Report on

Training on Existing Transformative Agriculture Tech, Mobile-based Applications, Innovations and Smart Farming

Davanagere Saturday, April 30, 2022

Organised by



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Davanagere

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Background

The Public Affairs Foundation (PAF) was provided funding support by National Bank for Agriculture and Rural Development (NABARD) to conduct a series of training programmes in six districts in Karnataka. The topic for the same is "Training on Existing Transformative Agriculture Tech, Mobile-based Applications, Innovations and Smart Farming".

The training programmes aims to bring together farmers, Farmer Producers Organisations (FPOs) and Experts (scientists & researchers) on a unified platform. This may increase the farming yield and farmers can market value-added products instead of mere raw produce and learn how the latest developments in agri-tech can enable them to enhance their profitability. While FPOs in the state have been constantly conducting similar programmes, the current endeavour is to scale up the initiatives to include branding, marketing techniques by using Artificial Intelligence and Machine Learning techniques.

The main objectives of the training programme are to explore, discuss and proliferate modern transformative, technology, mobile App-based, innovative and Smart Farming techniques among farmers using traditional farming techniques. This is expected to help traditional farmers make a paradigm shift to adopt modern farming techniques. Primarily, the training programme is focused on sharing experiences, active interactions, and providing solutions offered by smart farming. Farmer Producer Organisations (FPOs) have not only been providing farmers with seeds and manure but also training them in the latest farming methods for a few years.

The 2nd training was held in Davanagere on Saturday, April 30, 2022 at the ICAR- Taralabalu Krishi Vigyan Kendra, Davanagere. (Refer to Annexure 1 for the Agenda).

This report provides an overview of the key deliberations from the programme held at Davanagere.



Davanagere

ICAR - Taralabalu Krishi Vigyan Kendra, Davanagere

Saturday, April 30, 2022

Introductory Session

Ashwini Venkataram, Senior Officer - Finance, PAF welcomed the gathering and presented the objectives of the programme and introduced the activities handled by PAF. She said that the main objective of the training programme was to introduce the advancement in transformative agriculture and existing mobile Applications for farming to FPO members.



Welcome Address

Dr Annapoorna Ravichander, Executive Director, PAF in her Opening Remarks stated that the programme was focused on educating farmers on how modern technology can be used in agriculture. She mentioned that two 'agripreneurs' would share their experiences in farming with the farmer community present at the programme. She stated that these two agripreneurs were corporate employees who are driven by a passion for agriculture. She mentioned that branding and value addition of farm products would be discussed at length during the programme. She mentioned that the programme was a forum for all stakeholders like FPOs, representatives from the Agriculture Department and NABARD to discuss what initiatives in transformative, tech-supported agriculture can be taken up.



Inaugural Address

Smt. Mamata Hosagudar, Assistant Commissioner, Davanagere the Chief Guest of the event thanked PAF and NABARD for organising the training programme. She felt that more FPOs and farmers could have attended the innovative training programme. She wished that the farmers



present at the programme would get to learn more about technology for farming, mobile Applications and software and more importantly value addition for farm products. She requested the farmers attending the training programme to make the best use of the opportunity and communicate their learning to other farmers who were not present at the programme.

She added that farmers were migrating to the cities in search of greener pastures. She shared that if technology is used in farming activities, the need to migrate would become unnecessary and agriculture would become profitable. She pointed out that as population increases, the need for food security is underlined and production can be increased only with adoption of modern tech-enabled farming.

Introductory Remarks

Smt. M R Hamsaveni, Deputy Director of Agriculture, Honnali Sub-division, Davanagere in her introductory remarks briefly traced the origins of agriculture in human civilisation. She shared that as the population grew, man learnt to settle in one place and practice agriculture. She briefly



touched upon several agricultural revolutions that have taken place in history. She mentioned that very little cultivable land was remaining on the planet because of mass industrialisation and increase in population.

She said that 'smart farming' techniques was the only way to increase agricultural produce. She stated that for Indian farmers to be profitable, exporting agri products was the only option. She pointed out that in many cases though the best farming techniques are used, the vagaries of climate have led to crop losses.

She said that by using smart farming, farmers can get accurate weather forecasts. She also added that aerial surveillance using drones was another benefit of smart farming and can help in assessing attacks to the crop by pests. She stressed the need for employing Artificial Intelligence (AI) in smart farming technology. She felt that, like in Israel, AI should be used by Indian farmers for remote irrigation. She stressed that polyhouses should be built in Indian farms for the cultivation of cash crops. Smt. Hamsaveni said that though such amazing technology was already available across the world, it is important to take the benefits of this technology to the grassroots farmers of India. She also added that the main drawback in adopting drone tech in India is the fact that land holdings in India are fragmented and not seamless. "Because landholding patterns in our country are in tiny bits and pieces, using drones for spraying is not economical. This is a big challenge," she added.

