



Earth Intelligence For All GEO POST 2025 STRATEGY

Published by the GEO Secretariat 7 bis, avenue de la Paix

Case Postale 2300, CH-1211 Geneva 2 - Switzerland

www.earthobservations.org

Group on Earth Observations, GEO Post-2025 Strategy, Geneva, November 2023

 $\ensuremath{\mathbb{C}}$ Group on Earth Observations (GEO), November 2023



FOREWORD GEO POST-2025 STRATEGY

With this new Strategy, the Group on Earth Observations (GEO) community agrees to a renewed ambitious vision and mission for GEO beyond 2025. Our strategy seeks to inspire and guide our work programme activities and the work of the Secretariat, to improve our governance and to strengthen our partnerships. It is our collective responsibility to make this strategy a success.

By introducing the concept "Earth Intelligence" we emphasize the need for GEO to provide targeted and actionable insights, based on Earth Observation data, that is co-created with users and enables them to make better informed decisions for a more sustainable world.

GEO will continue to build on our past achievements and strengths and to serve as a unique model of global collaboration. We encourage you to use this strategy as a dynamic tool that fosters communication, aligns our efforts, and supports us in pulling in the same direction. It will be a source of inspiration and a catalyst for change and innovation.

This strategy is the result of a year-long process led by the GEO Post-2025 working group, with active participation from GEO membership and numerous stakeholders. Next, we will develop an implementation plan to set out the path towards delivering Earth intelligence for All.

We look forward to working with you on the implementation of this strategy. Thank you for your commitment, dedication, and participation in this vital endeavor.

THE GEO CO-CHAIRS

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Under the skies of Planet Earth, we are all one race: the human race.

The new GEO Strategy reflects our commitment to act on the urgent need to restore the equilibrium between the human race and planetary health. In the face of intensifying, interconnected global challenges, transformational change is essential. Earth intelligence can be the key that unlocks this change, but only if GEO pursues transformative solutions, forged through interdisciplinary and intergenerational collaboration. GEO puts equity at the center of the strategy – equity in representation, equity in access to Earth intelligence, and equity in shaping the outcomes of this Strategy.

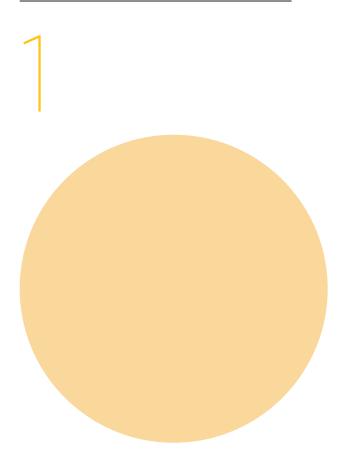
We will continue to leverage our strength – our vast network of collaborators across all sectors. But we will not only convene partners from government, academia, business and civil society, we will seek to actively catalyse partnerships that accelerate environmental, societal and economic impact.

To achieve this transformation, GEO will evolve with the times and modernize our business practices. From adapting our operating model, amplifying advocacy, communications, and resource mobilization, to evolving our governance to encourage broader representation and participation – GEO aims for success.

This new Strategy charts the pathway towards empowerment for all to act on the challenges we face and seize the opportunities to bring about meaningful and lasting change. Walk this pathway with us!

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INTRODUCTION

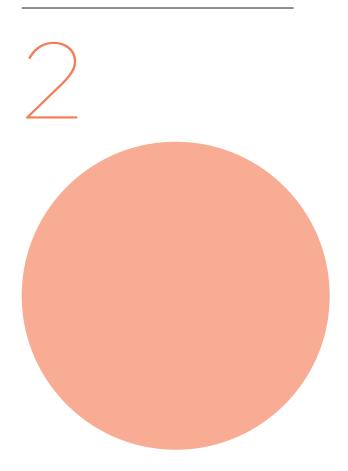
Since its creation in 2005, the Group on Earth Observations (GEO) has facilitated open access to data, developed services, and coordinated enhanced use of Earth observation for the benefit of society.

