

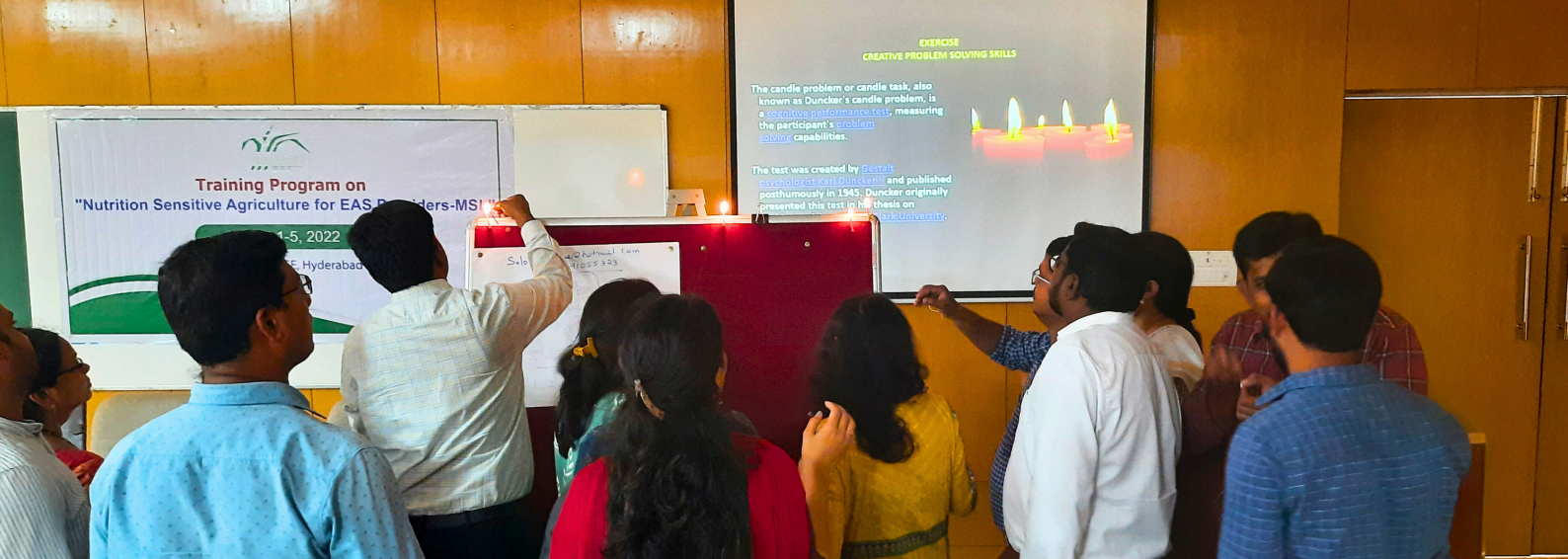


IMPACT ASSESSMENT OF NUTRITION SENSITIVE AGRICULTURE TRAINING PROGRAMS AT GRASSROOT LEVEL

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INTRODUCTION

India eventually achieved food self-sufficiency following the Green Revolution led by Prof. M.S. Swaminathan, but nutrient deficiency gradually became apparent at the beginning of the twenty-first century. This was made visible by an upward trend in incidences of malnutrition, stunting, wasting, and other related conditions in India's rural settings. This is where nutrition-sensitive agriculture came into the equation. In essence, it is a food-based strategy for agricultural growth that places a focus on dietary diversity, fortification, and foods high in nutrients as the keys to overcoming malnutrition and micronutrient deficiencies. India is a developing nation which heavily depends on agriculture to feed its people. While its major focus is on production and productivity; that is inadequate in and of itself, because problems like malnutrition and starvation require attention. Beyond food security, the country also requires nutrition security. Over the years, mechanisms to address malnutrition in India have taken the shape of legislative and Mission Mode Projects (projects with a specified timetable) under various government ministries. The National Nutrition Policy (1993), National Plan of Action (1995), National Health Policy (2002), National Nutrition Mission (2003), and National Health Mission (NHM) (2013) are among them. The latter provides iron supplementation, antenatal care, and postnatal care (Pingali and Abhram, 2019). Currently, the Central Government has been promoting and increasing the number of capacity building programs, awareness camps and trainings at field level across the length and breadth of the country specifically on Nutrition Sensitive Agriculture.



