



GEO5

Global Environment Outlook



Fifth Global Environment Outlook

Environment for the future we want



International Forum for Sustainable Asia & the Pacific
24 July 2012, Yokohama, Japan

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UNEP's Mandate

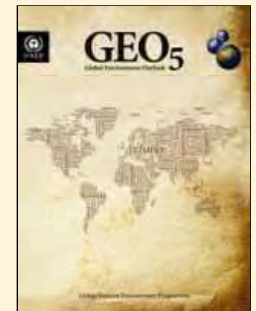
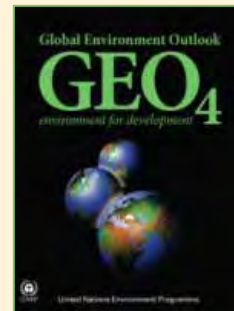
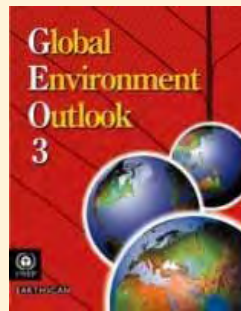
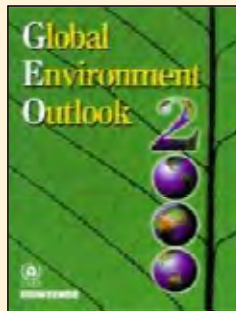


**To keep under review the
state of the global
environment...**

UNGA Resolution 2997 (XXVII) of 1972

UNEP Governing Council's Decision 25/2:

To strengthen the policy relevance of GEO-5 by including an analysis of case studies of policy options, that incorporates environmental, economic, social and scientific data and information and their indicative costs and benefits to identify promising policy options to speed up achievement of the internationally agreed goals



Global Environment Outlook - 5

What is in GEO-5?

STATE AND TRENDS

- Drivers
- Atmosphere
- Land
- Water
- Biodiversity
- Chemicals and waste
- Earth system

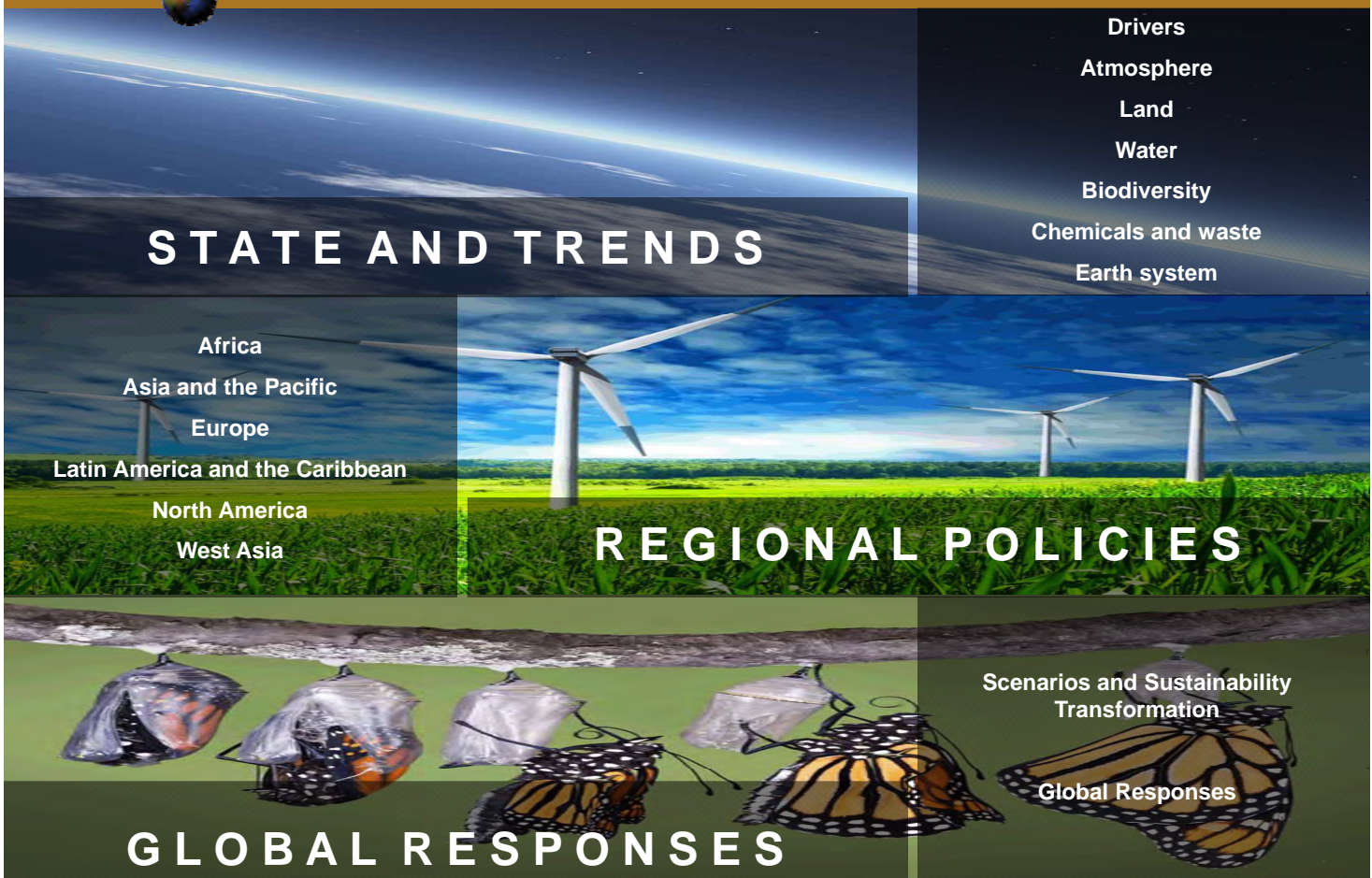
- Africa
- Asia and the Pacific
- Europe
- Latin America and the Caribbean
- North America
- West Asia

