



Rashtriya Krishi Vikas Yojana- Remunerative Approaches For Agriculture  
and Allied Sector Rejuvenation (RKVY-RAFTAR)



# Voyage of Agri-Innovation

NIAM Agribusiness Incubator (NABI)

Centre of Excellence for Innovation,  
Entrepreneurship and Skill development

CCS National Institute of Agricultural Marketing, Jaipur, Rajasthan, India.

[www.ccsniam.gov.in](http://www.ccsniam.gov.in)



# FOREWORD



With aspiring ideas to transform the Agri-ecosystem, Agripreneurs around the country are bringing innovative ideas to rebuild the agriculture sector. It is under the pretext of such innovative ideas that startup ecosystem in the country looks so radiant and promises for a great future ahead. Transformation of Agriculture to Agri-business is one of the important strategies in a country where enterprising farmers practice profitable agriculture.

The face of the Indian agricultural sector has started to change because of the technologies and this has enabled new business startup ideas to flourish in the economy. This makes the sector promising to the educated population as well. Agriculture technology, popularly known as Agri-tech, has paved the way for the required transformation in agricultural sector in India and is able to entice people from the fields of technology towards it.

RKVY-RAFTAAR Scheme is one of the initiative of the Ministry of Agriculture and Farmers' Welfare, Government of India which caters to the needs of the Agri-innovators of the country by fulfilling every possible requirement an idea needs to grow into a business. The scheme opens new opportunities, addresses challenges and makes agriculture a profitable enterprise for the Agripreneur to consider agri-business as feasible way to earn profit.

The present publication underlines such 13 Agripreneurs graduated from CCS NIAM after completing their two months incubation programme. The programme allowed these Agripreneurs to comprehend the startup ecosystem and understand their business in depth to take their entrepreneurial journey further. The process involved in a journey of growth for all the budding Agripreneurs with NIAM Agri-Business Incubator (NABI) and create employment and generate wealth for agri-stakeholders.

My gratitude to Ministry of Agriculture and Farmers' Welfare, Government of India for supporting this initiative and compliments to CCS NIAM for showcasing determination in bringing the technology and innovation from all corners of the country at the disposal of Agriculture.

My wishes stands with all the Agripreneurs for their future endeavours ahead.

**Shri. P.K. Swain**  
Director General, CCS NIAM  
& Additional Secretary-Agricultural  
Marketing MOA & FW, Gol

# PREFACE



Farmers appear to have come to the forefront with influx of Agri-innovators in the Indian economy. Farmers are adapting to numerous agri-tech ideas and there fore agritech startups are now endeavouring to bring forth farming-related advanced technological mechanisms to help farming become a sustainable and profit-yielding business. These Agripreneurs provide a wide variety of services to farmers – from providing farming equipment at affordable prices, to ensuring crop protection.

CCS NIAM has taken the responsibility to hand-hold and support four states as Knowledge Partner and the Partner R-ABI's supported by CCS NIAM includes IIT, Kharagpur, Sri Karan Narendra University-Jobner, Bihar Agriculture University, Bihar, National Rice Research Institute, Cuttack, Odisha. With RKVY-RAFTAAR scheme in execution NIAM Agri-Business Incubator (NABI) holds an opportunity to give platform to Agripreneurs from all corners of the country to showcase their innovation and convert ideas into business.

With two incubation programmes in line i.e., "Agripreneurship Orientation Programme" and "Startup Agri-Business Incubation Programme", NIAM Agri-Business Incubator (NABI) is the frontrunner in the Agri-incubation ecosystem in the country. By catering professional support to more than 100 startups, CCS NIAM has established itself as the hub of experts and mentors in the realm of incubation in India. The Agripreneurs incubated at NIAM Agri-Business Incubator (NABI) are endowed with mentoring support

from field experts, ecosystem partners and are given technical advice on how to engage in the market. Two months training programme at NABI is not just an incubation programme it is a collaboration which stays with the Agripreneur through its business journey.

The startups incubated at CCS NIAM are not only creating new jobs which means more employment but are also leaving a ripple effect on the socio-economic fabric of the location in which they are operating. The world has become a playfield for these young entrepreneurs as the global startup revolution continues to grow. With many initiatives for farmers, the government aims to double farmers' income by 2022. So CCS NIAM has compiled a bunch of such Agripreneurs that are making a name and increasing their growth in quick succession.

The cohort presented in the present book are future of the agri-innovation sector of the country and are acting as the responsible shoulders on which the burden to help agri-stakeholders has been kept. These Agripreneurs are the strength and pride of NIAM Agri-Business Incubator (NABI) and they pledge to serve the agricultural economy of the country by fulfilling their business milestone set by them under the guidance of CCS NIAM.

We wish these Agri-voyagers all the luck and support for their future growth.

**Dr. Ramesh Mittal**  
Director & Chairperson  
CCS NIAM, Jaipur

# BUDDING ENTREPRENEURS



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27

Dr. Santosh B. Salunkhe





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# PRABHAT TEK NOVA

Technology Embedded with Knowledge for Novel Value Addition

## Business Idea- Tools and equipments design for Agricultural process

Improving quality of life of farmer's is a concern and in this process startup is aiming to develop energy efficient tools and equipment's for safety and better efficiency in agricultural operations with technology embedded. Understanding rural & agricultural needs to provide technology based, standard & customized tools & solutions.

On one of his visits to his native place, Rajiv realized that there exists a problem in application of the growth regulator in pineapple crop. Due to the problem of injury and tasks being intensive, labors don't turn-up for the process and are unwilling to come for work. Mr. Rajiv P. Nadig decided to support pineapple farmers in the means of safety with embedded technology.

PRABHAT TEK NOVA is commercializing "SPOT APPLICATOR" developed by University of Agricultural and Horticultural Sciences, Shivamogga for enhancing safety in agriculture.

### How does it work:

- SPOT APPLICATOR is a tool which is attached to the 12V powered backpack sprayers
- This tool is built using Micro-controllers to deliver measured quantity (50ml) of growth regulator through nozzle of the sprayer not as a spray, instead volume is applied in one stroke.





