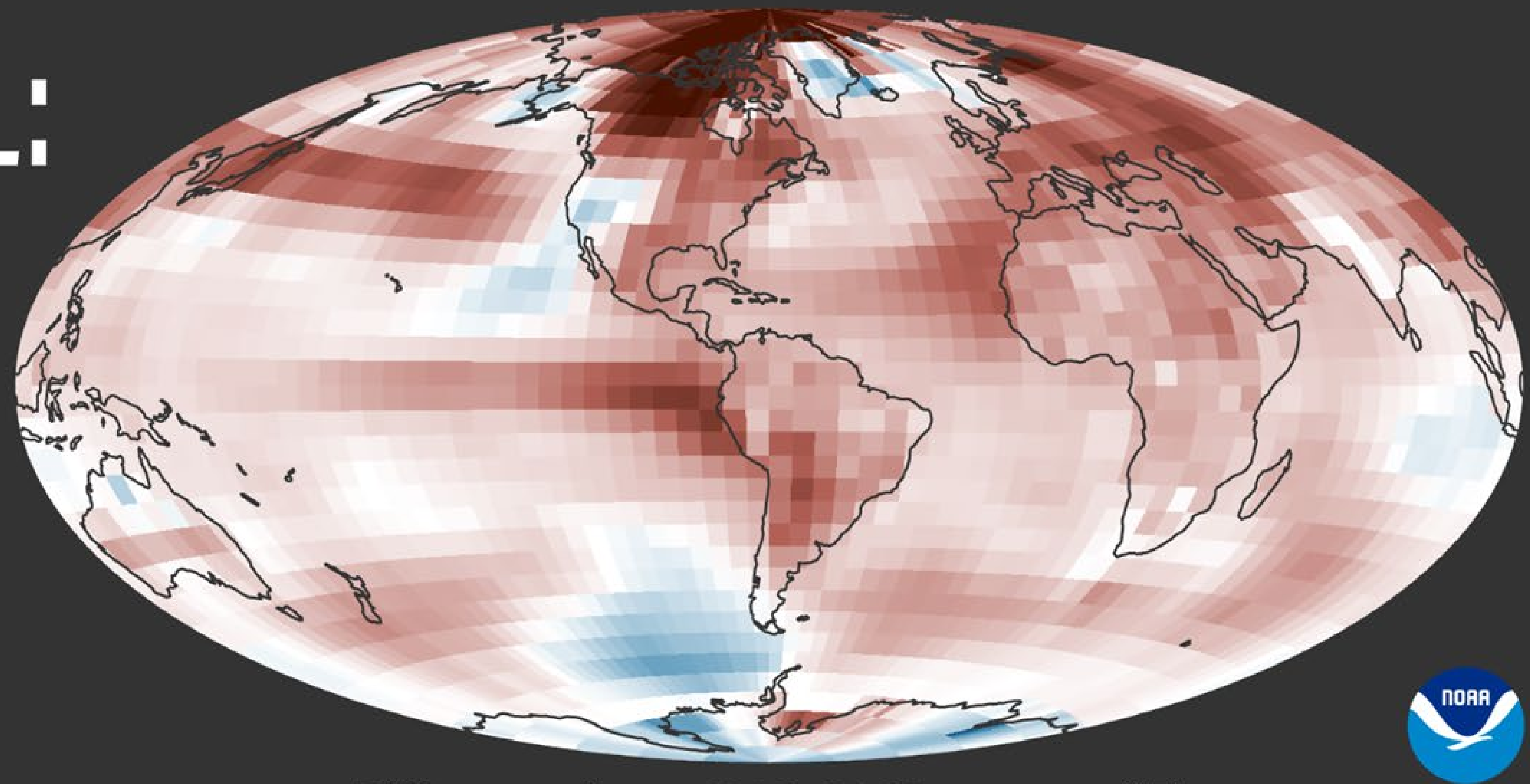


ໃນໄລຍະທີ່ດຣາວັດທີ່ຜ່ານມາ, ກິດຈະວັດຂອງມວນມະນຸດເປັນສາເຫດທີ່ເກີດໃຫ້ສະພາບຂອງໂລກນັບມື້ນັບເສຍຄວາມສົມດຸນ.

IT'S OFFICIAL:

2023 was the
world's warmest
year on record

(1850–2023)



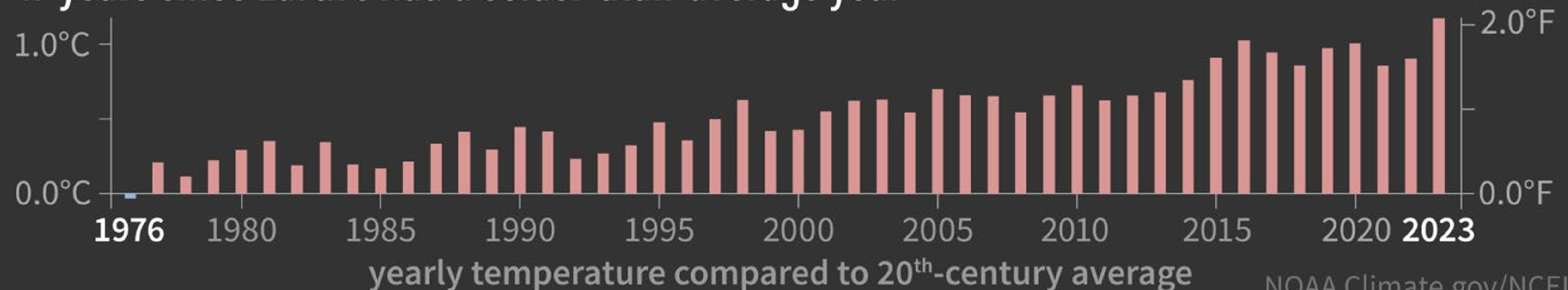
Difference from 1991–2020 average (°F)

