



## **UNEP's Mandate**

To keep under review the state of the global environment....

UNGA Resolution 2997 (XXVII) of 1972



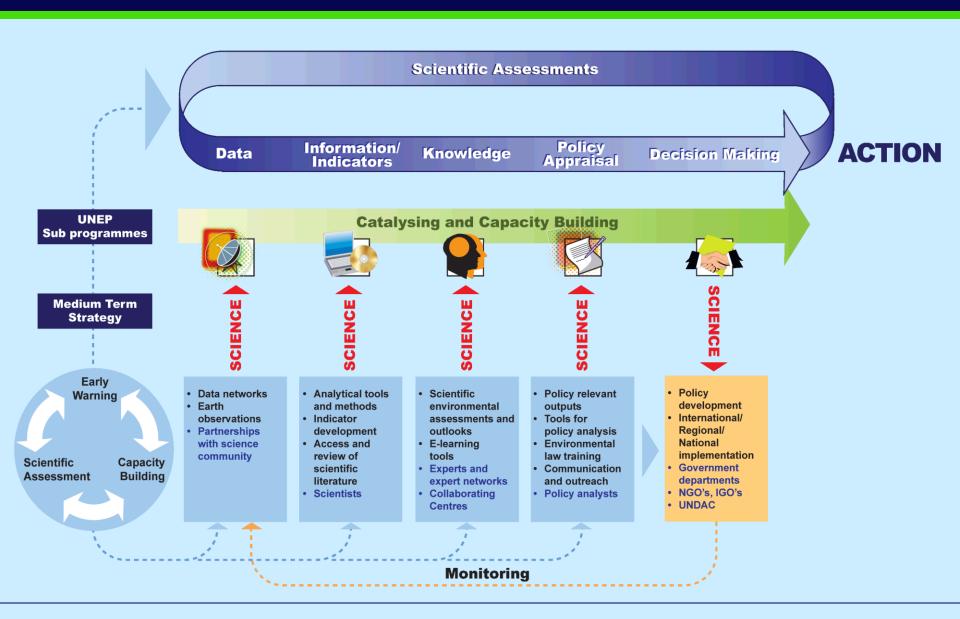
### **Environmental Data and Information**

- □ adding essential value to environmental data and information as input to and follow-up from intergovernmental decision-making processes;
- □ the authoritative source within the UN system for scientifically credible, environmental assessment tools and methodologies to support national sustainable development planning and implementation;

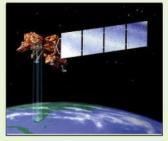




#### **Overview of the Science - Policy Continuum**







SATELLITE Global to regional Coverage



AIRCRAFT Regional to local coverage



HOT AIR BALLOON Local coverage



HAND HELD CAMERA



#### **Existing Sources of Data and Information**

Assessing the costs and benefits of climate change policies UNEP Climate Change Science Compendium

Integrated Assessment of Black Carbon and Tropospheric Ozone Fifth IPCC Report (AR5)

Negotiating adaptation: International issues of equity and finance Carbon Benefits Project: Modelling, Measurement and Monitoring Pacific Environment and Climate Change Outlook

Mozambique Environment and Climate Change Outlook (ECCO) report

Papua New Guinea Environment and Climate Change Outlook Democratic People's Republic of Korea Environment and Climate Change Outlook

Pakistan Environment and Climate Change Outlook Bangladesh Environment and Climate Change Outlook Mongolia Assessment Report on Climate Change Vietnam Assessment Report on Climate Change Ha Tinh Province Assessment Report on Climate Change

Urban Water Vulnerability to Climate Change in Mongolia
Environment and Climate Outlook (ECCO) for the City of Dar es
Salaam (Tanzania)

Bangkok Assessment Report on Climate Change Environment and Climate Outlook (ECCO) for the City of Tirana

Environment and Climate Change Outlook (ECCO)- City of Quito (Equador)

Environment and Climate Outlook (ECCO) for the City of Trujillo (Peru)