PRABHAT TEK NOVA is partnership firm with a vision of Technology Embedded with Knowledge for NOvel Value addition to agriculture domain.

Mr. Rajiv P. Ndaigis a B,Sc graduate, and has more than 15years of experience in IT support and integration field partner in the startup with Dr. Shashidhar K. C., Professor, Agriculture Engineering UAHS, who is the mentor of the startup for technology.

Startup's manufacturing facility has 3 manpower and it is equipped with required tool and accessories. Also has a technology enabled laboratory for further developments of tools and devices.

Spot Applicator is tested and certified by the University of Agricultural and Horticultural Sciences, Shivamogga –Karnataka.

As Karnataka is one of the major suppliers of pineapple to the North India for processing, startup has a huge potential of growth. In the expansion, employment will also increase from 3 to 15. Interested students will also get the training in the manufacturing of tools and devices for agricultural domain.





## Mahesh M

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🎓 B.E - Mechanical

# HEXIQON TECHNOLOGIES PVT. LTD.

Technology for the Aid of Agriculture

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## Business Idea: Development of Surface Operated Vehicle for Aquaculture Application

Coming from a Marine Research background, Mahesh M, founder of Hexiqon Technologies Pvt. Ltd. started searching the areas or industries where application of ROV's (Remotely Operated Vehicle) could solve problems faced by the marine stakeholders. This search made him to select the broad area of "Aquaculture" to majorly solve the water quality management problems.

Startup has performed preliminary testing using an existing ROV, in couple of Aquaculture farms at Andhra Pradesh. From that experience the startup designed a "Surface Operated Vehicle (SOV)", which operates at efficient low-cost and solves all the major problems and results in increase yield of their crop.

Hexiqon presently being in the transformation stage from Ideation to MVP currently has a prototype of SOV under preliminary design testing.

Startup is currently working on developing autonomous systems and performing field tests through remote operations by integrating various sensors in their Prototype.



Static Buoyancy Testing of the prototype

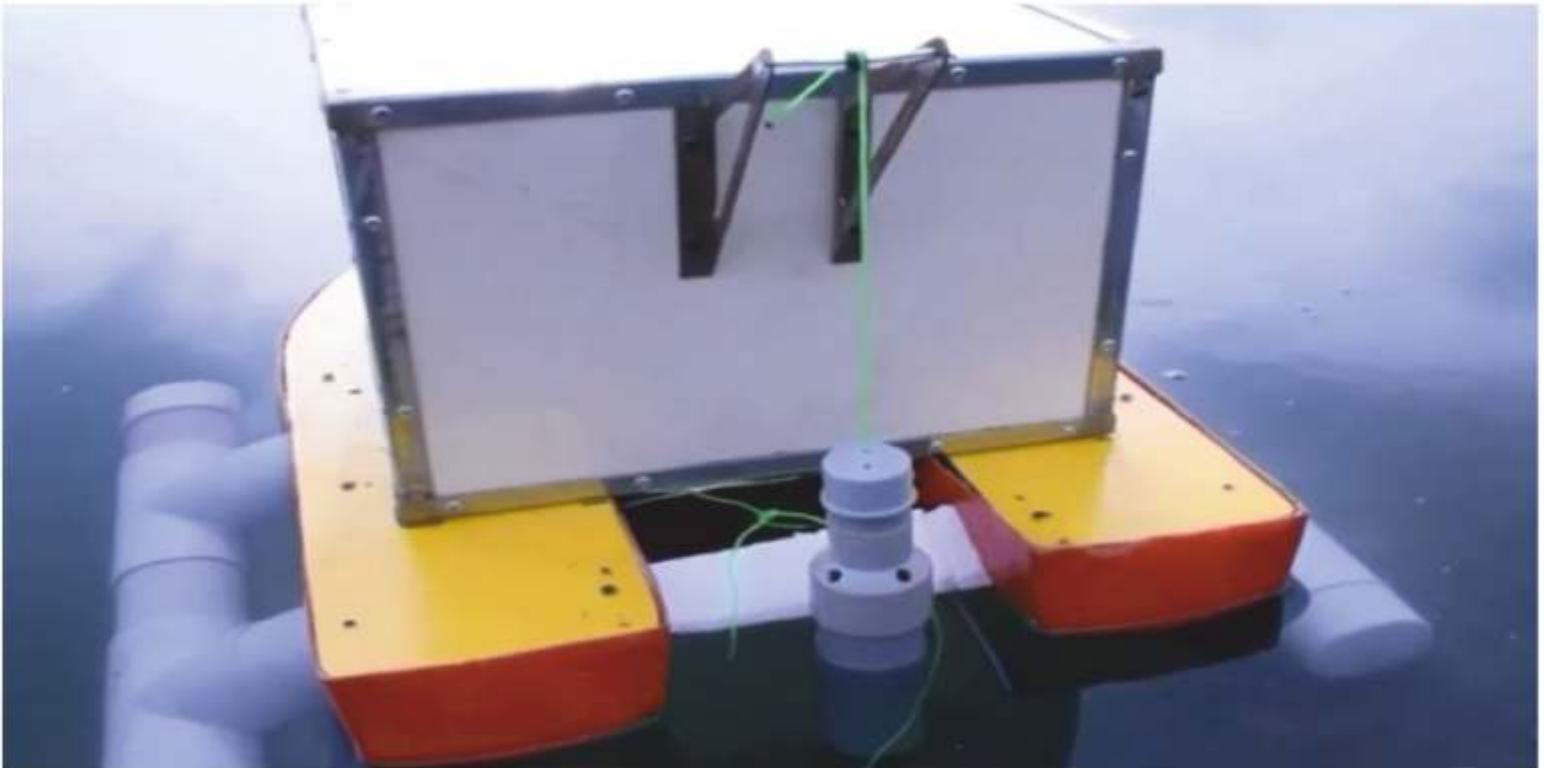


Remotely operated testing of prototype on field



The Autonomous Surface Operated Vehicle from Hexiqon can provide emergency warning & information in real time for continuous monitoring as well as integration of data on cloud. Further the Startup will also implement Automatic Aerator Control system as well as appetite based feed control system in the aqua farms.