-5

0

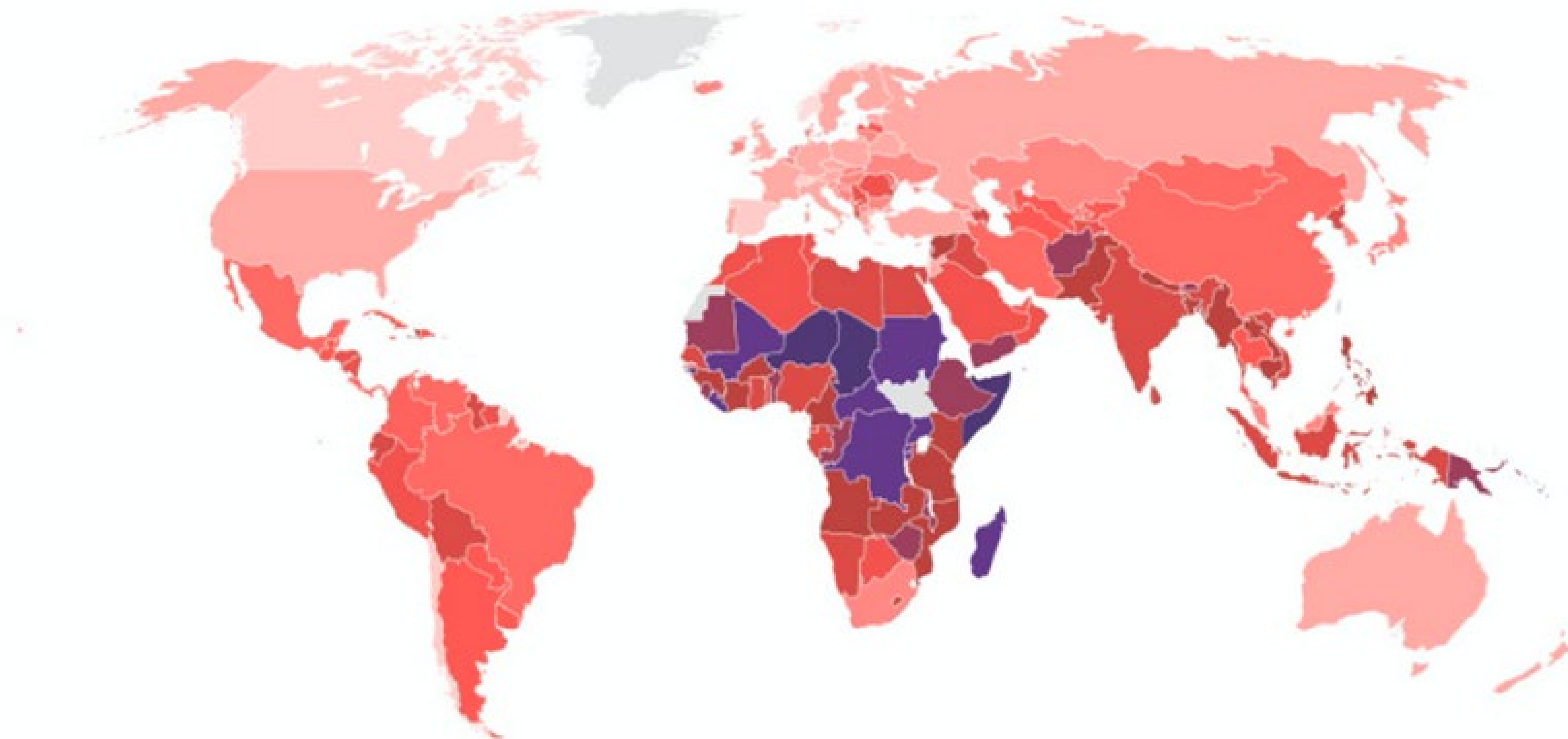
5

47 years since Earth's had a colder-than-average year



NOAA Climate.gov/NCEI

The Notre Dame Global Adaptation Initiative measures overall vulnerability to climate change by considering exposure, sensitivity, and ability to adapt across six life-supporting sectors – food, water, health, ecosystem service, human habitat, and infrastructure



