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NATIONAL AGRO FOUNDATION

Annual Report for the year 2015 - 2016



**Enabling a prosperous
rural India since 2000**



NAF in 2015

Achieving Global goals through local actions

Who We Are

National Agro Foundation (NAF) was established in 2000 by Late Shri C Subramaniam (Bharat Ratna awardee & architect of India's Green Revolution), and was further nurtured by Dr A P J Abdul Kalam (as Chairman of NAF Governing Council), for comprehensive agriculture and rural development with prime focus on transforming the direction of the Indian agriculture from "production-oriented" to "market-oriented" or in the words of Mr. Subramanian from 'seed to grain' to 'soil to market'.

Our Vision

*To create a **"Healthy, Literate and Prosperous Rural India"***

Our Mission

"Creating replicable models of prosperous rural clusters through ecologically safe, environmentally sustainable farm and non farm sector activities, natural resource management, rural enterprises and human resource development by networking various stakeholders through mutually beneficial partnerships."

To explore our diversified rural development initiatives and to contribute towards creation of a prosperous Rural India please visit our website www.nationalagro.org.in

From the Managing Trustee



I have great pleasure in sharing National Agro Foundation's Annual Report for the year 2015-16 with all our stakeholders. This is the year we celebrate the 15th anniversary of our interventions, as a Foundation established by a visionary for comprehensive agriculture and rural development. As we embark on a new year it is interesting to reflect on our achievements and past learning. We, as a grass root organization, have progressed by enabling the rural community of India to grow and prosper.

Inspired by the opportunity to deliver innovative and replicable solutions to the complex and interlinked socio- economic- environmental challenges of today's rural India we have articulated an agile strategy with prime focus on advancing and strengthening the interdependent and mutually reinforcing pillars of sustainable development – “Education” “Economy” , “Environment” & “Empowerment”. It not only enabled us to make a meaningful contribution towards creating a prosperous rural India but also to play a crucial role in achieving Sustainable Development Goals (SDGs) in a continuous manner, amidst the complex challenges that still lie before us.

Expanding our horizons, this year, we had started working extensively in the states of Tamil Nadu, Andhra Pradesh, Uttar Pradesh and Odisha and reached more than 50,000 rural families through our various projects. With an aim to create valuable impact, this year we focused more on few interlinked issues that we believe are the biggest barriers to rural prosperity and well-being. This year's annual review provides just a snapshot of the progress we have made towards breaking these barriers through our broad-spectrum interventions including:

- ❖ Demand-driven training and capacity building programs to create a culture of “sustainability” across the rural community.
- ❖ “Resource conserving Lean farming model”- a process innovation by NAF for small and marginalized farmers with a holistic approach to farm production, aims at ensuring food sovereignty along with making agriculture a sustainable profession for the rural people while maintaining synergy with the ecosystem.
- ❖ Integrated watershed projects ensuring natural resource management along with holistic community development.
- ❖ Comprehensive state of the art analytical services for soil, irrigation water, compost, and
- ❖ manures, analytical services in food product quality for ensuring food safety to complement to food and nutritional security and economic improvement of farming community.

- ✧ Promoting & nurturing community-based institutions like Farmers Clubs , Self Help Groups, Joint Liability Groups, Farmers Producer Organizations, Watershed committees etc for collective decision and action thereby ensuring empowerment through good governance
- ✧ Facilitating forward / backward market linkages, promotion of ICT enabled agro advisory system and convergence with central and state sector schemes to enable a self-reliant rural community.
- ✧ Special initiative of undertaking repair /reconstruction/rehabilitation of lakes and water bodies as part of Chennai Flood rehabilitation program.

The progress we have made till today would not have been possible without the countless contributions and encouragements from all our stakeholders – rural community, Govt. agencies, donors, corporates, educational institutions, individuals and my colleagues in the Trust and the Governing council. Thank you so much. I would also take the opportunity to compliment our staffs and professionals for their efforts and achievements and would like them to make sure the growth and its impact is seen at all levels across India in the near future. Together we have achieved a lot, but there is still so much more to be done.

With the impact of climate change and poverty rising up the global agenda, identifying and creating the opportunities for rural India, especially agriculture sector to be part of the solution is critical. That is why we will be focusing our efforts for 2016 and beyond on creating more mutually beneficial collaborations taking into consideration the remoteness and potentials in rural areas, to develop innovative, inclusive & viable agri-business and development models that meet social, environmental and economic needs of today's global village in a sustainable and scalable manner, thus co-creating much larger shared value for all.

I am sure jointly as a team , we will make 2016 a remarkable year paving the way for creating a sustainable future for all.

SS Rajsekar

Managing Trustee, NAF

NAF2015 - Snapshot

4
States

450
Villages

Reaching
more than
50000 rural
families



14

Working in collaboration with NABARD & SFAC, as a POPI/Resource center for promoting and nurturing 14 FPOs across Tamil Nadu



9213.52

7 large-scale Integrated Community Watershed Development Programs covering total area of 9213.52 hectares



5826

219 on-field & Classroom training Programs covering 5826 beneficiaries among various stakeholders of Rural Development



172

Established 172 Front Line Demonstrations (FLDs), to promote & disseminate Resource conserving agricultural technologies and practices



2636

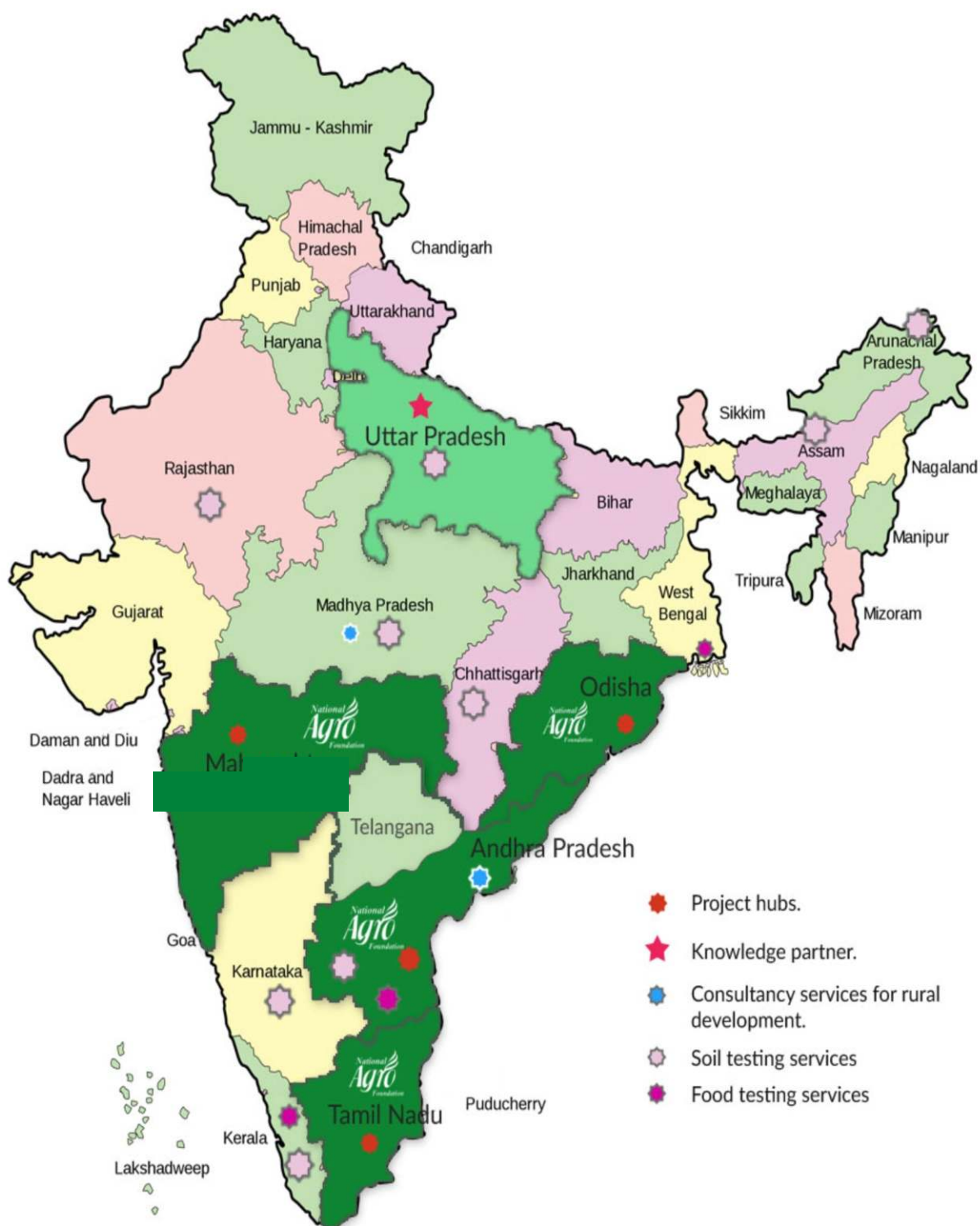
1867 Soil samples, 183 Food samples, 111 water samples and 475 other samples (including bio products, organic fertilizers, leaf etc.) have been tested



