



Prof. Mankombu Sambasivan Swaminathan- Life and Legacy

Prof. M.S. Swaminathan is one of the world's leading agricultural scientists. He played a catalytic role in India's green revolution between 1960 and 1982. Born in Tamil Nadu, India, on August 7, 1925, Prof Swaminathan was educated at Travancore and Madras Universities. He received his Ph.D. in Genetics from Cambridge University in 1952.

From 1954 to 1972, he worked at the Indian Agricultural Research Institute, New Delhi, mainly in the field of wheat improvement. He served as Director General of the Indian Council of Agricultural Research; Secretary of the Department of Agricultural Research and Education (1972-1979); and Principal Secretary of the Ministry of Agriculture and Irrigation (1979-1980). He was member in-charge of agriculture and rural development in India's Planning Commission from 1980 to 1982. From April 1982 to January 1988 he served as Director General of the International Rice Research Institute (IRRI). President of the International Union for the Conservation of Nature and Natural Resources (IUCN) (1984-90). He also served as the President of the Pugwash Conferences on Science and World Affairs (2002-07). For the decade prior to assuming his post with IRRI, Prof. Swaminathan was at the forefront of one of the most remarkable agricultural accomplishments in recent history-moving India from having the largest food deficit in the world to producing enough grain to feed all of its people.

Among his many contributions as Director General of Indian Council of Agricultural Research (ICAR) during 1972-79, particular mention may be made of his designing and initiating on Agricultural Research Services (ARS) to provide opportunities for scientists for life long specialisation. ARS helped to attract and retain brilliant young scientists in the ICAR system.

Over a period of 60 years, Prof. Swaminathan has worked in collaboration with scientists and policy makers on a wide range of problems in basic and applied plant genetics and agricultural research and

development. Among his more important contributions are: conservation of plant genetic resources, in situ and ex situ conservation of biodiversity, manipulation of genes to improve the yield, quality and stability of wheat, rice and potatoes; identification of the barriers to high yields in a wheat breeding programme; identification of cytotoxic agents in irradiated food material and demonstration of the indirect effects of radiations, organization of the National Demonstration and Lab to Land programmes and management of the 1979 drought as Secretary to the Government of India in the Ministry of Agriculture. At IRRI, he placed issues relating to sustainable rice production as well as intra-generational and inter-generational equity top on the research agenda. He served as a Founder-Trustee and later Chairman of the Board of the International Council for Research on Agro-Forestry (ICRAF) during 1977-1982. Recently he helped to develop a transparent and implementable method of recognising and rewarding the intellectual property contributions of tribal and rural families in the conservation and selection of plant genetic resources.

He served as Chairman of the U.N. Advisory Committee on Science and Technology for Development during 1981-84 and was Independent Chairman of the FAO council during 1981-85. In 1982, he organised a Society for the Promotion of Wasteland Development (SPWD) as a professional non-governmental organization committed to the ecological restoration of degraded land in different parts of India. He was founder-chairman of SPWD from 1982 to 1985. He served as Chairman of the Advisory Panel on Food Security, Agriculture, Forestry and Environment to the World Commission on Environment and Development (WCED). The report of his panel was published in March 1987 by Zed Books Ltd, under the title "Food 2000 : Global Policies for Sustainable Agriculture".

He has published several hundred papers in international journals and several books, including "Building a National Food Security System" (Indian Environmental Society, 1981) and "Science and Integrated Rural Development" (Concept Publishing Company, New Delhi, 1982). Along with Prof. S.K. Sinha, he edited a book on "Global Aspects of Food Production" (Tycooly, 1987). He has chaired several national and international committees of exports, including the Indian Expert Group on Programmes for the Alleviation of Poverty, Eradication of Leprosy and Blindness, the eco-development of Goa, Himalayas and Western Ghats and the preparation of a draft National Population Policy and a draft Biodiversity Act.

Among his many distinguished awards are the Ramon Magsaysay Award for Community Leadership (1971), the first award for serving the cause of women in development (1985), Padma Shri (1967), Padma Bhushan (1972) and Padma Vibhushan (1989) awards by the President of India. In 1986, he received the Albert Einstein World Award on Science. On 6 October 1987, he became the first laureate of the World Food Prize, regarded widely as the equivalent of a Nobel Prize in Agriculture.

Prof. Swaminathan headed an honorary capacity a Research Centre at Madras for sustainable agricultural and rural development based on the integration of traditional and frontier technologies. The Centre was set up with the funds associated with the World Food Prize, Tyler Prize and Honda Prize. The major aim of the Research Centre is the promotion of a job-led economic growth strategy in villages rooted in the principles of ecology and gender equity. UNESCO designated Prof. Swaminathan in 1996 as UNESCO-Cousteau Professor in Ecotechnology for Asia. He was the founder Chairman of the Iwokrama International Centre for the Sustainable Management of Rainforests. He has served as Chairman of the National Foundation for India and the Auroville Foundation.

In addition to being a Fellow of the Indian National Science Academy and the Royal Society of London, Prof. Swaminathan is a Fellow of the Science Academies of Sweden, Italy, United States, USSR and China. He has received 75 honorary doctorate degrees from universities around the world. He is a Founder Fellow of the Third World Academy of Sciences. He was President of the World

Wide Fund for Nature (India) from 1989 to 1996. He was a Member of the Parliament of India (Rajya Sabha), during 2007-13. During 2010-13, he chaired the High Level Panel of Experts (HLPE) for the World Committee on Food Security (CFS). He also Chairs the Task Force set up by the Ministry of External Affairs to oversee the projects undertaken in Afghanistan and Myanmar in the field of agriculture.

On the occasion of his receiving the first World Food Prize at the Smithsonian Institution, Washington, in October, 1987, Mr. Javier Perez de Cuellar, Secretary General of the United Nations wrote, "Prof. Swaminathan is a living legend. His contributions to agricultural science have made an indelible mark on food production in India and elsewhere in the developing world. By any standards, he will go into the annals of history as a world scientist of rare distinction".

During 2004-06, Prof Swaminathan served as Chairman of the National Commission on Farmers (NCF). This is the first time either on colonial or independent India, that a National Commission on Farmers was set up. On the basis of the report of NCF, the Government of India announced a National Policy for Farmers in 2007.

During 2013, Prof Swaminathan received the Indira Gandhi Award for National Integration and Greatest Global Living Legend Award of NDTV. He was also elected at the 20th International Congress of Nutrition held at Granada, Spain, "as Living Legend of International Union of Nutrition Sciences". He received the Life Time Achievement Award at the 9th Nutra Summit in Bangalore.

He continued to steer the M S Swaminathan Research Foundation he started in 1988 in Chennai, guiding the institute towards sustainable agriculture, nutrition security, rural empowerment, and science-society engagement goals. MSSRF won several awards since its inception starting from the Blue Planet Prize.

Prof.M S Swaminathan passed away peacefully at his Chennai residence on September 28, 2023. He was 98.

Hon'ble Prime Minister of India, announces the well-deserved Bharat Ratna for Prof M S Swaminathan on February 9, 2024. It's a great recognition for his untiring work to ensure food, nutrition and livelihood security for all. President Droupadi Murmu presented the Bharat Ratna Award at Rashtrapati Bhavan on March 30, 2024. Eminent Scientist M S Swaminathan conferred with the award posthumously. Prof. Swaminathan's daughter, Prof Nitya Rao, received the award on behalf of her father.