

Years of MSSRF
Influencing
Policy Change



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Thirty Years of MSSRF: Influencing Policy Change

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FOREWORD

This publication is specially designed to indicate the impact of MSSRF's work on public policy formulation. It should be emphasized that it is only interaction between technology and public policy that can help to accelerate sustainable development

Chennai July 2019 M S Swaminathan Founder Chairman

PREFACE

Advocacy for policy change, at local, national and international levels, has always been a focus at MSSRF. One of the early initiatives at MSSRF, begun in 1988, was an annual dialogue that brought together policymakers and scientists on one neutral platform to discuss issues of contemporary concern. Of the many such dialogues over the years, one of the first took stock of the green revolution in the context of sustainable food production. Workshops for policymakers on the question of biodiversity, held in late 1992 and early 1993, resulted in important recommendations at the national level. As documented in this publication, MSSRF contributed to legislation on issues such as biodiversity management and protection of famers' varieties.

Our philosophy has also been one of partnership, with those at the grassroots as well as national and international consortia, to achieve the goal of ending hunger and malnutrition. Some of the major partnership initiatives, such as joint mangrove forest management and collaboration for use of ICT in agriculture, are discussed here.

This compilation provides a glimpse of some of the policy initiatives over the past 30 years, and of how ground-level evidence has contributed to policies and programmes at the national and regional levels. The Foundation aims to continue policy-oriented work with the core objective of reaching SDG2, the goal of zero hunger, by 2030.

Chennai July 2019 Madhura Swaminathan Chairperson

THIRTY YEARS OF MSSRF: INFLUENCING POLICY CHANGE

Advocacy for change based on demonstrated evidence from the ground as well as policy analysis has always been an integral part of MSSRF's approach. As a result, over the past 30 years, the Foundation has, through its work, been able to influence policies and programmes in local, national, regional and international domains. There have also been some significant contributions to international agreements, especially on issues related to biodiversity conservation and farmers' rights. A few of the examples are discussed here.

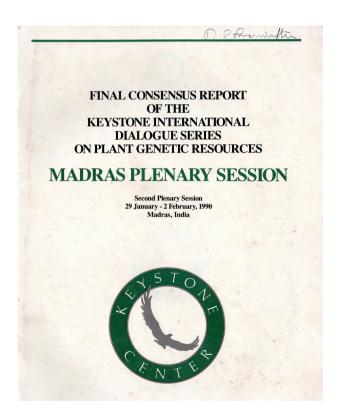
'REACHING THE UNREACHED': AN INTERDISCIPLINARY DIALOGUE SERIES

In late 1989, MSSRF initiated an annual interdisciplinary dialogue series under the generic title 'Reaching the Unreached' by involving social scientists, technologists and officials working in the area of sustainable human development issues. The first dialogue in this series was organized jointly with the Keystone Centre of the United States, under their Keystone Dialogue in the series on Plant Genetic Resources, in Chennai, from 29 January to 2 February 1990. This session discussed the final draft of the Convention on Biological Diversity presented by the International Union for Conservation of Nature (IUCN) in 1989, the methods of according recognition to farmers' rights and the United Nations Environment Programme (UNEP) proposal in 1987 for an International Legal Instrument on Biological Diversity, and paved the way for resolving issues related to access and benefit sharing, leading to the finalization of the Global Biodiversity Convention adopted at the Earth Summit at Rio de Janeiro in 1992.

The major recommendations of this dialogue group included: (i) considering the possibility of expanding the then FAO commission on Plant Genetic Resources into a UN-FAO Commission on Biodiversity to cover a wide spectrum of biodiversity, in-situ, ex-situ, on-farm conservation methods and strategies, and recognition of farmers' rights; and (ii) forming a global financial These recommendations and similar proposals

facility for plant genetic resources. The Chennai forum reaffirmed the conclusion from the First Keystone Dialogue Report for a Fund for Plant Genetic Resources with mandatory contributions from all states that are members of the Commission. The functions and responsibilities elaborated for the Commission were as follows:

- review the world knowledge of biological diversity, including inventories of systems of protected areas and the utilization of biological diversity by various agencies;
- review the impact of global change (climate, technological and social) on biodiversity;
- review the implications for biodiversity of development in biotechnology and other new techniques; and
- review the demand for information systems and databases and the adequacy of those maintained by various agencies.