City of Sana'a Environment Outlook

Environment and Climate Change Outlook for Aden City
Protecting the Environment during Armed Conflict: An Inventory and
Analysis of International Law

Conflict Analysis Framework

Desk Study on Climate Change, Migration and Conflict in the Sahel Assessment of Energy, Water and Waste Reduction Options for the Proposed AMISOM HQ Camp in Mogadishu, Somalia and the Support Base in Mombasa. Kenva

Central Asian Capacity Development for Climate Risk Management:
A comprehensive study on glacial melting in Central Asia (Joint UNEP/UNDP)

Amu Darya assessment (Joint UNEP/UNDP)

Fieldwork in the Pripyat river basin in Belarus and Ukraine to assess hydrological conditions for evaluating flood risks (Joint UNEP/NATO) Mining and environment in the Western Balkans

State of the natural environment in the Donetsk oblast (2007-2009)

Environmental assessment of development planning and environment-security monitoring in Crimea

Post-Conflict Environmental Assessment of the Democratic Republic of Congo

Environmental Survey of Oil Contamination in Ogoniland, Nigeria Environmental Assessment of Lead Poisoning in Zamfara State, Nigeria

Sierra Leone Environment, Conflict and Peace-building Assessment Post-Disaster Needs Assessment of Post-Earthquake Haiti Linking Ecosystems to Risk and Vulnerability Reduction: the Case of Jamaica

UNDAC missions to Namibia (flooding), Benin (flooding), Burkina Faso (flooding), Taiwan (typhoon), The Philippines (tropical storm), Samoa (earthquake), Albania (flooding), Ukraine (dam risk

Habitats

Making the case for ecosystem services – a global outreach and communications package

Vital Forest Graphics

Blue Carbon: The Role of Healthy Oceans in Binding Carbon
The Natural Fix? The Role of Ecosystems in Climate Mitigation

The Last Stand of the Gorilla: Environmental Crime and Conflict in the Congo

Sick water? The central role of wastewater management in sustainable development

Dead planet, living planet: Biodiversity and ecosystem restoration for sustainable development

Assessment of Transboundary Freshwater Vulnerability in Africa to Climate Change

FRESHWATER under THREAT: Africa-Asia Summary- Vulnerability Assessment of Freshwater Resources to Environmental Change FRESHWATER under THREAT: Africa – Vulnerability Assessment of Freshwater Resources to Environmental Change

FRESHWATER under THREAT: South East Asia - Vulnerability Assessment of Freshwater Resources to Environmental Change

FRESHWATER under THREAT: South Asia - Vulnerability Assessment of Freshwater Resources to Environmental Change

FRESHWATER under THREAT: North East Asia - Vulnerability Assessment of Freshwater Resources to Environmental Change

FRESHWATER under THREAT: Pacific Islands - Vulnerability Assessment of

Freshwater Resources to Environmental Change

State of the Marine Environment Report for the East Asian Seas Pacific Marine Minerals and Deep Sea Mining Assessment

Hydropolitical Vulnerability and Resilience along International Waters Assessment: Asia

Report on Building Capacity for a Black Sea Catchment Observation and Assessment System supporting Sustainable Development (DEWA-Europe and Univ. of Geneva)

Hydropolitical Vulnerability and Resilience along International Waters Assessment: Europe

Hydropolitical Vulnerability and Resilience along International Waters Assessment: North America

International Waters Assessment: North America

International Waters (IW)-Science project: GEF – MSP: Enhancing the use of Science in International Waters projects to improve project results

Three sites were selected for the Millennium Ecosystem sub-global Assessment:

- 1- Ecosystem and Human Well-Being, El Maghara, Northern Sinai, Egypt
- 2- Ecosystem Assessment of Tafilalet Oasis, Synthesis
- 3- Saudi Arabian Milennium Ecosystem Assessment for Assir National Park Vulnerability Assessment of Freshwater in West Asia

Mau Forest report

Ecosystem services valuation in Southern Sudan.