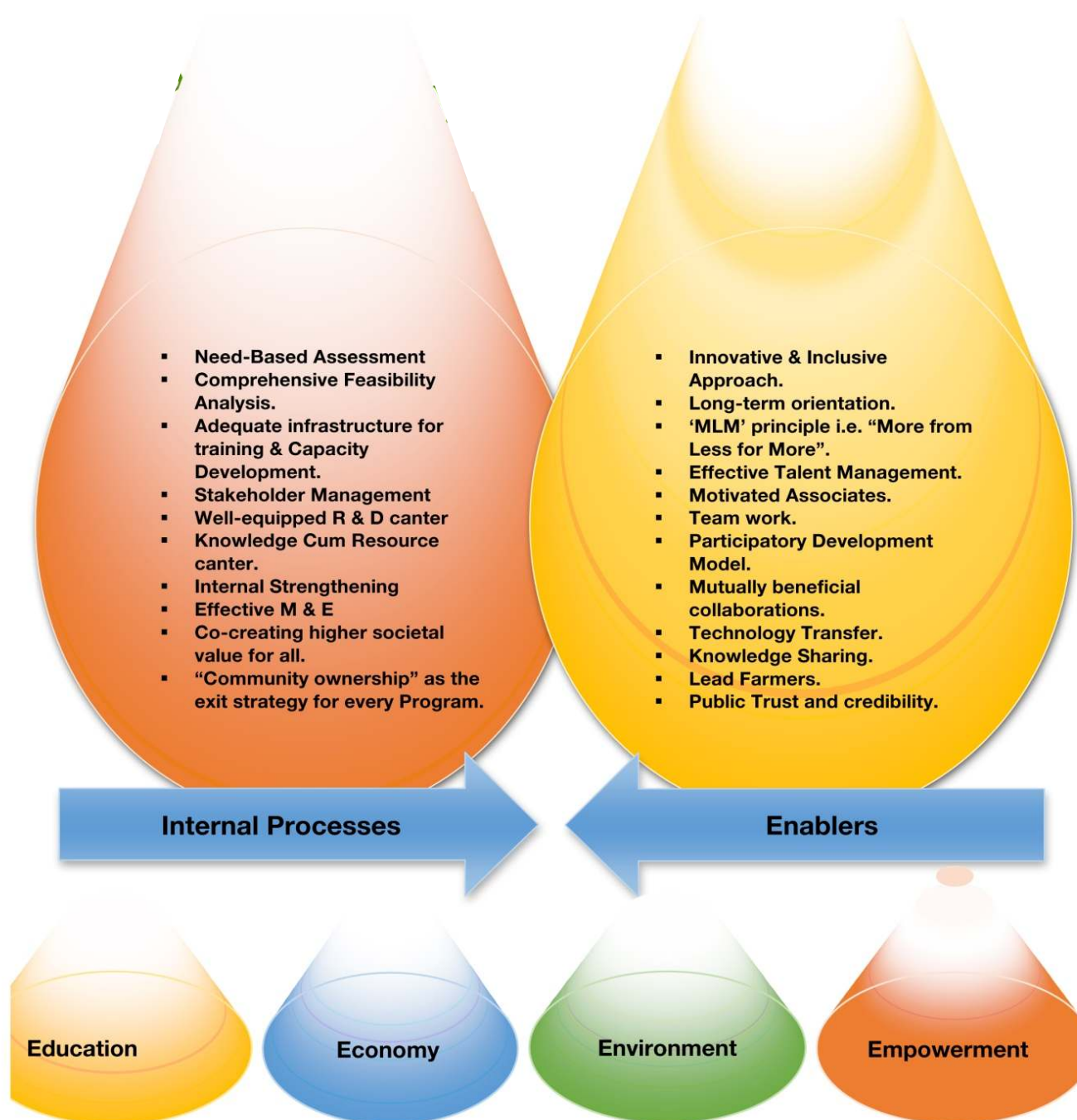
131

99 SHGs have been credit-linked with financial Institutions/Banks to the tune of Rs 4.52 Crores. Along with this new SHGs accounts were opened for 32 SHGs

NAF's Outreach



Strategy Map



"Integrated 4E model for Sustainable Rural Development"

A Nexus Approach

"Achieving better balance between interdependent and mutually reinforcing pillars of sustainable development – "Education" "Economy", "Environment" & "Empowerment."

For us at NAF, sustainable development is about recognizing , understanding and acting on interconnections— between the thematic areas of education, economy , environment and empowerment. All interventions of NAF are oriented towards achieving significant and verifiable outcomes in these thematic areas.

We believe that relevant education and training is critical to create an enabling environment necessary for sustainable rural development. The severity and persistence of the food crisis makes it crucial to increase farm productivity promote agribusiness and other relevant rural enterprises while maintaining synergy with the ecosystem, for which appropriate knowledge and skills are indispensable. Further, Environmental degradation and climate change present risks to rural livelihoods that need to be managed and mitigated. This requires developing innovative strategies and skills to be able to learn about and use new environmental friendly technologies.

Amidst all these challenges, NAF sees an opportunity to develop integrated training and capacity development programmes with new modalities and technologies, providing lifelong opportunities to rural people and creating a culture of "sustainability" by bringing massive behavioural transformation among the rural community where we work..This will not only increase farmers' ability to innovate and adopt new technologies but will also improve employability and livelihood opportunities, reduce poverty, enhance productivity, ensure agricultural sustainability and bring rural prosperity.

