Working together to protect public health and the environment – a necessity in the face of global

Sinaia Netanyahu, Programme Manager, Environmental and Health Impact Assessment

WHO European Centre for Environment and Health

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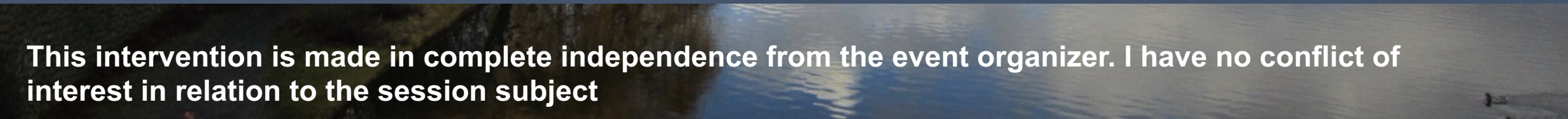
World Health Organization

European Region



This intervention is made in complete independence from the event organizer. I have no conflict of interest in relation to the session subject

WHO European Centre for Environment and Health

World Health Organization
REGIONAL OFFICE FOR Europe

- Centre of technical and scientific expertise on the impacts of environment on health. Established by the 1st Ministerial Conference on Environment and Health (1989)

- Provides Member States with state-of-the-art evidence on existing and emerging environmental health risks.

- Develops policy advice and international and regional guidelines, methods and tools to inform and support decision-making.

- Assists Member States in identifying and implementing policies to protect and promote health.

- Supports Member States in the implementation of commitments on environment and health.

European Environment and Health Process

Series of Ministerial Conferences on Environment and Health endorsed by Regional Committee Resolutions

1989
Frankfurt

1999
London

2010
Parma

2023
Budapest

1994
Helsinki

2004
Budapest

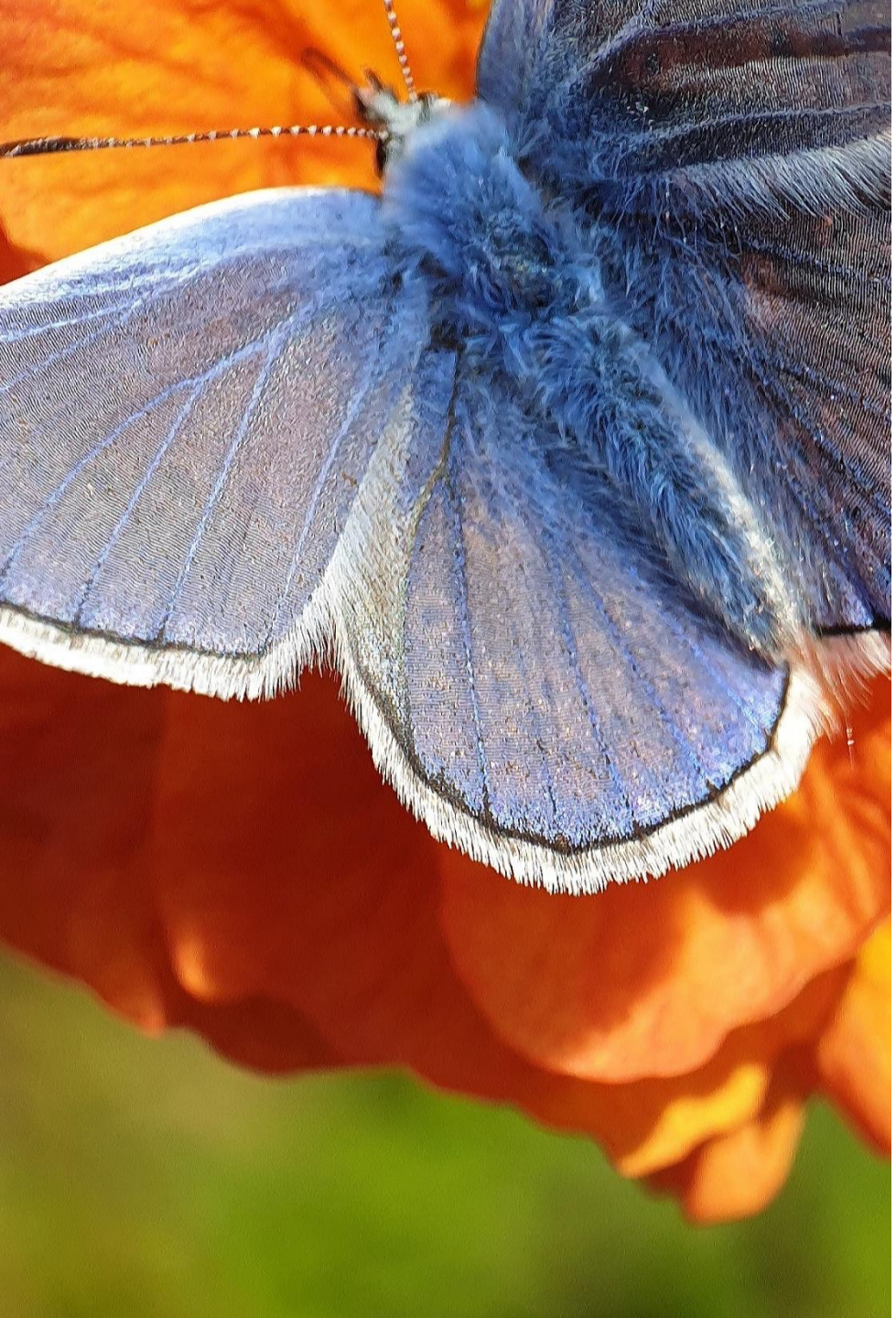
2017
Ostrava

A changing environment

- Changing climate
- Biodiversity loss, Habitat fragmentation and loss, Ecosystem failures, Land-use change and over-exploitation
- Pollution
- Urbanisation