Recent Trends in melting glaciers, Tropospheric Temperatures over the Himalayas and Summer Monsoon Rainfall over India

Research in Lao PDR:

Ecosystem services valuation and policy-making with a focus on poverty reduction and ecosystem degradation

Sub-Global Assessment in Thailand as part of the Millennium Ecosystem Assessment follow-up initiative.

Sub-Global Assessment in Guatemala as part of the Millennium Ecosystem Assessment follow-up initiative.

Impact of Subsidies on the Ecuadorian Tuna's Sustainability and Trade

Linking ecosystems to risk and vulnerability reduction. The case of Lamaira

GEO Cities Cordoba (Argentina), in progress

GEO Cities Georgetown (Guyana)

GEO Cities Puerto Montt (Chile) in process

GEO Cities - Canelones, Colonia, and Rivera (Uruguay)

GEO Cities: Ponta Pora, Piranhas, Marabá and Beberibe (Brazil)

GEO City Cartagena (Colombia)

Rapid Environmental Assessment of The Urban Community of Al-Fayha (Lebanon)

Hazardous Substances and Harmful Waste

Global assessment of policies and trends on harmful substances and

hazardous waste to inform policy makers

Global Outlook on Chemicals

UNSCEAR

POPs Laboratory Databank

Hazardous Substances from Open Burning of Waste in Developing Countries Hazardous Substances from Open Burning of Waste in Developing Countries Update of the Global Assessment of the State-of-the-Science on Endocrine Disruptors

First Worldwide UNEP Intercalibration Study on Persistent Organic Pollutants - Asia Region

China Environmental Performance Assessment: Reporting and Assessment Framework on Progress and Impacts of Achieving China's National Pollution Reduction Targets

Assessing Biofuels

Metal Stocks in society

Assessing the Environmental Impacts of Consumption and Production

Decoupling and Sustainable Resource Management: Scoping the challenges Recycling Rates of Metals: A Status Report

Green Economy Report

Corporate water accounting

Green Economy - Developing Country Success Stories

Regional assessments

Resource Efficiency: Economics and Outlook for Asia and the Pacific

Resource Efficiency for Latin America & the Caribbean (LAC)

Cameroon: Country Study report on integrated assessment of impacts of trade liberalization in the cacao sector following a national law liberalizing the sector

Madagascar: Country Study report on "évaluation integrée des impacts

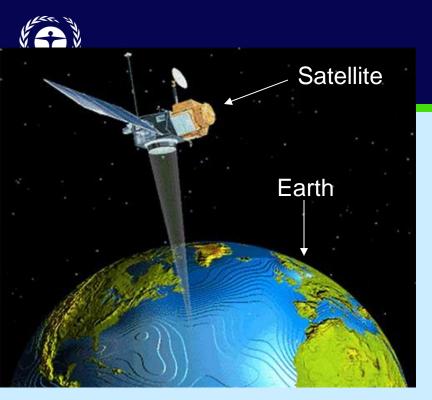
économiques, sociaux et environnementaux des politiques liées au commerce sur l'aquaculture de crevettes a Madagascar"

Mauritius : Country study report on integrated assessment of EU sugar regime reform as part of the EU-ACP Economic partnership

Uganda: Country project report on the integrated assessment of the Potential Impacts of the EU-ACP Economic Partnership Agreement on Uganda's Biodiversity in the horticulture sector

Papua New Guinea: Country study report on integrated assessment of the impact of trade liberalisation measures (particularly tariff reduction) affecting major export crops (coffee and oil palm) on two major staple food crops (taro and sweet potato).