Along with creating conducive environment for development we simultaneously focus on improving the economic and environmental

efficiency of the rural community. We aim to create self-sustaining agri-business models through- lab to land technology transfer for farm productivity improvement with shift in approach from "production-oriented "to market-oriented" farming, facilitation of critical inputs, use of ICT in agriculture, Comprehensive Soil Health Management, Natural resource management, forward and backward linkages and other institutional support systems. In the pursuit to build more resilient rural communities that can cope with the environmental challenge we continuously develop and promote climate resilient agricultural practices , resource conserving lean farming technologies etc. across our project area Our integrated watershed projects aim at ensuring a balance in ecosystem predominantly ensuring soil and water conservation through a participatory community development along with natural resource management.

To sustain the benefits derived from our various interventions and to empower rural India we also promote and nurture community-based institutions like Farmers Clubs, Self Help Groups and Joint Liability Groups, Farmers Producer Organizations, Watershed committees etc. for collective decision and action. We work towards achieving financial inclusion through institutional credit linkages and NAF revolving fund initiatives among others.

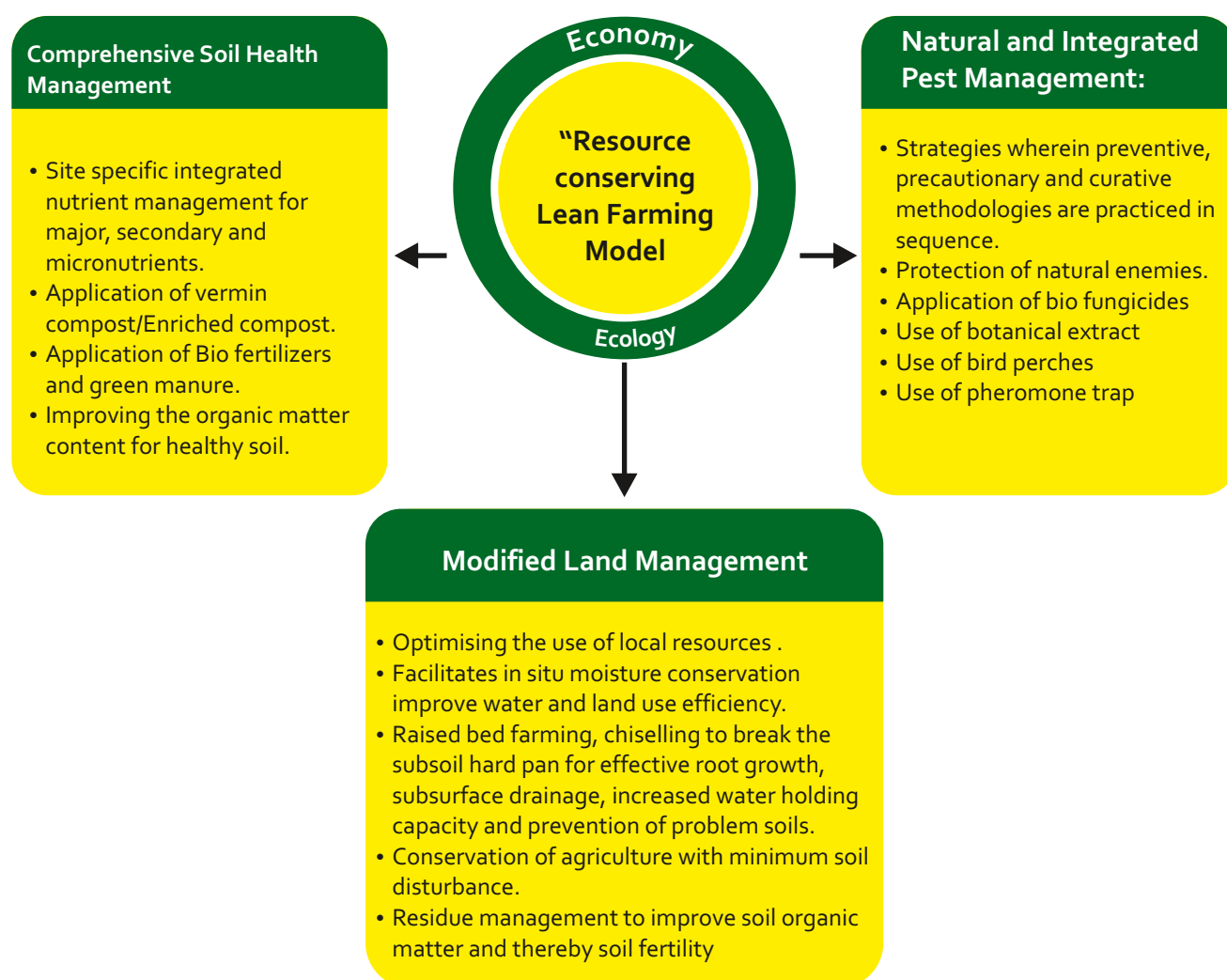
In our endeavour to build and acquire the requisite expertise, streamline the interventions as well as to create and maintain synergy across these cross-cutting thematic areas, we have divided our organisation in multiple divisions. The ongoing sections in this report presents a glimpse of the core activities conducted by each division during this reporting year.

Agricultural Development Division

Since its inception this division serves to ensure sustainable food production along with improving farmer's productivity & profitability, while maintaining synergy with the ecosystem.

In this connection, NAF is continuously promoting diversified self-sustaining Agri-business models and "Resource conserving Lean Farming" practices for sustainable and profitable agriculture with positive environmental management. Conventionally farmers practice either intensive farming with injudicious use of agrochemicals which compromises on environmental safety and long term sustainability of soil production ecosystem or organic farming with no agrochemicals which compromises on yields, cost of production and ultimately economic performance of the farmers with the problem of availability of organic inputs in adequate quantities.

"Resource conserving Lean Farming Model", a process innovation by National Agro Foundation (NAF) with a holistic approach to farm production systems, including judicious combination of organic, bio and inorganic inputs, can potentially address these interlinked challenges, without compromising on the farm productivity as well as environmental safety and ecological sustainability.



NAF'S Lean Farming Model: Approach & Strategy

Lean Farming Projects

Pilot Project On “Transfer of Lean Farming Technologies For Sustainable Farm Productivity Improvement In Cuddalore District, Tamil Nadu”



In collaboration with Central Leather Research Institute (CLRI) {Council for Scientific and Industrial Research (CSIR)}, NAF implemented a pilot project On “Improving Livelihood Of People Below The Poverty Line By Augmenting Income And Quality Of Lives In Cuddalore District Of Tamil Nadu (IMPACT)”. Project activities mainly included capacity building, technology transfer and extension services on Lean Farming practices. 10 Frontline Demonstrations @ 2 per 5 village were established for different crops mainly including Gingelly, maize, Green gram, Watermelon, Black gram, Groundnut, Bhendi.

Under Frontline Demonstrations, following services were offered

- Comprehensive soil testing and prescriptions for Site Specific Nutrient Management (SSNM). This included testing the soil profile for general fertility determining parameters like pH, Electrical Conductivity, Organic Matter Status, Cation Exchange Capacity, % Base Saturation and chemical parameters like Major nutrients viz., Nitrogen, Phosphorus, Potassium, Secondary nutrients like Calcium, Magnesium and Sulphur and Micronutrients such as Zinc, Manganese, Iron, Copper and Boron.
- Integrated Pest and Disease Management advisory.
- Resource Conserving Technologies (RCTs) like water management, weed management and measures to improve the resource use efficiency.
- Critical inputs such as secondary and micronutrients, traps, bio hormones and bio fertilizers, natural plant protection materials such as Panchakavya are provided to the farmers free of cost.
- Technical expertise was made available at the farm level for the lead farmers who establish FLDs for the entire period of cropping as handholding services.

