

Extension NEXT

Changing Roles and Future Reforms in Agricultural Extension

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Agricultural Extension: Looking for Reforms & Policy, Since 2000



Vol. 37, Issue No. 30, 27 Jul, 2002

Reforms in Agricultural Extension New Policy Framework

The changing economic scenario and the need to respond to food and nutritional security, poverty alleviation, diversifying market demands, export opportunities, and environmental concerns pose new challenges to technology dissemination systems. This paper argues for a holistic reappraisal of existing agricultural extension systems and the need to work towards an outlook that encompasses a whole new policy mix favouring a plurality of institutions.

RITA SHARMA

Rapid agricultural growth continues to be the key to poverty alleviation and overall economic development. Agriculture accounts for about one-fourth of the gross domestic product and is the source of livelihood for nearly two-thirds of the population. The agriculture sector in India has been successful in keeping pace with the rising food demand of a growing population which has crossed the one billion mark. Foodgrain production more than quadrupled since the early 1950s from 51 million tonnes to over 210 million tonnes (estimated) in 2002, while population nearly tripled from 350 million to one billion during the same period.

The green revolution has been the cornerstone of India's agricultural achievement, transforming the country from one of food deficiency to self-sufficiency. While recognising the impact of the green revolution in imparting dynamism to the agriculture sector, it must be recognised that the green revolution remained restricted to the well-endowed, irrigated areas of the country. Of

tices to respond to food and nutritional security, poverty alleviation, diversifying market demands, export opportunities, and environmental concerns are posing new challenges to the technology dissemination systems. It is expected that future agricultural growth would largely accrue from improvements in productivity of diversified farming systems with regional specialisation and sustainable management of natural resources, especially land and water. Effective linkages of production systems with marketing, agro-processing and other value added activities would play an increasingly important role in the diversification of agriculture.

It is becoming increasingly evident that public extension by itself can no longer respond to the multifarious demands of farming systems. There is need for reappraisal of the capacity of existing agricultural extension systems to address, effectively, contemporary and future needs of the farming community. Public funding for sustaining the vast extension infrastructure is also

with the Intensive Agriculture District Programme which started in 1961-62 followed by the Intensive Agriculture Area Programme in 1964-65, the High Yielding Varieties Programme in 1966-67, and the Small and Marginal Farmers Development Programme in 1969-70.

Transfer of technology approach through T & V: The most significant development was the introduction of the Training and Visit (T&V) extension management system, starting in the mid-1970s. T&V extension was well suited to the rapid dissemination of broad-based crop management practices for the high yielding wheat and rice varieties that were released since the mid-1960s. The T&V system profoundly influenced extension practices and registered impressive gains in irrigated areas, because of the similarity between the agro-ecological conditions where technologies were generated and where they were ultimately used, and the favourable socio-economic situations and developmental infrastructure for their wider

Extension Policy

Policy Framework for Agricultural Extension

(DAC, 2000)

“The PFAE acknowledges current limitations of public sector extension and set out a new vision and strategy for agricultural extension in India” (DAC, 2000)

- ✿ Adoption of farming system and farmer participatory approach;
- ✿ Enabling problem solving skills of farmers through an interdisciplinary approach;
- ✿ Public funds for private extension;
- ✿ Privatisation of the private goods elements of extension in favourable areas;
- ✿ **provision for cost recovery and co-financing of extension via farmers organisations;**
- ✿ Use of para extension workers and farmer interest groups for extension;
- ✿ **Employing more subject matter specialists; single-window services at block level using the Agricultural Technology Management Agency (ATMA) model;**
- ✿ Preparation of strategic research and extension plans;
- ✿ **Improving the research-extension-farmer interface;**
- ✿ Skill development of extension agents;
- ✿ **Improving women's access to technology;**
- ✿ Provision of market information;
- ✿ Wide use of information technologies;
- ✿ **The government to act as a facilitator and creator of an enabling environment.**
- ✿ <http://www.sameti.org/Policy%20Framework%20for%20Agricultural%20Extension.pdf>

Government of India
Planning Commission

Report of the Working Group on
Agricultural Extension
for Agriculture and Allied Sectors
for the
Twelfth Five Year Plan (2012-17)

Chairman

Shri Suresh Kumar, IAS
Former Additional Chief Secretary,
Government of Maharashtra

Member Secretary

Shri Sanjeev Gupta, IAS
Joint Secretary,
Department of Agriculture and Cooperation
Ministry of Agriculture, Government of India

Proposed the
National Mission
on Agricultural
Extension (NMAE)

- Technology Solutions and Innovations
- Extension Policy and Systems
- Convergence, Programme Delivery, Governance and Innovations
- Manpower Planning, HRD and Accreditation
- Leveraging ICT, Mass Media and e-Governance
- Partnership for Agri-preneurship and Business Development
- National and International Linkages and Partnerships
- Jai Kisan – Mobilization for Farmers Empowerment
- Women Empowerment and Household Food and Nutritional Security
- Leveraging Youth for Agriculture
- Extension Strategies for Difficult Areas and Disadvantaged Groups
- Agrarian Distress and Conflicts, INSTA Response and Farm Studies



State of Indian Agriculture

2017



Government of India
Ministry of Agriculture & Farmers Welfare
Department of Agriculture, Cooperation & Farmers Welfare
Directorate of Economics & Statistics
New Delhi

National Mission on Agricultural Extension and Technology (NMAET)

4 Sub Missions;
Agricultural Extension,
Seed and Planting Material,
Agricultural Mechanization, and
Plant Protection and Plant Quarantine (SMPP)

Kissan Call Centre (KCC)

Agri-Clinics and Agri-Business Centres (AC&ABC)

Mass Media Support to Agriculture Extension

Focused Advertisement Campaign

Diploma in Agricultural Extension Services for Input Dealers (DAESI)

National e-Governance Plan in Agriculture
Farmers' Portal
mKisan Portal
Mobile Apps
Kisan Call Centres (KCC)
AGRISNET

Extension Services by ICAR

Krishi Vigyan Kendras (KVKs)
Technology Assessment, Refinement and Demonstration
Demonstrations on Climate Resilient Technologies
Agricultural Technology Information Centre (ATICs)
Attracting and Retaining Youth in Agriculture (ARYA)
Mera Gaon-Mera Gaurav



Report of the Committee on Doubling Farmers' Income

Volume XI

**"Empowering the Farmers through Extension
and Knowledge Dissemination"**

**Agricultural Extension & Knowledge Diffusion, Skill
and ICT: Empower every Farmer in every Corner**

Document prepared by the Committee on Doubling Farmers' Income,
Department of Agriculture, Cooperation and Farmers' Welfare,
Ministry of Agriculture & Farmers' Welfare.

November 2017

Co-opting and converging
Agri-business oriented extension system
Reinventing Agricultural Extension-FPO based
Capacity building –New Competencies
e-National Bank for Agricultural Technologies (e-NBAT)
ICT based Extension
Institutional Linkages
Public Private Partnership (PPP)

<http://agricoop.nic.in/doubling-farmers>

Last reform: ATMA

Agricultural Technology Management Agency (ATMA)



NATP Project Coverage (Since 1998)