Recognizing the urgent, complex challenges humanity is facing, **GEO**, as the intergovernmental partnership on Earth observation, **is uniquely positioned to deliver insights that can inform and unlock strategies and action to address these challenges coherently and equitably.**

To ensure that these insights are available and lead to action, there must be an expansion in how Earth observation data is provided and used. We can no longer rely on the intrinsic value of data, we must actively co-produce meaningful resources that address contemporary challenges.

At this moment in history, GEO is well positioned to build on its foundations and manage this growth from Earth observations to the broader concept of Earth intelligence. This strategy defines this concept, and articulates GEO's refined vision, mission and goals for the next 10 years, as well as the operating model that is required to deliver them.





CONTEXT: INTERCONNECTED CHALLENGES; FRAGMENTED RESPONSE

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Our planet, and the people who depend on it, face environmental challenges that are daunting not only in their quantity, but also in their increasing complexity.

This includes the so-called **triple planetary crisis** of climate change, biodiversity loss and pollution as well as land degradation, deforestation and environmental disasters. Global leaders have identified these interconnected challenges as significant obstacles to sustainable development that further compound other societal challenges.

Food insecurity, for example, is exacerbated by climate change, land degradation, biodiversity loss, rising temperatures, change in rainfall cycles, more frequent and/or severe events, land conversion and habitat loss, soil degradation and commensurate reduction in water quality. Farmers, fishers and forest-dependent communities, including many indigenous peoples, are among the vulnerable groups most affected by this polycrisis. Solutions to the crisis will be more successful if they address interconnected problems in an integrated way.

At the international level, many multilateral environmental agreements (MEAs) and global agendas are recognizing the interlinked nature of these challenges. Policy decisions of the Conference of the Parties of all three Rio Conventions emphasize the importance of protecting, conserving, and restoring ecosystems to keep the 1.5 °C target alive and of achieving all 17 Sustainable Development Goals.

Earth observation data, if brought together in services that are easy to access and understand, can support the implementation of MEAs and global agendas, and help decision makers plan and monitor interventions for multiple interconnected challenges and solutions. Authoritative data and information are available on a free and open basis in the Earth observation sector. However, it is sometimes difficult to identify them among the proliferation of data sources.

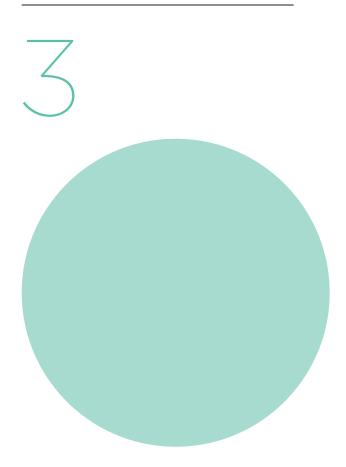
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There are also challenges with regards to equity and inclusion. The most vulnerable communities are often least likely to have access to trusted information from sources such as Earth observations, and their own knowledge is not routinely included in decision making processes.

Young people should be the catalysts for sustainable development, but around 3 in 4 lack the skills needed for employment. This presents an opportunity to empower young people with the skills they need to participate in data-driven economies.

This global context sets the stage for a new chapter of GEO. There is a clear need for a global partnership where data providers and users from all communities work together, leading to better coordination, greater inclusion, reduced duplication, and faster action.





WHY GEO: OUR STRENGTHS

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Since its creation as the global partnership on Earth observations in 2005, **GEO has built strong foundations and developed characteristics and common values that put it in a unique position to address complex and interconnected challenges:**

GEO is intergovernmental

Governments, as the trusted custodians of GEO, drive the implementation and evolution of GEO, engaging inclusively with a broad range of stakeholders to create solutions to global challenges, enhancing trust and ensuring a long-term perspective and sustainability.

GEO is multiscale

GEO services provide insights at the global, regional, national and local levels and are designed to be scalable and customizable, allowing for flexible and agile implementation in a rapidly changing world.