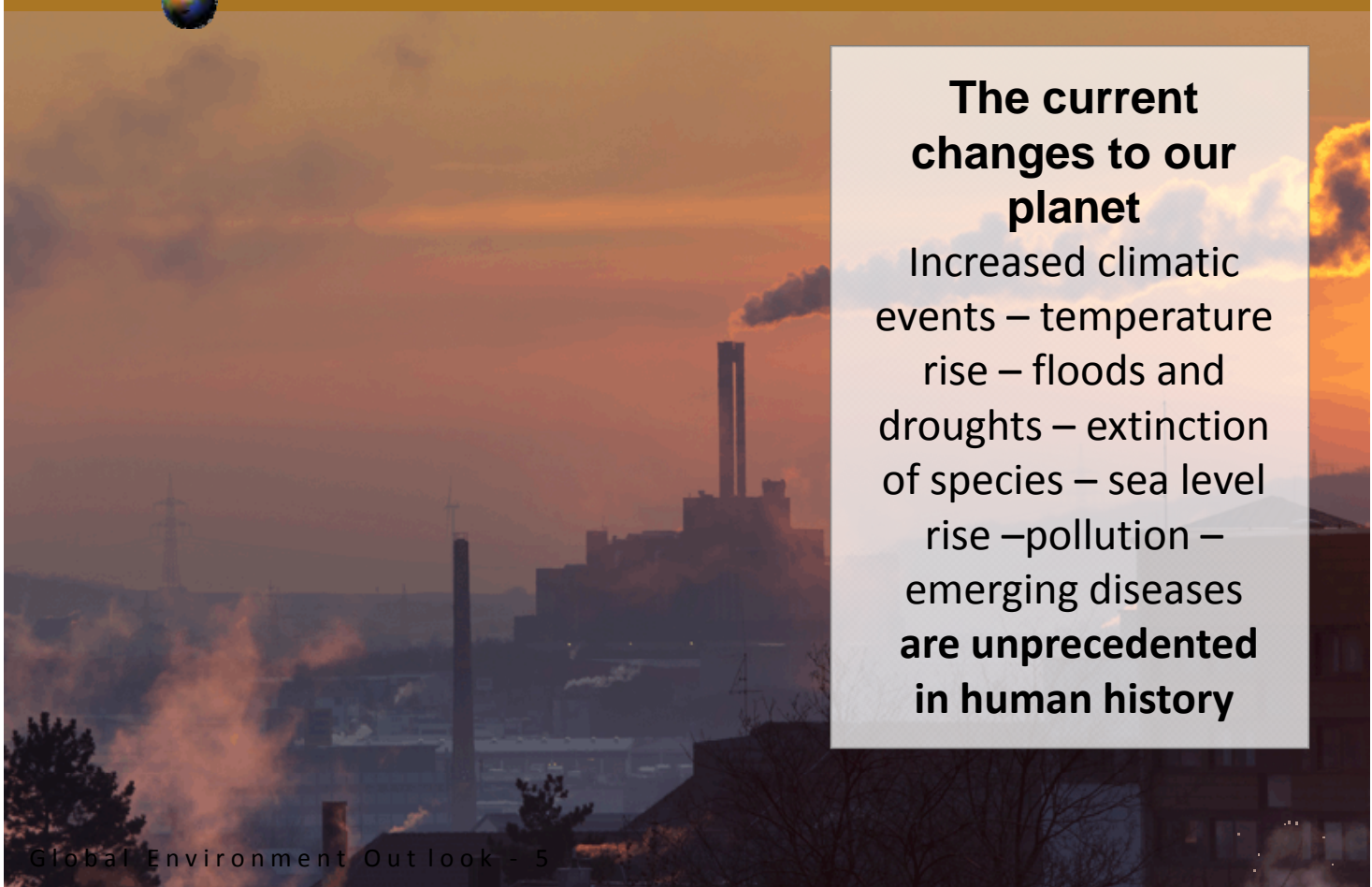
REGIONAL POLICIES

GLOBAL RESPONSES

Scenarios and Sustainability Transformation

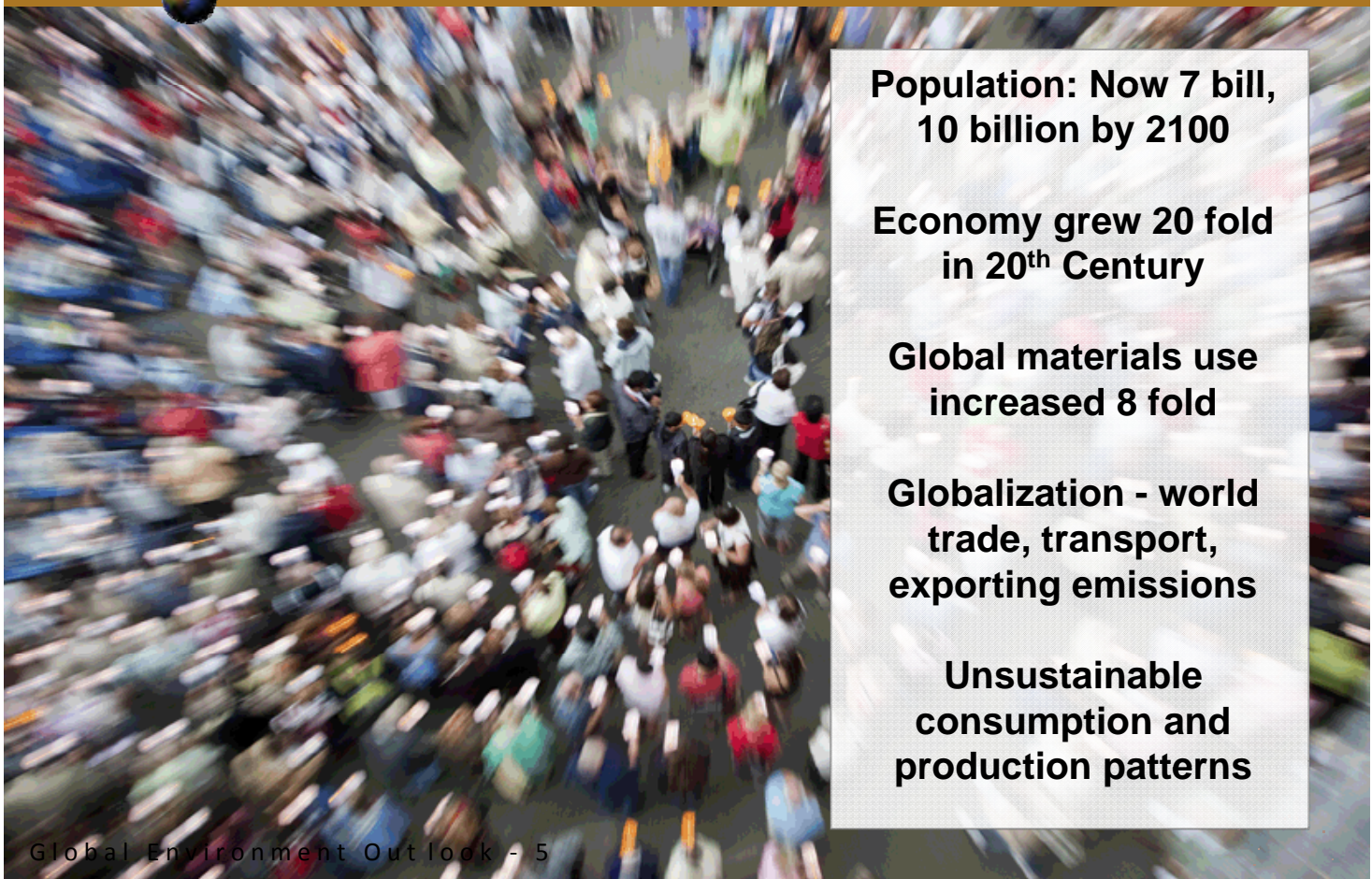
Global Responses





The current changes to our planet

Increased climatic events – temperature rise – floods and droughts – extinction of species – sea level rise – pollution – emerging diseases **are unprecedented in human history**