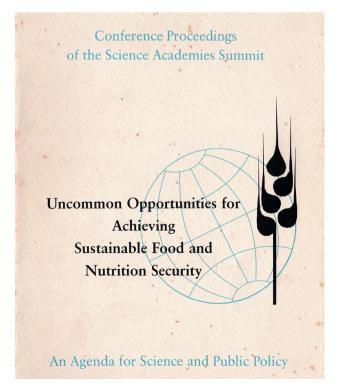


from organizations such as UNEP, IUCN, World Wildlife Find (WWF) and World Resources Institute (WRI) firmed up the Convention on Biodiversity, led to the establishment of a global financial mechanism for biodiversity and environment – the Global Environment Facility

(GEF) – in 1992, and brought more clarity on the concept of farmers' rights and farmers' varieties. Two decades later, in 2012, an intergovernmental science-policy platform on biodiversity and ecosystem services (IPBES), which functions with a current membership of 132 countries, also came into existence.

'Reaching the Unreached' dialogue series in the years 1991-94 and 1996 dealt with methods of spreading the benefits of biotechnology, information technology, ecotechnology and implications of implementation of farmers' rights, and biodiversity to achieve global food security. In July 1996 representatives from 25 scientific academies, governments, and intergovernmental organizations met at MSSRF for the Science Academies Summit, to discuss the future world food situation. They developed an agenda for future action to be adopted by world leaders at the World Food Summit in Rome in November 1996.

These dialogues led to the establishment of bio-villages in Puducherry and launch of 'Mission 2007: Every Village a Knowledge Centre'. an exclusive centre on ecological farming called JRD Tata Ecotechnology Centre in Chennai, and drafting of exclusive legislations on protection of plant varieties and farmers' rights, and biodiversity conservation and enhancement.



2. PLANT VARIETY PROTECTION AND FARMERS' RIGHTS ACT. 2001

The MSSRF-led dialogue during 20-31 January 1994 discussed the different facets of the farmers' rights issue, and methods of recognizing and rewarding the local community of men and women for their work in the conservation and enhancement of plant genetic resources. This has resulted in the preparation of the first draft of an integrated Act to accord concurrent recognition to the rights of both breeders and farmers. Thus was born the Plant Variety Protection and Farmers' Rights Act, 2001. India is the only country in the world where farmers' rights have been secured along with breeders' rights, and the Act is a model for other countries to emulate. Furthermore, MSSRF's suggestion regarding recognition and reward for primary conservers led to the government of India instituting two awards: Genome Saviour Award, for recognition of farmers/communities who have conserved rich genetic diversity; and the Breed Saviour Award, for recognition of those who have conserved indigenous animal breeds.

MSSRF worked further on the recommendations of the 1994 dialogue on institutionalizing farmers' rights and biodiversity conservation by establishing community-partnered agrobiodiversity centres, one in the global biodiversity hotspot of Western Ghats in Kerala, and other in the Jeypore tract of Odisha, a centre of diversity of rice and custodian farmers from ethnic communities. The major purpose of these centres is to deliver on the necessary means and methods required for the on-farm conservation and enhancement of agro-biodiversity through an integrated approach of conservation, cultivation, consumption and commerce, in partnership with men and women from local tribal and rural communities.

The over two decades of work of these two centres has resulted in the collection and conservation of many little-known species and varieties of plants that are high in nutritive value in the form of seed-grain banks, and collection and conservation of rare, endangered and threatened (RET) plant species of over 200 traditionally cultivated crop varieties, mostly food crops.

