Early Warning and Data Analytics
Strategy, Policy and Action for People, Places and Planet

Executive Brief
February 2025

Alexandre Caldas
Chief, Early Warning and Data Analytics Branch
Early Warning and Assessment Division (EWAD)
United Nations Environment Programme (UNEP), United Nations

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Early Warning and Data Analytics
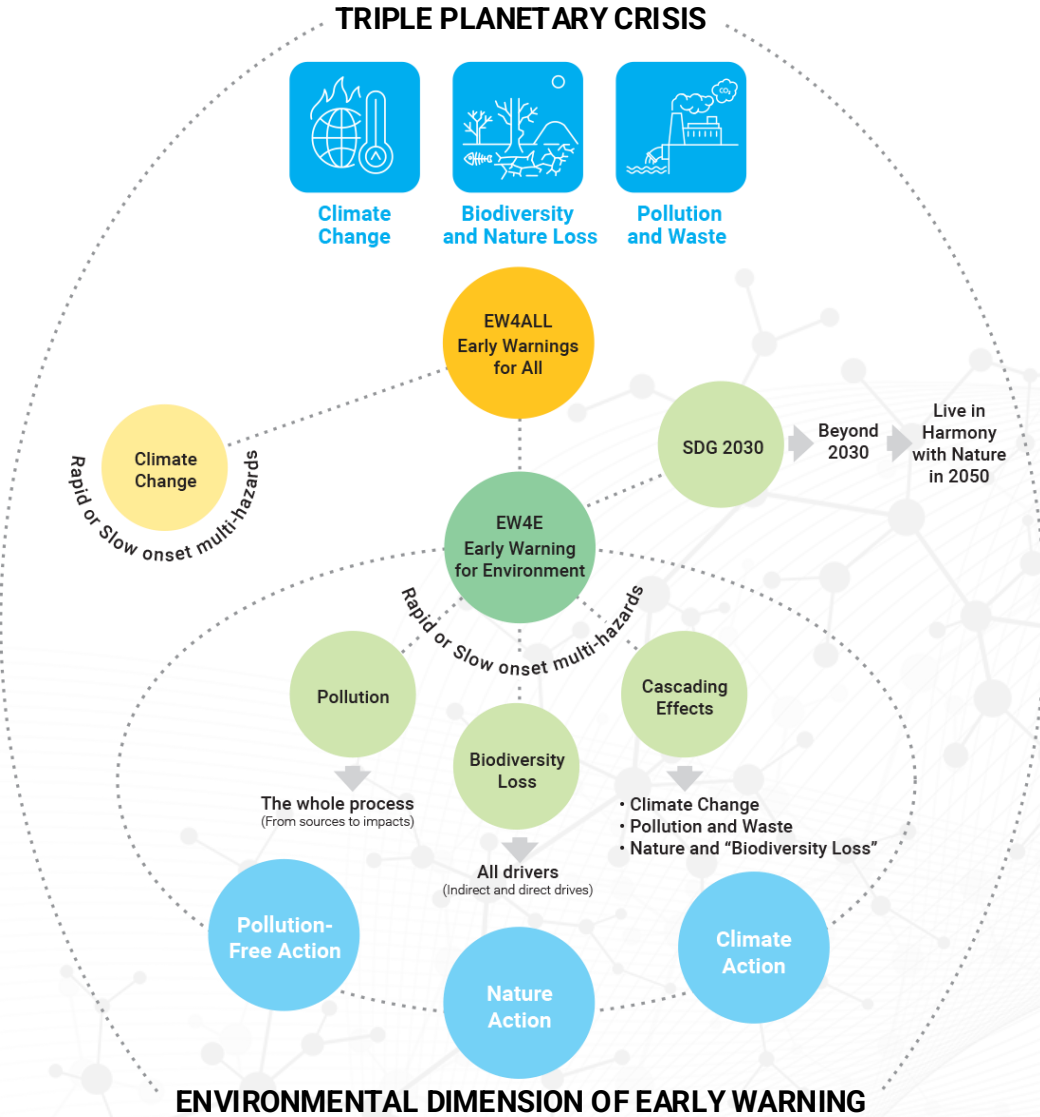Strategy, Policy and Action for People, Places and Planet

Summary
February 2025

Alexandre Caldas
Chief, Early Warning and Data Analytics Branch
Early Warning and Assessment Division (EWAD)
United Nations Environment Programme (UNEP), United Nations

UN environment programme

Early Warning & Data Analytics for People, Places and Planet

TRIPLE PLANETARY CRISIS

Climate Change

Biodiversity and Nature Loss

Pollution and Waste

EW4ALL
Early Warnings for All

Climate Change

Rapid or Slow onset multi-hazards

SDG 2030

Beyond 2030

Live in Harmony with Nature in 2050

EW4E
Early Warning for Environment

Rapid or Slow onset multi-hazards

Pollution

Biodiversity Loss

Cascading Effects

The whole process
(From sources to impacts)

All drivers
(Indirect and direct drives)

- Climate Change
- Pollution and Waste
- Nature and "Biodiversity Loss"

Pollution-Free Action

Nature Action

Climate Action

ENVIRONMENTAL DIMENSION OF EARLY WARNING

FOUNDATIONAL MISSION: Keeping the World Environment Situation Under Review

Early warning systems (EWS) are an adaptive measure for climate change, using integrated monitoring, forecasting and communication systems to help communities prepare for and manage hazardous climate-related events. Successful EWS save lives and jobs, land and infrastructure and support long-term sustainability and disaster risk reduction. Early warning systems assist public officials and administrators in their planning, saving money in the long run and protecting economies and natural assets. The UN, working in diverse partnerships, has introduced a number of innovative EWS initiatives in vulnerable areas around the world.

Early Warning on the Environment
Identifying, monitoring and analysing both rapid onset multi-hazards (with a predominant focus on climate-related risks) and slow onset but continuous hazards and their interlinkages, by issuing warnings of future events that come early enough for one to prepare, respond and *Build Back Better*. Leaving No One Behind.

Saving the Lives of billions of People and preventing social and economic losses, protecting the property and natural assets of the most vulnerable communities in the world.

Providing SCIENCE, DATA, INFORMATION and KNOWLEDGE on the Environment towards decision-Making and action.

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UNEP's Strategic Goal and Priorities Early Warning and Data Analytics

Strengthen the environmental dimension of Early Warning towards acceleration of the achievement of Agenda 2030 and the Sustainable Development Goals (SDGs)

Increase the Impact in Countries

- 30 *focus* countries in EW4All
- 25+ countries with CIEWS investments
- 60 CCA Countries
- One Planet EW Global, Regional and National Platform

Accelerate the achievement of the SDGs

- Geospatial and Statistics integration and Leadership at UN level
- Capacity Development on SDGs and Early Warning for Environment
- Synergies on the *Nexus* (Development, Peace and Humanitarian)
- Provision of Disaggregated Data Analytics to countries

Ensure UNEP Leadership in Early Warning for Environment

- UNEP leadership on the environmental dimension of EW4ALL
- Leadership on Geospatial Early Warning
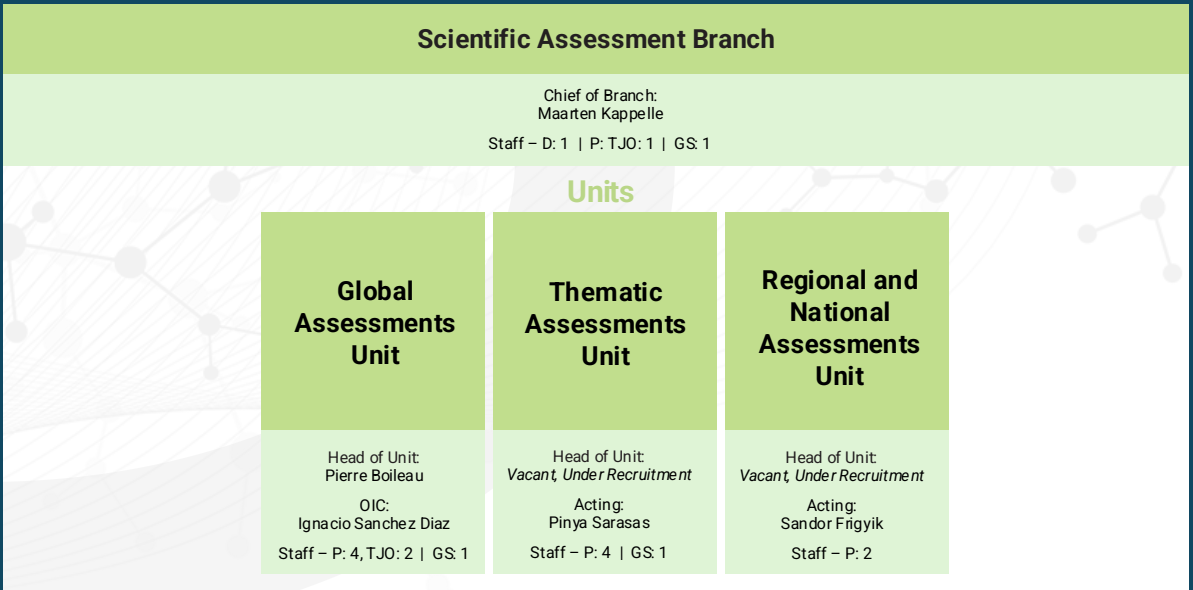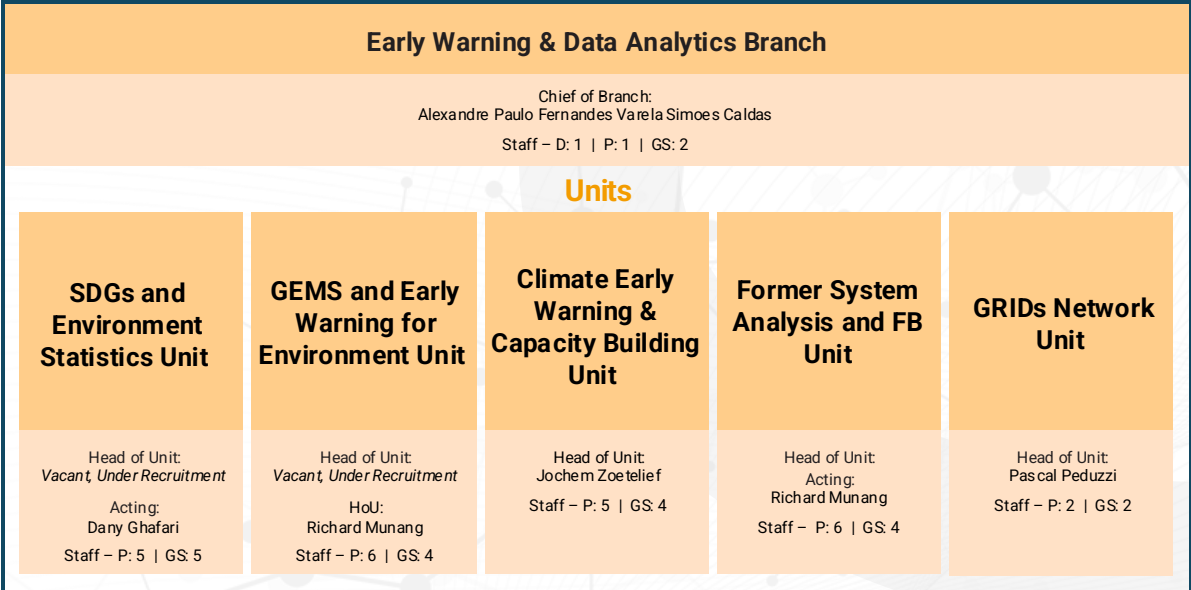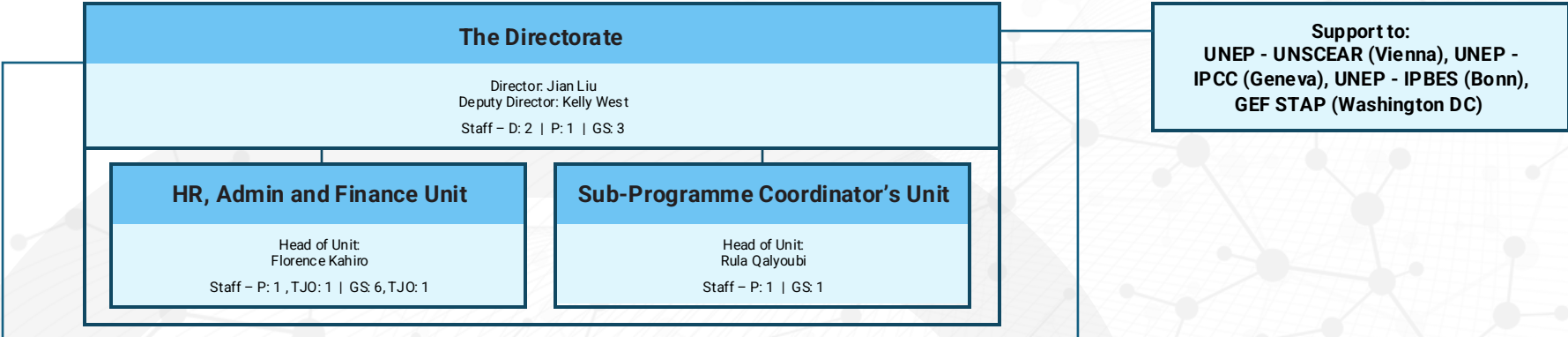- Leadership on Statistics for Early Warning and SDGs

Delivering as One across UNEP Divisional, Regional Offices, and MEAs

Climate Action   Nature Action   Chemical and Pollution Action

UN environment programme

Early Warning and Assessment Division

Early Warning and Assessment Division (EWAD)
Two Branches Delivering Critical Foundational Science

The Directorate

Director: Jian Liu
Deputy Director: Kelly West

Staff – D: 2 | P: 1 | GS: 3

Support to:
UNEP - UNSCEAR (Vienna), UNEP - IPCC (Geneva), UNEP - IPBES (Bonn), GEF STAP (Washington DC)

HR, Admin and Finance Unit

Head of Unit:
Florence Kahiro

Staff – P: 1 , TJO: 1 | GS: 6, TJO: 1

Sub-Programme Coordinator's Unit

Head of Unit:
Rula Qalyoubi

Staff – P: 1 | GS: 1

Early Warning & Data Analytics Branch

Chief of Branch:
Alexandre Paulo Fernandes Varela Simoes Caldas

Staff – D: 1 | P: 1 | GS: 2

Units

SDGs and Environment Statistics Unit

Head of Unit:
Vacant, Under Recruitment

Acting:
Dany Ghafari

Staff – P: 5 | GS: 5

GEMS and Early Warning for Environment Unit

Head of Unit:
Vacant, Under Recruitment

HoU:
Richard Munang

Staff – P: 6 | GS: 4

Climate Early Warning & Capacity Building Unit

Head of Unit:
Jochem Zoetelief

Staff – P: 5 | GS: 4

Former System Analysis and FB Unit

Head of Unit:
Acting:
Richard Munang

Staff – P: 6 | GS: 4

GRIDs Network Unit

Head of Unit:
Pascal Peduzzi

Staff – P: 2 | GS: 2

Scientific Assessment Branch

Chief of Branch:
Maarten Kappelle

Staff – D: 1 | P: TJO: 1 | GS: 1

Units

Global Assessments Unit

Head of Unit:
Pierre Boileau

OIC:
Ignacio Sanchez Diaz

Staff – P: 4, TJO: 2 | GS: 1

Thematic Assessments Unit

Head of Unit:
Vacant, Under Recruitment

Acting:
Pinya Sarasas

Staff – P: 4 | GS: 1

Regional and National Assessments Unit

Head of Unit:
Vacant, Under Recruitment

Acting:
Sandor Frigyik

Staff – P: 2

Early Warning & Data Analytics Branch

Office of the Director

Director J. Liu

Early Warning & Data Analytics Branch

Chief of Branch (D-1) [Alexandre Caldas]

Senior Administrative Assistant (G-7) [Esther Katu]
Programme Assistant (G-6) [Martha Ng'ethe]
IUNV Data Analyst [Yigang Li]

Units

SDGs and Environment Statistics Unit

Senior Programme Officer (P-5) [Vacant]
(Under Recruitment) a.i. OiC: Dany Ghafari

