



# Good Practices in Agricultural Extension and Advisory Services with Agriprenurship

Vol.1

2018



Smt. V. Usha Rani, IAS  
Director General, MANAGE

## From the Director General's Desk

I am very pleased to share the first issue of "Good Practices in Agricultural Extension and Advisory Services with Agriprenurship" to showcase the success of agriprenuers and their specific theme based area of innovation. In this volume we share four significant startup stories. This will be a good document for beginners and farmers to understand the real challenges faced by agriprenuers and solutions to overcome them and the impact of their venture in the society.

This document highlights the success stories of Agriprenuer, AC&ABC Scheme and MANAGE, in contributing to the society through agriculture extension and advisory services.

## Lead Author's Note

Good practices case study series on agricultural extension and advisory services with agriprenurship aims to document the success stories and innovative practices across India. These case studies provide ample evidence for "Changing nature of extension roles from mere transfer of technology (ToT) to emergence of inovative models".

- Dr. Saravanan Raj  
Director (Agricultural Extension), MANAGE

## Case Study 1 : Agro-tourism YATRA-Farm Tourism Venture

### Making Green Paradise

India | North East Region | Assam | S.S.Botanicals | Samir Ranjan

**Venture:** Samir Ranjan is promoting organic farming and advisory services in the north eastern states through YATRA.

**Agripreneur:** Samir Ranjan, a B.Sc. Agri graduate, after the AC&ABC training, took an initiative to start chemical free vegetable production process and agro-tourism activities.



## Case Study 2 : Farmer Producers Organization Chaitanya Agriclincs-Service Providers for Farmers Producers Organization

### Sprawling Town - Promoting Farmers' Owned Enterprises

India | West Region | Maharashtra | Pune | Chaitanya Agriclincs | Kiran Dumbre

**Venture:** Kiran Dumbre is promoting Chaitanya Agriclincs to help farmers' producer organization.

**Agripreneur:** Kiran Dumbre, a successful Agripreneur has a BSc. Agriculture degree along with MBA-Marketing.



## Case Study 3 : Aquaculture IIFSA-Aquaculture Venture

### Let's Innovate Aquaculture

India | South Region | Andhra Pradesh | IIFSA | Akbar Ali

**Venture:** Akbar Ali is promoting IIFSA which is an aquaculture service company that provides services in south India.

**Agripreneur:** After completion of B.F.Sc (Bachelor of Fisheries Science), Akbar Ali took the AC&ABC training and started an aquaculture venture.



## Case Study 4 : Soil Testing Unit IDEAL AGRI SEARCH - Soil Testing Venture

### Farmer Must Know the Nature of Soil

India | West Region | Maharashtra | Ideal Agri Search/Prakash Autade

**Venture:** Prakash Autade is promoting Ideal Agri Search Services, providing soil testing support and Agro Inputs with related solutions.

**Agripreneur:** Prakash Autade, a Agriculture graduate, started a soil testing and agro inputs manufacturing venture after completion of AC&ABC training.





भारत सरकार  
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कृषि, सहकारिता एवं किसान कल्याण विभाग  
Government of India  
Ministry of Agriculture & Farmers Welfare  
Department of Agriculture, Cooperation  
& Farmers Welfare



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

## Better Farming by Every Farmer

- Enabling Quality private agricultural and allied extension services
- Promoting entrepreneurship and self-employment opportunities

### Salient Features of the Scheme

#### Eligibility Criteria

- Graduates in Agriculture and Allied subjects from Universities recognized by ICAR/UGC,SAUs and other Agencies approved by DAC&FW,MOA&FW,GOI
- Biological Science Graduates with Post-Graduation in Agriculture & Allied Subjects
- Degree course recognized by UGC having more than 60% of the course in Agriculture and Allied subject
- Diploma/Post Graduate Diploma courses with more than 60% of course content in Agriculture and Allied subjects, after B.Sc with Biological Sciences from recognized colleges and Universities.
- Agricultural Intermediate (i.e. plus two) with at least 55% marks

<b>Age</b>	:	No Bar
<b>Training Period</b>	:	Two Months
<b>Project Cost</b>	:	Actual Project Cost
<b>Type of Projects</b>	:	Individual or Group projects under Agriculture /Allied sectors
<b>Rate of Interest</b>	:	As determined by Bank
<b>Repayment Period</b>	:	5-10 Years-depends on the project
<b>Margin Money</b>	:	No Margin money up to 5 lakh (10-15 % or as decided by the Banks)
<b>Security</b>	:	Collateral security up to loan amount of 5 Lakh is waived
<b>Loan</b>	:	Startup loan up to Rs.20 lakh, Rs. 25 lakh and Rs. 1.00 Crore. Also linked with MUDRA Loans for AC&ABC trained candidates (upto Rs. 10 lakh)
<b>Subsidy</b>	:	36-44% credit linked back-ended composite subsidy
<b>Handholding</b>	:	Training and one handholding through 100+ Nodal Training Institutes

Agri -Clinics and Agri-Business Centres (ACBABC) Scheme  
**100 Start-Ups by Agripreneurs**

National Institute of Agricultural Extension Management (MANAGE)  
(An Organisation of Ministry of Agriculture & Farmers Welfare, Govt. of India)  
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**Agricultural Extension Systems in Tripura**

Working paper 1  
MANAGE Centre for Agricultural Extension Innovations, Reforms and Agripreneurship

National Institute of Agricultural Extension Management (MANAGE)  
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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 Suchiradipita Bhattacharjee

**Agricultural Development in Tripura**

Agriculture is a major source of livelihood for the people (42 per cent of the population directly depend on agriculture and 33 per cent of the GDP is contributed by agriculture sector) from the state of Tripura. Third smallest state in India in terms of area, Tripura is surrounded by 856 kms of International border (Bangladesh). The total cultivable land in the state is 0.28 million ha with an irrigation potential of 0.12 million ha. Eighty two per cent of the farmers are marginal (land holding less than 1 ha). Rice is the major agricultural crop, while the focus is more towards pulses, especially in non-irrigated areas. Fishery is another important sector for the state, as fish is almost a staple food in the state. Thirty one per cent of the total geographical area of the state (10,45,109 ha) is under fish production and plays a very important role in meeting the nutrition security of the state's population. Horticulture is an emerging sector in the state, with greater importance being given to commercial cultivation of exotic flowers and fruits and increasing their export potential. Livestock is a part of the rural households and though mostly the sector is unorganised, the importance is high as livestock is the only liquid asset for many rural tribal households and so is held with high economic importance. ITIRs are being increased at the Govt. level to organize the milk producers into cooperatives, so as to increase their income. Also, scientific and improved ways of raising livestock are being popularized in the state.