INDIA

28 Districts or 4 districts in each of these 7 states

Himachal Pradesh

Punjab

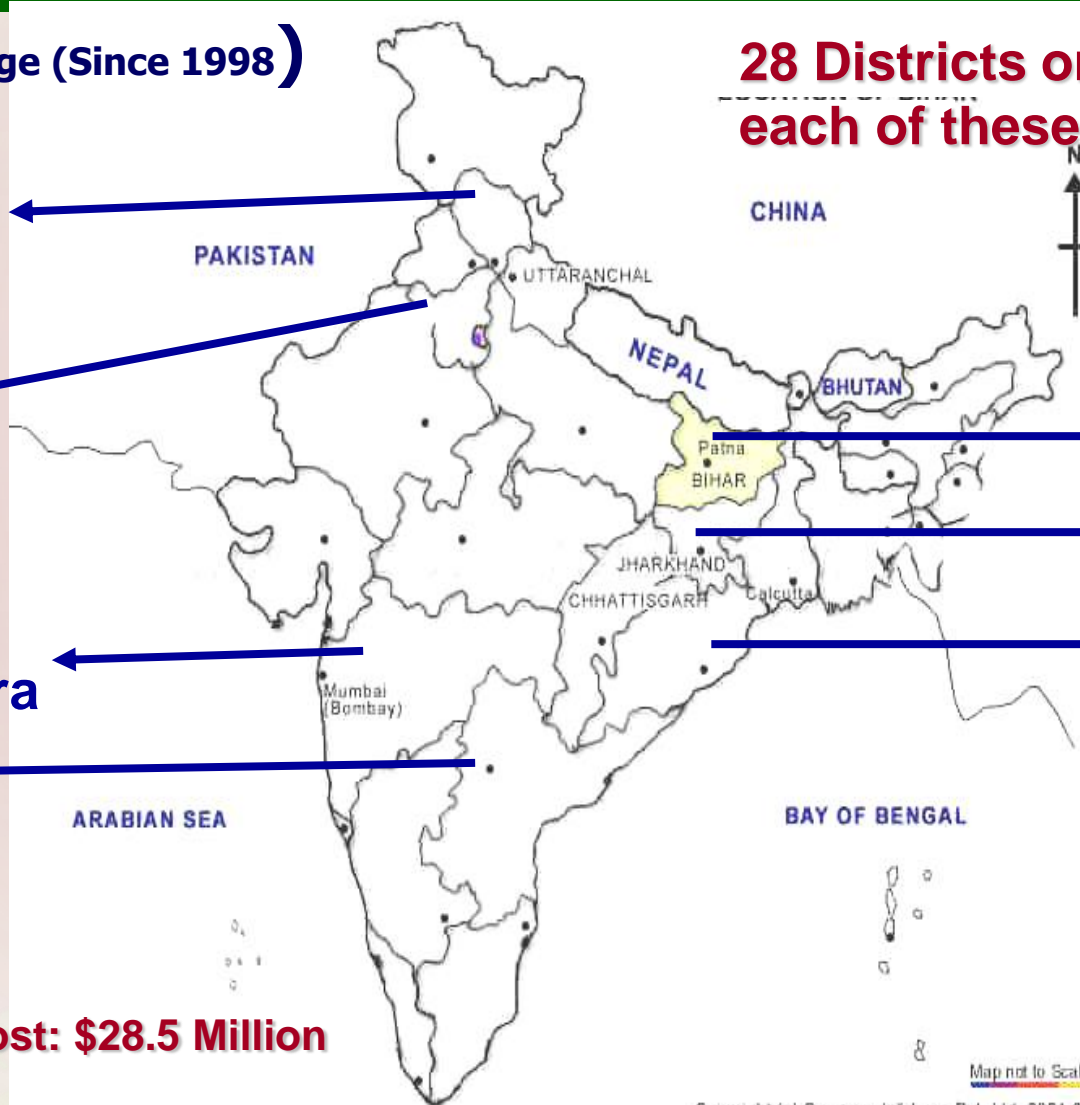
Maharashtra

Andhra Pradesh

Bihar

Jharkhand

Orissa



Total Investment Cost: \$28.5 Million

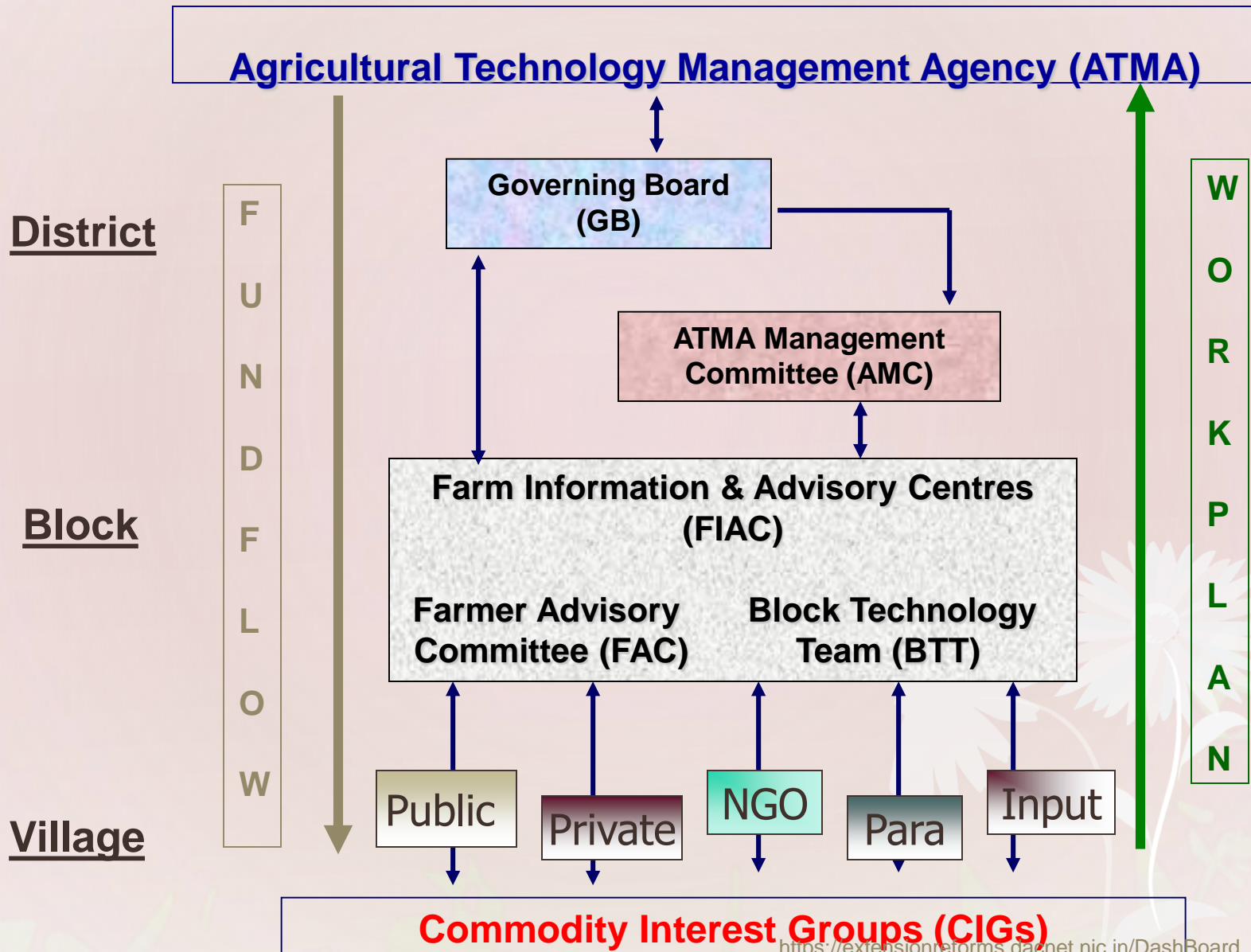
Key Elements of the ATMA Model

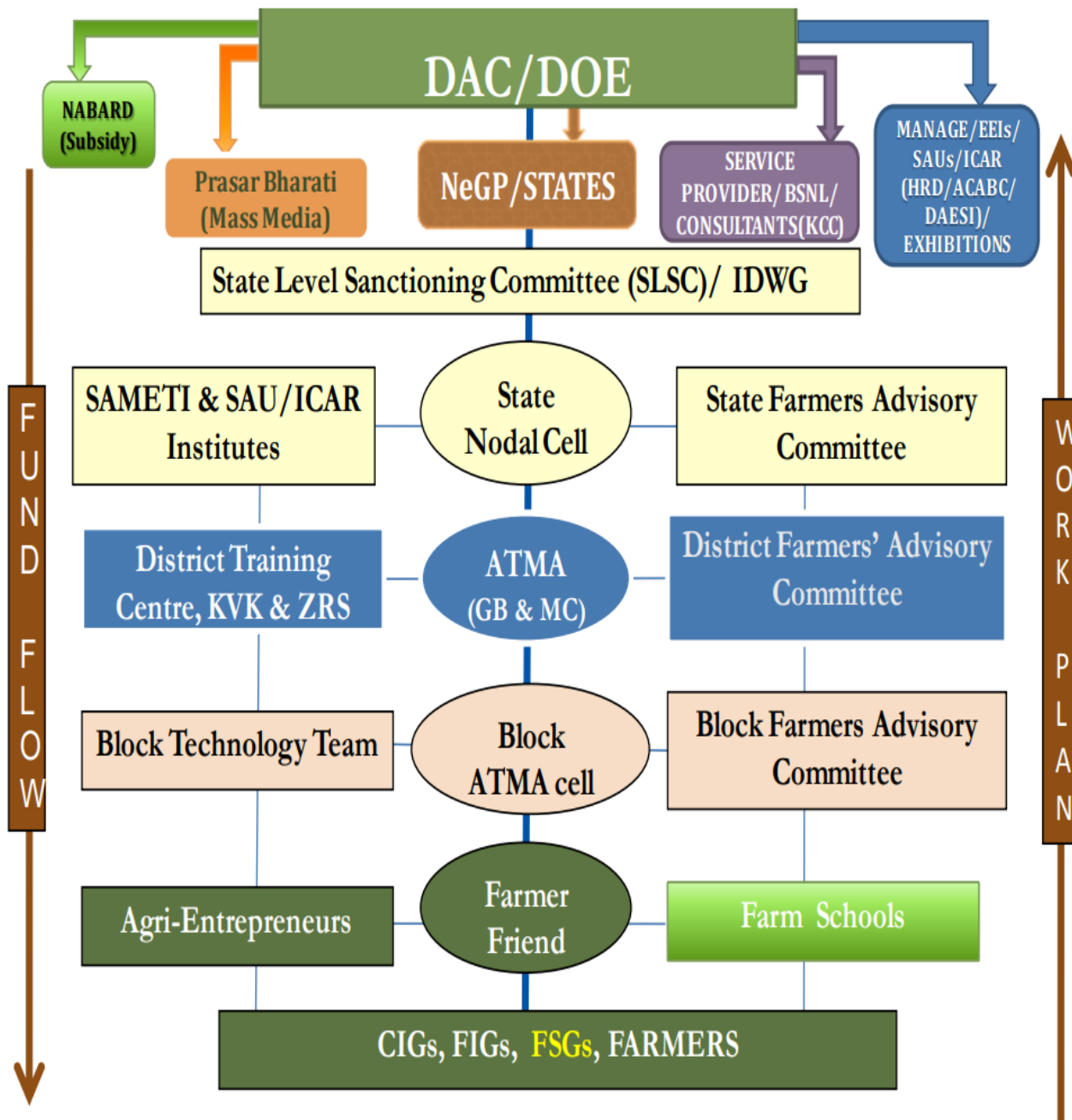


- **Decentralized decision making**
- **Convergence – gap filling mode**
- **Multi agency extension strategies**
- **Broad-based extension delivery (FSA)**
- **Group approach to extension – FOs & FIGs**
- **Gender concerns-Minimum 30% allocation**
- **Sustainability of extension services (10%)**
- **Bottom-up planning**



Organizational Structure of ATMA







ATMA Scheme Dashboard

Financial Year
2018-19

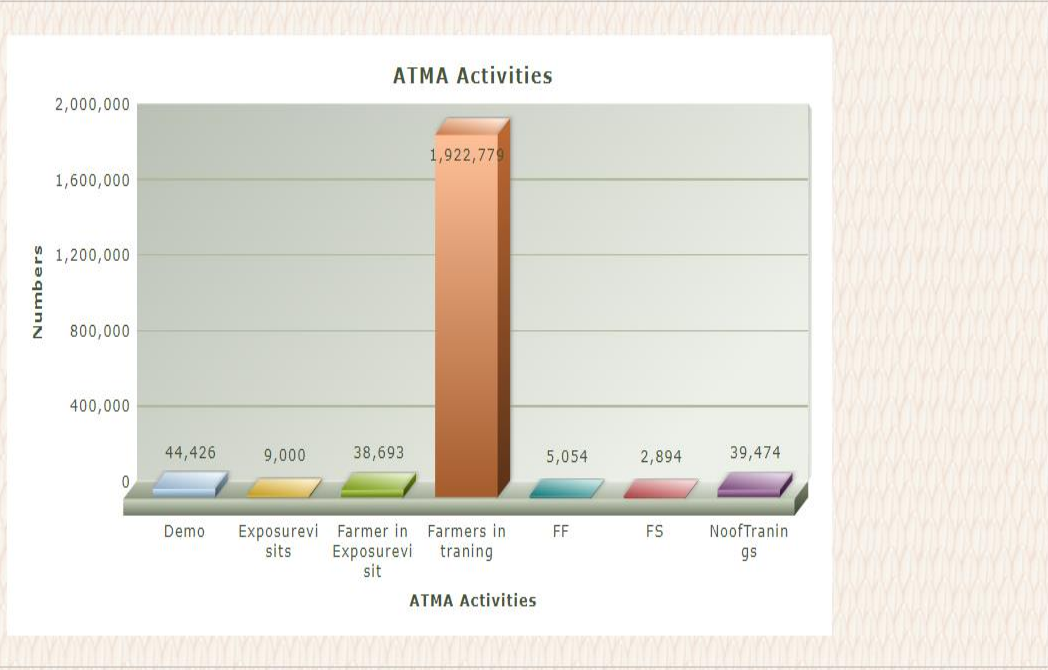
State
--Select--

Physical Progress

Financial Progress

(a)	No of Trainings	:	39474
(b)	Farmers in Training	:	1922779
(c)	Demonstration	:	44426
(d)	Exposure Visit	:	9000
(e)	Farmers in Exposure Visit	:	38693
(f)	Farmer Friends	:	5054
(g)	Farm Schools	:	2894

Physical Progress



*Fields with blank or zero values have no data entry



ATMA Scheme Dashboard

Financial Year
2019-20

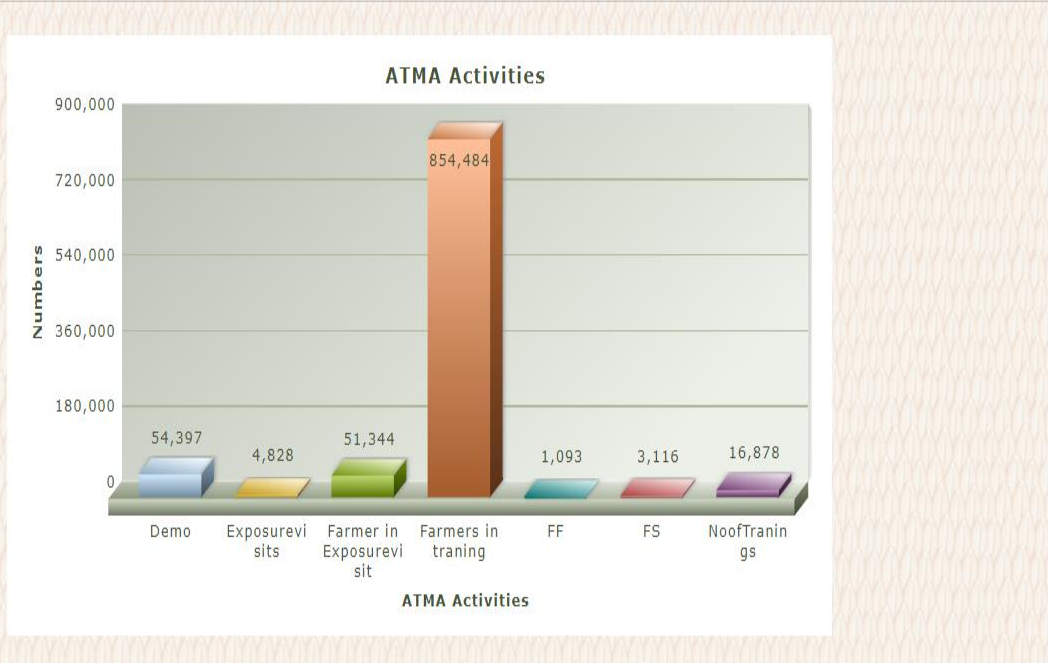
State
--Select--

Physical Progress

Financial Progress

(a)	No of Trainings	:	16878
(b)	Farmers in Training	:	854484
(c)	Demonstration	:	54397
(d)	Exposure Visit	:	4828
(e)	Farmers in Exposure Visit	:	51344
(f)	Farmer Friends	:	1093
(g)	Farm Schools	:	3116

Physical Progress



*Fields with blank or zero values have no data entry

Agricultural Extension Systems in Tripura

Working paper 1

MANAGE Centre for Agricultural Extension Innovations, Reforms and Agripreneurship



National Institute of Agricultural Extension Management (MANAGE)
(An Organization of Ministry of Agriculture and Farmers Welfare, Govt. of India)
MANAGE Centre for Agricultural Extension Innovations, Reforms and Agripreneurship (CAEIRA)
Rajendranagar, Hyderabad - 500 030, Telangana State, India
www.manage.gov.in

Status of Agricultural Markets and Value Chain in Tripura

Working paper 2

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POLICY BRIEF NO. 1
MANAGE - Centre for Agricultural Extension Innovations, Reforms and Agripreneurship (CAEIRA)
October, 2017



Reforming Agricultural Extension Systems in Tripura

Usha Rani V, Saravanan Raj and Suchiradipta Bhattacharjee

Policy Brief



Strengthening Agricultural Extension in Arunachal Pradesh

Dr. B. Reshika Rani

Policy Brief



Agricultural Extension in Bihar: Revisiting the reforming options

Dr. Jabir Ali

Policy Brief



Strengthening Agricultural Extension in Chhattisgarh

Dr. M.A.Karim

Key Messages

- Every department should nominate a Nodal Officer at district level to coordinate implementation of ATMA activities and liaise with other nodal departments.
- RAEOs and other extension functionaries posted in the urban areas should be deployed to rural areas where farming is happening.
- The criteria for nomination of Farmer Friend should be stringent in order to nominate prospective farmers.
- Monthly workshops at every KYK or in the district should be introduced in order to improve feedback mechanism and strengthen the Research-Extension-Farmer linkage.
- Cadre-wise training roster should be prepared for capacity development of extension personnel at different levels in the state. SAMETI, Raipur should be strengthened with efficient faculty members and it should collaborate with MANAGE and pioneering ICAR institutions to train their faculty members on advanced training skills.
- The field level functionaries of the marketing department, cooperatives, bajj sign and seed certification agency should be involved in providing services like seed certification, input supply and marketing opportunities.
- State should shift its focus from clinical approach to area-based extension for animal husbandry sector in consonance with the existing extension system.
- The network of agricultural education, research and extension institutes in the state including the Indira Gandhi Krishi Vishwavidyalaya should be used to extension activities.
- ICTs and social media platforms should be harnessed both within and outside the departments to disseminate latest information

Introduction

Chhattisgarh is an agrarian state with 11.63 per cent contribution by agriculture and allied sectors to the Gross State Domestic Product (GSDP) in the 12th Five Year Plan. The state has several potentialities and opportunities for sustainable development of agriculture and allied sectors. The state has three distinct agro-climatic zones with several agro-ecological situations suitable for a wide variety of crops and other bio-resources. The major constraints to agriculture in the state included inadequate and timely delivery of inputs, low soil fertility, lack of responsive extension services, uneven rainfall, lack of value addition and processing facilities, poor markets and inadequate diagnostic facilities in veterinary sector.