Startup is expecting a turnover of Rs.50 Lakhs in 5 years with a team of 25 employees.



**Sensor Deployment Testing on field**



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# BETTER MILK PVT. LTD.

One-stop destination for every need of the dairy farms

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**Business Plan: A holistic retail and service model for end-to-end need in a dairy farm, from dairy input to dairy products marketing.**

Growing up in Rohtak, Haryana, there was no dearth in milk to feed upon as Mr. Gaurav Sharma, Founder of Better Milk Pvt. Ltd. had cattles at his own place. This complies to the fact that Haryana and Punjab has one of the highest per capita consumption of milk in the country. But when he moved to the urban spaces for his higher education, he found that there is a crisis in the availability of good quality milk. On a detailed market survey in many housing societies, startup came to the conclusion that there is a big gap in the demand and supply of quality milk. Startup has further enquired and found that the quality of milk deteriorated due to both internal challenges of the farms as well as marketing challenges for the better quality milks.

Door Step Selling of Cattle Feed The key issues identified by the startup are as follows:

1. High prices, Crisis in availability of customized cattle feed leading to poor milk quality and yield.
2. Non availability of qualified Veterinary services for medical issues or cattle breeding leading to deterioration of Cattle health.
3. Traditional method of cattle rearing with no technology up-gradation and heed to hygiene concerns.
4. Unavailability of proper price and market for good quality milk.



## BETTER MILK PVT. LTD.

Startup started with the mission to solve these problems faced by the dairy farmers. The solution introduced by them are as follows:

1. Provision of different varieties of quality cattle feed from major brands according to the herd profiles of the farmers, along with necessary customization for the feed at the best price.
2. Regular check-ups of Cattle health, along with vaccine roaster, timely artificial Insemination programmes and call-on-emergency services.
3. Technology up-gradation at the farms with cost-efficient labour-minimized models with focus on automation and hygiene.
4. Real-time market information, establishing market linkages by setting up customer base and bringing in institutional buyers in the platform.
5. Complete setup for consultancy will be provided to the dairy farms and FPOs.

Startup is trying to feel the pulse of the dairy industry along with the consumer insights. They are working on a detailed market survey and facilitating the initial pilot project along with relationship development with stakeholders, Cattle feed suppliers, Technology providers and the veterinary people with an aim to bring all of them on board before rolling out to the full-fledged market operations.



Meeting with FPO director at DHO, Gurgaon



## Viral Tiwari

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# NUSKHA KITCHEN PRIVATE LIMITED

Bring back Ayurveda to your life

## Business idea: Postpartum nutrition and ayurvedic edibles

Viral Tiwari is a third-generation entrepreneur and a Mechanical Engineer by profession. He along with his mother wanted to start a venture which can undertake the following:

Preserves and innovates with the ancient remedial science of home Ayurveda.

Provides care and nutrition to women in the most crucial time of pregnancy and post partum.

Generates work and employment throughout the process while easing out the hassle for the consumer.

Coming from a lineage of an ayurvedic family, Mrs. Alpana was born and brought up in the hands of this ancient science.

Owing to her inquisitive nature, she grasped a lot of Ayurveda fundamentals just by assisting her grandfather, her father and then her elder brother. With all the knowledge of herbs from her family combined with her deep love for cooking, Mrs. Alpana Came up with this amazing line of medicinal snacks.

In India, we have had the tradition of pampering new mothers with the right nourishment and food which is not just pre-eminent but also well deserved. and technical aspects.

Over time, with the rise of nuclear families, the age-old grandmothers' knowledge of post-pregnancy nourishment is getting lost. There is no reliable source of natural, herbal products available in the commercial space and the need has grown exponentially in families with working mothers. As preparation of such food requires skill, precision, time, & effort it is rather futile to expect a full-fledged proper maternity food to be prepared at home with absolute control over quality and perfection.



Nuskha's post natal food addresses all of the above issues.

The product thus is available as a set of freshly made and packaged laddoos filled with various traditional ingredients like Ajwain, Sonth, Haldi, Battesa, to fulfil all health needs of a new mother. It is delivered directly to home and comes with a set of instructions, with 24X7 guidance available over the phone or personal meetings.

#### Key Milestones:

- In less that one year of functioning we have served over 170+ new mothers with post-partum food and 1000+ clients for regular usage products .
- We are extremely humbled by the positive and appreciative responses so far.
- Our products are supported and recommended by more than 40 senior Gynecologists and doctors in the city.
- We procure majority of our supplies (Goal is to make it 100%) from small/ medium scale farmers. We are even helping the farmers in growing low maintenance and low space complementary crops (which we procure) of medicinal plant to help them with extra income at least risk.
- Nuskha is shipping pan India and in selected countries abroad with our fully functional online store at [www.nuskhakitchen.com/](http://www.nuskhakitchen.com/)

We aspire to become the pioneer in the field of post partum nutrition by preservance and innovation of this traditional science.

"Artisanally crafted homemade remedies. We at Nuskha create the most authentic Indian remedial snacks based on individual's body requirements. We specialize in post natal nutrition care, providing new mothers with 50 days of traditional ayurvedic care supplements"





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# MEDAKA TATVAM

Fruit Wines

**Business Idea: Preparing wines from un-conventional fruits like cocoa slime, cocoa shell, kokum, tomato, herbs, spices etc.**

Team Medaka Tatvam has come together to create a startup that helps farmers in adding value in the food production system, produce nutritious food & beverages that boosts consumers health and ensures optimum utilization of natural resources.

The brand name 'Medaka Tatvam' means natural alcohol or wine in Sanskrit. It symbolizes the work it does to improve the food production system by enhancing shelf life of perishables and ensuring sustainability to farmers. Farmlands in Western Ghats produce an abundance of healthy fruits and vegetables, but farmers are not aware about how to make use of many byproducts such as Cocoa Shell, Cocoa Slime, Kokum, etc. Approx. 500 tons of Cocoa Slime and Shell are produced each year, while Kokum-10,000 tons per year in India, which is mostly not consumed.