**Agricultural Extension Systems in Tripura**

The major stakeholders in agricultural extension and allied sectors are the Department of Agriculture, College of Agriculture, Tripura; Department of Horticulture, Department of Fisheries; College of Fisheries, Central Agricultural University (CAU), Lembacherra; Animal Resource Development Department (ARDD); Department of Forestry, Rubber Board Regional Office, Tripura; Tripura Forest Development and Plantation Corporation Ltd. (TFDPC), Tripura Bamboo Mission (TBM), Indian Council of Agricultural Research (ICAR), Tripura Centre, Kohli Vigyan Kendra (KVK), Tripura State Agriculture Management and

manage30 | Manage Young Agricultural Extensionist Programme (MAYEP)

**manage30: Looking for Community of Practices (CoP) among extensionists**

Agriculture is highly dynamic and going through several changes. Thus, the changing time and technology require new skill and knowledge among extensionist to contribute to development of agriculture. The National Institute of Agricultural Extension Management (MANAGE) initiated the manage30 programme in commemoration of its 30th anniversary. The aim of manage30 is to bring changes in capacity, attitude, knowledge and skill of extensionists along with the mission of making them smart, dynamic and youthful, thereby initiating a Community of Practices (CoP) among the extension professionals to train next generation extensionist amidst technological advancement in agriculture. Hence, the focus was laid on young extension professionals aged 24-35 from agriculture and allied sectors of public and private domains. First manage30 programme was conducted during November 1-21, 2017 at MANAGE, Hyderabad.

**Smt. V. Usha Rani, IAS**  
Director General, MANAGE

“ To create highly skilled human resource of young extension professionals, MANAGE is initiating the programme MANAGE30 on its 30th anniversary year in service of the nation.”

**Focus:** Community of Practices (CoP)  
**Who:** Young extension professional (24-35)  
**Purpose:** Train to train next generation extensionists

“ manage30 is a new beginning in agricultural extension and advisory services in reviving the philosophy of philanthropy (social concern and volunteerism) followed in bygone era of rural development by the Community of Practices (CoP).”  
- Dr. Saravanan Raj, Director (Agricultural Extension), MANAGE and Programme Director

**Extension NEXT**

Bulletin No. 1, March, 2017

**Social Media for Agricultural Extension**

Train to train next generation extensionists

**Extension NEXT**

Bulletin No. 2, June, 2017

**Agricultural Innovation Systems: Fostering Convergence for Extension**

**Climate Smart Agriculture and Advisory Services: Approaches and Implications for Future**

Discussion Paper 1  
MANAGE - Centre for Agricultural Extension Innovations, Reforms, and Agripreneurship (CAEIRA)

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**Integrating Gender and Nutrition within Agricultural Extension and Advisory Services**

Discussion Paper 2  
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**Knowledge Management and Producer Organisations**

Discussion Paper 3  
MANAGE - Centre for Agricultural Extension Innovations, Reforms, and Agripreneurship (CAEIRA)

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## Case Study 1 : Agro-tourism YATRA-Farm Tourism Venture

Authors : Saravanan Raj and Jyoti Todd



### India | North East Region | Assam | S.S.Botanicals | Samir Ranjan Initiative Overview

**Venture:** Samir is promoting organic farming and providing advisory services in the north eastern states since 2005 and has successfully motivated about 500 farmers to take up organic farming. To enhance the income of the organic growers, he started a venture called "Yatra" in 2010. The whole approach is based on creating organic model farmers, model villages and introducing farm tourism.

**Agripreneur:** Immediately after completion of B.Sc. (Agri), Samir joined the corporate sector. However, in 2003, he left the job with the ambition to start a venture of his own. After getting AC&ABC training for 2 months, he took an initiative to start chemical free vegetable production process and in the process gained support from farmers and the common man. Several activities are going on under his venture, including consultancy service, organic farming and input supply to agricultural farm, vermi-compost production, agro-tourism and associated activities.

His activities are spread over upper Assam and few pockets of NE states but he is well known in his filed. About 500 farmers have benefitted and he has 22 employees working with him.



“Rural people of north eastern region are benefitted out of Agro- tourism”  
-----  
Samir Ranjan  
Bordoloi”

### Challenges

- Farmers' doubt over drop down production
- Livelihood is not planned
- Marketing of farm based products
- Lack of entrepreneurial skills
- Lack of financial support

### Solutions

- Creating model villages and farmers
- Working with NGOs
- Establishment of biggest organic farms
- Training MSW students
- Use of social media

### Results

- Self-sustainability
- Organic Brand in North East
- 3000 school children trained on farm entrepreneurship
- 5600 farmers trained on low cost farming methods
- International tourists and activist support the initiative

### Detailed description of venture established

The whole approach is based on creating organic model farmers, model villages and introducing farm tourism in those farms and farmers. Ten farm tourism spots have been developed under the initiative and is supporting about 125 farmers involved with the initiative. Ten youths are directly employed and many other youth are involved indirectly with the project. Many tourists from the country and abroad are supporting the venture by visiting to enjoy the organic farms and the hospitality of the people here. The agri clinic trains farmers on organic farming methods and also on tourism management. It partners with the farmers in implementing farm tourism venture. Many tourists like to experience the raw nature of rural India and prefer living in the village farm houses.





