Report on

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

Gonikoppal, Kodagu

Saturday, June 18, 2022

Organised by

PUBLIC AFFAIRS FOUNDATION
Partnership for Better Governance

Sponsored by

NABARD
National Bank For Agriculture And Rural Development

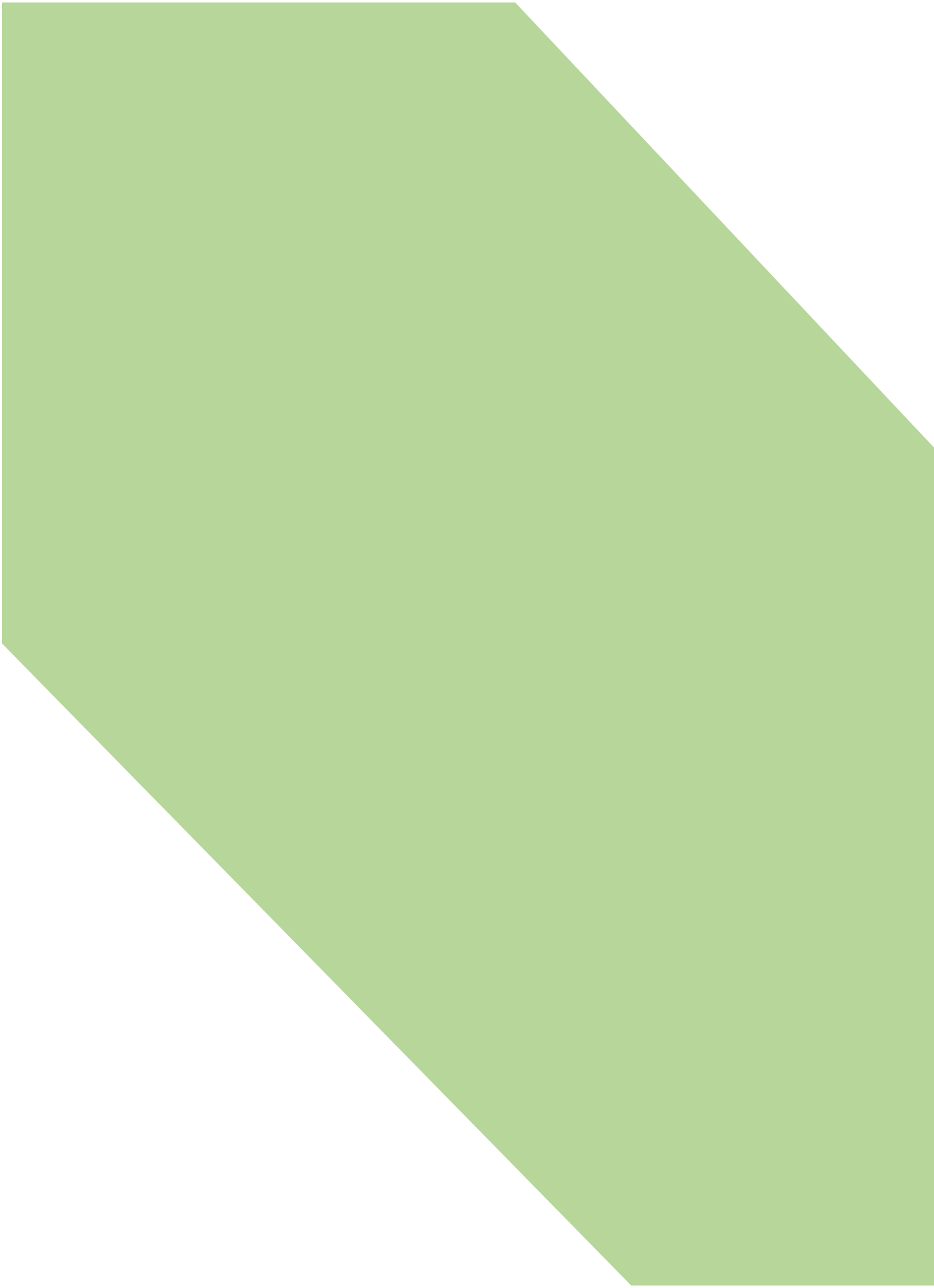


Table of CONTENTS

Kodagu

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 fourth training was held in Gonikoppal, Kodagu on Saturday, June 18, 2022 at the ICAR- Krishi Vigyan Kendra, Gonikoppal. (Refer to Annexure 1 for the Agenda).

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

Kodagu

ICAR - Krishi Vigyan Kendra (KVK), Gonikoppal, Kodagu

Saturday, June 18, 2022

Introductory Session

Hareesha A, Field Research Officer, Public Affairs Centre (PAC), Bengaluru, welcomed the gathering and said in his opening remarks that farmers need to be aware of existing techniques of modernised agriculture to improve their yields. Hareesha invited all the participants and guests for the training programme. With this he invited Dr Annapoorna, Executive Director, PAF to deliver the welcome address.

Welcome Address

Dr Annapoorna, Executive Director, PAF in her welcome address said that NABARD had sponsored the programme because such training is the need of the hour. She said that similar programmes had been held in Chitradurga, Davanagere and Koppal already. She said that the objective of the session was to train the trainers. She stated that two agripreneurs were present at the meeting to present the latest mobile apps for agriculture to the participants.

She introduced agripreneur Srinivas Patil saying that he was very helpful and a man with new ideas. She said that though he was a software engineer working in an IT company, he had developed a passion for agriculture and was pursuing it with gusto.

She said that people at the gathering were asking why an age limit has been fixed for the programme participants. She explained that the limit was proposed by NABARD because the belief is that the training programme should benefit young farmers. She also applauded the fact that

over 50% of the participants were women.

She said that change cannot happen without good leaders among men and women. This is something that she as a woman and PAF as an organisation has realised. Hence the training programme. She also said that the session was not the end of the programme and that PAF would engage with farmers after the training programme also and provide them with marketing support. In the second phase of the endeavour PAF would come back and set up Artificial Intelligence (AI) and Machine Learning (ML) hubs, she assured. She said that the session was not meant to be a lecture but an interaction where problems are discussed, and success stories are shared.

Inaugral Address

Shri. Muthuraj, DDA, Agriculture Department, Kodagu said that the primary objective of the training programme was to introduce mobile applications for transformative agriculture to farmers of Kodagu. He hoped that the sessions would throw light upon how to use mobile apps for

agriculture. He said it was heartening to note that women's participation in the programme was as much as 50%. He said that the government was supplying seeds and fertiliser at subsidised rates to farmers for decades.