Results

The results of the Lean Farming project in terms of Frontline Demonstrations were encouraging. The area under demonstration was 6.45 acres and the area under control was 6.65 acres spread over 5 villages covering 10 farmers. The average increase in yield for all crops put together was 85.01% and the average increase in profit was 139.06%, when compared to the control plots where the conventional farming techniques were followed.



Class room teaching and exposure visits to create awareness regarding the various methods & benefits of Lean Farming technologies



Method Demonstrations on Modified Land Management & Integrated Pest & Disease Management



Periodic progress assessment of FLDs



Mr. Pazhamalai - A successful Lead Farmer with his first grade Watermelons

Pilot project on “Lean Farming” in collaboration with TNAU



In the year 2014 , NAF initiated a pilot project on “Lean Farming for Sustainable Crop Productivity improvement” in collaboration with Tamilnadu Agriculture University (TNAU) in Olakur block of Villupuram district of Tamilnadu .

Through this project NAF & TNAU aims:

- To study the efficacy of lean farming technologies under different crops .
- To create awareness about lean farming technologies among the farmers.
- To demonstrate the lean farming technological interventions at farmer's field.
- To scale up and replicate the lean farming model across different geographical locations .

Major Project Activities



Conducted awareness activities in 40 villages of Olakur block & shortlisted 30 villages for lean farming project.



Conducted training program for 60 lead farmers (selected @ 2 per 30 villages) at NAF Center for Rural Development (CFRD), illedu.



Facilitated exposure visit to successful farmers at Organic farm- Padmavathy farm-Nelvaipalayam



Established Frontline Demonstrations (FLDs) in 60 lead farmers' fields to demonstrate crop productivity in various crops. The FLDs are at various growth stages.



Comprehensive soil analysis was done for all the 60 farmers as well as facilitated critical inputs including secondary and micro-nutrients, traps, bio fertilizers, and bio-pesticides and other growth promoting substances among others.



12 orientation training programs were conducted to enable large scale dissemination of Lean farming technologies. 247 farmers were benefited from this.



Agri-Business

NAF as a Resource Institution/Producer Organization Promoting Institute (POPI) for Promotion and nurturing of Farmer producer organizations (FPOs)



Since 2014, NAF is working as a Producer Organization Promoting Institution (POPI) with NABARD, for promoting and nurturing 10 FPOs across Tamil Nadu.

Since 2014 , NAF is working as a Resource Institute with TNSFAC, for promoting and nurturing 4 FPOs across Tamil Nadu.



Figure: NAF as a Resource Institute for Promotion and Nurturing of FPOs

❖ **“Attaining organizational, financial and commercial sustainability for FPOs”**

With a long-term objective to improve the production, productivity and profitability of the farmers:

- NAF facilitates efficient forward & backward linkages for sourcing of inputs, credit, value addition and sale of output.
- This enables FPOs to handle provision of a variety of services and also to tap growth-oriented opportunities for attaining commercial viability and organizational sustainability.
- This further encourages rural entrepreneurship for offering service linkages with medium and larger commodity buyers and input sellers, thereby eventually creating a more integrated value chain.



Figure: Current & Planned Business Activities of FPOs

Status & Progress of 4 FPOs Under TNSFAC

District	Name of the Block	Crop/Produce	No. of FIGs	No. of farmers as members & shareholders	Amount of Paid-up capital (in lakhs)	Status	Business Activity
Villupuram	Gingee	Pulses	50 with each FIG having 20 members.	1000	10 lakhs	Registered under Companies Act 2013	Input supply center
Villupuram	Chinnaselam	Pulses	50 with each FIG having 20 members.	1000	10 lakhs	Registered under Companies Act 2013	Input supply center
Salem	Mechery	Pulses	50 with each FIG having 20 members.	1000	10 Lakhs	Registered under Companies Act 2013	Under Process
Namakkal	Kolli hills	Millets & Pulses	Is in the advanced stages of formation	Yet to be decided	Yet to be decided	Under process	Under Process

Details of 10 FPOs Under NABARD

District	Block	Crop/Produce
Thiruvallur	Solavaram	Vegetable
	Gummidipoondi I	Asmine
	Gummidipoondi II	Jasmine
Kancheepuram	Acharapakkam&Madhurantagam	Vegetables
	Lathur&Chithamur	Watermelon
Thiruvannamalai	Thellar	Groundnut
Villupuram	Olakkur	Vegetables
	Marakanam	Watermelon
Cuddalore	Kattumannarkoil	Maize and Pulses
	Panruti	Fruits



FPO-FIG formation



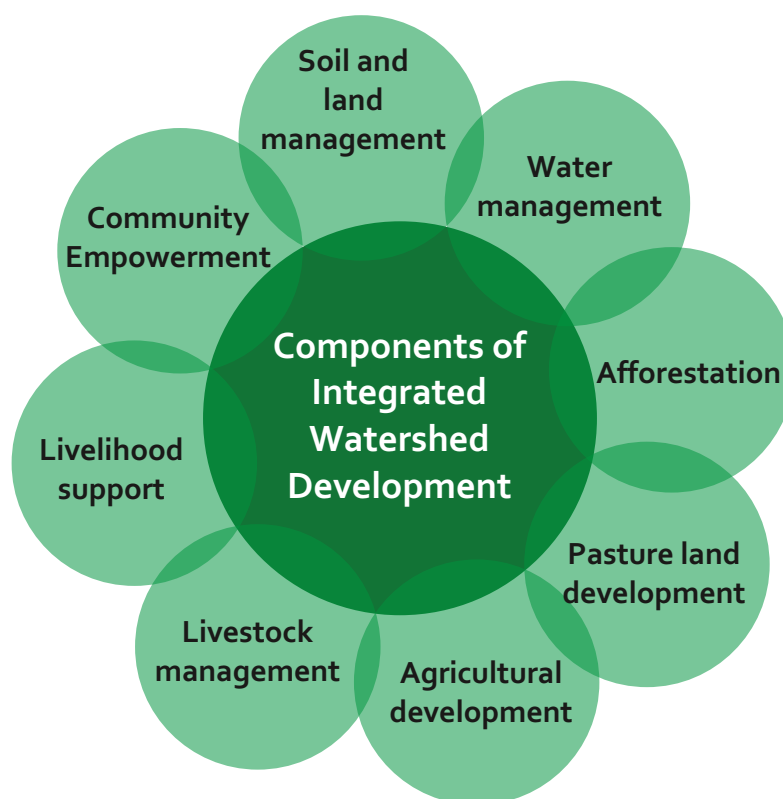
Training Program for member farmers of FPOs



Input Supply Center –TNSFAC FPO

Watershed Development Division

NAF deems the watershed activities as an Integrated Community Development movement than a project or program to meet the environmental, economic, and societal needs of rural India in a comprehensive and sustainable manner. To prevent the loss of soil and water and to conserve and sustain the natural resources, watershed is being taken up by NAF in several parts of the country. The basic essence of watershed is not only the conservation of natural resources but also the accrued benefits derived out of ground water increase, cropping intensity and improvement in farm productivity



The main objectives of watershed projects:

- To protect, conserve and improve the land of watershed for more efficient and sustained production.
- To protect and enhance the water resource originating in the watershed.
- To check soil erosion and to reduce the effect of sediment yield on the watershed.
- To rehabilitate the deteriorating lands.
- To moderate the floods peaks at downstream areas.
- To increase infiltration of rainwater.
- To improve and increase the production of timbers, fodder and wild life resource.
- To enhance the ground water recharge, wherever applicable.
- To reduce the occurrence of floods and the resultant damage by adopting strategies for flood management.
- To provide standard quality of water by encouraging vegetation and waste disposal facilities.