Vulnerability to climate change



Darker colors reflect greater vulnerability,
gray indicates no data available

Annual CO₂ emissions, 2022

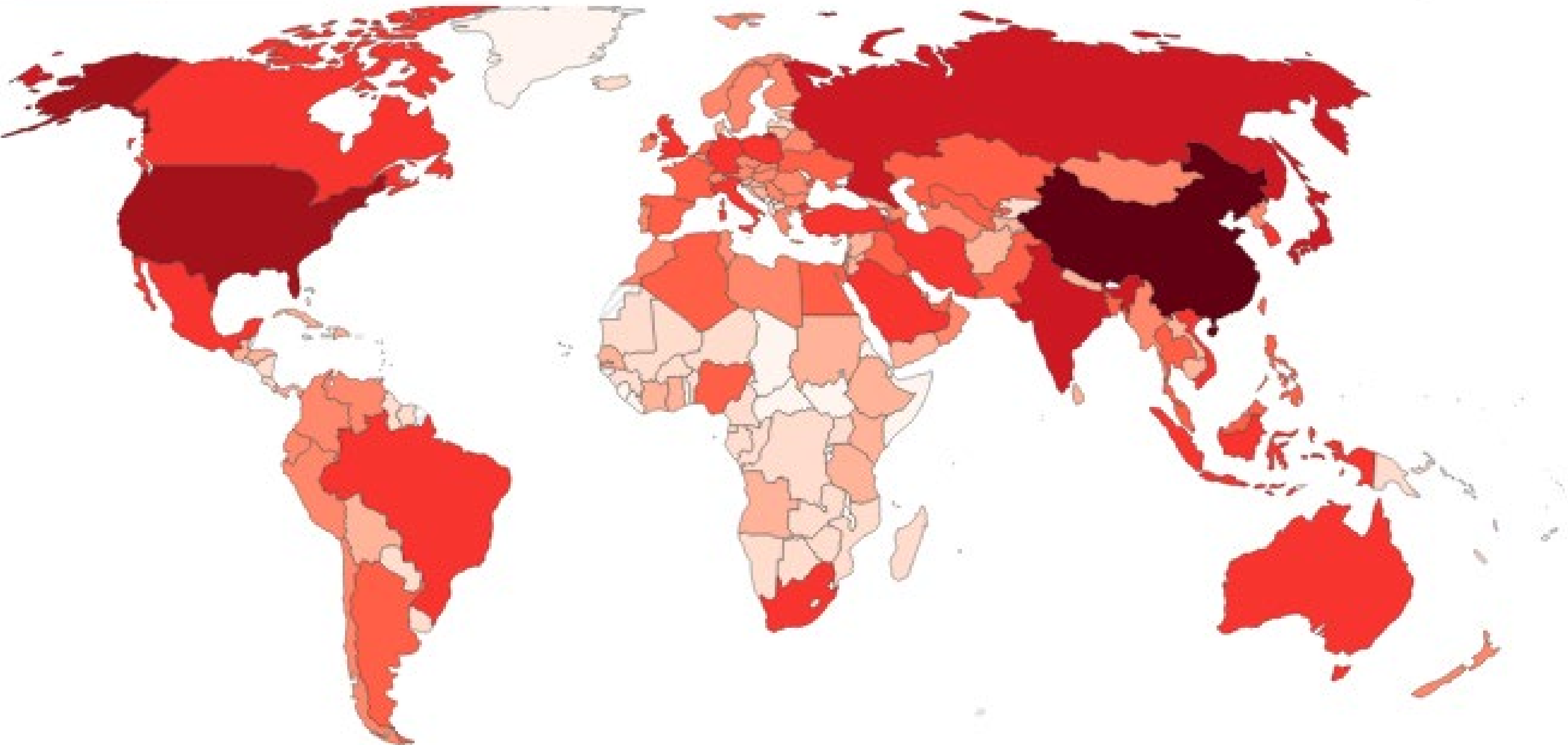
Carbon dioxide (CO₂) emissions from fossil fuels and industry. Land-use change is not included.

Table

Map

Chart

World



▶

1750

●

2022

EARTH SUMMIT

United Nations Conference on
Environment and Development (UNCED),
Rio de Janeiro, Brazil, 3-14 June 1992



- Participants: 179 countries
- Key Achievement: UN Framework Convention on Climate Change (UNFCCC) :

- Says human activities contribute to climate change
- Says climate change is a global concern
- Entered into force in 1994
- Does not legally bind countries to reduce emissions
- No targets or timetables set
- Requires regular meetings (Conference of the Parties, COP)













United Nations
Framework Convention on
Climate Change



The UN Climate Agreements

Kyoto Protocol & Paris Agreement

Kyoto Protocol	Paris Agreement
<div><p>Was created in 1997 and ratified in 2005. Had two periods from 1997-2020.</p></div>	<div><p>Signed in November of 2016. New commitments are due every 5 years</p></div>
<div><p>Legally binding agreement to decrease GHG</p></div>	<div><p>Not legally binding commitment to reduce emissions, increase accountability</p></div>
<div><p>Original commitment to decrease overall emissions by 5% from 1990 levels</p></div>	<div><p>Overall goal to limit global temperatures to 1.5 degrees celcius above pre-industrial levels</p></div>
<div><p>Only required developed nations to reduce emissions</p></div>	<div><p>Asked all nations to reduce emissions</p></div>
<div><p>Targets are set but no determined time frame</p></div>	<div><p>New set of targets declared after 5 years (these are now due in 2020)</p></div>

WHAT IS THE PARIS AGREEMENT?

AND HOW DOES IT WORK?



Climate Change / Environmental Issues in Lao PDR



Climate Change, Environment and Lao PDR

1

**Climate is not
weather**



Climate and weather are not the same. Weather is local and temporary. A thunderstorm, for example, is a typical weather event. Climate, however, reflects regional and long-term patterns in temperature, rainfall and wind. It is therefore measured as an average over time. For example, average rainfall in 2011 in Laos was approximately 1,800 mm.

Climate Change, Environment and Lao PDR

2

**Average
temperatures are
rising worldwide**



Climate worldwide is changing faster and faster. Over the past 50 years, the average air temperature near the earth has increased between 0.15 – 0.3°C every ten years. This effect is called global warming.