He lamented that some of these benefits are not reaching the farmers due to a lack of awareness. He observed that greater awareness of the schemes can be created using mobile technologies. He noted that traditional farming had given way to modernised agriculture and micro irrigation (drip irrigation) to save water. He said that the department was focused on providing marketing development support to farmers as it is very important to do so.

He also said that the department was giving thrust to integrated farming (organic, inorganic and bio fertiliser). He said that when methods are adopted it saves the fertility of the soil and protects crops and the ecosystem. This in turn helps improve the financial condition of the farmer by reducing the cost of production and augmenting the income. He explained that the agricultural department was giving 50% subsidy to the farmer and 75% subsidy for the SC/ST farmer.

An estimated 33% subsidy was given to the women farmers. He stressed that to avail benefits from the department, the farmer's title deed has to be in order. He observed that most farmers don't have the Khata in their names and this was an impediment to securing agricultural department schemes. He repeatedly stressed that the Right to Tenancy and Crops (RTC) certificate is the most important document needed to avail schemes.

He explained that Rs 10,000 was being given to small and marginal farmers under the PM Kisan Yojana to fund (Rs 6,000 from Centre and Rs 4,000 from state government) fertiliser and other farm purchases. But under this scheme the farmers should have at least one acre of land. In most cases farmers are not getting this benefit because they don't have RTC or Khata in their name, he observed. He requested those present there to carry these messages to the others in their villages. He noted that the programmes will be effective in Kodagu, Chikmagalur, Dakshina Kannada districts because farmers are literate.

Introductory Remarks

Dr Saju George, Senior Scientist and Head, ICAR Krishi Vigyan Kendra, Gonikoppal, Kodagu said that everybody uses mobile phones for calling, receiving calls and social media messaging. But there is so much more that farmers can do with their smartphones. He noted that though there were many mobile apps for agriculture, there exists confusion among farmers about how they can be used practically for farming activities.

He said that he was approached by PAF for the conduct of the training programme. It was decided that mobile apps for agriculture should be the main topic to be covered (among other things). He said that it was decided that experts in technology and farming should address the participants and enlighten them about the changing scenarios in transformative agriculture. He noted that following the training programme, further assistance in marketing value added farm products would also be provided to the participants.

He noted that coffee and pepper are the two commercial crops of Kodagu apart from paddy. Kodagu also exports different types of exotic fruits. He gave the example of value-added products being made by farmers –like jams, juice, pickles etc. However, marketing is the biggest challenge that they are facing. The challenge for local farmers is branding and go-to market strategies for consumers in metropolitan markets like Bengaluru and Mumbai.

He hoped that through the day's programme, local farmers would be able to get connected to far off markets. He urged the participants to make the most of the programme and benefit from the knowledge and connections gained through it. He lauded the local farmers saying that once they take up an idea they become committed and implement it if they are provided some 'hand-holding'.

He expressed happiness that KVK was able to provide this kind of a forum and platform to farmers to prosper. He mentioned that the lady farmers of Kodagu are very 'entrepreneurial' and rise to expectations. He said that government assistance is very necessary for farmers and mentioned various CM and PM schemes for the benefit of lady farmers. However, there are challenges regarding how to submit project proposals.

At this point Srinivas Patil, Research Engineer, Agripreneur, shared that following the last couple of training programme in Chitradurga, Davanagere and Gangavathi (Koppal), his organisation had created a bridge between Andhra style pickle-making farmer women's groups and the consumer for the product in Bengaluru.

He said he was happy to share that in less than a month, packaging and labels were designed for the product, and it was selling well in his Rural Mart stalls on highways. The second success story after the Gangavathi programme was that Dr Ravi a scientist and farmer was trained in marketing

Address by Chief Guest

Shri. Ramesh Babu B V, District Development Manager, NABARD, Kodagu said that in lay terms, the objective of the programme was to disseminate how modern technology can be leveraged for agriculture activities. He lauded that the programme was presented and conducted by PAF using technology and not just as speeches. He stressed that farmers must be made aware of government schemes and who to approach in order to avail the schemes. He touched on the benefits of the JanSamarth portal that was launched by Prime Minister Narendra Modi in June 2022.

He explained that all the scheme details of various departments of GoI and GoK would be uploaded onto the portal. He detailed that this portal was accessible on mobile devices and that one can learn how to apply for the schemes through the portal. He shared those details of agricultural marketing infrastructure were available on the JanSamarth portal.

He also explained that NABARD had fixed an age limit for the participants because people of that age group can convince others to adopt new agricultural techniques and quickly grasp what is shared during the programme. He hoped that programmes such as the one in progress would be beneficial to farmers to improve their incomes.

Address by Special Guest

Dr Sreedevi K, Deputy Director, Technology Evaluation Centre, Coffee Board, Kodagu drew a parallel for explaining 'transformation', saying that while there is none who hates butterflies and similarly none that likes worms. But the fact of nature is that the ugly worm transforms into a beautiful butterfly. "Maintaining the status quo will not help us to make agriculture profitable. We must transform into something better," she added. Dr Sreedevi traced the history of agriculture developments that have taken place in the country over the decades. She said that at every stage mechanisation of agriculture has resulted in better yield and income for farmers.

She touched upon agricultural activities that can be monitored and controlled by using remote sensing technologies installed on mobiles. She pointed out that such Smart Farming technology is already in use across the world. India is drastically moving towards digitalisation and technological advancements. Dr Sreedevi took the example of weather forecasting apps that can be employed by farmers to plan their agricultural activities.

She said that thanks to lockdowns during COVID people took to shopping online and thereby became comfortable with using all kinds of apps that make life easier. She pointed out that using newer advancements, farmers can become more energy efficient and profitable. She noted that more technologies were evolving for the benefit of young farmers who are very tech-savvy. She said there were apps with information about seeding and fertilising of crops available on smartphones. She hoped that in coming years Artificial Intelligence-based apps will gain more ground and momentum in farming.

She informed that the Coffee Board had set up an interactive voice response system where planters can register and get information on the phone about seeds, fertiliser, and other necessities. She recalled a mythical story about Lord Shiva, Goddess Parvathi and their sons Lord Ganesh and Lord Subramanya to drive home the point that smart work is better than hard work. She said that there was no doubt that the gathering had hard working farmers, but they were expected to transform into smart farmers.

