

Institutional Strategic Plan for Nutritional Security

C.S. Azad University of Agriculture & Technology, Kanpur

Project Title	“Foodbased nutritional security for malnourished rural households through capacity building and establishment of nutri-gardens”
Administration & Funding	Biotechnology Industry Research Assistance Council (“BIRAC”), Lodhi Road, New Delhi- 110003
Execution of Project	M. S. Swaminathan Research Foundation, Taramani Institutional Area, Taramani, Chennai-600 113
To be Conducted by	KVK, Daleepnagar, Kanpur Dehat (C.S.Azad Univ. of Ag. & Tech., Kanpur)
Designated Project Coordinator	Dr. G.N. Hariharan, Director Biotechnology, M. S. Swaminathan Research Foundation, Third Cross Street, Taramani Institutional Area, Taramani, Chennai - 600 113
Primary Objectives	The project aims to establish gardens of bio-fortified and nutri-rich plant species of specific agro-ecological zones to serve as a resource centre for seeds and planting materials to farm families and to create nutrition awareness among under nourished persons.
Duration	3 Years
Grant-in-Aid Assistance	Rs. 600.00 lakhs (Rupees Six Crores only) inclusive of all taxes, if applicable on the terms and conditions and periodic payment break-up provided for in this SGA Program.
No. of Collaborators	4
Krishi Vigyan Kendra Kanpur-Dehat, U.P.	Dr Ashok Kumar
Krishi Vigyan Kendra Palghar, Maharashtra	Dr. Vilas Jahdhav
Krishi Vigyan Kendra Thiruvallur, Tamil Nadu	Dr M. Maheswaran
MSSRF, Jeypore	Dr E.D. Israel
Nature of Expenditure	The Expenditure is debitable for the financial year 2018-19. to C"3.aB"oo2 - Head of Accounts

Assessment parameters for impact evaluation

The key assessment parameters are as follows

1. In each proposed garden at least **100 nutri-rich plants and crops including their varieties specific to an agro-ecological zone** will be collected and planted.
2. In each location the garden will be established **in 5 acres of land.**
3. The propagation centre within the garden will produce seeds and propagation material of suitable germplasm and supply it to the kitchen garden, homesteads, and farming community.
3. 2000 small holders diversified their farming system with nutria-dense crops/varieties

4. It will generate awareness among different stakeholders on food based approach through **Community Hunger Fighters (CHF)** - in each garden five CHFs will be trained and they will specifically address the nutrition requirement of 2,00,000 undernourished families around the garden area.
5. Developing a communication plan and materials for different stakeholders.

Roles & Responsibilities of MSSRF

1. Landscaping the Garden
2. Identifying the species for cultivation and promotion, conservation
3. Assessing the nutritional content of select elite germplasm under different nutrition category as well as current status of the farming systems of small holders
4. Awareness campaigns & capacity building programmes among lead farmers of KVKs
5. Creating a cadre of Community Hunger Fighters
6. Develop sustainable garden model by sale of elite germplasm plants to the consumers & to the farmers and nutri-rich Institutionalize the whole interventions support from ICAR

Roles & Responsibilities of KVKs

Cultivation and best practices–training within the respective SAUs and KVKs mandate with Nursery management-distribution of quality planting materials to the farmers

Roles & Responsibilities of associated universities

1. Identifying the species for cultivation and promotion, conservation
2. Providing technical guidance for adding new plants, propagules & agrotechnology, etc.
3. Continue the garden model activity after the project period and make this garden as a sustainable model
4. KVKs build awareness among farmers and its linkage with Nutri-garden through Trainers Training Programme to reach 500 farmers in each location.

BUDGET BREAK-UP (HEAD WISE)

S.N.	Budget Head	Amount (in Lakh)
A.1	Non-Recurring	
1	Equipments and Accessories	118.00
A.2	Recurring	
2	Manpower	102.58
3	Consumables	49.42
4	Travel	12.00
5	Research contingency	12.00
	Total B	176.00
	Total (A+B)	294.00
B	BUDGET FOR PARTNERING ORGANIZATION	
1	KVK, Palghar, Maharashtra	76.50 or 25.50 lakh/yr
2	KVK, Daleepnagar, Kanpur Dehat	76.50 or 25.50 lakh/yr
3	KVK, Thiruvallur	76.50 or 25.50 lakh/yr
4	BPMPGRC, MSSRF, Jeypore	76.50 or 25.50 lakh/yr
	Total to KVKs for 3 Years	306.00
	GRAND TOTAL	600.00

