Millennium Ecosystem Assessment: Understanding response strategies for ecosystems, ecosystem services and human well-being

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&

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For quality of life

Co-chairs and support

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Ecosystems are capital assets!

RWG will assess how to manage these assets sustainably.


fodder production


slope stability


tourist attraction


recreation


water purification


biodiversity


pollination


fibre production


food production


flood protection


carbon sequestration


beauty


recreation


stabilising micro-climate

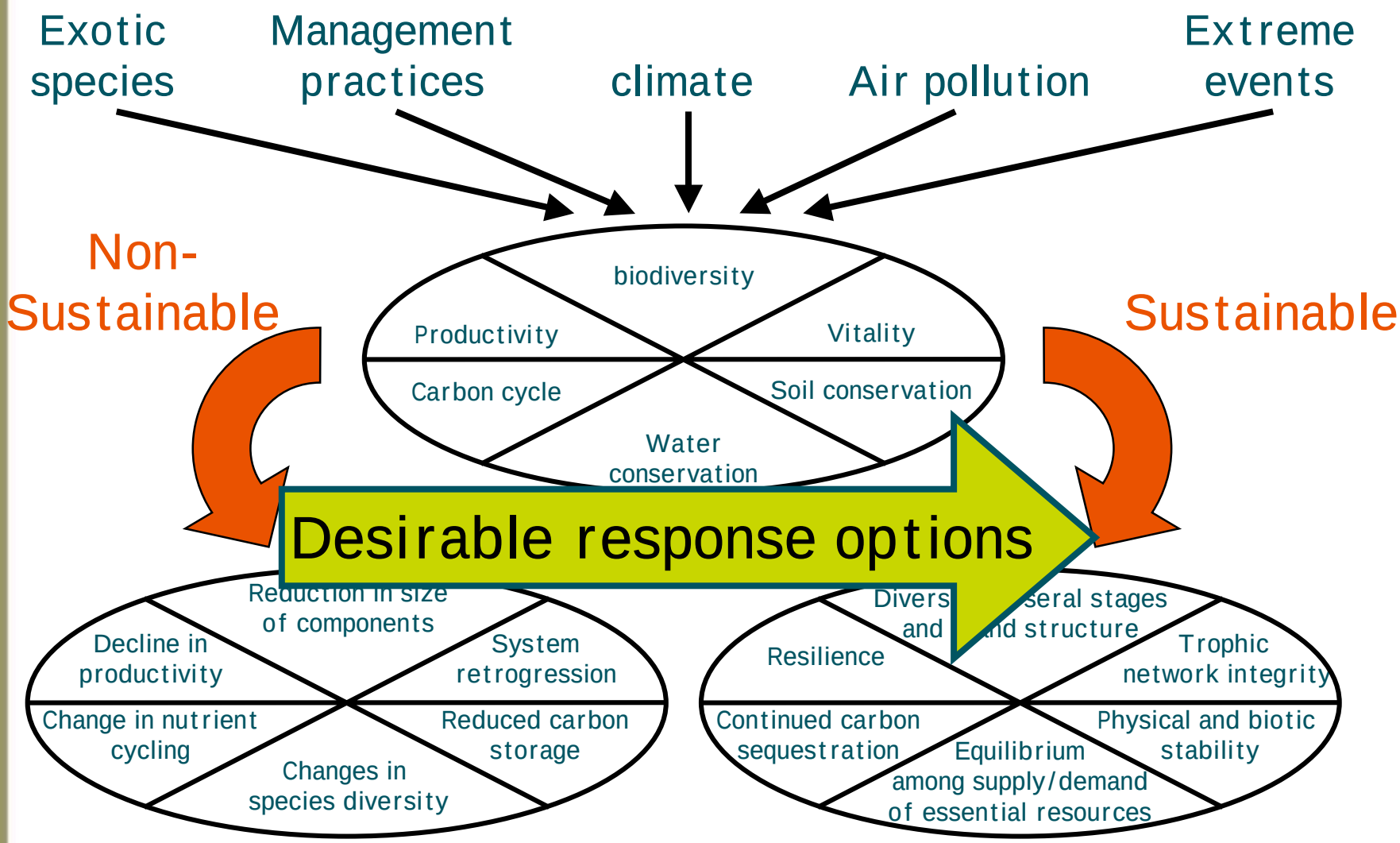

game reserve


shelter for life stock

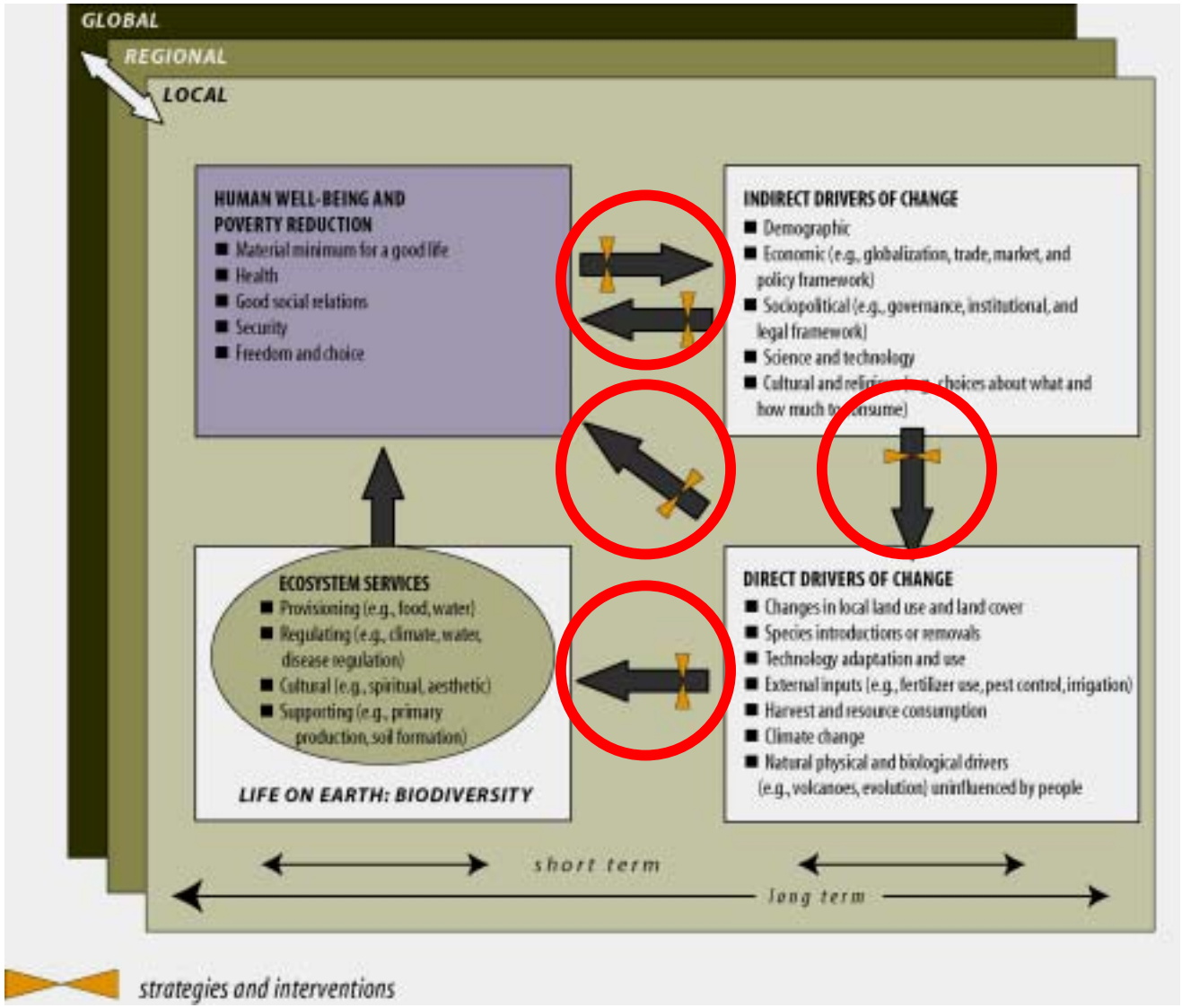
The responses working group

What can we do to enhance well-being and simultaneously conserve ecosystems?