Cocoa slime, Cocoa shell, Kokum and Tomatoes can be converted into wines, which have a high shelf life. Wine is considered as healthy when compared to other alcoholic spirits when consumed in moderation. Research studies suggest that drinking wine in moderation provides antioxidant and anti-inflammatory benefits that may improve gut bacteria and boost heart health, mental health, and longevity.

### About Team

- Mr. Ramesha Rao has 21 years of experience in Sales & Marketing of Healthcare, FMCG, and Pharma products in Indian and Sri Lankan markets.
- Madhusudan N has 14 years' experience in Administration, Statutory Compliances and Manufacturing.
- Ashwini Ramesh Rao has 7 years' experience in Business Accounts, HR.





- The team works under the mentorship of Dr.K.C. Shashidhara. Director of Extension and Prof and Head Agricultural Engineering, UAHS Shivamogga.

The Team members born and brought up in villages, worked in Metros and different part of India. After realizing the farm waste and farmers not getting right prices to the product made them to think about converting perishable to durable. They returned back to the native district Shivamogga to embrace a new agripreneur journey.

- After realizing that farm waste and farmers not getting right prices for their produce the idea came about converting perishable fruits to durable processed foods. The products planned to produce are Cocoa Wine, Cocoa Chocolate Flavoured, Kokum Red, Kokum with Indian Herbs, Tomato Wines.
- It is in the ideation stage along with the process of acquiring the land, and planning for machinery.

Medaka Tatvam is in the process of setting up a Winery at KSSIDC Industrial Area in Shivamogga. It is planning to build a team of 10 people for manufacturing and marketing in Karnataka. All the agriculture raw materials will be directly procured from farmers or FPOs. With the licence for manufacturing and bottling from excise department in place, they will manufacture and supply wines to excise department warehouses, from where it will be supplied to retail outlets, wine boutiques, clubs, fine dining restaurants to cater to discerning customers.

- Medaka Tatvam is DIPP recognized Startup which is trained by CCS NIAM under RKVY- RAFTAAR project.
- They have plans to produce 15,000 liters of wine valued at INR40 lacs in the first year of operations. The sales is expected to rise up to INR 1.5 crore in next 4 years by expanding the production machinery and team up to 25 people.
- Based on the primary survey response, Medaka Tatvam aims to expand to other states and Metros in the third year of operations. It also plans to set up a larger winery with the production capacity of 2 lakhs liters by 4th year. Medaka Tatvam also plans to export its indigenous wines to other countries in 5th year of operations.





**Savithiri Shivakumar**

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# AARANYA BIOSCIENCES PRIVATE LIMITED

Agroenergizer - Extended Delivery of Water for Agriculture & Horticultur: Water conservation made easier

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**Business Idea: Technological interventions for water saving, crop quality improvement and value addition to automatic irrigation system for paddy fields in areas with water scarcity.**

Agroenergizer Innovative green product is a compact customized non-toxic eco friendly natural polymer for efficient water conservation by extended release delivery system.

It has high liquid absorbing capacity, water retention, water engrossing properties and release properties, increase soil moisture effectively and decrease the times of irrigation and manpower thereby providing high yield and crop quality.

Agroenergizer will help plants survive by reducing irrigation requirements up to 50%. It forms a micro reservoir at plants root. It absorbs natural water around 500-600 times more than its self-weight and is used in agriculture and horticulture. These enhanced retention properties facilitate soil fertility thereby reducing usage of chemical fertilizer. This product make use of waste thereby facilitate waste resource management by converting waste to valuable products and make eco-friendly solutions, safe and healthy environment It gives water conservation and increases plant performance in terms of quality & yield.

The team of the startup company has twenty years of technical and management expertise in developing innovative solutions by working in R&D laboratory. Strategic and management team with expertise in strategic management and financial expertise along with team members with skills and expertise in execution and successful delivery of projects in the area of life sciences.

AgroEnergizer has a society impact by solving the problem of water scarcity, waste management, soil erosion and water runoff by providing extended release of nutrient/water release which diffuses into the soil and influence soil permeability, texture, density, evaporation rate and keeps the soil moist.

It aims to provide global food safety by improving food quality, environmental safety by minimizing pollution discharges, curtailing damage to biodiversity. Significant role in managing water issues for agriculture, deal with climate changes challenges, preserve biodiversity and manage ecosystem in order to sustain green life.

### Swelling properties /Absorbed water and nutrients



Before water addition



Swelling After water addition



Plantation Growth stages with our Product shown higher Yield



A



B



C



D

- > Innovative Product A, B, C shows faster sprouting than control Agro energizer treated plants (A, B, C) show dense growth, faster sprouting and higher water retention. No additional supplies of water till day 10 showing sustain release of water in AgroEnergizer. Control plants wither away due to water/nutrient shortage.
- > Eco-friendly affordable, user friendly products for sustainable globe.
- > Agro Energizer is a compacted extended sustained release of manure/fertilizer/insecticide with ease of application to enhance soil fertility by conserving water per unit of land.
- > Usage of waste natural resources converted them to valuable product providing eco-friendly solutions.
- > Complete kit for each stages of Plant growth – Product in Pipeline
- > Soil fertility, environment safety and stay healthy with our product

### Product Features

- > Controlled delivery and diffusion of nutrient/water directly to root site and soil and keeps hydrated.
- > Eco-friendly, no frequent usage of water Reduce irrigation frequency
- > Enhance the rate of plant growth
- > Higher Plant Yield
- > Easy adaptable water conservation method in compacted form.
- > Retention of water/sustain release
- > Limit nutrient loss through leaching
- > Reduce the concentration of fertilizer used
- > Ease of transportation and ease of use and application and storage
- > Can be used in horticulture, ornamental plants, vegetable, fruits, crops, millets, terrace garden.



