



# Environmental Health

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# Environmental Health

- ✓ Across the world, the environment is a key determinant of health and well-being.
- ✓ Clean air, stable climate, adequate water, sanitation and hygiene, safe use of chemicals, protection from radiation, healthy and safe workplaces, sound agricultural practices, health-supportive cities and built environments, and a preserved nature are all prerequisites for good health (WHO).
- ✓ Globally, nearly 25% of all deaths and total disease burden can be attributed to environmental factors.
- ✓ Unimproved water and sanitation, ambient air pollution, indoor pollution from solid fuels, and lead exposure are among the leading contributors to global burden of disease.
- ✓ In addition, many current and emerging exposures in food, water, soil, air, and consumer products adversely affect human health.

# Why Is Environmental Health Important?

Maintaining a clean healthy environment is central to increasing quality of life and years of healthy life.

lower the burden of preventable environmental diseases that are disproportionately felt by residents of poor developing countries.

\*\*\*The reasons for this disproportionate effect in poor countries include lack of modern technology, weak protective environmental laws and regulations, a lack of awareness, and poverty.

Healthier environments could prevent almost one quarter of the global burden of disease. The COVID-19 pandemic is a further reminder of the delicate relationship between people and our planet (WHO)

# WHO Definition of Environmental Health

It refers to the theory and practice of assessing, correcting, controlling, and preventing those factors in the environment that can potentially affect adversely the health of present and future generations.

# What Is Environmental Health Science?

“The study of those factors in the environment that affect human health” under these conditions:

- Factors (“pollutants” or “toxicants” = Hazard) in air, water, soil, or food ... that human activities produce.
- Transferred to humans by inhalation, ingestion, or absorption (exposure).
- Production of adverse health effects as a result of that exposure.

# Basic Requirements for a Healthy Environment

- Clean air
- Safe and sufficient water
- Safe and adequate food
- Safe and peaceful settlements
- Stable global environment

# World Environment Day (WED)

- In 1972, the UN General Assembly designated 5 June as World Environment Day (WED). The first celebration, under the slogan “Only One Earth” took place in 1973. In the following years, WED has developed as a platform to raise awareness on the problems facing our environment such as air pollution, plastic pollution, illegal wildlife trade, sustainable consumption, sea-level increase, and food security and others. Furthermore, WED helps drive change in consumption patterns and in national and international environmental policy.

# Why take part?

- Time is running out, and nature is in emergency mode. To keep global warming below 1.5°C this century, we must halve annual greenhouse gas emissions by 2030. Without action, exposure to air pollution beyond safe guidelines will increase by 50 per cent within the decade and plastic waste flowing into aquatic ecosystems will nearly triple by 2040.
- We need urgent action to address these pressing issues.



# WED, 2024

- Host: The Kingdom of Saudi Arabia
- The theme for 2024, "Our Land, Our Future. We are #GenerationRestoration," emphasizes the importance of restoring land, combating desertification, and enhancing resilience to drought.
- \*\* Currently, up to 40% of the world's land is degraded, impacting around 3.2 billion people globally due to desertification. Moreover, projections suggest that by 2050, over three-quarters of the world's population will be affected by drought.

## We are #GenerationRestoration

How to reverse land degradation, halt desertification and build drought resilience



World Environment Day  
2024 PRACTICAL GUIDE

Our Land. Our Future  
We are  
#GenerationRestoration



Kingdom of  
Saudi Arabia  
2024







# WED, 2025

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- Host country: Republic of Korea (South Korea).
- Theme: Ending plastic pollution.
- Slogan: "Shared Challenge, Collective Action".



# Hazards in the Environment

## What are Hazards?

- ✓ Things in the environment that are harmful are called **hazards** and include things like chemicals, disease-causing bacteria, loud noises and even stress in our life.
- ✓ hazards can be natural or human-made.

# Types of Hazards in the Environment

Chemical: Air pollutants, toxic wastes, pesticides, VOCs

Biological: Disease organisms present in food and water, also Insect and animal allergens

Physical: Noise, ionizing and non-ionizing radiation

Socioeconomic: Access to safe and sufficient health care

# Routes of exposure

How do  
hazards get  
transformed to  
our bodies????