C	MODE OF RELEASE OF GRANTS	
1	Ist Release (30 % in I Month)	180.00
2	II Release (20 % in 12 th month)	120.00
3	III Release (20 % in 24 th month)	120.00
4	IV Release (20 % in 34 th month)	120.00
5	V Release (20 % in 36 th month)	60.00
	TOTAL	600.00

Release in the First year= Rs.22.50 lakh

Release in the Second year= Rs.21.75 lakh

PROGRESS OF THE PROJECT:

1. The project was started at KVK, Kanpur Dehat in May, 2019.
2. The soil of KVK farm is sodic and the pH ranges 9.00 to 10.10. This, was a challenge for us because it is not possible to grow vegetables above pH 8.0 except sugar beet, aonla and bel. But we could become successful in establishing the project.
3. The purpose of the project is solely to create awareness amongst the rural people about the good nutrition for the family.
4. Nutritional survey was done by the team of KVK Scientists before laying out the project and 5 villages were identified as Malnourished villages i.e.- Bagulahi, Majihar, Sahtawan Purva, Rudapur and Anuppur. Accordingly emphasis was given to compulsorily establish Nutritional Kitchen Gardens in these villages.
5. Five Women Self help groups (Women SHGs) were formed in these 5 villages. Each group has 25 members. Special care was given to make more and more members of these SHGs. The names of SHGs are-----
 - (i). M.S.Swaminathan Utthan SHG, Aurangabad - 25 Farmers
 - (ii). M.S.Swaminathan Samraddhi SHG, Majhiyar- 25 Farmers
 - (iii).M.S.Swaminathan Kaushal SHG,ShahtawanPurva-25 Farmers
 - (iv).M.S.Swaminathan Dhanvarsha SHG, Anooppur-25 Farmers
 - (v). M.S.Swaminathan Anokha SHG, Rudapur - 25 Farmers
6. We are intensifying Kitchen Gardening in 5 villages
7. Nutritional Kitchen are established in 25 families in the district Kanpur Dehat (except Anuppur).
8. Four poor and malnourished families were selected from Daleep Nagar and Basen. These 4 families are getting regular supply of vegetables from our garden of Bio-fortified/ nutri-rich crops. The Biomass Index data are taken from these families. The results are very appreciable.

9. We, the scientists are creating awareness amongst rural people of Kanpur Dehat through Field Visits of Farmers and Farm women to our Bio-fortified and Nutri-rich crop garden. In every training, meeting and Kisan Goshties of the district, the farmers are made aware about the importance of Balanced Nutrition.

10. Considering the high nutrition level in Moringa plants, Professor M.S. Swaminathan called it as the Naturally Bio-fortified Crops. We are having 4 varieties of moringa in our Nutri- garden- 1. Local (Annual Bearing), 2. PKM-1, 3.PKM-2 and 4.ODC-3. All last 3 varieties are regular bearer high yielding Varieties. We have 10 plants of each theses varieties in our garden.

11. During the current year, I have distributed about 10000 moringa plants. In every training programme or goshti of KVK, we proved one plant to each farmer as well as each VIPs.

11. Against the need of growing 100 crop varieties in our garden, we are growing about 121 Nutritionally Superior varieties of Vegetable and Fruit Crop Varieties. Main are- 3 types of sweet potatoes(white, red and pink coloured). These are having high Anthocyanin, Vit.A and others. Broccoli, Chocolate coloured Cabbage, Red Radish, 2 types of lettuces, Swiss chard, Red and White gangura, White, Green and purple brinjals, red turnip, Red amaranthus, hybrid Knol-khol, many cucurbits, Blue and Red Potatoes, Black Wheat,etc. All these crops are very high in anti-oxidants, Minerals and Vitamins.

12. Anuppur is a village of Maitha Block, Kanpur Dehat. It was having 5 severely malnourished children and 11 malnourished children. So our hon'ble V.C. Dr. D.R. Singh sir wished to do pay more focus on the removal of malnutrition from this village. On 12 October, 2020, he declared to adopt this village by our University and Declared it as the First Bio-fortified village of India. On that day 5 q seed of nutritionally rich wheat variety (K-1006) was distributed in 5 Kg packets. Our emphasis is to develop nutri-garden in each family of the village. We have distributed 100 kits of vegetable seeds. Today 47 families are having kitchen garden. Very soon every village will have its own kitchen garden.

13. We have trained 1950 farmers regarding the importance of balanced nutrition and ill effects of Malnutrition and guided to adopt Nutri-gardens in their house promises.

14. We have developed 100 nutri-gardens in Anuppur, the adopted village of C.S. Azad Univ. of Ag. & Tech., Kanpur. 351 other nutri-gardens are developed in other Villages of different Blocks of Kanpur Dehat.

SOME PHOTOGRAPHS OF THE GARDEN

