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**STATEMENT BY PROF. MADHAV GADGIL,
STAP CHAIRMAN, TO THE GEF COUNCIL MEETING,
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1. Distinguished Chair and members of the GEF Council, colleagues from the GEF Secretariat, Implementing Agencies, the Conventions and NGOs.

2. It is my pleasure and privilege to present a report of our activities as the third year of STAP II draws to a close. As always our focus has been on the corporate priorities of the GEF family and the commonwealth of nations engaged with the processes of global environmental conventions.

IMPACT STUDIES

3. A significant concern of the day is an assessment of the impacts and achievements flowing from the financial and human resources invested since the inception of the Global Environment Facility. In this regard, STAP has done its best to contribute to the impact studies launched by the M & E unit of GEFSEC during the last quarter of 2000. It turns out, however, that the major field work for impact studies was scheduled for the period spanning the Christmas and the Carnival with the result that few people involved in the projects were in a mood to get down to work. This meant that the scheduling of the visits was, as they say in Bangalore, like weighing five frogs on an open pan balance, with each one jumping off the moment it was placed on the pan. The feat was nevertheless accomplished in a few cases: the solar-thermal project being developed under OP7, the China Boiler Project and the review of the Conservation of Priority Protected Areas Project for Philippines.

4. I personally participated in the project on the conservation of priority protected areas in the Philippines. This is a pioneering project that attempts to conserve the rich heritage of the Philippine biodiversity in a very broad based participatory manner by bringing together the governmental agencies, local government units, national and local NGOs and the local communities including the indigenous people. It also anticipates the ecosystem approach in many ways. The project site I visited, for instance, attempts to protect the entire landscape and seascape of the Siargao Island. The output of that review has been integrated in the Impact Study prepared by the M & E Unit on Biodiversity. Here I would like to highlight a couple of issues. An important source of motivation of the local people is an opportunity to participate in sustainable livelihoods projects. Unfortunately this is a component of the project that has advanced the least. This clearly calls for serious intellectual inputs that would bring together natural sciences and social sciences with the detailed locality specific practical knowledge and wisdom residing with the people. GEF could play an important role in promoting a confluence of these different streams, thereby enhancing the chances of success for its projects on the ground.

5. The attempt in the Philippines project to work with a range of stakeholders also presents another important opportunity. This attempt could be advanced through a properly disaggregated careful analysis of who the various stakeholders are, how they perceive and react to various project interventions, and how this impacts on the project objectives. This would help design and fine-tune the project interventions much better; it would also help develop the methodology appropriate to the new generation of projects as represented by the OP 12 on integrated ecosystem management.

6. The solar thermal projects which were undertaken with STAP's support have rekindled international and private sector interest in an important technology for power generation in areas of high solar insolation, and were described by the Chairman of the US National Renewable Energy Agency as being the most important development for solar-thermal technologies in 10 years. The GEF is to be commended for this. The main challenges now for the GEF are not only to ensure that the projects currently under implementation are successful but to continue to work with the international community to ensure that the renewed public and private sector interest in the technology is not lost. As indicated by STAP at the time of endorsing the GEF's initiative, it is important that the onus for further development and use of the technology is not left to the GEF alone. Another concern we have is that the projects are proceeding in parallel, which may limit the amount of learning between one project and the next; against this, the four projects together should prove a boost for the industry. We are encouraged by developments so far.

7. STAP also undertook a review of the project aiming at enhancing the efficiency of industrial boilers in China. This project included a serious attempt at the transfer of technology. It turns out that this has met with very limited success with all the major players of industrial countries withdrawing their bids for supply of technology. It is evident that the vital issue of technology transfer merits careful assessment in view of such experiences.

INTEGRATED LAND AND WATER MANAGEMENT AND INTEGRATED ECOSYSTEM MANAGEMENT:

8. Just over a year ago, the GEF established a Land and Water Resources (LWR) team with the overall objective of securing and maintaining the integrity of ecological systems, particularly land and water, through integrated ecosystem management. Closely related to this objective is the operationalisation of OP#12 and the Land and Water Initiative for Africa. In this regard, STAP is working closely with the Land and Water Resource Team in analyzing case studies on the implementation of community-based approaches to integrated land and water management, with the view of synthesizing and disseminating good practices. These case studies will also contribute to a better understanding of different community-based management systems and will facilitate the rapid implementation of practical activities on the ground and will no doubt contribute to the implementation of Land and Water Initiative for Africa.

9. STAP convened a Planning Meeting on Integrated Land and Water Management involving key scientists with expertise in this field, primarily from Africa at the University of Bologna, Italy early this year. This was followed up by a Technical Workshop held at the University of Natal, South Africa. The results of this process will be presented in a published format in a "*Sourcebook on Integrated Land and Water Management: The African Experience*". This will no doubt aid in the implementation of the Land and Water Initiative for Africa.

