

## Summary of Working Group III: Natural Resources

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This working group discussed ways of achieving the sustainable use of limited natural resources, with particular focus on biomass, water, and energy and atmospheric environment. Efforts were made to identify critical issues which inhibit sustainable use of natural resources. There is no doubt that many key natural resources are limited assets on the earth; in other cases, capacity is limited. It is necessary to implement the sustainable use of natural resources for current and future generations. One future solution is to shift the growth-oriented paradigm to a sustainable growth paradigm. We should take a “back-casting approach”, which first designates the landing point and then sets forth the transformations which society must undergo to get there, in contrast to traditional projection-type “forecasting” policy design.

Major points emphasized during the discussions included:

Regarding biomass:

- Biomass has the potential to comprise a significant portion of the substantial energy/material market when appropriate. In order to accelerate dissemination, further technological innovation and economic incentives are needed.
- In particular, a system of further subsidies has demonstrated significant impact on the promotion of bio-energy in electric power generation.
- Political will is essential to accelerate the dissemination of biomass energy/material, where there is added value.
- Education is key at all levels for both developed and developing countries.
- The best available biomass energy/material technology varies by country and area.
- Biomass burning without proper consideration of means creates other problems such as haze and deforestation.
- Experience in implementing sustainable use of biomass energy/material in developed countries such as Germany and Japan should be shared with other countries, especially developing countries.

Regarding water;

- Water is more than just a natural resource. It has a special role in the life and culture of humankind, and is of great ecological significance.
- There have been many international agreements with goals for the sustainable use of water resources. However, actions to overcome prevailing problems need strong political will.
- In order to facilitate the taking of such actions, it is essential to collect and publicize

best practices.

- The working group recognized that there are various types of water problems which have emerged in various regions as a result of climatic and land conditions. It is suggested that Japan's experience regarding both successes and failures will be helpful in improving water management in other countries with similar tectonic and climatic settings. The group takes note that the Water Environmental Partnership in Asia (WEPA), the Japanese initiative to establish a database on water policy information, is a good example of a contribution to developing countries.
- In order to settle trans-boundary disputes over water issues, it is important to exchange accurate information as a basis for mutual understanding.
- Degradation of drinking water quality and lack of adequate sanitation are two of the most critical water problems in developing countries.
- Maintaining flows to support ecosystem functions, including flood plains and deltas, is essential to support socio-economic value, particularly for resource-dependent communities.

Regarding energy and atmospheric environment:

- The working group recognized that the atmosphere is an important global-common natural resource which can be degraded by energy consumption.
- International climate policy has made rapid and significant progress supported by the scientific consensus provided by the IPCC.
- After discussions on the effectiveness of the Kyoto Protocol, the group emerged with general agreement that a long-term approach is important, taking into account the nature of climate change and technological innovation. At the same time, the comment was voiced that it is necessary to take immediate actions, such as a "no-regret policy", given the fact that climate change impact has a long response time.
- Holistic scientific assessment is one of the keys for the decision-making process regarding climate policy. It is necessary to carefully take into account impacts caused by climate change.
- There was a suggestion that an improved future regime for global climate is necessary. Such a regime would ensure continuous efforts, be sufficiently flexible and be based on a technologically feasible approach which spurs technological innovation in order to encourage sustainable growth and which decouples the perceived linkage between greenhouse gas emissions and increased economic activity.
- There was a comment to highlight the importance of a transparent, participatory process for establishing a global climate regime which equitably includes all key stakeholders from both developed and developing countries.

Recommendations

The working group recognizes the need for:

- (i) Good data and good science, especially with respect to monitoring changes over time;
- (ii) Political leadership and political will, particularly with regard to evaluating and assessing conflicting demands and making difficult decisions;
- (iii) An educated public, to help inform and drive forward the political process;
- (iv) Education of the public, not only about specific issues but also about how global policy is made and implemented as well as how international economic mechanisms would ideally work;
- (v) A shift from a growth-oriented paradigm to a sustainable growth paradigm, acknowledging the limitations of the earth's natural resources;
- (vi) Technological development, which is critical to implement efficient use of natural resources, while recognizing that the best available technology is heavily dependent on the indigenous culture and the socio-economy of the area under discussion;
- (vii) Education at all levels, not only at the national but also at the global level, as a key means for developed and developing countries to properly manage natural resources;
- (viii) Political will supported by an informed public and by the leadership to implement actions for sustainable use of natural resources agreed upon internationally, despite the difficulties involved in encouraging policymakers to make decisions which have long-term objectives;
- (ix) Regional cooperation, in light of the similarity of conditions among neighboring states;
- (x) Further development of international frameworks to manage natural resources, including the atmosphere, based on lessons learned from existing regimes, supported by an informed general public;
- (xi) A holistic/integrated approach rather than a fragmented approach, in order to bring about a sustainable future for our planet. It has also been emphasized that market mechanisms, however imperfect, should be taken into consideration in natural resources management.