Climate Change, Environment and Lao PDR

3

Global warming and climate change are caused by human activities, too

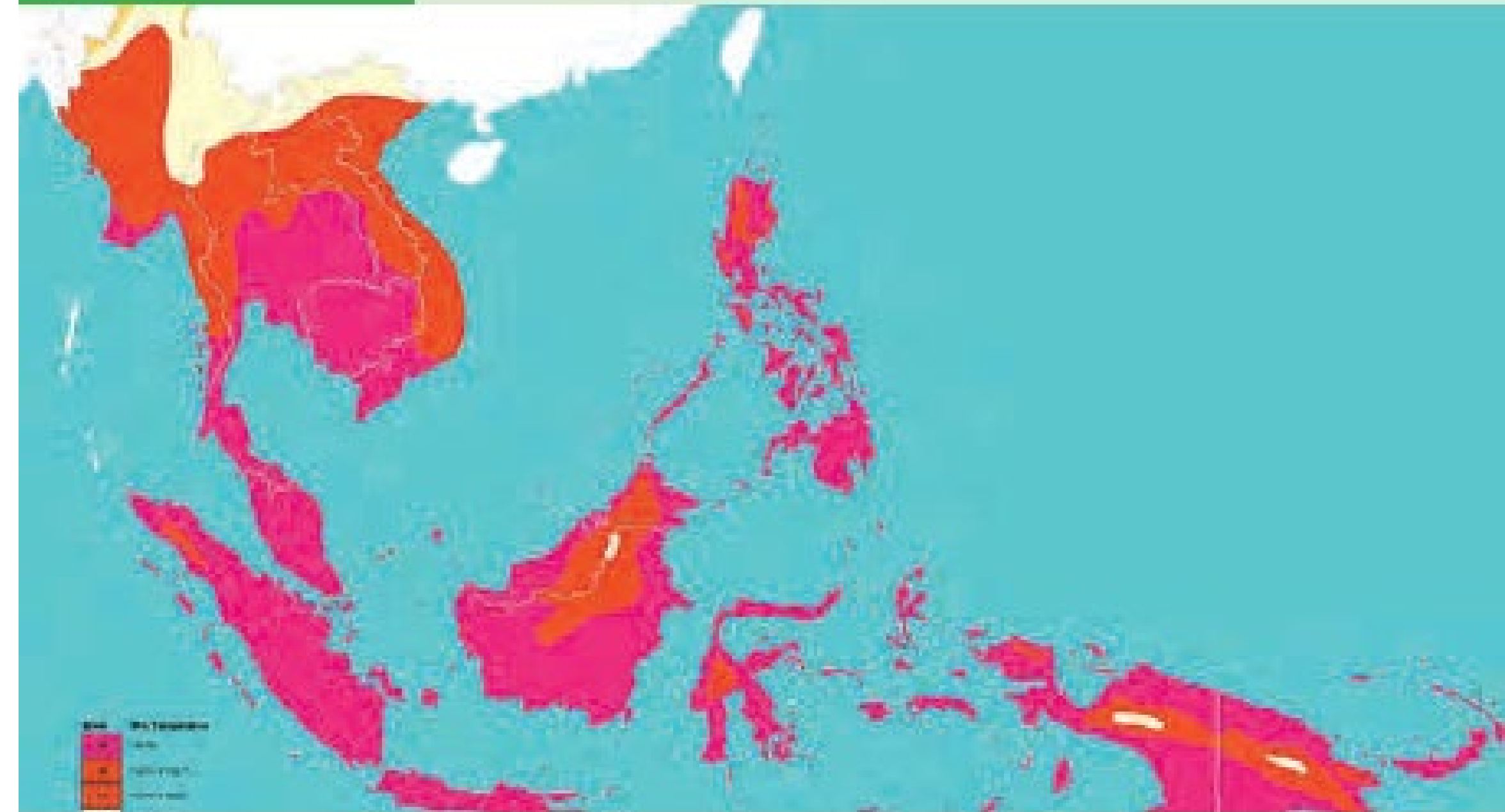


The increase of average temperatures on earth is called global warming. Human activities like the extraction and burning of coal or oil, rice field cultivation and livestock rearing or deforestation all add to global warming. In Laos, it is mainly agricultural activities and deforestation which contribute to global warming.

Climate Change, Environment and Lao PDR

4

Climate change does not stop at countries' borders



Warmer temperatures are affecting the world's climate and its marine, river, land and forest ecosystems. Climate change does not stop at the border of Lao PDR. Being a land-locked country does not protect Laos from the effects of global warming. The regional climate in South East Asia will change as a whole, and this includes Laos.

Credit: GIZ

Climate Change, Environment and Lao PDR

5

Climate in Laos is changing



Climate change is happening globally and affects all countries. Changes in climate can be identified at the national level, too. For Laos, scientists predict that temperatures will continue to rise and that dry seasons will get longer. Rainfall, storms, droughts and floods will become more severe and frequent. Rainfall will become more erratic and weather events such as droughts or floods will become more extreme.

Credit: GIZ

Climate Change, Environment and Lao PDR

6

Climate change affects people's lives



Vulnerability towards climate change is high when a country like Laos depends on natural resources for its development. Some of Laos' major forms of natural resource utilization such as rain-fed rice cultivation and hydro-power generation are very vulnerable to the negative effects of climate change. The northern and north-western parts of Laos are vulnerable to drought. Along the Mekong River, plains in the central and southern provinces are vulnerable to flood.

Credit: GIZ

Climate Change, Environment and Lao PDR

7

**Laos faces immediate
climate change risks**



The effects of climate change can have serious impacts on the livelihoods and living conditions of people in Laos. Floods and storms can destruct infrastructure by washing away streets, damaging buildings or interrupting electricity supply. Floods and droughts can cause crop failure, a lack of drinking and irrigation water or waterborne diseases and infectious diseases such as malaria or dengue.

Credit: GIZ

Climate Change, Environment and Lao PDR

8

Climate change will affect the long-term development of Lao PDR



Climate change will affect economic growth in Laos as key industrial sectors depend on natural resources: mining, hydropower and wood processing. Farming, animal husbandry, forestry and fisheries rely on land, appropriate temperature and rainfall. Water shortage and groundwater depletion can lead to reduced agricultural production. This may cause food insecurity and an increase of poverty as the livelihood of most Lao people relies on agriculture.

Credit: GIZ

Climate Change, Environment and Lao PDR

9

**The adaptation to
climate change is
crucial for Laos**



Adapting to climate change will enable Laos to minimize the negative effects of climate change. Adaptation incorporates the adjustments in human and natural systems in response to expected climate change impacts. Sector policies and action plans related to key sectors such as agriculture, forestry, water resources, energy or industry need to incorporate climate change adaptation measures. This will safeguard the long-term sustainability of the country's development and growth.

