System Analysis and Foresight Briefs

Early Warning, Emerging Issues and Futures

UN environment programme

E A R L Y   W A R N I N G   A N D   D A T A   A N A L Y T I C S

Transforming the lives of People, Places and Planet

Introduction

The System Analysis and Foresight Briefs Unit publishes science-based Foresight Briefs that highlights hotspots of environmental change, features emerging science topics, or discusses contemporary environmental issues. The Unit also carries out system analysis activities that can help with the exploration and understanding complex and dynamic systems and policy options under the Triple Planetary crisis, such as the global food system, the climate system, and the biodiversity system.

The Unit contributes to the synthesis and enhancement of UNEP's collective efforts towards environmental early warning as one and delivering on UNEPs Early Warning for the Environment and through collaboration with the United Nations Strategic Foresight Community of Practice.
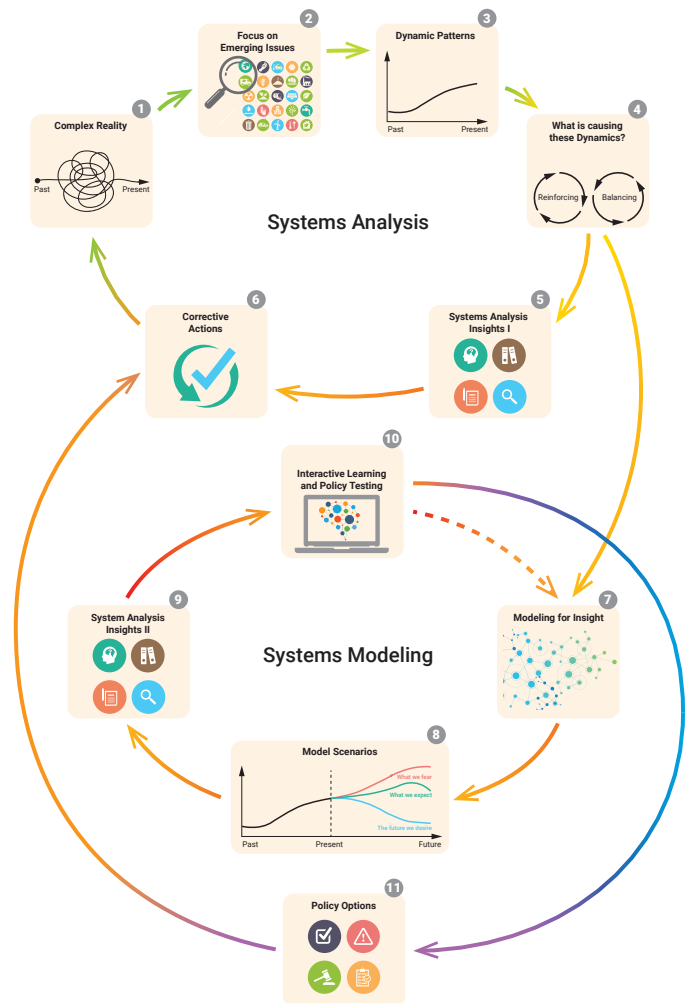
Functions of the Unit

- Publication of Foresight Briefs that provide guidance and inspiration for policy and action, by exploring a range of plausible, alternative futures and their implications. They help to identify emerging environmental issues and trends that need to be monitored and assessed for early warning.

- To provide unique insights using systems thinking based analysis and system dynamics modelling of emerging issues. Development of online simulators and scenario generators that enable policymakers to better understand structural issues and explore different policy interventions and their potential outcomes. These tools assist in understanding the long-term implications of policy decisions and in making informed decisions.

- Collaboration on Foresight initiatives in the UN system through the Strategic Foresight Community of Practice.

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Systems Analysis for Early Action

Foresight Briefs 2017-2023

001 Saving Lake Faguibine

002 Marine plastics litter and microplastics

003 The changing Aral Sea

004 Lake Urmia: Signs of recovery

005 Emerging sponge cities

006 Hacking economics for people and planet

007 Smoke-haze: A trans-boundary air pollution issue in Southeast Asia

008 Faith for earth

009 Revisiting ocean acidification, food security and our earth system

010 Alternatives for the use of glyphosate

011 We are losing the "Little things that run the world"

012 Environment, climate change and security

013 Putting carbon back where it belongs - the potential of carbon sequestration in the soil
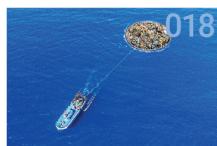
014 Building a digital ecosystem for the planet

015 Growing popularity of alternate food systems for environment and health
French

016 Seagrasses, the forgotten ecosystems
French

017 Challenges for the growth of the electric vehicle market
Chinese | French | Spanish

018 Unveiling plastic pollution in oceans
French

019 Blockchain technology and environmental sustainability
Chinese | French | Spanish

020 Food loss and waste in the Sustainable Development Goals' nexus
French

021 The need to eliminate lead paint globally
French

022 Desert locusts' upsurges: A harbinger of emerging climate change induced crises?
Arabic | French

023 Nature-based solutions for urban challenges
Arabic | Chinese | French | Spanish

024 Sargassum: Brown tide or golden jewel?
French

025 Working with plants, soils and water to cool the climate and rehydrate earth's landscapes
Arabic | Chinese | French | Russian | Spanish

026 People's livelihood and cities - building back greener
French

027 The growing footprint of digitalisation
Arabic | Chinese | French | Russian | Spanish

028 The shrinking Arctic Sea Ice
French

029 Plastics in agriculture – an environmental challenge
French

030 Charcoal as a global commodity: is it sustainable?

031 Sustainable production and consumption: Design for disassembly as a circular economy

032 The role of remote sensing and social research in monitoring the environmental impact of refugee/ Internally Displaced Persons camps

033 Water as a Circular Economy Resource

To view current and previous issues online and download UNEP Foresight Briefs
https://data.unep.org/earlywarning/foresightbriefs

UNEP and UN System Engagements

- The Unit engages closely with internal partners on producing Foresight Briefs, the key engagements being with the Ecosystems Division, Economy Division, Communications Division, and the Chief Scientist Office. On Systems Analysis, the Unit has collaborated closely with MIKE (Monitoring the Illegal Killing of Elephants) and the Disasters & Conflicts Branch. New partnerships are commencing with Climate Adaptation Unit.

- Other engagements include the GRID Centres, GRID-Geneva, GRID-Warsaw and GRID Arendal.

- UN System engagements include with UNESCO, UNDCO, OCHA, UNDRR and the UNRC Mozambique.

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Partnerships

- Partnerships in place with GRID-Geneva, GRID-Arendal, GRID-Warsaw. Collaboration on future partnerships with UNDCO, OCHA, UNDRR and Chatham House.

data.unep.org/earlywarning/systemanalysis

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