10. STAP has also been active from the very beginning in developing the important new initiative of OP#12 on integrated ecosystem management. STAP will continue its efforts over the next twelve or so months on operationalizing this OP. In this context, STAP will work closely with the wider scientific

and technical community in developing a Handbook on Integrated Ecosystem Management. This handbook will capture the GEF experiences and its linkages to global benefits and adaptive management practices.

FOLLOW-UP TO EAST AFRICAN LAKES REVIEW

11. In addition, the work STAP has already done on the East African Lakes will now be integrated as a component of the Land and Water Initiative. In this regard, STAP will be playing a facilitating role in interfacing national, regional and international scientists working on these issues with those leading the land and water initiative in the GEF Secretariat and Donors to consider an appropriate way forward for the management of the East African Lakes.

ADAPTATION

12. A critical issue which is emerging in the climate change debate that has been identified as corporate demand is the issue of adaptation. As an integral part of its last meeting held here in Washington D.C. STAP brainstormed on this topic and the take home lesson was clear:

*Wake up my friend, look over the wall, for surely people know,
to turn and twist, and respond, to changes fast and slow!*

13. Adaptation has for too long been narrowly visualised as building sea walls around islands, small and flat. But variation in climate is a matter of everyday experience to people all over the world and they have evolved multifarious strategies of coping with such variation. They face storms, they tackle droughts, they withstand floods. Climate change would not so much bring totally new experiences as change the frequencies and intensities of existing variations such as floods and droughts and storms. Indeed, in many cases we are not really sure of the directions in which the changes will occur. As the U.S. study brought out some climate models predict much more rain for Southern California, others much less. The programmes for adaptation to climate change must therefore build on elements of current strategies and respond to the scenarios as they unfold. A major conclusion of our Brainstorming Session was that priority setting for adaptation measures is not an easy task because of a number of factors such as: the broad spectrum of adaptation measures ranging from large-scale investment of infrastructure as in case of dams and irrigation and species changes in agricultural production, to coastal zone management and prevention of outbreaks of epidemics; compounded by methodological weaknesses in vulnerability assessment in spite of continuing efforts by the scientific community and difficulties in designing effective adaptation measures and their economic evaluation.

14. This is another important context in which natural sciences and technology, social sciences and folk knowledge and wisdom must come together to promote appropriate action. This will be the approach adopted by STAP in its in-depth Expert Group Workshop on Vulnerability and Adaptation to

examine possible GEF course of action in the area. It is hoped that the upcoming resumed meeting of climate change COP will provide insights which can be used to guide us on this issue.

POWER SECTOR REFORM

15. Last July STAP helped draw attention of the GEF family to the implications of power sector reform for renewable energy and energy efficiency projects. The current practice is to first push through full scale reforms and then to assess the implications for practices desirable from an environmental perspective and lastly to promote them as appropriate. From a GEF perspective it may be more desirable to implement the reform process in a phased manner; taking advantage of the space being created to promote climate friendly technologies such as wind farms in the private sector. This could create stakeholders for further reforms, stakeholders who could champion climate friendly energy technologies. Such ideas may be particularly pertinent in contexts such as World Bank's renewable energy partnership programmes.

SUSTAINABLE TRANSPORTATION

16. STAP has over the years generated strategic advice for the operational programme on transportation. It has expressed its concern over the apparently unbalanced emphasis on a few frontline technologies such as fuel cell buses. The OP 7 portfolio needs to be diversified, e.g. into photovoltaic systems for peak load supplementation on grids where there are shortages of electricity capacity, and fuel cells for decentralised sources of power generation; we shall be brainstorming on these possibilities this coming year. We have placed a very strong emphasis in our comments to the Implementing Agencies and the Secretariat on approaches that involve the recipient countries in the 'ownership' and further development of these technologies, such that they do not merely become importers of hardware. Beyond this, STAP feels it is important that GEF also looks at the software aspects of this OP. There are tremendous opportunities, for instance, in creating more climate friendly transportation systems through appropriate patterns of urban development. As environmental concerns are mainstreamed into operations of agencies such as World Bank, it may become possible to take advantage of such opportunities. STAP proposes further work on such options for transportation projects over the coming year.

CLIMATE FRIENDLY ENERGY TECHNOLOGIES

17. At the last Council Meeting, STAP had raised its concerns over the suitability of Integrated Coal Gasification Cycle (IGCC) technologies in OP7. Of course, STAP recognizes that coal is a very significant energy source and that exploiting its use as a source of hydrogen is a promising possibility that should be explored. After careful consideration of the World Bank IGCC proposal, STAP concluded that (i) the reformulated project document went some way towards meeting STAP's concerns, and the

core gasification technology and the demonstration of the hydrogen production elements were of significant interest, however, (ii) there was a need for the preparation of a strategy demonstrating detailed paths to zero emissions for the coal industry and that

18. current (including the aforementioned World Bank IGCC project) and future projects be assessed within the context of this strategy. It is important to ensure that any approved IGCC project is not simply another incremental improvement on current coal gasification demonstration initiatives but that it incorporates a substantial and integral hydrogen production component that demonstrates a convincing path towards a zero emissions future for the coal industry. In addition, the strategy should demonstrate the strategic/comparative advantage of GEF involvement in IGCC technology development in light of the very large investments that the coal industry has made and plans to make in further development of coal gasification technologies.