YATRA is a package for tourists where they can have the experience of staying in an organic tea garden, manufacture hand-made green tea, pluck tea leaves, live in bamboo made huts, sail in bamboo boats, stay in the bamboo village, help farmers plough, make compost and vermicompost and taste the ethnic food and culture of the north east. The package also has provisions to work in a big organic dairy and perma gardening farm. Most of the tourists also become messenger of the need of organic farming among the farmers and thus travel for a cause. The package includes tracking in bamboo village and forests of Assam and also meet the Forest man of India, Padmashree Jadav Payeng in his forest. YATRA conducts educational tourism where school children are exposed to farming activities in these organic farms.

YATRA is a full agro-tourism travel package covering Assam and Nagaland villages, visiting organic farmers of the region. North east is abundant in beautiful flora and fauna, and people have a diverse culture, living styles and food habits. Encashing on the strength of the region, YATRA ensures profit for the agri clinic and the farmer members, in terms of earning through farm tourism and also providing a direct access to the member farmers for sale of their organic products.

The components of the package are :

### **Organic Tea Tourism at Basanti Organic Tea farm at Gandhiagaon village of Panitola**

YATRA takes the tourist to this beautiful organic tea garden owned by a member farmer, Suresh Chetia, who was trained on organic tea production by Samir Ranjan Bordoloi in 2009 and in 2010, farm stay was developed in the garden. Tourists from Canada, Colombia, Australia and other countries have visited the initiative and got hands-on training on green leaf plucking in the morning, green tea making experience during the day and in the afternoon the tourists visit different small tea growers, trained by the agri clinic. At night, the visitors get to experience night-fishing in the farm pond and have a camp fire. Interested visitors also volunteer to motivate nearby farmers on organic farming.

- **Bamboo Village in Majuli**

Majuli is the World's largest river island and is the land of Satras (monestries of the Vaisnavites). Lots of tourist come to visit this beautiful island. The agri clinic, in partnership with model farmer Beda Dutta, has developed a bamboo village. Bamboo is the most climate-friendly plant and thus, YATRA is trying to build the economy of the poor farmers of a remote village of Majuli named Kalama, where visitors can explore nature, unlimited. YATRA has developed bamboo cottages for the tourists to stay. During day time, apart from going to the bamboo village, visitors also visit the forest created by the Forest man of India, Padmashree Jadav Payeng. The visitors get the taste of tribal food and culture of the Mising tribe of the island. The visitors also motivate the tribal women to take up organic farming under the agri clinic.

- **Organic Farm, Jorhat**

Samir Ranjan Bordoloi and Murlidhar Gattani have developed a large Organic Farm and Farm Tourism Centre at Jorhat. This modern organic farm has a 250 cow dairy unit, a 600 tons vermicomposting production unit with perm gardening of organic vegetables with protected cultivation and bio intensive raised beds. The farm has 3 star hotel facilities rooms and day long on-farm activities for the visitors. It facilitates lots of educational tourism groups from different schools across the country.

- **Charaimari Organic Model village**

Motivating 12 rural youths in the village, Samir Ranjan Bordoloi created this model village where 70 households grow organic vegetables in their homestead gardens and visitors spend their day moving around the village and have a picnic on the banks of river Doyang, which is a beautiful sight. The ladies from the village process the traditional fruits and offer them to the visitors. This is an example of a village that has been developed with no monetary support but only through motivating farmers to depend on on-farm resources.

- **Dhansirimukh Model village in Kaziranga**

Kaziranga is the heart line of Assam. YATRA takes visitors to the National Park to witness the pride of Assam: the one-horned rhino and makes visitors stay in Farm stay at Dhansirimukh Model Village.

### Constraints faced

- Farmers' doubt over the drop in their production on converting to organic farming. They fear drop in income as a result of converting to organic farming.
- Farmers' livelihood is not planned based on the regions strength: its natural resources.
- Marketing of farm produce is the biggest problem in the region.
- Lack of entrepreneurial skills among the farmers.
- Lack of financial support.

### Lessons learned

- Market led extension and fair trade with farmers helped create big business with low financial inputs.
- Risk bearing capacities of the farmers is very low, so they perform best when they come together to do agribusiness.
- Use of local resources in farming and agro-tourism lowers the cost of cultivation and ensures profit, inspite of giving the products at affordable prices to the visitors.
- Agro-tourism helps create market demand for the farmers' produce.
- Planning on local resources gives an international identity to the effort.

### Overcome obstacles

Introducing agro-tourism with organic farming has ensured greater profit to the farmers and it is now becoming easy to replicate the same model in other places. Creating an umbrella of like-minded people helped overcome the obstacle of lack of funds and within a short period, more works could be accomplished. Working with community based organizations helped mobilize resources for the development of the associated farmers.

### Initiatives taken

- Involving the farmer's children through the flagship programme 'Farm Preneur'. Using school children as extension agents by training them in schools. It's an activity based learning programme for the students of Govt. schools of Rural Assam. It bagged the North east Social Impact Award, 2015.
- Continuous mentoring of model farmers and developing farming techniques based on local resources which are low cost.
- Working with NGOs and establishing NGO 'Farm2Food Foundation' and training farmers on the whole value chain.
- Establishing the biggest organic farm of the North east to motivate farmers by leading by doing.
- Trained MSW students of Bosco Institute and TISS, Guwahati to motivate more villages to become model villages.
- First creating organic model farmer, then model village and then introduce agro-tourism.
- Creating model villages and success stories and then promoting them by the help of Government schemes, advocating at the policy level.

### Innovations to resolve constraints

- Farmers' participation in organic farming increased by incorporating farm tourism concept with organic farming to give more income to the farmers.
- Dependence on local resources and their sustainable use, lowered the costs. For example, building bamboo cottages in the farms hastened the works and created more demand in the market. Lots of indigenous techniques and profitable techniques were developed like the bamboo made bio intensive beds, bamboo framed protected cultivation structures, herbs based pest repellent extracts etc., and these ensured more participation and adoption at farmer's level without depending on subsidies.

- Agro-tourism helped create a market for the farmers. The intervention helped develop hand-made processing techniques and processed products packed in traditional and ethnic packaging materials. Hand-made green tea, Rosella herbal tea, dehydrated powder of nutraceutical plants are being successfully marketed and even exported through Fair trade.
- Creating farm and food entrepreneurs of the future through the Farm Preneur programme
- Partnership with model farmers and farmer groups and entrepreneurs helped overcome the fund crisis.
- Use of social media to promote the activities.