Programme Management Officer (Statistician) (P-4) [Ekaterina Poleshnuk]
Information & Knowledge Management Officer (P-4) [Dany Ghafari]
Programme Management Officer (P-3) [Therese El Gemayel]
Administrative Assistant (G-6) [Sarah Sawe]
Statistical Analysis Specialist (IUNV) [Patrick Guenther]
Environmental Data Specialist (IUNV) [Moriken Camara]
Environmental Data Expert (Consultant) [Francis Mwangi Kariuki]
Training on MFA (Consultant) [Monica Luz Urena]
Statistics Specialist (Consultant)[Hugo Vargas Aldana]
Data Analyst (Intern) [Esther Francis]
NUNV

GEMS and Early Warning for Environment Unit

Senior Programme Officer (P-5) [Richard Munang]

Environmental Affairs Officer (P-4) [Quanying Ren]
Programme Management Officer (P-4) (World Water Quality Alliance (WWQA) [Vacant]
Programme Management Officer (P-3) (Oceans) [Joana Akrofi]
Programme Management Officer (P-3) (Water) [Kilian Christ]
Programme Management Officer (P-3) [Vacant] (Under Recruitment)
Associate Programme Officer (JPO) (P-2) (Water) [Marie Bourbon] (France)
Programme Assistant (G-6) [Martha Ng'ethe]
Programme Officer (NUNV) [Anham Salyani]
Programme Management (Intern) [Seth Muchembi]
Data Consultant (Technical Specialist) [Ngongang Danube]
Associate Programme Officer (JPO) (P-2) Ocean (To be recruited) (Portugal)
IUNV

Climate Early Warning and Capacity Building Unit

Senior Programme Officer (P-5) [Jochem Zoetelief]

Programme Management Officer (P-4) (GEF/GCF) [Bo Ra Kim]
Associate Administrative Officer (P-2) (GEF/GCF) [Amrita Matharu]
Associate Programme Officer (P-2) [Ayda Maria Villalobos Castro]
Associate Programme Officer (JPO) (P-2) [Vacant] (Under Recruitment) (Korea)
Senior Finance and Budget Assistant (G-7) (GEF/GCF) [Kevin Mtuweta] (Temporary)
Administrative Assistant (G-5) [Peter Kibe]
Programme Advisor (Consultant) [Portia Hunt]
Project Management Associate (IUNV) [Sara Matasci]
Project Coordination Associate (IUNV) [Sulastri Manik]
IUNV

Former System Analysis and Foresight Briefs Unit

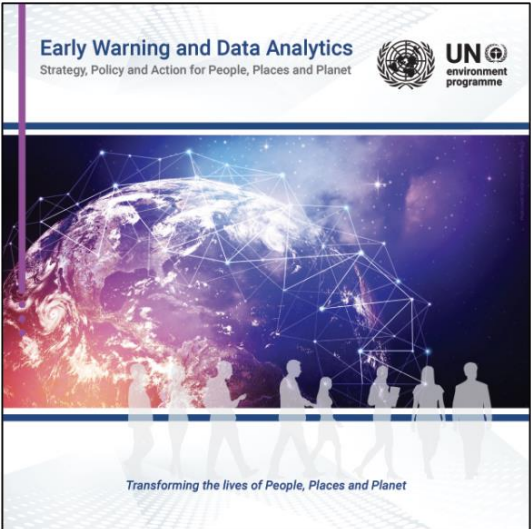Senior Programme Officer (P-5)
Currently a.i. OiC HoU is HoU GEMS and EWE

Programme Management Officer (P4) XB - Vacant
UN Geospatial (P-4)**
Programme Management Offcer (P4) Vacant
Programme Management Officer (P-3) (Production & Graphics) [Audrey Ringler]
UN Geospatial (P-3)**
Computer Information System Assistant-Data Analyst (G-6) [Eric Litswa] (Reclassified to a G-7, Under Recruitment)
Programme Assistant (G-6) [Martha Ng'ethe]
Office Assistant (Production & Graphics) (G-4) [Pascil Muchesia]
EW Data Analytics Geospatial (IUNV) [Yigang Li]
EW Systems Analyses Programmer (Consultant) [Ian Magero]

Global Resource Information Databases (GRIDs) Network Unit

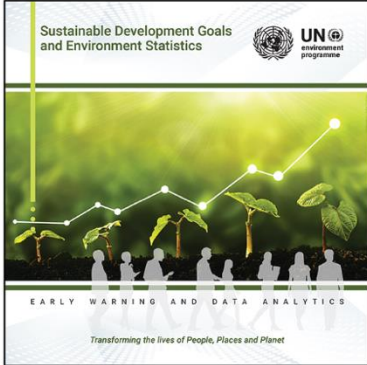Senior Programme Officer (P-5) [Pascal Peduzzi]

Associate Programme Officer (JPO) (P-2) [Candice Chung] (China)
Computer Information System Assistant (G-5) [Jane Muriithi] (Reclassified to a G-6, Under Recruitment)
Administrative Assistant (G-5) [Peter Kibe]
Administrative Assistant (G-6) [Sarah Sawe]
+ 13 FTE personnel in GRID Geneva

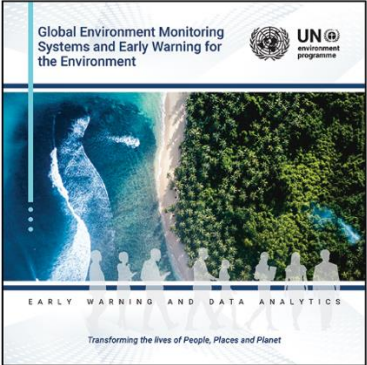# Early Warning & Data Analytics for People, Places and Planet
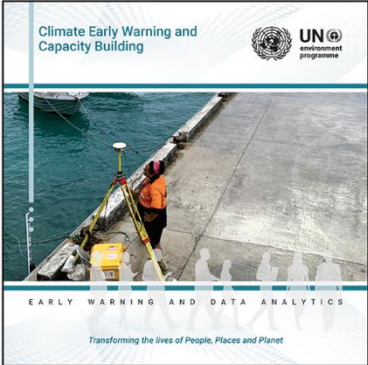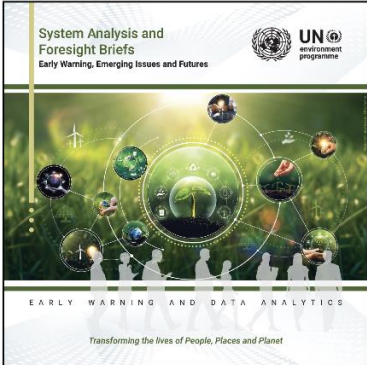

70 Staff and Personnel in Headquarters and the Regions

Sustainable Development Goals and Environment Statistics	Global Environment Monitoring Systems and Early Warning for the Environment	Climate Early Warning and Capacity Building	System Analysis and Foresight Briefs — Early Warning, Emerging Issues and Futures	GRIDs Network - Global Resource Information Database Centers — UNEP Environmental Data Centres in support to environmental governance and policies

Early Warning and Data Analytics — Strategy, Policy and Action for People, Places and Planet

https://wedocs.unep.org/20.500.11822/44794

https://wedocs.unep.org/20.500.11822/44792
https://wedocs.unep.org/20.500.11822/44790
https://wedocs.unep.org/20.500.11822/44789
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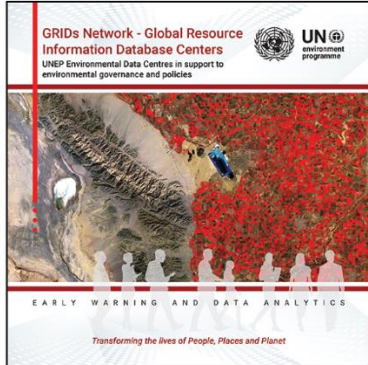https://wedocs.unep.org/20.500.11822/44791

Networks and Alliances

IAEG, UNSD	WWQA Citizen Science Associations	UNCTs, FAO, UNDRR, UNOPS, WMO	UN Geospatial Network, 42 UN entities	GRID-Geneva, GRID-Arendal, GRID-Warsaw

Who are we serving: COUNTRIES, People, Places and Planet

One UN Common Approach to Early Warning for the Environment

16 UN Agencies:
UNEP, WMO, UNDRR, ITU, IFRC, UNDP, FAO, WHO, IOM, UNDESA, OCHA, OICT, UN Global Compact, UNOPS, IPCC and GEF.

6 MEAs:
CBD, Ramsar, UNCCD, Basel, Rotterdam and Stockholm.

## Countries share their views on Early Warning for the Environment

- **Egypt** highlighted the urgent need for Early Warning for the Environment (EWE) to cover against nature/biodiversity loss & pollution, emphasizing digitalization's role in bridging the gap between science, policy, and investments.
- **Japan** stressed the importance of integrating citizen science with digital advancements to strengthen EWE, aiming to create more resilient communities and emphasizing the importance of science-policy panels.
- **The United Kingdom** underscored the critical need for EWE in safeguarding biodiversity, proposing the incorporation of cutting-edge technology to forecast environmental threats.
- **Switzerland** highlighted its commitment to leveraging EWE for better pollution control and emphasized the need for policymakers to utilize science for informed decision-making.
- **The European Commission** underlined the importance of the EWE approach for strengthening the resilience of ecosystems and societies to environmental risks.
- **Singapore** described efforts to use digital twins for data acquisition and emphasized the role of EWE in urban settings, advocating for smart technology applications to monitor environmental health.
- **St Kitts and Nevis** pointed out the significance of EWE in small island developing states, emphasizing community-driven approaches to combat the adverse effects of climate change.
- **Italy** recognized the pivotal importance of integrating EWE within its cultural and natural heritage conservation efforts, advocating for the fusion of traditional knowledge and modern technology.
- **Indonesia** called for the enhancement of EWE systems to address the dual threats of biodiversity loss and climate change, stressing the importance of local community involvement and digital innovations.

UN environment programme

Our WORLD IMPACT and DELIVERY: Portfolio of Services

Early Warning for the Environment: World Impact Map

Early Action for People, Places and Planet
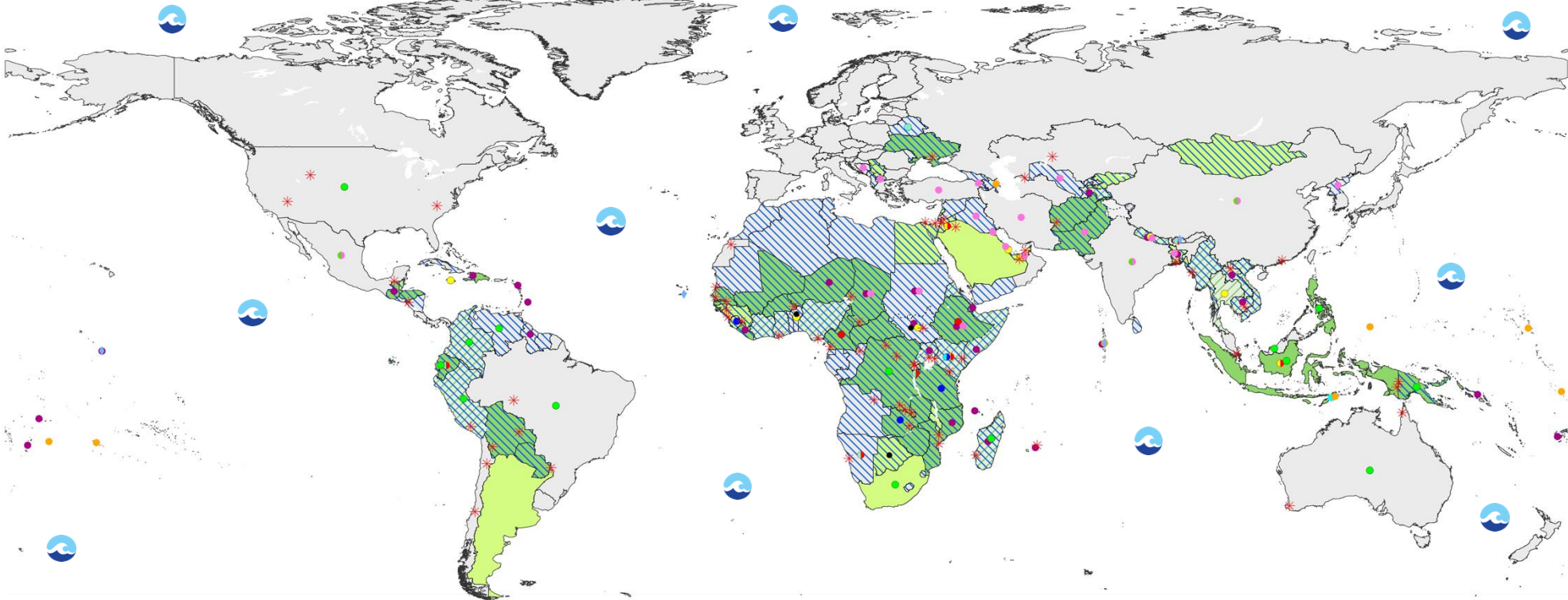
EC Country Fiches and CCA Countries
- EC Country Fiches Project countries (46)
- CCA countries (39)
- Overlap: EC Country Fiches and CCA countries (18)

EW4All Countries
- Megadiverse countries (14)
- Most Polluted countries (17)
- Overlap: Most Polluted and Megadiverse countries (3)
- EW4ALL initiative high-priority countries (30)

Global Environment Monitoring (GEMS)
- Water Quality monitoring (Global)
- Case studies (3 countries)
- Air Quality monitoring (Global)
- Case study (1 country)
- Overlap: Air and Water Quality monitoring (Global)
- Case study (1 country)
- MyOcean Tool enhancing ocean and coastal health data availability (Global)

SDGs and Environment
- SDGs Dashboard (193 countries)
- Climate Change and Disaster-related Statistics (9 countries)
- Nature: supports Environmental-Economic Accounts (5 countries)
- Cross-cutting: capacity Building on Environment Statistics and Circular Economy (11 countries)
- Overlap countries: Climate Change/Nature (4 countries)
- Overlap countries: Climate Change/Cross-cutting (3 countries)

GCF, SOFF and GEF Portfolio
- Global Environment Facility Portfolio (3 countries)
- System Observation Finance Facility Portfolio (4 countries)
- Green Climate Fund Portfolio (8 countries)

Early Warning Data Analytics
- Disaster Risk Platform (193 countries)
- Hotspot Platform (66 Hotspots in 51 countries)
- Loss and Damage Developing countries (121)