She added that farmers were migrating to the cities in search of greener pastures. She shared that if technology is used in farming activities, the need to migrate would become unnecessary and agriculture would become profitable. She pointed out that as population increases, the need for food security is underlined and production can be increased only with adoption of modern tech-enabled farming.

Special Guest

Dr. Devaraja T.N., Senior Scientist and Head, ICAR-Taralabalu Krishi Vigyan Kendra, Davanagere reiterated that the farmer representatives present in the training programme must carry the learning from the same to other farmers. 'Please pay it forward', he requested the trainees. He said that agriculture today was full of new technologies and the benefits of these technologies should cascade to the small and marginal farmers. He also added that the world population is set to cross 9 billion in the next three decades. "Indian farmers will have to feed 165 crore population by then," he said. The 330 million metric tons of food grain will not be enough by then he noted. The production will have to rise by 70%.



The buying power of people has increased but quality food grain is falling short. Increase in quality food production is possible only with the use of technology in various types of farming (land-dependent, tree-dependent, vertical farming, landless farming, waterless farming etc).

It is the responsibility of the government and farmers to achieve food security. He mentioned that such revolutionary techniques were being used in Pune, Maharashtra. There is clear indication that the governments will support adoption of such technologies. He stressed that mobile should be used for farming to reduce costs and increase profit. He hoped that the time and effort that participants put into the programme would be fruitful to them.

Technical Session

Module 1: Existing Transformative Technology in Agriculture



Srinivasa Patil, Research Engineer, Agripreneur

Srinivas Patil said that he hails from a family of farmers and is a software engineer and a ryot currently. He said that the poser before every farmer is whether he should take up agricultural activities only if there is a market for his products.

Interaction: Patil interacted with presidents and other functionaries of FPOs and learnt that the number of FPOs in Davanagere had increased from six to seven. He gathered that FPOs were not very active in searching for markets for their products. He also interacted with other FPO members present at the workshop. Patil gathered the main crops being grown are maize and paddy. Others submitted during the introduction round that there were opportunities for growing red wheat (organic), groundnut, tur dal and areca nut.

The trainees were asked to introduce themselves and post that Patil began his session. He said

that farming becomes meaningless without finding a market for the products first. He mooted that the farmers have not become smart enough after getting smartphones. "*They have always been smartened by experiences of elders in the family and folklore,*" he said. He urged FPOs to function in an enterprise fashion where the roles of production and marketing are separate and shouldered by different functionaries. He pointed out that the crops grown should be compatible with the climate of the region. Patil discussed profitable agriculture at the low end of the product life cycle—seeds. He stressed the need to procure high quality seeds to ensure a good yield. Patil said that most of the mobile for farming were not rocket science and that they are characterised by ease-of-use by farmers. He repeatedly stressed that the very objective FPOs were established was to search for profitable markets for farm products of their members. Patil gave the gathering two profitable farming opportunities to adopt—first organic farming and second, composite farming (which includes animal husbandry).

Patil urged farmers to set themselves a financial goal (returns per month) and work towards it. He revealed that the key to ensuring that a farmer reaches his financial goals per month is 'value addition'. He also pointed out that leveraging Self-Help-Groups (SHG or Sthree Shakri groups) to make value-added farm products—for example pickles with lemons—when the market price of the product is too low can help farmer families to maintain their monthly income. He said that his NGO had the capacity to deliver even 50kg of lemon pickle made with totally organically grown produce. Patil's theme of his whole presentation was —"find a market for your products and then invest money, time and energy". His advice was finding your customers and working backwards. He shared the example of a Vijayapura Masala that he tried to sell and failed. But the masala sold like hotcakes when it was packaged differently and branded differently. Value-addition and branding is key, he added. He shared his experience in marketing a strain of ragi native to Koratagere taluk in Tumakuru district called Gutte Ragi. He said that he does not sell the ragi as is. He makes biscuits out of it with ghee and jaggery and sells it in the open market for a premium and people come to the shop asking for it because it is labelled and packaged properly. After this introduction Patil discussed mobile for agriculture.

He said that Smart Farm was a mobile App for gathering details of farmers and the crops they want to sell. He noted that this App connects growers to buyers who specify several conditions like moisture content etc. He added that farmers are always willing to sell their products to buyers but they fail because of lack of knowledge on how to connect with the latter. He suggested that the younger FPO functionaries take up the task of connecting farmer members to buyers over the Smart . What is stressed here is the FPOs need a 'smart marketing' person to connect farmers to buyers. He stressed that traceability of the farmers by the buyer is a feature of the App which instantly connects both parties.