Agricultural Extension in Chhattisgarh

The agricultural extension system in Chhattisgarh is characterized with the modified T&V System (Training & Visit System) with ATMA (Agricultural Technology and Management Agency). As per the state agricultural policy document Chhattisgarh in Krishi Nivesh (2012), the agricultural extension services would be made farmer-centric, demand-driven and effective. It also envisions the participation of all stakeholders in agricultural extension and enhancement of technical knowledge among extension functionaries at all levels in the state. The departments of agriculture, horticulture, animal husbandry, fisheries and sericulture provide extension services to farmers through their programs. The state has 25 Krishi Vigyan Kendras (KVKs) under the control of Indira Gandhi Krishi Vishwavidyalaya (IGKV), Raipur. The Directorate of Extension, IGKV provides the technical backstopping to KVKs through Agricultural Technology Information Center (ATIC) and disseminates information through Krishi Gyan Portal www.igkv.edu.in besides organization of monthly workshops, kisan melas and exhibitions.

The department of agriculture plays the major role in delivering extension services to farmers through its cadre up to block and village levels. The departments of horticulture, animal husbandry, sericulture are providing extension services through their programs of course mostly in isolation. Some of the NGOs such as Gram Vikas Trust (OVT), BAIF, PRADAN and ASIRD are also involved in

Policy Brief



Strengthening Agricultural Extension in Jharkhand

Dr. R. P. Singh Ratan and Dr. P.L. Manohari

Policy Brief



Strengthening agricultural extension system in Karnataka

Dr. N. Balasubramani

Policy Brief



Strengthening Agricultural Extension in Punjab

Dr. Shahaji Phand

Policy Brief



Strengthening Agricultural Extension System in Uttar Pradesh

Dr. Shalendra and Dr. V.P. Sharma

Introduction

Agriculture is the mainstay of the people of Uttar Pradesh with majority of population directly or indirectly depending on agriculture and allied sectors. It goes without saying that an effective extension mechanism in the agriculture and allied sector is the game changer in ensuring overall growth of the sector. There is ample scope to realize the potential of agricultural extension as the concept is gradually evolving and going much beyond the traditional approach of technology transfer. At present, extension is viewed as playing a wider role by developing human and social capital, enhancing skills and knowledge for production and processing, facilitating access to markets and trade, organizing farmers and producer groups, and working with farmers toward sustainable natural resource management practices.

Agriculture in Uttar Pradesh

Uttar Pradesh is primarily an agricultural economy. The contribution of agriculture to total SDP was 24.11 percent

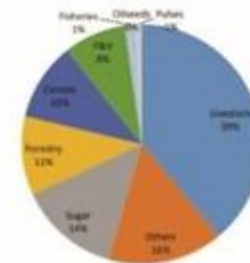


Fig 1. Share of Sectors in Average Annual Growth of Value of Output of Agriculture and Allied Activities during 2009-14

at constant (1999-2000) prices for 2009-10. Agriculture and animal husbandry together contributed 22.9 percent of the total income of State during 2014-15.

The State registered an annual growth of 4.8 percent in its income during 2011-2015 (constant price 2011-12). The maximum rate of growth was observed by tertiary sectors (7.4%) followed by secondary sectors (2.5%) and lowest (1.6%) rate of growth was registered by primary sectors during the same period. State is divided into nine agro-climate zones and endowed with requisite conditions to ensure growth in agriculture and allied sectors such as horticulture, livestock and sericulture. However, the activities of these sectors need to be scaled up for commercial exploitation for enhancing the income of the farmers.

The State has its national importance for being one of the leading producers in many commodities like wheat, paddy, sugarcane, etc. Livestock and fisheries have shown significant increases in their respective shares in the value of output between TE 2001-02 and TE 2013-14. Livestock has been leading contributor to the growth of

Uttar Pradesh Agriculture Policy 2013

The State Agricultural Policy aims at achieving

- A growth rate of 5.1% in the agriculture sector;
- Developing appropriate farming systems that would improve the soil health as well as farm income;
- Conservation of natural resources for maintaining ecological balance;
- Increase the income of farmers through agricultural diversification towards high value activities, while retaining the core-competence in area of food and nutritional security;
- Development of infrastructure facilities in sectors of seeds, fertilizers, pesticides, agriculture implements, extension services, food processing and marketing by promoting private sector involvement across the agricultural supply chain.

Agricultural Extension



✦ “Agricultural Extension is an empowering system of sharing information, knowledge, technology, skills, risk and farm management practices, across agricultural sub-sectors and along all aspects of the ***agricultural supply chain***, so as to enable the farmers to realise higher net ***income from their enterprise*** on a sustainable basis”.

(DFI Committee Report, 2017)

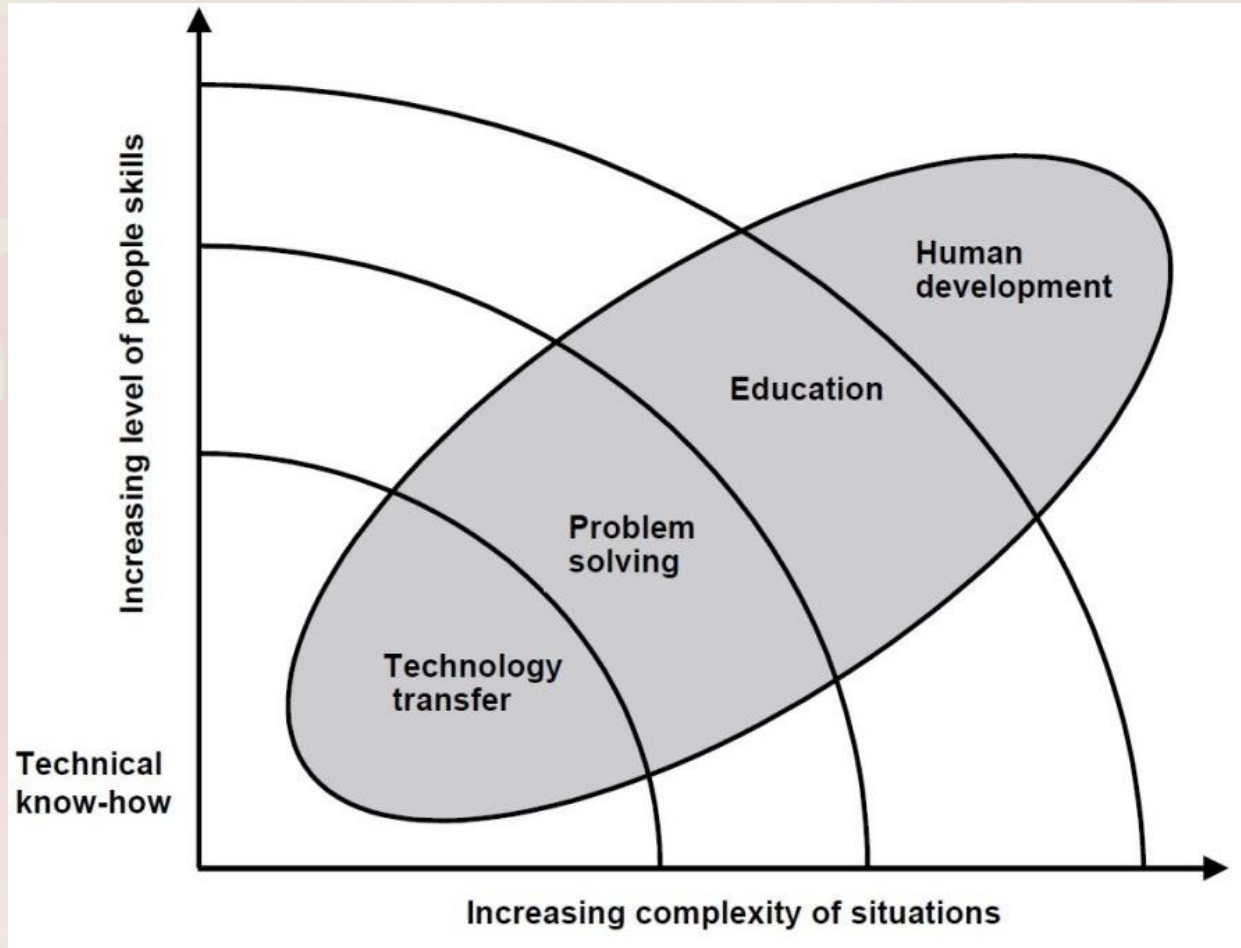
Agricultural Extension



AEAS as systems and mechanisms designed to build and **strengthen the capacity of rural farmers** and other stakeholders. This is accomplished by providing access to information and technologies but also by enhancing agricultural **skills and practices, capacity to innovate**, and address varied rural development challenges through **training programs, improved management** and organizational techniques. **Linkages with Research** and other actors (**POs, NGOs, Public-private etc**).

(GFRAS, 2015)

Agricultural Extension: Evolution



Evolving concept of Agricultural Extension

Agricultural Extension: Evolution



Agricultural Extension



Knowledge

Awareness Advisory
Mobilization
Co-ordinate Network
Market Intelligence
Communicate

Information

Evaluating Demonstrate Coaching
Teaching Brokering Training Changing
Linking

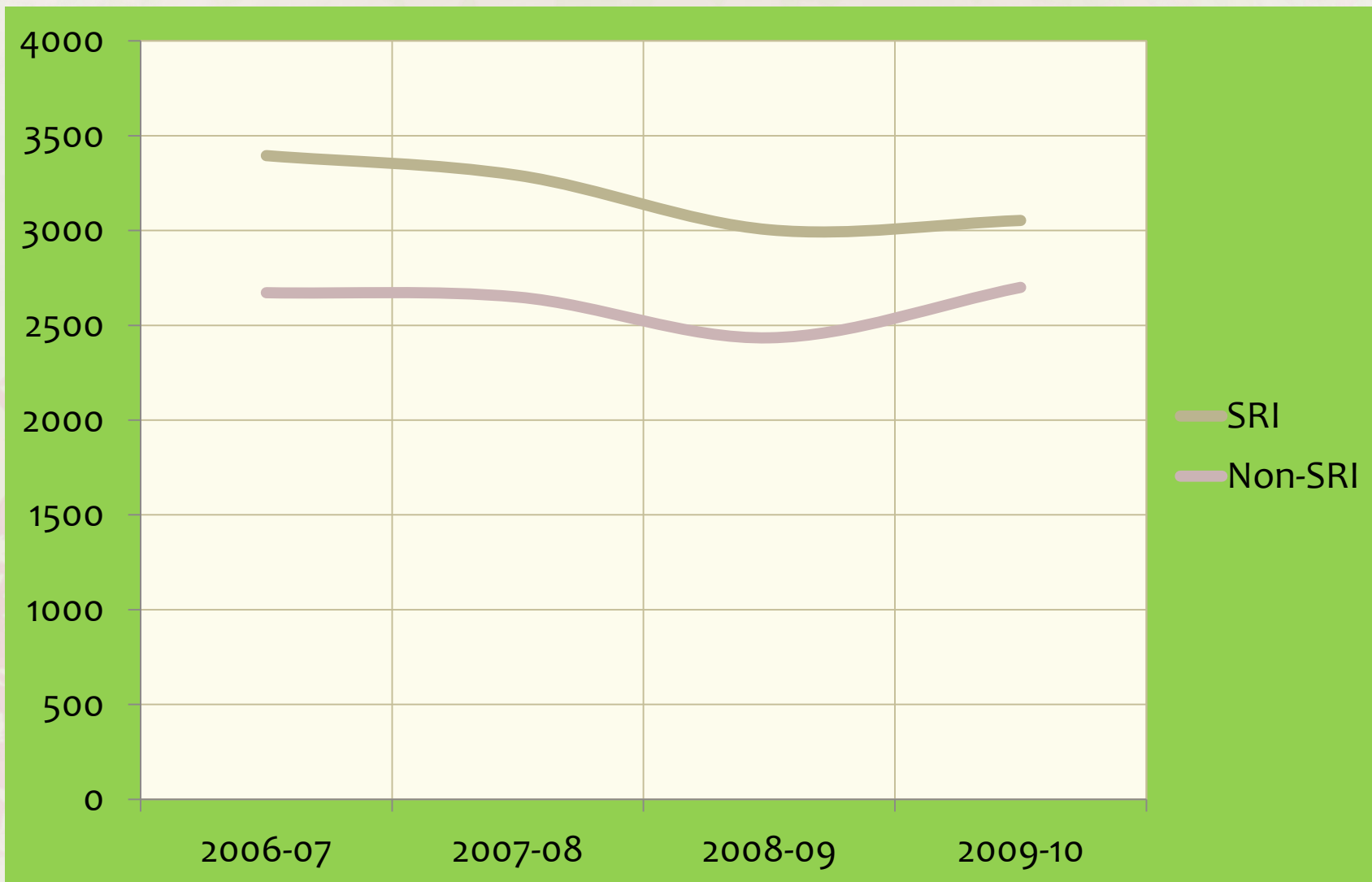
Innovation Planning Education Legitimization Incubation Learning Monitoring
Reporting Guidance Agri-Business Gender Feedback