Jamaica: Country Study report on the integrated assessment of reforms of the EU-ACP Sugar Protocol as part of the EU-ACP Economic Partnership Agreement negotiations



### **Spatial Resolution**



Global (>1km)



Local (1m)

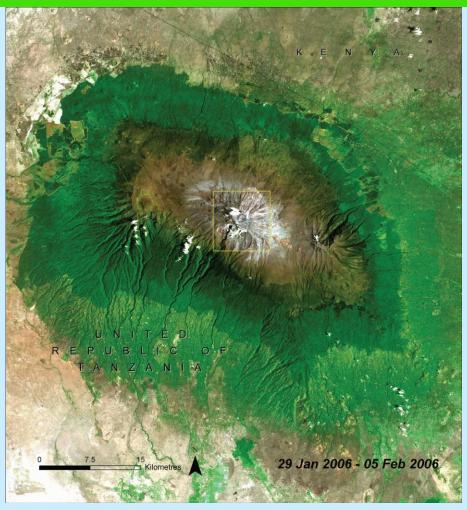
1<sup>st</sup> Earth Observation satellite launched in 1972

Distance from Earth – approx. 720 km (447 miles)



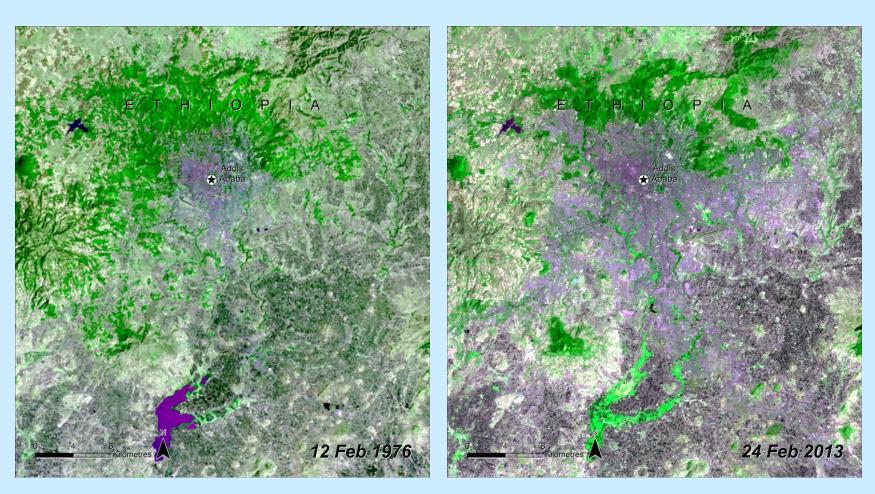
# Glaciers decreased in area by 80 per cent since the early 20th century.







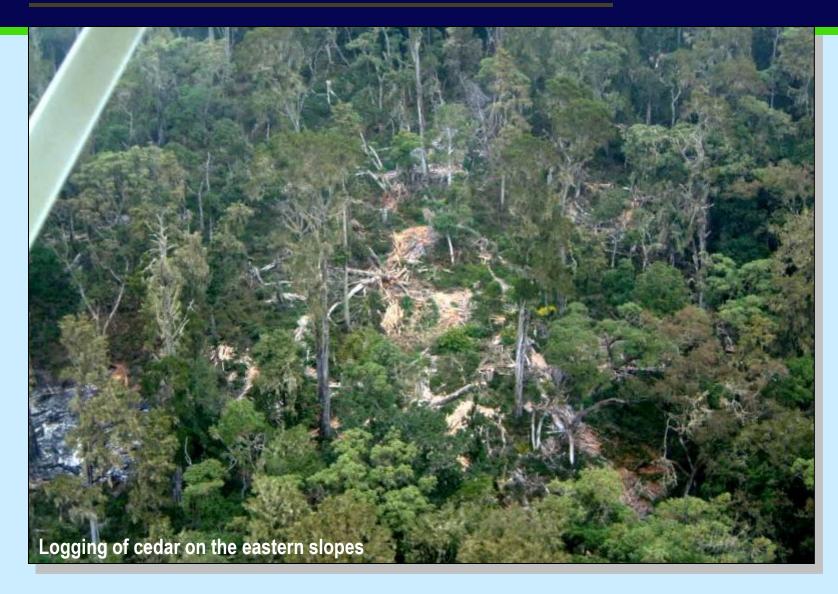
### Urban sprawl in Addis ababa, Ethiopia



Major migration into the city since the 1970s has resulted in significant urban sprawl, putting pressure on housing supply and natural resources. In the images, light purple indicate areas of development and settlement.



