
NEWS AND VIEWS

Plantations and Climate Change

One of the most intensively studied large scale problems is the change in global climate. A global rise in temperature of about 0.3-4°C/10 years may be expected after the year 2000,

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and scientists have indicated that the mean annual temperature could have risen by 0.5°C by 2020 and by between 0.9 and 2.6°C by 2030. According to various scenarios, a rise of 1.5-4.0°C may have occurred by the middle of the next century.

The climatic impacts may be very serious. Biological ecosystems characterized by strong environmental dependence may respond with exceptional sensitivity to a permanent change in certain climatological elements such as precipitation. In certain marginal zones the regional climate could change on a different scale from the global mean, and the impact of global warming could be enhanced through these regional effects. It has been predicted that there will be decreased precipitation and higher evapotranspiration in the arid subtropics regions, while precipitation may be expected to rise in the humid tropics.

The higher atmospheric CO₂ concentration (upto 10-40%) may increase the yield of some crops such as maize, sorghum, rice and so on, provided that a suitable water supply is guaranteed. Where precipitation levels remain constant, the higher temperature and CO₂ concentration may result in water stress in the plants if available moisture is insufficient to meet the extra demand.

We can successfully defend against these effects in the arid zones, and in those areas which are becoming more arid, by planting drought tolerant species. However, in the humid tropics which may be subjected to more frequent and more violent rains resulting in accelerated soil erosion, it may not be possible to protect the site by simply changing species.

Reforestation through Agro-forestry

Large scale reforestation in tropical and subtropical countries is being promoted as a tool to ameliorate global warming. However, such operations are expensive and have been hampered by a lack of finance.

It may be possible to reduce costs of establishing plantations through agro-forestry programmes carried out in cooperation with rural populations. There would be additional benefits, such as the creation of new jobs, increased food production and the provision of firewood and building timber. Such an approach could also partly protect natural forests from further encroachment.

The species to be chosen for such programmes must be able to endure changes in climate and unsuitable tree and crop combinations may be susceptible to insect and pathogen attack.

Unfavourable climatic conditions will become more noticeable after the year 2000. Therefore, middle term planning should take into account the probable impact of climatic change and develop more suitable practices, both in agriculture and silviculture. For example, in Hungary we are already planning more selective regeneration feelings rather than clear cutting of the forest, and we intend to choose those species which can endure more tolerably the climatic changes of the future.

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GLOBAL ENVIRONMENT FUND RESTRUCTURED

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The American Centre, Peshawar.

The Global Environment Facility (GEF) is a financial mechanism that provides funds to developing countries for projects that address climate change, loss of biological diversity, pollution of international waters, and depletion of the ozone layer. The GEF will be based in Washington, D.C., and will be administered by the United Nations Development Program (UNDP), the United Nations Environment Program (UNEP), and the World Bank.

Delegates from more than 80 countries, in Geneva, agreed last month to restructure the Global Environment Facility (GEF), which supports international environmental projects in developing countries, by giving the Third World a greater voice in running it.

They decided that responsibility for the fund should be shared between a chief executive officer and a chairman elected by the Governing Council, and determined that the governing council would have 32 seats: 16 seats for developing countries, 14 for industrialized countries and 2 for "economies in transition," the countries from central and Eastern Europe and the former Soviet Union.

A "unique" voting arrangement was worked out—a double majority system intended to protect the interests of both donors and recipients in deciding which projects to fund. A 60 percent majority of the countries on the council will be required to approve a project, as well as a 60 percent majority weighted by the contributions of the members. If, for example, there is \$ 2,000 million in the final fund, votes from council member donor countries representing \$ 1,200

million in contributions would be required to pass the vote.

The successful resolution of those issues clears the way for the GEF which was set up in 1991 as an experimental pilot program - to begin operations on a permanent basis in mid 1994.

After 15 months of negotiations, the renewal of the GEF falls just under the wire; the 3-year pilot project was set to expire in April 1994. An attempt to finalize GEF arrangements in Cartagena, Colombia, in December 1993 proved inconclusive after the fund's donor and recipient countries failed to resolve the differences between them over the governance of the organization.

American negotiators, working closely with environmental organizations, achieved their goals of ensuring that the new facility will be open to public scrutiny and accountable to participating governments. The GEF will be the most open and participatory international financing institution ever created.

Negotiators had agreed earlier in 1993 on increasing the \$ 800 million fund to \$ 2,000 million over the next three years. The United States is the largest contributor to the GEF, agreeing to contribute \$ 430 million over the next four years.