He also introduced weather on mobile (Meghadoot, the government App and Weather.com which is highly accurate with rain forecasts). He noted that most that he discussed during the meeting were free of charge. He noted that by using the weather.com App farmers can prepare their land and seeds for sowing for rain patterns in the region. He stressed that the App users should keep his location service on his mobile phone.

He explained the basics of AI and Machine Learning work to predict accurate weather in a region. Again, Patil stressed that each FPO should have one person who understands modern technology. He also introduced Kisan Diary, a simple App for a farmer to record his earnings in terms of

Technical Session

the input costs and revenue and calculate his gain.

He suggested that farmers should set their target as Rs 2 lakh per year and start increasing their profits from there year-on-year. He said that a greater understanding of the market would yield better profits for farmers in the market. Patil said that market-dependence for raw products was dicey. When the markets are not favourable, value-addition to farm products is the only way to make them profitable. Patil pointed out that there was much courseware on the Internet to ed-ucate farmers how to value-add to their raw products.

Patil stressed the need for branding of agricultural products. He gave the example of orange growers in California who not only grow the fruits but also grade and package them and supply to supermarkets directly. He said that people specifically ask for the brand they like and buy them. This is the power of branding, he explained. He said that he personally takes the end-to-end responsibility of marketing the mangoes he grows in his farm, and they sell for even as high as Rs 180 per kg.

He has branded his mango as 'Sugandhi'. He also shared that he is making value added products like tomato chutney and packaged tomato powder. He said that to make agriculture profitable, value addition was the best way. Raw products fetch very low prices in the market, but value added, packaged and branded products fetch up to ten times more income. He stressed that market engagement should precede agricultural activity. He suggested that tying up with big hotels and online grocery stores would be a good option before planting a given crop. Such annual agreements can ensure that the farmer earns a salary each month throughout the year.

Interaction: Ravi, another agripreneur, who was present at the workshop added that the farmer should keep his own best interests in mind while entering into supply agreements with the buyer. "Your product is like your child. You should not grow crops without looking for a market for them first," he said. There was consensus among all present at the meeting that modern agriculture techniques and mixed farming was the way forward.

Patil introduced mobile for agriculture like Video Kheti and Loop. He said that agricultural measuring equip-



ment for determining the PH level and moisture level in the soil are available online for as little as Rs Five. He suggested that FPOs should proactively set up FPO stalls to sell their value-added products.

Patil introduced Kisanbuddy.com, an App to connect to markets. He stressed that if the quality of products is maintained, buyers will come to the farmer's doorstep. He explained that bags can be made for the export market from banana stems. Big Basket, Nature Fresh and other e-commerce companies buy in bulk, he added. He also introduced Apps launched by the governments like Bele Darshaka to link farmers to markets. Dried mango and banana value-added products sell for as much as Rs 350 per kg. Patil urged FPOs to think global and search for global markets. He shared that his organisation was making efforts to create an e-commerce platform in the US to sell his products. He urged FPOs to look for buyers in Singapore, Dubai and the US though European markets are difficult. Explaining how this is done, he told farmers to leverage family and friends abroad to search for global markets. He submitted that the presidents and directors of FPOs should drive young farmers to use technology in farming.

Interaction: When the participants said that they had created FPO offices on 1200sft land, Patil said that it was necessary to ensure that the FPO offices have internet access and modern gadgets like computers, printers etc. He gave the example of his stall near Nelamangala called Rural Mart which is nothing less than a software company office. *"The FPO office should look posh, and farmers have to come across as rich people,"* he added.

Patil pointed out that financial estimates are very important before planting crops. He urged farmers to calculate the input and output costs (and profits) before starting agricultural activities. He discussed for pest control, Kisan Suvidha App for pricing information.



Technical Session

Interaction: Focus on growing cash crops like cinnamon, jamoon, cloves etc was stressed during the meeting by Ravi. Addressing the gathering he said that farming is a noble profession and farmers play a vital role in society. Farmers are the backbone of society because they produce food whatever the situation in the country—whether there is a pandemic raging or not.

With this the programme paused for lunch.

Module 2: Financing Smart Farming



Vinayak, Branch Manager, Canara Bank, Davanagere

Vinayak said the cultivable land in the country was shrinking because of vagaries of climate and increase in population. However, the total food production has been increasing because of mechanisation of farming activity and other advancements in agriculture. The challenges being faced today are surrounded by how to adopt technology in farming or carry out smart farming,

he added. He noted that weather forecasting need to be used by farmers to plan their agricultural activities.