TOT

Example 1

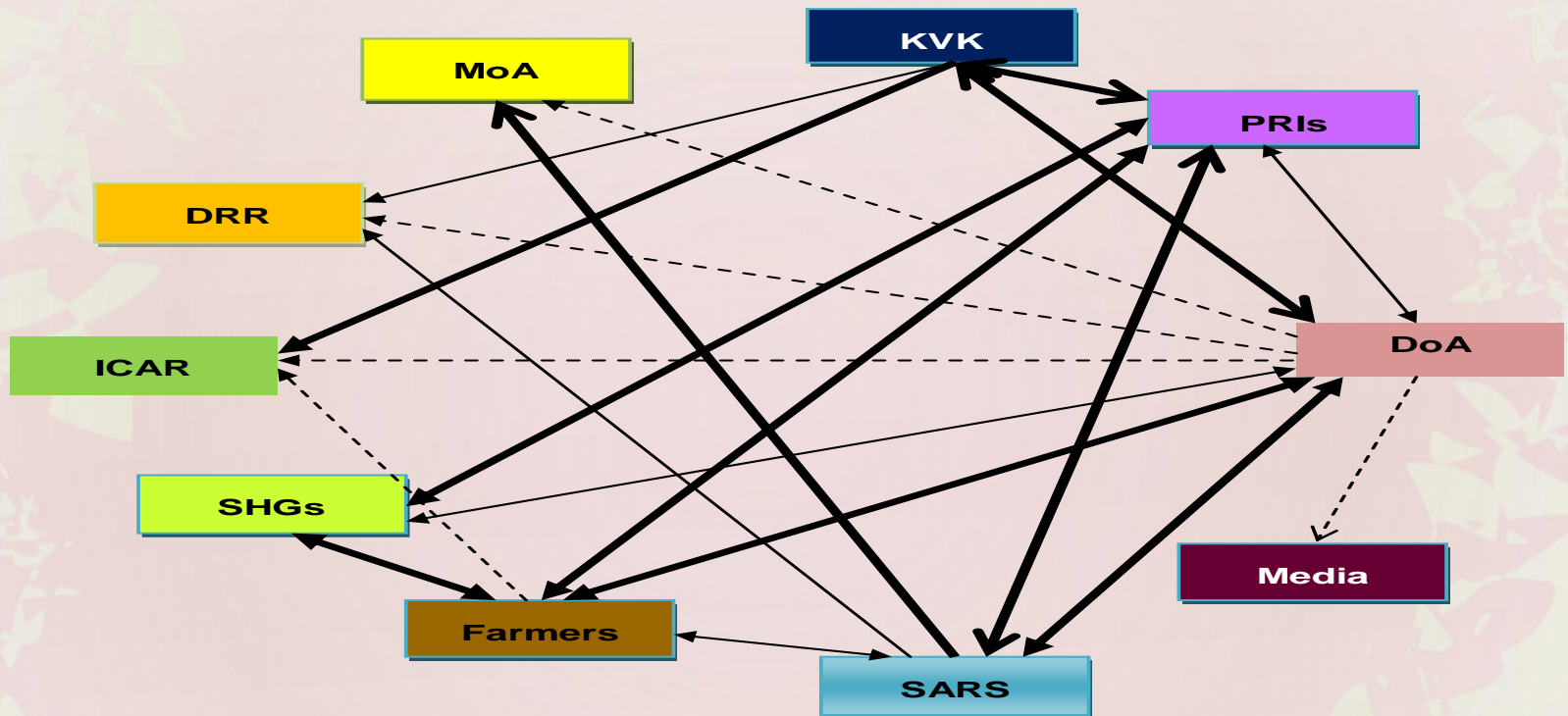
System of Rice Intensification (SRI) in Tripura, India

- ✿ Andhra Pradesh, Tamil Nadu and Tripura are leading states in SRI, Tripura leading in North East India.
- ✿ Area under SRI: 35 % of total rice area (2011-'12); 6.1 % of total rice area (2006-'07)
- ✿ 165 % increase in yield by SRI



Status of rice productivity (kg/ha) in SRI and Non-SRI rice

Agricultural Innovation Systems



- Weak relationship
- Fair relationship
- Strong relationship

(Suchradipta and Saravanan, 2013)

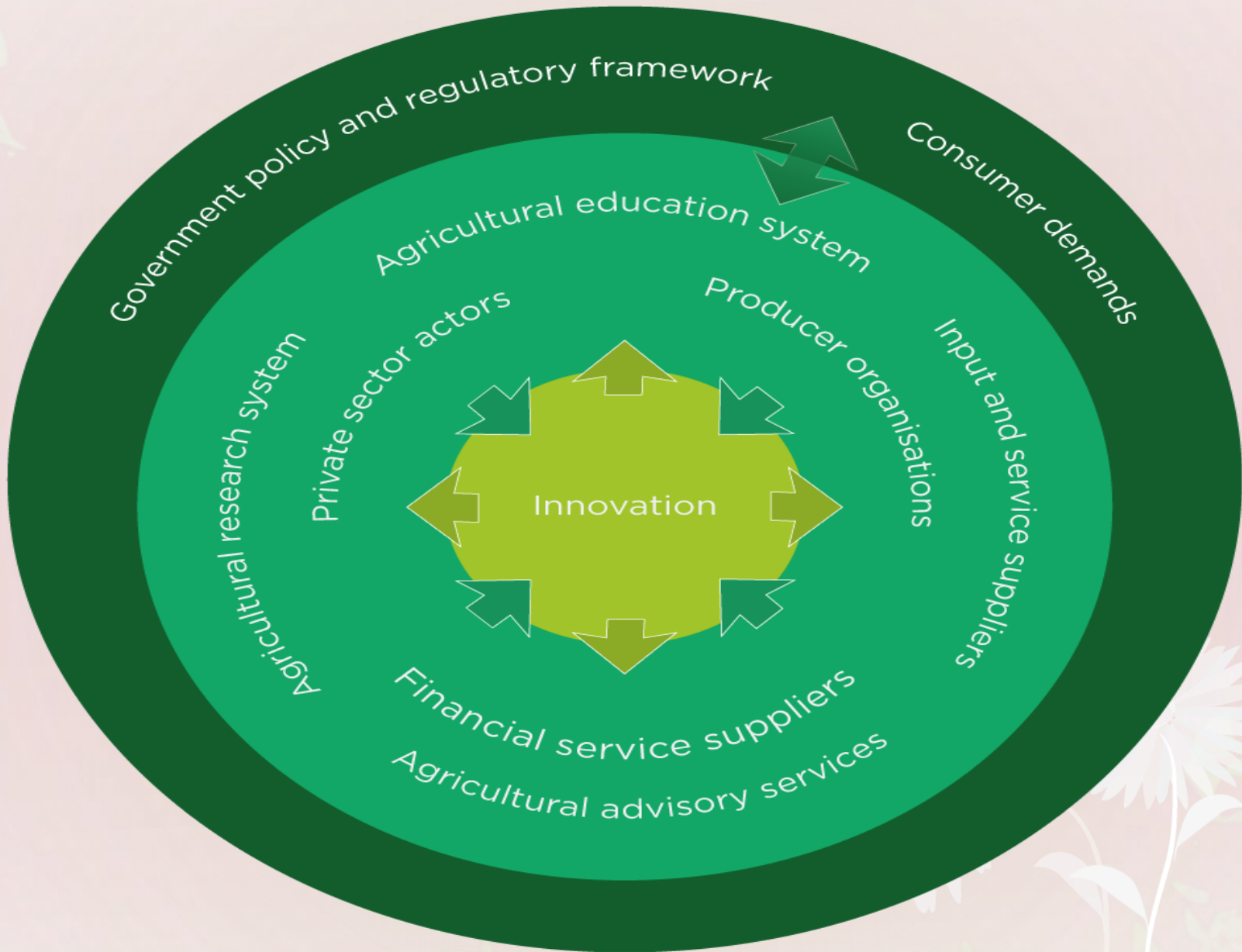
Stakeholder involvement in AIS in SRI in Tripura

Important elements in the AIS-SRI, Tripura

People/Organizations	Policies
Public extension mechanism	Perspective plan
Decentralized administrative units at grassroots	National Food Security mission (NFSM)
Farmers	Macro Management in Agriculture (MMA)
	Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA)

✨ Agricultural Innovation Systems (AIS):

✨ A network of **organisations, enterprises, and individuals** focussed on bringing **new products, new processes, and new forms of organisation** into economic use, together with the **institutions and policies that affect their behaviour and performance** (World Bank, 2012).



Agricultural Innovation Systems (AIS)



Extension  NEXT

Bulletin No. 2, June, 2017

Agricultural Innovation Systems: Fostering Convergence for Extension



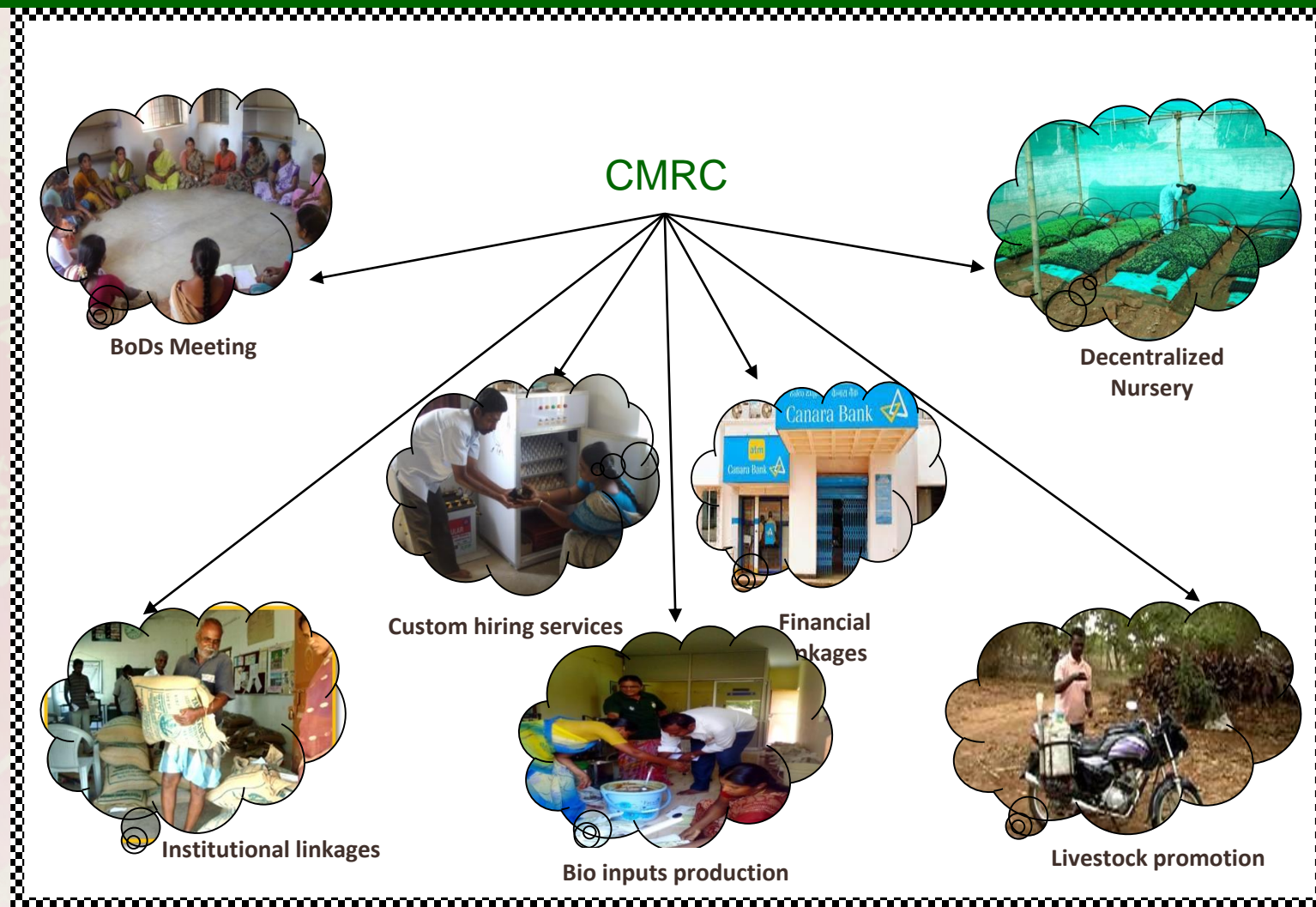
National Institute of Agricultural Extension Management (MANAGE)
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Rajendranagar, Hyderabad - 500 030, Telangana State, India
www.manage.gov.in

About the issue

Agricultural Innovation Systems (AIS) is a network of organisations, enterprises and individuals focussed on bringing new products, new processes and new forms of organisation into economic use, together with the institutions and policies that affect their behaviour and performance. With agricultural systems becoming more and more open to multiple stakeholders throughout the spectrum of the farm-to-plate journey of farm produce, innovation systems thinking will become more and more vital in changing times. A strong network of stakeholders make the system effective and beneficial for the farmers. It also aims for providing an innovation platform where farmers are empowered to become entrepreneurs from mere beneficiaries.

In AIS, roles and responsibilities of stakeholders are dynamic, changing with time and need; for successful development and scaling of innovation platforms, capacity development as well as partnership networking becomes important. The issue delves into what AIS is, how it operates, the diagnostic framework, capacity development for stakeholders in AIS, shortfalls of AIS and its implications on extension and advisory services.