GEO's Strengths

GEO is transdisciplinary and multisectoral

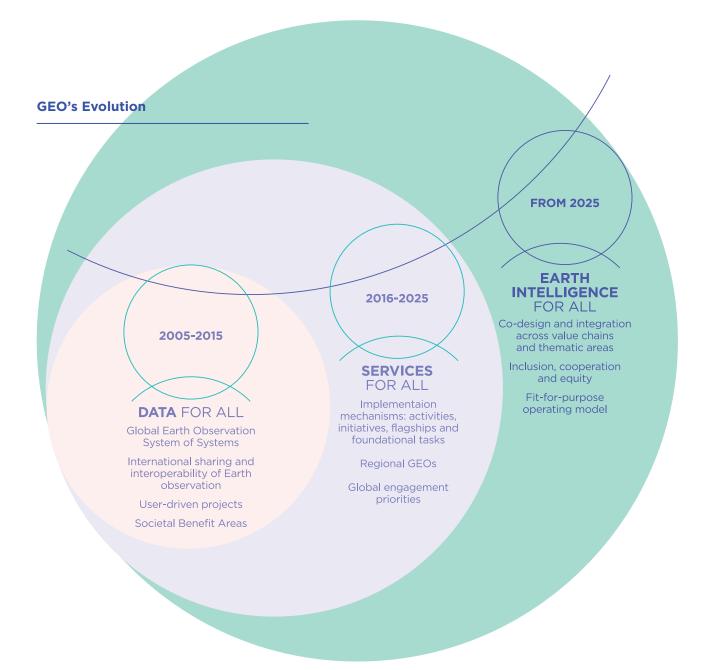
A global network of partners from across disciplines and sectors mobilizes to respond to different demands. This transdisciplinary and cross-sectoral nature of GEO makes it a unique proposition.

GEO is cooperative and adaptive

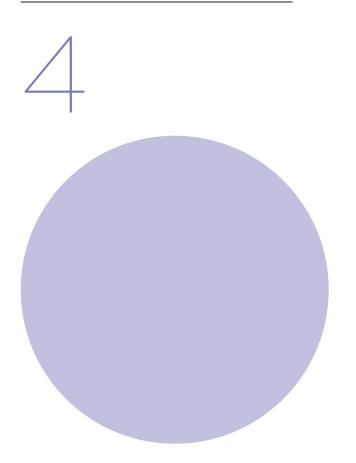
GEO develops services with inputs from multiple stakeholders and communities, makes these services accessible through the principle of open data and knowledge, and brings in new actors and services to meet Earth observation needs.



These characteristics make GEO uniquely positioned to address the polycrisis and answer the call of the UN Secretary General's report "Our Common Agenda" to accelerate an integrated response and to enhance GEO's global partnership along all stages of the Earth observation value chain. GEO fosters inclusive participation by governments, academia, businesses, and civil society and promote win-win scenarios to build trust and social capital.



¹ https://www.un.org/en/content/common-agenda-report/assets/pdf/Common_Agenda_Report_English.pdf



A NEW DIRECTION FROM 2025: EARTH INTELLIGENCE FOR ALL

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As it looks to the future, GEO will make Earth intelligence a fundamental pillar of knowledge-based decision making.

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Building on the achievements of the past 10 years, GEO reaffirms its commitment to full and open access to Earth observation data, knowledge, products and services. GEO also reaffirms its commitment to promote data and knowledge sharing and the co-development of services that empower users to make sound environmental decisions, enable economic opportunities and promote good governance.

To ensure that the societal benefits and impact from Earth observations are fully realized, GEO makes two new commitments from 2025.

First, GEO will pursue global equity in Earth observation, making resources and opportunities available that lead to best outcomes in communities with varying needs and capacity.

Second, GEO commits to provide not only Earth observations but also Earth intelligence. This means that GEO will continue to facilitate the supply of Earth observation data, but at the same time strengthen demand-led activities, providing users with insights for better decision-making, sourced from across the Earth observation value chain and covering multiple thematic areas. The use of the term *intelligence* also intends to make as-of-yet underutilized Earth observation services a more attractive proposition to decision makers in the public and private sector.

Therefore, as it looks to the future, GEO will:

Make Earth intelligence a fundamental pillar of knowledge-based decision-making for sustainable development, building an inclusive, sustainable and resilient future for people and the planet.

Facilitate a shift from a focus on the development of services to a focus on provision of needs-based services to all, in order to bridge global knowledge and information gaps.