Research4Life Access to Scientific Information
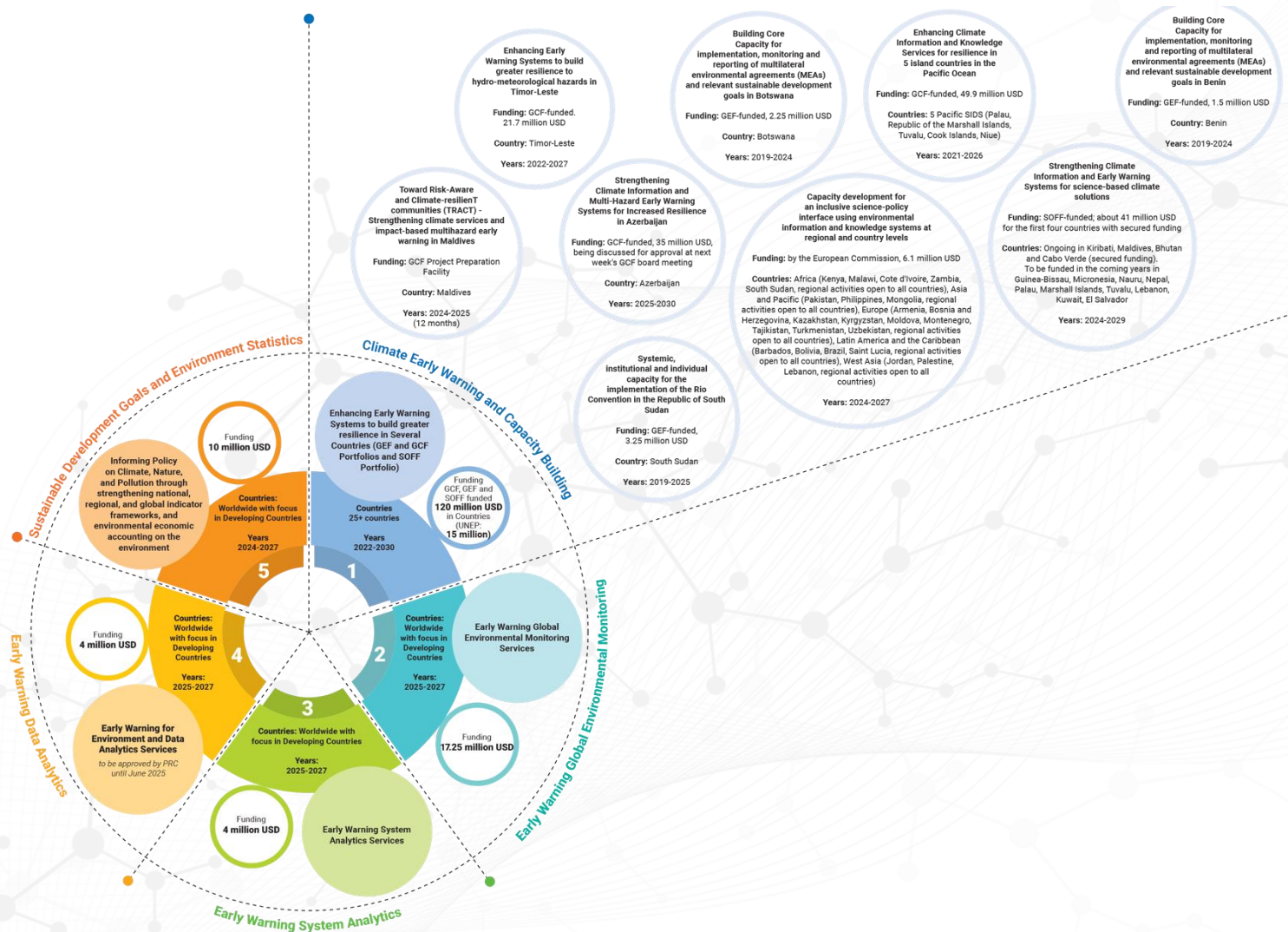- Developing countries (121)

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How to Implement: Programme, Projects and Funding

Early Warning Roster of Ongoing Projects' Funding and implementation in Countries Worldwide

Climate Early Warning and Capacity Building

1. Enhancing Early Warning Systems to build greater resilience in Several Countries (GEF and GCF Portfolios and SOFF Portfolio)
   - Countries 25+ countries
   - Years 2022-2030
   - Funding GCF, GEF and SOFF funded **120 million USD** in Countries (UNEP: **15 million**)

Early Warning Global Environmental Monitoring

2. Early Warning Global Environmental Monitoring Services
   - Countries: Worldwide with focus in Developing Countries
   - Years: 2025-2027
   - Funding **17.25 million USD**

Early Warning System Analytics

3. Early Warning System Analytics Services
   - Countries: Worldwide with focus in Developing Countries
   - Years: 2025-2027
   - Funding **4 million USD**

Early Warning Data Analytics

4. Early Warning for Environment and Data Analytics Services
   to be approved by PRC until June 2025
   - Countries: Worldwide with focus in Developing Countries
   - Years: 2025-2027
   - Funding **4 million USD**

Sustainable Development Goals and Environment Statistics

5. Informing Policy on Climate, Nature, and Pollution through strengthening national, regional, and global indicator frameworks, and environmental economic accounting on the environment
   - Countries: Worldwide with focus in Developing Countries
   - Years 2024-2027
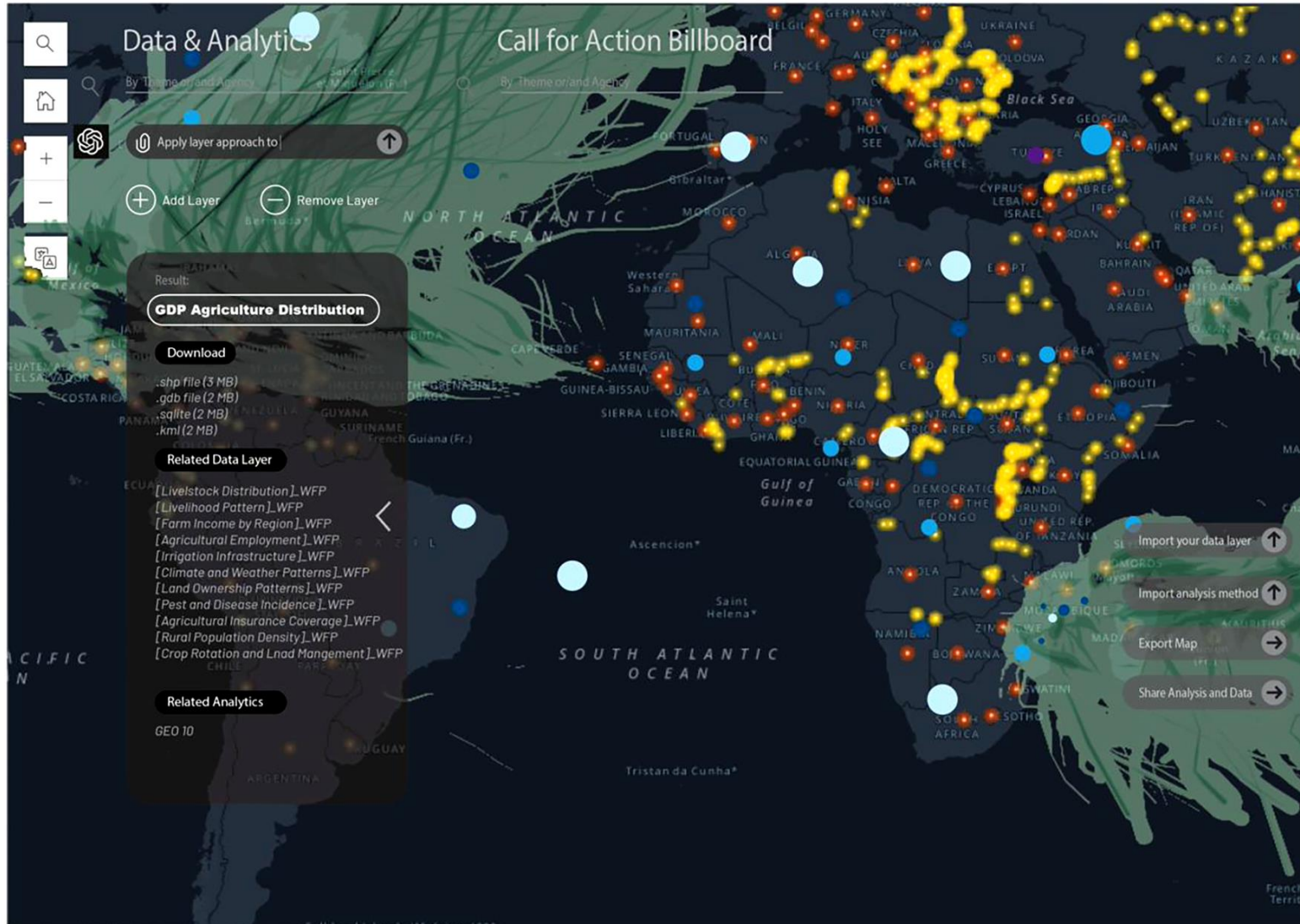   - Funding **10 million USD**

UN environment programme

How to Implement: Programme, Projects and Funding: *in Detail*

How we are implementing Early Warning and Data Analytics Services

Enhancing Early Warning Systems to build greater resilience to hydro-meteorological hazards in Timor-Leste

Funding: GCF-funded. 21.7 million USD

Country: Timor-Leste

Years: 2022-2027

Building Core Capacity for implementation, monitoring and reporting of multilateral environmental agreements (MEAs) and relevant sustainable development goals in Botswana

Funding: GEF-funded, 2.25 million USD

Country: Botswana

Years: 2019-2024

Enhancing Climate Information and Knowledge Services for resilience in 5 island countries in the Pacific Ocean

Funding: GCF-funded, 49.9 million USD

Countries: 5 Pacific SIDS (Palau, Republic of the Marshall Islands, Tuvalu, Cook Islands, Niue)

Years: 2021-2026

Building Core Capacity for implementation, monitoring and reporting of multilateral environmental agreements (MEAs) and relevant sustainable development goals in Benin

Funding: GEF-funded, 1.5 million USD

Country: Benin

Years: 2019-2024

Toward Risk-Aware and Climate-resilienT communities (TRACT) - Strengthening climate services and impact-based multihazard early warning in Maldives

Funding: GCF Project Preparation Facility

Country: Maldives

Years: 2024-2025 (12 months)

Strengthening Climate Information and Multi-Hazard Early Warning Systems for Increased Resilience in Azerbaijan

Funding: GCF-funded, 35 million USD, being discussed for approval at next week's GCF board meeting

Country: Azerbaijan

Years: 2025-2030

Capacity development for an inclusive science-policy interface using environmental information and knowledge systems at regional and country levels

Funding: by the European Commission, 6.1 million USD

Countries: Africa (Kenya, Malawi, Cote d'Ivoire, Zambia, South Sudan, regional activities open to all countries), Asia and Pacific (Pakistan, Philippines, Mongolia, regional activities open to all countries), Europe (Armenia, Bosnia and Herzegovina, Kazakhstan, Kyrgyzstan, Moldova, Montenegro, Tajikistan, Turkmenistan, Uzbekistan, regional activities open to all countries), Latin America and the Caribbean (Barbados, Bolivia, Brazil, Saint Lucia, regional activities open to all countries), West Asia (Jordan, Palestine, Lebanon, regional activities open to all countries)

Years: 2024-2027

Strengthening Climate Information and Early Warning Systems for science-based climate solutions

Funding: SOFF-funded; about 41 million USD for the first four countries with secured funding

Countries: Ongoing in Kiribati, Maldives, Bhutan and Cabo Verde (secured funding). To be funded in the coming years in Guinea-Bissau, Micronesia, Nauru, Nepal, Palau, Marshall Islands, Tuvalu, Lebanon, Kuwait, El Salvador

Years: 2024-2029

Systemic, institutional and individual capacity for the implementation of the Rio Convention in the Republic of South Sudan

Funding: GEF-funded, 3.25 million USD

Country: South Sudan

Years: 2019-2025

Climate Early Warning and Capacity Building

Enhancing Early Warning Systems to build greater resilience in Several Countries (GEF and GCF Portfolios and SOFF Portfolio)

Countries 25+ countries

Years 2022-2030

Funding GCF, GEF and SOFF funded **120 million USD** in Countries (UNEP: **15 million**)

Sustainable Development Goals and Environment Statistics

Funding **10 million USD**

Informing Policy on Climate, Nature, and Pollution through strengthening national, regional, and global indicator frameworks, and environmental economic accounting on the environment

Countries: Worldwide with focus in Developing Countries

Years 2024-2027

Early Warning Data Analytics

Funding **4 million USD**

Countries: Worldwide with focus in Developing Countries

Years: 2025-2027

Early Warning for Environment and Data Analytics Services

to be approved by PRC until June 2025

Early Warning Global Environmental Monitoring

Countries: Worldwide with focus in Developing Countries

Years: 2025-2027

Early Warning Global Environmental Monitoring Services

Funding **17.25 million USD**

Early Warning System Analytics

Countries: Worldwide with focus in Developing Countries

Years: 2025-2027

Early Warning System Analytics Services

Funding **4 million USD**

1 2 3 4 5

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One Map. One Humanity

One Map - UN Geospatial Network across 42 UN agencies (1 additional page) and Early Warning Climate Resilience and Environment (Priority UN Geospatial for UN system)

Early Warning Climate Resilience and Environment (Marine Plastics) (Priority UN Geospatial for UN system)

STRATEGY, Operations and Implementation: *in One Pager*

Early Warning and Data Analytics

Strategy, Policy and Action for People, Places and Planet

Given the importance of data analytics and early warning services to the world, the Early Warning and Data Analytics takes stock of the current approach, strategies and direction of the Early Warning across the UN system (eg Early Warning for All.) as to how they support UNEP's 3 priority areas of climate change, nature and pollution, as well as the new strategic reposition in the domain of Early Warning, and keep the world environment under review.

| Brochure | Strategy | One Pager | Facts & Figures |

Download   Download   Download   Download   https://wesr.unep.org/earlywarning

Decisions from SMT

1. Governance is to stay in UNEP. EW4E should be considered as a UNEP initiative and, as such, is to be governed by UNEP Digital and Data Governance Group Board, with a subset of the Board serving as a Steering Committee so as to ensure appropriate oversight. Under no circumstance, should there be an external governance mechanism to the initiative.

2. There are to be no stand-alone or regional data platforms, EW4E should be fully integrated within new WESR platform and use existing capabilities and datasets, including the revamped WESR-CCA/Country Environment Dashboards and other sources.

3. Directors/Heads of MEAs are encouraged to appoint a focal point for EW4E [EWAD to reach out as appropriate.

4. EWAD is to prioritise the development of a budget, bearing in mind that the Division will be constrained by what it is able to mobilise.

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Thank you

Questions and Answers

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Envato Elements / Wavebreakmedia

Early Warning and Data Analytics

Strategy, Policy and Action for People, Places and Planet

Detailed Presentation

February 2025

Alexandre Caldas
Chief, Early Warning and Data Analytics Branch
Early Warning and Assessment Division (EWAD)
United Nations Environment Programme (UNEP), United Nations

Early Warning on the Environment
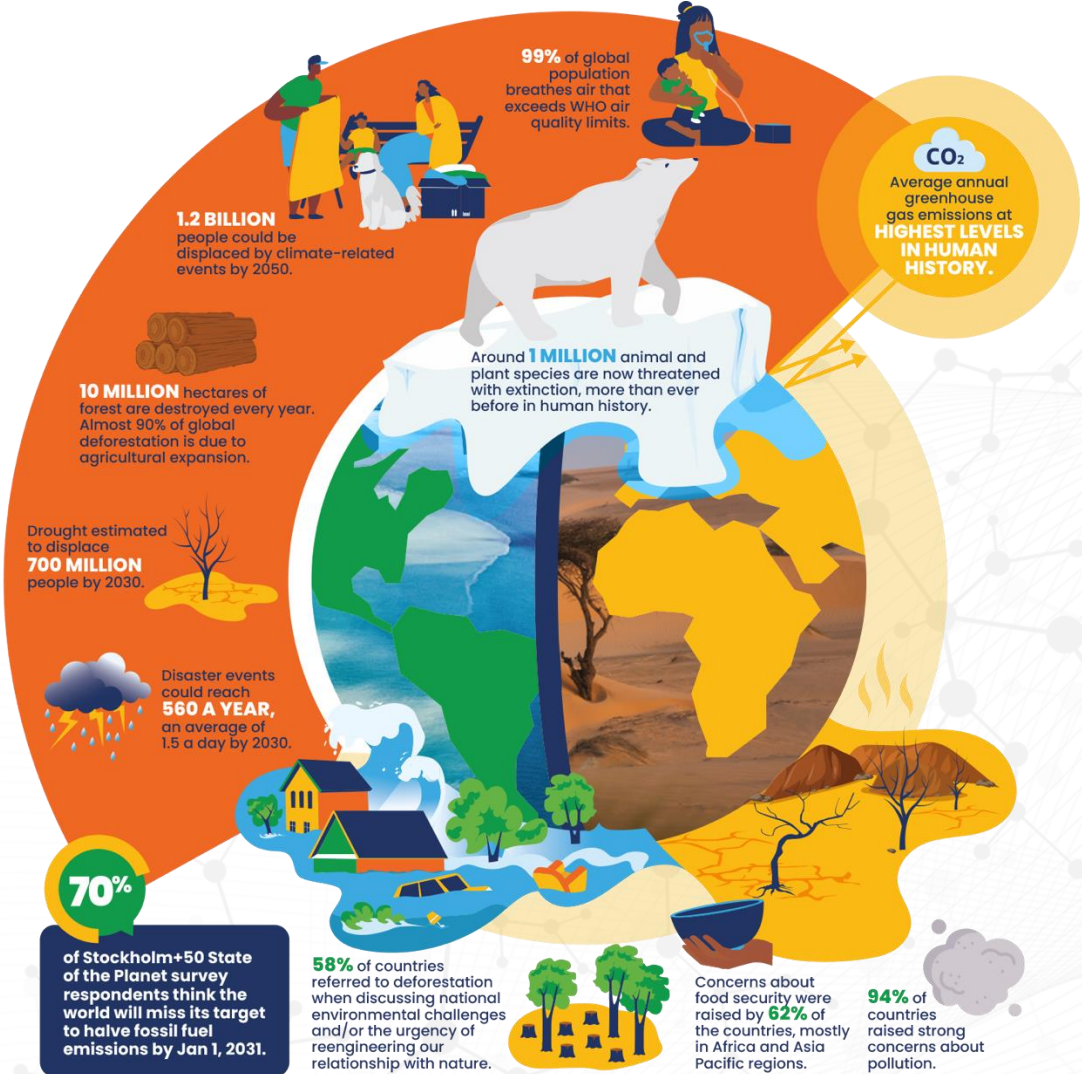
A complex, uncertain and unstable Future for People, Places and Planet

99% of global population breathes air that exceeds WHO air quality limits.