Credit: GIZ

Climate Change, Environment and Lao PDR

10

The mitigation of climate change needs to be taken into account

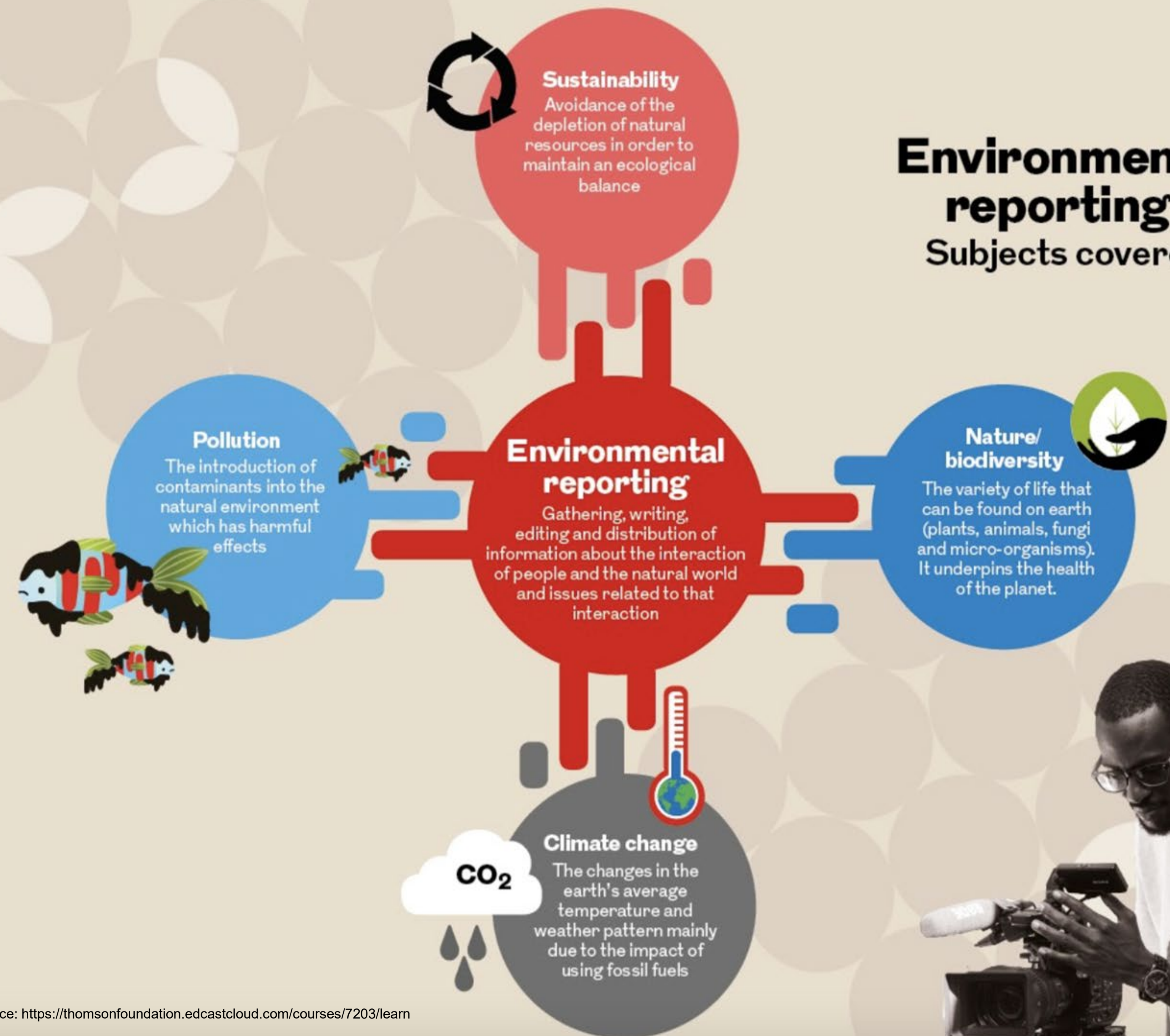


In order to mitigate or limit climate change, global warming by human activities needs to be reduced. Laos' economy is continuously growing, mainly based on exports of natural resources. Mitigation measures need to be taken regarding growth in the mining and timber sectors and in processing industries such as garments or cement. Setting a national framework for limiting global warming and climate change today supports the development of Lao industries tomorrow.

Credit: GIZ

Environmental reporting:

Subjects covered



Source: <https://thomsonfoundation.edcastcloud.com/courses/7203/learn>



Climate or environment?

'There is no escape': Nairobi's air pollution sparks Africa health warning

Pollution in the Kenyan capital is 'beyond imagination'. With Africa's predicted rise in population - and a constant stream of dirty secondhand cars from Europe and Japan - this urban health crisis could kill 1.5 million within a generation