He gave examples of the innovative use of automatic milking machines in dairy farms, drip irrigation in areca farms, use of drones for spraying pesticides and plant nutrients. "Banks and NABARD finance through special farmer loans all

such innovative projects," he categorically stated. He added that purchase of machines for combined harvesting, automatic weeding, etc is being done by banks. He added that loans are sanctioned for FPOs, and individual farmers based on the project cost and margins (which is usually 50-75 per cent) and the security provided by the Applicant. The Applicant's share of investment is 15-25 per cent for the setting up of greenhouses. In no case does the bank provide loans for 100% of the project cost he noted. Banks give loans collectively to FPOs also he said giving the example of an FPO which has Approached Canara Bank for loan to purchase areca peeling machines for 2,000 of its members. FPOs can also avail bulk financing for its members and take up the responsibility of loan recovery and repaying the loan to the bank.

Interaction: Ravi pointed out that the government has already issued Kisan Credit Cards to farmers for purchase of seeds and fertilizers. At this point the farmers voice concerns in unison saying that they had not been issued any such card. Ravi explained that villages are adopted by banks and loans are given by such banks. At this point what came out of interactions was that farmers were running from pillar to post and nobody at the meeting was being given correct information about Kisan Credit Cards. Farmers also said that banks ask for too much documentation to sanction loans and demand a good CIBIL score. There Appeared to be great confusion between Kisan Credit Card and crop loan.

At this point Vinayak clarified that Kisan Credit Card and crop loan were NOT two different schemes but the same. There were many questions surrounding the confusion about how FPOs can procure bank loans, and what kind of security should be given by the FPO.

Vinayak explained that credit guarantee funds can be used to give loans to FPOs up to Rs 10 lakh if the directors furnish personal guarantees. There was an invigorating discussion on the challenges being faced by FPOs to procure bank loans which later concluded that banks should address the confusion surrounding bank loans on a war footing. Participants expressed their displeasure stating that getting bank loans was cumbersome and ridden with delays. The main problem is that banks demand that personal property to be mortgaged to get loans for the FPO. The question without an answer is which office bearer, or which member will mortgage his personal property to get the FPO a bank loan?



Technical Session

Module 3: Innovations in Transformative Agri-Technology



Ravi Patil, Gicchu Farm, Kortgiri, Kaspur Village

Ravi shared his experiences in composite farming with the participants. However, the participants were of the impression that composite farming was risky because not all crops get sufficient sunlight and water. Ravi said that he grows coconut, vegetables, and flowers of five varieties. He shared that he gets a yield of 500 coconuts per tree because he provides the trees sheep manure, gypsum and salt. He said that 10 kg of a cash crop earns the same amount as 100kg of traditional crop. He said that there are government schemes for planting and producing red sandalwood. He pointed out that each such tree yields at Rs 2.5 lakh every 12 years. Participants argued that protecting these trees from sandalwood smuggling was a difficult task. They also argued that if they plant teak and sandalwood, they become victims of harassment by police and Forest Department officials. They pointed out that they have to pay huge bribes to get permits to cut down these trees.

This was followed by course completion certificates being presented to the participants.

Valedictory Speech

Shri. Anadha, Deputy Secretary, ZP, Davanagere

The Chief Guest at the valedictory function said that farming activities must be completed before the monsoon begins in two and half months. He said that there were no problems with the farmers' action plans of the government and loan applications will be given speedy approvals. He advised that farmers should keep at least 10 job cards ready before applying for financial assistance.

In his address he said that agricultural labour was a big problem in the district. He mentioned categorically that agriculture can never be profitable if farmers stick to traditional farming methods. He stressed that smart farming is the way forward. He urged farmers to look for opportunities to increase their income. He pointed out that in one year 25,000 hectares of paddy land has been converted to areca which is more profitable. He said that farmers must understand the demand-supply scenario before planting crops by taking the advice of the Agriculture Department and other specialised agencies.



Interaction: Farmers argued that the Agriculture Department officers were very lethargic and not responsive enough to heed to the woes of the farmers. Anand challenged this complaint saying that farmers need to be less dependent on the government and more proactive. He took the example of an agripreneur who buys drumstick from farmers, makes tablets out of it and exports them to Germany. He urged farmers to experiment with small tracts of land and plant crops that can be used to make value added products for the global market.

He informed that a Rs 500 crore project of the government to promote the cultivation of millets has been sanctioned. He stressed that changes should begin with the individual farmers and his FPO. He gave the example of Challakere groundnut which is being converted to value added chikkis and sold globally (100% export-oriented unit).

Interview Sessions

As part of the programme some key participants'/resource persons were interviewed.

V. Ravindra, District Development Manager, NABARD Davanagere



Q: What are the main objectives of NABARD?

Ravindra explained the main objectives of NABARD during the interview. He said that the national bank is focused on delivering the various agricultural development initiatives that are planned and executed by the state and Union governments to the grassroots farmers.

He mentioned that the many programmes of NABARD centered on taking new technology to the farmers and assisting them financially by arranging for easy-payment loans at nominal rates of interest.

He alluded to a three-tier system adopted by NABARD wherein the bank gathers and registers grassroots through Primary Agricultural Cooperative Societies (PACS) that have five to six villages under each such society. There are over 184 PACS in Davanagere, he added.