# Health Effects of Hazards

- Acute vs. delayed onset
- Clinical vs. subclinical manifestations
- Transient (reversible) vs. chronic (irreversible)



# Examples of Manifestations

- Lung disease
- Reproductive effects
- Teratogenic effects
- Neurologic effects
- Immunosuppression and hypersensitivity
- Cancer

# Vulnerable Groups (susceptible)

Low socioeconomic status

- Women

Children

- Elderly
- Ethnic minorities
- Disabled

Indigenous peoples

- All of whom are often more vulnerable because of Genetics or  
They are not empowered to change their environment



# Improving Human Health and Environment: 3 Models



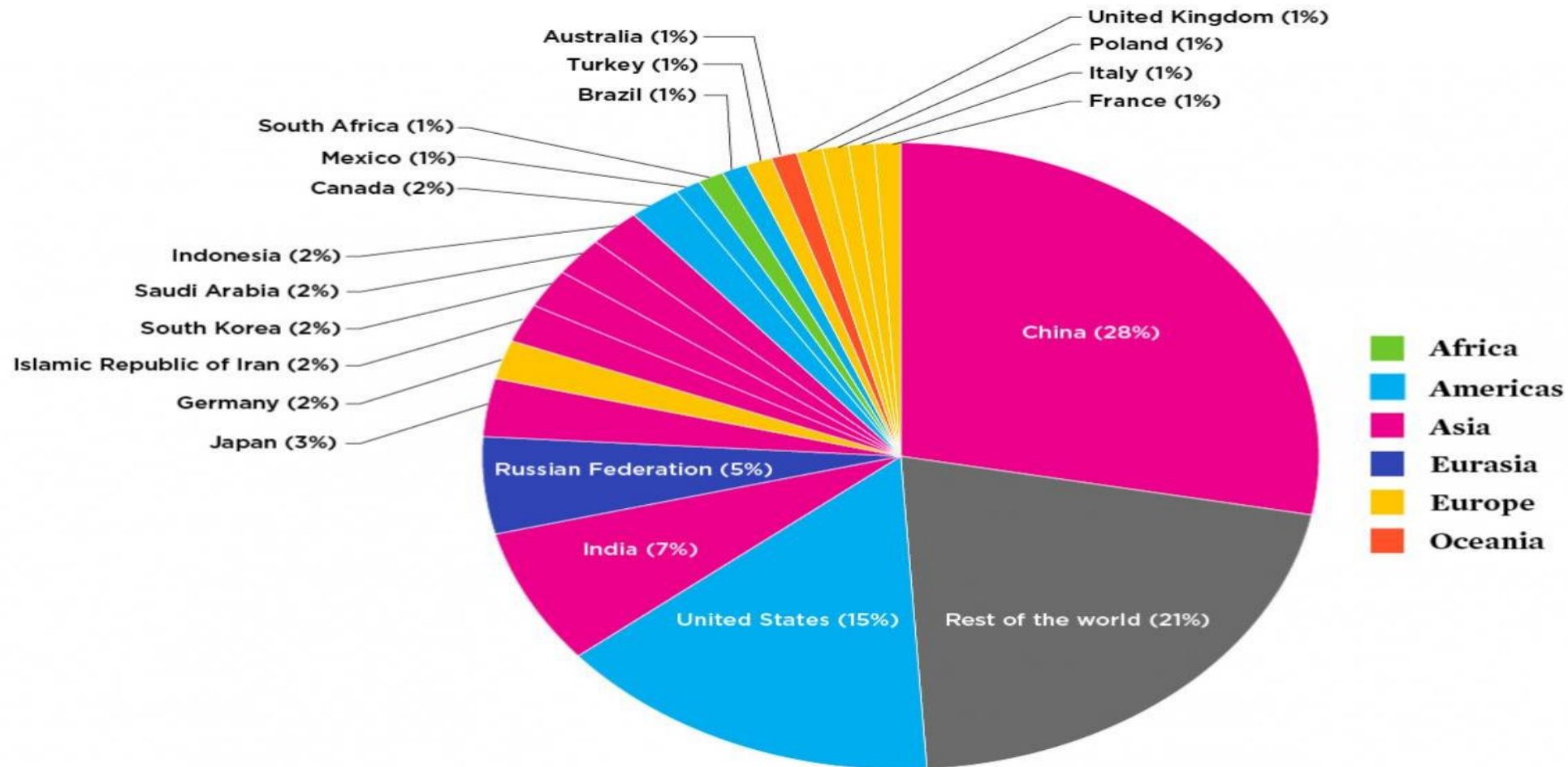
# COP

- The conference of the Parties(COP) to the UN Framework Convention on Climate Change (UNFCCC )is an international climate summit which is held annually unless the Parties (the countries involved )decided otherwise. At COPs , world leaders gather to work together on solutions to tackle climate change.



For the first time, world leaders promise to end deforestation by 2030, and to reduce emissions by 30% by 2030 (compared to 2020 levels).

# Share of CO2 emissions by country: Carbon Footprint







# COP 29



● THE END