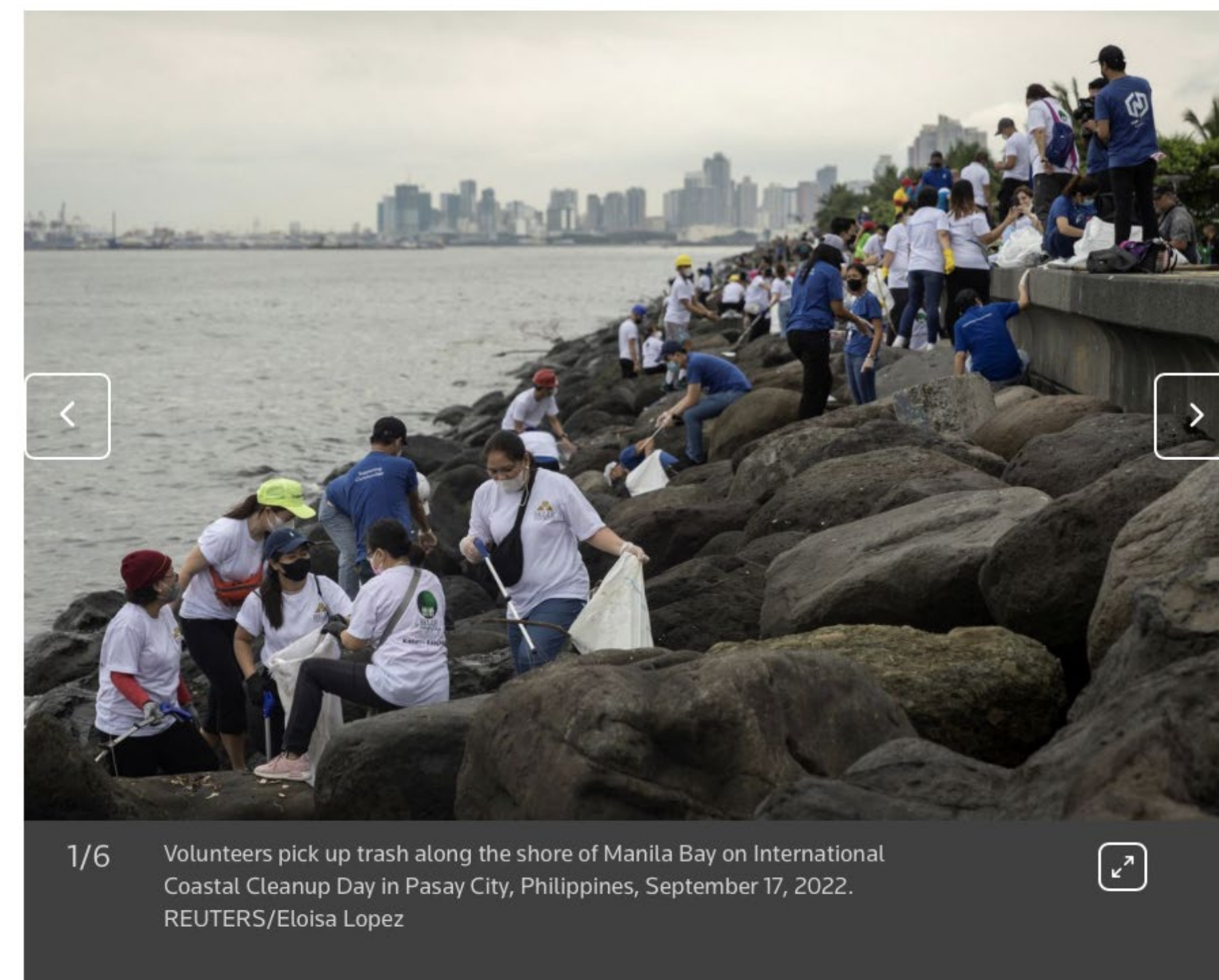


<https://www.theguardian.com/cities/2016/jul/10/no-escape-nairobi-air-pollution-sparks-africa-health-warning>

Climate or environment?

Cleanup day comes to Philippine capital's polluted bay

By Peter Blaza and Jay Ereño



MANILA, Sept 17 (Reuters) - Hundreds of volunteers joined a mass cleanup drive along the coast of the polluted Manila Bay in the Philippine capital to mark International Coastal Cleanup Day on Saturday.

<https://www.reuters.com/world/asia-pacific/cleanup-day-comes-philippine-capitals-polluted-bay-2022-09-17/>

Climate or environment?

NEWS BUSINESS SE ASIA OPINION LIFESTYLE TRAVEL MULTIMEDIA

NEWS > CITY

Dozens of Jakarta neighborhoods flooded after Sunday night rain

News Desk

The Jakarta Post

Jakarta / Mon, October 5, 2020 / 12:11 pm

Entire neighbourhoods in the capital Jakarta and its satellite cities, home to about 30 million people, [were submerged last week by floodwaters](#). The deluge was the heaviest in the capital since record-keeping began in the 19th century. Located in the equatorial belt, Indonesia with its tropical climate often suffers from flash floods and landslides, mainly triggered by monsoon rainfall between October and April.

<https://www.thejakartapost.com/news/2020/10/05/dozens-of-jakarta-neighborhoods-flooded-after-sunday-night-rain.html>

Climate or environment?

Sugar and Salt Shortage Worsens Philippines Food Supply Woes

- Country also purchases corn, rice and wheat from overseas
- Increasing food costs are helping fan inflation in the nation



Flooded salt ponds a day after Typhoon Dante passed through in Cavite province, in June 2021. *Photographer: Veejay Villafranca/Bloomberg*