The District Credit Cooperative Banks (DCCBs) provide loans to PACS. While DCCBs are provided finances from the Apex Bank. NABARD also finances Primary Land Development (PLD) Banks and other agriculture- related state level banks. The DDM said that loans of up to Rs 10 lakh are given to farmers at an interest rate of 4% mainly for the purchase of tractors and for land development.

Q: Are the procedures and formalities to get loans farmer-friendly?

In reply to a question whether the procedures and formalities needed to be followed are farmer-friendly? The DDM said that all development schemes were very farmer friendly. He mentioned that farmers were given Kisan Credit Cards by PLD Bank and other financial organisations and that would make the process of getting loans easy. The DDM mentioned that the rate of loan recovery was currently nearly 70% and that brings down the allotment of loans. Asked whether loan waiver schemes of the government affect the banks, he said that it does not affect the banks in general, but slows down the pace of loan recovery and the disbursement of fresh loans to farmers. Also, NABARD gives loans to farmers who are prompt repayers under the KC Card scheme at zero percent interest.

Q: Does NABARD also finance rural development activities?

NABARD also finances connectivity in remote villages, basic amenities like drinking water, construction of bridges and check dams, desilting of lakes, construction of village roads. Under the social sector, the bank finances Angawadis, schools, primary health centres, rural colleges etc--all through the Zilla Panchayat (ZP). Though the bank does not interact with rural people directly, it sanctions large funding for various rural development activities.

The DDM said that the rise in mobile for agriculture was a desirable development, but farmers need to be trained to use the App. He pointed out that most farmers do not have smartphones. He pointed out that such education in the use of mobile phones should be done at the gram panchayat and hobli levels, not just at the district level.

Interview Sessions

Leelavathi, Jagalur Taluk, Davanagere



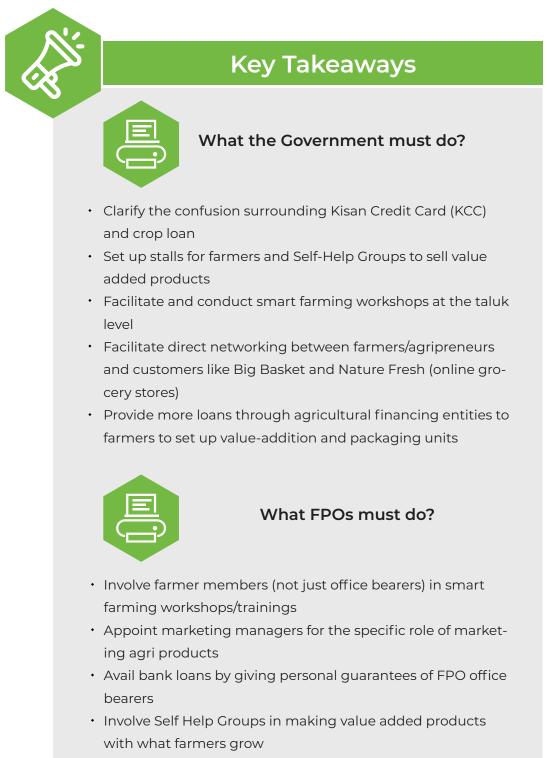
Leelavathi is a lady farmer from a hamlet in Jagalur Taluk, Davanagere district.

Q: What do you expect to learn at this workshop? Also tell us about yourself

Leelavathi said that grows lemons, coconut and arecanut. She said that she was present at the programme to learn more about animal husbandry options for small farmers and that she was a member of Amruta Farmer Producer Organisation (FPO). She said she was aware that mobile exist to connect FPO members and other farmers to buyers; but she admitted that she does not know how to use them productively. She expressed great interest in learning how to use mobile for farming.

Vote of Thanks

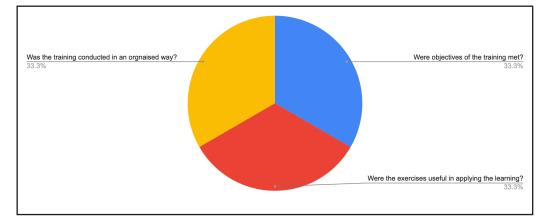
Prakash K.N Field Research Officer, Public Affairs Centre proposed the vote of thanks at the end of the programme.

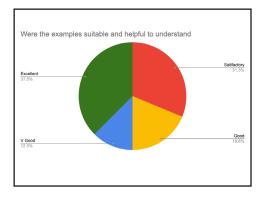


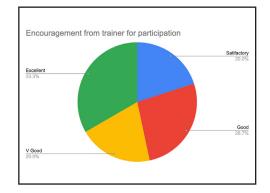
• Search for global markets for their value added products

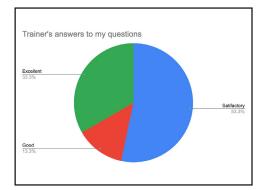
Feedback

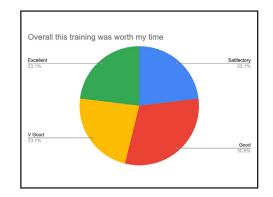












What did you like most about this programme?