Integrated Community Development project supported by Larsen & Toubro Limited:



Under CSR support of L&T, NAF is implementing two Integrated Community Development projects in Coimbatore District, Tamil Nadu covering eight villages since 2015. Project activities mainly include watershed and natural resources management – soil and water conservation measures, construction and rejuvenation of water harvesting structures, training and sanitation among others. About 3200 beneficiaries would directly benefit from this project. There are 8 villages covered namely Chettipalayam, Orattukuppai, Okkilipalayam and Krishnarayapuram in Chettipalayam watershed and Pappampatti, Peedampalli, Appanaickenpatti and Kalangal in Pappampatti watershed.

Total project area	3613.52
Total treatable area	2497.55
Total number of families	4726
Total population	19406 as on February 2015
Total number of villages	8
Project period	3.5 years.

Table: L&T watershed project at a glance

The soil and water conservation measures broadly include creation of structures like farm ponds, percolation tanks, check dams etc. to harvest rain water. It also includes afforestation to prevent soil erosion. In order to ensure sustainability, village level watershed committees are formed and they are trained in governance, financial management and technologies to improve water use efficiency.

To create a balance between the supply-side interventions and demand side alternatives the project is also focusing on aspects like training and capacity development, community mobilisation, institutional strengthening, women empowerment, livelihood generation etc. among others.

Due to above interventions, it is evinced by the farmers that the ground water table has been improved from 6 to 10 feet. Around 22 hectares of fallow land has been brought up in to new cultivations.

CHETTIPALAYAM WATERSHED



PAPPAMPATTI WATERSHED



CHECKDAM (PAPPAMPATTI WATERSHED)



Project On "Watershed And Natural Resource Management To Enable Lean Farming For Empowering Farmer" In Collaboration With M/S Epsilon Carbon Pvt Limited:



A project on "Watershed and Natural Resource Management to enable lean farming for empowering farmer" was implemented during 2015 – 16 with the support of M/s Epsilon Carbon Private Limited (formerly M/s AVH Private Limited) under their Corporate Social Responsibility (CSR)

initiative in Genupali Gram Panchayat (covering all its revenue villages and hamlets) of Jujumora Block, Sambalpur district in Odisha.

The core interventions during the reporting period includes:

A. Land based structures

- ✧ Clearance of supply channel which blocks the water flow due to bushes
- ✧ Deepening of storage capacity of check dams
- ✧ repair and renovation of existing check dams
- ✧ construction of Loose Boulders structure

B. Training and Capacity Building

- ✧ Training on maintenance of water harvesting structures
- ✧ Training on Governance and management of water user groups
- ✧ Training on Lean Farming with special focus on improving the water use efficiency .

C. Crop Improvement (More Crop Per Drop)

- ✧ Method Demonstration of various low cost technologies to reduce the use of agrochemicals
- ✧ Result Demonstration on various low cost technologies, tools and inputs to increase the crop productivity.



Exposure Visit to NAF watershed Area



Exposure visit to NAF training center



Exposure visit to farmers' fields



Demo on Quartering Method



Demo on Soil Sampling



Demo Farms

Natural Resource Management

A comprehensive watershed and Natural Resource Management (NRM) project was implemented in Ghenupali village in 100 hectares area.



Creation of channel and LBS



Check dam with percolation pond



Sluice Valve For the Check Dam

Integrated Watershed development project in collaboration with NABARD:



With the support of NABARD NAF is implementing four Integrated Watershed Projects covering 20 villages in Kancheepuram District. All the four Projects are in Full Implementation Stage . Total of 3000 Hectares have been treated since inception. These are Arasoor , Sirukalathur, Nugumbal and Othivilagam – totally comprising 5500 hectares. While the earlier years focus on upper stretches of watershed area in terms of structures and works, the later years focus on middle and lower stretches. All the four Projects are in Full Implementation Stage . As part of Natural Resource management the prime focus is on formation of field bunds, Deep tilling , Disc Ploughing, creation of water harvesting structures like ponds- farm pond, cattle pond ,sunken pond , Percolation pond , baby pond ,water absorption trenches, Continuous contour trenches . Along with this we are also creating loose boulder structures, check dams and desilting of village ponds.

Kancheepuram watershed



Farm Pond



Field Bund



Channels



Percolation Pond



Check Dam



Chisel Plough



Result of De-Silting of
Water Bodies



SRI field

Along with addressing the infrastructure needs of the project we are also focusing on Afforestation , Agro-forestry activities, Training and capacity development, Community development for comprehensive development of the project area.



Through this project, 52995 man days of employment have been generated to the tune of INR 146.05 lakhs. We are also facilitating livelihood generation through various revolving fund assistance which enables the community to get financial assistance for undertaking activities like farming, dairy and other non farm enterprises. The assistance has been revolving among the community enterprises to the tune of INR 77.79 lakh



Livelihood Generation Activities

Special initiatives as part of Chennai Flood Rehabilitation Program

During December 2015, Tamil Nadu State experienced an unprecedented flood situation with incessant rainfalls. Apart from Chennai, many rural areas in Tamil Nadu including the agriculture-rich coastal districts of Cuddalore, Tiruvallur, Kanchipuram and Thoothukudi districts suffered extensively in the floods. One of the impacts of floods was that the water bodies of villages including lakes, tanks and water ways like drainage channel etc. got severely damaged due to heavy flow of water.

Keeping in view of the above, National Agro Foundation (NAF) in collaboration with various organisations undertook repair works of traditional water bodies affected by the floods in the rural parts of Kancheepuram and Thiruvallur Districts in order to rehabilitate them for future use. The focus was predominantly on repairing of boundaries of water bodies as well as clearing the drainage channels so that future flow of water can be regulated and the cropped area can be prevented from inundation.

• Support from M/s Bahwan CyberTek



M/s Bahwan CyberTek (BCT), a IT MNC had sanctioned a grant support of Rs.10 lakhs for undertaking repair / reconstruction / rehabilitation of lakes and water bodies which were affected by recent floods in Kancheepuram District. The rehabilitation work has been initiated in few villages and is expected to be completed by September 2016.

• Support from San Francisco Bay Area Tamil Manram (SABATM)



San Francisco Bay Area Tamil Manram (SABATM), a voluntary organization in US had contributed Rs.7.10 lakhs for undertaking repair / reconstruction / rehabilitation of lakes and water bodies which were affected by recent floods in Kancheepuram District. The rehabilitation work has been completed.