CO₂ Average annual greenhouse gas emissions at **HIGHEST LEVELS IN HUMAN HISTORY.**

1.2 BILLION people could be displaced by climate-related events by 2050.

10 MILLION hectares of forest are destroyed every year. Almost 90% of global deforestation is due to agricultural expansion.

Around 1 MILLION animal and plant species are now threatened with extinction, more than ever before in human history.

Drought estimated to displace 700 MILLION people by 2030.

Disaster events could reach 560 A YEAR, an average of 1.5 a day by 2030.

70% of Stockholm+50 State of the Planet survey respondents think the world will miss its target to halve fossil fuel emissions by Jan 1, 2031.

58% of countries referred to deforestation when discussing national environmental challenges and/or the urgency of reengineering our relationship with nature.

Concerns about food security were raised by 62% of the countries, mostly in Africa and Asia Pacific regions.

94% of countries raised strong concerns about pollution.

Sources: *IPCC: Climate Change 2022: Mitigation of Climate Change; UN: The Sustainable Development Goals Report 2022; Internal Displacement Monitoring Centre: Global Report on Internal Displacement 2022; World Economic Forum: Climate Refugees – The World's Forgotten Victims, 2021; WHO: Air Quality Database, 2022; Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services: Global Assessment Report, 2019.*

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Early Warning for Environment

Strategic Positioning (Inger's Communication to Workshop Geneva, ROE, 14 UN Agencies and 6 MEAs, November 2023)

We all know the **importance of early warnings for climate change and related disasters**. Early warnings can enhance resilience and adaptive capacity and reduce future loss and damage. Early warnings can save lives, livelihoods and nature's services. They protect assets that are worth far more than the costs of the systems themselves. They work.

Through our Climate Information and Early Warning Systems (CIEWS) portfolio, UNEP helps countries across the world to **increase access to high-quality weather and climate data, forecasting, and multi-hazard early warning systems** that underpin evidence-based policy and early action.

UNEP is proud to be part of the UN's Early Warnings for All initiative (EW4All), including as a founding partner and implementer of the Systematic Observations Financing Facility – a partnership between WMO, UNDP and UNEP.

But while extreme weather and climate change-induced disasters are often the most dramatic events affecting lives, livelihoods and ecosystems, they are not the only ones we need to predict, prepare for and head off where possible. **Alongside climate change, nature and biodiversity loss, and pollution and waste complete the triple planetary crisis**.

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Early Warning for Environment

Strategic Positioning (Inger's Communication to Workshop Geneva, ROE, 14 UN Agencies and 6 MEAs, November 2023)

UNEP is already looking further into the future to predict signals of change. But we must do more. **This is why you are now tasked with building a strategy for Early Warning for Environment**.

Nature loss and pollution are often more slow-onset and less visible than climate change, but no less damaging to lives and livelihoods. Air pollution and land degradation are perfect examples. Millions of people die around the world each year from air pollution, while billions of people are affected by land degradation. We also must consider issues like pollinator loss, zoonotic spillover, the erosion of natural barriers to floods and landslides, and more.

This dimension will require a systematic approach to tracking the sources of pollution and waste and the drivers of nature and biodiversity loss. **It will require the cooperation of all relevant agencies and Multilateral Environmental Agreements (MEAs)** – including the Kunming-Montreal Global Biodiversity Framework, the new Global Framework on Chemicals and the upcoming deal on plastic pollution.

Each agency and MEA must be a contributor and beneficiary and support the UN Common Approaches to biodiversity and pollution – with a view to boosting **the achievement of the Sustainable Development Goals**.

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Decisions from SMT

1. Governance is to stay in UNEP. EW4E should be considered as a UNEP initiative and, as such, is to be governed by UNEP Digital and Data Governance Group Board, with a subset of the Board serving as a Steering Committee so as to ensure appropriate oversight. Under no circumstance, should there be an external governance mechanism to the initiative.

2. There are to be no stand-alone or regional data platforms, EW4E should be fully integrated within new WESR platform and use existing capabilities and datasets, including the revamped WESR-CCA/Country Environment Dashboards and other sources.

3. Directors/Heads of MEAs are encouraged to appoint a focal point for EW4E [EWAD to reach out as appropriate.

4. EWAD is to prioritise the development of a budget, bearing in mind that the Division will be constrained by what it is able to mobilise.

UN environment programme

UNEP's Data Analytics Service Portfolio

Data Analytics is used for the discovery, interpretation, and communication of meaningful patterns in data towards effective decision making.

Data Analytics is rated as highly relevant by 82% of the countries for the UN Sustainable Development Cooperation Framework.

The 5 types of Data Analytics (Adapted from Devenport & Harris 2007 / Gartner 2012)
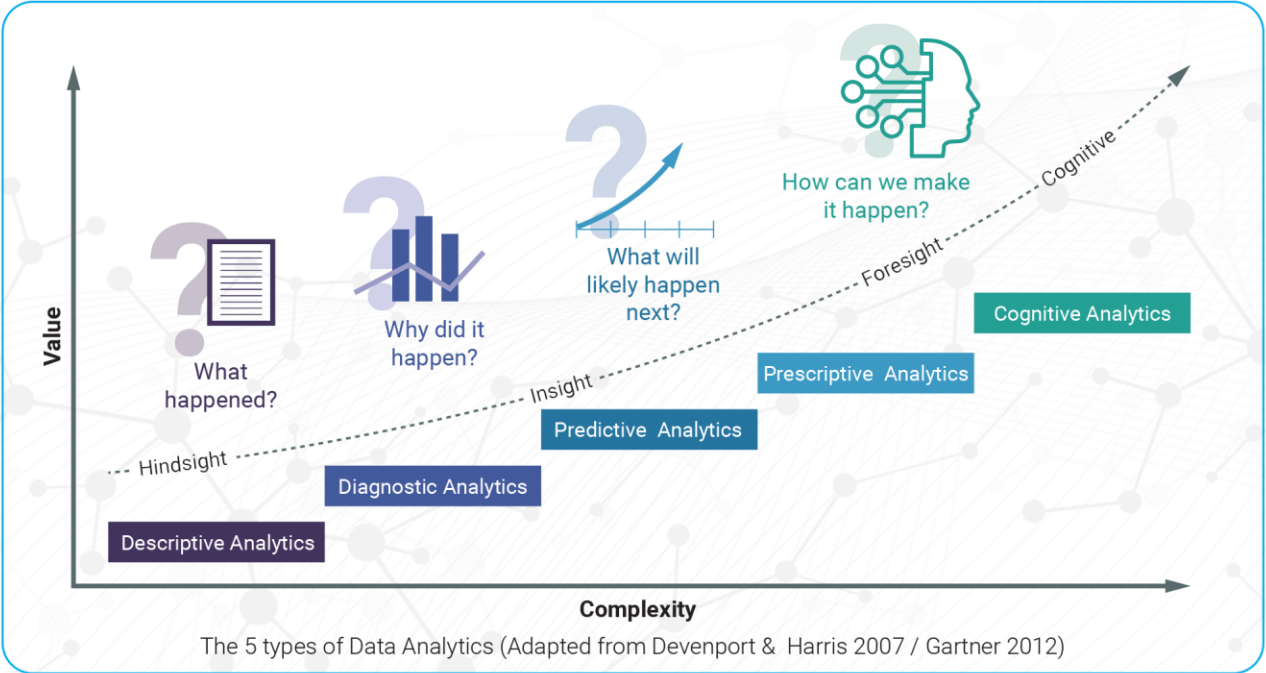
Data Analytics: is the systematic computational analysis of data or statistics. Five main types are descriptive, diagnostic, prescriptive, predictive and *Cognitive,* including artificial intelligence.

Geospatial, Statistics and Data Analytics: are fundamental Accelerators for the Achievement of Global Agendas as Agenda 2030 and the Sustainable Development Goals.

Delivering as One across UNEP Divisional, Regional Offices, and MEAs

Climate Action   Nature Action   Chemical and Pollution Action

UN environment programme

Early Warning Systems for All – Dashboard of Implementation

Establishing, upscaling and strengthening end-to-end Climate Information Services and **Multi-Hazard Early Warning Systems (MHEWS)** to enhance resilience and adaptive capacity – helping to save lives, livelihoods and ecosystems in the face of climate-related hazards.
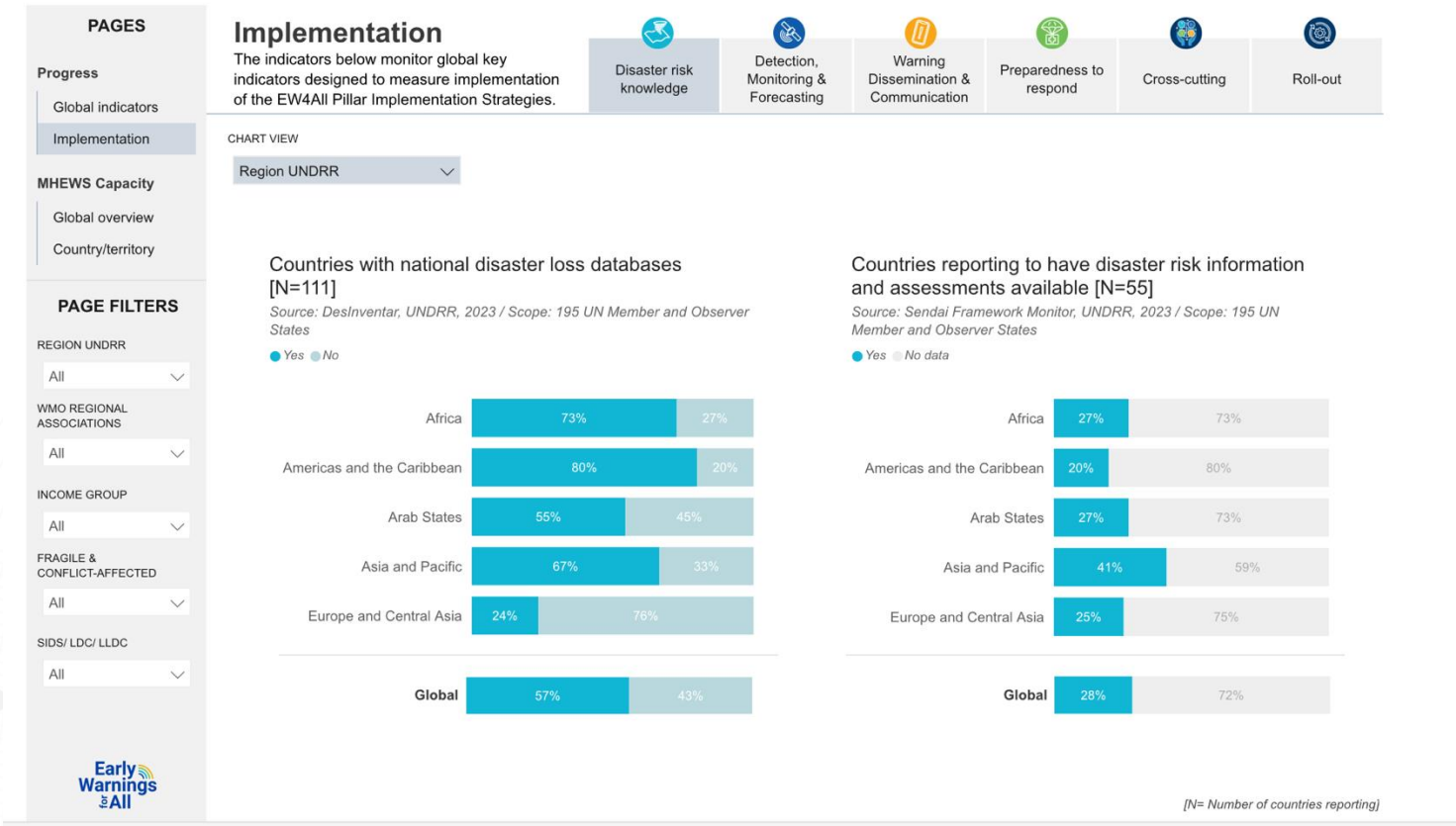

UNEP is also a co-founder and implementing entity of the Systematic Observations Financing Facility (SOFF) which supports the most vulnerable countries to **close critical weather and climate data gaps** that underpin better weather forecasts, early warning systems, and climate information services.

UNEP's Climate Information and Early Warning Systems (CIEWS) Portfolio

Establishing, upscaling and strengthening end-to-end Climate Information Services and **Multi-Hazard Early Warning Systems (MHEWS)** to enhance resilience and adaptive capacity – helping to save lives, livelihoods and ecosystems in the face of climate-related hazards.

Core components of UNEP's CIEWS initiatives:
→ Strengthening **institutional frameworks** for climate information and MHEWS
→ Enhancing capacity for **monitoring, analysis and forecasting** of climate and its impacts
→ Improving **dissemination and communication** of risk information and early warnings
→ Enhancing **climate risk management capabilities**

UNEP is also a co-founder and implementing entity of the Systematic Observations Financing Facility (SOFF) which supports the most vulnerable countries to **close critical weather and climate data gaps** that underpin better weather forecasts, early warning systems, and climate information services.

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UNEP Climate Information and Early Warning Systems Portfolio
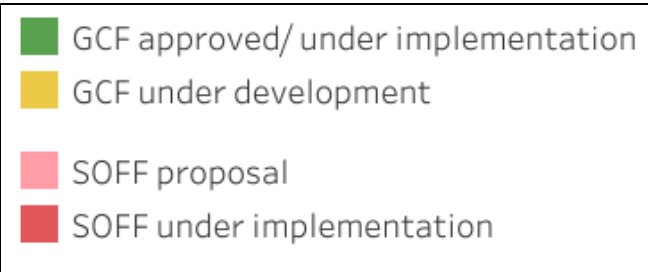
3 approved GCF initiatives: $49.9 million programme for 5 Pacific SIDS, $21.7 million project for Timor-Leste, $24.9 million project for Azerbaijan

7 GCF project proposals in the pipeline across Africa, Asia, Latin America and the Caribbean (incl. Maldives, submitted to the GCF in December 2024)`

14 countries supported in the SOFF across Africa, Asia and the Pacific **4 countries** started implementation (incl. Maldives, Bhutan, and Kiribati) **2 countries** are approved but not yet funded (Nauru and Timor-Leste)

GCF approved/ under implementation
GCF under development
SOFF proposal
SOFF under implementation

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Initiatives funded by the Green Climate Fund (GCF)

Pacific Programme

Objective: establish integrated climate and ocean information services & MHEWS in Cook Islands, Niue, Palau, Marshall Islands, Tuvalu; enhance regional knowledge management and cooperation for climate services & MHEWS.

Programme: GCF-funded, 49.9 million USD, benefits 100% of the population in all five countries.

Outcomes: a) increased generation and use of climate information in decision making; b) strengthened adaptive capacity and reduced exposure to climate risks; c) strengthened awareness of climate threats and risk-reduction processes.

Timor-Leste Project

Objective: establish end-to-end climate information services and MHEWS, build capacity to deliver robust climate data and information at all stages of the climate services value chain.

Project: GCF-funded, 21.7 million USD, benefits 100% of the population in Timor-Leste.