Co-design user-orientated services by identifying policy and decision-making needs, designing the services needed to support these needs, creating the products to enable the services, and identifying affordable and trusted Earth observation components — from across the value chain² — required to sustain these products.

Integrate Earth observations, models, and innovative new technologies (including artificial intelligence, machine learning, digital twins, cloud computing) into the design of services that provide Earth intelligence.

Enhance inclusivity and adaptability in the GEO community by leveraging expertise and resources from across the scientific community, indigenous peoples and local communities, private sector, civil society and international finance institutions, and by fostering open data and knowledge and building capacities.

> EARTH INTELLIGENCE comprises integrated Earth and social science derived knowledge and insights that inform strategic decisions, build capacities and empower society to address environmental, societal, and economic challenges. Its design is based on user needs at all scales and across sectors and integrates Earth observation data, socio-economic data, research and science, citizen observations, indigenous knowledge and other sources of information and combines this with modelling, prediction and scenario analysis.



GEO'S VISION AND MISSION

OUR VISION: A world where trusted Earth intelligence is universally accessible and empowers society to achieve a sustainable future.

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Building on the achievements of the past two decades, **GEO refines its vision and mission in the new global context.**

OUR VISION A world where trusted Earth intelligence is universally accessible and empowers society to achieve a sustainable future.

OUR MISSION

GEO co-produces user-driven Earth intelligence solutions that inform decisions and accelerate action on global, societal, and environmental challenges, leveraging its unique position as an established intergovernmental body with a strong and inclusive partnership.

OUR OFFER GEO empowers anyone to use and contribute to Earth intelligence to make better decisions for people and planet.

OUR OFFER FOR DIFFERENT STAKEHOLDERS:

For indigenous peoples and local communities: GEO works with indigenous communities to amplify their voices in international fora, and to co-produce culturally sensitive, innovative solutions that incorporate traditional knowledge and protect cultural heritage.

For young people: GEO empowers young people with inspiration, knowledge, possibilities, networks and direct access to Earth experts and resources and to advocate for change and accountability for the future they want.

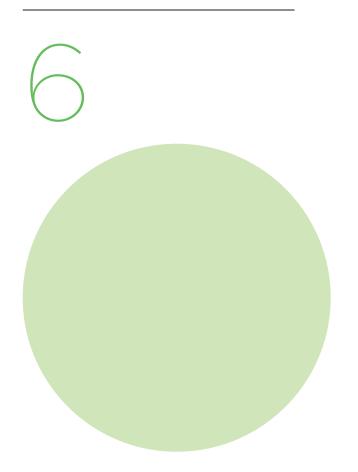
For governments: GEO offers a unique global platform for governments to share, and gain streamlined access to Earth intelligence, creating solutions to national and international challenges and unlocking socioeconomic value for countries.

For the private sector: GEO provides opportunities for Earth observation companies to engage with our global network and contribute commercial solutions to key sustainability challenges. GEO also enables companies in a wide range of sectors, from insurance to healthcare, to make better decisions and provide better services based on trusted Earth intelligence. For the global general public: GEO creates opportunities for anyone to learn about the potential of Earth observation applications for sound decision-making, to contribute to practical solutions for the planet, and to advocate for change.

For academia & research: GEO provides a global platform for researchers/scientists to share knowledge and co-create practical solutions that address environmental and socio-economic challenges.

For I/NGOS: Access to Earth intelligence and collaboration opportunities across sectors and countries help I/NGOs advocate, plan, implement, and achieve meaningful changes faster and more efficiently.

For the UN: GEO provides the UN system with the integrated, holistic tools to monitor, report and accelerate action on multilateral environmental agreements and sustainable development.