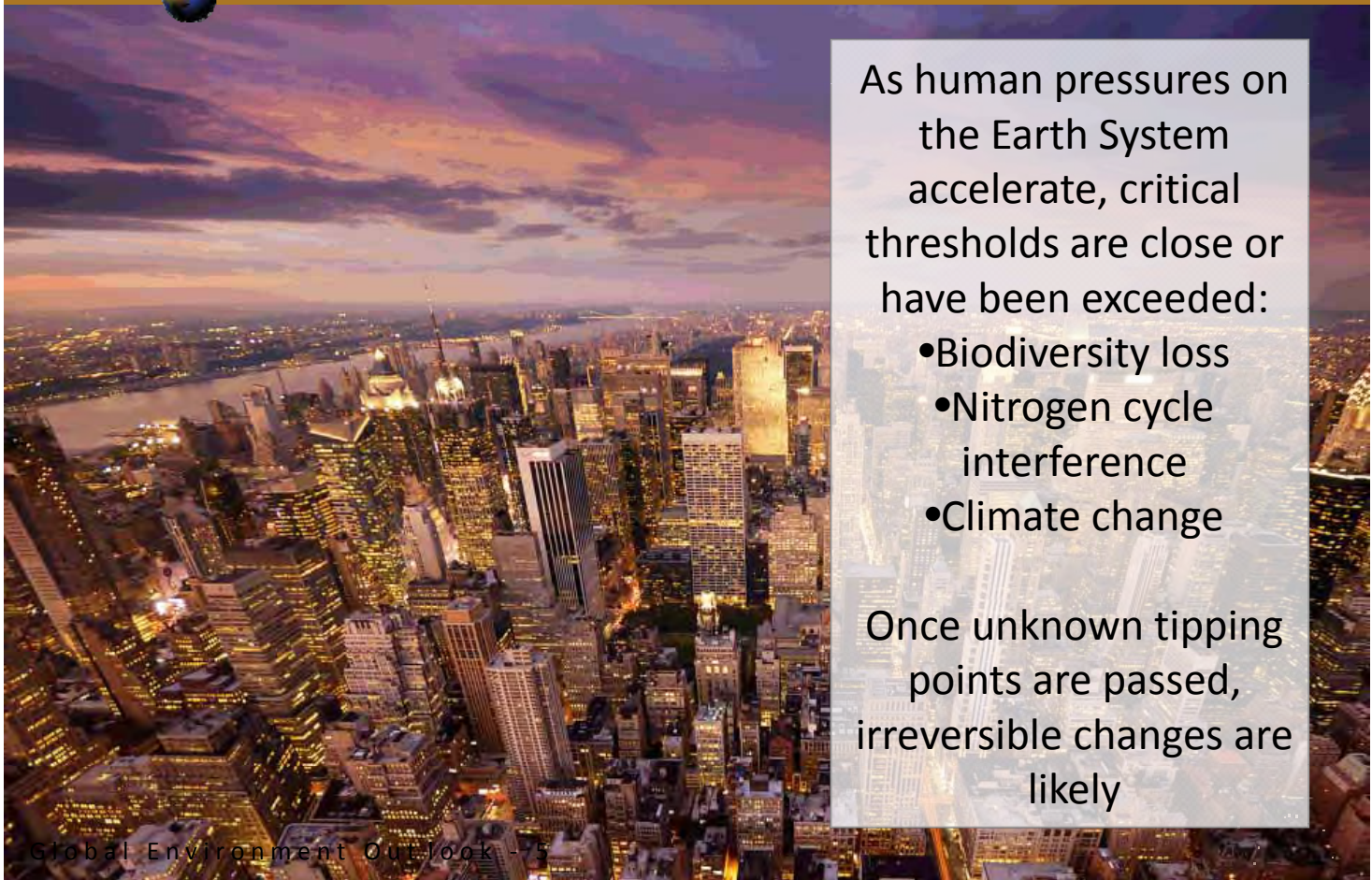
**Population: Now 7 bill,
10 billion by 2100**

**Economy grew 20 fold
in 20th Century**

**Global materials use
increased 8 fold**

**Globalization - world
trade, transport,
exporting emissions**

**Unsustainable
consumption and
production patterns**



As human pressures on the Earth System accelerate, critical thresholds are close or have been exceeded:

- Biodiversity loss
- Nitrogen cycle interference
- Climate change

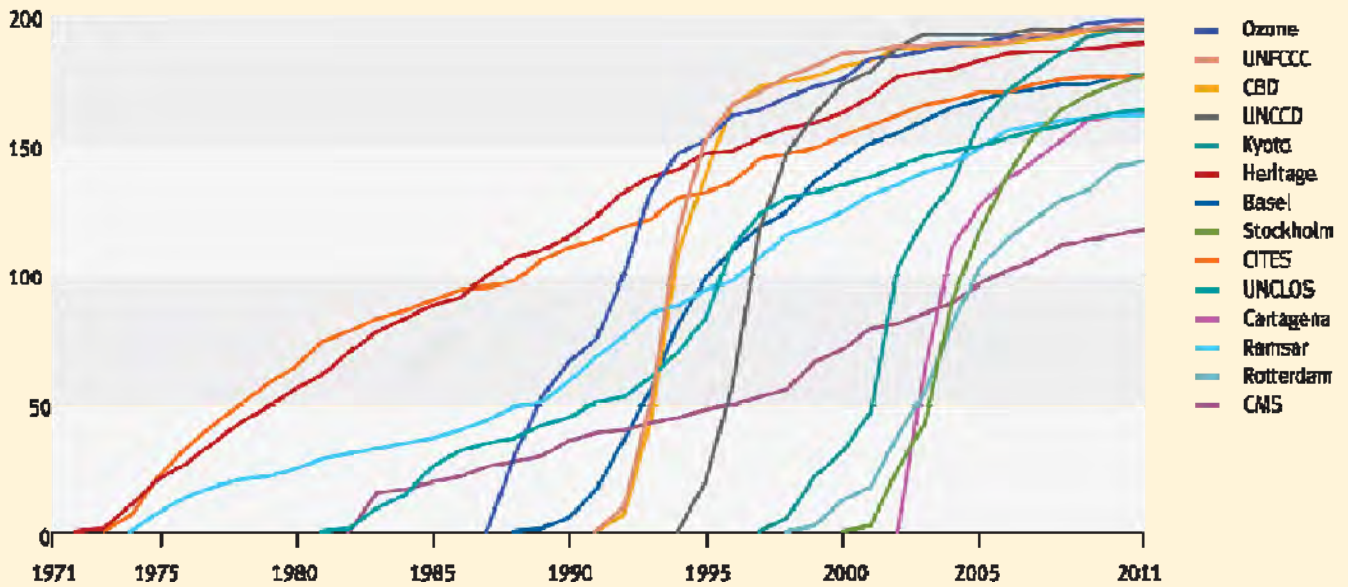
Once unknown tipping points are passed, irreversible changes are likely