Outcomes: a) increased generation and use of climate information in decision making; b) strengthened adaptive capacity and reduced exposure to climate risks; c) strengthened awareness of climate threats and risk-reduction processes.

Azerbaijan Project

Objective: establish capacity for climate information services and people-centred, impact-based MHEWS, to support science-based policies, decision-making, preparedness and timely risk communication.

Project: GCF-funded, 35 million USD, benefits 9.32 million people.

Outcomes: a) science-based climate and disaster risk information is widely available and accessible; b) decision-making is supported by reliable climate information services and impact-based MHEWS; c) increased resilience and reduced vulnerability to the adverse impacts of climate change and climate threats.

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GCF Funded CIEWS Portfolio

Temporary Tide Gauge in Cook Islands, Pacific Programme
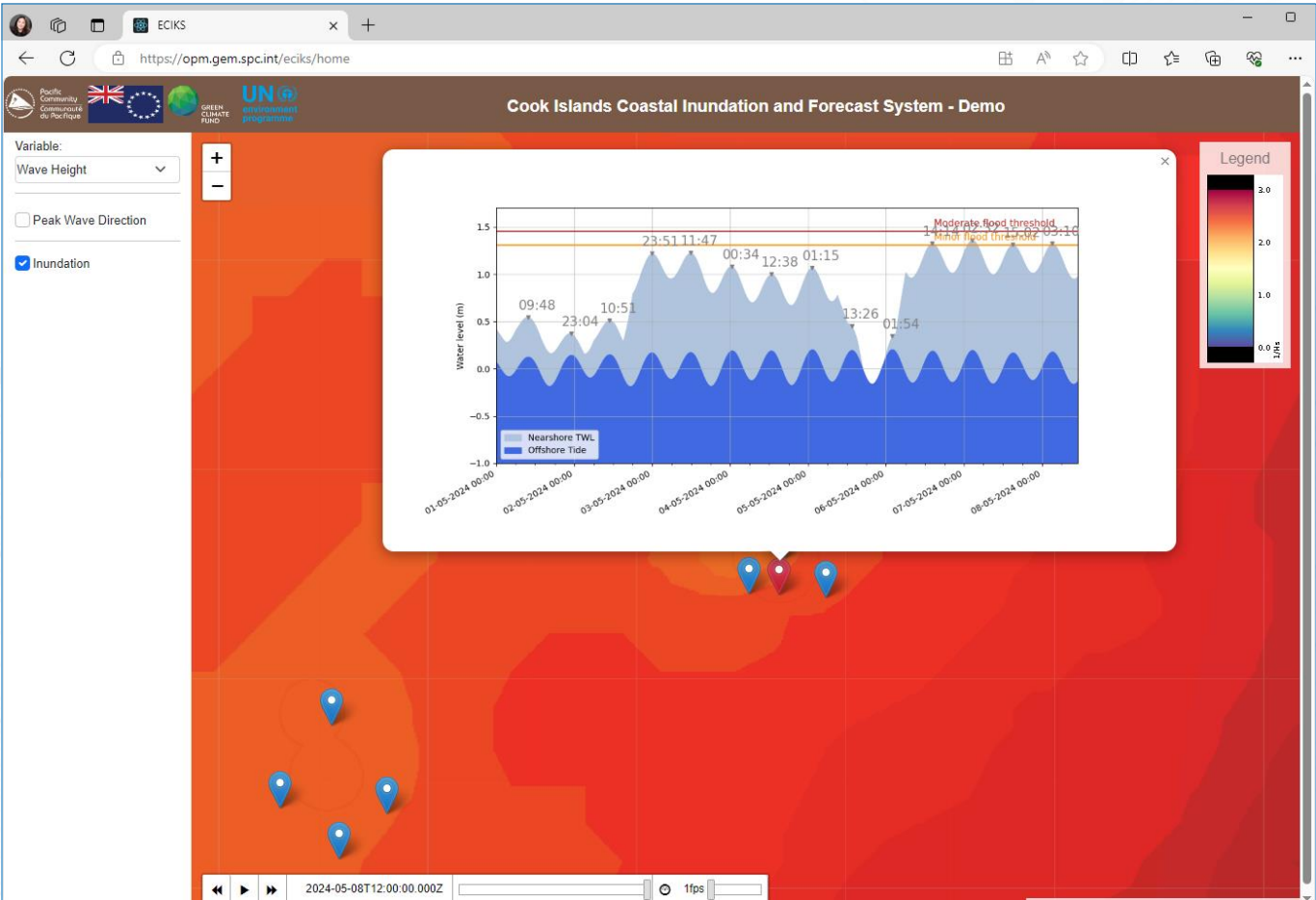
Coastal Inundation and Forecast System in Cook Islands, Pacific Programme
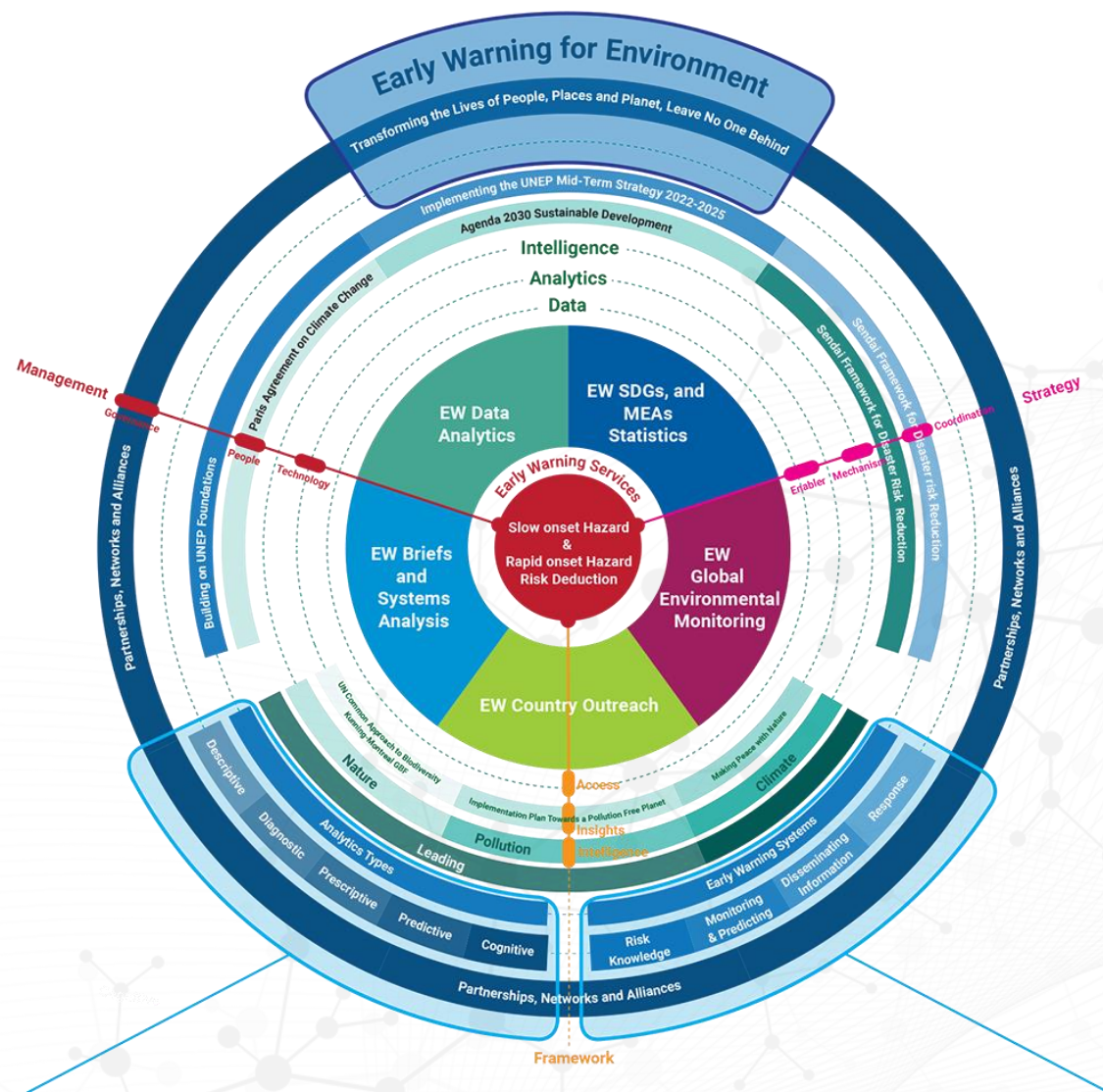
GCF Funded CIEWS Portfolio

Automated Weather Station in Niue, Pacific Programme

Low-Cost Weather Station in Timor-Leste

UN environment programme

An Integrated Framework of Services

Identifying, monitoring and analysing both rapid onset multi-hazards and slow-onset but continuous hazards and their interlinkages or issuing warnings of future events that come early enough for one to prepare, respond and Build Back Better. Leaving No One Behind.

An Integrated Framework of Services
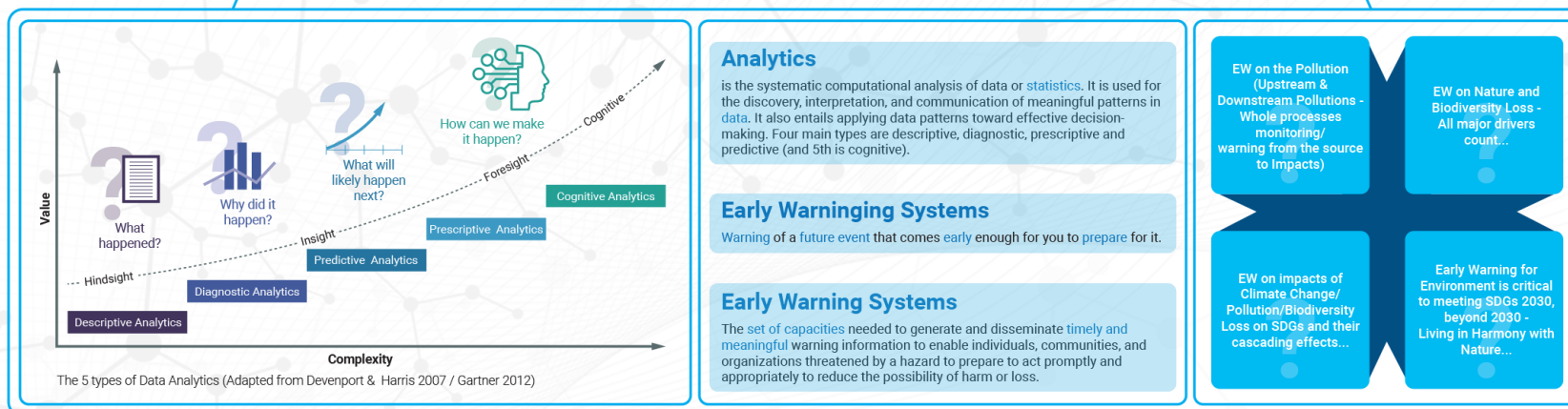
Early Warning for All
EW4ALL

One UN Common Approach
to Early Warning for the Environment
EW4E

16 UN Agencies	6 MEAs
UNEP, WMO, UNDRR, ITU, IFRC, UNDP, FAO, WHO, IOM, UNDESA, OCHA, OICT, UN Global Compact, UNOPS, IPCC and GEF	CBD, Ramsar, UNCCD, Basel, Rotterdam and Stockholm

How can we make it happen?

Cognitive

Foresight

Cognitive Analytics

Insight

Prescriptive Analytics

What will likely happen next?

Predictive Analytics

Why did it happen?

Diagnostic Analytics

Hindsight

What happened?

Descriptive Analytics

Value

Complexity

The 5 types of Data Analytics (Adapted from Devenport & Harris 2007 / Gartner 2012)

Analytics

is the systematic computational analysis of data or statistics. It is used for the discovery, interpretation, and communication of meaningful patterns in data. It also entails applying data patterns toward effective decision-making. Four main types are descriptive, diagnostic, prescriptive and predictive (and 5th is cognitive).

Early Warninging Systems

Warning of a future event that comes early enough for you to prepare for it.

Early Warning Systems

The set of capacities needed to generate and disseminate timely and meaningful warning information to enable individuals, communities, and organizations threatened by a hazard to prepare to act promptly and appropriately to reduce the possibility of harm or loss.

EW on the Pollution (Upstream & Downstream Pollutions - Whole processes monitoring/ warning from the source to Impacts)

EW on Nature and Biodiversity Loss - All major drivers count...

EW on impacts of Climate Change/ Pollution/Biodiversity Loss on SDGs and their cascading effects...

Early Warning for Environment is critical to meeting SDGs 2030, beyond 2030 - Living in Harmony with Nature...

UN environment programme

Contribution to Global Biodiversity Framework (GBF)

GEMS and EWE SERVICES TO COMPLIMENT FOCUS AREA: Sustainable and inclusive use of biodiversity and Restore and enhance nature's contributions to people

- Map out biodiversity loss hotspots and **match them to potential upstream risk causes.**

- Catalyze collaborations **to analyse the data on hotspots** and establish those in areas with ready community structures and engage communities for training as **citizen scientists to monitor upstream risk** causes of biodiversity loss.

- Leverage **data** on enablers of community-led solutions to nature-biodiversity **loss to inform policy and investment planning** to enable uptake of solutions.

- **Monitor the state of biodiversity** to prioritize establishing **upstream hotspot** areas of food systems, water, and health.

- Analyse the **data on hotspots** and establish those in areas with ready community structures and engage communities for training as citizen scientists **to monitor potential actions/solutions** to **forestall risks in the hotspot areas.**

- Develop **digital maps**, including simulations to extrapolate and interpolate **to close data gaps, towards matching hotspot areas to potential citizen-driven actions** in forestalling biodiversity risks in hotspot areas.

- Extrapolate maps to inform **policy and investment** actions towards protecting and enhancing biodiversity by internal (UNEP-wide) and external stakeholders.

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Contribution to Global Biodiversity Framework (GBF)

GEMS and EWE SERVICES TO COMPLIMENT FOCUS AREA: Public policy mainstreaming and Finance and financial flows

- Leverage data from trained citizen scientists as well as literature review on actions to **forestall biodiversity risks** and develop knowledge materials, e.g., case studies and policy briefs.

- Leverage the above knowledge and data/analytics resources to inform the **development of investment plans and policy incentives to catalyze the uptake of actions** in forestalling biodiversity loss risks.

- Catalyze collaborations to analyze **impact data of actions to address upstream biodiversity risks** and establish key **social, environmental, financial, and economic impacts** as well as social (e.g., skills development), market (e.g., competitive product development), finance (e.g., use fiscal incentives/affordable capital etc.) enablers to drive uptake.

- Catalyze collaborations to **compile impact data into knowledge products,** e.g., case studies for sharing by policy and non-policy actors to invest in nature-positive actions in the flagship areas.

- Catalyze collaborations to integrate **impact data on the above actions into digital platforms** that match data on the **state of biodiversity loss to upstream risks** and **actions to forestall for sharing with policy** and non-policy actors to **invest in nature-positive actions** in the flagship areas freshwater/marine; food systems; plastics; One-Health.

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Contribution to One Health Initiative (One Health)

GEMS and EWE SERVICES TO COMPLIMENT One-Health

- **Strengthening health surveillance** by way of **leveraging data on the midstream state** of the environment to **detect potential health implications** and matching these to **upstream environmental sources and risks** so they can be forestalled.

- For example, **data on the water quality** of a river at the midstream, which shows high levels of **nitrates, pathogens**, etc., is matched to potential **health challenges that may arise, such as increased cases of cholera** and other hygiene-related illnesses that may be recorded in **local health centres.**

- This midstream data on the **state of water then triggers investigations upstream of the river of potential upstream risk sources & causes**, such as effluent from farms, domestic and industrial sources, etc., that can be **established through primary data from community-led surveys** as well as secondary and tertiary data sources recorded about the areas. This upstream data is then matched to actions, such as wastewater circularity established through literature review, that can forestall and minimise the upstream risks and hence forestall the attendant health risks and the enablers needed to catalyse enhanced uptake of these actions.

- Generate **data on the midstream state of the environment** – i.e., water quality, air quality, oceans/coastal health, from diverse sources and match them to potential health risks that can result from this state of the environment. Use **primary data from environmental monitoring initiatives, surveys of medical centres/pharmacies** on disease trends, community voluntary environmental monitoring, as well as literature reviews.