3. NATIONAL BIODIVERSITY ACT, 2002

The MSSRF dialogue in 1996 on biodiversity and farmers' rights resulted in an early draft of the Biodiversity Act that provided panchayats pride of place and proposed the establishment of locallevel biodiversity heritage sites such as sacred groves. The draft recommended the formation of Biodiversity Management Committees at the local panchayat level, biodiversity boards at the state level and a National Biodiversity Authority at the central level. The National Biodiversity Act came into force in 2002. Subsequently, MS-SRF has been engaging with State Biodiversity Boards through its community agro-biodiversity centres to establish Biodiversity Management Committees and prepare People's Biodiversity Registers in areas where the Foundation has a field presence and for capacity strengthening of both community and officials on the nuances of the Act, through workshops.

4. WOMEN FARMERS' ENTITLEMENTS

MSSRF's experience in working with women farmers in Vidarbha and other states led to the Women Farmers' Entitlement Bill, which was introduced as a private member's bill in Parliament by Prof. M. S. Swaminathan, in his capacity as a member of the Rajya Sabha, in 2012. Although the bill did not get enacted, it is today a key demand of the Mahila Kisan Adhikaar Manch (MAKAAM), a national network engaged in advocacy for the rights of women farmers. The Women Farmers' Entitlements Bill, 2011, focused on empowering women farmers to have right and access to land, credit, inputs, insurance, technology and market. Women constitute more than 50 per cent of Indian farmers and are well conversant with sustainable agricultural practices. They are directly or indirectly involved in agriculture, animal husbandry and fishery, are extremely hard working and contribute immensely to food production. If the contribution of women is properly recognized and rewarded, achieving the zero hunger target would be possible much before the 2030 target of the SDGs.

Following up on this, MSSRF, as lead of the research consortium on Leveraging Agriculture for Nutrition in South Asia (LANSA), partnered with UNWomen to organize a regional roundtable on 'Recognizing the rights of women agricultural workers in South Asia' in October 2018 and came out with a joint call for action¹. MSSRF's work on women in agriculture under LANSA and evidence of adverse impact of such work on their energy expenditure and nutrition status and time for care of their children, figure in the UN report on Progress of the World's Women 2019–20².

5. NATIONAL COALITION FOR FOOD AND NUTRITION SECURITY

A national nutrition conclave organized in August 2007, in collaboration with the Vistaar project of USAID and the Indian Council of Medical Research (ICMR), led to the formation of a Coalition for Sustainable Nutrition Security, chaired by Prof. M. S. Swaminathan. This network evolved into the National Coalition for Food and Nutrition Security, and was registered as an independent entity in 2015. Advocacy based on MSSRF's work on promoting the conservation and cultivation of millets as a nutritious crop contributed, along with the efforts of others, to millets being referred to in government parlance as nutri-cereals instead of coarse cereals. Inclusion of millets in the Public Distribution System and other food distribution programmes of the country under the National Food Security Act, 2013, is another example.

6. NATIONAL POLICY FOR FARMERS, 2007

Work on analysis of the food security situation in the country and the Atlases of Food Insecurity in Rural and Urban India and Sustainability of Food Security during 2001–2004 formed the basis for a series of regional and national consultations across the country during 2005–2006 on the theme 'Mission 2007: Hunger Free India', organized jointly with the UN World Food Programme and the National Commission on Farm-

ers, government of India, Suggestions received at these deliberations and evidence generated from MSSRF's work on the ground contributed to giving shape to the draft National Policy for Farmers that was submitted to the Ministry of Agriculture, government of India, in 2006, by the National Commission on Farmers, chaired by Prof. M. S. Swaminathan. The National Policy for Farmers was adopted by the government of India in 2007.

7. FAO - GLOBALLY IMPORTANT AGRICULTURAL HERITAGE **SYSTEMS**

At the global level, as highlighted earlier, MSSRF has been proactive in contributing to the dialogue on biodiversity conservation. The Foundation is a partner in the Globally Important Agriculture Heritage Systems (GIAHS) initiative of UN FAO. It led the initiative for the recognition of the Kuttanad region of Kerala and Koraput region of Odisha as GIAHS.