## Results

### Impact

- Self-sustainability of farmers attached with the project achieved.
- The initiatives established the Agripreneur as a brand in the North east in the field of organic farming and agro-tourism.
- Appointed as a Member of the Board of Management of Assam Agricultural University.
- ACABC, apart from providing a good livelihood also earned lots of respect for the agripreneur in the society.

### Outcomes

- Lots of farmers are earning a sustainable livelihood through the efforts.
- More than 3000 school children are being trained on farm entrepreneurship.
- The Farm Preneur programme is now incorporated under the Assam Sarba Shiksha Mission of the Govt. of Assam.
- The efforts in Jorhat is now spread to the whole of North east and thus, established an organization called SPREAD NE and under this, it is planning to establish a Centre for Sustainable Agriculture and Rural Development near Guwahati.
- Gaining lots of support from International tourists and activists coming forward to support the initiative.
- In 2015 and 2016 , trained 5,600 farmers on low cost organic farming methods; established 225 model farmers; created 3 model villages ; trained about 5000 school kids on low cost composting and vermicomposting, establishing 150 farm preneur schools and 10 agrotourism ventures established

### Conclusion

With the motto of self-development through dedicated services to the farmers, more farmers have to be reached in the coming years. Organic farming and agro-tourism model is the best way to sustain farmers in the North east India. Local resources, local people and local culture combined, can create a Northeast brand internationally and as an agripreneur under MANAGE, the agripreneur will try to create a successful model to be incorporated into the Government extension mechanism, to lead a market led extension services to make it profitable for the farmers and stop migration of rural youths to urban areas.



<b>Name of Agripreneur :</b>	Samir Ranjan Bordoloi
<b>Address :</b>	S.S. Botanicals , No.1 Sonarigaon , Tarajan), Jorhat.
<b>Location :</b>	Assam
<b>Age :</b>	44 Years
<b>Education :</b>	Graduate-Agriculture
<b>Annual Turnover :</b>	1 Cr
<b>Mobile :</b>	+91-8486029583
<b>Email ID :</b>	samirf2f@gmail.com
<b>Facebook :</b>	samir.bordoloi.54





India | West Region | Maharashtra | Pune | Chaitanya Agriclincs | Kiran Dumbre

## Initiative Overview

**Venture:** Kiran Dumbre is promoting Chaitanya Agriclincs since 2014. It provides technical support and services to Farmer Producer Organizations (FPOs). There was a need for technical support services in the development and setting up sustainable business unit, to serve members of the FPOs. Chaitanya Agriclinc is providing technical consultancy to the targeted FPOs for developing their strategy to grow up as an organization, increase the share capital by means of implementing innovative services to the targeted farming community in the local area.

**Agripreneur:** Kiran Dumbre, a successful agripreneur, has a BSc. Agriculture degree, along with MBA-Marketing and he completed AC&ABC Scheme of MOA&FW, GOI from 09 July to 06 August 2008 (ID No. MS 5053) from MITCON Consultancy Services Pvt. Ltd and started the agri consultancy services after completion of AC&ABC training.



“When a farmer is able to establish his or her own enterprises, it gives the greater satisfaction as a agripreneur.

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*Kiran Dumbre*”

## Challenges

- Mobilization of individual farmers into a formal structured organizations.
- Raise share capital of FPOs.
- Development of a Business plan for the FPOs.
- Promotion bank linkages of FPOs.
- Legal and technical knowledge about Acts and Regulations.
- Convergence with the line departments.

## Solutions

- Providing vision regarding benefits of an organized farmers institution.
- Initiate short time financially viable activities with small changes in the existing production practices.
- Cluster Based approach to determine potential business plan. Convince bankers about financial credentials of the targeted farmers groups, creating awareness among farmers by means of “Financial Inclusion”.
- Created association with Charter Accountants (CA) Firm for technical support..Involvement of FPO representatives on follow ups with department officials.

## Results

- Providing services to 3 FPOs, one of them has developed a sustainable business plan.
- Formed a group of 15 to 20 farmers. Further these groups will be federated into a Farmer Producer Company, comprising around 1,000 to 1,500 farmers.
- 10 Joint liability groups promoted, 5 Self help groups linked to banks and 2 FPOs linked with bank to sanction cash credit for collective procurement of their farm inputs.
- Totally 700 farmers mobilized into formal structured organizations.
- Totally 600 members increased resulting in an increase in the share capital by Rs 6,00,000 for 4 FPOs.



## Detailed description of venture established

As an Agripreneur it is very helpful to work for a group instead of for individuals. It brings in equity and one can benefit from economies of scale. CHAITANYA Agri clinic adopts a social approach to deliver services, technical know-how and backward - forward integration. During the last decade there has been a very big movement by different Govt. and NGOs to form and promote Farmer Producer Companies (FPCs). Unfortunately these FPCs didn't stand up as their own even after 4 - 5 years of their incorporation. They are facing problems in promoting share capital, develop business activities, etc. Agripreneurs are also domain experts for agriculture production. This gap in the existing system triggered business opportunity and now the agripreneur is a consultant to MAHAFPC (a state level consortium of FPC in Maharashtra).

The venture - Chaitanya Agriclincs, initially derived a short loan of ` 50,000 from SBI for purchasing a laptop. The nodal training officers from MITCON Consultancy Services Pvt. Ltd, provided mentoring support. Various refresher trainings provided at MANAGE has provided a great support through value addition, skill improvement, capacity building and really added value to formulate a bankable proposal.

### Trainings and capacity building of farmers, SHG members, FPOs and NGO staff

Chaitanya Agriclinic provides training and capacity buildings to 700 farmers, SHG members and NGO staffs

### Services through financial inclusion centre

Chaitanya Agriclincs provide services to more than 600 members annually through the financial inclusion centers.