- Match data on the environment's midstream state to potential upstream risk sources and causes. Use primary data from environmental monitoring initiatives, **including community voluntary environmental monitoring,** as well as literature reviews.

- Converge partnerships to **match data on the upstream risk sources and causes to potential actions that can forestall and minimise the risk causes and match actions to key enablers needed to catalyse uptake** and compile into **investment plans to drive uptake**. Leverage primary data sources as well as literature reviews.

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Contribution to One Health Initiative (One Health)

GEMS and EWE SERVICES TO COMPLIMENT One-Health

- Mobilise and train **voluntary community members into citizen scientists** to engage in monitoring potential **upstream risk sources** and causes to generate **data on upstream risk sources** and causes to midstream environmental risks.

- Mobilise and train voluntary community members into citizen scientists to engage in **monitoring potential actions** that can forestall/minimise the upstream risk sources and causes established.

- Converge partnerships to facilitate analysis, as well as simulations forecasting long-term impact of actions to forestall environmental risk sources and causes on health to **inform investment and policy planning towards expanded application of these forestalling actions.**


Envato Elements / Rawpixel

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Contribution to Pollution Free Planet Framework (Pollution)

**GEMS and EWE SERVICES TO COMPLIMENT to Pollution Free Planet**

- Converge partnerships to generate data on the midstream state of pollution **on water, air, oceans/coastlines**, focusing on plastics and nonplastic waste, including organic waste. Use primary data from environmental monitoring initiatives, including open sources, community voluntary environmental monitoring as well as literature reviews.

- Converge partnerships to match data on midstream pollutants to potential upstream risk sources and causes, e.g., waste dumps, waste burning, effluent from domestic/agriculture/industrial, transport, etc. Use **primary data from environmental monitoring initiatives, including from community voluntary environmental monitoring** as well as literature reviews.

- Converge partnerships to **match data on the upstream risk sources and causes** to potential actions that can forestall and minimize the risk causes, e.g. waste circularity, and match actions to key enablers needed to **catalyze uptake and compile into investment plans to drive uptake**. Leverage primary data sources as well literature reviews.

- Mobilise and train **voluntary community members into citizen scientists** to engage in **monitoring potential upstream risk sources and causes to generate data on upstream risk sources** and causes that match the midstream state of pollution.

- Mobilise and train **voluntary community members into citizen scientists to engage in monitoring potential actions** (e.g., circularity in plastics/organic waste, etc.) that can **forestall/minimise the upstream risk sources** and causes established.

- Converge partnerships to **facilitate analysis, as well as simulations forecasting long-term impact** of actions to forestall environmental risk sources and causes on addressing pollution to inform investment and policy planning towards expanded application of these forestalling actions.

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BUILDING ON WESR, Early Warning for Environment and Data Analytics Services
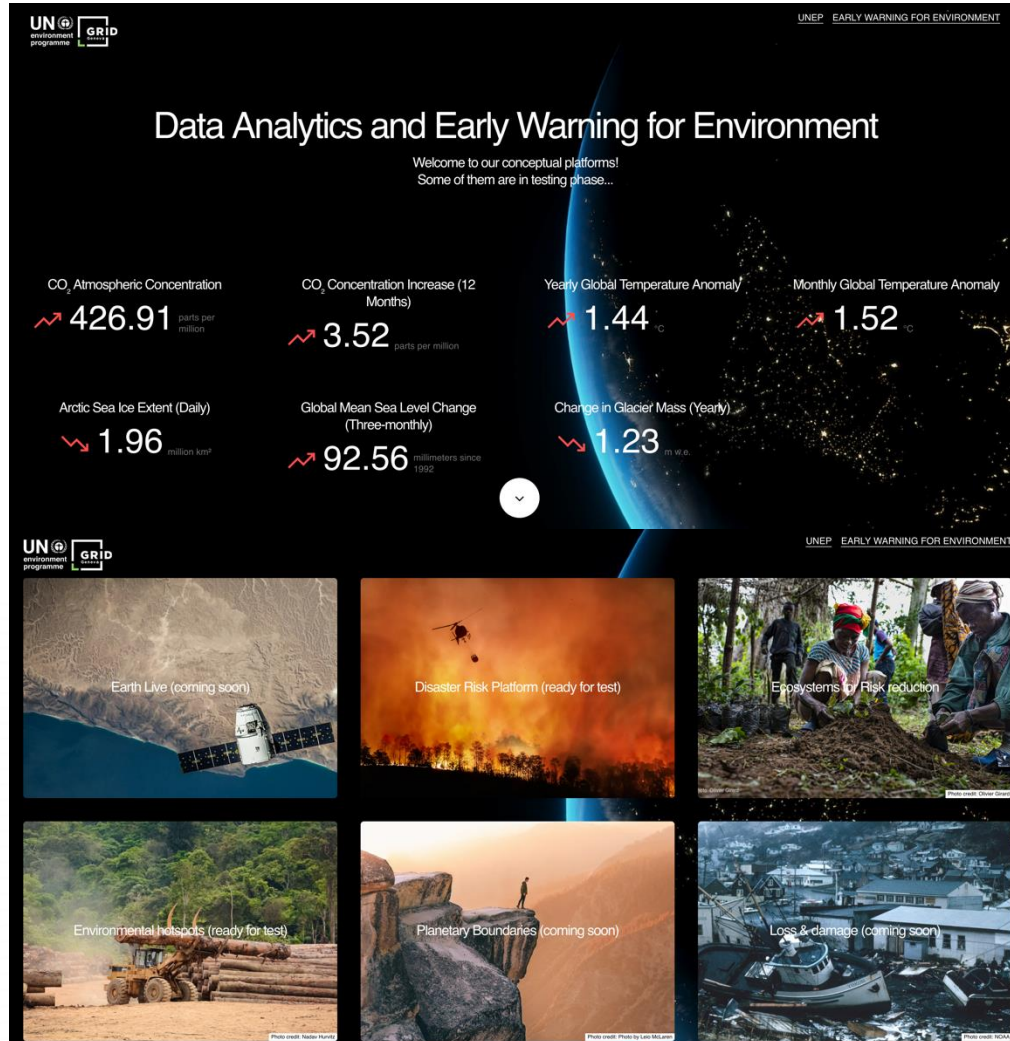
- Future digital products / platforms that provide early warning and data analytics services include:

  - Monitoring of global environment hotspots, by satellite images
  - Country risk profiles, with multi-hazard data analytics and prediction non exposure and risks under different climate scenarios
  - Earth Live : Near-real time monitoring of essential variables
  - Monitoring of Planetary Boundaries

- They would be integrated and **fully accessible from WESR**, instead of being a stand-alone platform.

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Demo platform at https://early-warning.unepgrid.ch/
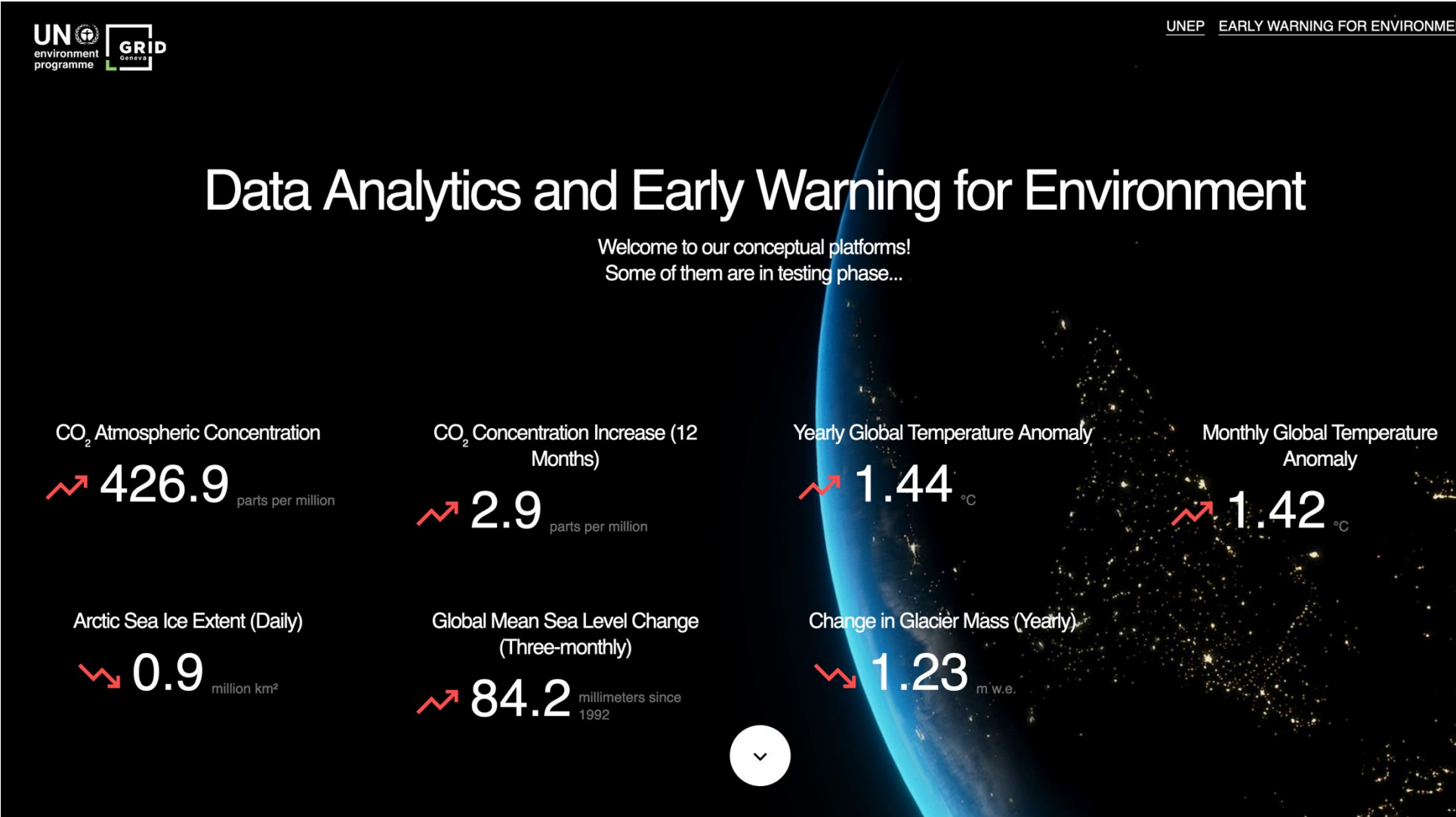
GRID's Network Contributions to Global Biodiversity Framework

Data platforms Transforming data into information + data sharing

- Environment Early Warning & Analytics
- Tracking impacts on biodiversity
- Serving geospatial datasets data visualisation
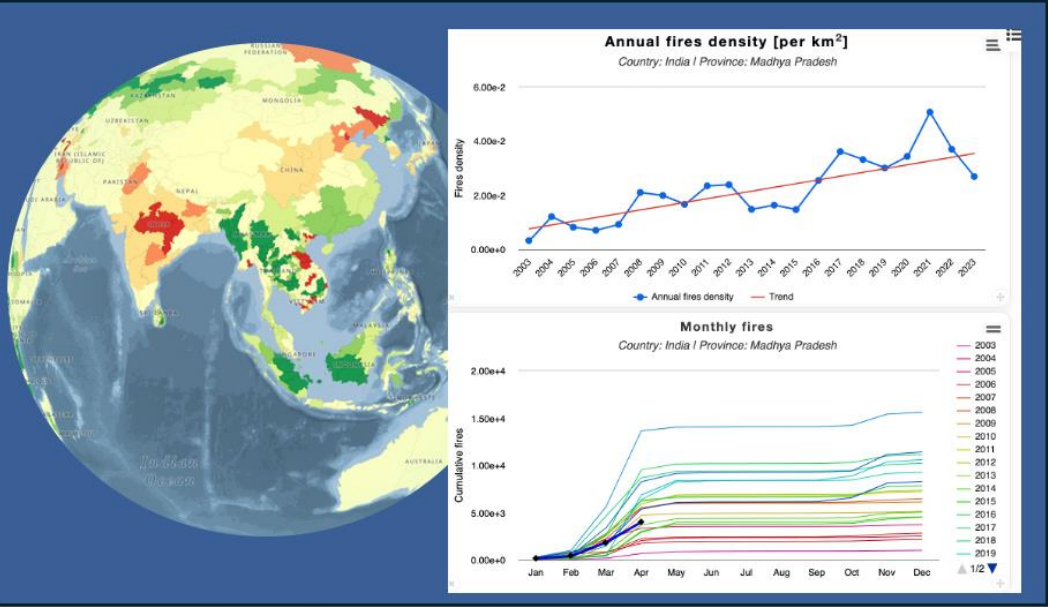
Modeling and monitoring (Big) Data processing, stats, GIS & remote sensing

- Monitoring of biodiversity variables
- Monitoring in near-real time
- Identification of Environmental Hotspots using remote sensing

Contribution to Pollution and Nature

Sound data, statistics, and environmental economic accounts generated, shared, and used for pollution and nature actions

Statistical Methologies	Index for Coastal Eutrophication Potential, EST, waste, global footprint tool
Monitoring	Data collection, validation, reporting, stories
Capacity development	Online courses, step-by-step guidelines, webinars, in country workshops, tools Circular economy, EW-MFA , waste, ...
System of Environmental Economic Accounting	Central Framework Plastic Flows; EW-MFA, waste, emissions, residuals
Analysis	Progress, Disaggregation, Gender-Environment, Interlinkages

Envato Elements / wirestock

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Global Environment Monitoring System for Freshwater (GEMS/Water) Programme

GEMStat Database

SDG 6.3.2 on ambient water quality

GEMS Water

Regional Support Networks

**Global Network of National Focal Points**

Capacity Development

UNEP GEMS/Water:

- Provides quality assured data to keep the state of the world's freshwater resources under review,

- Develops capacity of member states,

- Provides information and services across the science-policy-public interface, and

- Advocates the 2030 Agenda for Sustainable Development.

UN environment programme

System Analysis and Foresight Briefs Contributions

Systems Analysis for Early Action
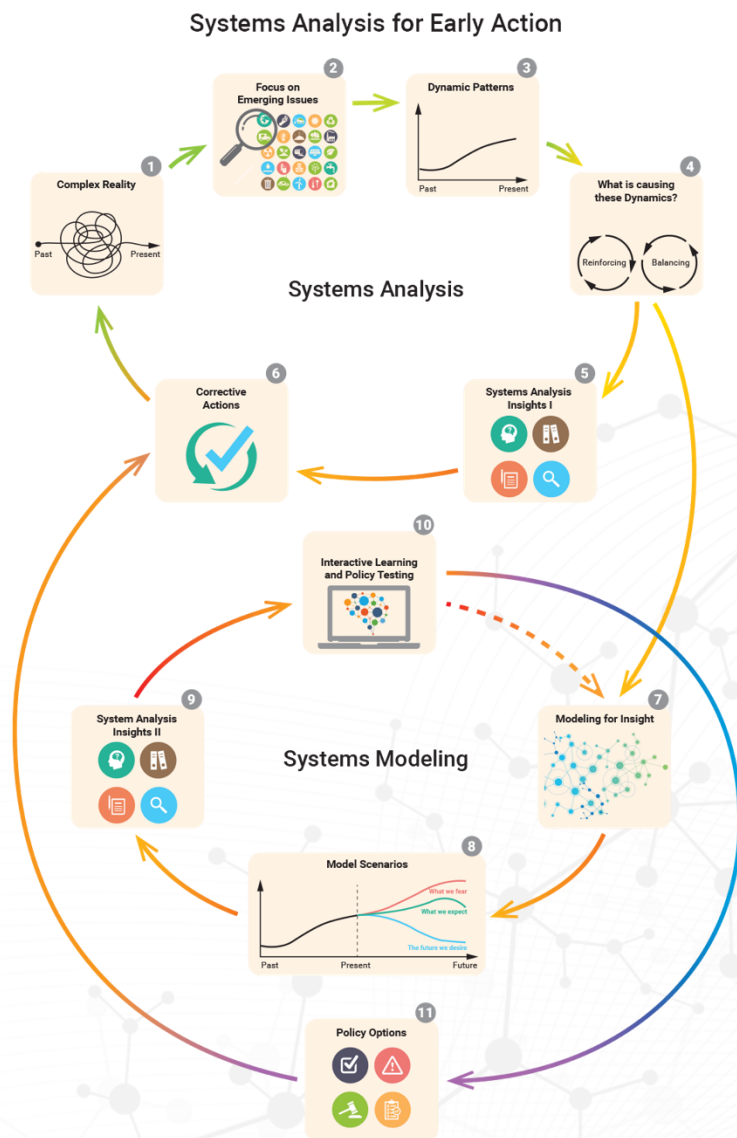
- Increasing awareness of **emerging environmental issues** through the publication of science-based **Foresight Briefs** providing policy guidance, insights and early warning of issues falling under the triple planetary crises.