Promoting CMRCs by KVK



Extension by CMRCs



CMRC's Services

Technology Management
Services

Animal Welfare

Farm Innovation

Financial services

Marketing Services

General Services

(Dr. P Alagesan, KVK, MYRADA, Erode, TN)

Agri - Entrepreneurs' Service Centre வேளாண் தொழில் முகைவோர் சேவை கையம்

Krishi Vigyan
Kendra

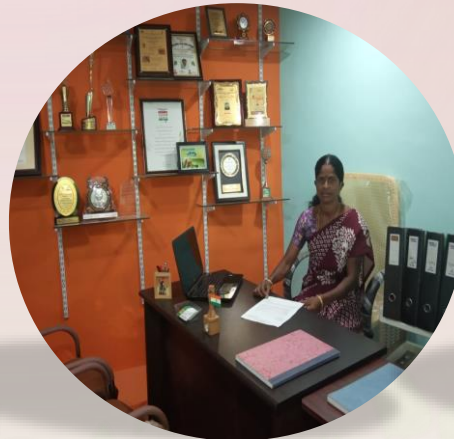
Establishment
of AESC

- Mentors
- Village Technocrats

Sustaining
Enterprise

Model /
Successful
Entrepreneurs

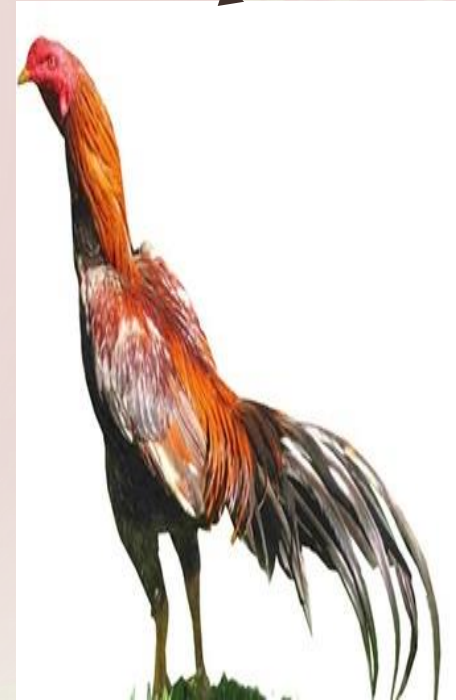
Convergence of
Resource
Institutions



Agri-Entrepreneurs Service Centres



Model Enterprise



Example 3

Community Extension System



Centre for Sustainable Agriculture (CSA) &
Sahaja Aharam Producer Company Ltd.

(Photo Credit: Ramanjaneyulu,CSA)

Community Extension System

(Farmer Field School (FFS), Agro-Eco System Analysis, Business planning...)



(Ramanjaneyulu, 2018)

KisanMitra: Farmers Helpline



08500 98 3300;



farm support services



- Advise
- Manage
- Track
- Market
- Hire

<http://www.ekrishi.co.in>

eKrishi Crop Advisory



Crop menu

Farmer can choose the crop to find the disease or send a query through photo/audio/video



Problem identifier

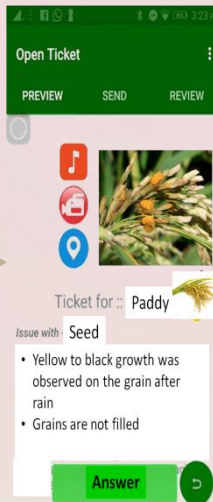


Query

Photo/Video of plant part and question in text or audio

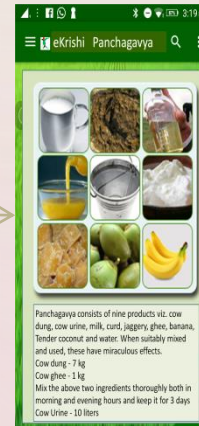


Problem solution Solution Details

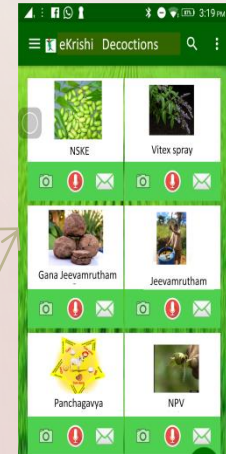


Query

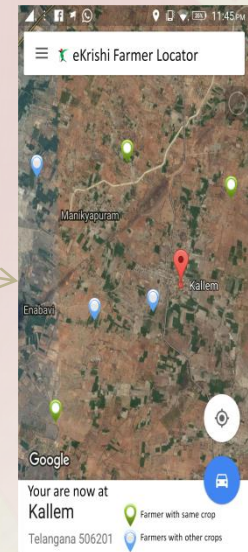
Expert view



Expert Response



Options



Farmer Locator

FPO Model



Cluster Level

VO Level

Farmer Service Centre

Knowledge

Inputs

Markets

Finance



VRC

• CRP

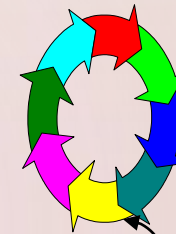
VRC

• CRP

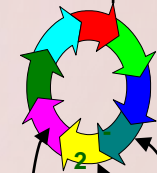
VRC

• CRP

PRODUCER ORGANIZATION



Cluster



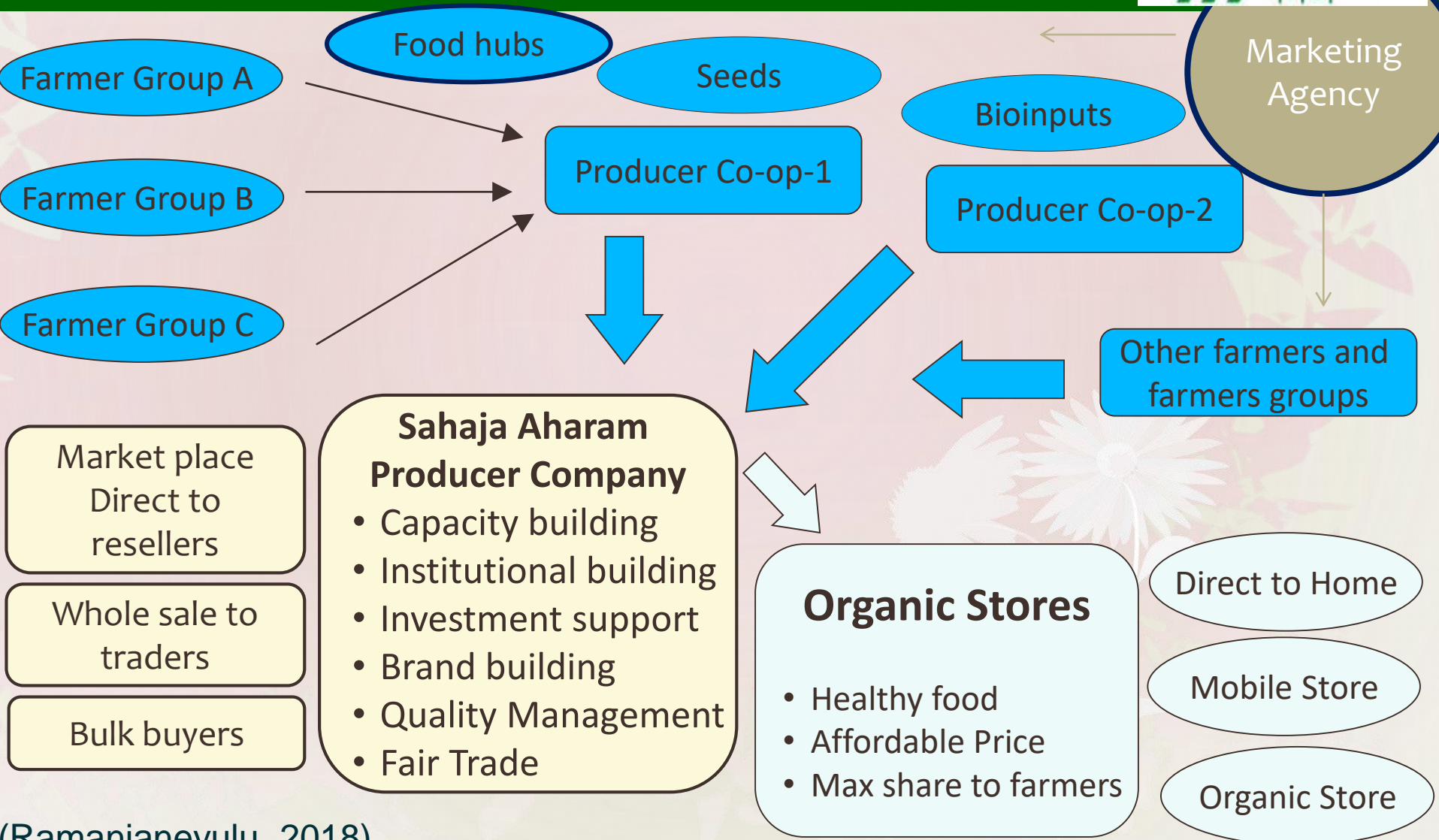
VO

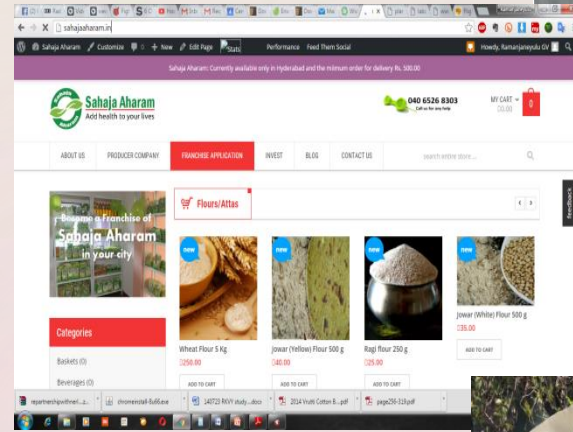


Farmer Groups

(Ramanjaneyulu, 2018)

Sahaja Aharam Producer Company







•Hyderabad

- Tarnaka
- Sainikpuri
- Jeedimetla
- Kharkana
- Attapur
- Kukatpally
- Gandhinagar

•Vishakapatnam

- Gopalapatnam
- MVP Colony

•Khammam

- Burhanpur

•Mumbai

- Home delivery

www.sahajaaharam.in

(Ramanjaneyulu, 2018)





Apna beej
यदा बीजम तथा फलम



Compost enterprise



(Ramanjaneyulu, 2018)

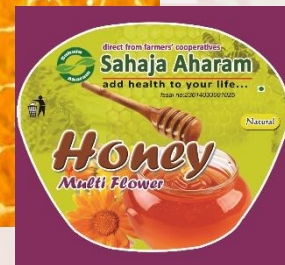
Creating Livelihoods

For diversifying incomes and assets

- Developing Livelihoods Plan
- Building the capacities
- Green Enterprises for Bioinputs
- Providing linkages



Decentralised cotton spinning and weaving



(Ramanjaneyulu, 2018)

Example 4



Supported by IKEA Foundation



Business Enterprises Leadership Management Programme (Women Entrepreneurship Programme)



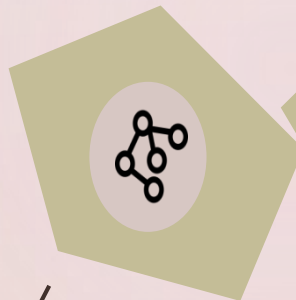
PURPOSE

Equip rural women with Leadership and Managerial Skills



DESIGN

Andragogy based on Self-Directed Experiential and Exploratory Learning

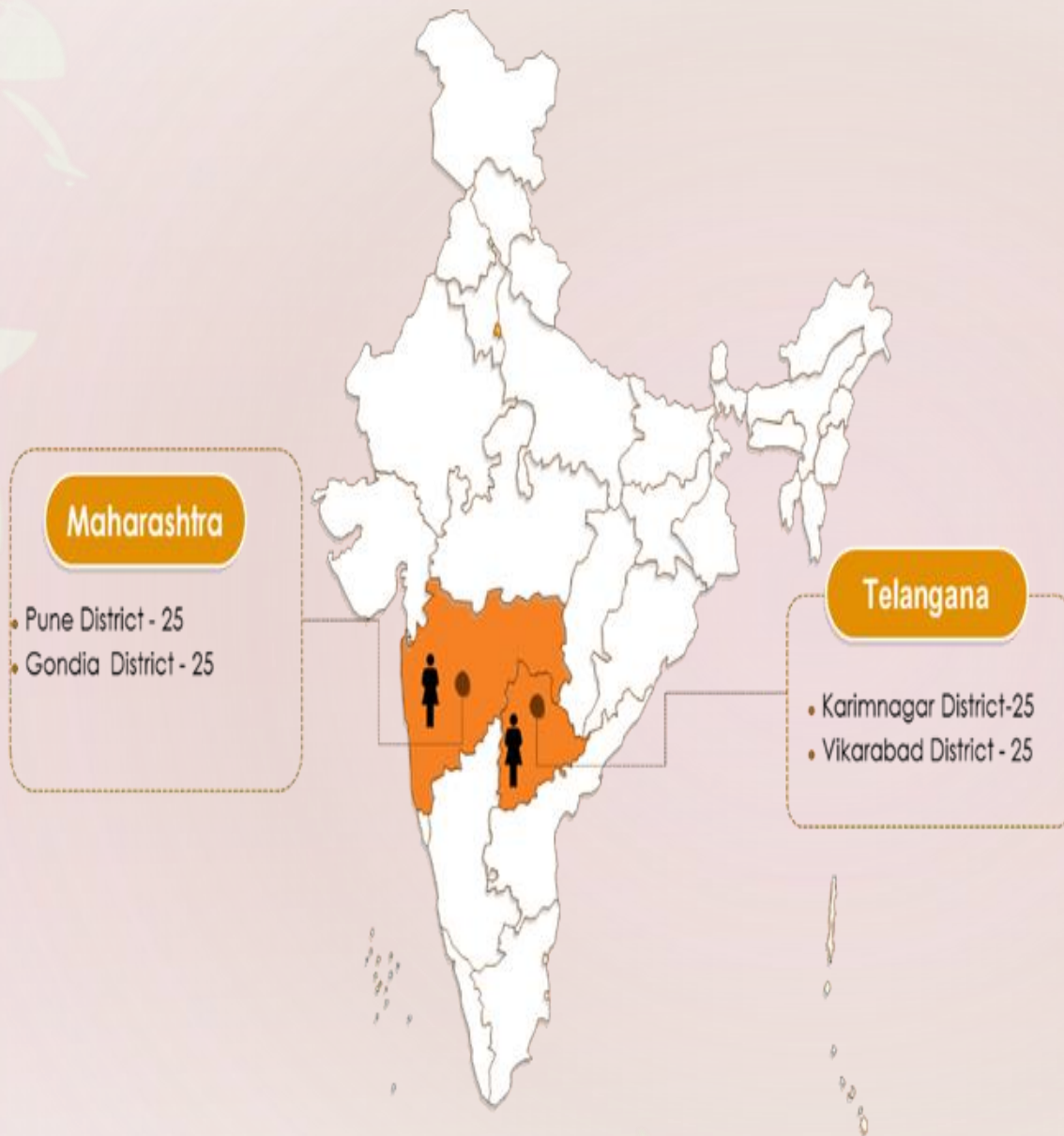


STRUCTURE

- 6- Months training on skills in the format of 75% practicum and 25% theory sessions. 30 hours of facilitation per month.
- 2 travel workshop with focus on Vision Creation and Leadership

TARGET AUDIENCE

100 Rural women from states of Telangana and Maharashtra



A six months (February – August, 2019) pilot micro MBA programme for 100 Rural women.