### Promotion of Joint Liability Scheme of NABARD and promoted 20 Joint Liability Groups (JLG). Promotion of residue free vegetable production among 25 farmers of Parali Vajjanath Block, Dist Beed

- **Onion seed production for FPO**

CHAITANYA Agriclinic has taken an initiative to provide services as organizer for seed production on behalf of Krushijeevan Agro Farmers Producer Company, at post Dhangarwadi, Tal Junnar, Dist Pune. In Junnar, Ambegaon blocks of Pune District, onion is cultivated in large areas covering around 10,000 ha. The farmers used to fetch onion seed from local seed distributors or dealers at ` 2000 – 3000per kg. This adds to the cost of production and profit realized by farmers is very low. Also quality of seed is another problem which causes acute loss in output.

- **Promotion of NON GMO cotton seed for sustainable cotton production**

During current kharif season, Chaitanya Agriclincs implemented seed production program for NON GMO cotton variety Anusaya (NH 615), identified as a good alternative for BT cotton in drought prone conditions. There is no sucking pest attack identified on this crop. Also boll worms were controlled by using HaNPV.



### Constraints faced

- As t providing consultancy or expert support in organizational development is an absolutely innovative activity, the target customer group is not willing to pay for services.
- Technical know-how about formation of Companies is not in the authority of the agripreneur.
- To mobilize farmers into community organizations is very big task. It requires very high skills to convince individual producers / growers to form organizations.
- After incorporation of companies, to raise share capital and develop business plan are important challenges.

### Lessons learned

- Farming communities will support agripreneur if provided with tangible solutions to their problems.
- For sustainable development of any community organization, small fund generating activities are needed to be promoted.
- Through community organizations, encouraging services and/or infrastructure, supporting local agriculture, will be an added advantage in the region / locality.

### Overcoming obstacles

- Venture was developed with Chartered Accountant firm for technical support with respect to Companies Act 1956.
- Time to time communications and consultation with different line department officials to seek know-how about different government initiatives and schemes.
- Always be associated with fellow agriprenuers and take support of each other.



### Initiatives taken

- Development of business activity for sustainable development of FPC: - Implementation of Seed Production program for FPO
- In targeted locality, onion crop is a major and assured crop for vegetable farmers. But availability of quality seed is always a constraint. Cost of seed varies from ` 2,000 to 3,500 per kg.

### Innovation to resolve the constraints

- "CHAITANYA" Agrilclinic has taken up this opportunity as a prospective business activity for FPO development. An initiative along with local FPO has very successfully been established. The agripreneur organized seed production program for onion crop in the presiding season at seed production pockets, i.e., Vidarbha area of Maharashtra. Few farmers were identified and provided with good planting material and technical know-how.

### Impact

- Availability of good quality seed material for producer farmers at a reasonable price.
- Revenue generating activity for FPOs.
- Development of FPOs by increase in share value.
- Establishment of infrastructure facility at village level.
- Providing services to 3 FPO's, one of them has also developed a sustainable business plan.
- Form 1 group of 15 to 20 farmers. Further these groups will be federated in Farmer Producer Company, comprising around 1000 to 1500 farmers.
- 10 JLGs promoted; 5 SHG linked to banks and 2 FPCs linked with bank to sanction Cash Credit for collective procurement of their farm inputs.
- Totally 700 farmers have been mobilized into formation of formal structural organizations.
- Totally 600 members have increased, resulting in an increase in share capital by ` 6,00,000 for 4 FPCs.

### Outcomes

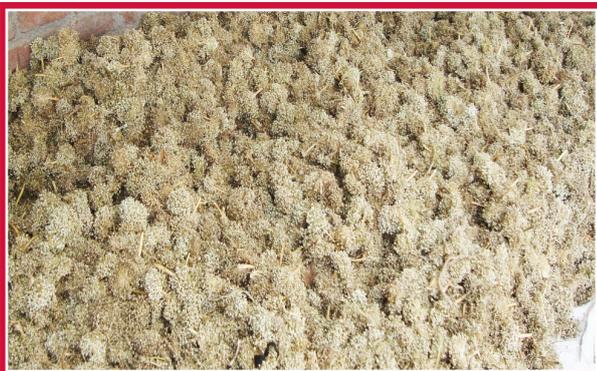
- Production of 800 kg of onion seed was made available to 250 farmers, leading to an increase in the FPOs shareholders numbers by 250 and generated revenue of more than ` 1500 \* 600 = ` 9,00,000 (by sale of 600 kg of seed for nearly 81 ha ) and an additional share capital of ` 250 \* 1000 = ` 2,50,000/- was generated.

### Awards and Recognition

- Recognition from the Maharashtra State Level Farmers Producer Company – a state level consortium of FPO's promoted by SFAC in Maharashtra.

### Conclusion

For an Agripreneur, an Agriclinc and Agri Business Centre promoter, there are different constraints in its establishment and development, viz. finance, human resource, local competition, knowledge and technical skills, etc. FPOs would have a very good platform to implement innovative and productive activities in mutually benefited situation. This will be the result in symbiotic growth, both in financial and institutional ways.



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<b>Location :</b>	Maharashtra
<b>Age :</b>	31 Years
<b>Education :</b>	Graduate-Agriculture, MBA-Marketing
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## Case study 3 : Aquaculture IIFSA-Aquaculture Venture

Authors : Saravanan Raj and Jyoti Todd



India | South Region | Andhra Pradesh | IIFSA | Akbar Ali

### Initiative Overview

**Venture:** Akbar Ali is promoting the “Information and Inputs for Sustainable Aquaculture” (IIFSA) is a India based aquaculture service company, that provides expert advice, technology transfer and aquaculture farm management services to new and existing aquaculture farms. IIFSA is based in Andhra Pradesh, was established in 2009 under AC&ABC scheme of the Indian government. IIFSA holds strong, well-known brand names and its product line ranges from soil management, natural feed management, supplementary feed management, water quality management, aquaculture animal health management etc., to solve all aquaculture problems.

**Agripreneur:** After completion of B.F.Sc (Bachelor of Fisheries Science), from the Acharya N.G.Ranga Agriculture University, College of Fishery Science, Muttukur, Nellore District, in July 2002, Mr. Akbar Ali took the AC&ABC training and has 14 years’ of experience in the aquaculture sector now. He has experience in developing and implementing programs for aquaculture farmers. He has hands-on experience in coordinating and planning aquaculture development programs involving financial management, community relations and volunteer development.