- Development of online simulators and scenario generators focused on emerging environmental issues 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**.

- 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.

Why Early Warning for Environment

1. There is a need for strengthened environmental governance at all levels. The planetary crises of climate change, pollution, nature and biodiversity loss can only be tackled successfully if they become a top policy Priority and Action supported by legislation, inclusive decision-making, monitoring, and enforcement.
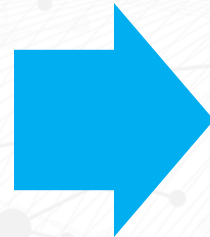
2. Humanity has been facing multiple interlinked (SYSTEMIC) environmental, social, economic and health challenges – Including the TRIPLE PLANETARY CRISIS: the climate change crisis, pollution, biodiversity loss and the extinction of species, deforestation, land degradation, increased incidents of environmental disasters, widening gaps between rich and poor, backlash to women's rights, lack of decent jobs and new emerging zoonotic diseases. The complexity and difficulties of addressing these challenges are compounded **by the urgent need for action and the current fragility of the global economy.**

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Triple Planetary Crisis

Climate Change, Biodiversity Loss and Pollution

"Lead us out of this mess", SG urged delegates at the Swedish summit convened by the UN General Assembly, in a call for action against a "triple planetary crisis" that's been caused by the climate emergency – "that is killing and displacing ever more people each year" – biodiversity loss – which threatens "more than three billion people" – and pollution and waste, "that is costing some nine million lives a year".

All Nations should do more to protect the basic human right to a clean, healthy environment for everyone,
UN SG Mr. Guterres insisted, focusing in particular on "poor communities, women and girls, indigenous peoples and the generations to come". – *by the Secretary-General of the United Nations*

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Aligned with UNEP – Mid Term Strategy and Agenda 2030

UNEP Medium-Term Strategy 2022–2025: On the road to 2023

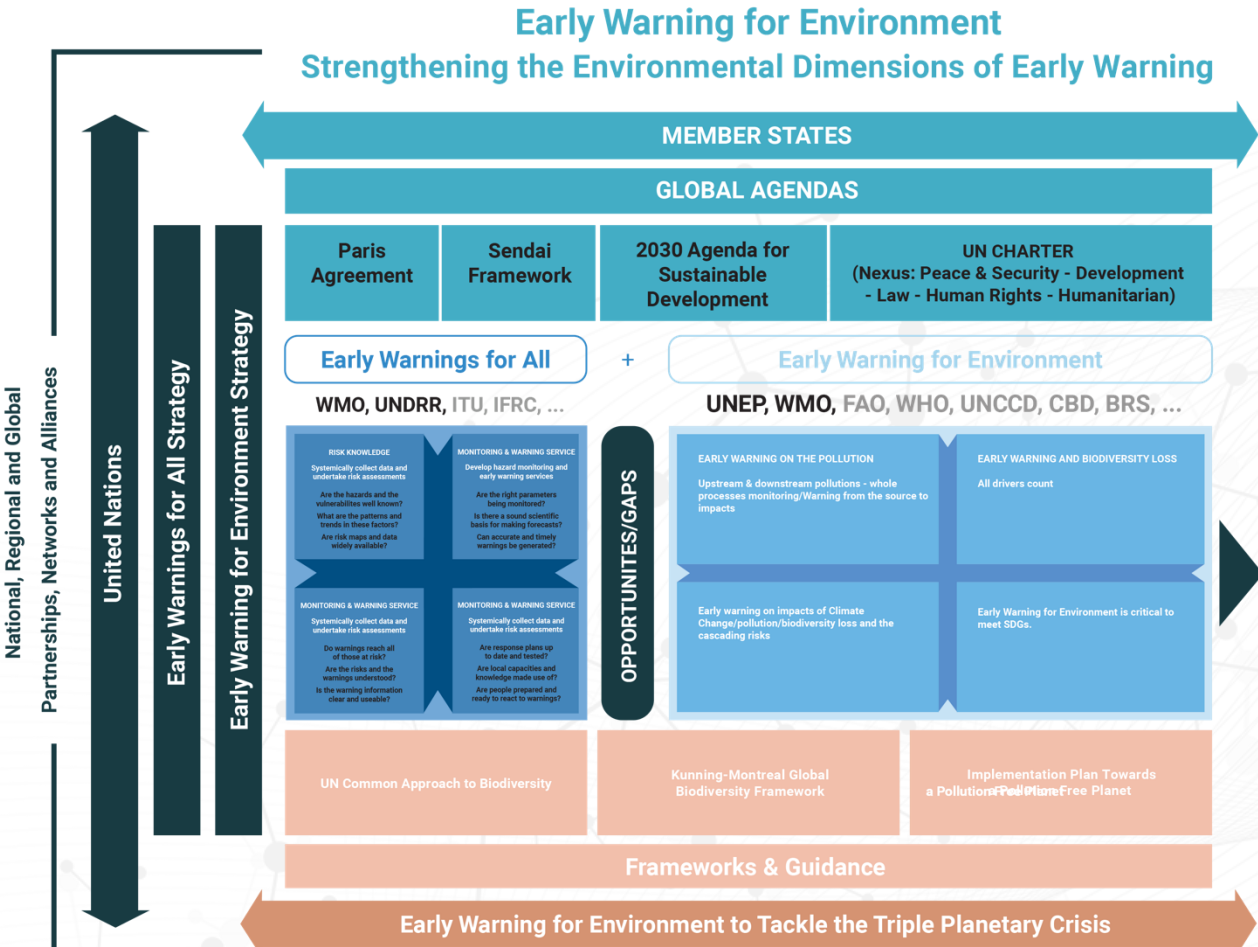# One UN Common Approach for Early Warning for Environment

Synergies between Early Warning for All and EWE

Early Warning for Environment
Strengthening the Environmental Dimensions of Early Warning

MEMBER STATES

GLOBAL AGENDAS

| Paris Agreement | Sendai Framework | 2030 Agenda for Sustainable Development | UN CHARTER (Nexus: Peace & Security - Development - Law - Human Rights - Humanitarian) |

Early Warnings for All   +   **Early Warning for Environment**

WMO, UNDRR, ITU, IFRC, ...   **UNEP, WMO, FAO, WHO, UNCCD, CBD, BRS, ...**

RISK KNOWLEDGE
Systemically collect data and undertake risk assessments
Are the hazards and the vulnerabilites well known?
What are the patterns and trends in these factors?
Are risk maps and data widely available?

MONITORING & WARNING SERVICE
Develop hazard monitoring and early warning services
Are the right parameters being monitored?
Is there a sound scientific basis for making forecasts?
Can accurate and timely warnings be generated?

MONITORING & WARNING SERVICE
Systemically collect data and undertake risk assessments
Do warnings reach all of those at risk?
Are the risks and the warnings understood?
Is the warning information clear and useable?

MONITORING & WARNING SERVICE
Systemically collect data and undertake risk assessments
Are response plans up to date and tested?
Are local capacities and knowledge made use of?
Are people prepared and ready to react to warnings?

OPPORTUNITES/GAPS

EARLY WARNING ON THE POLLUTION
Upstream & downstream pollutions - whole processes monitoring/Warning from the source to impacts

EARLY WARNING AND BIODIVERSITY LOSS
All drivers count

Early warning on impacts of Climate Change/pollution/biodiversity loss and the cascading risks

Early Warning for Environment is critical to meet SDGs.

ONE PLANET Early Warning for Environment Platform

UN Common Approach to Biodiversity

Kunning-Montreal Global Biodiversity Framework

Implementation Plan Towards a Pollution-Free Planet

Frameworks & Guidance

Early Warning for Environment to Tackle the Triple Planetary Crisis

"Accelerating agenda 2030 and sustainable development "and "beyond 2030- Living harmony with nature 2050"

United Nations
Early Warnings for All Strategy
Early Warning for Environment Strategy
National, Regional and Global Partnerships, Networks and Alliances
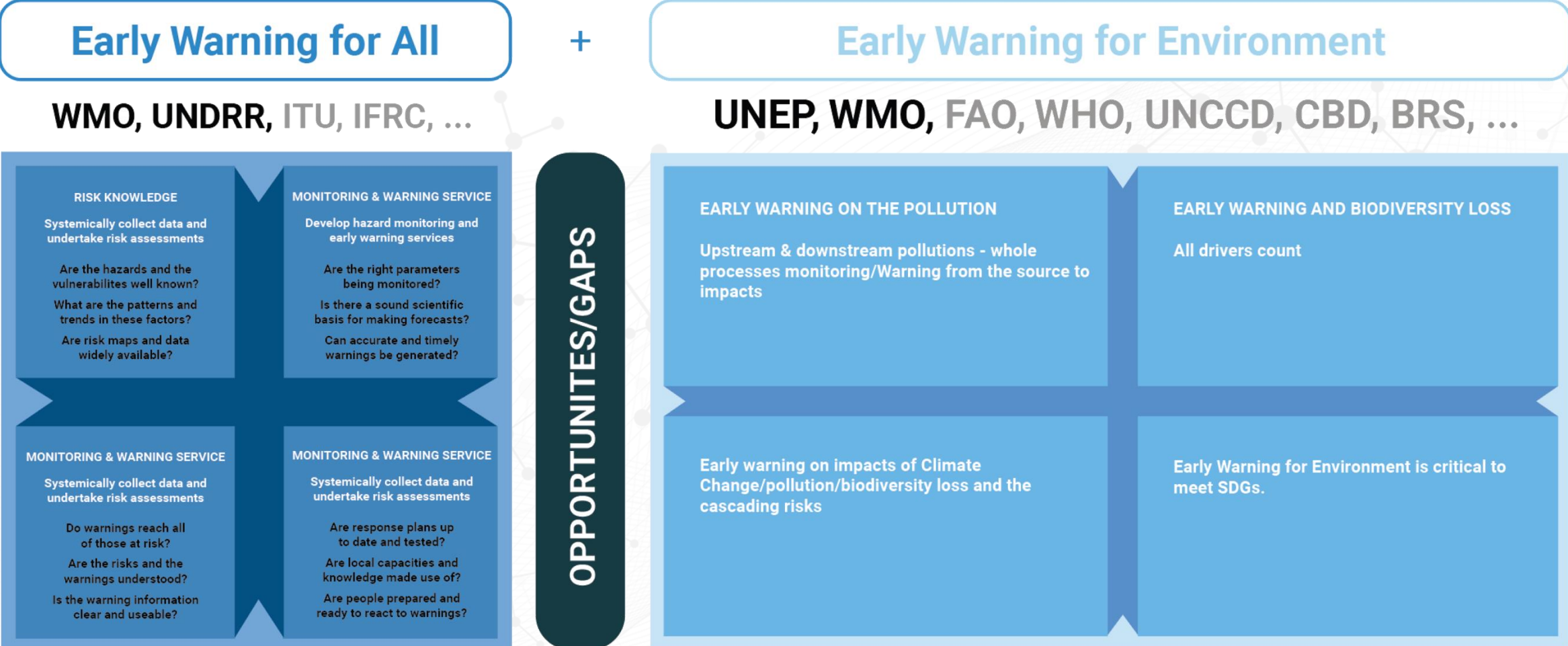Full interoperability with Early Warning Platforms

The availability of timely, quality and disaggregated data is critical for accelerating the achievement of Agenda 2030 and the Sustainable Development Goals (SDGs). Data is fundamental for Early Warning services, particularly at the local, sub-national and national levels.
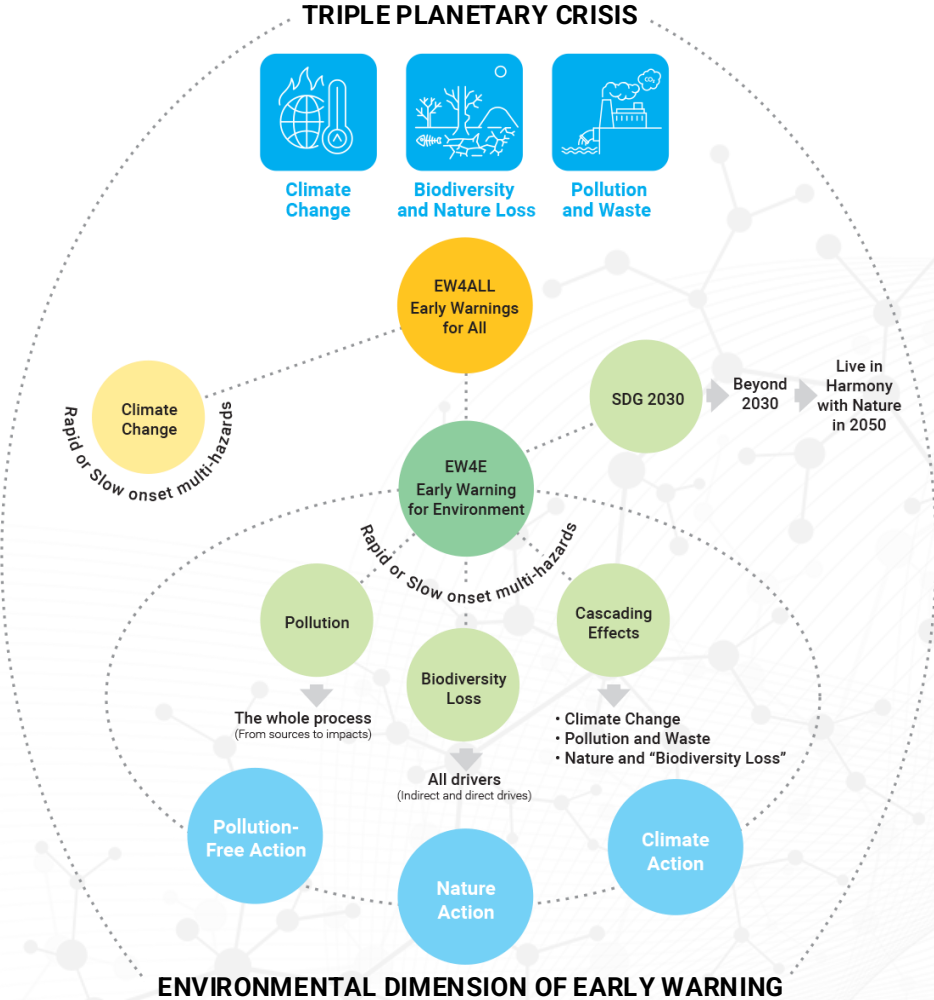
Early Warning for Environment

Synergies between Early Warnings for All and EWE

Early Warning for All + **Early Warning for Environment**

WMO, UNDRR, ITU, IFRC, ...   **UNEP, WMO,** FAO, WHO, UNCCD, CBD, BRS, ...

RISK KNOWLEDGE

Systemically collect data and undertake risk assessments

Are the hazards and the vulnerabilites well known?

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Are risk maps and data widely available?

MONITORING & WARNING SERVICE

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All drivers count

Early warning on impacts of Climate Change/pollution/biodiversity loss and the cascading risks

Early Warning for Environment is critical to meet SDGs.

Synergies between Early Warnings for All and EWE

Early Warning for Environment Facilitated by UNEP
Co-creating with 14 UN Agencies and 3 MEAs

TRIPLE PLANETARY CRISIS

Climate Change

Biodiversity and Nature Loss

Pollution and Waste

EW4ALL Early Warnings for All

Climate Change

Rapid or Slow onset multi-hazards

SDG 2030 → Beyond 2030 → Live in Harmony with Nature in 2050

EW4E Early Warning for Environment

Rapid or Slow onset multi-hazards

Pollution

Cascading Effects

Biodiversity Loss

The whole process
(From sources to impacts)

All drivers
(Indirect and direct drives)

• Climate Change
• Pollution and Waste
• Nature and "Biodiversity Loss"

Pollution-Free Action

Nature Action

Climate Action

ENVIRONMENTAL DIMENSION OF EARLY WARNING

Early Warnings for All is co-led by WMO and UNDRR and supported by pillar leads ITU and IFRC. UNEP is one of implementing partners.