Stresses on ecosystems



Conceptual Framework



Inventory matrix of response options

Regional level

National level

Local level

issues

Response options

Economic interventions

Legal interventions

Institutional interventions

Forest management

Food security

Fresh water management

Biodiversity conservation

Urban planning

Climate change

Trade-offs

Response options

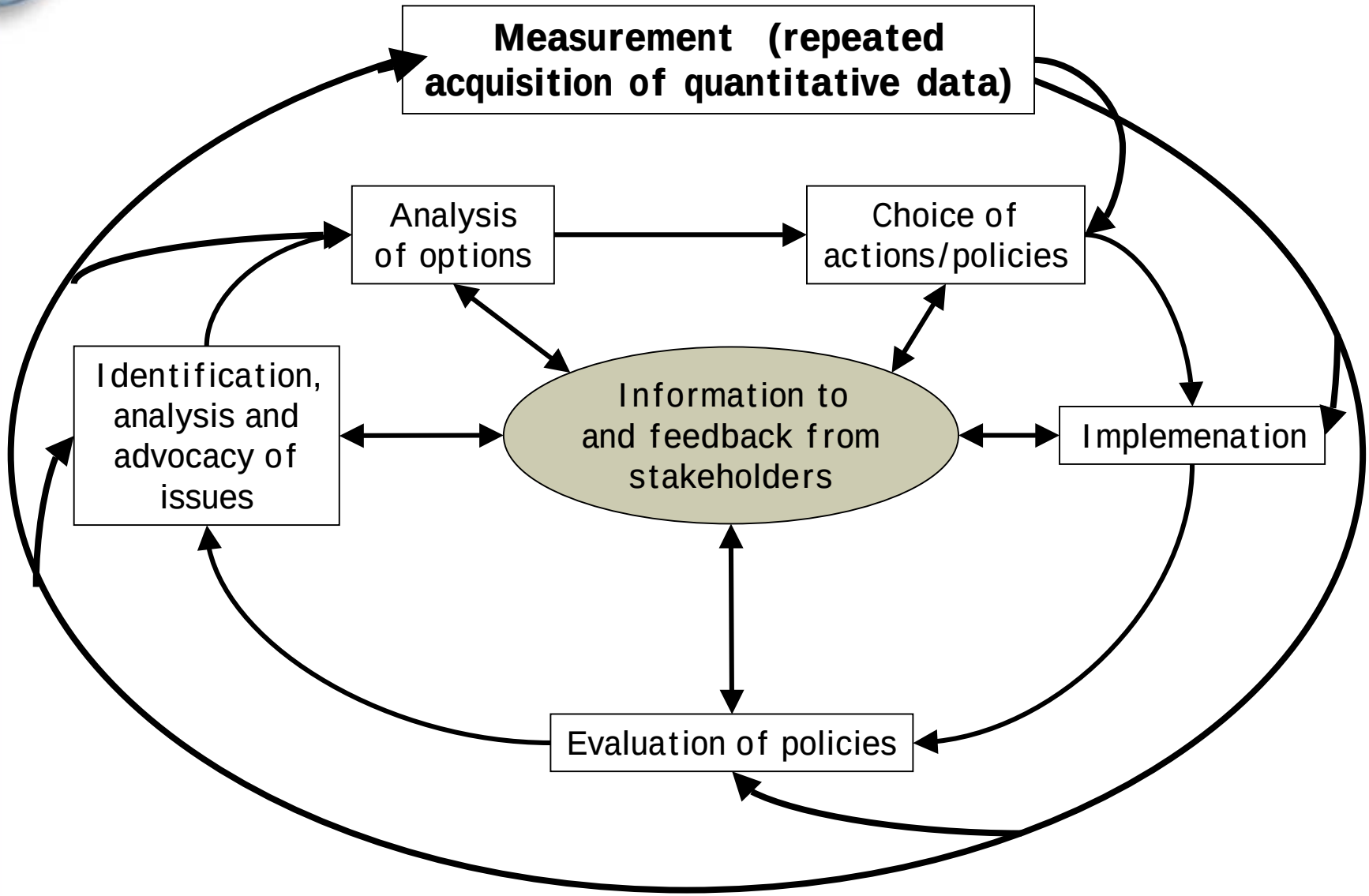
Regulati & compliance

Information dissemination & education

Regional cooperation & policy integration

The fellows

Decision-making Frameworks

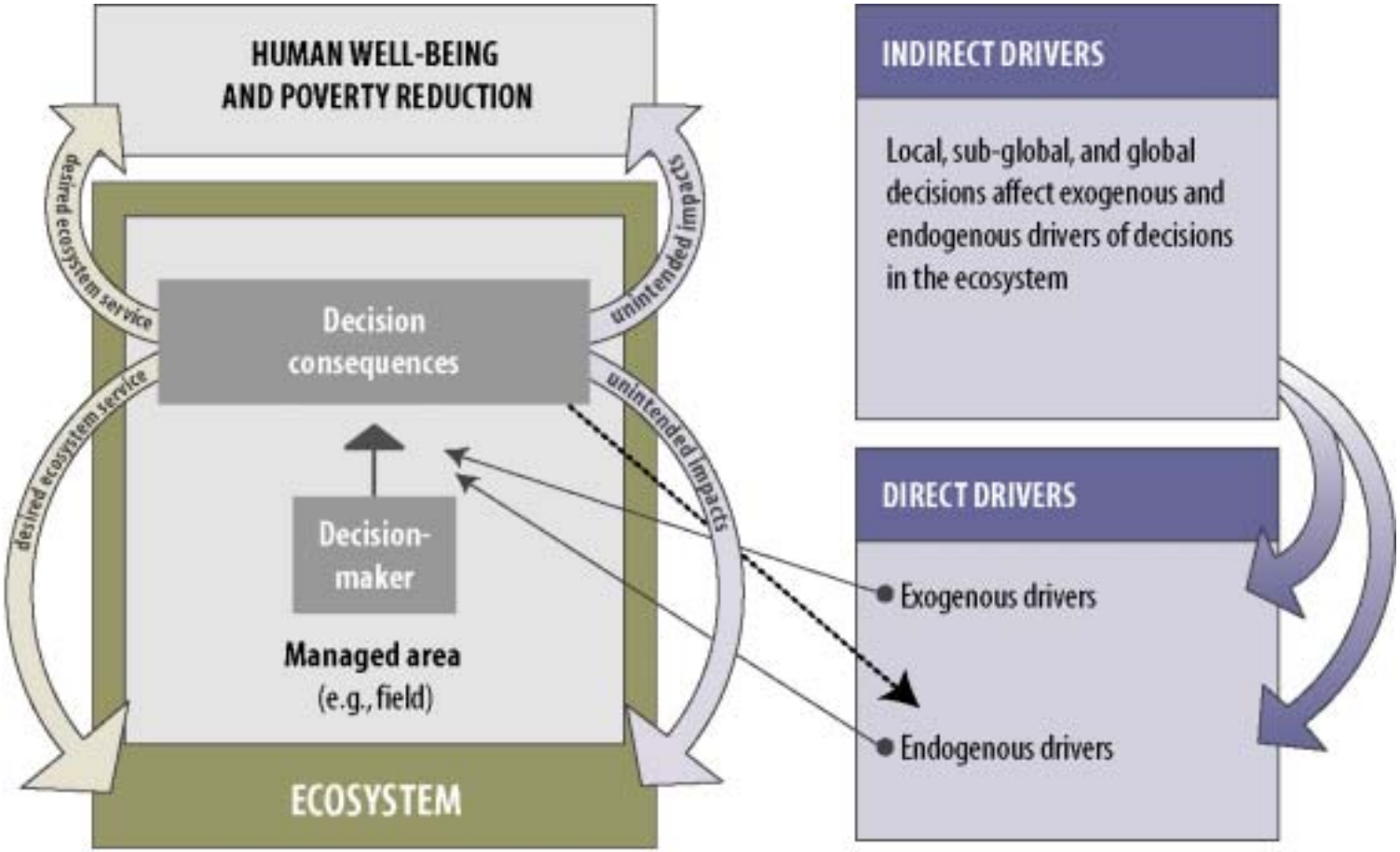


The drivers discussion between ecologists, geographers and economists

Economist: People are not driven, people make choices!