Internationally Agreed Goals Measuring Progress and Gaps

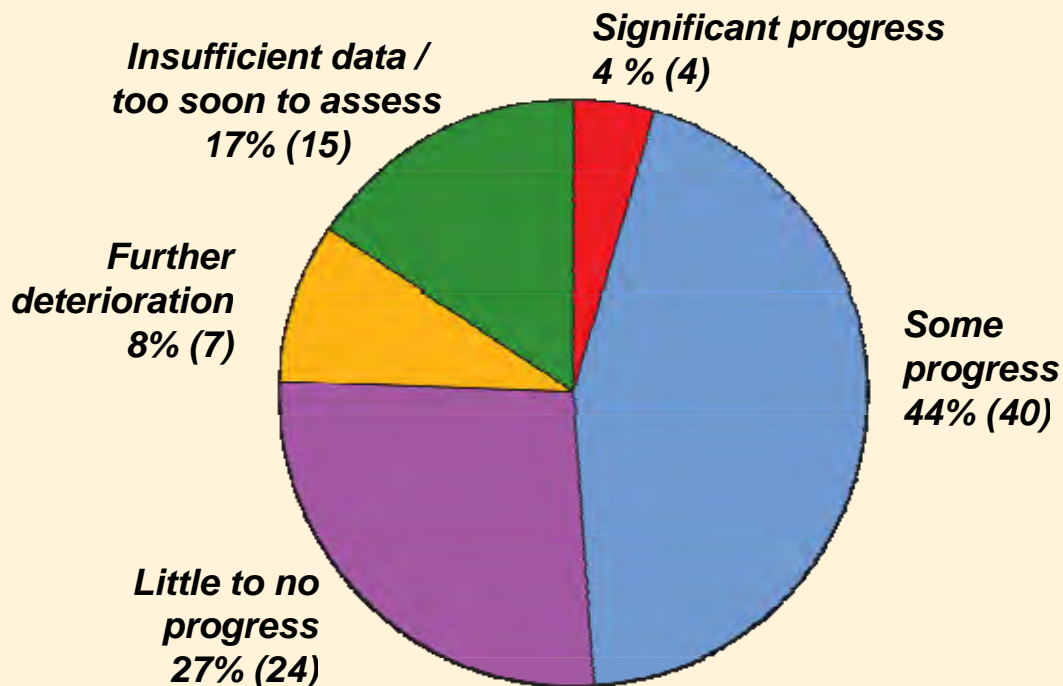


Growth in ratification of environmental treaties, 1971 - 2011

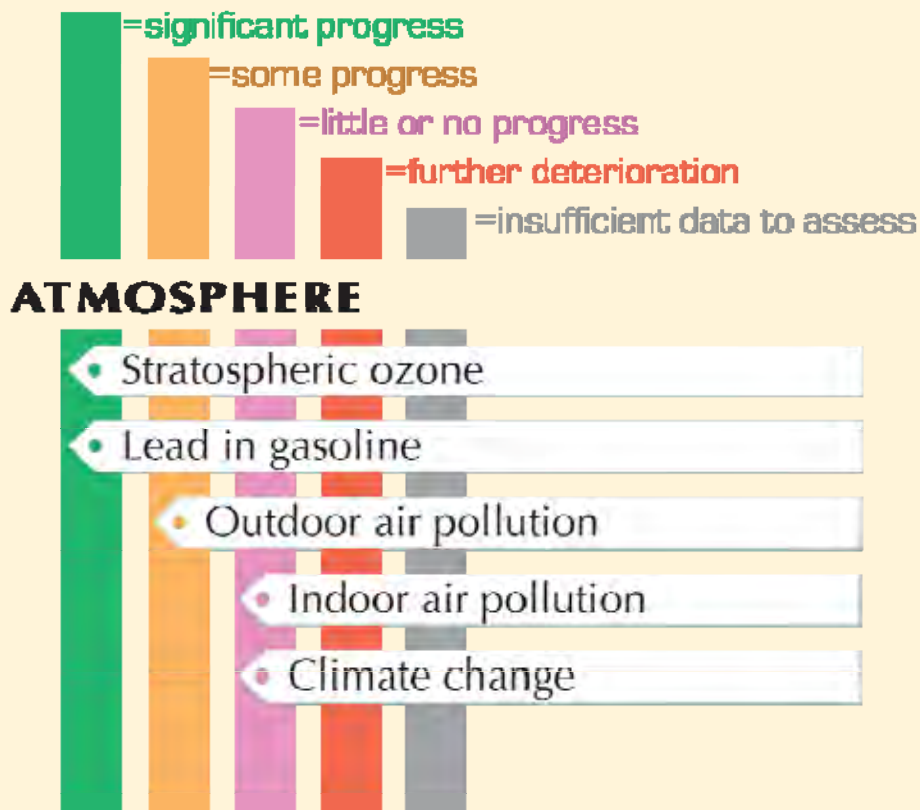
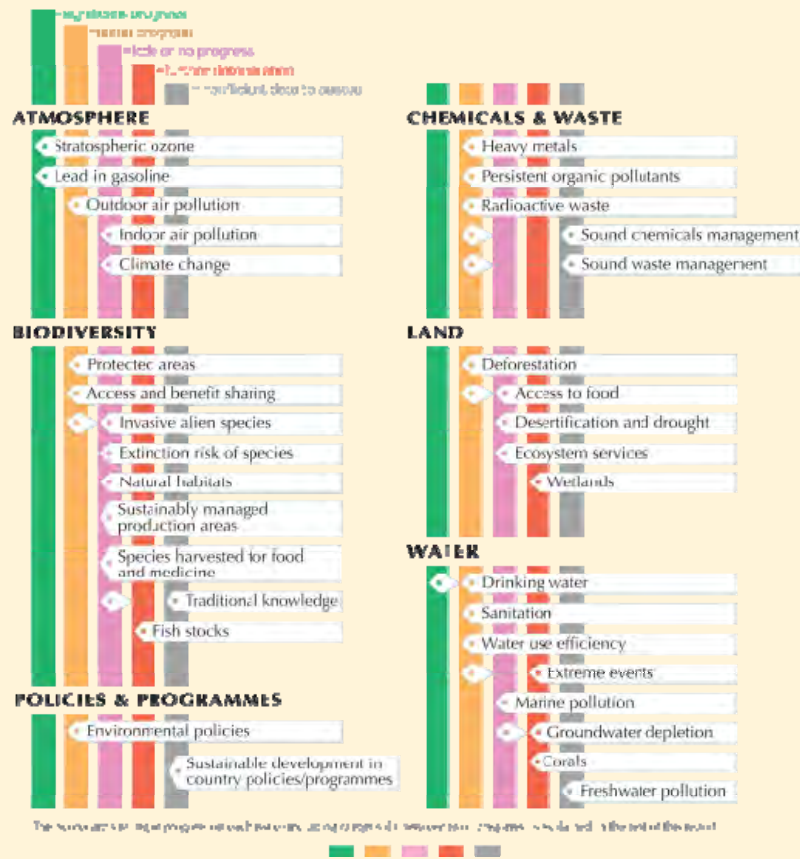
Number of Parties