- 1. Good Idea for exchange and good thought of encourage
- 2. n Agriculture strategy mobile application will be usage
- In agriculture mixed crop will be usage and profit earning type of understanding
- 4. In this Training all the subject are useful
- 5. In crops, distant crops growth discussion and for farmers problem enquiry
- 6. Training useful in agreeing agricultural knowledge particularly in mobile application will helpful to transfer of technology
- 7. Mobile application Information and new software and technologies updating farmers

What did you not like about this programme?

- 1. Nothing
- 2. Mobile application Information
- 3. Government officer are not supporting for Farmers
- 4. Participate not able to attend due to festival



Annexures

Annexure 1: Agenda

Training on Existing Transformative Agri Technology, Mobile-based Applications, Innovations & Smart Farming Day & Date: Saturday, April 30, 2022 Venue: ICAR-Taralabalu Krishi Vigyan Kendra (TKVK), Kadalivan, LIC Colony Layout BIET College Road, Davanagere – 577 004		
10.45-11.00 a.m.	Registration	
11.00-11.05 a.m.	Introduction	Ashwini Venkatram Senior Officer - Finance, Public Affairs Foundation, Bengluru
11.05-11.10 a.m.	Welcome Address	Dr. Annapoorna Ravichander, Executive Director, Public Affairs Foundation, Bengaluru
11.10-11.20 a.m.	Inaugural Address by Chief Guest	Ms. Mamata Hosagudar, Assistant Commissioner, Davanagere
11.20-11.30 a.m.	Introductory Remarks	M R Hamsaveni, Deputy Director of Agriculture, Honnali sub-division, Davanagere
11.30-11.40 a.m.	Special Guest	Dr. Devaraja T.N., Senior Scientist and Head, ICAR-Taralabalu Krishi Vigyan Kendra
11.40-12.00 p.m.	Coffee/Tea Break	
12.00-1.00 p.m.	Module 1: Existing Transformative Technology	Srinivasa Patil R Research Engineer, farmer, Agripreneur
1.00-1.45 p.m.	Lunch Break	
1:45-2:15 p.m.	Module 2: Financing Smart Farming	Vinayak Pise Branch Manager, Canara Bank Davanagere
2.15-3.00 p.m.	Module 3: Innovations in Transformative Technology	Ravi Patil, Gicchu Farm, Kortgiri, Kaspur village
3.00-3.15 p.m.	Coffee/Tea Break	
3:15-3.45 p.m.	Valedictory Speech	Shri. Anadha Deputy Secretary, ZP, Davanagere
3.45-4.15 p.m.	Q & A and Summing Up	Moderator - Srinivasa Patil R, Research Engineer, farmer, Agripreneur

Annexure 2: Participation Certificate



CERTIFICATE OF PARTICIPATION

ಭಾಗವಹಿಸುವಿಕೆಯ ಪ್ರಮಾಣ ಪತ್ರ

This certificate is present to

for participating in a training programme on

Training on Transformative Agriculture Technology, Mobile Based Applications, Innovations and Smart Farming

ಅಸ್ತಿತ್ವದಲ್ಲಿರುವ ಪರಿವರ್ತಕ ಕೃಷಿ ತಂತ್ರಜ್ಞಾನ, ಮೊಬೈಲ್ ಆಧಾರಿತ ಅಪ್ಲಿಕೇಶನ್ಗಳು, ನಾವೀನ್ಯತೆಗಳು ಮತ್ತು ಸ್ಮಾರ್ಟ್ ಕೃಷಿ ಎಂಬ ತರಬೇತಿ ಕಾರ್ಯಕ್ರಮ

> Saturday, April 30, 2022 Davanagere



National Bank for Agriculture and Rural Development

America

Dr. Annapoorna Ravichander Executive Director Public Affairs Foundation, Bangalore