Changing societies

- Population growth
- Demographic change
- Population mobility
- Rising demands for energy and resources
- Patterns of consumption
- Trade interdependencies
- Tourism

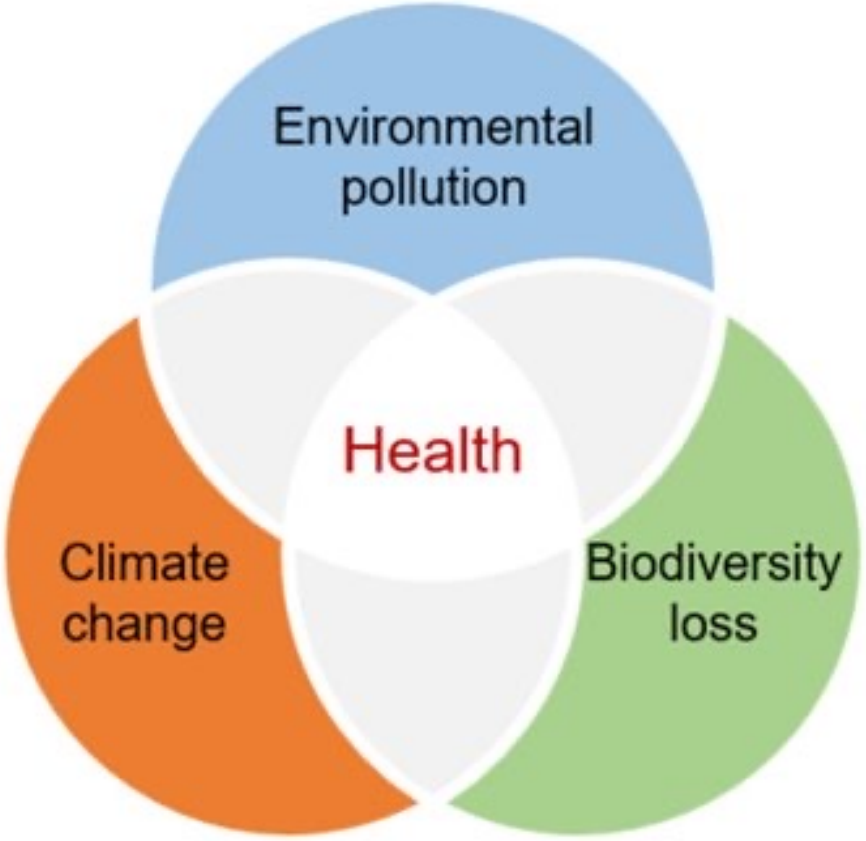


Inequality and injustice

- Unequal exposure to environmental risks
- Unequal distribution of, or access to health promoting natural environments and resources

The 7th Ministerial Conference on EH

Addressing the health dimension of the "triple environmental crisis" while recovering from COVID-19



Focus on accelerating action to:

- Tackle climate change, environmental pollution and biodiversity loss and land degredation
- Build Forward Better from COVID-19 pandemic, including actions for urban resilience
- Protect vulnerable populations and vulnerable life stages

Photo: Budapest Declaration signing. From left to right: Dr Peter Takacs, State Secretary for Health on behalf of Mr Sándor Pintér, Minister of Interior, Hungary, Dr Anikó Raisz, State Secretary for Environment on behalf of Mr Csaba Lantos, Minister of Energy and Dr Hans Henri P. Kluge, WHO Regional Director for Europe

Budapest Declaration

WHO global strategy on health, environment and climate change, 2020

The transformation needed to improve lives and wellbeing sustainably through healthy environments

- **Six strategic objectives**
  - Primary prevention
  - Cross-sectoral action
  - Strengthened health sector
  - Building support
  - Enhanced evidence and communication
  - Monitoring

- World Health Organization (2020). WHO global strategy on health, environment and climate change: the transformation needed to improve lives and wellbeing sustainably through healthy environments. World Health Organization. https://apps.who.int/iris/handle/10665/331959.