By Ditas B Lopez and Andreo Calonzo

7. September 2022, 02:00 MESZ *Updated on 7. September 2022, 08:28 MESZ*

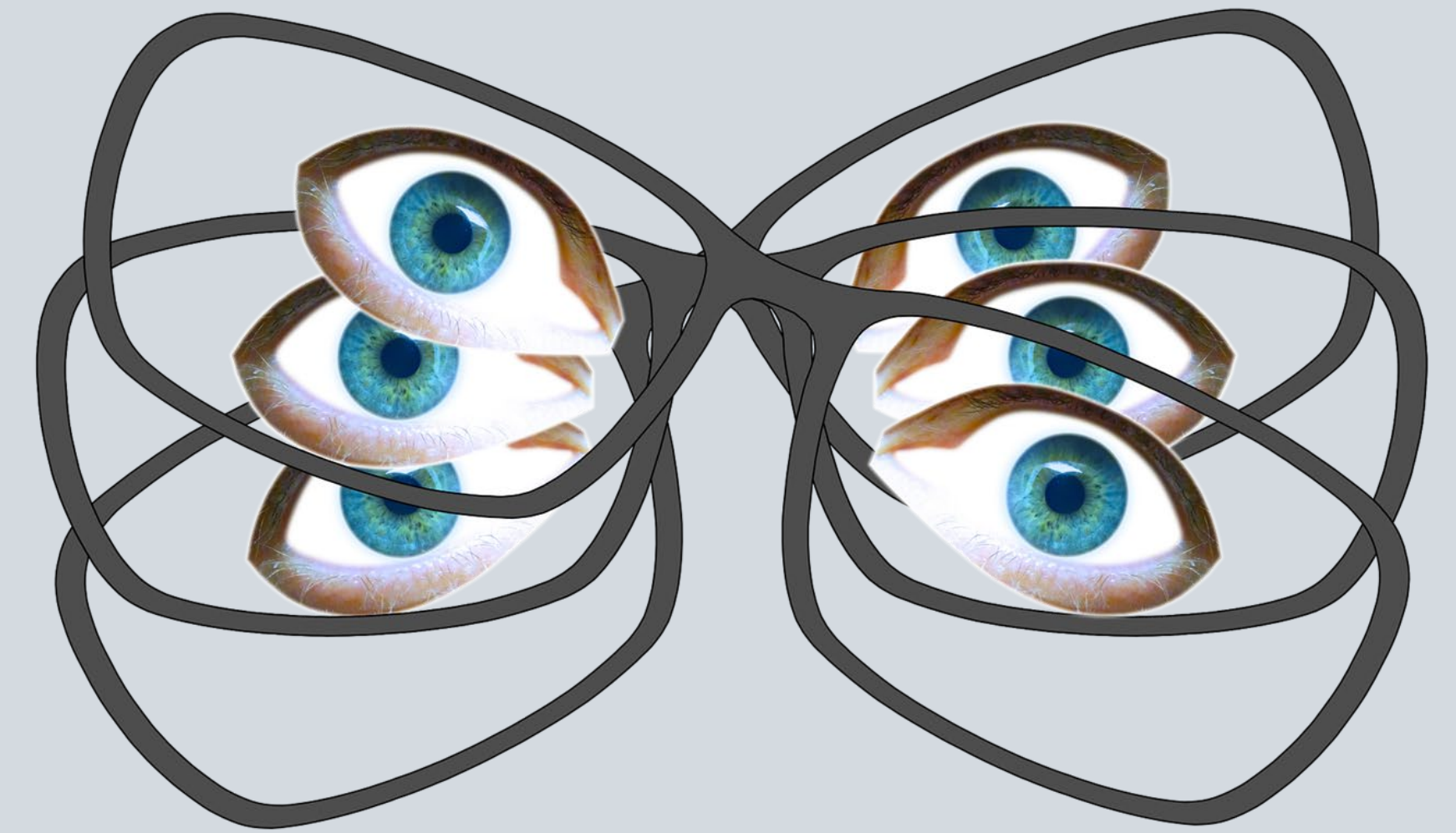
<https://www.bloomberg.com/news/articles/2022-09-07/sugar-and-salt-shortage-worsens-philippines-food-supply-woes>

N
—
Te
M
A
—
Pu
L
A
—
M
S
r

Climate change as a cross-cutting issue

Put on your climate-change glasses and report the story from new angles, get colleagues on different beats to start thinking about the climate.

Beats: health, business, technology, food, culture, sport, tourism, religion, politics – pretty much anything.



Ask:

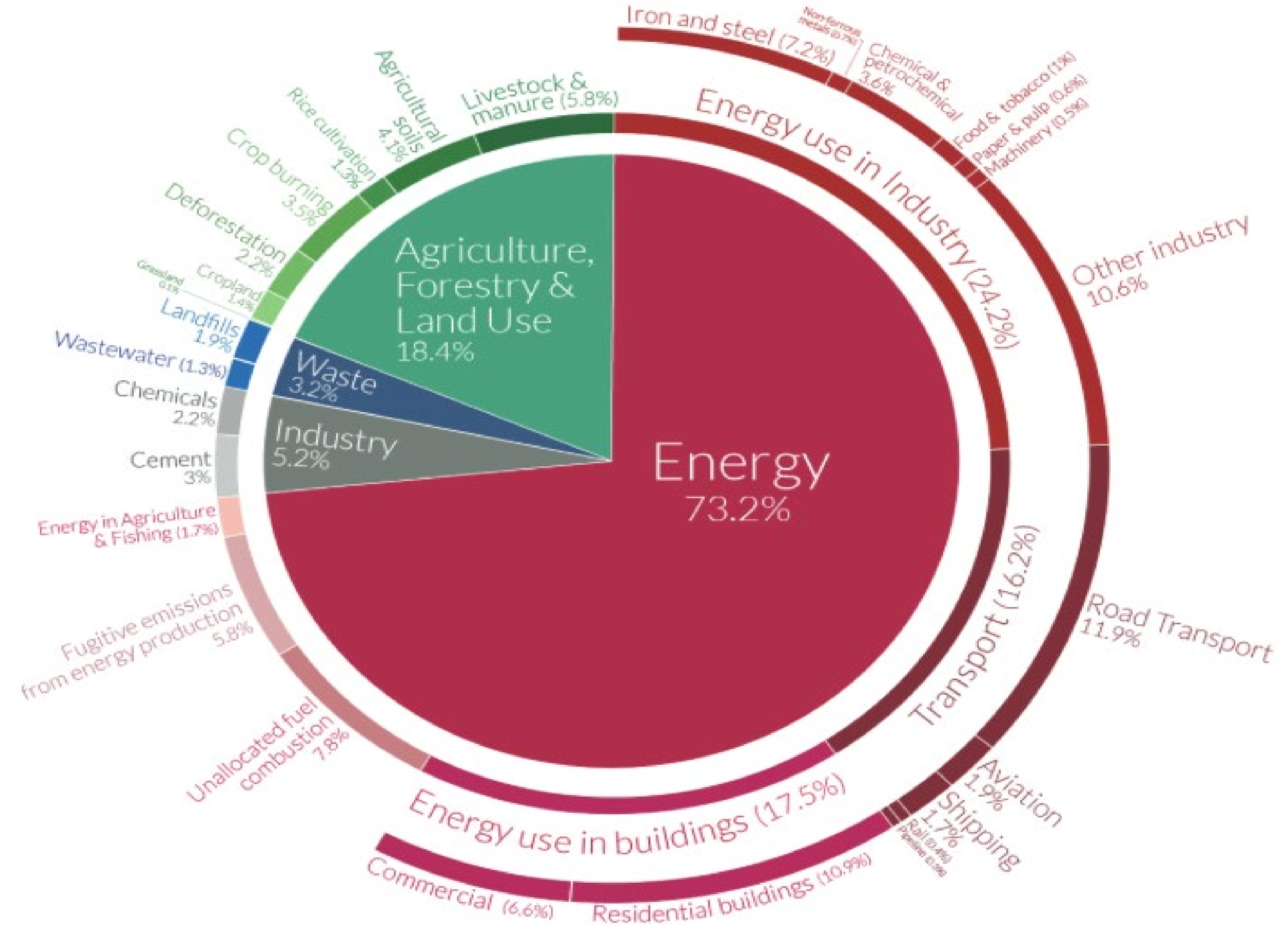
- **How could X affect climate change?**
- **How could climate change affect X?**