Unique Programme Structure

2 Travel Workshops

- Residential Training with extensive exposure to industrial practices (3 days)
- Leadership Development Residential Training (3 days)

Facilitation Workshop

- 5 facilitation workshops.
- Courses aligned according to the activities of the PCs at each location.
- 1 Facilitation workshop of 6 days each month inclusive sharing circle of 2 hours.
- First facilitation workshop scheduled in the month of Feb.

Practicum

- 20 days of practicum each month.
- Practicum tasks aligned to the activities of the SHGs.

Curriculum Framework (During Facilitation workshop)

- Directed towards their own learning (own past experiences)
- Flexible- location and needs
- Designed using the **Adult Learning Principles (Andragogy)**
 - Self-Directed Experiential and Exploratory Learning.
- The curriculum is structured around the following 4 pillars:
 - 1) **Self Transformation;**
 - 2) **Enterprise Mind-set;**
 - 3) **Enterprise Skills; and**
 - 4) **Enterprise Excellence.**



Group Activities during Facilitation workshop





**YOGA
CLASS**



**SHARING
CIRCLE**

Field Visits in Travel Wokshops



At Group
Women's Empowerment

disha
Women's Empowerment

UN Women

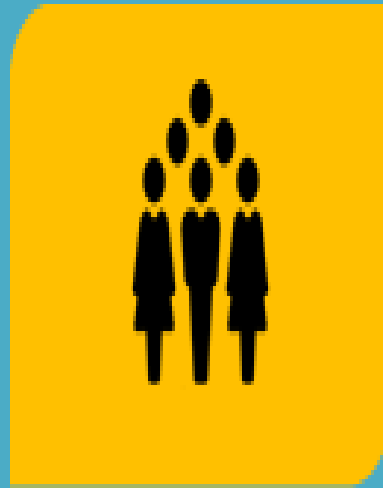
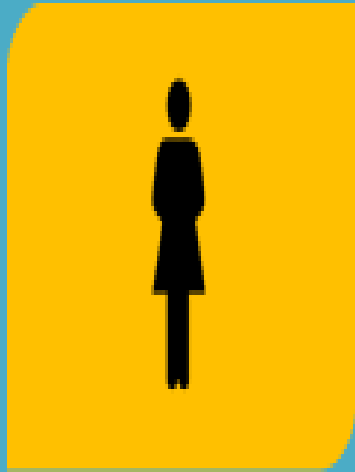
Business Enterprises Leadership Management Program

AIM

AIM with

IKEA Foundation





100 Rural Women-
Trained on
Leadership and
Managerial
Skills

Each Enterprise Leader- Trains
150 women in
their community

15000 Women
Impacted Rural
community
enterprises grow in
scale

Business Enterprise Leadership Management Programme

February – August, 2019

Vikarabad and Karimnagar districts of Telangana &

Pune and Gondia districts of Maharashtra

A pilot micro MBA program for rural women by ALC India, DISHA-UNDP, and MANAGE



Sai Sree and Saravanan Raj share their experiences of the Rural Women Entrepreneurship Programme – a pilot micro MBA program for rural women to build empowered communities and transform rural societies. This was an initiative of Access Livelihoods Consulting India Ltd. (ALC India), with support from DISHA-United Nations Development Programme (UNDP), with MANAGE as the evaluation partner.

CONTEXT

According to the Sixth Economic Census, GoI, 2016 released by the Ministry of Statistics and Programme Implementation, Government of India, women constitute around 14% of the country's total entrepreneurship, i.e., 8.05 million out of a total of 58.5 million entrepreneurs. Of this, 2.76 million women – constituting 13.3% of women entrepreneurs – work in the agriculture sector whereas 5.29 million women, constituting more than 65%, work in the non-agriculture sector. The average employment in women-owned enterprises is a meagre 1.67%. Despite this disheartening statistic, many studies have also pointed out that woman entrepreneurs are an important source of economic growth. They create new jobs for themselves and others, and also provide society with diverse solutions to managerial, organisational, and business problems.



Next Phase...

Ameti, Up
Kalahandi, Odisha
Naganpalle,
Telangana

10,000 women



Example 5

Community Resource Persons (CRPs)

NRLM



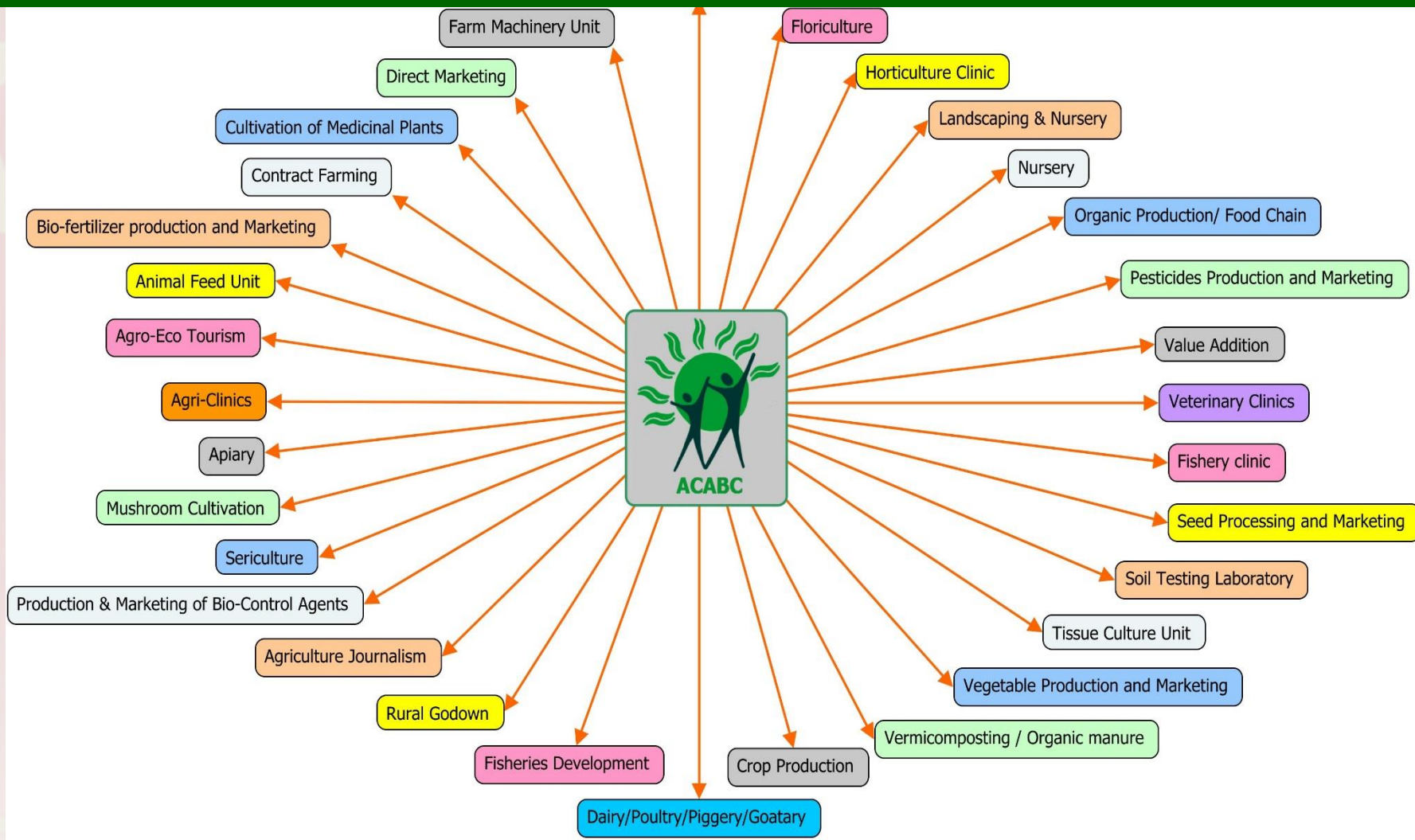
POCO
SHOT ON POCO F1







MANAGE Promoted AC&ABC Extension with Entrepreneurship



MANAGE Promoted AC&ABC Extension with Entrepreneurship



Farm Mechanization Innovations

Solar based Sprayer, Mixer, Hydroponic Unit
Mr. S. Sangappa, Karnataka

Fertilizer Dispenser
Mr. K. Pundarakshadu, Telangana

Solar Based Pest Trapper
Mr. Dilip Bisen, Madhya Pradesh

Tree Transplantation
Mr. Ramchandra Appari, Telangana

Head Lamp
Mr. P Suresh Kumar, Tamil Nadu

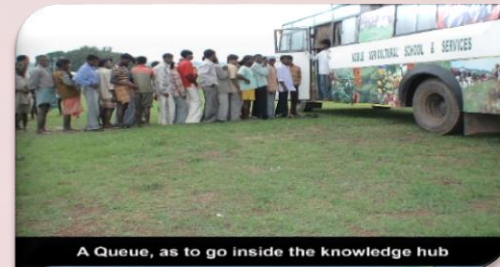


MANAGE Promoted AC&ABC Extension with Entrepreneurship



EXTENSION ON WHEELS

Mobile Agricultural School & Services
Shri Vijay Bharat, Jharkhand
(Farmers Reach: 100000)



A Queue, as to go inside the knowledge hub

Farm Fresh Vegetables on Wheels
Shri. K. Ranga Reddy, Telangana (Farmers
Reach- 3000)



Mobile Vet Clinic
Dr. Bablu Sundi, Jharkhand
(Farmers Reach: More than 5000)



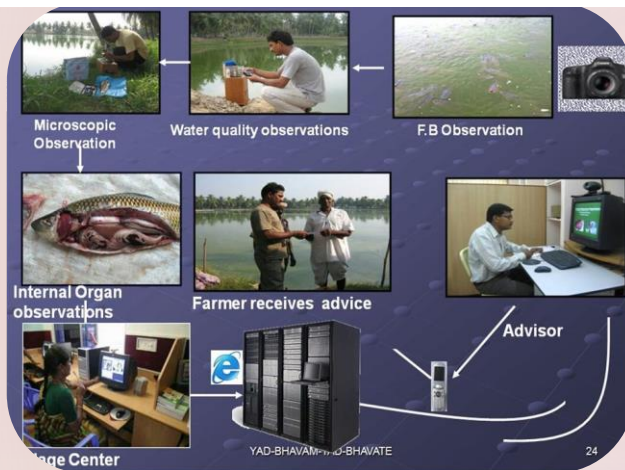
Mobile Pestomatic Controls
Shri Avinash Salunkhe, Maharashtra
(Farmers Reach-11000)



MANAGE Promoted AC&ABC Extension with Entrepreneurship



ICT based Innovations



Virtual Aquaculture Advisory Service
Mr. Shaikh Akbar Ali, Andhra Pradesh



ICT based Tablet for complete agriculture information
Mr. Randeep Das- West Bengal



Cotton Mobile App
Mr. Parikshit Bokare, Maharashtra



MANAGE Promoted AC&ABC Extension with Entrepreneurship



Innovative Breeders

Mr. V.Sondararajan

**Thuvakudi,
Tamil Nadu**

**Krishna Seeds
Paddy**

*Aishwarya , Jyandi,
Krishnaa ponni*

Sorghum fodder crop

Kamadenu



**Mr. Gurudas
Musmade**

**Ahmednagar,
Maharashtra**

**GM Seeds
Onion**

*Bima, Fule Samarth,
Basanth-780, Bhima
Super, Puna Fursungi
and N24-1*



**Mr. K. K.
Subramani**

**Mandya,
Karnataka**

**Indus Seeds
Papaya**

F1 Red Dwarf



**Mr. K
Parameswaran**

**Ottanchatram,
Tamil Nadu**

**RS Seeds
Sambhar Onion**

SRIKA -1 Variety





MANAGE Promoted AC&ABC Extension with Entrepreneurship

Indigenous Cattle Breeds Conservation



Dr. Gajendra Bamania, Ahmedabad, Gujarat
AI Services for Murrah, Sahiwal & all
indigenous breeds

Mr. Ganapathy Ramu, Erode, Tamil Nadu
Kangayam



Dr. Kishor Mathapati Satara,
Maharashtra
Gir

Mr. Dineshbhai Sonabhai Patel, Bansa
Kantha, Gujarat
Mehsana Buffalo



Mr. Harender Singh, Bulandshahr, UP
Sahiwal & Rathi Cow



MANAGE Promoted AC&ABC Extension with Entrepreneurship



Agri -Clinics and Agri-Business Centres (AC&ABC) Scheme

100 Start-Ups by Agripreneurs



National Institute of Agricultural Extension Management (MANAGE)

(An Organisation of Ministry of Agriculture & Farmers Welfare, Govt. of India)
Rajendranagar, Hyderabad – 500 030, T.S., INDIA
www.manage.gov.in