Module 1: Existing Transformative Technology and Innovations in Transformative Technology

Srinivasa Patil, Research Engineer, Farmer & Agripreneur

Srinivas Patil said that though he was a software engineer by training and profession, he was always interested in farming. He shared that from the beginning he had adopted a 'work-backwards approach' by identifying markets and demand for a product and then cultivating it. He said that every farmer's ambition is to find the right price for his produce. He explained that if farm produce is market driven (subject to market dynamics of supply and demand), then the farmers will be at the mercy of the market. He said that identifying markets where the farmers can fix the price, is a smarter way of agriculture.

He gave examples of how he, through his organisation, makes value-added products of tomato like tomato chutney and sells it at Rs 100 a kilo at a profit. He also said that there was a big market for desi varieties of vegetable seeds. He explained how with just one product tomato, he was able to make profits not just through chutney and seeds, but also by drying the pulp of the tomato and making powder out of it. He pointed out that by using innovative methods of value addition to ordinary farm produce one would be able to earn a bigger income. He said that the tomato powder is

mixed with snacks like murukku which is a big hit among children.

Patil said that with the advent of the internet and globalisation, local farmers can seek markets across the world. He gave the example of IndiaMart website which facilitates exports of locally produced value-added products. If a farmer uses the website, he is paid upfront for his merchandise, Patil added. He said that market discovery can happen at any point in the supply chain. Patil then explained how a Farmer Producer Organisation (FPO) works for the benefit of farmers.

Interacting with a farmer Patil observed that grading being done by the latter was one good thing in terms of value addition. He pointed out that mere value addition is not enough. He suggested that each farmer organisation whether it is an FPO or a cooperative, must have an exclusive marketing manager whose job is to discover markets for the members of the organisation. He stressed that the organisation must function like a corporation with a nice office space. He offered to buy coffee from the participants and take it to consumers through his highway stalls after attractively packaging and branding it. He suggested that farmers must register on Amazon.com (US), Flipkart, Big Basket as vendors and search for global markets for their products.

Patil said that the basic intention of using technology is to improve both yield and quality of the produce. He said traditionally farmers earn enough to compensate for the input costs (seeds, chemicals, labour) and keep the rest of the money as profits. He questioned whether each farmer was taking an amount as salary for the efforts he has spent on growing and selling his crop.

Patil noted that mentioning the 'place of origin' is mandatory for all products. He added that local varieties of rice like Tunga and Akhila (of Kodagu) can be branded as per their names and sold for a profit in far off markets. He stressed that packaging and branding is essential for the success of any product in the market. With this introduction, Patil began his presentation on mobile apps and Smart Farming.

Technical Session

He introduced various aspects of Machine Learning to the participants. He went on to say that a soil testing device was available for as less as Rs 7,000 online which helps to determine the moisture content in the soil. He theorised that the success of farming activities lies in producing 'what the customer wants' which might be a particular blend of two varieties of coffee, roasted, graded etc. He concluded that for this to happen, skills and experience are required.

He again took the example of Israel where artificial intelligence and machine learning were being used to the hilt to practice high-yield agriculture. He shared that in that country which is self-sufficient in food production and exports across the world, they practice high-density farming where they can plant up to 600 trees per acre. He opined that the soil in Kodagu's coffee plantations was rich in organic manure. He touched upon precision farming, satellite farming and soil-less farming (used for growing exotic vegetables like lettuce and broccoli) etc. He noted that open farming has given way to greenhouse farming. He said that precision farming was the method of maximising yield by minimising natural resources. He noted that agriculture today is being practised by non-farmers and has become competitive.

He said that in many other countries, the land holdings are large and agricultural people are less. Hence the need for automation of agricultural activities. He shared his experience of watching a single machine being used for harvesting, cleaning, grading, and loading onto a truck in a conveyor belt system. Whereas in India we have more farmers and small and marginal land holdings. As a result, mechanisation of agriculture is lesser in India as compared to other countries. He also informed that the Indian government has okayed the use of drones and robots for agriculture. He noted that many innovative remote sensing technologies are already in use in India wherein an attack by pests is monitored remotely for timely action.

He also took the example of a mobile app which can diagnose the disease that had attacked crops by using a mere photo of the leaf. All information regarding the remedies to be taken for that disease are available on this application, he added. He observed that certain crops like cotton were genetically modified to make cultivation possible in arid regions.
Patil raised the issue of sustainable packaging wherein packaging is not done in plastic bags but cloth bags. He offered to buy cloth bags of various sizes in bulk from anybody in the audience who can make them his organisation.

He observed that traditionally farmers believe if the seeding is done in between new moon and full moon the crops will turn out to be fine and no harvesting is done on full moon day. He agreed that this had no scientific explanation, but the farmers of India follow this ritually. It is widely believed that on the full moon day, soil moisture is greater.

At this point, a video on high-tech agriculture practices in Israel was shown to the participants. The video outlined seven agricultural methods that had made farming in Israel more efficient and more sustainable.

Interaction: After watching the video, certain participants felt that adopting such methods would be difficult in India. They felt that these methods require heavy investments. A woman participant felt that such methods would not be feasible here because the landholdings were small.

Replying to these concerns Patil maintained that necessity is the mother of invention. He pointed out that the Israeli experiment was possible because the plot of land was being reused for more farming that too throughout the year. He took the example of vertical farming in Singapore wherein small landholding is not a deterrent. He gave his own example wherein he has grown mangoes and apples in his eight-acre farm and never sold it for less than Rs 200 per kilogram. This is possible because market discovery began when the sapling was planted.

At this point another video on the Family Farmer model of agriculture was shown to the participants.

Interaction: Following the video, there was a brief interaction of the speaker with the audience wherein the participants shared their learning from the video with Patil. It was noticed that they had grasped many aspects of the video like rainwater harvesting, crop rotation, seasonal farming, direct marketing, value addition and integrated farming.

Patil pointed out that in the above methods there is very little input cost. He again stressed that value additions need to be made to raw materials to increase the income from them. He indicated that the nearest market Mysuru has an airport and draws several visitors each year. He shared that a sweet shop in Bengaluru exports its Mysuru Pak to Mumbai and Delhi where it is sold at the international airports. He urged the local farmers to leverage the new airport in Mysuru similarly for their products.

He pointed out that because the connectivity between Mysuru and Bengaluru has been upgraded to international standards, Bengaluru markets are easily accessible to farmers who wish to market their products in the metro. He described the logic behind having stalls on the highway

as strategic. He explained that travellers on the highways come from far off places like Mumbai and Pune and order using the phone number on the label. This expands the market beyond Karnataka. To a specific question on how reliable mobile apps are, Patil said that the apps provided by the government are usually trustworthy.

