

The 1996 Blue Planet Prize

The Asahi Glass Foundation has chosen the recipients of the Fifth Blue Planet Prize, an international award first given in 1992 at the United Nations Conference on Environment and Development in Rio de Janeiro. Presented annually to two recipients, the prize commends individuals, groups, and organizations whose achievements have contributed to the resolution of global environmental problems. The 1996 recipients are: Wallace S. Broecker of the United States, Newberry Professor of Geology at Columbia University, who has made major contributions to our understanding of climate change and global warming through his research into global ocean currents and ocean chemical cycles, particularly the carbon cycle; and the M. S. Swaminathan Research Foundation of India which is a nonprofit organization that supports the promotion of sustainable agriculture and rural development with methods that include the preservation and sustainable utilization of biodiversity, the improvement of soil and plant health using environment-friendly methods, and the creation of ecojobs for rural families. The research foundation, chaired by M. S. Swaminathan, is the first Blue Planet Prize winner from Asia. Each Blue Planet Prize winner will receive ¥50 million.

The M. S. Swaminathan Research Foundation (Madras, India) was founded in 1988 with the goal of promoting research and activism to further rural and agricultural development by environmentally sustainable and socially equitable means. The founder and chairman of this organization is M. S. Swaminathan, the recipient of the first World Food Prize, in 1987, and of the 1986 Albert Einstein World Science Award.

One of the research foundation's major achievements has been the study and conservation of coastal ecosystems, particularly mangrove wetlands. Based on its research into vegetation, soil salinity, and other aspects of mangrove habitats, the research foundation has taken steps to restore degraded wetlands. By promoting sustainable agroforestry and aquaculture, together with the use of organic fertilizers, the M. S. Swaminathan Research Foundation

helps establish integrated coastal management systems that can provide an ecologically sustainable livelihood for coastal families.

The research foundation also conducts a community biodiversity program to rescue endangered plant species from extinction, identifies microorganisms to serve as bioindicators of ecosystem health, and conserves genetic diversity of plant species used as food or in medicinal and other applications. This program includes the creation of a community gene bank to store collected seeds as well as the establishment of guidelines for conducting ecological observations. These are only a few examples of the many activities undertaken by the research foundation to help restore and maintain natural habitats and biological diversity through the application of technology.

In addition, the research foundation promotes the biovillage model of sustainable rural development in India, the People's Republic of China, and South-east Asia. Further positive results from these efforts are expected in the future. By helping to conserve the natural environment of developing countries while supporting the economic viability of rural communities, the M. S. Swaminathan Research Foundation is playing an important role in the search for solutions to global environmental problems.

In 1990, the research foundation established as its core organization the Centre for Research on Sustainable Agricultural and Rural Development. MSSRF has also set up the Technical Resource Centre for the Implementation of the Equity Provisions of the Convention on Biological Diversity to gather information that will help rural families obtain the recognition and reward due to them for their past and present contributions to genetic conservation and enhancement. The programs of the research foundation are organized under the following five areas.

The first area consists of aligning environmental protection and agricultural productivity in coastal wetlands. In particular, the foundation conducts research into how to tie the ecological security of mangrove forests to the livelihood of coastal communities. With the

support of the International Tropical Timber Foundation, MSSRF conducted a survey of mangrove genetic resources throughout Asia and West Africa. The research foundation then developed a multimedia database and an international information service on mangrove ecosystems.

The second area involves research on the conservation of biodiversity, a fundamental requirement for sustainable agriculture. Specific activities include saving endangered plant species and habitats, promoting the revitalization of genetic conservation traditions of local peoples, and maintaining soil fertility by monitoring microorganisms in soil. The research foundation has also created a gene bank to provide modern techniques for the preservation and use of plant genetic material. Based on its research efforts, MSSRF helps set up sustainable agricultural systems.

The third area consists of the application of ecotechnology to sustainable agriculture. Ecotechnology is a term used to describe the blending of vanguard technologies, including biotechnology, with the ecological wisdom and practices of local communities so as to integrate the ecological and economic strengths of both approaches. Ecotechnology is put into action by the voluntary participation of whole communities, known as biovillages. Similarly, programs have been instituted to create ecojobs, which generate additional food and income from available natural resources in a sustainable manner. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has designated MSSRF as the coordinator for the Asian Ecotechnology Network.

The fourth area is a program entitled Reaching the Unreached, which aims to bring the benefits of new technologies to the economically and socially disadvantaged, especially women and children, and promote gender equity in development.

The fifth area involves training programs and communications tools, including publications. Among its many other activities, the research foundation maintains databases, conducts educational programs, and holds workshops for policy makers and farming families.