## Ravindra Kumar Pandey

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📍 MSC Agri

# SFED INDIA PRIVATE LIMITED

Optimization Through Digitization

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**Business Idea- To provide full stack end to end Agri Services by creating a technology-enabled marketplace.**

Mr. Ravindra Kumar Pandey, the founder of SFED India Private Limited, hails from Uttarakhand and has his roots linked directly to farming in multiple regions for the last 30 years. He has seen different phases of the agrarian economy and has visualized the challenges the Agriculture in India is facing as a whole. With a strong will of bringing reforms in the farming community and devoting to Atmanirbhar Bharat, Ravindra laid the foundation stone of SFED INDIA PRIVATE LIMITED.

SFED stands for “Sustainable Development of Farm Economy by Digital Disruption”, aims clearly in providing Farmers access to complete 360-degree agriculture services – Agri Input, Crop Advisory, and Agri Output.

The vision of the company is to increase the profitability of the farmers by providing them access to the real time marketplace for each and everything related to farming. The company is also coming with the concept of Grain Bank which intends to digitize each grain into tradable digital assets via Rural and Micro Warehousing near farm gate clubbed with a strong AI-enabled Trading Platform for Buyers and Suppliers, together with building the economic identity of each associated farmer.

**The aspects of the Agro-ecosystem will be targeted by SFED India:**

### 1. WAREHOUSE

Stocking facility at farm gate, scientifically managed warehouses at farmgate where farmers can store even a single bag of grains and convert them into digital assets

### 2. CREDIT FACILITY

Capital for farmers, Credit available from partner banks/NBFCs against grains stored within SFED accredited warehouses

### 3. MARKET LINKAGES

Trading platform to sell commodities, Farmers can now sell whenever they want through in class-Agri Trading Platform



#### 4. MARKET INTELLIGENCE

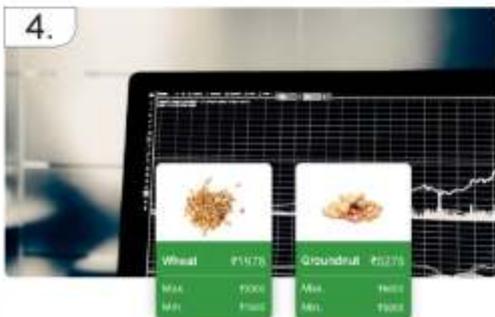
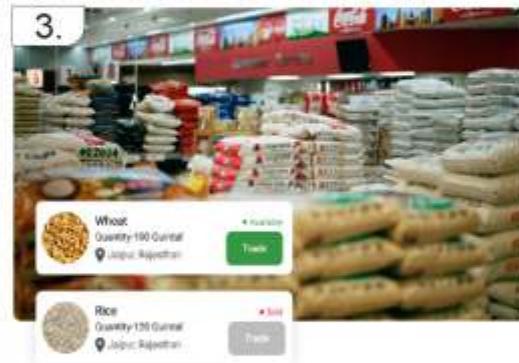
Realtime mandi rates, Get access to commodity spot rates and market arrivals at your fingertips

#### 5. PAYMENTS

Online payments facility, Making quick, safe, and real-time payments to farmers 24\*7

#### 6. AGRI-INPUT

All agri input available at one place, Farmer can order the best quality input through SFED App at a very reasonable price.





## Nishant Dubey

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🎓 MBA

# CROPHUNT AGRITECH PVT. LTD.

Platform for AgriCommerce Infrastructure

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### Business Idea: B2B AgriCommerce Platform.

Crophunt is building India's Agricommerce Infrastructure by providing small and marginal farmers a much needed platform to store, market and sell their agri commodities securely across multiple interstate and intrastate markets of India. Crophunt's cloud based software helps farmers connect with the nearest storage cum sales center and request for a pickup or drop off of commodities where it is weighed and analyzed for quantitative, qualitative assessment to target high margin markets. Crophunt's unique approach to connect farmers with locally placed warehouses in a range of 20 to 25kms is highly scalable.

Following the plan of digitizing FPOs and Farmers the startup conducted various meetings and given various presentation to Farmers, fPOS, NGOs and students by presenting their solution to CED(center for entrepreneurship development)-Bhopal, CARD(center for advance research and development)-Bhopal, ICM (Institute of co-operative management) -Bhopal and a fully organized session for FPOs.

During their presentation the startup interacted with more than 300 Farmer/FPOs/ and understood their problem and presented them the solution and received a great response. During March, 2020 they begin their trial with one of FPOs who had enrolled to their system and secured a great amount of order for them but due to covid-19 induced lockdown things went on a stop. In the month of April the startup featured on the cover page of Silicon India magazine as one of the TOP 10 Agritech startups.

After the lockdown they resumed their business activity again from the month of July. Currently they are developing a farmer centric mobile application which is in line with the new policies published by government of India in agriculture sector. This application will be able to help farmers and procurers connect buy/sell, maintain the records and facilitate payments in real time.

Till now they have achieved more than 20 lakhs of GMV and are able to reduce the stress on certain farmers with whom we are dealing with and have increased their margin slightly by 8 to 10%.

## CROPHUNT AGRITECH PVT. LTD.

Their current team size is around 9 people and are planning to increase the head count by 50 people by the end of 2021 most of their employees will be based out of rural areas.

Crophunt future plan is to release three apps for transforming the agriculture commodity marketing sales and trade area. Their first application is a farmer centric mobile application that helps farmers search nearby and interstate and intrastate markets for selling their commodity we call these markets as centers, farmers can also explore storage facilities near them and place a request for storing commodities. The second app will help these centers procure the material and maintain a digital ledger. The third application will be a buyer center application which will help buyers place orders for samples and commodities, participate in trade and auction of agri commodities beyond a certain quantity.

CED BHODAL



FPO/FARMER DIGITIZATION PROGRAM

ICM BHODAL



CARD BHODAL





## Nitish Gaurav

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# GEN FLOW AI

Digitizing Livestock Care

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**Business Idea: To digitize livestock farmers through tele-health consultation, marketplace link for farmers & online trading platform to buy & sell commodities.**

GenFlow AI was co-founded as an aspiring company with an aim to put step forward in helping livestock health sector flourish with the help of a modern technology. After 6 months of market research over four states in Madhya Pradesh, West Bengal, Haryana and Bihar. Nitish came to conclusion for the concept supported an application software which detect variance from specification matching output to needs through tele-consultation which is now most in demand in COVID-19 pandemic situation all over the world.