GOALS FOR ACTION POST 2025

GEO will focus on five goals to respond to the global context and deliver our mission and **accelerate an integrated response to the polycrisis:**

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Co-produce transformative programmes that provide trusted Earth intelligence GEO will deliver a portfolio of programmes that provide the Earth intelligence needed to unlock transformational change in the way that societies interact with the planet. **These programmes will be co-produced with inputs from multiple disciplines, including social sciences, and produce tools for coherent environmental and societal policy decisions, aiming to unlock social innovation and sustainable economic growth. They will be characterized by efficiency, effectiveness, impact and additionality.**

Increase global equity through accessible Earth intelligence

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GEO will enhance equitable, open access to data and knowledge, through targeted and comprehensive global efforts on open Earth observation data, and by championing open science for Earth observation, including access to code, documentation, and quality control data.
Create access to, and increase the affordability of Earth observation data and knowledge, by negotiating multi-user licenses, building on the GEO data sharing principles.
Enhance Earth observation literacy, bolster regional and local capacity, co-develop effective practices, and cultivate science communicators who bridge the gap between science and society, leading to tangible action.

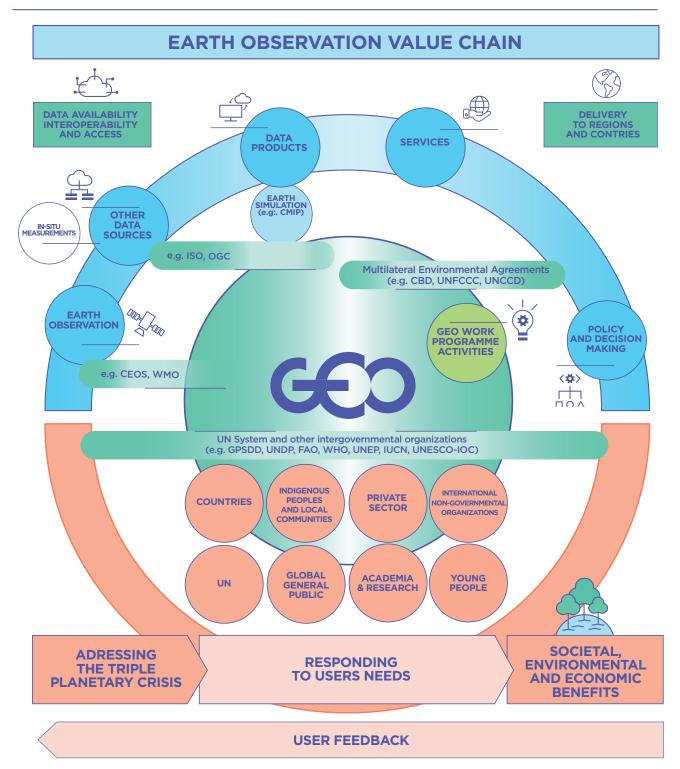
Integrate new technologies and innovations into Earth intelligence services GEO will build on its foundations by providing sustained full and open access to data and services, but also integrating new technologies, methods, knowledge-based processes and capabilities to respond to new demands.

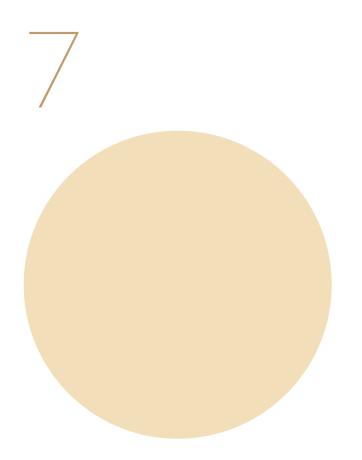
Increase the participation of young people in the development of Earth intelligence GEO will seek an increased role for young people — especially emerging young entrepreneurs and early career scientists — in the development of Earth intelligence, fostering science, innovation and applications that serve communities and societies and creating job opportunities.

Invest in integrated activities to raise awareness and resources for Earth intelligence GEO will invest in integrated advocacy, communications, member engagement and resource mobilization. This will help increase awareness of all stakeholders in the Earth observation value chain and enable the implementation and adequate resourcing of GEO's mission and programmes. GEO's systematic approach across the value chain will strengthen the case for investments in Earth observations, products and services. As part of its integrated approach to advocacy, communications and resource mobilization, GEO will look beyond governmental funding mechanisms and explore catalytic and innovative finance to scale up GEO initiatives and accelerate the delivery of Earth intelligence.