Spearheaded by the Ministry of Agriculture and Farmers Welfare, National Institute of Agricultural Extension Management (MANAGE) has been pioneering at national level as well as at regional levels in providing Capacity building programs, awareness camps and training to Senior Level Officers, Mid Senior Level Officers and Field Staffs in collaboration with other Government organizations (ICAR), private organizations (Harvest Plus) and NGOs. On a broad view in India, the National Nutrition Strategy is being formulated from time to time to achieve a Kuposhan Mukt Bharat or malnutrition-free India and for this many impact assessment studies have been taken up to mark the progress and neutralize the constraints.

STEPPING TOWARDS A NUTRITION SENSITIVE AGRICULTURE ECOSYSTEM

Large number of trainings, awareness camps and capacity building programs are being taken up, both at national as well as regional level but still the impact and success or failure of these programs are not captured properly and those captured, are not sufficient to track the progress of NSA trainings. Especially in India, it is only a handful and needs to be escalated for addressing the issue by all the concerned stakeholders.

Capturing the impact and success of the trainings is necessary in understanding the possible impacts, identifying ways to avoid or reduce the constraints faced, assessing the improved outcomes for the rural people, and finally providing reliable evidence on the impact of education interventions as well as up scaling activities.

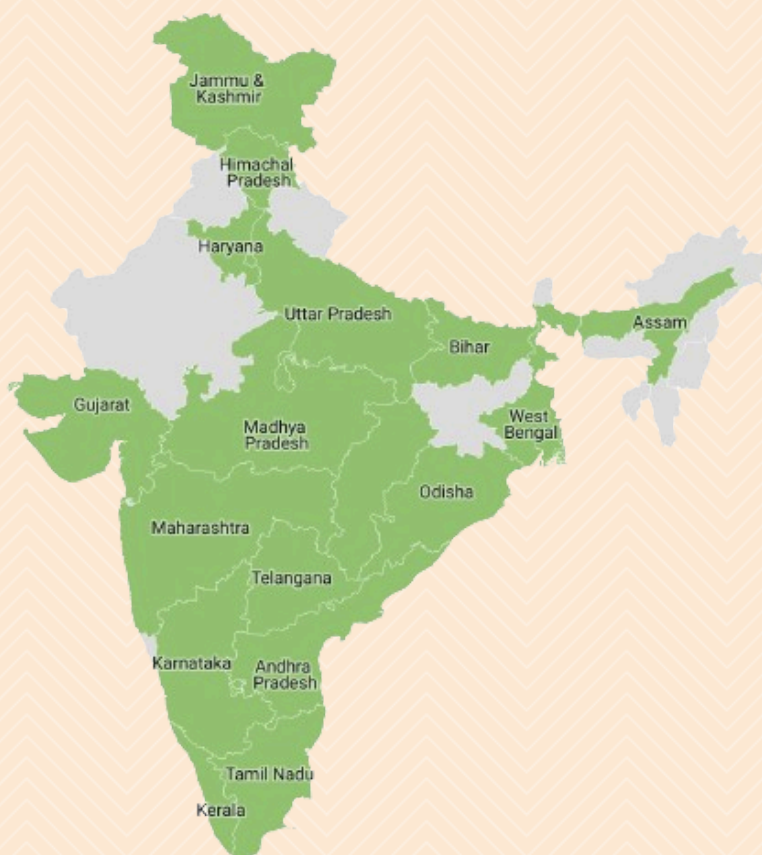


Fig-1: States of the respondents reached out

The current study was conducted nationwide, covering participants from 18 States who received training by MANAGE between 2021-2023 on NSA, to study the impact of the training programs and the constraints faced by them in promoting the concept among farmers.