Resulting in a much stronger focus on decision making process

The CF focusses on decision makers and processes



Structure Responses Working Group

Part I: Conceptual Framework for Evaluating Responses

- Typology of reponses (legal, institutional, economic, technical, ecological)
- Methodologies to assess responses
- Uncertainties in the effectiveness of responses

Part II: Assessment of Past and Current Responses

- Biodiversity
- Food, fiber, fresh water, fuel
- Nutrients, waste, climate
- Cultural services
- Integrated responses

Part III: Synthesis: Ingredients for successful responses

- Poverty reduction
- Health
- Choosing responses
- Millennium Development Goals

Major preliminary findings

- ✓ Large differences between developed and developing countries
- ✓ The effectiveness of responses are context specific, i.e. there is no single recipe to halt ecosystem deterioration and increase human well-being
- ✓ Linkages between policy issues are important (e.g. climate change, biodiversity and development issues)

Preliminary Sectoral Messages

1. **Water**: Significant opportunities to avoid future water crises exist in areas of improved design and management of water infrastructure, more inclusive and integrated governance and more efficient resource allocation through market based approaches
2. **Forests**: Strategies to improve the impact of forest product use on ecosystem health and human well being are more affected by decisions taken outside the forest sector than those within it.
3. **People and Ecosystems**: Policies and Economic Incentives concerning management systems and conservation strategies that separate people from their environment, freezing both cultures and ecosystems have limited success……
4. **Key challenges** in the development of effective response strategies arise out of limited knowledge on the complexity and variability of site-specific factors, which determine outcomes and costs

A further insight

Integrated responses (IR) are gaining in importance in both developing and developed countries but they have had mixed results.

IR are responses that address degradation of ecosystem services across a number of systems simultaneously, or that also explicitly include objectives to enhance human well-being. IR occur at different scales and across scales, and use a range of instruments for implementation. Increasingly they are associated with the application of multi-stakeholder processes and with decentralization, and they may include actors and institutions from government, civil society and private sector.