At this point an expert addressed the gathering and explained how the GoI's Meghadoot weather forecasting app functions. He shared that the app was developed and made available to farmers especially by the Indian Meteorological Department (IMD). He explained that the weather data was gathered from agro metric units at the district level and uploaded on to a server and forecast reports are made available online (on smartphones) on each Tuesday and Friday by the central server in Pune.

About the weather apps, Patil shared a personal anecdote of his cousin who grows grapes and lost her standing crops to heavy rain in Bijapur. He pointed out that his cousin could have saved her crop if she had learnt about the impending heavy rain through a weather app.
Patil also introduced other apps for agriculture like Kisan Diary, and mobile courseware for agriculture (like how to cultivate Dragon Fruit), B2B apps for market engagement (egs. Kisan Mart, NinjaKart, Flipkart, Big Basket). He said that these companies buy in bulk and sell online. He stressed that one person must be made in charge exclusively for market engagement in FPOs. Patil discussed the procedures to be followed to register with such gigantic online marketplaces through their websites and without any documentation. He also touched upon apps that help farmers reduce their transportation costs (Loop). He also introduced Video Kheti, a farmer learning app. He stressed that frequent soil testing is an imperative. Patil demoed a soil testing device that determines the PH level of the soil that is available online.

At this point agriculture expert and a resource person at the seminar Ravi explained how soil testing is done using various implements used for moisture testing. He stressed that this particular testing device is approved by ICAR.

Patil added that the soil is continuously losing nutrients and moisture because of over exploitation of natural resources. Soil health and precision farming are important for agriculture to thrive, he maintained.

He also introduced KisanBandi.com, an e-marketing app for farmers to find markets for their products. He pointed out that coffee would get a good price this year because of increased demand and reduced supply.
He also discussed e-Sammathi app, Arka Bagwani app, Mango Cultivation app, papaya cultivation app, Bele Darshaka app, Krishi YantraDhare app (for hiring tractors), Bhoomi app (land records), farm calculator app, CropDoctor app, Kisan Suvidha app, pashu poshan app, and Kayak Mitra app.

He noted that mangoes grown with recycled water from the KC valley project in Kolar are world famous. He mentioned many other apps through which farmers can sell their produce at district collection centres at attractive rates to large online marketplaces. He suggested that value-added products like facial powder and tutti-frutti can be made with papaya for distant markets. Among other things he stressed that the Malanad cow variety ghee that is produced in Kodagu can fetch high prices if it is branded and marketed.

At this point Patil interacted with the audience about geographical indication (GI) tag. The participants told him that their Arabica coffee had a GI tag. Patil took the example of a particular kind of rice grown in the Kerala border with GI tag that was being sold in Bengaluru for Rs 200 per kg. He urged the participants to get GI tags for the oranges and butter fruits also. He gave the example of a jackfruit grower who had obtained a GI tag for these fruits and deployed 24-hour security and surveillance to protect people from destroying his crop. He makes money selling samplings from the trees.

While offering all sorts of marketing support for the participants, Patil concluded his technical session with advice on how to market value-added products made with pineapple and avocados.

Technical Session

Module 2: Financing Smart Farming

R K Balachandra, Lead Bank Manager (Retd), Gonikoppal

Balachandra began his session with a humorous anecdote. He introduced himself to the participants at length. He said agriculture is the beginning of life and has created a 'culture' of its own. He recalled how as a youngster, he used to watch his elders at home work hard in the fields. He urged farmers to think differently, and proactively adopt smart farming. He expressed that there are gaps to be filled between planning and practicality. He pointed out that though there are many schemes for farmers, there are deadlines to be adhered to. He lamented that most of the new media platforms are largely used for entertainment and not information. He noted that agriculture gives meaning to the lives of farmers.

He explained that documentation is most important in getting an agricultural loan. He observed that Kodagu has certain unique problems that have cropped up after Bhoomi implementation. The problems revolving around land ownership have been created because there are many joint families in the district.

He listed and detailed many bank schemes for agriculture like working capital loans. He pointed out that even private banks cannot deny such a loan. He moved on to talk about Kisan Credit card through which loans can be availed for

seeds and machinery. He stressed that crop loans cover the entire lifecycle of an agricultural crop (from preparing land, sowing, irrigating, fertilising, and harvesting).

He discussed the role of central and state banks that conduct the assessment and the size of the loan that can be disbursed to farmers. The assessment is done at the district level by the District Level Consultation Committee (DLCC) which has representatives of many banks, and the scale of finance is fixed.

He said that 30 percent is reserved post-harvest expenses. He added that while fixing the scale of finance, minor crops that are cultivated amid the major crop (like pepper and areca amid the coffee plants) are also taken into consideration. In the subsequent years, the loan amount is increased by 20% per year as compared to the first year.

At this rate the loan amount doubles every five years. This method of funding is used to avoid stamp paper and other statutory requirements charges. He averred that even the livestock reared in the farm is also considered for fixing the loan amount. He explained the concept of a revolving fund where the interest is paid only for the pending amount. He noted that the repayment cycle begins only after the harvesting is done. He spoke at length on the security to be provided for availing loan. He said that up to Rs 1.6 lakh, any asset created by the land could be used to provide security. Over Rs 1.6 lakh requires mortgage and hypothecation. He said that crops can also be insured wherein by paying a premium of Rs 12, a farmer is entitled to an amount of Rs 2 lakh at the end of the term.

Activity

At the end of the programme, an activity was conducted to gauge the impact of the seminar and determine the awareness level of the participants. The participants were formed into groups of five people each and presented with five questions as given below:

1. Do you have information about Smart agricultural technologies?
2. Have you adopted any technologies in your farming?
3. Are you facing a labour problem in your farming, if yes, what did you find the solution to be?
4. Are you using mobile applications in your farming?
5. Are you aware of drone application in farming?

The participants, in reply to the questions, expressed that:

1. They were currently using Bhoomi to view land records on mobile phone
2. They were facing a lot of labour issues and were using sprayers, driers, and other agricultural machinery to overcome this challenge
3. They were made aware of modern farming techniques at KVK and Agricultural Department trainings
4. They were using YouTube to learn more about smart farming, nutrient application, pesticide use, post-harvest techniques
5. They were leaning more about drone farming, Artificial Intelligence and Machine learning in agriculture through television, newspapers, and other media

Success Story

Following the NABARD-sponsored Smart Farming training programme on Transformative Agriculture held in Gangavathi, Koppal district (third edition) conducted by Public Affairs Foundation (PAF), tangible outcomes of the programme have been realised.