Date: ____

Annexure 3: Sample Feedback Form English & Kannada

Organised by PRILE NINE FRANK Feedback Form: Davanagere FU upt. 0x55 20000 3 w70 ಥೀಷ್ ಬ್ಯಾಕ್: ದಾವಣಗೆರೆ 55 50 Training on Transformative Agriculture Technology, Mobile Based Applications, **Innovations and Smart Farming** ಅಸ್ತಿತ್ಯದಲ್ಲಿರುವ ಪರಿವರ್ತಕ ಕೃಷಿ ತಂತ್ರಜ್ಞಾನ, ಮೊಬೈಲ್ ಆಧಾರಿತ ಅಪ್ಲಿಕೇಶನ್ ಗಳು, ನಾವೀನ್ಯತೆಗಳು ಮತ್ತು ಸ್ಮಾರ್ಟ್ ಕೃಷಿ ಎಂಬ ತರಬೇತಿ ಕಾರ್ಯಕ್ರಮ Name: Ramestra, P.C ಹೆಸರು Phone Number: ದೂರವಾಣಿ ಸಂಖ್ಯೆ 9164238382 1. Were the objectives of the training met? Yes No ತರಬೇತಿಯ ಉದ್ಯೇಶಗಳನ್ನು ಪೂರೈಸಲಾಗಿದೆಯೇ? • ಹೌದು 🖳 · ಇಲ್ಲ 2. Were the exercises useful in applying the learning? Yes No ಕಲಿಕೆಯಲ್ಲಿ ಅನ್ನಯಿಸಿದ ಚಟುವಟಿಗಳು ಉಪಯುಕ್ತವಾಗಿವೆಯೇ? • ಹೌದು 🗁 **RO** . 3. Was the training conducted in an organised way? Yes Www.pafglobal.org 1

Annexure 4: Select Photographs



Registration



Ashwini Venkatram - Senior Officer - Finance, giving her Introduction Talk



Indira Pichumani, Training Coordinator, PAF presenting memento to Ms. Mamata Hosagudar, AC, Davanagere



Dignitaries during break



Participant Interacting



Participants having lunch



Resource person interacting with participants



Dr. Annapoorna, ED, PAF, presenting memento to Shri. Anadha, Dy Secretary, Davanagere



Group Photo of PAF Team and Participants with Shri. Anadha, Dy Secretary, Davanagare



Group Photo of PAF Team and Participants with Ms. Mamata Hosagudar, Assistant Commissioner and Ms. M R Hamsaveni, Deputy Director of Agriculture, Davanagere

Annexure 5: Media



ದಾವಣಗೆರೆಯ ತರಳಬಾಳು ಕೃಷಿ ಕೇಂದ್ರದಲ್ಲಿ ಶನಿವಾರ ನಡೆದ ತರಬೇತಿ ಕಾರ್ಯಕ್ರಮದಲ್ಲಿ ಭಾಗವಹಿಸಿದ್ದ ರೈತರೊಂದಿಗೆ ಉಪವಿಭಾಗಾಧಿಕಾರಿ ಮಮತಾ ಹೊಸಗೌಡರ್, ಕೃಷಿ ಅಧಿಕಾರಿ ಹಂಸವೇಣಿ, ಡಾ.ಟಿ.ಎನ್. ದೇವರಾಜ್, ಡಾ. ಅನ್ನಪೂರ್ಣ, ಅಶ್ವಿನಿ ವೆಂಕಟ್ರಾಮ್ ಇದ್ದರು.

ವಿಕ ಸುದ್ದಿಲೋಕ ದಾವಣಗೆರೆ

ಒಬ್ಬ ರೈತ ಎಲ್ಲೋ ಕುಳಿತು ತನ್ನ ಕೃಷಿ ಭೂಮಿಯಲ್ಲಿನ ನೀಡಿದರು. ಮಣ್ಣನ ತೇವಾಂಶವನ್ನು ಪರೀಕ್ಷಿಸುವ ಸಾಧ್ಯತೆ ಇಂದಿನ ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರದ ಮುಖ್ಯಸ್ಥ ಡಾ.ಟಿ.ಎನ್. ಆಧುನಿಕ ಕೃಷಿ ತಂತ್ರಜ್ಞಾನದ ಕೊಡುಗೆಯಾಗಿದೆ ಎಂದು ದೇವರಾಜ್ ಮಾತನಾಡಿ, ಕೃಷಿ ಕ್ಷೇತ್ರದಲ್ಲಾಗುವ

ಫಾರ್ಮಿಂಗ್ ಕುರಿತು ಹಮ್ಮಿಕೊಂಡಿದ್ದ ತರಬೇತಿ ಜವಾಬ್ದಾರಿ ಕೃಷಕರ ಮೇಲಿದೆ. ಪ್ರಸ್ತುತ ಭಾರತದಲ್ಲಿ 300 ಕಾರ್ಯಾಗಾರದಲ್ಲಿ ಮಾತನಾಡಿ, ವಿದೇಶಗಳಲ್ಲಿ ರೈತರು ಮೆಟ್ರಿಕ್ ಟನ್ ಆಹಾರ ಧಾನ್ಯಗಳ ಉತ್ಪಾದನೆಯಾಗುತ್ತಿದ್ದು ತಾವು ಕುಳಿತ ಸ್ಥಳದಿಂದಲೇ ತಮ್ಮ ಕೃಷಿ ಭೂಮಿಯ ಅದನ್ನು ದುಪಟ್ಟುಗೊಳಿಸುವ ಅಗತ್ಯವಿದೆ ಎಂದರು. ತೇವಾಂಶ, ಬೆಳೆಗಳ ಸ್ಥಿತಿಯನ್ನು ಪರಿಶೀಲಿಸುತ್ತಾರೆ. ಇದು ಉಪವಿಭಾಗಾಧಿಕಾರಿ ಮಮತಾ ಹೊಸಗೌಡರ್,