Nitish Gaurav (Agriculture Graduate) as Founder and Managing Director has experienced in agro quality analysis & food management.

Nitish got to know from offline and online market research that more than 1 Crore livestock farmer are not receiving proper treatment due to lack of doctors, early stage disease tracking is not happening, medicine is costly and un available sometime as well as having financial issues due to Covid-19 or in the remote areas result decline in GDP and demotivation in farmers with effect on livestock rearing practices so he planned to provide service at affordable rate through digital application software. At initial the service will be available for Delhi NCR and later, he will make mark in each district of entire state every year as per our client response.

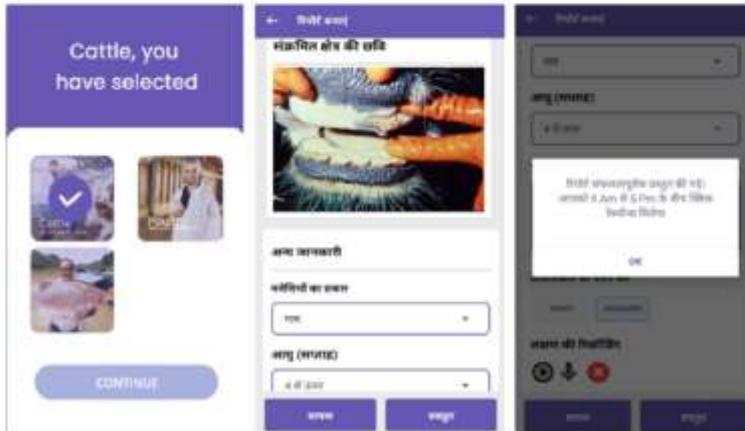
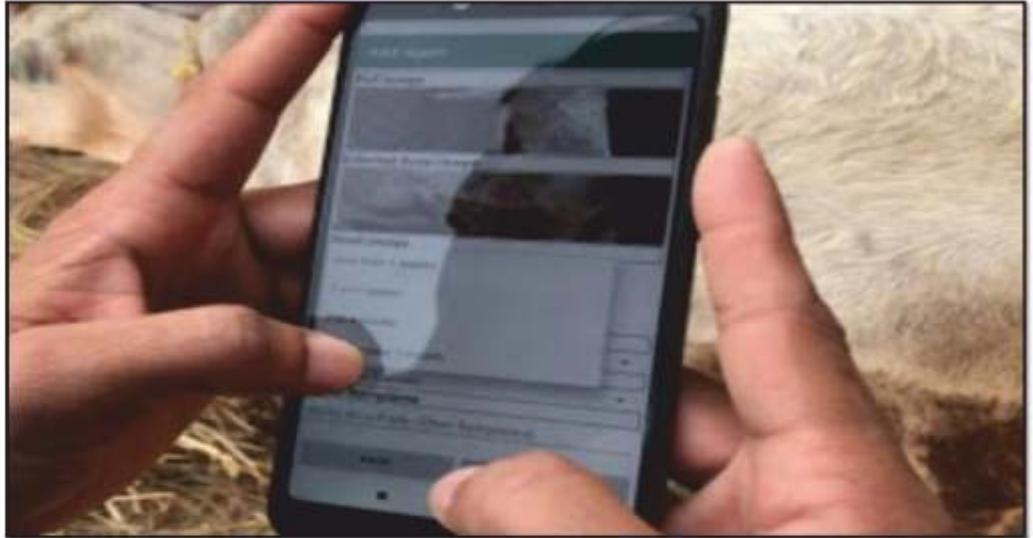
AHB Suraksha app. help farmers to track health status of cattle, poultry, fish anytime/anywhere through one tap.

Just click infected area image, follow few question in hindi language and submit report through app. In few hour doctor will contact you through video call/farm visit as per your choice the customer convenience.



In order to protect clients and therapists, new social removal measures have been taken in all practices. Genflow as a company is on a mission to eradicate the dependency on the consultation which charge huge amounts to get the livestock treated by a doctor. They have built an application that helps both farmers and doctors in monetary and visiting terms. The idea is to digitize the livestock sector by incorporating tele-consultation and telemedicine prescription features.

They are serving digital consultation through image analysis and video calling.



They are Start Up India and MSME recognized company with projection to serve more than 1 Crore +farmers in next 5-10 year with an undisclosed generating revenue from subscription, market place as well as from the advertisement.

### Future plan

Medicine and supplement ordering online and delivering at the door step through just one tap from their application software.

Trading platform for buyer-seller to sale or purchase produce is under trial and soon it will be open for access.

Artificial Intelligence based query result to the farmers within few second and will be available as feature in few year.



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🏠 MCA

# SAAS SOFTWARE SOLUTIONS PRIVATE LIMITED

One Stop Solution to farmers

19

**Business Idea: Bringing Producers (Farmers) and consumers under one umbrella by providing the best value to both producers and consumers by removing the middle men commission**

India farmers are not getting the correct value for their efforts, even consumers have been forced to buy agricultural products on managed market value fixed by the middle men. The startup want to provide the technology driven solution to connect the end-to-end market

SAAS Software Solutions Private Limited are developing a web based application and an APP to help both producers and consumers and are trying to bring both of them under one umbrella. In this platform both can interact with each other and fix a value agreeable to both of them

Providing the real time virtual market trends to farmers and consumers on agricultural products with following additions:

- Providing a common platform to both farmers and consumers to discuss and conclude the best price without the middle men
- More focused on beneficiaries Producers and Consumers
- All transactions going through the applications are digitalized for Government
- Providing a VIRTUAL APMC to reduce the operational cost
- Globalization of the local product.
- Educating young generation producers on importance of agri produce

There are different stake holders under worthmyvale.com here main stake holders are Agriculturist, Bulk Buyer/Consumer Transporter Private APMC storage providers, Insurance companies, Nationalized Banks ,Expert counseling and support etc..

www.wothmyvalue.com is a web based application for trading between growers and

## SAAS SOFTWARE SOLUTIONS PRIVATE LIMITED

consumers. Both growers and consumers have to be a registered user to do the trading in this portal.