“By using feed formulations knowledge, farmers are preparing own feeds and this is helping ‘Farm made feed’ concept (self-sustainability)

Akbar Ali”

### Challenges

- Unnecessarily farmers are using antibiotics and chemicals to control disease in aquaculture systems.
- Lack of knowledge on water and soil quality management.
- There is no system to provide advisory service at the time of farm emergency situations.
- There is no system to work 24X7 days for aquaculture solutions.
- Lack of awareness on feed formulation and also right feeding.
- Huge technology gaps in aquaculture system.
- Lack of knowledge on plankton production.
- Lack of knowledge on Good Manufacturing Practice (GMPs) in aquaculture.
- Lack of knowledge on site selection and pond construction.

### Solutions

- Establishing Aquaculture One Stop Solution (AOSS) centers.
- Virtual Aquaculture Advisory Service (VAAS) established
- EMI service (Emergency Management Information service) is a 24X7 emergency service.
- Training for farmers and farm supervisors.
- Using web based platform to disseminate all aquaculture related information.
- Virtual software (V-Software) ICT enabled extension system.
- Lab consultancy service.
- E-shopping and e-news.
- Conducted demonstration programs on fish seed treatments.

### Results

- 4 working AOSS centers for providing services to >10000 farmers.
- Stopped using unnecessary antibiotics and chemicals in aquaculture pond systems.
- Through the training programs, farmers learned the GMPs in all steps of farming.
- Through fish seed treatment, >70% of parasitic disease problems have reduced.
- Regular water and animal health check-up (Lab Consultancy).
- With help of web based system and virtual software, the farmers are in the status of utilizing international opportunity in aquaculture



## Detailed description of venture established

Mr. Akbar Ali initiated a venture called "Information and Inputs for Sustainable Aquaculture-IIFSA" in 2009. With his field experience and motivated by his father made him an entrepreneur to better serve the farmers in all aspects of farming. In 2009, they started providing laboratory services to all aquaculture farmers surrounding akividu village, Andhra Pradesh (A.P). From 2010, IIFSA started using ICT (Information Communication Technology). With the help of ICT tools, they established 2 more business units ( Eluru , in A.P State and Puri, in Orissa State) and recently in 2015 one new unit was started at Nellore, A.P. At present they have 4 business units (virtual service centres) and with all 4 units, IIFSA is covering directly, registered ponds in 15,200 acres

of aquaculture and indirectly > 20,000 acres of aquaculture where the farmers are getting laboratory service benefits. Now IIFSA is having a team of experts on available resources utilization for carryout suitable farming practices in a sustainable manner. IIFSA is always ready to work to produce aquaculture based food and develop entrepreneurship models in aquaculture sector.

IIFSA provides a full range of consultancy services and project management expertise in all aspects of aquaculture. They use ICT for accuracy and fast service delivery.

- Aquaculture site search and analysis
- Farm design and construction
- Water and soil quality analysis
- Fish and shrimp disease diagnosis
- Aquaculture pond management services
- Technical training and teaching
- Pond inputs supply for treating identified problems

IIFSA are manufacturing and supplying pond inputs to start aquaculture farming and also mange diagnosed problems in farming system.

- Water testing kits
- Water buffers
- e-manures
- e- min
- e- feeds and
- All necessary products involved in aqua farming.



## Virtual Aquaculture Advisory Service

Virtual Aquaculture Advisory Service by IIFSA is a virtual web-enabled platform, which provides a link between farmers and certified aquaculture experts for extending crop and location based advisory services. The virtual platform offers consulting an expert by submitting service requisition along with samples for farm advice through selected AOSS Centers. This process involves 7 steps:

- Submit Requisition ; a. E-submission, b. Personal
- Submit Sample : a. Personal, b. Field Coordinator
- Lab Clinical Work-up
- Virtual Diagnosis
- Advise Delivery: a. Voice Call, b. Video Conference, c. V-Software
- View Reports: a. Mobile, b. Computer
- Purchase Products: a. Online, b. Dealer (AOSS)



These advise reports are available in V software. General farmers can access these reports anytime within 48 hrs. Registered farmers can access these reports at any time during the crop period. Field coordinators help farmers in bringing samples to AOSS and also act as a bridge between farmer and AOSS center.

## • Aquaculture site search and analysis

When considering any new aquaculture project, one of IIFSA's first action is to visit the place of the proposed project. After conducting meetings with the client, IIFSA aquaculture site search expert, will then begin the

exploratory process and seek to identify high potential fish or shrimp farming sites, giving priority to sites owned by the client, whenever appropriate to the situation. In making "Aquaculture site search and analysis report", IIFSA study the below factors,

- Ecological factors
- Soil
- Water
- Land
- Climate
- Biological and operational factors
- Economic and social factors



- **Water and soil quality analysis**

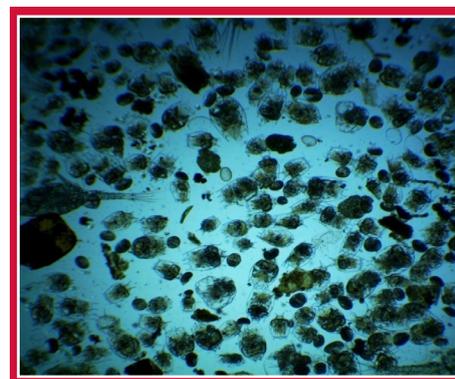
IIFSA's modern, well equipped water quality laboratory can undertake all statutory marine and fresh water analyses in standard methods and many non-standard techniques, which are of value to statutory bodies, water companies, aquaculture companies and aqua culturists.

IIFSA provides advice on water collection protocols if you wish to take samples yourselves and deliver these to them and in some circumstances can provide water sampler, containers and method for collection. If there are significant numbers of samples, IIFSA may be able to collect them free of charge. Alternatively IIFSA can conduct the sampling regime and process the samples on the farmer's behalf.