The Kuttanad traditional agricultural system is a rare global heritage agricultural system from India, which evolved in a manner similar to the multitude of social, cultural and ecological systems of the globe. A characteristic component of this system is below sea level farming in reclaimed wetlands.

The Koraput traditional rice systems, which comprise paddy, canals, wild bushes, sacred groves and individual tree species, are biodiversity rich and invaluable for their ecosystem services. The custodians of these systems are the indigenous tribal communities (over 50 different groups) who unfortunately remain among the poorest in the country.

In both these sites, MSSRF is working with an integrated plan for the revitalization of the conservation and enhancement practices that are relevant to address the concerns of sustainable food security, climate change adaptation and management of biodiversity and ecosystem services.

MSSRF is also a partner of the International Partnership for the Satoyama Initiative (IPSI) to promote the integration of conservation and sustainable use of biodiversity in socio-ecological production landscapes and seascapes. The IPSI, whose secretariat is hosted by the United Nations University, Tokyo, has recognized the importance and value of the community agrobiodiversity system and practices of the Wayanad region in Kerala in promoting sustainable food and agricultural production.



Kuttanad Below Sea Level Farming System, India

Is certified as a Globally Important Agricultural Heritage System for present and future generations. This system provides an outstanding contribution to promoting food security, biodiversity, indigenous knowledge and cultural diversity for sustainable and equitable development.

30 May 2013

José Graziano da Silva Director-General Food and Agriculture Organization of the United Nations

Prof Li Wen Hua Chair, GIAHS Steering Committee

8. VILLAGE KNOWLEDGE CENTRES AND GRAMEEN GYAN ABHIYAN

The annual dialogue organized in 1992 deliberated on the use of ICT for rural development and led to MSSRF piloting the model of village knowledge centres (VKCs), to provide demanddriven, needs-based information to rural communities. The initiative expanded to a national network in 2004 under the banner 'Mission 2007: Every Village a Knowledge Centre'. Responding to the momentum generated, the government of India announced an allocation in its budget for 2005-2006 for setting up VKCs across the country. Subsequently, the Common Service Centre initiative was launched by the government in 2006-2007 as part of the National e-governance Plan. Mission 2007 was subsequently rechristened Grameen Gyan Abhiyan or Village Knowledge Movement, and continues to be steered by MSSRF.

Activities under the VKC initiative have evolved in line with technological changes, and the VKCs now operate as virtual centres in many places. A key innovation that has become popular among fisher communities is a 'Fisher Friend Mobile Application' (FFMA). The FFMA has many features ranging from international border line alerts, to notifying the potential fishing zone (PFZ), providing ocean state forecasting for the same day and the next, and a built-in global positioning system (GPS). This application, with regularly updated scientifically credible information shared by the Indian National Centre for Ocean Information Services (INCOIS), is now available in eight languages spoken in the states along India's coastline.

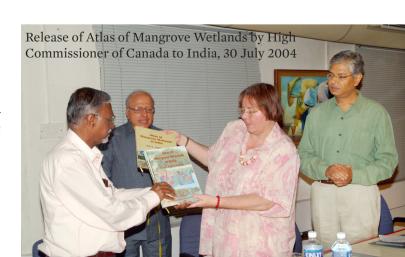
9. INDIA'S FIRST WOMEN BIOTECHNOLOGY PARK

The annual dialogue series in 1996, organized jointly by MSSRF and UNDP (under its United Nations Development Fund for Women), recommended the need for an organized initiative that would attract qualified women to venture into biotechnology-enabled enterprises. This recommendation was reinforced by the Department of Biotechnology in 1997 and included in the

approved list of programmes to commemorate the golden jubilee of India's independence. In 2001, with the support of the state government of Tamil Nadu and Department of Biotechnology, government of India, MSSRF established a biotechnology park in Siruseri near Chennai. The park was the first of its kind in India and attracted a number of technically qualified women to take up a career in the broad field of biotechnology. It operates with a focus on applied biotech projects that produce diverse agri- and healthcare-related products, recombinant DNA and monoclonal antibodies technologies for diagnostics and so on. The incubation centre at the park provides modern instrumentation facilities for R&D and quality control in biotechnology, aimed at both entrepreneurs and academic researchers.