Realization of Goals – How are we doing?



90 Internationally agreed goals and objectives assessed





Part 2 – Solutions Policy Responses from the Regions



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Selected Regional Priorities



Regional priority environmental challenges

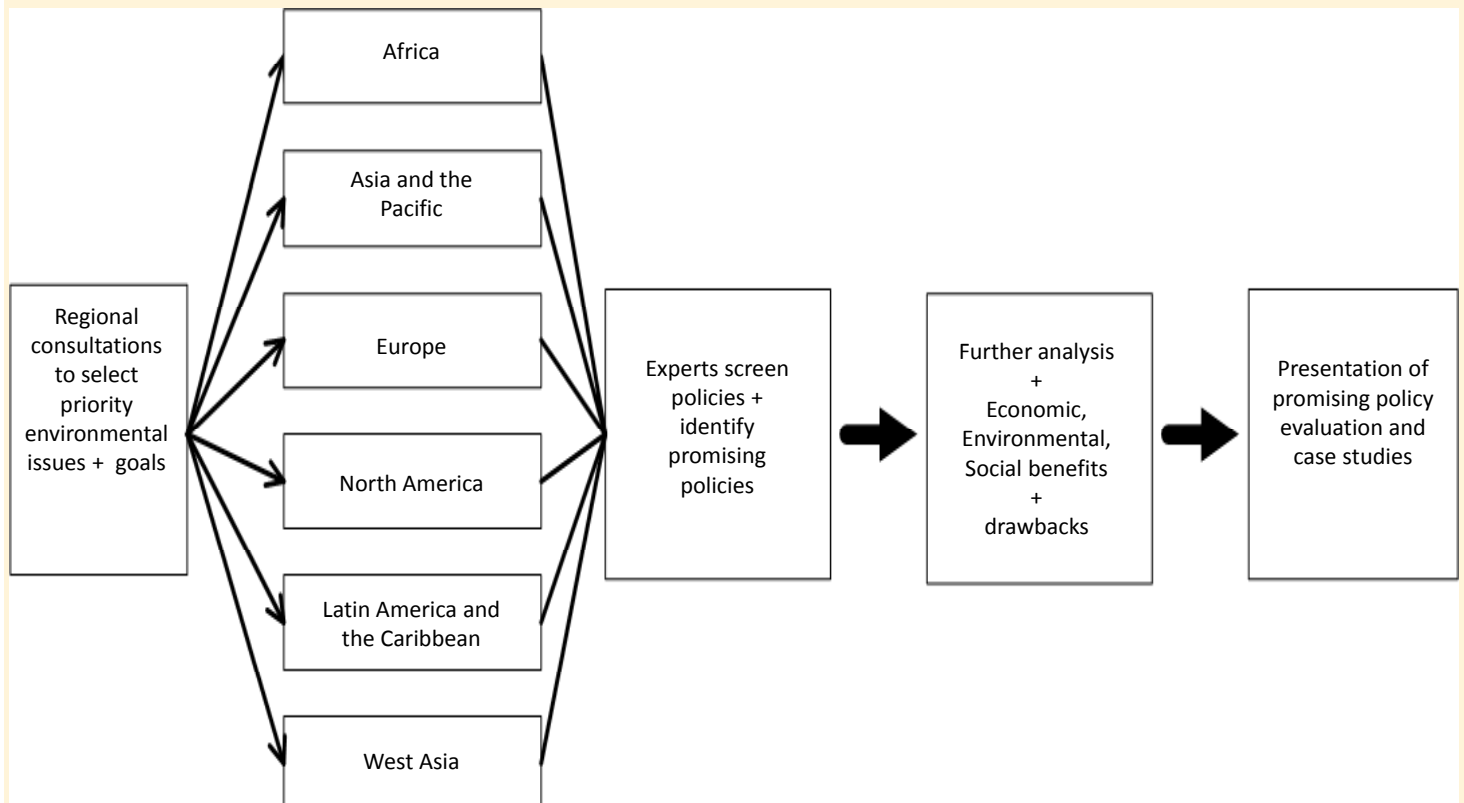
	Africa	Asia and the Pacific	Europe	Latin America and the Caribbean	North America	West Asia
Environmental governance	Selected as cross-cutting		Selected as a theme	Selected as cross-cutting	Selected as cross-cutting	Selected as a theme
Climate change	Selected as a theme		Selected as a theme	Selected as a theme	Selected as cross-cutting	Selected as cross-cutting
Energy					Selected as a theme	Selected as a theme
Air pollution	Selected as a theme		Selected as a theme			
Land				Selected as a theme	Selected as a theme	Selected as a theme
Freshwater	Selected as a theme		Selected as a theme	Selected as a theme	Selected as a theme	Selected as a theme
Oceans and seas	Selected as a theme					Selected as a theme
Biodiversity	Selected as a theme		Selected as a theme	Selected as a theme		
Chemicals and Waste		Selected as a theme	Selected as a theme			