<http://www.agriclinics.net/100startups.pdf>



Agri-Clinics and Agri-Business Centres (AC&ABC) Scheme

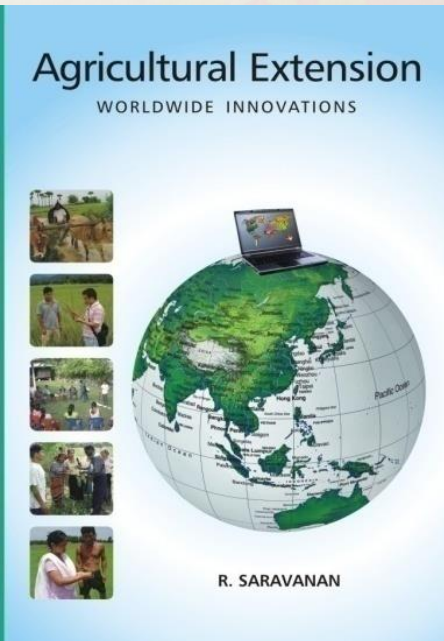
200 Enterprising Agripreneurs in Rural India



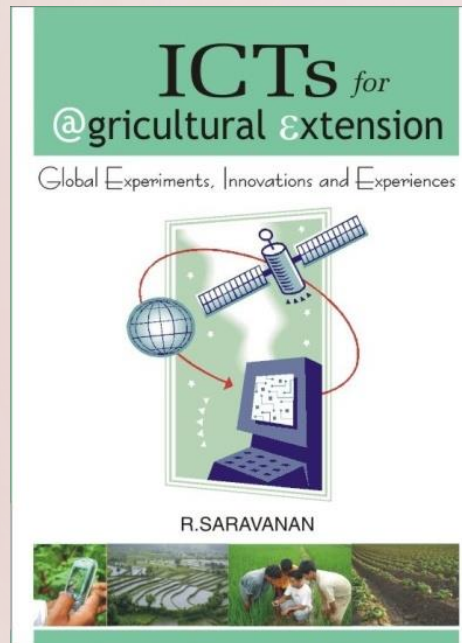
National Institute of Agricultural Extension Management (MANAGE)
(An Organisation of Ministry of Agriculture & Farmers Welfare, Govt. of India)
Rajendranagar, Hyderabad – 500 030, T.S., INDIA
www.manage.gov.in

<http://www.agriclinics.net/compendium1.pdf>

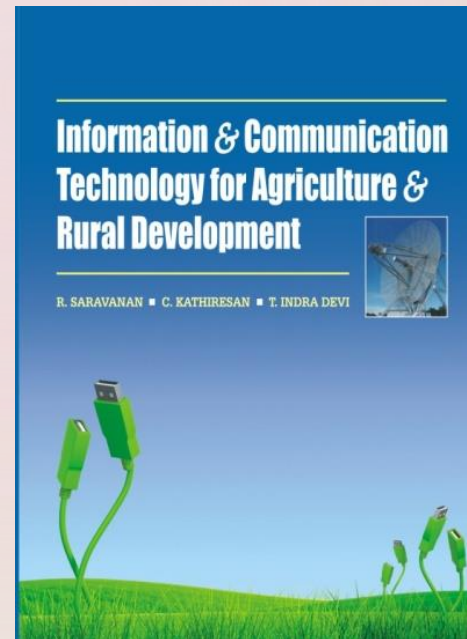
ICTs for Agricultural Extension



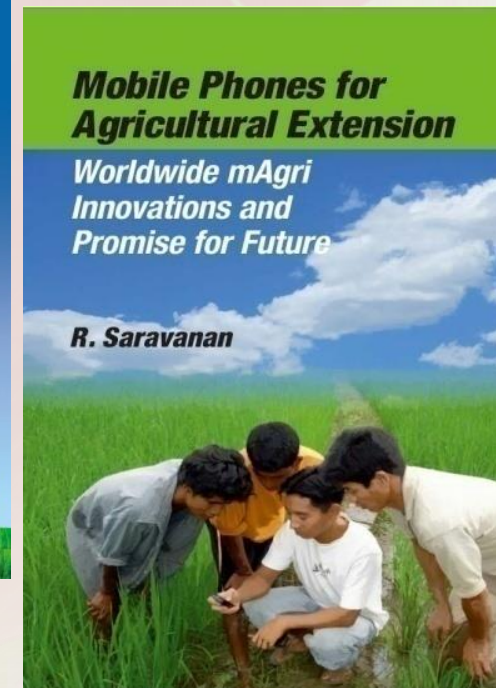
2008



2010



2011



2014

2015: Social Media
2017: IoTs, AI (Startups)

India

India is where it all started for us – where we pioneered, tested and successfully scaled our video-enabled approach to agricultural extension. After spinning off from Microsoft Research in 2008, we worked with all levels of government in over 15,200 villages across India, touching the lives of over 1.8 million smallholder farmers, 90% of them women.



<p>15,200 Villages covered</p>	<p>63% Practices improved</p>	<p>90% Women beneficiaries</p>
---	--	---

- Saravanan Raj**
Edit Profile
- News Feed
- Messages 20+
- Events 24
- PAGES**
- m4agrinei 1
- Create Ad
- Like Pages
- Pages Feed 20+
- Create Page
- GROUPS**
- Agricultural Extensi... 6
- Global Forum for Ru... 3
- Agricultural Extensi... 3
- e-Extension (GFR... 1
- Social Media For D... 15
- ICT4D 20+
- Society of Extensio... 1
- CHFians PASIGHAT ... 6
- EXTENSION 13
- TEACHING EXCELL... 5
- Asia-Pacific Islands... 1
- இயற்கை வே... 20+
- விவசாயம் கற்... 20+
- Tamil Nadu Agricu... 20+
- Tnau agri 1996 20+



கால்நடை தகவல் மற்றும் ... Members Events Photos Files Search this group

Write Post Add Photo / Video Ask Question

Write something...

PINNED POST

Murugan Ranganathan shared Daljeet Singh Gill's post. January 13

This is what Tamilnadu Dairy Farmers to replicate in coming years. Really I am proud of Punjab Dairy Farmers.

1,33,505 Members

Public Group

இந்த குழுவின் நோக்கம் கால்நடைகள் மற்றும் அது சார்ந்த தீவனம், இயந்திரங்கள், உபகரணங்கள், மருந்து, ... See More

55,020 members (1,698 new) · Invite by Email

+ Add People to Group

Tags: Livestock in India - Cows - Goats

CREATE NEW GROUPS

Groups make it easier than ever to share with friends, family and teammates.

+ Create Group

- Muralidharan Sridharan added 4 new photos. Classic Insects
- Chanchan Meinam likes Rojeet Thangjam's photo.
- Charles Jeeva likes Shivai Arade's post.
- Ushakumari Rajeswari
- Mahesh Chander
- Indra Saravanan
- Vijayaragavan Karuppiah
- DrMohar Singh Meena
- Mani Bhushan
- Kvk Banswara
- Upendra Kumar Saha
- Raghuraja Jayappa
- Ndri Karnal
- Bhagyavathi Sam
- Nataraju Siddegowda
- GROUP CONVERSATIONS
- Turn on chat to see who's available.

விவசாயம்
 agriculture, farming, cultivation, tillage
 Translated from ta [More >](#)

- About
- Discussion**
- Members
- Events
- Videos
- Photos
- Files

Search this group

- Shortcuts
- Rural Youth and Ag... 20+
 - RHWE 2015: Rural... 20+
 - National Institute of... 20+
 - Agricultural Extensio... 7



Joined ▾ Notifications ✓ Share <https://www.facebook.com/groups/madhualan/>

NEW ACTIVITY ▾

Madhu Balan shared a post.
 September 24, 2018
 Organic tea

metimes we struggle with a bit of coffee till the last sip & then we find sugar lying at the bottom

INVITE MEMBERS

+ Enter name or email address...

MEMBERS 16,470 Members

SUGGESTED MEMBERS

Friends

DAD Sivakumar Palaniswamy

Chat (Off)

16,470

eHorticulture
Created by Dr Jagadish IIHR, 13/06/2015

Mute
Until 23/02/2018

Custom notifications

Encryption
Messages you send to this group are secured with end-to-end encryption. Tap for more info.

Participants 152 OF 256

Dr Jagadish IIHR (Group Admin)

Participants 152 OF 256

Dr Jagadish IIHR (Group Admin)

Dr Saravanan

+91 73492 99653

+91 74110 28345 ~Chandra Mohan J

+91 77607 68191 ~nandeesh

+91 80508 00251 ~Shadakshari

+91 81054 53873 ~ಮಹಾಂತೇಶ.ಬೋಗಿ

5.4 MB 9:20 A.M.

+91 98457 90377 ~Kiran

+91 98802 50548
No chemical can eradicate a weed. Glyphosate is a good herbicide when crop is not there. In vegetable cultivation...

Tnx, I grow greens, n weeds r growing in robust than greens, very problematic not getting good yields 9:33 A.M.

+91 98802 50548 ~prabhakarm0919

One alternative is, as most of the weeds are from manures, after applying manures irrigate and wait for weeds to emerge. After removing these weeds take up sowing of greens. In summer you can also follow soil solarization 11:25 A.M.

+91 89044 56566 ~Mahesh R V

Soil solarization means tilling land &

5:27 P.M.

Tomato, wt r the remedies for this? 5:29 P.M.

+91 81054 53873 ~ಮಹಾಂತೇಶ.ಬೋಗಿ

Please check it is fusarium or bacteria oose test is needed 7:00 P.M.

fusarium and bacterial wilt's are problem in tomato 7:01 P.M.

+91 81054 53873 ~ಮಹಾಂತೇಶ.ಬೋಗಿ

Tomato1 PDF 8:18 P.M.

23 pages · 2.1 MB · PDF

+91 89044 56566 ~Mahesh R V

WhatsApp in ARD

DE UAS Raichur
Created by +91 94806 96313, 21/09/2015

Media 22 >

Mute
Until 15 December

Custom notifications

Encryption
Messages you send to this group are secured with end-to-end encryption. Tap for more info.

Participants 37 OF 256

Dr Raju Teggelli Glb (Group Admin)

DE UAS Raichur
Dr Raju, Dr Vasu Sir, Prakash Sir, S...

Gulbarga received 16 .2 mm Rains 9:28 A.M.

+91 94486 90684 ~Mahantesh Patil

UAS Sunil Kumar
Farmers to farmers training on "Vegetable Nursery Management & Vegetables Production Technology" conducted at KVK,Bidar from 15 to 17th March 2017. 7:46 P.M.

UAS Sunil Kumar

Type a message

DE UAS Raichur
Dr Raju, Dr Vasu Sir, Prakash Sir, S...

Diagnostic field visit to the chrysanthemum and sugarcane field in talkal and tigari villages Koppal on 14/3/2017 10:43 A.M.

+91 99016 49224 ~Kavitha P Mishrikoti

+91 99016 49224 ~Kavitha P Mishrikoti

Type a message

DE UAS Raichur
Dr Raju, Dr Vasu Sir, Prakash Sir, S...

Please upload pictures with details... 10:21 A.M.

+91 94485 56887 ~Sunil Kulkarni

I request UASR Agril. Engineers develop & modify such types of farm equipments, since farmers are demanding. 11:48 A.M.

+91 94485 56887 ~Sunil Kulkarni

Type a message



WhatsApp

Punjab farmers turn to WhatsApp group for farming solutions

ANJU AGNIHOTRICHABA
JALANDHAR, JULY 2

FROM CROP health to seed procurement, soil health, use of fertilisers and pesticides — farmers in Punjab can now get immediate advice via a WhatsApp group which includes agricultural experts.

The group, 'Young Innovative Farmers', was set up by Gurdaspur Agriculture Development Officer Dr Amrik Singh on August 15 last year. "I started it with a few farmers, but

Pradesh and Madhya Pradesh. State Principal Secretary K S Pannu and Gurdaspur Deputy Commissioner Dr Abhinav Trikha are also part of the group," said Singh.

"We have a shortage of staff in our department. If we visit a few villages daily, we can only meet a few dozen farmers. But on WhatsApp we can interact with several farmers daily," he said.

Some farmers upload photographs of their disease-hit crops to seek advice. "Whatever problem comes to us, we try to find a solution with the help of experts

soil test-based fertilisers is made available.

There is also an effort to create interest in the field of farming with farmers sharing good agricultural practices.

Jagroop Singh, who returned to his village in Gurdaspur after spending seven years in Australia, said he started farming after joining the group last November. He said that Dr Amrik Singh's four research papers, published in various journals, have also been made available to the group.

"It has changed my views on farming. Now, use limited fer-

Gurdaspur agriculture officer using WhatsApp to connect with farmers

Amrik Singh Khanda
www.punjabkhabar.com

Gurdaspur: Social media sites are not just a source of people sharing their views, they are also a platform for sharing information. In Punjab, where the use of social media is on the rise, it has become a platform for farmers to share their experiences and seek advice. This is the story of Dr Amrik Singh, an agriculture officer in Gurdaspur, who has used WhatsApp to connect with farmers and provide them with valuable information.

Dr Amrik Singh, an agriculture officer in Gurdaspur, has used WhatsApp to connect with farmers and provide them with valuable information. He has created a WhatsApp group called 'Young Innovative Farmers' where farmers can share their experiences and seek advice. This group has become a platform for farmers to share their experiences and seek advice. Dr Singh has used WhatsApp to connect with farmers and provide them with valuable information. He has created a WhatsApp group called 'Young Innovative Farmers' where farmers can share their experiences and seek advice. This group has become a platform for farmers to share their experiences and seek advice.



Amrik Singh

Dr Amrik Singh, an agriculture officer in Gurdaspur, has used WhatsApp to connect with farmers and provide them with valuable information. He has created a WhatsApp group called 'Young Innovative Farmers' where farmers can share their experiences and seek advice. This group has become a platform for farmers to share their experiences and seek advice.