This proves that these training programmes have a definite impact in terms of assisting the participants to package and brand their value-added products.

In this case, Srinivas Patil (who was a resource person at the seminar) has, through his organisation Organic Options, bought the value-added products from Annapoorneshwari Women's Self Help Group (SHG) in bulk, branded it, and is selling it in his highway stalls under the brand 'Annapoorneshwari Home Products' manufactured by 'Rural Mart'.

Patil and PAF have succeeded in identifying a sustainable market for the SHG's value-added products like Sweet Shells, Jaggery Boondi, six different types of pickles and puliyogare mix. In terms of branding, the standees, labels have already been designed and displayed prominently at the entrance of the stores and on the packaging. According to Patil, the products are selling well. Patil has also offered to focus on helping more SHGs refine their products in terms of look and feel, and train them in soft skills and organisational skills.

Interview Sessions

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

Rashmi Bhanuprakash, Mushroom Trainee and Entrepreneur

- Interviewed by Dr. Annapoorna, PAF

Q: Please introduce yourself briefly

I am a farmer and an entrepreneur. I grow varieties of wild fruits and mushrooms. Krishi Vigyan Kendra gave me 10,000 square feet of land to practice agriculture. My specialty is Oyster Mushroom cultivation and making value additions to the product. I impart training to others as a resource person too. Among others, I grow wild fruits like jackfruit and avocados and make value-added products from them. My oyster mushrooms are preferred for their nutritional value. Mushroom farming in places like Kodagu is easier and beneficial to the farmers because the climate allows it. I am promoting mushroom cultivation in Gonikoppal. I thank KVK scientists for their support and I have made a name for myself at the national level. I get a grant of Rs 25 lakh for my mushroom cultivation projects.

Q: How difficult was it for you in the beginning, as a woman entrepreneur?

I was familiar with the wild mushrooms earlier but knew nothing about Oyster Mushrooms. It began with a one-month skilling course in mushroom cultivation at KVK that I took. This was followed by a course in seed production again at KVK. I would come to KVK after sending my children to school and spend time between 9 am and 5 pm learning mushroom farming techniques. After seeing my enthusiasm, KVK gave me a piece of land and I launched my enterprise with just Rs 5,000. I was provided with infrastructure like electricity and water supply. To give employment to rural youth, I have hired two labourers for my venture. Now I have three labourers working for me.

Q: How much technology is useful to you in your work?
I am using technology for my enterprise and this year I want to invest in a drone. My father, who is an arecanut farmer, is struggling due to labour shortages. He also has coffee and pepper in his land, but areca labour problems have become unmanageable. Once I have a drone, I can earn an income by renting it out also.

Srinivas Patil, Agripreneur -Interviewed by Harshitha, PAF

Q: Please introduce yourself briefly
I am a software engineer and agriculture has been a passion for me since childhood because my forefathers were agriculturists. My organisation called Organic Options creates markets for organic farmers and others involved in value added organic products. I have outlets on the highways and in villages and my organisation has been creating employment for rural youth.

Q: You have been involved in these training programme. What are your observations?
I have been involved in three of these training programme and the journey has been wonderful. I have learnt many things from the farming community, the farmer producer organisations (FPOs) and self-help groups (SHGs). There has been value added knowledge sharing with them. And my experience with PAF has been wonderful as we work as a team or even a family. I look forward to further collaboration and contributing more to the endeavour. PAF has been doing good work by visiting universities and getting faculty as resource persons.

Interview Sessions

Q: You have recently helped a SHG to find markets for their products. Tell us more about it.

The Hiriyur training programme brought out a key point—that FPOs and SHGs needed markets for their VA products. And as an organisation we were in an advantageous position to help them in their search for markets. In the Gangavathi visit two women Jyothi and Sujatha, wannabe entrepreneurs, approached me seeking marketing assistance. They sent us three of their products. It is one thing to give lectures on marketing and actively doing all that is another thing altogether. They sent Avakkai pickle, tomato chutney and a ginger-based pickle. They supplied in bulk, and we packaged and branded the products. We are now grooming them to think from the customer standpoint. We act as the bridge between the customer and the producer. We were able to manage the entire supply chain within a 10-day period and the products are on the shelves and selling well.

Q: As a change maker can you narrate something which has given you a sense of achievement?

All farmers are always trying to avoid middlemen. We educate and empower farmers to create their own markets without middlemen. We also train and upskill them to achieve all this. This makes me happy. It has been challenging but satisfying for us. Also, these activities have generated employment for rural youth. We also educate children, and these rural children are employed with big corporates now. We have established that agriculture can be profitable, and this sort of motivation has resulted in rural development. “Ragi flour to Ragi Cookie” is our success story, Patil said.

Veena Ashok, Scientist, KVK, Gonikoppal - Interviewed by Dr. Annapoorna, PAF

Q: Please introduce yourself…
I am a lab technician at KVK. I am basically from Bengaluru, but I am married to a family in Kodagu. So, I live and work here.

Q: What is the scope of your work in KVK?
In 2018, I underwent mushroom farming training at KVK along with 25 other trainees. And I was later absorbed by KVK as a lab technician. She said lab technology was very important for mushroom cultivation.

Key Takeaways

What the Government must do?

- Ensure that awareness on crop loans given by banks is wide-spread. (Currently there is much confusion and ignorance about crop loans)
- Finance market development schemes of FPOs
- Give separate loans for marketing of value-added (VA) farm products

What FPOs must do?

- Appoint a marketing manager vested with the sole responsibility to:
    1. Identify new markets for farm products
    2. Set up offices where FPO operations can be based
    3. Set up stalls on the highways to sell value added products
    4. Get a FSSAI licence for selling VA farm products

Feedback

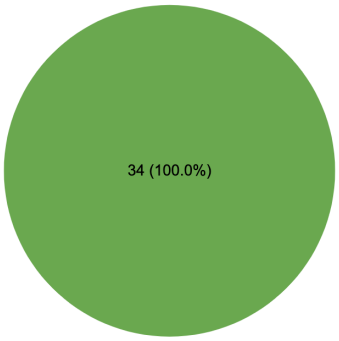
Total Number of Participants

40

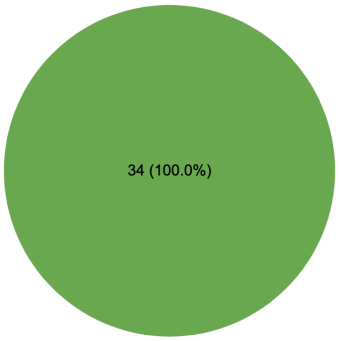
Number of Feedback

34

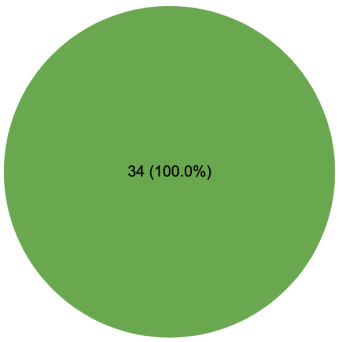
Were objectives of the training met?