19. The IGCC (with biomass and hydrogen generation), solar thermal, fuel cell and other possible projects under OP7 further raise a more general issue about the role of the GEF and its linkages with both the client countries and the international community. This is that it is desirable to develop a strategic framework for the long-term development of these technologies. The technologies will have a fundamental role for addressing the climate change problem in the long-term. But their development cannot be left to the GEF alone. Three things are needed. The *first* is a policy framework in the client countries for supporting their use; this is one reason why we had the workshop on power sector reform in Bangalore last year. All OECD countries have such policies in place and we likewise see a need for the GEF to complement its project operations with support for the development of the 'policy software' in developing countries. *Second*, we need to see continued parallel efforts in the industrial countries together with a forum for the sharing of experiences and transfer of ideas and technological know-how. *Third*, related to foregoing, the GEF will itself need to identify how it can facilitate national and international efforts to foster the long-term development of the technologies, since project operations, important as they are, will by themselves not be sufficient. We will be discussing these issues at the next STAP meeting in September.

PERSISTENT ORGANIC POLLUTANTS (POPs)

20. A major workshop by STAP on the theme of Persistent Organic Polluting Substances (POPs) had helped generate early strategic advice on this issue. Now that GEF has been designated a financial mechanism for the POPs convention, STAP proposes to examine further the many significant scientific issues. These include the options for dealing with stockpiles of these substances, especially in developing countries. Some of these have seeped into the soil and need a different approach than those sequestered otherwise. Several of the stockpiles are in parts of the world with poor transport and communication facilities so that conventional routes of disposal such as incineration are not feasible. Substantial scientific inputs are called for in finding the most appropriate ways of elimination of these stocks. Other issues arise as new, more acceptable compounds are introduced. These will now enter environments where the older compounds are already present. Questions arise as to how the microflora will react to these

cocktails. Finally there are intriguing possibilities of totally eliminating the need for the POPs molecules by approaches such as development of vaccines against malaria and dengue so that controlling the vector populations is not a prerequisite for the control these diseases. STAP will be active in examining this whole range of issues over the coming year.

BIOSAFETY

21. STAP participated actively in the First Meeting of the Intergovernmental Committee for the Protocol on Biosafety held in France in December 2000. It contributed to the discussion on a number of issues, including information sharing, capacity building, decision-making procedures, handling, transport, packaging and identification, and compliance. STAP would like to emphasize that adequate resources should be allocated for capacity building in both biosafety and biotechnology within the context of the Capacity Development Initiative (CDI).

MOBILIZATION OF THE WIDER SCIENTIFIC AND TECHNICAL COMMUNITY

22. STAP regards mobilization of the wider scientific community to participate meaningfully in GEF endeavours as an important element of its mandate. It therefore considers the Capacity Development Initiative as a very significant effort, and was happy to promote a specific science and technology needs assessment as a part of its initial assessment. The action plan proposed by CDI has elements that STAP would be happy to help flesh out, especially through its contacts with scientific networks which have been progressively built up with a series of activities beginning with a meeting organized by the Brazilian Academy of Sciences in October 98, a meeting of scientific networks in Chennai in January 99, a meeting of the Third World Academy of Sciences, Third World Network of Scientific Organizations and African Scientific Societies in Senegal in November 99, and, most recently a meeting of the World Federation of Engineering Organizations in Calcutta in January 2000. STAP would like to emphasize in this connection that there are centres of excellence in the Developing World which have strengths which go beyond a regional context. For instance CONABIO in Mexico is a world leader in management of taxonomic information. Such Developing World Centres of Excellence could play a very productive role in the capacity development efforts in coming years.

EXPECTATIONS FOR FY 2002

23. STAP II looks forward to a busy year addressing a number of challenges as it strives to respond to demands raised by the GEF family, as well as fulfill its responsibility to alert the GEF family to issues it sees as of relevance to efficacy of GEF operations. In this connection, permit me to invite you to examine the Programme of Work contained in Annex I of the Report of the Eighth Meeting of STAP II which is before you for consideration. We believe that the activities highlighted reflect very well the demands identified in the GEF Corporate Business Plan. The proposed activities range from a

brainstorming on the little understood social dimensions of climate change, to issues relating to biosafety; and a selective review of TDA/SAP in International Waters projects as a means of ensuring balance between planning process and specific action on the ground. STAP would like to wrap up its tenure in June 2002 with a Science Congress that will distil its experiences of four years of providing pertinent inputs for GEF operations as it passes on the baton to STAP III.

24. I am confident that we would continue to enjoy over this last year the very high level of co-operation and support we have received from the GEF Secretariat, the Implementing Agencies and of course the Council and the CEO. I would like to end by expressing my appreciation to all involved and to specifically the STAP Secretariat for the excellent way in which they have facilitated the implementation of STAP Work Programme and the UNEP/GEF Co-ordination Office, our host agency for its support.

25. Thank you.