

## **GEF COUNCIL 6 JUNE 2005: STATEMENT BY YOLANDA KAKABADSE, STAP CHAIR**

### **Introduction**

1. I am delighted to have this opportunity to speak to the Council as the new Chair of the Scientific and Technical Advisory Panel to the GEF. I chaired my first meeting of the Panel in March, and I am looking forward to working with the members, and with the Council, and IAs over the next year.
2. And at the next Council meeting in November, I will be bringing forward two pieces of advice on land degradation (sustainable land management in drylands and guidance on the restoration and rehabilitation of drylands), as well as the final report on mainstreaming biodiversity, and a second biosafety source book, *Bt* cotton in Brazil. The Panel will also be providing further advice on the STAP roster of experts, which will enable us to address points made in the OP12 programme study.
3. But today I want to speak about: OPS3; and the S&T challenges which arise from recommendations in the Millennium Ecosystem Assessment and Millennium Project.

### **OPS3**

4. I am, of course, aware of what OPS3 has said about STAP, and the need to produce outcomes which are both cost-effective and responsive to the GEF's needs. STAP's advice needs to be both relevant and timely, if it is to be of benefit to the GEF. I take these comments very seriously.
5. I am not in favour of reacting and making cosmetic changes. I have therefore decided to hold a STAP retreat (in Quito) at the end of June, with 11 (of the 15) Panel members, the Executive Director of UNEP, the GEF CEO, and representatives from the GEF Sec, OME, UNEP, World Bank and UNDP. This will be an important opportunity to think constructively about: how to refocus STAP's mission and its structure with our partners; how STAP relates to the GEF and IAs; and how STAP provides advice to the Council. We

expect the retreat to come up with number of recommendations, for discussion with heads of agencies, before proposals are put to the Council in November.

### **Millennium Ecosystem Assessment, and Millennium Project**

6. I now want to turn to the Millennium Ecosystem Assessment and Millennium Project. I should mention that I followed the work of Millennium Ecosystem Assessment very closely, as President of IUCN, and I was also co-chair of the Task Force on Environmental Sustainability in the Millennium Project.
7. As you all probably know, the Millennium Assessment assesses the consequences of ecosystem change for human well-being and establishes the scientific basis for actions needed to enhance conservation and sustainable use of ecosystems and their contributions to human well-being.
8. The four main summary conclusions from the Millennium Assessment are:
  - i. over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water, timber, fibre and fuel;
  - ii. the changes that have been made to ecosystems have contributed to substantial net gains in human well beings and economic development, but these gains have been achieved at the expense of increasing degradation of many ecosystem services;
  - iii. the degradation of ecosystem services could grow significantly worse during the first half of this century and is a barrier to achieving the Millennium Development Goals; and
  - iv. the challenge of reversing the degradation of ecosystems, while meeting increasing demands for their services, will involve significant changes in policies, institutions and practices, that are not currently under way.
9. What do we mean by “ecosystem services”? For example, a river basin is important for:
  - (a) provisioning services – fish, fresh water
  - (b) regulating services – water purification, flood control

(c) cultural services – recreational, spiritual.

10. 60% of the ecosystem services examined by the Millennium Ecosystem Assessment are being degraded, or used unsustainably. The degradation of ecosystem services often causes significant harm to human well-being and represents a loss of a natural asset or wealth of a country.

11. There has been unprecedented change in the structure and function of ecosystems.

- i. between 1960 and 2000, the demand for ecosystem services grew significantly as world population doubled to 6 billion and the global economy increased more than sixfold;
- ii. more land was converted into cropland in the 30 years after 1950 than the 150 years between 1700 and 1850;
- iii. cultivated systems now cover one quarter of the Earth's terrestrial surface;
- iv. 35% of mangrove area lost (mangroves are important for the replenishment of fish stocks, preventing salinisation, and storm surges);
- v. 20% of the world's coral reefs lost, and 20% degraded (coral reefs are important for fish stocks, marine biodiversity and ecotourism);
- vi. withdrawals from rivers and lakes have doubled since 1960;
- vii. flows of biologically available nitrogen in terrestrial ecosystems doubled;
- viii. 50% of all the synthetic nitrogen fertiliser ever used has been used since 1985; and
- ix. 60% of the increase in the atmospheric concentration of CO<sub>2</sub> since 1750 has taken place since 1959.