WHO Manifesto and Actionables for a healthy recovery from COVID-19

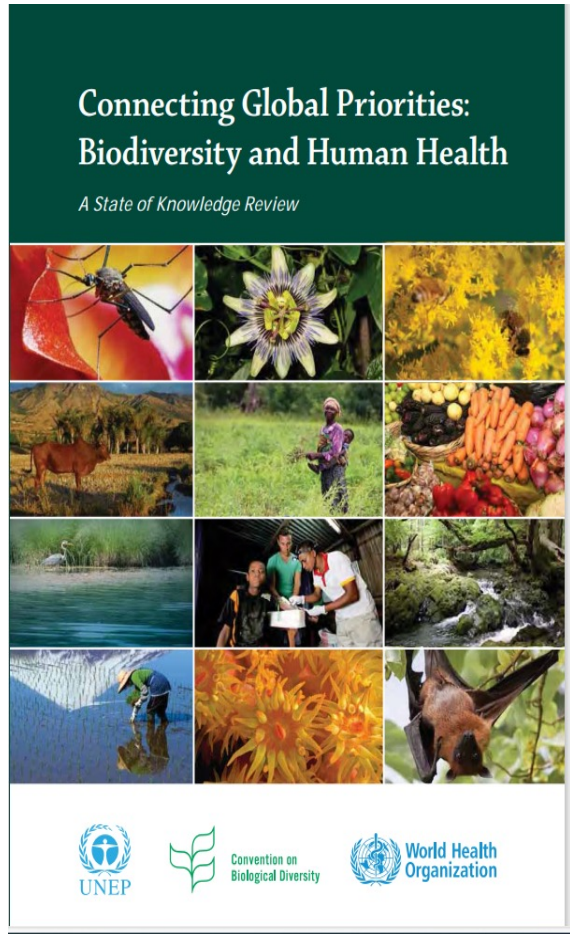
Six Prescriptions for a healthy and green recovery:

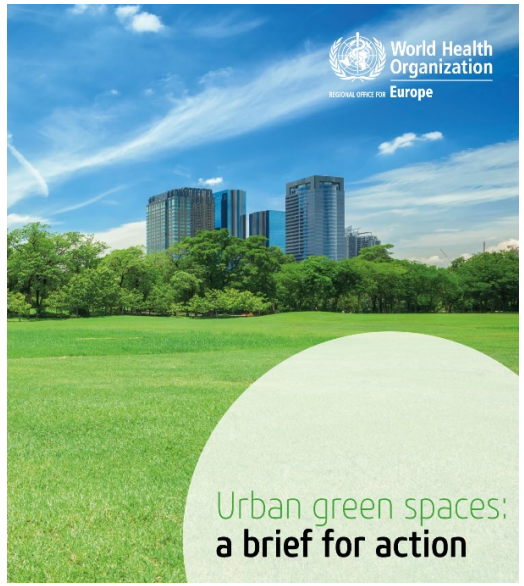
Protect nature 🐝
Ensure basic services 🚰⚡
Shift to clean energy ☀️
Promote healthy, sustainable food systems 🥗
Build liveable cities 🌇
Stop subsidizing pollution 🔥💸

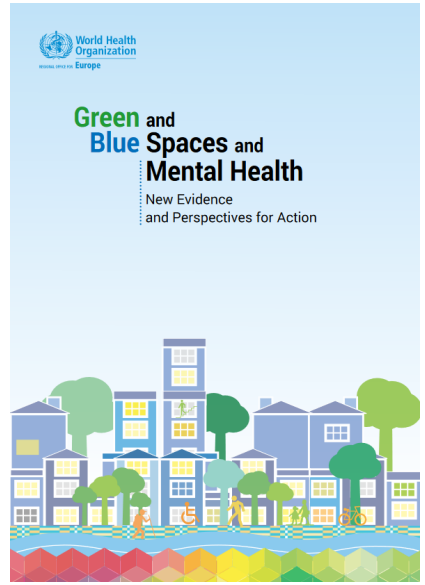
- https://www.who.int/multi-media/details/who-manifesto-for-a-healthy-recovery-from-covid-19#
  https://www.who.int/news-room/feature-stories/detail/actionables-for-a-healthy-recovery-from-covid-19

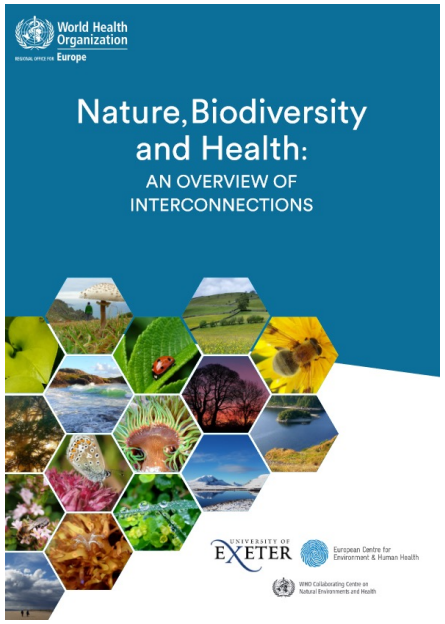
Biodiversity and human health – a join report WHO and the Convention of Biological Diversity (2015)

- Healthy communities rely on **well-functioning ecosystems**.
- **Ecosystems provide** clean air, fresh water, medicines and food security. They also limit disease and stabilize the climate.
- But **biodiversity loss is happening at unprecedented rates,** impacting human health worldwide.
- Inter-linkages between biodiversity, ecosystem stability, and **epidemic infectious diseases** such as the Ebola virus; and the connection between biodiversity, nutritional diversity and health.
- **Benefits** of closer partnerships between conservation and health, from improved surveillance of infectious diseases in wildlife and human populations, to promoting access to green spaces to promote physical activity and mental health.
- **Research**