“Worth my value” administrator fixes a defined rate for each registration based upon the users. Renewal of registration will be taken- up on Yearly or Monthly basis. Application provides the provision to enter the information related to the crops producers are growing in their respective fields and the expected date of availability to trade. Information entered by producers and consumers are made available to each other based upon their interest of search. Information will be made available to several consumers. Here a consumer can be a

Product	Username	CropName	Quantity (kg)	Quantity	Availability Date	Remarks	Unit Price	Bidding Price/ Unit
product1	PC2	GUJHDL	10000	10000	2020-11-01	waiting	30000	40000
product1	OT20H	AS	20000	20000	2020-11-01	waiting	4000	4000
product1	APEN	AS	20000	20000	2020-11-01	see	4000	2000
product1	NEEP	AS	20000	20000	2020-11-01	product	2000	2000

**Entry screen for producer to enter the produce**

**Our Vision:**

- Direct Engagement: Producers and Consumers can connect in a single click.
- Right Price: Get the best price and consumers will get the best quality.
- Low Cost Services: Digitalization of all products.
- Consultation: Expert advice on Market, Finance, Risk, Health, etc.

**We Support:**

Creating a VIRTUAL APMC

Our platform enables farmers and consumers to connect directly, bypassing middlemen. This direct connection allows farmers to get the best price for their produce and consumers to get the best quality. The platform also provides additional services like weather reports, insurance, and R&D to support farmers and consumers.

single entity or it can be APMC markets, Cold storages, food processing units etc., providing an open platform to both grower and producer to fix their rate directly without the middlemen. Application is providing an option to make available of local products accessible globally and producer can check the availability of products/crops/vegetables in their nearby areas and plan accordingly for them self. Application provides additional features like Transportation, Banks, Insurance, Consultation, Weather report, research and R & D etc.



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# ARMOR HELIX INDIA PRIVATE LIMITED

Boost your immunity

21

**Business Idea :** Collection of raw colostrums from Indigenous cows & buffaloes and production of colostrums powder to boost the immunity.

New microorganisms are attacking human being which can cause severe diseases / disorders with no any medicine or vaccines for cure. Many treatments against diseases / disorders involve immunosuppressant drugs which lower down the immunity. Some children are born with lower immunity and in old age immunity is low due to many reasons. To fight against these problems, an individual should have boosted immunity and the colostrums powder will act as immunity booster.

Mr. Rahul Khairnar, MBA in Rural & Agri Busi Mgnt, is working in agriculture and veterinary sector from last 15 years with good cause of promotion of conservation of Indigenous cattle breeds with farmers benefit. He observed that day by day, Indigenous breeds are decreasing in number and some pure breeds are even about to be endangered. Again, in current situation dairy farmers do not get paid for the raw colostrums, either it is utilized in their family or given free of cost to others. But if the business model would get successful, dairy farmers would get the additional income with respect to raw colostrums sale.

Paying for the raw colostrums of indigenous cows/buffaloes farmers would automatically promote for conservation of Indigenous breeds. It would additionally solve two problems that is doubling the farmer income and conservation of indigenous cattle breeds to increase its number.

Hence, he decided to go for the development of collection network to collect the raw colostrums of indigenous cows and buffaloes from the dairy farmers and produce the A2 colostrum powder on commercial basis to serve the population of India to boost their immunity.



## ARMOR HELIX INDIA PRIVATE LIMITED

Mr. Rahul is honored with "Gaurav Bhumi Putra Cha Sanman" in year 2020 by Padma shri. Adv. Ujjwal Nikam for work in the field of agriculture and Gir Govansh Conservation and also honored with Government of Maharashtra's precious "Vasantrao Naik Shetimitra Award" in year 2012 by K. Shankarnaraynan (Governor of India) for work in agriculture extension. He is having associated with most of the dairy farmers. Hence, he can utilize this association for good cause which would result in service to Indian population, Doubling the farmer income & increase in conservation of Indigenous cattle breed.

In current business idea raw colostrums has to be collected in sterilized can and brought it to the production facility in controlled temperature so as to get good quality product. Then this colostrums has to be produced in powder form to increase the shelf life. Now following deliverables & milestones is to be achieved:

- Development of collection network for raw colostrums
- Product development (R & D)
- Production Method Validation (Pilot)
- Packaging & Labelling
- Marketing
- Dealer distribution
- Modification on customer feedback



In this business model the startup is going to produce the colostrums powder from the raw colostrums derived from Indigenous cows and buffaloes of dairy farms and dairy farmers. A2 colostrums would be the product portfolio to offer which is better than the colostrums powder currently exists in the market.

The startup is focusing on the quality of the product by educating the producers and cattle rearers in the villages about the quality aspects and perishable nature of the product so as to get good quality raw colostrums from the dairy farmers.

Furthermore the startup is collaborating with NDRI, CFTRI & other dairy/food research institutes for the product development. We are also working on the ayurvedic preparation additive which would be added in the colostrums powder to enhance its activity.



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# ECOFIBRES & TECHNICAL SERVICES

Sustainable way forward

23

## Business Idea: Micro-cellulose from mustard seed pod (agro waste) solving stubble burning generating wealth from waste

Micro-cellulose is cellulose in pure form, which is synthesized mainly wood pulp i.e. the tree barks. It has wide applications in various sectors of the industry like animal bedding, rubber, gasket industry, welding industry and filtration media. Being chemically inert substance it is also extensively used in food, pharmaceuticals, cosmetic, and polymer composite industries. As the raw material of this micro-cellulose is the forest wood, it is obvious that the deforestation is bound to happen. The need for environment friendly processes as well as the need to slow down the fast global deforestation is the driving force for our start-up which we perform by using mustard seed pod, an agro waste. The annual production of mustard is around 8 – 9 million tonnes [2018-19] in India which generates a huge amount of its waste. This waste was previously incinerated however a ban has been imposed to burn agro-waste. We have utilized the seed pod (covering of the seeds) to produce micro cellulose.