# Mt. Kilimanjaro: logging of indigenous trees





# **Measuring The Future We Want**

NEPAD: Themes - Issues - indicator - statistics

Sample indicator

#### **Human Well being/Development**

Thematic Area/ (NEPAD Programme area - PA)	NEPAD Priorities	Priority Issues	Lead Indicator(s)	Type of Indicator (D, P, S, I, R, O)	Units	Global or Regional sources/Data Providers (to be refined in consultation with data producers)
Socio-economic issues	Human beings are at the centre of concern for sustainable development. They are entitled to a healthy and productive life in harmony with nature					
	Sustainable development, Economic well being, Social well being	Human development	Population growth rate;	S, P	%,	UNDP, WB, AfDB (regional), WRI, UNAIDS, Human Development report, WHO
			Economic growth rate (GDP)	S, P	%	
			Education rate(illiteracy/literacy) by gender;	o	%,	
			Human development index;	S, P	%	
			Improved drinking water coverage - total population;	o		
			% of literate adults (per of total population);	S, P	%,	
			· % age of population in primary education(by gender);	S, P	%,	
			· % age of population in secondary education(by gender);	S, P	%,	

Type of Indicator: D: Driving forces, P: Pressure, S: State, I: Impact, R: Response, O: Opportunity

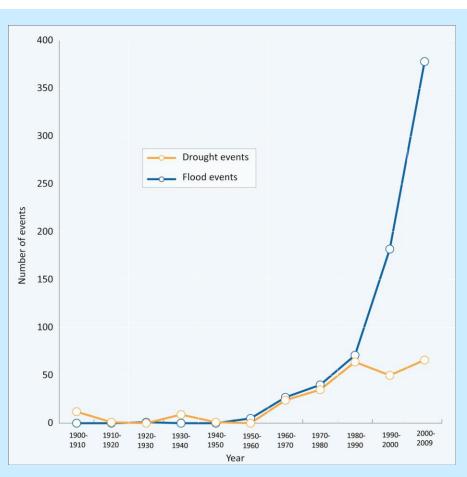
NOTE: All the data should be dis-aggregated to show gender disparities.

Data should also present (Male, Female, Urban, Rural)

Core list of environmental indicators (Version 3.0 – Last update: April 2008) Page 1



# Climate change is a considerable health and economic challenge for the continent

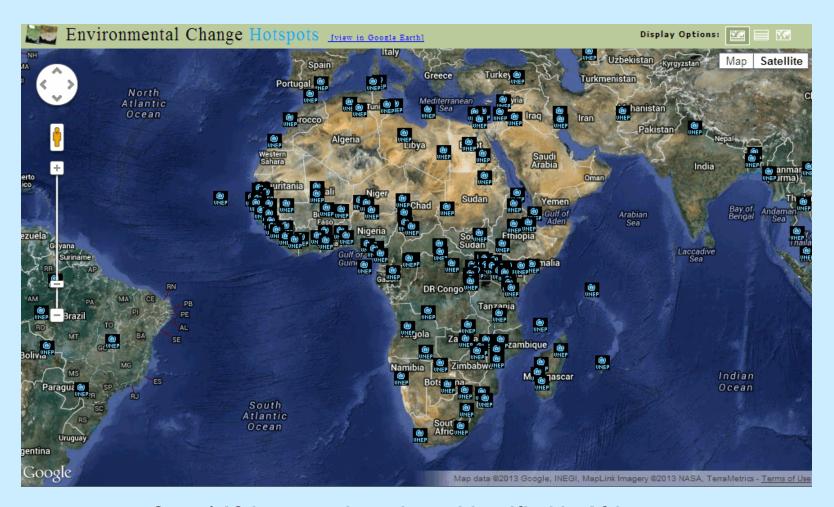


- Increased warming could spread weather-sensitive diseases (e.g. rift valley fever, cholera, meningitis, and malaria).
- In some areas warming is likely to lead to low crop yields, reduced livestock productivity, water scarcity and low nutrition levels