6

Partnerships of GEO including examples of partner organizations





A NEW OPERATING MODEL: WHAT WE NEED TO SUCCEED

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To achieve the goals of this strategy, GEO's processes, procedures and structures must be made fit for purpose. GEO seeks to provide trusted, timely, integrated, and sustained Earth intelligence. To achieve this, and the goals of this strategy, GEO's processes, procedures and structures, including the Secretariat, must be made fit for purpose to deliver Earth intelligence. **This refined operating model will be characterized by:**

Accountability and result-orientation

To enhance the effectiveness of GEO activities, it is essential to establish robust processes and procedures that promote accountability towards users. This involves integrating project management best practices and fostering a culture of transparency. Additionally, the development of a prioritization framework for the GEO Work Programme, along with resource mobilization activities, is crucial. These endeavours should foster innovation, prioritize the realization of benefits and tangible outcomes, and ensure the long-term sustainability of GEO activities for the benefit of its users.

Representation and voice

GEO requires mechanisms and an organizational status that enable meaningful representation at fora and in decision-making processes. This representation is underpinned by GEO's common values.

Financial sustainability

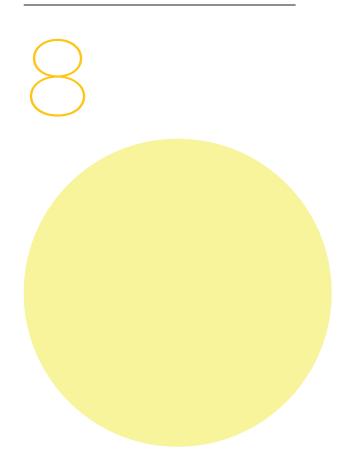
The long-term financial viability and implementation of effective and robust resource mobilization efforts are vital to the success of GEO. This entails the creation of a system that enables resource mobilization efforts for GEO activities. This also requires an organizational status that enables GEO to form partnerships itself and benefit from broader funding opportunities.

Inclusivity, transparency and participation

Operations and resources should be committed to the integration of equality, diversity and inclusion in all aspects of GEO's work. To achieve this, GEO must operate and present itself as an inclusive partnership between governments, communities, businesses and other stakeholders, while retaining governments' role as the ultimate stewards of the partnership. This will also involve fostering stakeholder involvement, maintaining clear, visible and open communication and promoting global participation in GEO events. Increasing translation and online coordination services as well as promoting multilingualism would support more effective engagement of the GEO community with GEO activities and events. Roles within GEO and their contribution to its overall direction are to be described transparently.

Regional and national growth

Strengthening regional and national coordination, along with fostering multilateral collaboration and cooperation within and among geographical regions, will enhance GEO's capacity to engage various stakeholders. GEO's work supports the implementation of activities at the local level, leading to a greater impact and facilitating knowledge sharing while capitalizing on GEO's global nature.



HOW WE RECOGNIZE THAT WE ARE SUCCEEDING

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The ultimate measures of success will be effective policy decisions taken and implemented resulting in lives saved, livelihoods improved, new business opportunities and jobs created, resources used more efficiently, biodiversity conserved, degraded ecosystems restored and other positive impacts on society and the environment. **Measures to evaluate the implementation of the strategy include:**

An operating model that is efficient, effective and fit-for-purpose to deliver, with the GEO Secretariat, the GEO Work Programme and operational products and services benefiting the world.

Strengthened participation of indigenous peoples and local communities, playing an active role in the governance of GEO as well as contributing to and benefitting from its work.

Successful engagement of industries along the Earth observation value

chain, including small-and medium-sized enterprises and downstream industries such as finance and insurance, as well as other current or potential end users. How we recognize that we are succeeding A transformed, and well-resourced GEO Work Programme that responds

to the goals identified in this strategy with activities that demonstrate integration across thematic areas and along the Earth observations value chain, with an unrelenting focus on users.

> An increase in the engagement of members in GEO governance and activities, including by providing financial contributions and in-kind support to the GEO Trust Fund and the GEO Work Programme.

An enhanced recognition and trust in GEO by international organizations and multilateral environmental agreements. Success will be lives saved, livelihoods improved, new business opportunities and jobs created, resources used more efficiently, biodiversity conserved, degraded ecosystems restored, policy decisions implemented and other positive impacts on society and the environment.

CREDITS

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Photography:

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