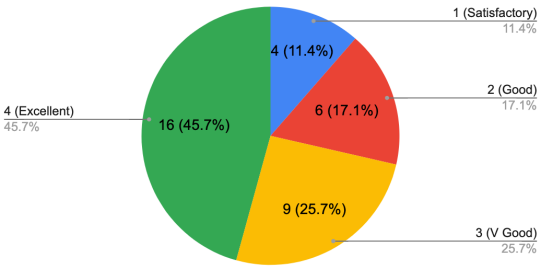
Were the exercises useful in applying the learning?



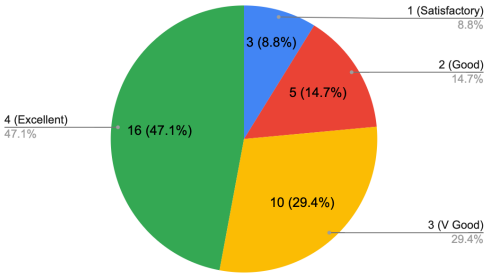
Was the training conducted in an organised way?



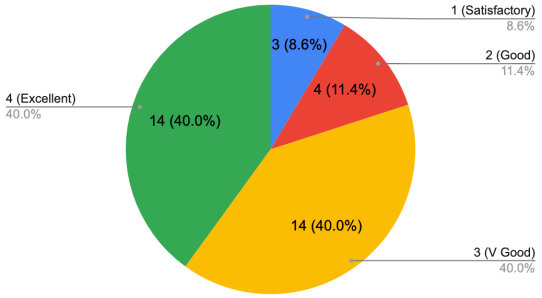
Were the examples suitable and helpful to understand



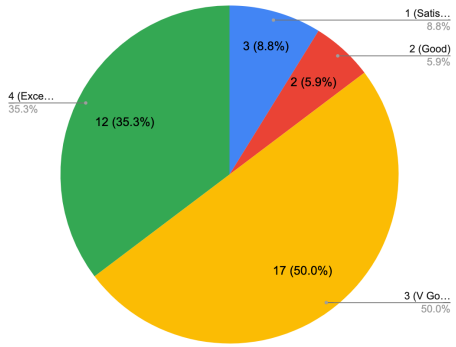
Encouragement from trainer for participation



Trainer's answers to my questions



Overall this training was worth my time



What did you like most about this programme?

1. Very motivational and informative
2. About agriculture loan
3. About Apps which we can use for farming and marketing
4. All sessions were good. Nothing else
5. This programme was very interesting and helpful
6. Information on various Apps and websites which gives insight into marketing agriculture products and useful information
7. Recent mobile apps well explained
8. All the examples they used in training aspects like marketing of goods of our own product, the loan made provision from sowing until harvesting and regarding the crop loan - we got very good information
9. Information about latest apps
10. New technology, Apps and knowledge of smart framing
11. New technology Drone
12. This programme is very useful for all types of farmers and through this programme we gained the knowledge about the bank loans
13. Information about smart agriculture and got to know sharing is learning
14. Chance to connect directly with a number of parts in their respective fields
15. It was nice
16. I liked all into this session
17. Programme went well and was good
18. In this programme we came to know about the bank use and marketing
19. In this session they taught how to be an independent life for women
20. Taught about the bank loan and agriculture crop
21. New Technology, Apps and knowledge of Smart framing
22. In this programme we came to know about the bank use and Agriculture crop
23. About the use of bank loans, Apps & marketing for agriculture liked in this programme
24. Liked the programme and came to know, how to prepare myself and how to give advice to others about the agriculture
25. In This programme I liked all the session and liked about the bank details
26. In this session came to know about the technology of the crop equipment's

What did you not like about this programme?

1. Nothing
2. More time should have been given
3. Nothing
4. Nothing
5. Nothing
6. Nothing
7. Nothing
8. Nil
9. It was a new experience for me I like this programme
10. Not I can think of. It went well
11. Nil
12. Should be a 3 day programme, in future it will help us
13. Some of presentation where not particle I mean it is theoretical only instead they could use image if could be more interactive
14. As our major crop is coffee, pepper it would have been more better of this programme was more relevant to coffee & pepper
15. Expected it to be more region specific and crop specific like coffee,pepper, cardamom & Arecanut
16. Marketing E Marketing and Avi Class
17. The programme was nice there is no any dislike
18. Nothing as such to be disliked adoption of mobile apps to be promoted to farmers
19. Nil
20. I liked this programme
21. Good suggestion
22. Nil
23. It's Good session
24. Nil

Annexures

Annexure 1: Agenda

Training on Existing Transformative Agri Technology, Mobile-based Applications, Innovations & Smart Farming **Day & Date:** Saturday, June 18, 2022 **Venue:** ICAR - Krishi Vigyan Kendra (KVK), Gonikoppal, Kodagu		
10.45-11.00 a.m.	Registration	
11.00-11.05 a.m.	Introduction	Hareesha A. Field Research Officer, Public Affairs Centre, Bengaluru
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	Shri. Muthuraj, DDA Agri Dept, Kodagu
11.20-11.30 a.m.	Introductory Remarks	Dr. Saju George, Senior Scientist & Head ICAR KVK, Gonikoppal, Kodagu
11.30-11.35 a.m.	Special Guest 1	Shri. Ramesh Babu V District Development Manager, NABARD, Kodagu
11.35-11.40 a.m.	Special Guest 2	Smt. Sridevi K Dy Director, Technology Evaluation Centre, Coffee Board, Kodgau
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, Bengaluru
1.00-1.45 p.m.	Lunch Break	
1:45-2:15 p.m.	Module 2: Financing Smart Farming	R K Balachandera Retd. Lead Bank Manager, Gonikoppal
2.15-3.00 p.m.	Module 3: Innovations in Transformative Technology	Dr. Avinalappa Hotti Consultant /Project Coordinator at Sarvodaya, Integrated Rural Development Society, Koppal
3.00-3.15 p.m.	Coffee/Tea Break	
3.15-4.15 p.m.	Q & A and Summing Up	Moderator - Srinivasa Patil R, and Dr. Avinallapa