Trends of some Extreme Weather Events associated with climate change



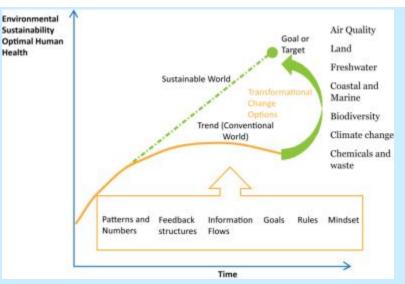
# Hotspots in africa



Over 140 hotspots have been identified in Africa



#### A new policy direction and the need for well-thought actions



 Current domestic and global uncertainties imply that the "business as usual" model could undermine human health

 A number of good policies for addressing environmental challenges that affect human health exist, but their implementation is weak, requiring elimination of barriers to implementation





# UNEP L i v e

OUR CHANGING ENVIRONMENT: PLACE BY PLACE

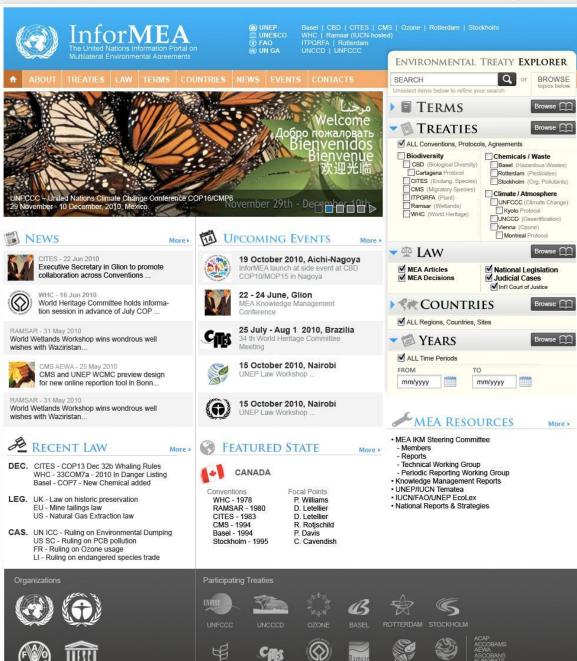








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# A Work in Progress...















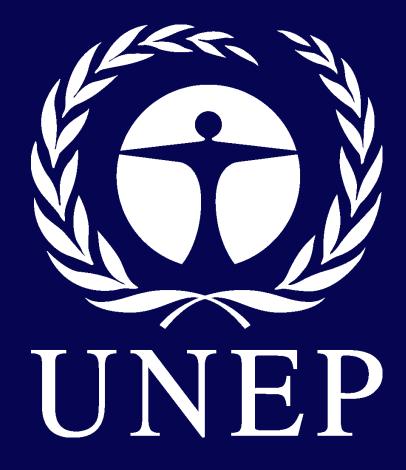
http://www.uneplive.org



#### **UNEP** and the SDG Land scape

- Goal 1: End poverty in all its forms everywhere
- Goal 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- Goal 3: Ensure healthy lives and promote well-being for all at all ages
- Goal 4: Ensure inclusive and equitable quality education and promote life-long learning opportunities for all
- Goal 5: Achieve gender equality and empower all women and girls
- Goal 6: Ensure availability and sustainable management of water and sanitation for all
- Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all
- **Goal 8**: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10: Reduce inequality within and among countries
- Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12: Ensure sustainable consumption and production patterns
- Goal 13: Take urgent action to combat climate change and its impacts
- Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- **Goal 15**: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- **Goal 16**: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable



Thank you