- **Feed analysis and formulation**

Following points to be careful in fish feed formation:

- Cost of feed ingredients.
- Nutrient content of feed ingredient.
- Nutrients requirement of the animal (protein, energy, vitamins, minerals, amino acid, etc.).
- Availability of nutrients to the animal from various feed materials.
- Ability of the cultured organism to utilize nutrients from various ingredients as well as prepared diet.
- Expected feed consumption.
- Feed additives needed and type of feed processing desired



## Challenges

### Constraints faced

- Unnecessarily farmers are using antibiotics and chemicals to control disease in aquaculture systems.
- Lack of knowledge in water and soil quality management.
- There is no organization to support the farmers in all steps of farming, in providing pond based technical advisory service and pond inputs.
- There is no system to provide advisory service at the time of farm emergency situations.

### Lessons learned

- The need for professional service and preventive maintenance has increased in the last few years as a consequence of more advanced technology and equipment in the aquaculture industry.
- Regular service and preventive maintenance will help secure a predictable and reliable production.
- Function as a support platform where customers can find all relevant information and easily get in touch with the experienced service team and also use the virtual service platform for better and quick service.

### Overcoming obstacles

- Aquaculture company and solutions make it easy for farmers and the fish industry service providers, to get the technical knowledge and benefit through various techniques to identify the gaps and obtain instant solutions.

### Initiatives taken

- Establishing Aquaculture One Stop Solution (AOSS) centers.
- Providing field coordinator service.
- Virtual Aquaculture Advisory service (VAAS).
- EMI service (Emergency Management Information service) 24X7 days emergency service.
- Training for farmers and farm supervisors.
- Using web based platform to disseminate all aquaculture related information.
- Virtual software (V-Software) ICT enabled extension system.
- Lab consultancy service.
- E- Shopping and e- news. Conducted demonstration programs on fish seed treatments.

### Innovations to resolve constraints

IIFSA provides a full range of consultancy services and project management expertise in all aspects of aquaculture. They use ICT for accuracy and fastest service delivery.

- Aquaculture site search and analysis
- Farm design and construction
- Water and soil quality analysis
- Fish and shrimp disease diagnosis
- Aquaculture pond management services
- Technical training and teaching
- Pond inputs supply for treat identified problems


**Results**

### Impact

- Four working AOSS centers providing services to more than 10,000 farmers
- Stopped using unnecessary antibiotics and chemicals in aquaculture pond systems.
- IIFSA is covering all services across more than 30,000 acres WSA
- Farmers are now utilizing the virtual advisory services in all steps of farming
- Through the training programmes, farmers learned GMPs in all steps of farming

### Outcomes

- Farmers are using their mobile phones to view their pond based lab clinical reports and advise reports, and this feature is helping farmers to understand better about his pond aquaculture system.
- Through fish seed treatment more than 70 percent of parasitic disease problems reduced.
- By regular water and animal health check-up (Lab Consultancy) more than 80 per cent of mortality and risk minimized.

### Conclusion

IIFSA is an inspiration globally. Its vision is to make people aware of the importance of fish in their diet and how to implement aquaculture technology as a tool to produce it on a sustainable basis; to provide advisory and laboratory services along with necessary pond inputs at all steps of farming. By making farmers IT friendly in aquaculture solutions, we can increase the number of successful aquaculture experts in the society

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<b>Annual Turnover</b>	: 2 Cr
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**India | West Region | Maharashtra | Ideal Agri Search/Prakash Autade**  
**Initiative Overview**

**Venture:** IDEAL AGRI SEARCH, is involved in manufacturing and marketing of agriculture commodities and related agro inputs solutions. The Ideal Agri Search, is working in India since many years, with full potential and driven by the most standard quality and formulations of product. The Ideal Agri Search is introducing new line of products as in, micro nutrient mixture, water soluble fertilizer, organic pesticide, organic fungicide, vegetable seeds, fodder seeds, crop seeds, neem extract, neem oil, etc.

**Agripreneur:** Prakash Autade, is a agriculture graduate and a farmer, who observed that farmers' are facing problems due to lack of knowledge, soil loss due to excess use of chemical fertilizer, lack of market availability and he decided to work for farmers and started to create awareness about soil testing and balanced use of fertilizer. With this, he started to make groups of farmers according to the crops and he used to provide technical knowledge to the farmers. After that he started a private company, Ideal Agri Search in January 2008.



“Deliver good quality by keeping consistence performance”  
 -----  
 Prakash Autade”

**Challenges**

- To mobilize individual farmers to adopt new technologies
- To raise capital investment for company
- Manpower and labor
- Establishment of market
- Farmer acceptance and adoption of new technique
- Competitors in market

**Solutions**

- Conduction farmer meetings at village level to improve understanding of new technologies by farmers through demonstration, training and exposure visits
- Bank loan
- Mechanization
- Quality and result of products
- Develop a trust by giving good quality and technical knowledge on crops
- Established a brand in the market by giving good quality product and results of products that farmers filed

**Results**

- Developed a trust among farmers
- Establishment of venture and is running with full capacity
- It results in time saving
- Market penetration
- Develop a brand in the market.
- Use of different marketing strategies

**Detailed description of venture established**

IDEAL AGRI SEARCH is laid on a sound and extensive professional experience and know-how in the fields of business development, sales, marketing and manufacturing with complete technical knowledge. It has a team of professionals having experience of nearly two decades in various activities related to Agri business, like trading, production, seed marketing, agrochemical marketing, rural marketing, plot visiting, etc. The young team of Ideal Agri Search have gained



comprehensive knowledge of the local market place and mustered numerous beneficial contacts to successfully run this business.

Ideal Agri Search has been promoted by keeping a vision to increase the wealth of farmers by providing all technical knowledge and by visiting the farmers plots by qualified employees. The main task of the employees is to work on stress management, metabolism activities, plant photosynthesis, root development, nutrients uptake, growth regulators, stimulators, promoters, crop protection, fruit and flower development, sustainable agriculture and plant physiology.