12. Why is the Millennium Ecosystem Assessment so important? Three key points stand out. First, the focus on ecosystems; second, the acknowledgement that human beings are an integral part of ecosystems, and third, the emphasis on the linkage between ecosystems and human well-being.

13. On the latter point, the degradation of ecosystem services is already a significant barrier to achieving the Millennium Development Goals (MDGs). The consumption of ecosystem

services, which is already often unsustainable, will continue to grow, as a consequence of the likely 3 to 6 times increase in global GDP by 2050. And it is the rural poor, the primary target of the MDGs, who tend to be most reliant on ecosystem services.

14. Goal 7 of the MDGs is about ensuring environmental sustainability, including (target 9) integrating the principles of sustainable development into country policies and programmes, and reversing the loss of environmental resources. The MDGs make very clear the importance of environmental sustainability in addressing extreme poverty. (For example, climate change could increase food insecurity, spread vector-borne diseases such as malaria, and increase the likelihood of natural disasters, especially drought in Africa.)
15. And environmental sustainability is the foundation on which strategies for achieving the Millennium Development Goals must be built. Because environmental degradation is causally linked to problems of poverty, hunger, gender inequality, and health.
16. The fundamental requirements for improving human health and well-being are protecting and managing the natural resource base for economic and social development in developing countries, especially; and changing consumption and production patterns, particularly in wealthy nations.
17. Achieving a healthy, sustainable environment requires:
  - i. understanding the drivers of environmental change – and science has a major role here;
  - ii. assessing the state of the environment and identifying people's dependence on it – the Millennium Ecosystem Assessment provides this;
  - iii. identifying, and then overcoming, the obstacles to ameliorating environmental degradation – this is where policy, science and technology need to meet, and will require institutional change; and
  - iv. identifying and supporting the application of the best environmental practices in the most appropriate manner specific to each locale.

18. The Millennium Ecosystem Assessment and Millennium Project are inextricably linked. We need to consider them as a pair, not as being separately about the global environment, and about human development.
19. This is not to say that investments and other interventions do not need to be designed and managed carefully to avoid unintended effects. Let me identify just three from the Millennium Ecosystem Assessment's long list of "Quick Wins":
- free or subsidised nitrogen and chemical fertilisers to replenish soils, but how to avoid potential problems with run-off?
  - providing electricity, but how?
  - planting trees, but which?
20. And the recent Millennium Ecosystem Assessment biodiversity synthesis, "Ecosystems and human well-being", points out the possibility of trade-offs between the MDGs and the 2010 target of reducing the rate of biodiversity loss.
21. Meeting the challenge of reversing the degradation of ecosystems – set out very clearly in the Millennium Ecosystem Assessment – while meeting the increasing demands for ecosystems services – exemplified in the Millennium Project – will involve significant changes in our policies, institutions and practices, that are not currently underway. And this will, of necessity, include the GEF.
22. What are the implications of these global ecosystem changes for biodiversity, climate change, and land management? And what actions do we need to take to deal with these changes?
23. Fortunately the Millennium Ecosystem Assessment did not just provide us with another assessment, but went on to assess a large number (74) response options for ecosystem services, integrated ecosystem management, conservation and the sustainable use of biodiversity, and climate change.

24. Included in these options are many of potential importance to the GEF:

- increased coordination among multilateral environmental agreements, and between international institutions
- more use of economic and financial interventions to regulate the use of ecosystem goods and services
- reducing the consumption of unsustainably managed ecosystem services
- development and defining of technologies to increase the efficiency of resource use, or reduce the impacts of drivers, such as climate change and nutrient loading
- knowledge management.

## **Conclusion**

25. The Millennium Ecosystem Assessment sets out a wide range of ways in which its findings could be used. This is a huge agenda, and one which needs to be thought through carefully, and properly considered for its many implications for the GEF.

26. I am delighted therefore that STAP, as the GEF's advisory body on science and technology, has been asked to consider the implications of the Millennium Ecosystem Assessment for the GEF's operational strategies and policies. This will be on the agenda for our retreat later this month, and at our next regular meeting in October. And I look forward to reporting back to the Council on this, and other topics, when I have the opportunity to do so at your next meeting in November.

27. Thank you.