Disaster risk knowledge
Systematically collect data and undertake risk assessments
• Are the hazards and the vulnerabilities well-known by the communities?
• What are the patterns and trends in these factors?
• Are risk maps and data widely available?

Detection, observations, monitoring, analysis and forecasting of hazards
Develop hazard monitoring and early warning services
• Are the right parameters being monitored?
• Is there a sound scientific basis for making forecasts?
• Can accurate and timely warnings be generated?

Preparedness and response capabilities
Build national and community response capabilities
• Are the response plans up-to-date and tested?
• Are local capacities and knowledge made use of ?
• Are people prepared and ready to react warnings?

Warning dissemination and communication
Communicate risk information and early warnings
• Do warnings reach all of those at risk?
• Are the risks and warnings understood?
• Is the warning information clear and usable?

UN environment programme

Outcomes of the Scoping Workshop (6-7 July 2023)

July 2023   **November 2023**   **February 2024**

- All participants from 4 plus 3 organizations (UNEP, WMO, …) (FAO, WHO, CBD, UNCCD, BRS) seem to support the need for an Early Warning for Environment initiative **(4 Agencies and 3 MEAs).**

- Early Warning for Environment is to be **Anchored in the Early Warnings for All** is an important initiative (EW4ALL Environment).

- The scope of Early Warning for Environment is clear: focus on **Pollution and Biodiversity, Ecosystems degradation and Nature Solutions** in interlinkage with Climate Services.

- The Early Warning for Environment contributes directly to the **Agenda 2030 and SDGs** (Cross-Cutting Effects).

UN environment programme

Outcomes of the Scoping Workshop (6-7 July 2023)

July 2023

November 2023

February 2024

- The availability of **timely, quality and disaggregated data** is critical for accelerating the achievement of Agenda 2030 and the Sustainable Development Goals (SDGs). Data is fundamental for the Early Warning for Environment services, particular at the local, sub-national and national levels.

- **Building on existing** platforms and monitoring and observation systems.

- **Capacity development and technology capacity development** are critical for the Early Warning for Environment function, even more relevant at the national, sub-national and local levels.

- The identification of a **typology of Hazards** is fundamental for the 'Early Warning for Environment' initiative.

UN environment programme

Outcomes of the Scoping Workshop (6-7 July 2023)

July 2023   **November 2023**   **February 2024**

Group of **14** Agencies + **3** MEAs with **One** UN Common Approach to EWE

14 UN Agencies: UNEP, WMO, UNDRR, ITU, IFRC, FAO, WHO, UNDP, UNDA, OICT, OCHA, and IOM

3 MEAs: CBD, BRS and UNCCD

Across UNEP, including Ecosystems Division, Industry and Economy Division, Policy and Programming Division, the Chief Digital Office and Chief Scientist Office, and All 6 UNEP Regional Offices

Mission, Goals and Principles for EWE

Mission:

Protect all developing countries with EWE services on pollution and waste, nature and biodiversity loss, and together with EW4All on climate change, to minimize risks of disasters from the triple planetary crisis beyond 2030 and live in harmony with nature in 2050.

Goals:

- By 2030, at least half of developing countries before 2030 will be provided EWE services (*EW4All aims to cover all countries with early warning by 2027*).

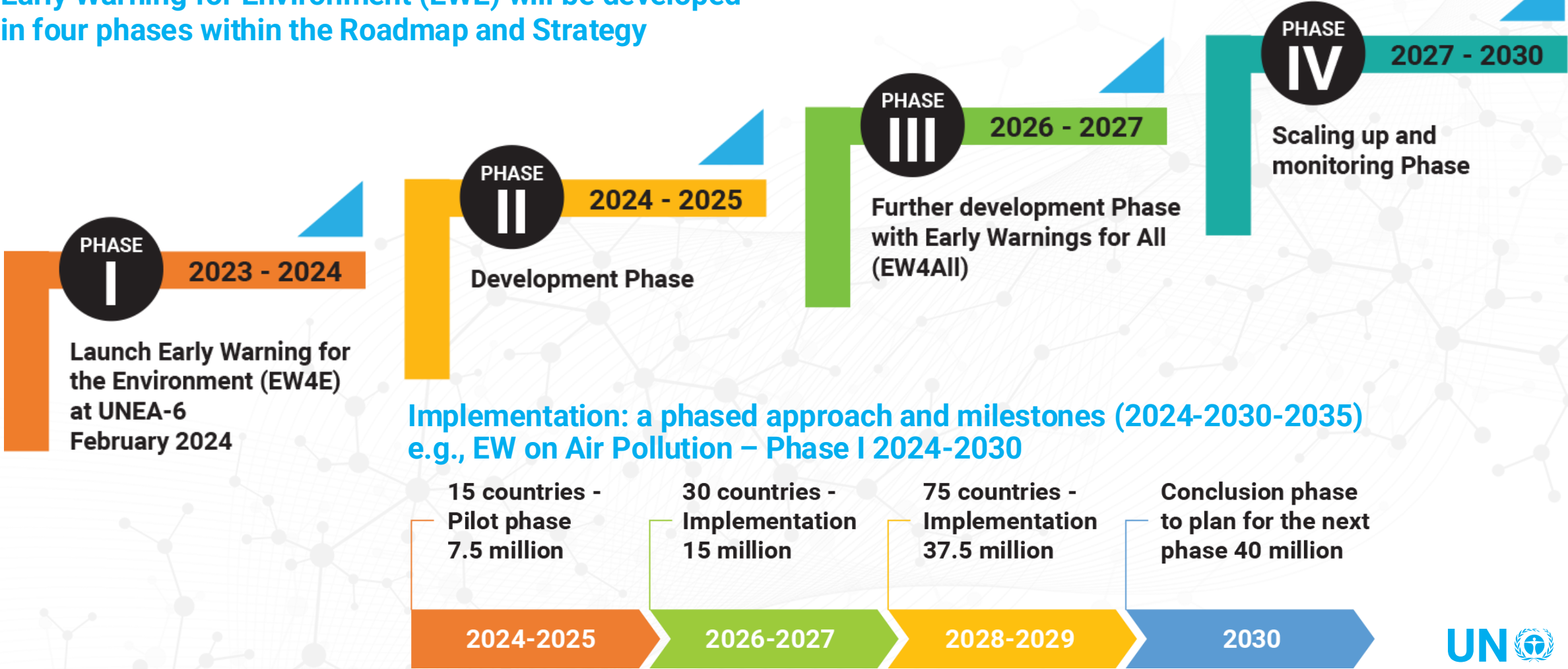- By 2035, all developing countries will be provided EWE services.

Principles:

Demand-driven, country ownership and sustainable operations.

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UN

environment
programme

UNEP's Early Warning Roadmap

Early Warning for Environment (EWE) will be developed in four phases within the Roadmap and Strategy

PHASE I — 2023 - 2024
Launch Early Warning for the Environment (EW4E) at UNEA-6 February 2024

PHASE II — 2024 - 2025
Development Phase

PHASE III — 2026 - 2027
Further development Phase with Early Warnings for All (EW4All)

PHASE IV — 2027 - 2030
Scaling up and monitoring Phase

Implementation: a phased approach and milestones (2024-2030-2035) e.g., EW on Air Pollution – Phase I 2024-2030

15 countries - Pilot phase 7.5 million

30 countries - Implementation 15 million

75 countries - Implementation 37.5 million

Conclusion phase to plan for the next phase 40 million

| 2024-2025 | 2026-2027 | 2028-2029 | 2030 |

100 million USD for 100 Countries
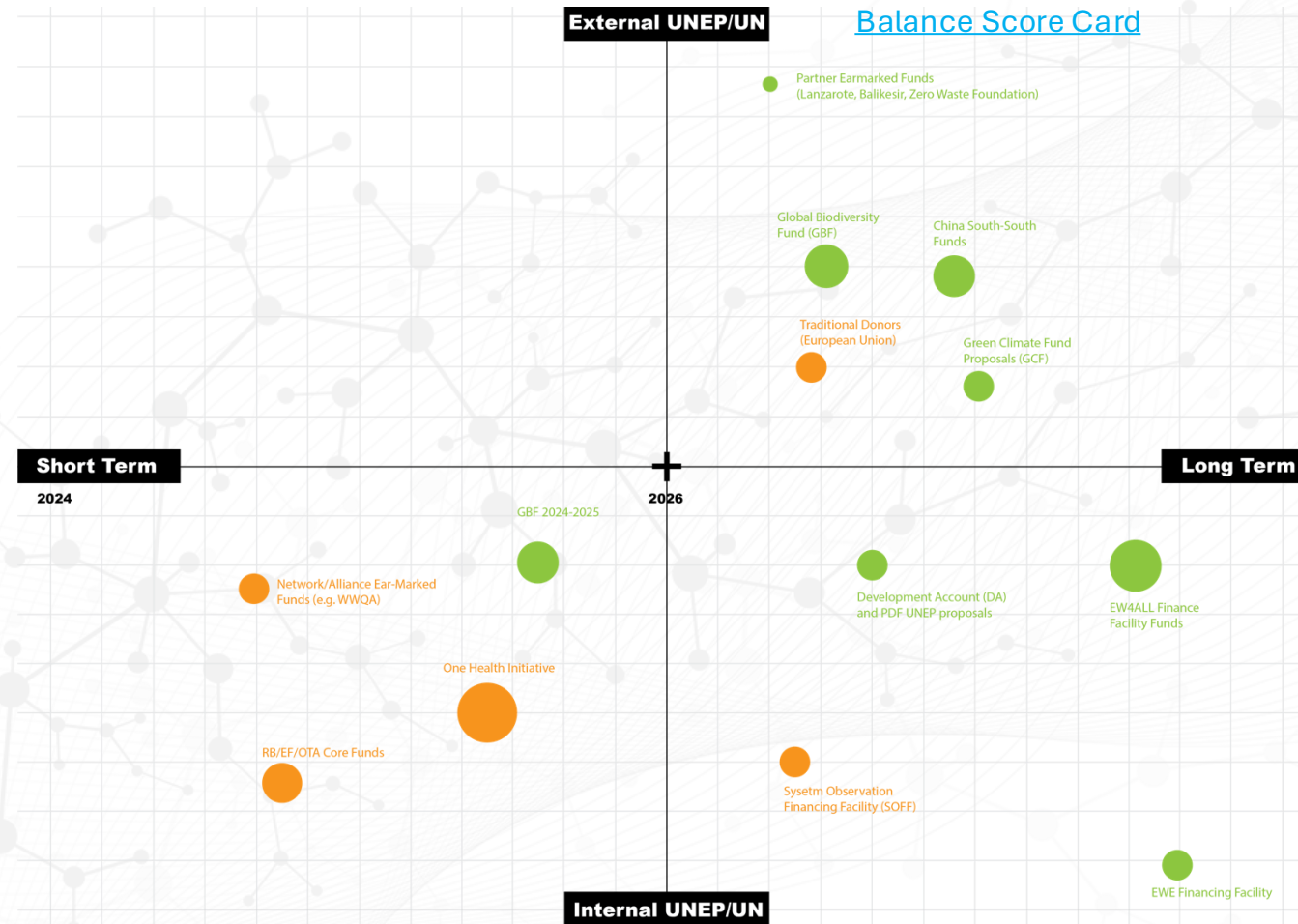
UN environment programme

UNEP's Early Warning Funding Strategy (external, long term, big funds)

Early Warning function of UNEP is funded less than 3% CORE FUNDS

Within the Division represents less than 20%.

CORPORATE RISK

Our Resource Mobilization and Funding Strategy &

Balance Score Card

Agreed Strategic Pathway

A ONE UN Common Approach for Early Warning for Environment (EWE) to tackle the triple planetary crisis of climate change, biodiversity loss and pollution, within the umbrella of Early Warnings for All Initiative.

To build solutions at scale contributing to accelerate Agenda 2030 and the Sustainable Development Goals (SDGs). Focus on impacting in countries, implementing the environmental dimension of early warning throughout the risk management cycle (prevention, preparedness, response and recovery), with a particular focus on developing countries and the most vulnerable communities (such as SIDS, but groups as the elderly and youth), saving millions of lives and property, people, places and the Planet.

Adopt a multi-stakeholder approach with a user driven strategy and build on existing Partnerships across the UN system and beyond including the private sector and citizens and civil society.

UN
environment
programme

UNEP's Early Warning Strategy
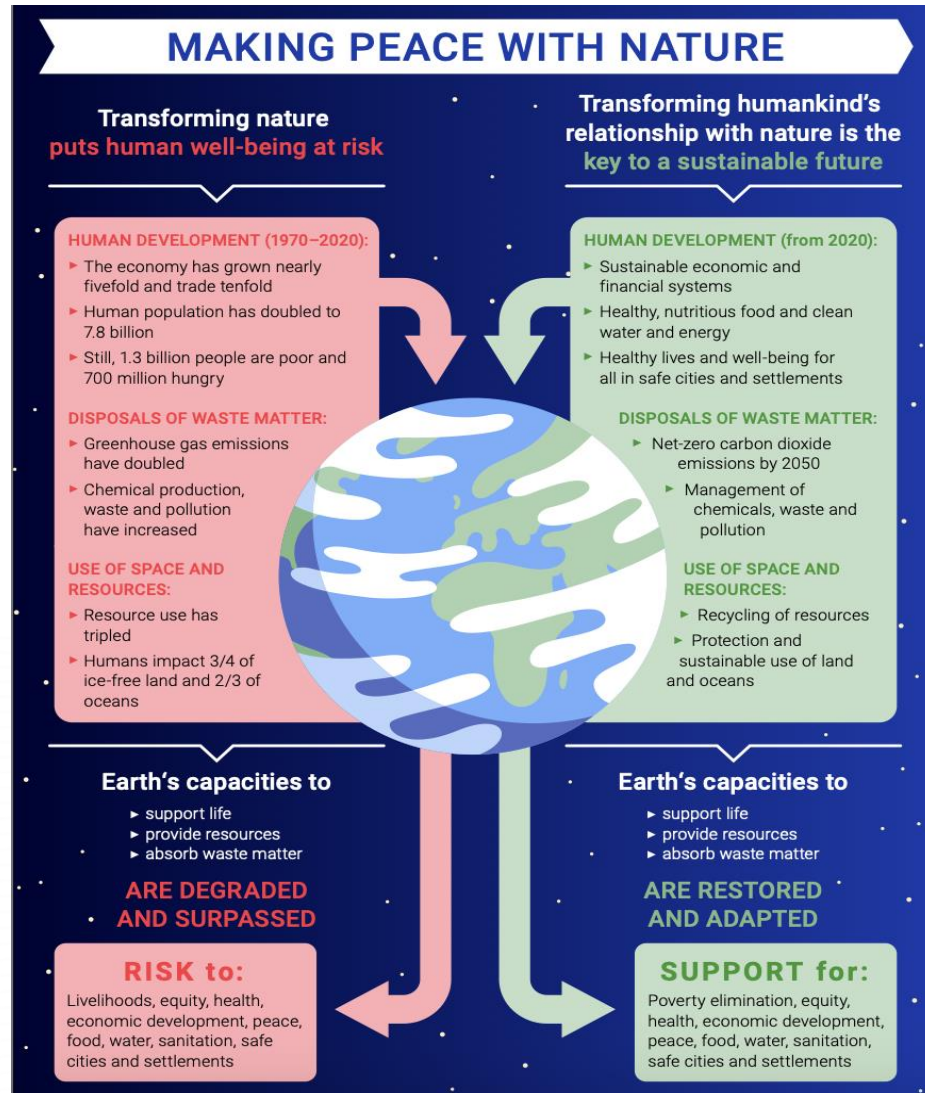
Accelerating **Agenda 2030 and Sustainable Development and transforming the lives** of People, Places and Planet

Thank you

Questions and Answers

www.unep.org

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