



**M S Swaminathan Research Foundation**  
*Science for Sustainable Development*

## **MINA SWAMINATHAN MEDIA FELLOWSHIP**

**INSIGHT BRIEF**



**GENDER TRANSFORMATIVE APPROACHES FOR SUSTAINABLE  
FOOD SYSTEMS IN ODISHA**



## PRELUDE

Food systems are shaped by the changes in land-use systems, the complexity of climate crisis and extremities, biodiversity loss, diet preferences, economic slowdowns due to unstable markets, pandemics like COVID-19, changes in agrarian relations, etc. These drivers are exacerbated by the underlying causes of poverty, also very high and persistent levels of inequality, specifically on income, productive capacity, assets, technology, education and health (SOFI, 2021)<sup>[1]</sup>. In this context, sustainable food systems have been promoted by different actors that are closely aligned with SDG 1 'No poverty' and 2 'Zero Hunger'. Promoting cultivation of locally adapted crops and varieties, intensification and diversification of farming systems, nutritional gardens, value-added products and local food chains, creating awareness of healthy foods and nutrition, also enabling access to food subsidies, are part of food systems. Although both women and men are critical to sustainable food systems, due to persistent gender inequalities, women face more barriers to accessing productive resources and services. As there is increasing feminisation of the labour force in agriculture, Gender Transformative Approaches (GTAs) are promoted to accomplish food security, better-quality nutrition, and sustainable and equitable agricultural development. The approach primarily deals with the underlying gender and social norms, attitudes and behaviours that deepen existing gender inequalities. It is addressed through actions that break stereotypes in gender roles and responsibilities by building women's access to and control over productive resources and services.

From this background, to foster the exchange of ideas between researchers and development journalists while ensuring reporting of rural affairs, especially in the vernacular press, the Mina Swaminathan Media Fellowship for Gender and Development was launched by MSSRF in 2020. This is the second year of the fellowship and focuses on the 'Gender transformative approaches for sustainable food systems' theme.

## ABOUT MS MINA SWAMINATHAN AND THE MEDIA FELLOWSHIP

Ms Mina Swaminathan is known for her contribution to gender and development as well as creative communication for sustainable development. To commemorate her work in these interdisciplinary fields, M S Swaminathan Research Foundation has instituted the Mina Swaminathan Media Fellowship to promote science-media partnerships encouraging journalists to focus on issues of gender and development, particularly in rural India.

## STUDY CONTEXT: KORAPUT DISTRICT IN ODISHA:

The region is the secondary centre of origin for paddy. Around 1750 landraces have been under cultivation in the region that was geographically distributed in a series of undulating hilly terrains. Three decades ago, rice was the major crop in both lower and mid-slopes as dry, semi-dry and wetland paddy, occupying more than 60 per cent of the land. These landraces have unique qualities to both biotic and abiotic stresses. They have different durations, specific to their niche agroecosystems, also nutritional and cooking qualities, cultural values, aromatic values, etc. Farmyard manure and other non-chemical methods of pest management are used.

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<sup>[1]</sup> <https://www.fao.org/3/cb4474en/online/cb4474en.html>

Women play a key role in the production of these landraces including seed management, ensuring household food security and being involved in key decision-making processes. However, in the recent past, high-yielding improved varieties of paddy and other commercial crops have replaced many of these traditional landraces. Although the introduced varieties give higher yields, the risk in production is also high and involves the use of external chemical fertilizers and pesticides. The high-yielding varieties of paddy seeds are flooding the seed markets, and the use of inorganic pesticides and chemical fertilizers is also becoming more prevalent. Farmers are lured by higher yields and income. The women's position has weakened due to these high-yielding, market-oriented varieties. The restriction of women's role in marketing deepens women's position at the household level and they lost their decision-making capabilities in rice production. There is a vicious cycle of financial issues, malnutrition, lack of education, and poor living conditions that affect women belonging to such marginalised and vulnerable socio-economic groups.

The above constraints are addressed by women farmers adopting the following strategies. Both the media stories covered best practices adopted by tribal women farmers.

## BEST PRACTICES:

1. ***Harnessing collective power and social capital:*** The first important strategy supported by them is harnessing their collective power and social capital. They organised themselves into Self-Help Groups (SHGs) for the last decade. Collectiveness is a key development for women, allowing them to become self-reliant, confident and self-employed.
2. ***Agronomic practices*** – continuing landraces cultivation: Seeds of traditional landraces/ varieties are saved by tribal people following traditional farming methods. They adopt agronomic practices such as vermicompost using farmyard manures, crop residues, dry leaves, and locally prepared growth promoter – *Jeevamrut* (made from cow dung, gram flour, cow urine, soil, *jaggery* and *handikhat*) to manage pests and diseases.
3. ***On-farm conservation of traditional landraces:*** Around 70 varieties of indigenous rice seeds have been conserved on-farm continuously. The important landraces are *Dangarbasumti, Tikkichudi, Kalajeera, Machakanta, Haldichudi, Asamchudi, Pakhiya, Ojas, Kerandi, Muktabali, Bhatagund, Tulasi, Pathangada, Haldiganthi, Tulsiganthi, Meher, Chiclakuli, Ledar, Chattiachudi, Jhumpachudi, Kalachudi, Kalamher, Dubraj, Shankjera, Oshaganthi*. Seeds viz. *Lactimachi, Konkachudi, Beelukunchi, Sunaseri* and *Sapuri* are conserved commonly by many farmers.
4. ***Intensification and diversification of production systems and value addition:*** To enhance farm income as well as to reduce the risk, farmers diversified their production systems by integrating with paddy. The important ones are poultry farming, pisciculture, goatery, spices cultivation, and value addition of rice.
5. ***Establishment of nutri-gardens:*** Most households have continued to depend on vegetables cultivated in their nutri-gardens for self-consumption, and surplus vegetables are sold in the nearby weekly markets. Vegetables like yam, chilli, brinjal, drumstick, leafy greens, tomato and papaya are cultivated regularly
6. ***Household food and nutrition security:*** Nutri-gardens and improved farming practices ensure the food and nutrition security of the community.
7. ***Investment in group enterprises:*** Women are also collectively engaged in the cultivation, value addition and marketing of mushrooms and millets. It has helped them gain access to the market due to economy of scale, which increased their farm income
8. ***Building the capacity of women through the collective learning process:*** The frequent training programmes adopted a group approach that helped women actively participate in tilling, weeding, manuring, threshing, and harvesting, as well as in the conservation of seeds. Their experiences in production are exchanged with other women farmers during group meetings.
9. ***Improved gender relations:*** By adopting various entrepreneurial activities, women entrepreneurs supplement their family income, engaging in value addition and marketing activities. In this way, they expand their knowledge, skills, negotiation power, and new institutional linkages