10. JOINT MANGROVE MANAGEMENT

MSSRF's demonstration of mangrove forest restoration along the eastern coast of India in the early 1990s was successful as it had multiple stakeholders in planning, implementation and monitoring. The Foundation involved the primary stakeholders, namely, the local community, and suggested the approach of joint mangrove management (JMM) for better conservation and management. A people-centred, process-oriented and science-based approach was followed in the JMM model. Based on the experience, policy guidelines were proposed by MSSRF; these were endorsed by the Ministry of Environment and Forests, government of India, and recommended for adoption by state governments. This model has been followed by most of the state governments and has resulted in increase in mangrove cover along the east coast of India.



11. INTERNATIONAL SOCIETY FOR MANGROVE ECOSYSTEMS

International Society for Mangrove Ecosystems The International Society for Mangrove Ecosystems (ISME) was established based on the recommendations of a workshop organized by MSSRF in 1990 to deliberate on the need for a global mangrove network. ISME is an international non-profit and non-governmental scientific society, established in August 1990 with its headquarters in Okinawa, Japan, to collect, evaluate and disseminate information on mangrove ecosystems. Prof. M. S. Swaminathan was elected the first president of the society. MSSRF established the Mangrove Ecosystem Information Service (MEIS) in 1992 with the support of the International Tropical Timber Organization (ITTO). The MEIS has four databases: (i) Mangrove Experts Database (MANEXP), (ii) Mangrove Bibliographic Database (MANBIB), (iii) Mangrove Resources Database (MANRES) and (iv) Mangrove Genetic Variability Database (MANVAR).

The MEIS accelerated the formation of the Global Mangrove Database and Information System (GLOMIS), which is hosted by the ISME secretariat and collects and disseminates scientific information on various aspects of mangrove ecology, mangrove resources and resource utilization patterns and practices to strengthen the link between the scientific community and mangrove managers. MSSRF serves as the India regional centre of GLOMIS.

12. COASTAL REGULATION **ZONE NOTIFICATION, 2011**

The Coastal Regulation Zone Notification, 2011, formulated by the government of India, was based on the recommendations of the report of a committee chaired by Prof. M. S. Swaminathan. The Committee's report incorporated the experience gained by MSSRF in integrated coastal zone management (ICZM). It recommended an ICZM approach wherein the local community would play a major role in conserving the marine ecosystems in order to protect the livelihood security of coastal communities and promote sustainable development that could contribute

to the nation's economic prosperity. Based on the suggestions of the committee, the central government and state governments with coastline prepared national and state coastal zone management plans and started implementing the ICZM approach.

13. MAHILA KISAN SASHAKTI-KARAN PARIYOJANA

In 2006, MSSRF started work with widows of farmers who had committed suicide in Vidarbha, Maharashtra. Many of them were left to manage the land by themselves or work as agricultural labourers. The work was extended to cover other women farmers in 2007, organize them into women farmers' groups - Mahila Kisan Samitis - and capacitate them in sustainable agricultural practices, aspects of food and nutrition security and awareness about their entitlements under different government schemes. This initiative for empowerment of women farmers was given the name Mahila Kisan Sashaktikaran Pariyojana (MKSP). The government of India launched MKSP as a national programme in 2010-11, making it a sub-component of the National Rural Livelihood Mission under the Ministry of Rural Development.

14. POLICY INFLUENCE IN **KFRALA**

ACTION PACKAGE TO ADDRESS AGRARIAN DISTRESS IN THE KUTTANAD REGION

In 2007, based on the request of the then union minister for Agriculture and Food, Mr. Sharad Pawar, MSSRF prepared a report to mitigate agrarian distress in the Alappuzha and Kuttanad wetland system and a Comprehensive Action Package for the revival of Kuttanad agriculture. The report dealt in great detail with the key measures needed to build the ecology of Vembanad Kayal land and ease the misery of farmers in the Kuttanad region.