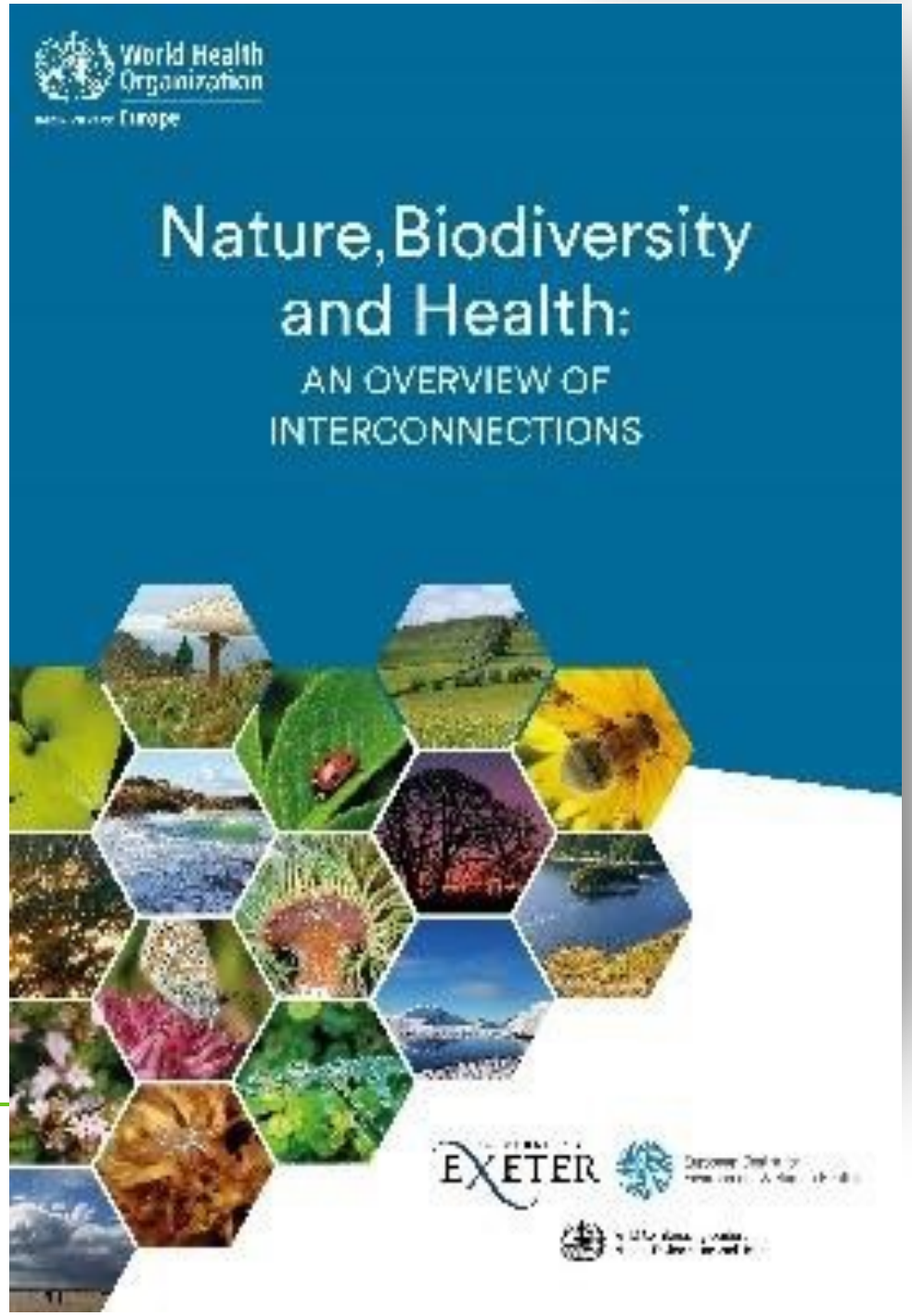








Nature, Biodiversity, Green & Blue Space, One Health – WHO/ECEH publications

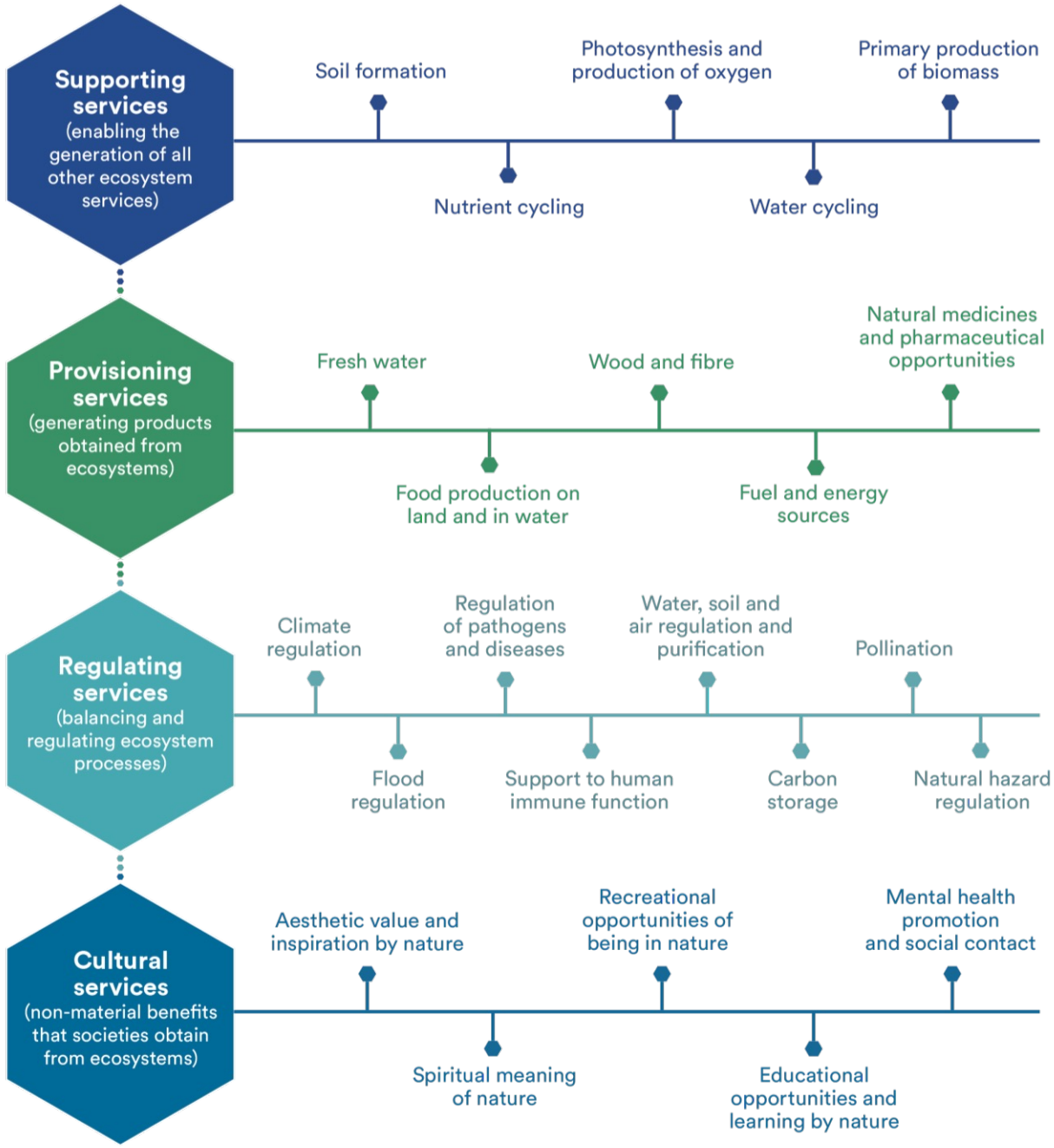


Aims of the report

- the ways that nature, biodiversity and ecosystems can support and protect health and well-being;
- how environmental change, degradation of nature and ecosystems and loss of biodiversity can threaten human health.