Ecofibres are totally eco-friendly by having multi fold benefits. These fibers are manufactured without cutting any of the forests. The name ECOFIBRES itself clearly states we are providing ecological solutions to the micro-cellulose industry. Our customers will not only get the best of the product, but by buying our product they will contribute their share in saving the environment and society.

ECOFIBRES AND TECHNICAL SERVICES is the start up from alumni of Institute of Chemical Technology (Formerly known as UDCT), Mumbai. Our start-up intends to solve the problems of agro-waste management, stubble burning and air pollution thus generating additional income to the farmers. Company founders are Technocrats including 3 Doctorates in the engineering field. One of the co-founder has 27 years of vast experience. They have strong know-how about the micro cellulose and its applications. Having a technical and environmental orientation; ECOFIBRES AND TECHNICAL SERVICES are motivated to work for our responsibility towards society. Being technical and flexible they can support tailor made products.

Process of converting Micro Cellulose into Mustard Seed





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# RUDRA AND SHOORA PRIVATE LIMITED

Diagnose Agriculture for Future

25

## Business Idea: Development of Low cost Portable Indigenous Teliya (Bacterial Blight of Pomegranate) Detection System and Early Disease Awareness

Technology landscape has emerged out in the past few years in agriculture development, especially in the case of spraying, weed control, food quality checking, etc. Nevertheless, most of the farmers are using traditional methods for investigating diseases on the plant. These approaches may fit best under some circumstances, but the majority of time, it causes substantial financial loss. Looking at this situation at a glance, there is an urge to create an early disease detection technique for plant.

Our team has completed two research projects and we are having good experience in product development and deployment. As I have completed my PhD from Indian Institute of Technology, Bombay, we are having good collaboration with with BARC and IIT Bombay. One of our team member is pursuing PhD from MGM, Mumbai in BioTechnology.

After my graduation we have started my company from my native village called Khed-Bhalavani situated in Pandharpur Taluka, which is located in Solapur district of Maharashtra. The region is agriculturally rich by the grace of river Bhima and its left and right bank canals, supported by Nira right bank canal. However, the industrial growth is very poor. Though, the region is rich in the production of fruits, there is not much attention on value addition. With value added processes, large market can be made available. Though, the land is fertile and people are hard working, sometimes they suffer because of non-availability of early information about diseases on plants. These kinds of issues can be resolved by appropriate training adaptation and spread of technologies.

- India – Largest Producer of Pomegranate
- Every Year – 60 – 80% of Crop Loss due to Teliya Disease
- It spreads Rapidly which leads to huge financial loss to the farmers

Our solution is unique, portable, gives prior intimation, battery operated, low cost and override human error



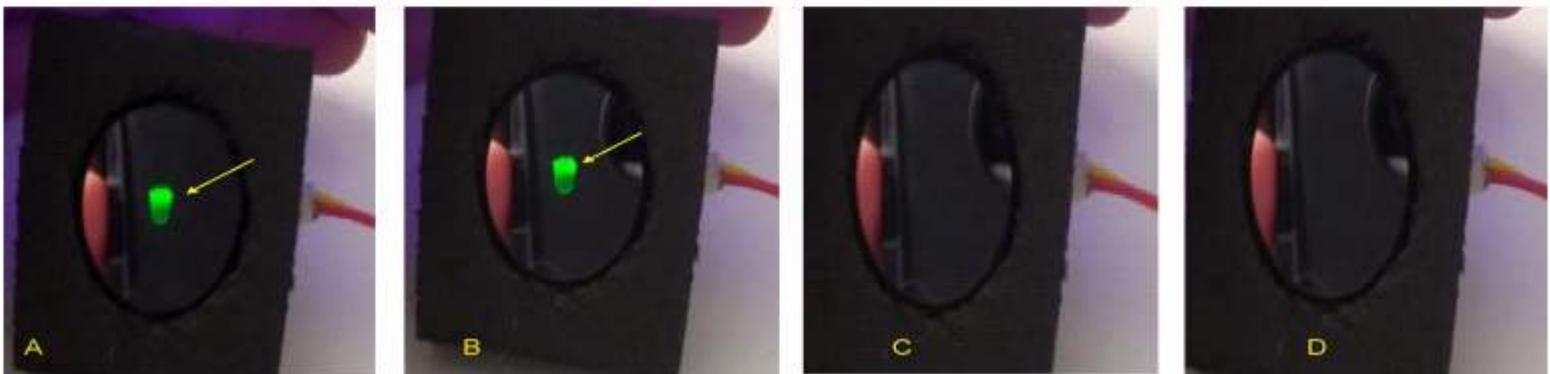
We have worked on early detection technology for rapid and accurate diagnosis of bacterial blight of pomegranate. The developed device works on the principle of detection of Specific DNA sequences associated with the causative agent of bacterial blight known as *Xanthomonas axonopodis* pv. *Punicae*. The developed device is handheld battery operated and can be taken to the villages for screening with small instruments needed for DNA amplification. The device mainly detects the Fluorescence signal from Amplified Nucleic Acids i.e DNA after amplification by using PCR reaction. The developed device can detect the signal within a fraction of seconds, but the overall time for detection, including sample proceeding will take 4 hours of detection, which is most rapid as compared to conventional microbiological techniques.

Within this year, the most apparent finding will emerge from this study, and we will also be able to do sampling analysis more than 20 thousand sampling in Pandharpur and Sangola taluka. In the next year we will be able to expand ourself into complete Maharashtra state. In the second year, we will have more than 50000 customer data base. Our further target is to cover entire pomegranate farmer of India.

Inspite of working on early detection, company also want to make connectivity between farmer quality pesticide companies.

Rudra and Shoora Pvt. Ltd. will be providing employment to around 100 people in the couple of years and is targeting turnover of more than Rs. 50 Lakh.

Results of samples on developed PCR Productdetection system; Image A & B denotes- PCRTube shaped fluorescence signal for positivecontrol sample 1 & 2 Indicated by Arrow; Image C & D denotes- No fluorescence Signal from Negative control sample 3 & 4.



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