Lake Before Intervention



Lake after intervention



Channel before intervention



Channel after intervention



Repair of Waterways & Drainage Channel

Training Division

This division serves to bring behavioural transformation and to ensure human resource development across rural India through demand-driven education and training model. The prime objective is not only to increase the ability of farming community to innovate and adopt new technologies in agriculture but also to ensure continuous improvement in economic, environmental and social performance for the entire rural community. Training is imparted on “technology-oriented” and “participation-oriented” modes to various stakeholders of agriculture and rural development including farmers, youth, agripreneurs, women, socially excluded, functionaries of NGOs, water users, producer groups, input suppliers, bankers, students among others.

• Training program for Farmer Producer Organisations

NAF strongly believes that for equipping producer organizations to thrive as self-sustainable business enterprises in this ever-changing competitive world, awareness creation and training on the aspects including concept of FPOs/FPCs, legal requirements, entrepreneurial abilities, management skills and agricultural value-chain among others, is a must. Accordingly, NAF is instrumental in conducting diversified training programs and exposure visits for the farmers, producer organisations and the respective stakeholders. The type of programs mainly includes training on:

- ❖ The concept and structure of FPOs/FPCs, the process of formation of an FPO/FPC, member centrality and the role of various actors/agencies in formation of an FPO /FPC.
- ❖ The legal compliances to be done by FPOs/FPCs with various statutory authorities.
- ❖ Information on various registration requirements for an FPO/FPC as they take up different business activities.
- ❖ The role of the farmers as the BOD of the FPO/FPC.
- ❖ The responsibilities of the CEO, the office bearers to ensure their active engagement in the affairs of the company.
- ❖ Product value chain and strategic business planning.
- ❖ Financial Management.
- ❖ Risk Management.
- ❖ Governance and management of producer organizations in the spirit of collective ownership and equity.

Type Of Program	No. Of Programs	Beneficiaries (In Numbers)
FPO training	2	48
SFAC BOD's training	1	40
Capacity Building Training	1	35
Capacity Building NABARD Training	1	40
Farmers Club Federation Meeting	5	73
Farmers club Federation & General body Meeting	5	130
Awareness Meeting	21	360
FPO Board of Directors Meeting	2	47



• Watershed Management Training Programs

NAF is implementing several integrated watershed projects. While major project activities including training is covered the functioning of village watershed committees for better implementation of watershed project. Further, to ensure effective monitoring and evaluation, NAF also conduct training programs on project preparation and M& E methods/ techniques for various stakeholders including corporate, field agencies etc.

under the projects, the members of the village watershed committees require additional counselling and capacity building efforts which is not covered under the main project. Training programs of this nature are conducted by NAF on a need –based basis for the watershed members, and the target village community at a large.

The aim is to strengthen the functioning of village watershed committees for better implementation of watershed project. Further, to ensure effective monitoring and evaluation, NAF also conduct training programs on project preparation and M& E methods/ techniques for various stakeholders including corporate, field agencies etc.

Watershed Management Training Programs for the FY (2015-16)

Type Of Program	No. Of Pro-grams	Beneficiaries (In Numbers)
CVWC Meeting	34	888
SHG Village Meeting	16	364
SHG Meeting	9	260
Village Meeting	38	960
SHG Cluster Federation Meeting	21	460
Training on Tree plantation	3	140
Training on SRI, Vegetable Cultivation	1	50
Training on Integrated Nutrient Management	3	115
Training on Rainfed Agriculture & Dry land Horticulture	1	30
Training on Live stock	1	40
Odisha- Watershed	1	20
L & T watershed	5	161



• Training Program On Good Agricultural Practices

To enable the farmers to have positive attitude towards modern agriculture; put the learned technologies to practice for reaping the benefits and also to hone their skills to operationalize these technologies, NAF is continuously conducting integrated training and capacity development programmes with new modalities and technologies, on various aspects of Good Agricultural Practices (GAP), for rural farming communities.

Training on Sustainable Agricultural Practices during FY (2015-16)

Intervention	Type of Program	No. of Programs	Beneficiaries
Agriculture Technologies	Training on seed production	1	40
	Refresh training on crop cutting experiment	1	80
	Training on Lean Farming	1	35
	Training on Integrated Pest& Disease Management	1	40
	Drip irrigations	1	38
	Farm Waste Management-	1	40
	Integrated farm Management	1	39
	Oil Seeds Management-	2	120
	Orientation Training	10	247
	Village Meeting	4	95
	Field day	8	120



• Student's Training Programs

To provide an opportunity and a hands-on experience to the students . in the area of rural development , agriculture, food technology and other agriculture-allied activities ,regular training programs and exposure visits are conducted at NAF R&D centre and NAF CFRD for students across various educational backgrounds.

Training Programs for students conducted during FY 2015-16

Type of Program	No. of Programs	Beneficiaries
Exposure visits- Anna university & Lions club	2	34
Farm School Programme- ELLE N Sharma Memorial School, Manthan Vidhya Ashram	2	70
RAWE Program	1	6



• Training For Rural Entrepreneurship

• AgriClinic and Agri Business centre:

NAF has been recognized by MANAGE as one of the nodal Training Institute for offering training to Agricultural graduates and diploma holders under ACABC scheme, to motivate and develop unemployed professionally qualified agriculture, veterinary and animal science graduates / diploma holders to set up agro – based self-employment ventures and to offer quality agricultural extension services for the farming community .The broad areas covered under training includes Dairy, Goat farming, Broiler Production, Input Service Centre, Nursery Production, Mushroom Production and Farming Machinery Service Centre among others.

Type of Program	No. of Programs	Beneficiaries
ACABC training	4	124
Tailoring Training program (NAF AP project center)	1	75



Social Development Division

As NAF's exit policy for every project is "community ownership", it continuously works towards creating a self-reliant rural community. Our focus is on institutional strengthening of community based organizations and financial inclusion. Our aim is to build a spirit of cooperation, equity, equality and collective ownership among rural people. Since our inception we are promoting & nurturing community-based institutions like Farmers Clubs, Self Help Groups, Joint Liability Groups, Farmers Producer Organizations, Watershed committees etc. for collective decision and action thereby ensuring empowerment through participatory & transparent Governance Mechanism.

NAF has been taking up a mission of financial inclusion especially for the members of the SHGs, and has been facilitating institutional credit through Nationalized Banks/Financial Institutions. Accordingly, 99 SHGs have been credit linked with the banks to the tune of INR 4.52 crores. In addition, 25 more SHGs await loan disbursement to the tune of INR 1.0 crore.

In addition, NAF is also providing revolving fund assistance at a micro level. Accordingly, INR 2.30 lakhs have been extended as revolving fund assistance to 46 beneficiaries during 2015–16.

Apart from the above 178 beneficiaries have been enrolled in LIC Janashree Bima Yojana (JBY) scheme. Under this, INR 2.13 lakhs have been disbursed as educational scholarships for the wards of the enrolled members who are studying in Government schools between 8th–12th standard.



99 SHGs have been credit-linked with financial Institutions/Banks to the tune of Rs 4.52 Crores. Along with this new SHGs accounts were opened for 32 SHGs



46 beneficiaries have been sanctioned Loan amounting to Rs. 2.30 Lakhs from NAF revolving fund



178 beneficiaries have been facilitated with scholarship of Rs. 2,13,600 under LIC Janashree Bima Yojana (JBY).