The report recommended an integrated implementation framework and institutional mechanisms like the creation of a Special Agricultural Zone (SAZ) to address all links in the conservation, cultivation, consumption and commerce

chain of agriculture and food production in a holistic manner. The need for saving the Kuttanad ecosystem and the regeneration of the agriculture of this area as a joint Centre-State responsibility was emphasized. The proposal attracted financial support from the government of India and the state government of Kerala.

REPORT ON MITIGATING AGRARIAN DISTRESS IN IDUKKI DISTRICT

Financial support for mitigating agrarian distress in Idukki district of Kerala was provided by the government based on recommendations made by MSSRF in its report prepared at the request of the Ministry of Agriculture and Farmers' Welfare, government of India³.

15. POLICY INFLUENCE IN TAMIL NADU

The Foundation assisted the government of Tamil Nadu in developing an integrated strategy for the implementation of the chief minister's programme to eradicate poverty induced hunger. It led a consortium of institutions in preparing a Hunger-Free Area Programme. From 1991 to 2001, MSSRF led a project on Action for Childcare and Education Services and Strategies (ACCESS). A key output under this was the formation of the Tamil Nadu Forum for Creche and Child Care Services (TN-FORCES), a network of institutions for the care and development of the young child.

MSSRF contributed to the policy document on Malnutrition Free Tamil Nadu adopted by the

state government in 2002, during Prof. M. S. Swaminathan's tenure as vice chairman of the Tamil Nadu State Planning Commission (2002–2006). The initiative was re-energized in partnership with UNICEF in 2016 by bringing together civil society organizations, government agencies and interested individuals, leading to the formation of the Tamil Nadu Nutrition Alliance in mid-2017.

16. FARMING SYSTEM FOR NUTRITION APPROACH THROUGH KRISHI VIGYAN KENDRAS

Keeping the zero hunger challenge in mind, MSSRF has been engaging in advocacy for a Farming system for nutrition (FSN) approach⁴. FSN is a concept conceived by Prof. M. S. Swaminathan to mainstream the nutrition dimension in the design of the farming system to address prevailing nutrition deficiencies in the population and find a solution to the problem of malnutrition. MSSRF has conducted advocacy workshops on FSN in Odisha, Maharashtra, Bihar and Andhra Pradesh and at the national level from 2017 onwards. Following sharing of evidence from a feasibility study of the FSN approach in Koraput, Odisha, with policymakers of the state in March 20185, the government of Odisha included the term 'nutrition sensitive agriculture intervention' in their agriculture budget for 2018-19. Niti Aayog recommended that the Indian Council for Agricultural Research (ICAR) take the lead in promoting the 'FSN approach through Krishi Vigyan Kendras (KVKs)', following a joint meeting on Leveraging Agriculture for Nutrition in early 20186.



³ http://pib.nic.in/newsite/erelcontent.aspx?relid=44920

 $6\ http://www.lansasouthasia.org/sites/default/files/NITIAayog-MSSRF_Copy\%200f\%20Final\%20Minutes_Jan2018_0.pdf$

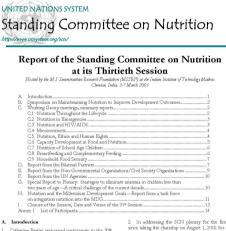
⁴ http://mssrf-fs-fsn.com/

⁵ http://lansasouthasia.org/sites/default/files/Odisha-Minutes%20of%20meeting%20on%2020.03.2018.pdf

The Foundation has entered into MoUs with the agricultural universities in Odisha and Andhra Pradesh to promote the FSN approach through KVKs in the two states. In Maharashtra, it is a technical resource partner of the Maharashtra Council of Agriculture Education and Research (MCAER) for promoting the FSN approach through KVKs under the four agriculture universities in the state.

17. INTERNATIONAL **PARTNERSHIPS**

MSSRF hosted the thirtieth session of the UN Standing Committee on Nutrition (UNSCN) in Chennai from 3 to 7 March 2003. This was the first time that a civil society organization was entrusted with the responsibility of organizing a session of the UNSCN.