ಫಲವತ್ತತೆ ಹೆಚ್ಚಿಸುವ ಜತೆಗೆ ಅತಿ ಹೆಚ್ಚು ಇಳುವರಿ ವೆಂಕಟ್ರಾಮ್ ಭಾಗವಹಿಸಿದ್ದರು. ಶ್ರೀನಿವಾಸ ಪಾಟೀಲ್, ಪಡೆಯಬಹುದಾಗಿದೆ. ಹೀಗಾಗಿ ಸಾಧ್ಯತೆಗಳು ಎಷ್ಟೇ ಕಡಿಮೆ ಇದ್ದರೂ ಇರುವ ಅವಕಾಶಗಳನ್ನು ಬಳಸಿಕೊಂಡು ತಂತ್ರಜ್ಞಾನಗಳು ಹಾಗೂ ಸ್ಮಾರ್ಟ್ ಫಾರ್ಮಿಂಗ್ ಕುರಿತು ಕೃಷಿಯಲ್ಲಿ ಆಧುನಿಕ ತಂತ್ರಜ್ಞಾನ ಮತ್ತು ಯಂತ್ರೋಪಕರಣ ತರಬೇತಿ ನೀಡಿದರು.

ಬಳಸಲು ಜಿಲ್ಲೆಯ ಕೃಷಿಕರು ಸನ್ನದ್ಧರಾಗಬೇಕು ಎಂದು ಕರೆ

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ಕೃಷಿ ಇಲಾಖೆ ಹೊನ್ನಾಳಿ ವಿಭಾಗದ ಉಪನಿರ್ದೇಶಕಿ ತಂತ್ರಜ್ಞಾನದ ಅನ್ವೇಷಣೆಗಳು ದೇಶದ ಕಟ್ಟಕಡೆಯ ಸಣ್ಣ ಮತ್ತು ಅತಿ ಸಣ್ಣ ರೈತರನ್ನು ಕೂಡ ತಲುಪಬೇಕು. ಆಗ ಕೃಷಿ ನಗರದ ಎಲ್ಐಸಿ ಕಾಲೋನಿಯ ಐಸಿಎಆರ್ ಕ್ಷೇತ್ರದಲ್ಲಿ ಕ್ರಾಂತಿ ಕಾಣಲು ಸಾಧ್ಯವಿದೆ. ಮುಂದಿನ 30 ತರಳಬಾಳು ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರದಲ್ಲಿ ಶನಿವಾರ ವರ್ಷಗಳಲ್ಲಿ ಜಗತ್ತಿನ ಜನಸಂಖ್ಯೆ 9 ಬಿಲಿಯನ್ ಹಮ್ಮಿಕೊಂಡಿದ್ದ ಕೃಷಿ ತಂತ್ರಜ್ಞಾನಗಳು, ಮೊಬೈಲ್ ತಲುಪಲಿದೆ. ಭಾರತದ ಜನಸಂಖ್ಯೆ 160 ಕೋಟಿ ಮೀರುವ ಅಫ್ಲಿಕೇಷನ್ ಗಳು, ಕೃಷಿ ಆಧುನಿಕತೆ ಮತ್ತು ಸ್ಮಾರ್ಟ್ ಸಾಧ್ಯತೆ ಇದ್ದು, ಇಷ್ಟು ಜನಸಂಖ್ಯೆಗೆ ಆಹಾರ ಒದಗಿಸುವ

ಪಬ್ಲಿಕ್ ಅಫೇರ್ಸ್ ಫೌಂಡೇಷನ್ ನ ಕಾರ್ಯಕಾರಿ ನಿರ್ದೇಶಕಿ ಸ್ಮಾರ್ಟ್ ಫಾರ್ಮಿಂಗ್ ಅಳವಡಿಕೆಯಿಂದ ಭೂಮಿಯ ಡಾ. ಅನ್ನಪೂರ್ಣ ರವಿಚಂದರ್, ಹಿರಿಯ ಅಧಿಕಾರಿ ಅಶ್ವಿನಿ ವಿ. ರವೀಂದ್ರ ಹಾಗೂ ವಿನಾಯಕ್ ಪಿಸೆ ಕೃಷಿ

Video Link of the Training Programme:

https://youtu.be/1AKp-Pri-VQ

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