Corporate volunteerism

NAF believes, that for any organization employees are its pillars. Therefore, it is necessary to ensure that the employees are engaged not only in the profit oriented activities of the organization, but also in its community development initiatives, so that they can exemplify organizational values and enhance their professional and leadership skills as well, thus paving the way for ensuring triple Bottom Line sustainability for the organization and all its stakeholders. Employees look for volunteering opportunities to contribute to society and NGOs can leverage the expertise of volunteers to address community needs in a viable and scalable manner.

At present, NAF is an empanelled field partner for Community Partnership Initiatives and Employee Volunteering Program for iNautix India private Ltd., a BNY Mellon. Five Employee Volunteering Programs were conducted during September and October 2015 at NAF Project area in Kancheepuram District. 257 volunteers from their Chennai team participated in the watershed and tree planting activities. Their Pune team also evinced interest in a similar program for their region. Based on their request, seven programs were organized during September and October 2015 wherein 267 volunteers participated in watershed and tree planting activities. Their Chennai team also volunteered for flood relief work at NAF project villages during the recent floods in December 2015.



**Employee Volunteering Program for
iNautix India private Ltd**

Research & Development

- NAF has collaborated with Central Leather Institute to carry out research on efficacy of compost derived from animal hair waste on the growth and performance of various crops at laboratory level. The characterization study of the compost has been undertaken and its suitability to be used as compost has been established. The field trials to study the performance will be undertaken during the ensuing period.
- NAF is undertaking research trials on "conservation agriculture" with minimal soil disturbance, residue management and crop rotation in its experimental farm. The preliminary studies are underway.



Comparative Study between Control & Demo Plot

Laboratory Services Division

Soil Testing Lab (ISO/IEC 17025:2005 Accredited)

Analytical Services:

- NAF Soil Testing Lab has been providing comprehensive soil health diagnostic services for agriculture development for the past 15 years. During the reporting period, 1867 Soil samples, 111 water samples and 381 other samples (bio products, organic fertilizers, leaf etc.) have been tested.
- Apart from samples from Tamil Nadu, samples from other states Odisha, Maharashtra, Telangana, Karnataka and Kerala were also tested during this period.
- Centre for Microfinance – IFMR (CMF), Ponni Sugars (Erode) Limited and Erode Precision Farms Producer Company Limited utilized the services of NAF Soil Testing Laboratory for their Agriculture Research / Productivity Improvement Project. During the current year, CMF have sent 793 samples, Ponni Sugars have sent 123 samples and Erode Precision Farms have sent 46 samples.



Comprehensive Soil Testing & Analysis

Food Testing Lab (ISO/IEC 17025:2005 Accredited for Chemical Scope)

- NAF Food Testing Lab has been carrying out Analysis of Food products for Compliance to FSSAI Standards & Nutritional Analysis for Labelling Purposes. The Microbiological laboratory is testing Food & Water Samples for microbiological quality and swab samples for monitoring Good Food Hygiene, Sanitation and Personal Hygiene Practices.
- During April 2015 to March 2016, total 183 samples were analysed for chemical scope and 94 samples under Microbiological scope of testing.



Anna University: NAF Food Testing Lab is Adjunct Laboratory for Anna University's B.Tech and M.Tech Food Technology Programs and B.E Agri & Irrigation Engineering Programs.

- End semester practical exam was conducted for 36 students of B.E Agri & Irrigation Engineering students on 9th April 2015.
- Lab session for advanced food analysis was conducted during July 2015 for 21 M Tech (FT) students.
- Lab session for B.E Agri and Irrigation Engineering 2016 batch is in progress. The session commenced on 28th January 2016
- 15 B.Tech and M.Tech Food Technology students are using the laboratory facility for their projects.
- Three M.Sc Food Technology and Management students from M.O.P. Vaishnav College are carrying out their Final Semester project from January 2016.
- Three B.Tech students from Jeppiar Engineering college, One M. Sc Food Technology student from M.O.P Vaishnav College and two B.Tech Food Technology students from Anna University are carrying out there end semester projects work in Microbiology.

IGNOU: NAF Food Testing Lab is registered program study centre for IGNOU's PG Diploma in Food Safety and Quality Management. Theory and Practical counselling sessions for PGDFSQM were conducted for 39 students of July 2013 and July 2014 batches. The students have appeared for term end examination during December 2015. 15 students have enrolled in July 2015 session and their counseling sessions are being held from January 2016.'

Plant Tissue Culture Laboratory

Micro-propagation

- Hybanthus enneaspermus (Oridhal Thamarai), Bacopa monneri (Brahmi), Leucus aspara (Thumbai), Costus igneus (Insulin plant), Centella asiatica (Vallarai), Musa paradisiaca (Monthan), Euphorbia hirta (Amman pacharisi), Clitoria ternatea (Sangupoo) are being sub cultured. Callus phytochemical screening and compound identification is under progress.

Internship cum Training & Projects

- One B.Sc Biotechnology Student from SRM University, Chennai has completed Internship cum Training for three weeks. (June 2015).
- Two B.Sc Agriculture students from Gandhigram Rural Institute University have completed Internship cum Training for three weeks. (June 2015).
- One B.Tech Biotechnology Student from Arunai Engineering College, Thiruvannamalai has completed Internship cum Training for three weeks. (June 2015).
- One B.Sc Biotechnology Student from Kumararani Meena Muthiah College College, Chennai has completed Internship cum Training for three weeks. (July 2015).
- One M.Tech Biotechnology Student from Anna University, Coimbatore has completed Internship cum Training for three weeks. (September 2015).
- Two B.Tech Biotechnology Students from Sree Sastha Institute of Engineering and Technology, Chennai have completed their final year project (Jan-March 2016).
- Three B.Tech Biotechnology Students from Jeppiaar Engineering College, Chennai are carrying out final year project. (Feb-April 2016).

Workshops

- Commemorating the 84th Birth Anniversary of Dr. A P J Abdul Kalam, NAF and Anna University jointly organised a Awareness Workshop on "Herbs for Healthy Future" on October 14, 2015. About 120 participants covering students from Anna University and Other city colleges as well as general public participated.



- NAF and Bharath University jointly organised a National Workshop on "Conservation of Herbs and Herbal Medicines" on March 3 & 4, 2016. More than 250 participants covering students from Bharath University and Other city colleges enthusiastically participated in the Workshop.

Participation in Events/Training Programme

- Mr S V Murugan (Director,NAF), Mr Viswalingam (Deputy Director,NAF) and Mr. Jeganmohan Reddy (Project officer), participated in 5 days Training programme for POPs and other stakeholder under Promotion of FPOs under PRODUCE fund from 12.05.2015 to 16.05.2015 organised by NABARD, in Coimbatore.
- Mr S V Murugan and Mr Jeganmohan Reddy participated in NABARDs Green Climate Fund – NGOs interaction meeting and preparation of concept note on 13.08.2015, NABARD, Chennai.
- Dr M R Ramasubramaniyan (Executive Director) and Mr M Viswalingam participated in National Seminar on “Financing Agriculture Value Chains: Issues, Challenges and Opportunities” conducted by NABARD at Bankers Institute for Rural Development (BIRD), Lucknow on 29th November and 1st December 2015.
- Mr S V Murugan participated and presented a paper at Asian Irrigation Forum held at Asian Development Bank, Manila, Philippines between 20.1.2016 and 22.01.2016.
- Mr S V Murugan attended a training workshop for NGOs and Consultancy agencies conducted by Asian Development Bank, Manila, Philippines between 15.03.16 and 17.03.2016.
- Dr M R Ramasubramaniyan participated in the International Conference on application of Geospatial Technologies for Agriculture held at Noida between 2 and 3rd March 2016.
- Ms R Kalpana (Additional Director) participated in the State Credit Seminar organized by NABARD.
- Mr Pramod Kumar Patra, Program Officer, NAF-AVH project, Odisha attended a 24.02.2016 on 27.02.2016 at Bhubaneshwar.
- Mr Prakash and Mr Geja, attended three day workshop on empowering SHGs and JLGs organized by NABARD at Mangalore between 14–16 March 2016.
- Mr S V Murugan, attended a workshop on “Global Social Entrepreneurship Program” between 7th–10th February 2016.