Nature, Biodiversity and Health: The interconnections

Linkages with the "ecosystem services" framework



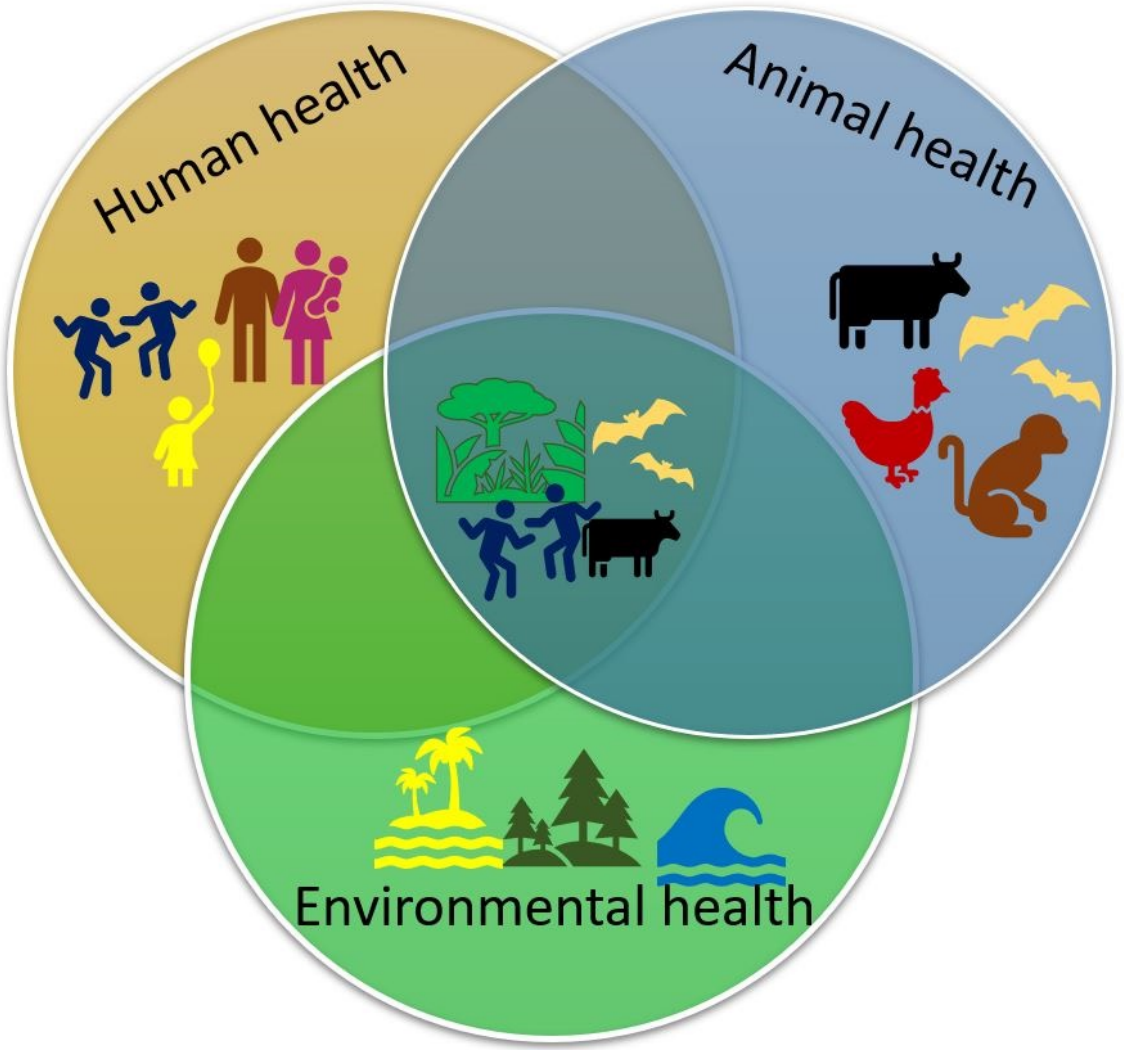
Nature is a vital support system for human health

Nature contributes to quality of life

Nature protects our health

The failure to protect nature threatens health and well-being

- Biodiversity is essential in the provision of pharmaceuticals and health care.
- Around one third of modern pharmaceuticals have been directly derived from compounds found in the natural world, and many other drugs are designed to mimic natural products.
- Greater biodiversity in natural ecosystems increases the chance of finding new natural compounds that could have medicinal uses.