Some of the major activities:

- The company conducted a village level farmers meeting before the start of season and in this meeting advised the farmers to get their soils tested. Those farmers who were ready for soil testing, were grouped according to the crops which they are going to grow in the coming season. After that, their soil samples were taken and fees of ` 550 per farmer is taken for micro analysis of soil.
- The company has a software which is developed by the Maharashtra government, according to which they give recommendation to the farmers on fertilizer application and also provide the technical knowledge for the crop.
- In every cropping season, the company used to test around 5,500 soil samples for farmers and advise them on fertilizer application and crop care.
- Company is not only doing the soil test, but they are providing technical knowledge for the crop, throughout the year and it will have importance in increasing the productivity of by 30 per cent. This also helps in increasing the farmers income by minimizing cost.

## Product Range

### • Plant Growth Regulators (PGR)

Plant growth regulators, also known as plant exogenous hormones, are synthetic substances that are similar to natural plant hormones. They are used to regulate the growth of plants and are important measures to ensure agricultural production. The company has a production of about 25,000 lts and 20 tons of these products and they are marketed through 1,100 retailers and it constitutes about 50 per cent of the company business and it reaches out to 82,000 farmers.

### • Bio fertilizers

'Bio fertilizer' is a substance which contains living microorganisms which, when applied to seed, plant surfaces, or soil, colonizes the rhizosphere or the interior of the plant and promotes growth by increasing the supply or availability of primary nutrients to the host plant. Bio fertilizers directly increase the soil fertility by adding nutrients through the natural processes of fixing atmospheric nitrogen, solubilizing phosphorus and stimulating plant growth through the synthesis of growth promoting substances. The company has a production of about 10,000 lts of these products that are marketed through 1,100 retailers and this constitutes about 15 per cent of the company's business and reaches out to 42,000 farmers.



- **Water Soluble NPK Fertilizers**

Water soluble fertilizers are made easily available to crop and is important in minimizing fertilizer losses. The company has a production of about 100 tons of these products that are marketed through 1,100 retailers and it constitutes about 10 per cent of the company business and reaches out to 34,000 farmers.

- **Micro Nutrients**

There are about 20 nutrients required for good health of plants. Three of them, carbon, hydrogen and oxygen (C, H and O) are considered part of the protoplasm and the remainder are considered to be mineral elements that are externally given by application of fertilizers. The company has a production of about 150 tons these products that are marketed through 1,100 retailers, constituting about 25 per cent of the business and reaches to 62,000 farmers.

- Company is now attached with 62,000 farmers by improving their soil health, crop productivity and increase in farmer's income.
- Initially, the agripreneur was not able to establish the venture due to financial problem, but Mr Prashant came to about the AC&ABC scheme and he underwent their training and this helped in getting a loan and bank subsidy. After that, he started with a small unit which is now having a huge product line and is running its full capacity and not able to fulfill the rising demands, and so plans to expand this unit in next coming year exists.
- Company has a fully automatic setup and most of the operations are done mechanically, that is cost and time saving.
- Company adopted different strategies to penetrate the market. They conducted village level meetings initially and after that carried out demonstration in that village and showed the results of the crop produce. After that, they approached the farmers' so that they can trust them and they believe in the company.
- The products are branded under IDEAL brand and they are having a huge product line which is mentioned in the image.

## Challenges

### Constraints faced

- It is observed during survey that in Sangli Region more than 50% of farmers never conducted soil testing for their farm lands and 90% of farmers are very irregular and not concerned about conducting soil testing in their fields.
- Acceptance of products developed by Ideal Agri Search were not in the famers in initial days but after trials and testing farmers slowly started accepting the products of company.
- The huge competition with well-established branded products available in the market.
- In Initial days the major challenge is to market the products and make the product popular among the farmers as come low cost products were also available in the market.

### Lessons learned

- A good quality of product is easily acceptable in the farmer
- Correct Guidance and solutions will help to get more farmer linkages

### Overcoming obstacles

- Company formed a group of farmers according the crop till date company formed more than 3,000 groups of farmers for different crops.
- Company showing the result by conducting pre seasonal and crop specific and need based farmer meeting followed by demonstration of product result at village level . Company conduct around 250 – 300 farmer meeting and cover about 62,000 farmers.
- Company has fully atomized setup and it will have importance in reduction cost and save time.
- Company now established a good network of distributor, Dealer & Retailer.
- Company set up a fully atomised lab for analysis of soil samples.
- Company uses different marketing strategies for different product & establish a brand in market by developing trust among the farmer by conducting meeting and demonstration of product.

### Initiatives taken

- Ideal Agri Search provides technical knowledge for crop throughout crop cycle.
- Ideal Agri Search carry out crop demonstration for showing the result of their product.
- Ideal Agri Search conducts farmer meeting for giving technical knowledge.
- Ideal Agri Search does soil testing by charging a reasonable rate and giving information on balanced use of fertilizers.
- To motivate the farmers, Ideal Agri Search organized crop competition among the farmers and awarding the winning farmers.
- Ideal Agri Search also provides crop specific information via., mobile SMS.
- Ideal Agri Search formed commodity wise groups so it will be easy to provide the information on crop needs.

### Innovations to resolve constraints

- Ideal Agri Search developed the saline soil lands of Sangali district by reclaiming through Gypsum treatments and now farmer can grow crops in the field.
- Ideal Agri Search provides crop specific information via mobile SMS.
- Ideal Agri Search formed commodity wise groups so as to easily provide crop information.
- Ideal Agri Search takes initiatives to go for organic farming with registered farmers.
- Ideal Agri Search also provides information on market arrival and market price of produce in the market through SMS.
- Ideal Agri Search provides climate change information and precautions to be taken through SMS.

 Results

### Impact

- Ideal Agri Search started organic farming with various farmer and farmers groups connecting up.
- Employment of upto 150 people
- Provided services to 62,000 registered farmers
- SMS service started for climate change, pest and disease attack

### Outcomes

- Ideal Agri Search farmers and farmers groups following organic farming get more profit and quality produces.
- Every season Ideal Agri Search conducts around 5,500 soil tests for farmer.

### Awards and Recognition

- Agripreneur received Krishi Bhushan Award in 2014 from Generalist foundation.

### Conclusion

Ideal Agri Search, test the soil in farmers' fields and provide on field technical support and advises on soil health, uses of pesticides and fertilizers for sustaining soil fertility and increase their productivity, quality of produce and annual income of the farmers.

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