NAF expanding its footprints

- **NAF as Knowledge Partner cum Technical Partner**

To ensure sustainability and to create a synergy between the supply side interventions and demand-side alternatives of any community development project from this year onwards we have started working as knowledge cum technical partner for projects under CSR as well as under govt. Support. One such initiative is



Knowledge Partner in Agriculture and Water for HCL Foundation:

M/s HCL, a leading software company has launched a project “Samudhay” in Uttar Pradesh as a part of their CSR initiatives. Accordingly, they are planning to create model villages wherein agriculture development, health, sanitation, water, education and infrastructure would form the focus verticals of development. Under this project, HCL has identified NAF as their knowledge partner and has signed MoU with NAF for offering advisory services and development of technical protocol for Agriculture and Water.



- **Conservation Agriculture**

To prevent the loss of soil and water and to conserve and sustain the natural resources, we are focusing more on resource conserving and climate resilient farming practices through our lean farming and Integrated watershed management programs.

- **Financial Inclusion**

To economically empower the rural community we have also started working in the area of formal credit linkage for the FPOs. We also facilitate convergence with govt. schemes for the rural people. We have developed our own revolving funds to meet the credit requirements of rural people at the right time. In the coming years we are also planning to work on developing Digital Platform for Financial Inclusion and cashless transactions for FPOs.

Credentials

Collaborations

The challenges and the opportunities of present times are bigger than any one Organization / Government / NGO / Business organization. Delivering solutions to the increasingly complex challenges of today, require a combination of multiple skills found in multiple organizations. We need to look beyond our own walls to find partners in social innovation in order to achieve scalable and sustainable results. With an aim to ensure prosperity for all NAF is working in collaboration with many esteemed institutes/corporates/partners including:

- Worked / working with NABARD, Ministry of Agriculture, Ministry of Rural Development, Department of Science and Technology etc
- Partnerships (MoU) with TNAU, Anna University, CLRI etc for collaborative projects.
- Working with Corporate agencies like , L&T, TVS Sundram Fasteners, BNYM iNautix Technologies , TAFE, Bhavan cyber tech
- NAF Food Safety Division is the Adjunct Laboratory to Anna University Food Technology and Agriculture & Irrigation Engineering Programs .

Empanelment

To increase our visibility & credibility among our actual and potential supporters/donors/partners and to explore more integrated developmental projects including CSR project we have empanelled with institutes like:

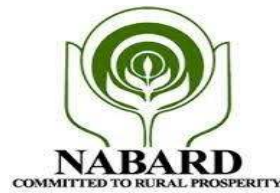
- National CSR Hub maintained by TATA Institute of Social Sciences.
- Ministry of Agriculture, GoTN for various projects

Accreditation

We, at NAF, believe that ensuring quality in all our interventions is crucial to ensure sustainable and replicable results. This is vividly reflected through the following accreditation:

- NAF Laboratory Services Division has been granted accreditation for soil, food and water testing; as per ISO/IEC 17025:2005 International standard by National Accreditation Board for testing and calibration Laboratories (NABL), Department of Science and Technology, Govt. of India for a period of two years from Dec 8, 2014. NAF Soil Testing Lab is the first NGO Soil Testing Lab to get accreditation from NABL.

Thank You...



Leadership Profile

Board Of Trustees

Name	Brief
 Dr. K. S. Subramanian	Former I.R.A.S Officer. Formerly Director, Asian Development Bank, Manila. Has 38 years of experience in Financial and Project Management internationally.
 Dr. N. G. Hegde	Former President and Managing Trustee, BAIF, Pune. Currently, Trustee and Principal Adviser of BAIF Development Research Foundation and is a person with rich experience in Sustainable Livelihood and Community Development.
 Mr. S. S. Rajsekar	Accomplished Professional, A First Generation Entrepreneur with over 30 years experience In Real Estate Promotion and Trade. Has been involved In the area of rural upliftment and social and community development. A proactive Rotarian involved in several socially relevant projects in and around TTamil Nadu.
 Mr. M. Venkatachalam	Chairman, Parry Agro Industries & Director, EID Parry India Ltd., Chennai
 Mr. M. R. Sivaraman I.A.S (Retd.)	Indian Administrative Service (Retd.) Former Union Revenue Secretary, Government Of India Former Executive Director, International Monetary Fund (IMF), Former Advisor, UN Security Council (UNSC)
 Mr. K. Raghavendra Rao	Founder- Chairman & Managing Director, Orchid Chemicals & Pharmaceuticals Ltd.
 Brig. (Retd) R I Raghunathan, SM, VSM	Highly decorated Army officer with 38 Years of Service in Indian Army. He was a recipient of Seva medals from the President of India. Renowned strategist. Has been in the developmental sector for the past 10 years.
 Dr. S. Swaminathan	Formerly with Tata Tea (Now Tata Global Beverages) as Vice President And Director – Special Projects in charge of CSR. Currently, an honorary consultant to CII And member of CSR Sub Committee.

Leadership Profile

Govern`ing Council Members

	Name	Brief
	Mr. N. Ravi	Director Of Kasturi & Sons Ltd. Previously, Editor-In-Chief of 'The Hindu'.
	Dr. S. V. Balasubramaniam	Chairman & Managing Director, Bannari Amman Sugars Ltd., Coimbatore. Leading Industrialist especially in Agribusiness.
	Dr. C. Lakshmanan	Director, California Agriculture Consulting Services, USA.
	Shri C. Ramakrishna	Eminent lawyer and a modern farmer
	Dr. Y. S. Rajan	Honorary distinguished Professor at Indian Space Research Organization (ISRO), Department Of Space, Govt. of India. Former Principal Advisor, Confederation Of Indian Industry (CII), New Delhi. Has Co authored "Vision 2020" with Dr A P J Abdul Kalam, A renowned Scientist and Former President of India.
	Ms. Indu Palaniappan	Formerly with British High Commission managing International Development Projects. Currently, Director, Chennai.
	Dr. K. Ramasamy, Vice Chancellor (Ex Officio)	A renowned Microbiologist recognized internationally. Has been a member of Planning Commission in Tamil Nadu Government
	Vice Chancellor, Anna University (Ex Officio)	Vice Chancellor, Anna University
	Dr. V. C. Kulandai Swamy	A Renowned educationist. Former Vice Chancellor of Anna University Chennai and Indira Gandhi National Open University, New Delhi.
	Mrs. Hemalatha Ramamani	A Successful Farmer and Educationist

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