Annexure 2: Certificate

Conducted by

PUBLIC AFFAIRS FOUNDATION
Partnership for Better Governance

CERTIFICATE OF PARTICIPATION

ಭಾಗವಹಿಸುವಿಕೆಯ ಪ್ರಮಾಣ ಪತ್ರ

This certificate is presented 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, June 18, 2022
Gonikoppal, Kodagu

Sponsored by

NABARD
National Bank for Agriculture and Rural Development

Dr. Annapoorna Ravichander
Executive Director
Public Affairs Foundation, Bangalore

Date: _____

Annexure 3: Feedback Form

Organised by

PUBLIC AFFAIRS FOUNDATION
Partnership for Better Governance

Feedback Form: Gonikoppal, Kodagu
ಫೀಡ್ ಬ್ಯಾಕ್: ಗೋಣಿಕೊಪ್ಪಲು, ಕೊಡಗು

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

Name:
ಹೆಸರು

Phone Number:
ದೂರವಾಣಿ ಸಂಖ್ಯೆ

1. Were the objectives of the training met?
   - Yes
   - No

   ತರಬೇತಿಯ ಉದ್ದೇಶಗಳನ್ನು ಪೂರೈಸಲಾಗಿದೆಯೇ?

   - ಹೌದು
   - ಇಲ್ಲ

2. Were the exercises useful in applying the learning?
   - Yes
   - No

   ಕಲಿಕೆಯಲ್ಲಿ ಅನ್ವಯಿಸಿದ ಚಟುವಟಿಗಳು ಉಪಯುಕ್ತವಾಗಿವೆಯೇ?
   - ಹೌದು
   - ಇಲ್ಲ

3. Was the training conducted in an organised way?
   - Yes
   - No

   ತರಬೇತಿಯನ್ನು ಸಮಗ್ರವಾಗಿ ಆಯೋಜಿಸಲಾಗಿತ್ತೆ?

Annexure 4: Media

1. Vijayakarnataka

ತಂತ್ರಜ್ಞಾನ ಬಳಸಿ ಸುಧಾರಿತ ಕೃಷಿ ಅನುಸರಿಸಿ

ಗೋಣಿಕೊಪ್ಪದಲ್ಲಿ ಪರಿವರ್ತಕ ಕೃಷಿ ತಂತ್ರಜ್ಞಾನ ತರಬೇತಿ ಕಾರ್ಯಾಗಾರ

ಕೊಡಗು ಸಮಾಜ ಆರೋಗ್ಯ

ಮಡಿಕೇರಿ ಕೊಡವ ಸಮಾಜದ ಸಂಗಣ ಆವರಣ ಮಂಡಳಿಯ ಪದಗ್ರಹಣ ಕಾರ್ಯಕ್ರಮ

24ರಂದು ಉದ್ಯಮ್ ನೋಂದಣಿ ಡ್ರೈವ್

ಜಿಲ್ಲಾಧಿಕಾರಿ

ದಸಂಸ ನೂತನ ಕಚೇರಿ ಉದ್ಘಾಟನೆ

ಸ್ವಯಂ ಸೇವಕರಿಗೆ ಜೀವ ರಕ್ಷಣಾ

2. Vijayavani

ತಂತ್ರಜ್ಞಾನ ಅಳವಡಿಕೆಗೆ ಉತ್ಸುಕತೆ ತೋರಿ

■ ವಿಜಯವಾಣಿ ಸುದ್ದಿಜಾಲ ಗೋಣಿಕೊಪ್ಪ

ಸುಧಾರಿತ ಕೃಷಿ ಪದ್ಧತಿಯಲ್ಲಿ ತಂತ್ರಜ್ಞಾನ ಅಳವಡಿಕೆಗೆ ಕೃಷಿಕರು ಹೆಚ್ಚು ಉತ್ಸುಕತೆ ತೋರಬೇಕು ಎಂದು ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕ ಮುತ್ತುರಾಜ್ ಸಲಹೆ ನೀಡಿದರು.

ಬೆಂಗಳೂರು ಪಬ್ಲಿಕ್ ಅಫೇರ್ಸ್ ಫೌಂಡೇಷನ್, ನಬಾರ್ಡ್ ಸಹಯೋಗದಲ್ಲಿ ಗೋಣಿಕೊಪ್ಪ ಕೆವಿಕೆ ಸಭಾಂಗಣದಲ್ಲಿ ಆಯೋಜಿಸಿದ್ದ ಆಸ್ತಿತ್ವದಲ್ಲಿರುವ ಕೃಷಿ ತಂತ್ರಜ್ಞಾನ ಪರಿವರ್ತಕಗಳೊಂದಿಗೆ ಮೊಬೈಲ್ ಆಧರಿತ ಅಪ್ಲಿಕೇಷನ್ ನಾವೀನ್ಯತೆಗಳು ಹಾಗೂ ಸ್ಮಾರ್ಟ್ ಕೃಷಿ ಕಾರ್ಯಾಗಾರದಲ್ಲಿ ಮಾತನಾಡಿದರು. ಸಮಗ್ರ ಸಾವಯವ ಕೃಷಿಗೆ ಸಾಕಷ್ಟು ಆ್ಯಪ್‌ಗಳನ್ನು ಅಭಿವೃದ್ಧಿ ಪಡಿಸಲಾಗಿದೆ. ಮಣ್ಣಿನ ರಕ್ಷಣೆ ಸಾಧ್ಯವಿದೆ. ಸಾಕಷ್ಟು ರಾಸಾಯನಿಕ ಗೊಬ್ಬರ ಬಳಕೆಯಿಂದ ಫಲವತ್ತತೆ ಕಡಿಮೆಯಾಗುತ್ತಿದೆ. ಇದರ ನಿಯಂತ್ರಣಕ್ಕೆ ಮುಂದಾಗಬೇಕು. ಸರ್ಕಾರದ ಸವಲತ್ತು ಪಡೆಯಲು ರೈತರ ಹೆಸರಿನಲ್ಲಿ ಪಹಣಿ ಪತ್ರ ಮುಖ್ಯ. ಜಂಟಿ ಖಾತೆಯಿಂದ ಮುಕ್ತವಾಗುವ ಮೂಲಕ ಸವ ಲತ್ತು ಪಡೆದು ಕೊಳ್ಳಬಹುದಾಗಿದೆ ಎಂದರು. ಕೆವಿಕೆ ಮುಖ್ಯಸ್ಥ ಡಾ. ಸಾಜುಜಾರ್ಜ್ ಮಾತನಾಡಿ, ಕೃಷಿ ಇಲಾಖೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಒಳಳ್ಳೆ ಆ್ಯಪ್‌ಗಳು ನಮ್ಮ ಮೊಬೈಲ್ ಪ್ಲೇ ಸ್ಟೋರ್‌ನಲ್ಲಿ ಲಭ್ಯವಿದೆ. ಆದರೆ ಬಳಕೆ ಬಗ್ಗೆ ಸೆಂಯಾದ ಜ್ಞಾನದ ಅವಶ್ಯಕತೆ ರೈತರಿಗೆ ಇರಬೇಕು. ತರಬೇತಿಗಳನ್ನು ನೀಡಿದರೆ ಸಾಲದು ತರಬೇತಿಯಿಂದ ಮುಂದೆ ಏನು ಮಾಡಬಹುದೆಂಬ ಕಾರ್ಯಯೋಜನೆ ಗಳಿಂದ ಆಗುವ ಹಾನಿಯನ್ನು