A number of consortium projects with international partnerships have been implemented by MSSRF during the past 30 years. The Foundation held the role of the South Asia coordinator in a consortium project supported by the International Treaty on Plant Genetic Resources for Food and Agriculture (PGFRA) across 21 sites in South Asia, Latin America and Africa, to develop a strategic action plan for mainstreaming the methodologies and associated practices of community biodiversity management (CBM), and to increase the resilience of farming communities

dependent on plant genetic resources for food and agriculture, as also to the impacts of climate change. From 2009 to 2015, MSSRF, jointly with the Wageningen University and Research Centre, the Netherlands, coordinated an annual training programme on CBM strategies for managing PGFRA.

The increasing international focus on the agriculture-nutrition link in the face of the problem of high malnutrition levels in the region found MSSRF taking the lead in two major research consortium projects: Alleviating Poverty and Malnutrition in Agro-biodiversity Hotspots in Indian partnership with the University of Alberta from 2011 to 2014; and Leveraging Agriculture for Nutrition in South Asia (LANSA) from 2012 to 2018, a consortium of six institutions, with India, Bangladesh, Afghanistan and Pakistan as the focus countries.

MSSRF was requested by UNWFP Cambodia in 2005 to prepare a Food Insecurity Atlas of Cambodia on the lines of the Food Insecurity Atlas of India prepared with the support of UNWFP, India. The positive experience with VKCs has been shared through South-South travel exchange workshops bringing together participants from Asia, Africa and South and Central America. The MSSRF team has extended support to promote similar initiatives in Chile, Malaysia, Sri Lanka and Morocco, both through training and technical assistance. The national alliance of partners working on ICT that MSSRF proposed and steers has triggered similar networks in other countries such as the PAN Africa Network, ICTA in Sri Lanka, Telecentre Network in Bangladesh, PhilCeCNet in the Philippines and Mission Swabhimaan in Nepal.

MSSRF has been selected to extend training and technical support under projects being initiated in Afghanistan and Myanmar on the basis of recommendations of a task force set up by the Ministry of External Affairs (MEA) to direct and oversee implementation of agricultural projects in the two countries. Two scientists from the Afghanistan National Agricultural Science and Technology University (ANASTU) underwent training at MSSRF in 2016, to set up a genetic garden in the University farm to conserve their genetic heritage.

18. INDO-MYANMAR RICE BIOPARK PROJECT

MSSRF, in partnership with the Department of Agricultural Research, Yenzin, Nay Pyi Taw, Myanmar, has established a Rice Biopark at Nay Pyi Taw. This initiative is part of the Indo-Myanmar Friendship Project, funded by the Ministry of External Affairs, government of India.

The facility was dedicated to the government and people of Myanmar on 12 December 2018 by Mr. Ram Nath Kovind, the honourable president of India. The president complimented the initiative and wrote in the visitor's register, 'This project aptly demonstrates how we can combine scientific research and traditional wisdom to enhance agricultural productivity and income choices for our people.' He also conveyed his wish that the park brings 'significant value to the local farming community' and grows to be a leading training centre on rice value addition in the country.

The rice biopark concept was conceived by Prof. M. S. Swaminathan to utilize all parts of the rice plant. Rice is a major livelihood supporting crop of Myanmar; however, farmers primarily use only the rice grain and waste the remaining rice biomass. The straw, at a 1:1 grain-to-straw ratio, is either burnt, resulting in pollution, or thrown away. Farmers are unaware of the rich income-generating potential of the biomass, that

is, creating value-added products from the straw, husk and bran.

To bridge this skill gap, the governments of India and Myanmar came together and signed an MoU in May 2012 to establish a Rice Biopark for conversion of rice biomass into marketable value-added products. The rice biopark has the capacity to create various value-added products from the straw, husk and bran. The initiative, when it becomes fully functional, will create more jobs and increase the income of farmers, both men and women.





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