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CREATES A GROUP OF 40 FARMERS, SHARES FARMING TIPS, NEW METHODOLOGY, ADDRESSES THEIR TROUBLES

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A screenshot of 'Young Innovative Farmers', a group of 40 farmers, on WhatsApp.

Social Media for Agricultural Extension



National Institute of Agricultural Extension Management (MANAGE)
(An organization of Ministry of Agriculture and Farmers Welfare, Govt. of India)
Centre for Agricultural Extension Innovations and Reforms
Rajendranagar, Hyderabad - 500080, Telangana State, India
www.manage.gov.in

About the issue

Social media has changed the landscape of global development. Worldwide, it is not just shaping communication but also the future, by influencing opinions and mobilizing masses. This digital communication method has become an inseparable part of everyday life. With increased popularity, it has become the most used medium for business and development sectors alike.

This popularity though, is yet to reach a mass scale in agriculture all over the world and beyond the boundaries of developed nations. The documentation of the use of social media, in a few rural areas in lower and middle income economies, is minimal. Also, psychological, technical as well as institutional barriers, to some extent, limit the use of social media among the agrarian stakeholders.

Considering the growing popularity of social media among the young and old alike, irrespective of their urban or rural distribution, this issue focuses on the innovations, resources and examples that social media brings forth for agricultural extension and its implications on shaping the future of extension.

Department of Agriculture, Meghalaya ICTs & Value Chain Extension

m4agriNEI 2012



1917 ITREAMS

1917 MARKET BASKET

Agriculture | Livestock | Fisheries | Horticulture | Handicrafts

GOVERNMENT OF MEGHALAYA
AGRICULTURAL TECHNOLOGY MANAGEMENT AGENCY, ATMA
MAWPHLANG C&D BLOCK
FOUR DAYS FARMERS TRAINING PROGRAM
(WITHIN DISTRICT)
ON
AWARENESS AND USAGE OF 1917 ITREAMS
AND
MARKETING OF FARM PRODUCTS
THROUGH 1917 ITREAMS
VENUE : MAWKALUN VILLAGE, MAWPHLANG C&D BLOCK





<https://www.facebook.com/1917-iteams-911673842515539>



<https://www.facebook.com/1917-iteams-911673842515539>

Connecting Farmers to Markets

ADVISORY | TRANSPORTATION | MARKETING



Achievements (Feb 2018 - Jan 2020)

Farmers Registered	Total Calls Received	Weight Carried	Distance Covered	Total Value of Goods
22,359 Nos	1,03,186 Nos	10,19,399 Kgs	99,445 Kms	₹ 3.15 crores

Example 9

Agri-Startups: 450+



DeHaat™

Solutions ▾ About Us ▾ Farmbook Blog

From Seeds To Market

Technologies For Next Agri Revolution

▶ Watch The Video



- Know Your Soil
- Agri Input
- Advisory
- Health & Growth
- Agri Output
- Farm Intelligence
- Finance



WE ARE HIRING!

We're offline
Leave a message



In partnership with **SEQUOIA** **FMO** **AGFUNDER** **omnivre**



AgroStar

- Gujarat, Maharashtra, and Rajasthan
- Over 5 Lakh farmers on its digital platform
- Agronomy advice and agri input

Bayer + Agrostar = Agri-Input + Advisory

- **Solutions to optimise the use of agricultural inputs and enable delivery to farmers**

Agrostar, BigHaat, Behtar Zindagi, Unnati, Gramophone, Freshokartz, AgriBolo, DeHaat, Bharat Rohan, and Bharat Agr

- **Accurate and timely assessment of soil moisture and developing data-driven controlled irrigation models**

Satyukt Analytics, Flybird, Kritsnam, Agrirain, Manna Irrigation,

- **Offering mechanisation solutions for harvesting and sowing**

Sickle innovations, Distinct Horizon, Tractor Junction, Khetibadi and J Farm

- **Standardisation through mobile imagery and digitisation**

Intellolabs, Agricxlab, Zense, Raav Tech, Occipital, Amvicube and Nanopix

- **Near farm, modular and affordable storage and processing solutions**

Our Foods, Agri Bazaar, Star Agri, Arya Collateral, Ecozen, Origo

- **Farmers advisory for crop monitoring, including institutional credit and crop insurance and value chain financing**

CropIn, SatSure, Farmguide, Niruthi, AgRisk, Skymet. Startups like Samunnati, FarMart, Jai-Kisan, PayAgri, Bijak

- **Connect farmers with buyers, including retailers, e-commerce, processors, cloud kitchens and direct to consumers**

Ninjacart,
Jumbotail,
Bigbasket,
ShopKirana,
SuperZop,
WayCool,
MeraKisan,
Kamatan,
DeHaat,
KrishiHub,
Agrowave,
Loop,
Crofarm,
FreshoKartz,
Agribolo,
Himkara,
Kisan Network



Scaling Agri-Startups: Promoting Innovations

Rashtriya Krishi Vikas Yojana (RKVY)

Remunerative Approaches for Agriculture and
Allied Sector Rejuvenation (RAFTAAR)



Startup Agribusiness Incubation Programme (SAIP) - Cohort 1

Centre for Innovation and Agripreneurship (CIA)

(A Centre of Excellence in Agribusiness Incubation and Knowledge
Partner of RKVY-RAFTAAR)

National Institute of Agricultural Extension Management (MANAGE)

Hyderabad, India

www.manage.gov.in



<http://cia.manage.gov.in/>

Example 10

Extension Institutions (Innovation and Incubation Centres)



<http://cia.manage.gov.in/>

Home About Us Programs Events Resources Startups Contact Us

Programs

MANAGE- Centre for Innovation and Agripreneurship



RKVY-RAFTAR



AC & ADP



National Entrep. Awards



Incubation

Tweets by @CiaManage

MANAGE - CIA
@CiaManage
thehindubusinessline.com/economy/agri-b...
...#fish #tilapia #export #fisheries
#animalhusbandry #India



Show all

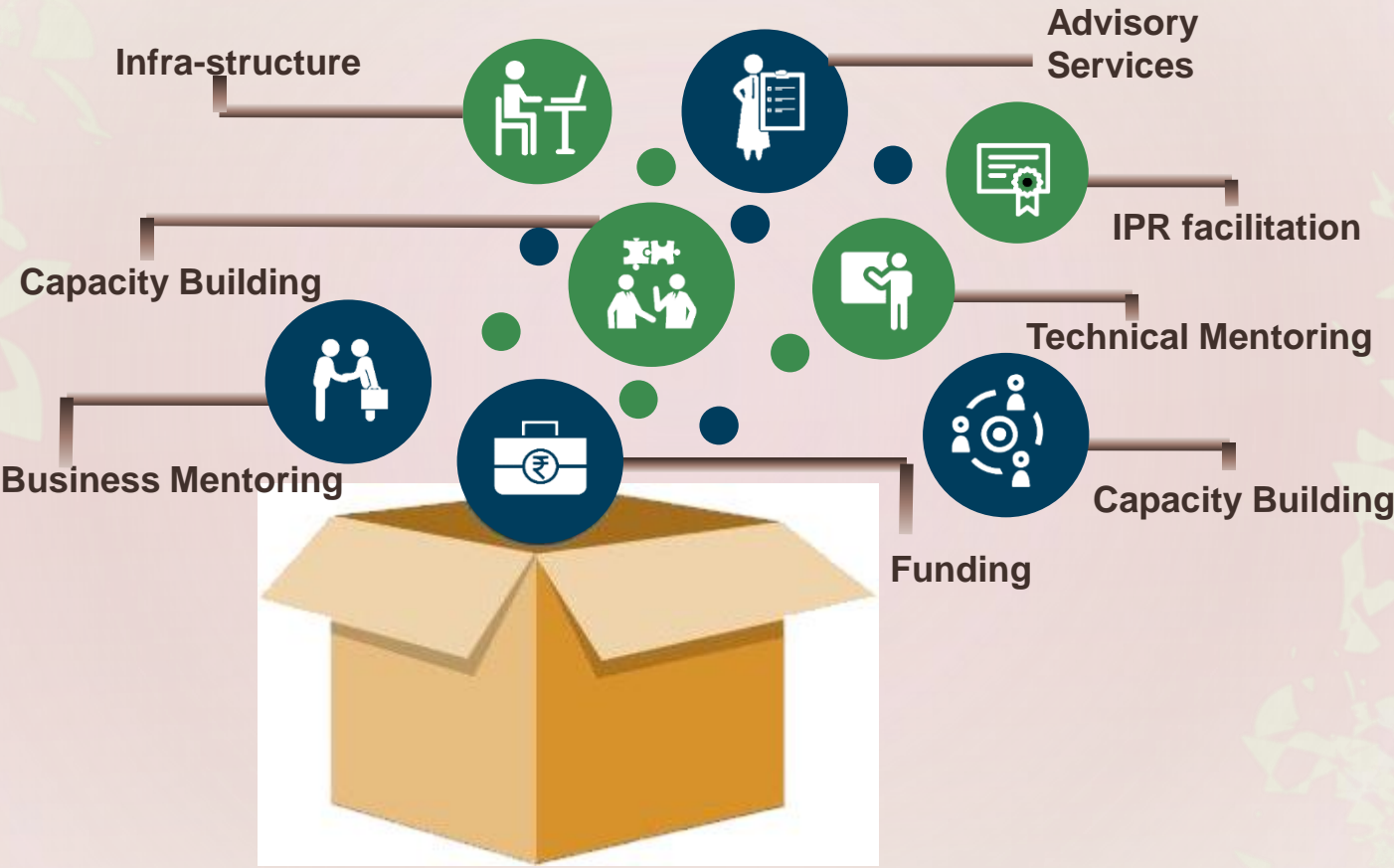
Innovation, Incubation & Startups



Focus Areas



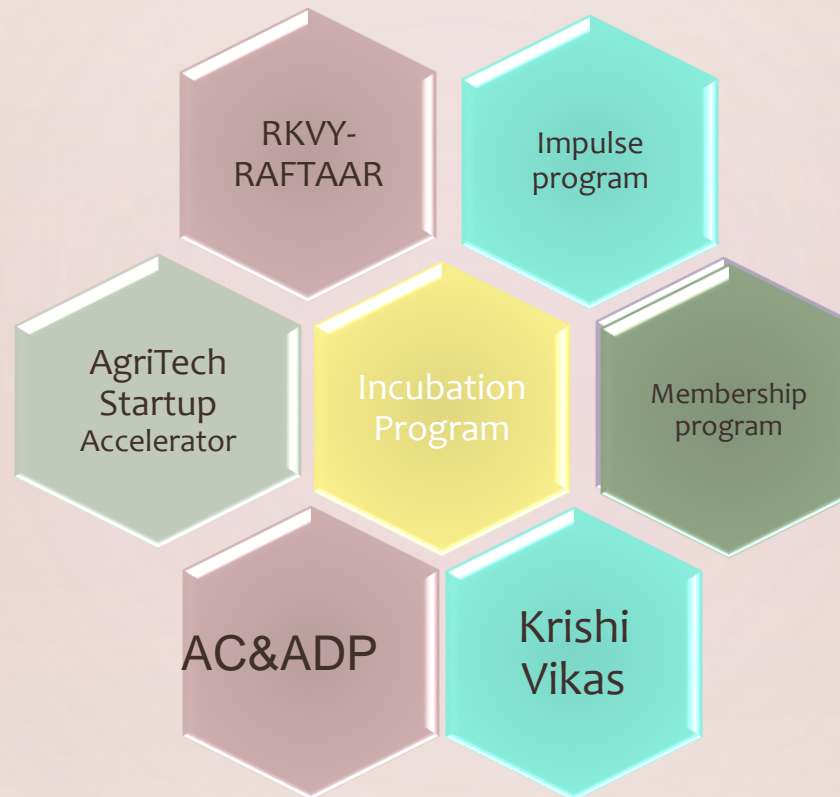
Offerings



Innovation, Incubation & Startups



Activities @MANAGE Incubation Centre



Krishi Vikas - Search for Agri Innovations

National Institute of Agricultural Extension Management (MANAGE)
(An Organisation of Ministry of Agriculture & Farmers Welfare, Govt. of India)
Rajendranagar, Hyderabad - 500 030, T.S, INDIA
www.manage.gov.in

Impulse

Agribusiness Mentoring Program

www.manage.gov.in

Agritech Startups: The Ray of Hope in Indian Agriculture

Discussion Paper 10

MANAGE-Centre for Agricultural Extension Innovations, Reforms,
and Agripreneurship (CAEIRA)



National Institute of Agricultural Extension Management (MANAGE)
(An organisation of Ministry of Agriculture and Farmers' Welfare, Govt. of India)
Rajendranagar, Hyderabad – 500 030, Telangana State, India
www.manage.gov.in

Changing Roles and Reforms



- ✦ 1. **Convergence and partnership** among agricultural extension stakeholders (Innovation system approach)
- ✦ 2. Extension with **Group approach** and FPOs
- ✦ 3. Research and development institutions need to promote **Sustainable Community Extension systems**

Changing Roles and Reforms



4. Targeted capacity development activities for **application of knowledge and skill** in enterprise development

5. **Extension services with entrepreneurship approach**

6. **ICTs for Agriculture Value Chain activities**

Changing Roles and Reforms



- ✳️ 7. Promoting Rural Agri-business and Startups
- ✳️ 8. Partnering and supporting Agri-Startups
- ✳️ 9. Extension institutions need to act as a **Innovation and incubation centres**
- ✳️ 10. Extension from Transfer of Technology (ToT) to ***Value Chain Extension***



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www.saravananraj.in

www.manage.gov.in