The training programs imparted significant knowledge to the respondents, with 90 per cent of them stating that they gained new knowledge on various aspects such as understanding the nutritional needs of human beings in relation to their age, activity and physiological conditions, implementing sustainable agricultural practices, promoting microgreens, school/kitchen gardens, and addressing malnutrition. After attending the training on NSA, 93.13% of the respondents expressed positive attitude towards a diverse food plate, following a balanced diet pattern, including microgreens, sprouted grains, fruits, leafy vegetables, raw vegetables, and protein-rich foods, ensuring that all the necessary nutrients are included in their food plate.

Over 90 per cent of the respondents reported changes in their family food habits after attending the training program, that included increased awareness of nutritious food, dietary plans, balanced diets and importance of seasonal and locally available foods. All the respondents have implemented significant changes to promote Nutrient-Sensitive Agriculture (NSA), including promotion of indigenous/ local foods, promotion of millets, dietary diversity, school/kitchen gardens, . The respondents and the employees of their organization marked high level of nutrition sensitization and awareness by incorporating more fruits and vegetables into their daily diets and bringing diversity to their food plates. A model nutri-garden was developed at ICAR-KVK, Ramanathapuram and was extended to the farmers' fields through FLD.

73.17 per cent of the respondents organized training programs on knowledge and skills focused on Nutrition Sensitive Agriculture, with 61 trainings conducted on various modules. 75.60 per cent of the respondents observed positive changes in trainees' farming and food practices, including increased awareness about dietary diversification, food groups & consumption of vegetables, fruits, and millets. 18.0 per cent of the respondents conducted online webinars, with an average of 70 participants attending these webinars, highest number being 290 for a given respondent. The survey revealed that 45.0 per cent of the respondents conducted trainings for their participants, with an average of 60 participants per respondent in each training, where women participants were more than half. A farmer field school for farmers was organized by 22.0 per cent of the respondents, with an average of 61 participants, the highest being 235. Only 11.0 per cent of the respondents conducted field days, with a total participation of 9340 farmers.

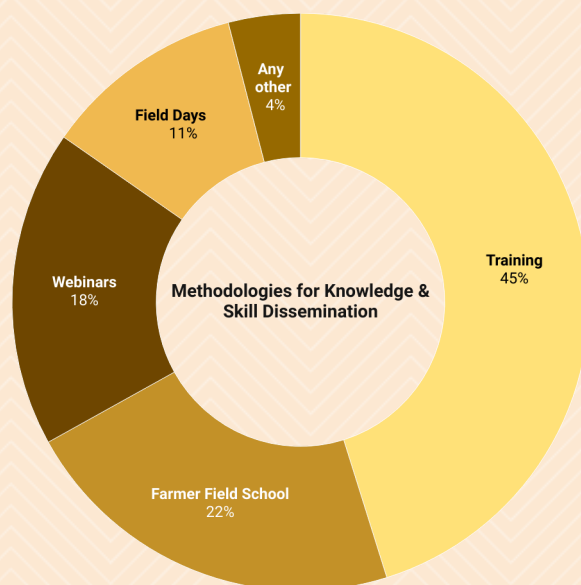


Figure -2: Modes of Training



The survey revealed that 63.42 percent of the respondents believed that the extension services they are providing to farmers/trainees and beneficiaries is significantly impactful. 44.9 per cent of the respondents reported that they had added 88 numbers of training programs to their organization's annual calendar. They had implemented various strategies to promote the consumption of underutilized crops, such as fruits, vegetables, and millets, to combat malnutrition. These include front-line demonstrations, trainings, and international seminars. The focus has been on establishing nutrition gardens, value addition in agricultural produce, and on-farm trials related to nutrition and health interventions. The initiative also aimed to increase market access and opportunities, improving smallholder incomes in dryland areas. Expert lectures were delivered to farmers/trainees, emphasizing the importance of nutritious foods in diets.