One Health Approach

An integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems.

(OHHLEP, 2021)

The EH in One Health

- Strong renewed commitment to address human health challenges using One Health approach, in face of the COVID-19 pandemic and environmental degradation
- **The component of the environment in One Health has largely been overlooked** (Essack 2018; UNEP 2021)
- **The role of the environment in the One Health context is not well understood**

Sinaia Netanyahu, Miri Tsalyuk 2022

Environmental stressors & One Health

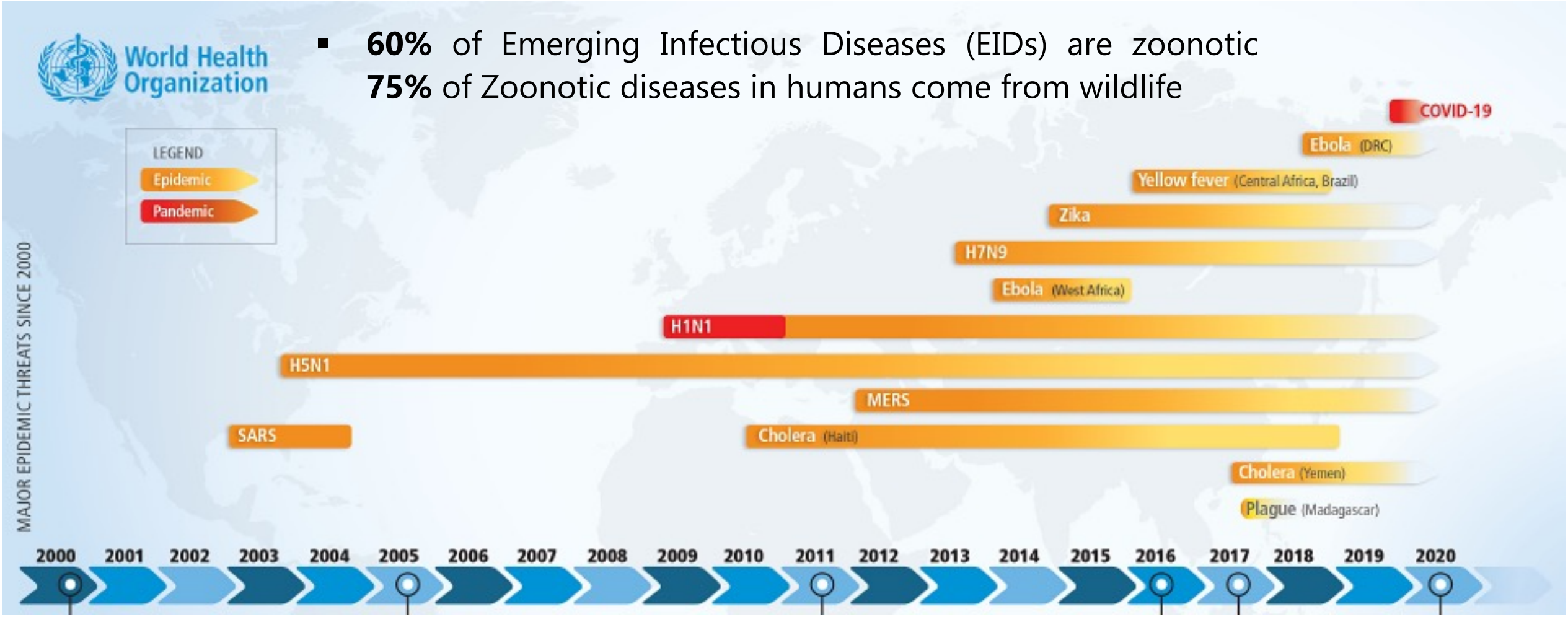
'**Threat multipliers**' exacerbate the health effects of animal-mediated diseases