Selected as cross-cutting

Selected as a theme

Priorities for all Regions

- **Environmental governance:** Asia-Pacific has a wide diversity of systems and mechanisms; many are centralized, compartmentalized and inflexible.
- **Climate change:** the region contains many of the most vulnerable countries, and is the fastest growing source of GHG emissions; under BAU Asia-Pacific will contribute 45% of energy related CO2 emissions by 2030.
- **Biodiversity:** the drivers are exerting considerable pressure on biodiversity and ecosystems, resulting in habitat loss and degradation, over-exploitation, alien invasive species; SE Asia is a biodiversity “hotspot”
- **Freshwater:** there is a need to balance supply and demand, but in most countries of Asia and the Pacific water resources are still managed through a sectoral and not an integrated approach.
- **Chemicals and waste:** as the region becomes wealthier it is faced with a rapid increase in consumption, including of chemicals, and generation of municipal and hazardous waste.



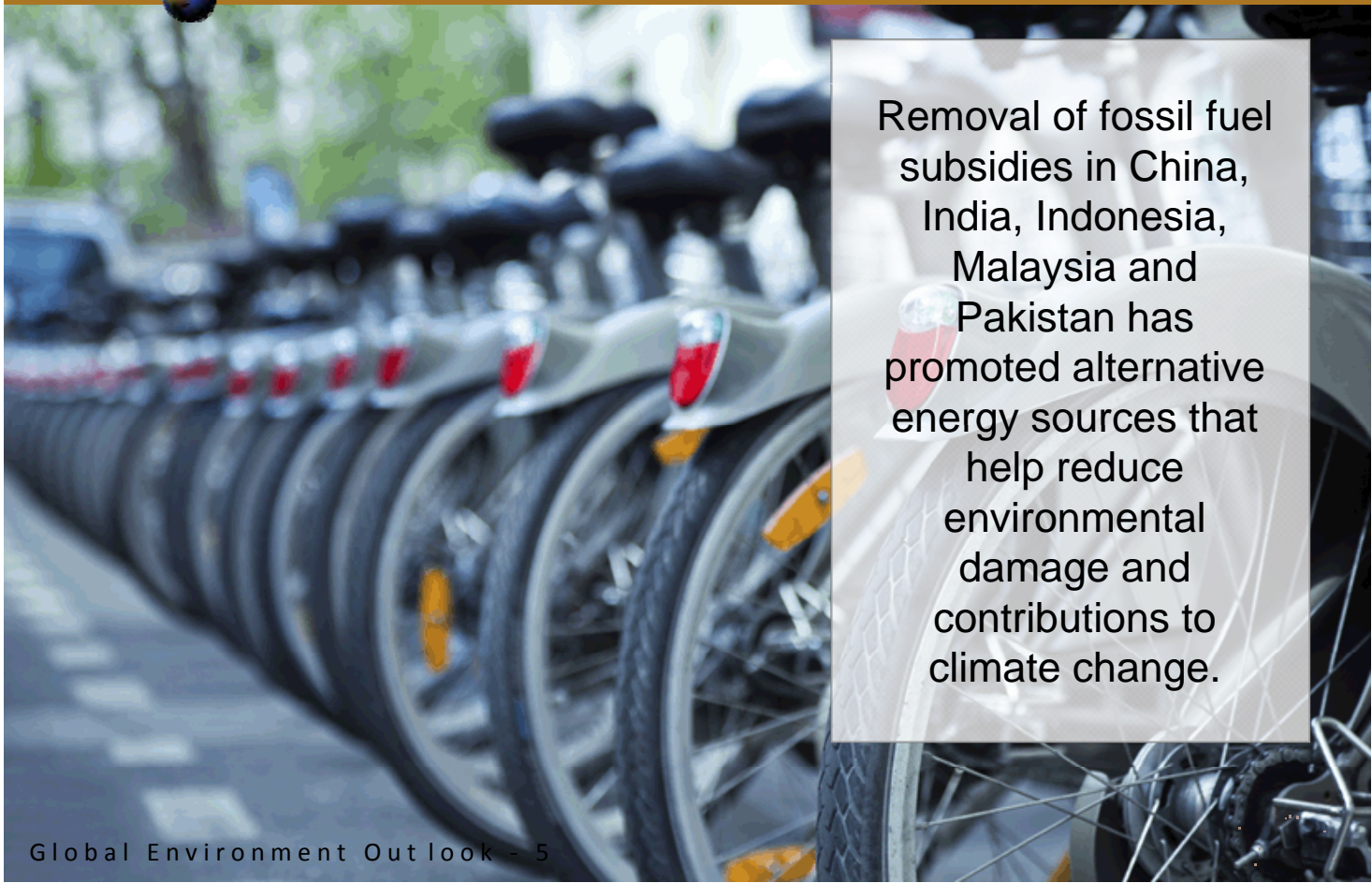
Examples of policies that could speed up achievement of GEGs: public investment, green accounting, positive subsidies, environmental taxes, fees and charges, sustainable trade, creation of new markets, planning, standards, regulations, technological innovation, technology transfer and capacity building.