Is the source
reliable or not?

Reading data charts

Global greenhouse gas emissions by sector

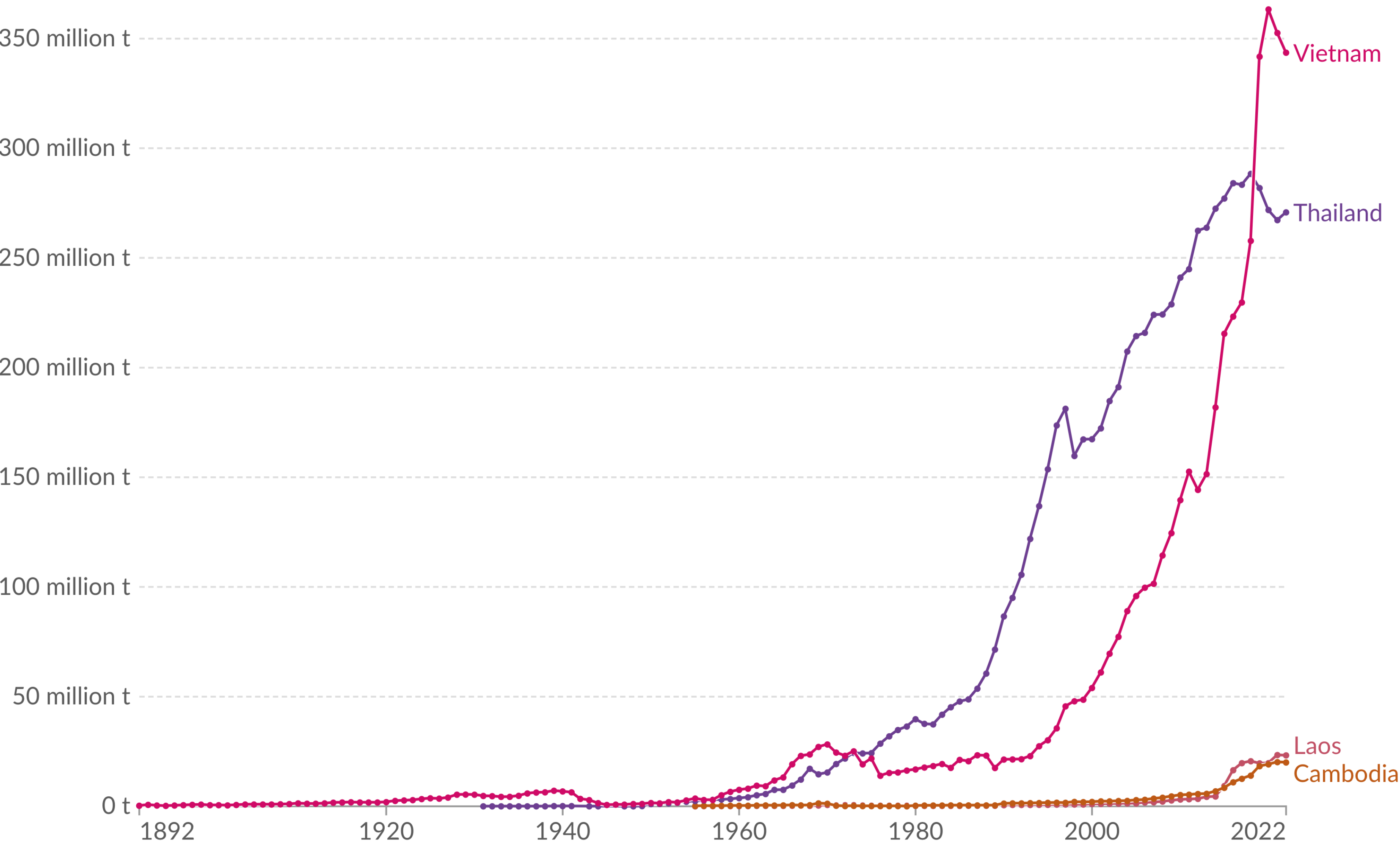
This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.





Annual CO₂ emissions


Carbon dioxide (CO₂) emissions from fossil fuels and industry¹. Land-use change is not included.



Data source: Global Carbon Budget (2023)

OurWorldinData.org/co2-and-greenhouse-gas-emissions | CC BY

1. Fossil emissions: Fossil emissions measure the quantity of carbon dioxide (CO₂) emitted from the burning of fossil fuels, and directly from industrial processes such as cement and steel production. Fossil CO₂ includes emissions from coal, oil, gas, flaring, cement, steel, and other industrial processes. Fossil emissions do not include land use change, deforestation, soils, or vegetation.

 Earth's average land and ocean surface temperature in 2021 was 1.51 degrees F (0.84 of a degree C) above the 20th-century average.

It also marked the 45th consecutive year (since 1977) with global temperatures rising above the 20th-century average. The years 2013-2021 all rank among the ten-warmest years on record.