- Land use change
- Biodiversity loss
- Climate change
- Pollution

- Air, water, marine, soil

21st century: rise in Emerging Infectious Diseases (EID) outbreaks

- **60%** of Emerging Infectious Diseases (EIDs) are zoonotic
  75% of Zoonotic diseases in humans come from wildlife



Land use change

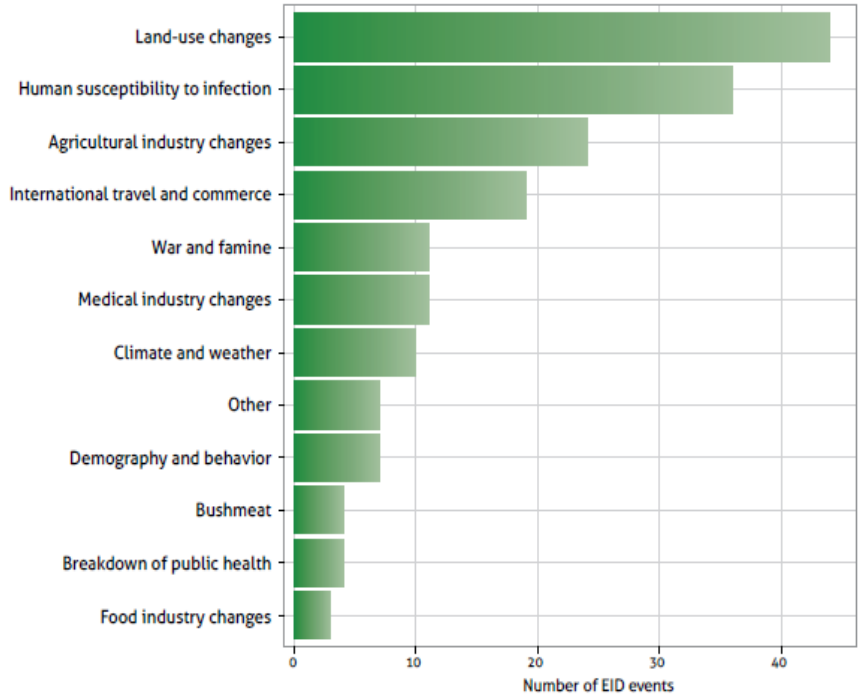
- 75% of land surface has been transformed by anthropogenic activity
- 85% of wetlands have been lost
- 60% of oceans experience human impact

- Main drivers: agriculture, urbanization
- Agriculture covers a **third** of Earth's land surface

Land-use change & One Health

- Land use change is the main driver of zoonotic disease expansion
- Main driver of emerging infectious diseases (EID)
- Agriculture is associated with 50% of zoonotic disease emergence (Rohr et al. 2019)
- People who live near agriculture are more likely to be infected with zoonotic diseases.

FIGURE 1: Drivers of emerging infectious diseases from wildlife (Loh et al., Vector Borne and Zoonotic Diseases. In press)



Loh, 2015

Climate change & One Health

Increased temperatures

Range expansion of zoonotic hosts and vectors
Growing populations of vectors
Faster multiplication of pathogens
Foodborne diseases

Examples of
Vector-Borne pathogens
Malaria
Dengue, Chikungunya Zika
Japanese encephalitis West Nile virus
Borrelia burgdorferi

Examples of
Foodborne pathogens
Salmonella
Campylobacter
Escherichia coli O157:H7

Heavy rainfall & floods

Waterborne disease

Examples of
Waterborne pathogens
Vibrio
v. Cholera
Shegella

Extreme temperatures & Heatwaves

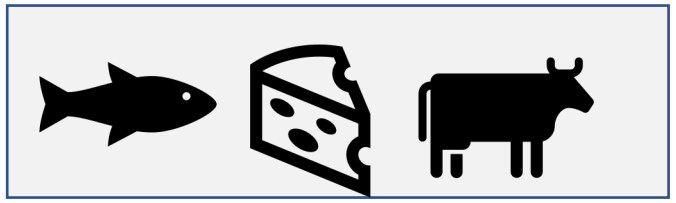
Extreme storms, hurricanes

Wildfires

Human and animal mortality
Species range constriction
Habitat destruction
Disease spread