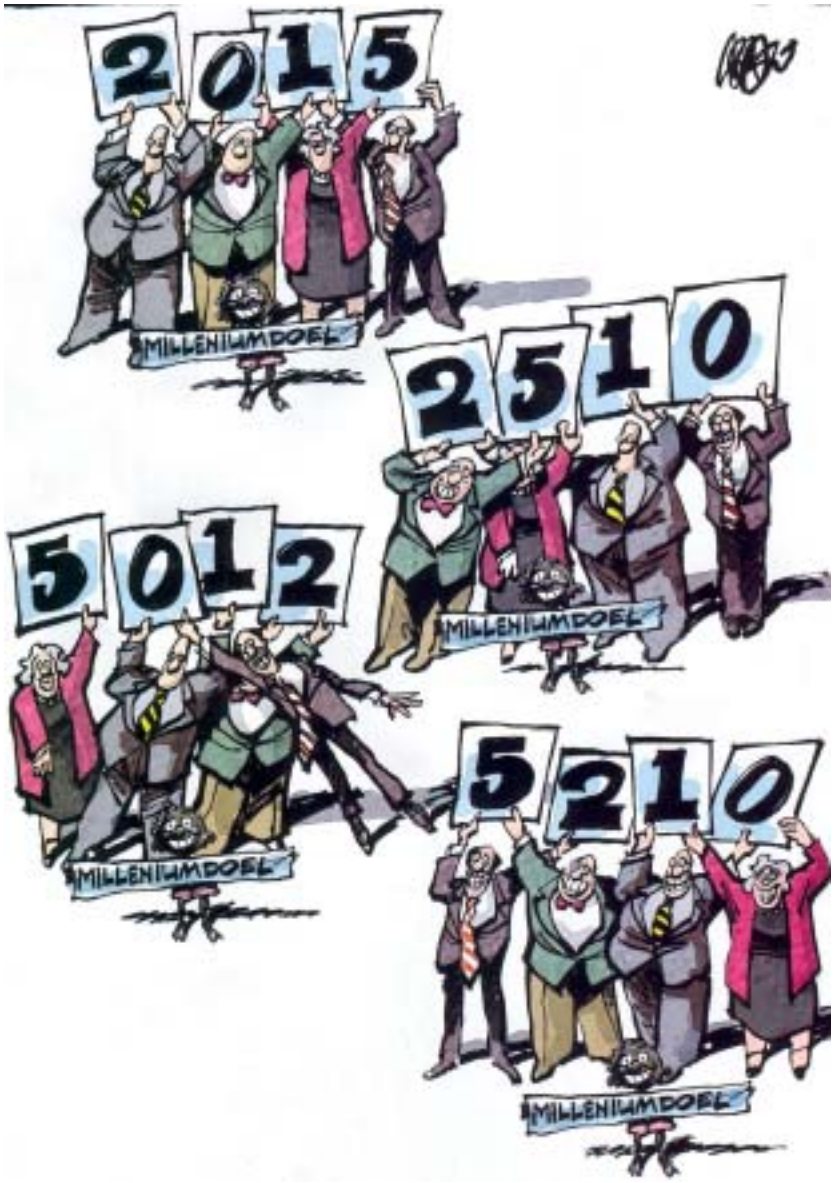
Examples include some multi-lateral environmental agreements, environmental policy integration within national governments, and multi-sectoral approaches such as Integrated Coastal Zone Management.

Although many IR make ambitious claims about their likely benefits, in practice the results of implementation have been mixed in terms of ecological, social and economic impacts.

Millennium Development Goals

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria, and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

Making the difference!



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april 2003

MAnews

The Newsletter of the Millennium Ecosystem Assessment

Around The World: the Millennium Ecosystem Assessment Sub-Global Working Group

INSIDE

news feature

The state of the planet

More than 2,000 experts will be involved in a four-year effort to survey the health of the world's ecosystems and threats posed by human activities. Virginia Gewin profiles the Millennium Ecosystem Assessment.

In March last year, Harold Mooney scribbled a flow chart on a napkin as he and Walter Reid sat in a Montreal bar. The magnitude of the task they had embarked on was really starting to sink in.

Instead of evaluating how ecosystems respond to just one environmental concern, such as climate change, they were talking about providing a complete planetary health check, determining the impacts of changes in land use, loss of biodiversity, the application of agricultural fertilizers, and many other factors — a truly colossal endeavour.

Reid, formerly a zoologist with the World Resources Institute (WRI) in Washington DC, and Mooney, an ecologist at Stanford University in California, are now executive director and assessment-panel co-chair, respectively, of the Millennium Ecosystem Assessment (MEA). This is a US$21-million, four-year effort to determine the state of the Earth's ecosystems that will seek input from more than 2,000 leading natural and social scientists. Its financial backers include the UN Environment Programme (UNEP) and the World Bank. The result was the Pilot Analysis of Global Ecosystems (PAGE), which provided the technical underpinning for the *World Resources 2000–01* report, released in June last year. PAGE, which involved 500 contributors, concluded that the capacity of ecosystems to meet human needs for food and clean water is diminishing, and warned of

Groundwork: satellite images will reveal deforestation and other changes in land use.

ply can entail converting forest to agriculture, which can reduce biodiversity and the supply of timber and clean water. But no one has previously tried to work out how all of these conflicting pressures interact. "The trade-offs and interactions are crucial," says Mooney.

Crucial, but also fiendishly complicated. Arguments about how to deal with scientific uncertainties have clogged the Intergovernmental Panel on Climate Change (IPCC), often cited as a model for the MEA. But in