Many of the identified national policies are based on commitments under more than 500 international environmental treaties and agreements, of which 323 are regional, and 302 are from the past 4 decades.

Climate change policies:

Removing perverse/ environmentally harmful subsidies, especially on fossil fuels; carbon taxes; forestry incentives for carbon sequestration; emission trading schemes; climate insurance; capacity building and financing; climate change preparedness and adaptation such as climate proofing infrastructure.

For example the Maldives, one of the most vulnerable island states, is combining adaptation planning and infrastructure with working with natural ecosystems and local communities to increase the islands' resilience, while also targeting climate neutrality by 2019.



Removal of fossil fuel subsidies in China, India, Indonesia, Malaysia and Pakistan has promoted alternative energy sources that help reduce environmental damage and contributions to climate change.

Freshwater policies:

Integrated water resource management; conservation and sustainable use of wetlands; promotion of water-use efficiency; water metering and volumetric-based tariffs; recognizing safe drinking water and sanitation as a basic human right/need; effluent charges.



In Uzbekistan, an arid Central Asian country where irrigation is the primary consumer of water, a trial to de-silt old reservoirs increased their storage capacity by 10% and resulted in savings of US\$250,000. This approach has now been adopted as a national policy.

Biodiversity policies:

Market-based instruments for ecosystem services, including PES and Reducing Emissions from Deforestation and Forest Degradation Plus (REDD+); increasing the size of protected areas; sustainable management of protected areas; transboundary biodiversity and wildlife corridors; community-based participation and management; sustainable agricultural practices.

Viet Nam's pilot Payment for Forest Ecosystem Services

- Improved livelihoods of 40,000 rural poor.
- Protected 209,705 ha of threatened forest.
- Resulted in a national policy on Payment for Forest Environmental Services.

Chemicals/waste policies:

Registration of chemicals; extended producer responsibility; product redesign (design for the environment); life cycle analysis; reduce, reuse and recycle (3Rs) and cleaner production; and national and regional hazardous waste treatment systems; control of inappropriate export and imports of hazardous chemicals and waste

Japan is a leader in waste and chemicals management in Asia and the Pacific, with a comprehensive legislative framework to establish a sound material-cycle society. One example: a target to reduce dioxin emissions from incinerators by 92% from 1997 levels was achieved by 2003, with >2000 incinerators closed-down. A further 30% reduction target, set in 2003 was achieved by 2010.

Environmental governance policies:

Multi-level/ multi-stakeholder participation; increased introduction of the principle of subsidiarity; governance at local levels; policy synergy and removal of conflicts; strategic environmental assessment; accounting systems that value natural capital and ecosystem services; improved access to information, public participation and environmental justice; capacity strengthening of all actors; improved goal setting and monitoring systems.

The Republic of Korea has formulated a National Strategy for Green Growth, with an overall vision of becoming a global green growth leader by 2020. This strategy focuses on mitigation of climate change and energy independence; creation of new engines for economic growth; improvement in the quality of life and enhancement of international standing. The Strategy is supported by a Green Growth Framework Act and a 5-year Action Plan with targets for GHG emission reductions, carbon absorption by forests and afforestation.



Part 3 - Global Responses



- Setting measurable goals and targets
- Enhancing the effectiveness of global institutions
- Investing in enhanced capacities for addressing environmental change
- Supporting environmentally sound technologies
- Strengthening rights-based approach and access to environmental justice
- Deepening and broadening stakeholder engagement

“what can't be measured, can't be managed”

- While negotiation of conventions and protocols is a clear achievement, there has been insufficient emphasis on implementation of commitments.
- Continuing support is needed to harmonize treaty regimes, which have been developed through a piecemeal approach, and support to developing countries with multiple reporting requirements.
- In general, environmental problems are rarely tackled in an integrated fashion, despite the strong links between issues such as air pollution, climate change, water resources, desertification and biodiversity loss. Similarly environmental issues are inadequately integrated into development planning.
- Financing, human resources and governance remain major constraints in most countries, both developing and developed.

Global Environment Outlook - 5



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Solutions are within reach, but urgent, ambitious and cooperative action is imperative to meet internationally agreed goals and targets to avoid irreversible changes to the life support functions of the planet and further escalating economic, environmental and human well-being costs.

GEO-5 Summary for Policy Makers



Thank you

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