Pollution & One Health

- Pollution of air, soil, water, oceans
- Mostly related to **Non-Communicable Diseases**
- Animal husbandry releases feces, pollution, and antibiotics to the environment, which animals and humans are then exposed to.
- Accumulation of chemicals & heavy metals in animal food products



90% of exposure to **Dioxins**
Carcinogenic, reproductive and developmental problems, damages to the immune system

One Health Joint Plan of Action – Six Tracks

Action track 1: Enhancing One Health capacities to strengthen health systems

Action track 6: Integrating the Environment into One Health

Action track 2: Reducing the risks from emerging and re-emerging zoonotic epidemics and pandemics

Action track 5: Curbing the silent pandemic of Antimicrobial Resistance (AMR)

Action track 3: Controlling and eliminating zoonotic, neglected tropical and vector-borne diseases

Action track 4: Strengthening the assessment, management and communication of food safety risks

The economic value of nature and biodiversity

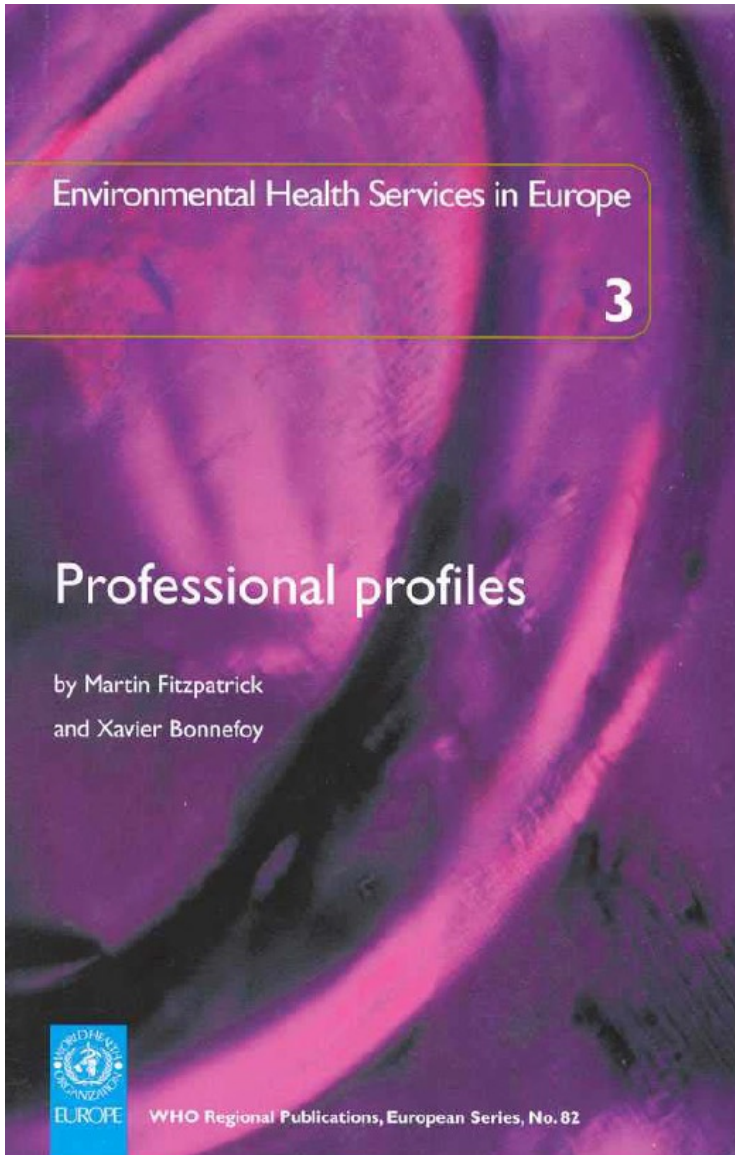
Nature provides a wide range of services and benefits that are often taken for granted.

Biodiversity provides significant benefits in terms of both marketed and un-marketed goods and services:

- in providing livelihoods;
- in reducing burdens on the health care system; and
- in the wider, intangible benefits of biodiversity and nature to humanity.

Conclusions: The need for action

- Considering dimensions of nature in decision-making in all sectors and at all levels is paramount to protect natural environments as the foundations of human existence.
- This is a global challenge that requires multisectoral action and coordinated efforts across sectoral and disciplinary boundaries.
- A broader understanding and commitment is needed to become “a part of the solution”.



Nature, Biodiversity and Health Actions

Ask:

- Do we understand and acknowledge the consequences of inaction?
- Is the Public Health sector ready to tackle the triple crisis, including nature and biodiversity in health?

Act:

- Integrated policies and commitments across sectors.
- Co-beneficial strategies and ways of working.
- Capacity and skills, utilizing tools and approaches (One Health, Nature based solutions, HIA/EIA), education and understanding, data and evaluation.