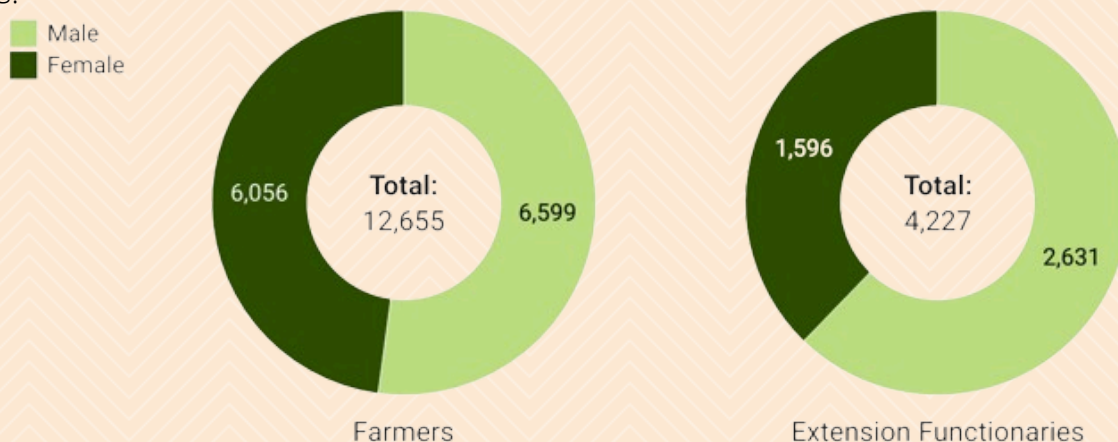


Figure -3: Gender status of the trainees under the Respondents

A notable revelation that emerged from the survey was that 22.0 per cent of the respondents have actively documented success stories, where trainee's efforts not only made her family nutrition sensitive but also inspired others to do so by setting an example for everyone else in their area. Nutrient-Sensitive Agriculture (NSA) is a crucial topic in agriculture, but its implementation is hindered by various challenges. These include lack of experts and scientists committed to talk and promote NSA, less priority from higher authorities, and multiple responsibilities within the organizations. Financial constraints, unavailability of vegetable seeds, and a gap between awareness and practical application pose challenges. The cultivation of nutrition-based crops faces marketability and feasibility issues, impacting the economic viability of these activities. Limited knowledge, small landholdings, and ignorance among rural women contribute to the challenges faced in promoting NSA. Additionally, infrastructure limitations and reliance on traditional knowledge in farming communities further hinder the transition to NSA practices. To overcome these challenges, a holistic and community-centric approach is needed.



PRIORITIZING POLICY IN LIGHT OF THE SETTING

Thus for policy and practise, it is essential to comprehend the barriers faced by the respondents for stepping closer towards Nutrition Sensitive Agricultural Ecosystem & eradicating malnutrition at grassroots level.

Some of the policy outcomes voiced by the by participants during the survey are:

- There is a serious need for capacity building programs, coupled with on-field demonstrations, especially for introducing new cultivars or methodologies.
- Location specific need based training should be focused in context of nutrition-sensitive agriculture.
- Promotion of local fruits and vegetables, along with value-added products, should be recognised as an essential avenue for enhancing dietary diversity.
- Providing more trainings on chemical-free cultivation methods, including preparation of organic inputs etc., are vital for integrating nutrition into the food system.
- Initiation of nutrition education programs in schools & colleges, coupled with creation of Nutri-gardens, will serve as a proactive measure to sensitise students about the importance of nutritious crops.
- Gender-sensitive nutrition policies and initiatives should be implemented, since women are essential to the production as well as consumption process of foods.
- Bundling of Social Institutions and Technical innovations through multi-sectoral partnership as nutrition itself is a multi-dimensional approach.
- Documentation of evidence based studies will help in identifying, prioritising and tackling the problem.
- Focusing on 3 A's (Availability, Accessibility, Affordability) pathway can help in fighting Malnutrition.





Complete report on 'Impact Assessment of Nutrition Sensitive Agriculture Training Program at Ground Level' is available at www.manage.gov.in

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Disclaimer: The views expressed in the document are not necessarily those of MANAGE or officials with whom the authors interacted but are of the authors' own based on the study.



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