> **ಕೃಷಿಕರಿಗೆ ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕ ಮುತ್ತುರಾಜ್ ಸಲಹೆ**

ಗೋಣಿಕೊಪ್ಪ ಕೆವಿಕೆ ಸಭಾಂಗಣದಲ್ಲಿ ಆಯೋಜಿಸಿದ್ದ ಮೊಬೈಲ್ ಆಧರಿತ ಅಪ್ಲಿಕೇಷನ್ ನಾವೀನ್ಯತೆಗಳು ಹಾಗೂ ಸ್ಮಾರ್ಟ್ ಕೃಷಿ ಕಾರ್ಯಾಗಾರದಲ್ಲಿ ಭಾಗವಹಿಸಿದ್ದ ಶಿಬಿರಾರ್ಥಿಗಳು.

ಮಾತನಾಡಿ, ಕೃಷಿ ಪೂರಕ ಸಾಕಷ್ಟು ಆ್ಯಪ್‌ಗಳು ಲಭ್ಯತೆ ಇದ್ದು, ಯಾವುದನ್ನು ಬಳಕೆ ಮಾಡಬೇಕೆಂಬ ಗೊಂದಲ ಕೂಡ ಕೃಷಿಕರಲ್ಲಿದೆ. ಈ ಬಗ್ಗೆ ಸಲಹೆ ಪಡೆದುಕೊಂಡು ಮುಂದುವರಿಯಬೇಕು. ಕಾಫಿ, ಕರಿ ಮೆಣಸು, ಭತ್ತ ಕೃಷಿಕರು ಮಾರುಕಟ್ಟೆ ವ್ಯವಸ್ಥೆಗೆ ಆ್ಯಪ್‌ಗಳ ಬಳಕೆ ಪ್ರಯೋಜ ನವಾಗ ಬಹುದು ಎಂದರು.

ಕಾಫಿ ಮಂಡಳಿ ಉಪನಿರ್ದೇಶಕಿ ಡಾ. ಶ್ರೀದೇವಿ ಮಾತನಾಡಿ, ಆ್ಯಪ್ ಬಳಸಿಕೊಂಡು ಯಾವ ಕಾಲಕ್ಕೆ ಯಾವ ಬೆಳೆ ಸೂಕ್ತ ಎಂಬ ಪೂರ್ವ ಮಾಹಿತಿ ಪಡೆದುಕೊಂಡು ಕೃಷಿಗೆ ಮುಂದಾಗಬಹುದು. ಹವಾಮಾನ ಮುನ್ಸೂಚನೆ ಕೂಡ ಪ್ರಯೋಜನಕ್ಕೆ ಬರುತ್ತಿದೆ ಎಂದರು.

ಸಂಶೋಧನಾ ಇಂಜಿನಿಯರ್ ಶ್ರೀನಿವಾಸ ಪಾಟೀಲ, ಸರ್ವೋದಯ ಸಂಸ್ಥೆ ಸಲಹೆಗಾರ ಡಾ. ಅವಿನಾಲಪ್ಪ, ನಬಾರ್ಡ್ ಜಿಲ್ಲಾ ಅಭಿವೃದ್ಧಿ ವ್ಯವಸ್ಥಾಪಕ ರಮೇಶ್‌ಬಾಬು, ಬೆಂಗಳೂರು ಪಬ್ಲಿಕ್ ಆಫೆರ್ಸ್ ಫೌಂಡೇಷನ್ ನಿರ್ದೇಶಕಿ ಅನ್ನಪೂರ್ಣ ಇದ್ದರು.

3. Shakti

ಸುಧಾರಿತ ಕೃಷಿ ಪದ್ಧತಿಗೆ ಮುಂದಾಗಲು ಸಲಹೆ

•ಗೋಣಿಕೊಪ್ಪ, ಜೂ. 21: ತಂತ್ರಜ್ಞಾನಗಳನ್ನು ಬಳಸಿ ರೈತರು ಸುಧಾರಿತ ಕೃಷಿ ಪದ್ಧತಿಗೆ ಮುಂದಾಗಬೇಕೆಂದು ಜಿಲ್ಲಾ ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕ ಮುತ್ತುರಾಜ್ ಸಲಹೆ ನೀಡಿದರು.

ಗೋಣಿಕೊಪ್ಪ ಕೆವಿಕೆ ಸಭಾಂಗಣದಲ್ಲಿ ಪಬ್ಲಿಕ್ ಅಫೇರ್ಸ್ ಫೌಂಡೇಶನ್ ಬೆಂಗಳೂರು ಸಂಸ್ಥೆಯು ನಬಾರ್ಡ್ ಸಂಸ್ಥೆಯ ಸಹಯೋಗದಲ್ಲಿ ಮೊಬೈಲ್ ಆಧಾರಿತ ಅಪ್ಲಿಕೇಶನ್‌ಗಳು, ಸಾವಯವತೆಗಳು, ಸ್ಮಾರ್ಟ್ ಕೃಷಿ ಪದ್ಧತಿ ಮತ್ತು ಆಸಕ್ತಿದಾಯಿರುವ ಪರಿವರ್ತಕ ಕೃಷಿ ತಂತ್ರಜ್ಞಾನ ಕುರಿತು ತರಬೇತಿಯಲ್ಲಿ ಅವರು ಮಾಹಿತಿ ನೀಡಿದರು.

ಕೃಷಿ ಇಲಾಖೆ ವತಿಯಿಂದ ಹಲವು ತಂತ್ರಜ್ಞಾನ ಆಧಾರಿತ ಆಪ್‌ಗಳು ಇವೆ. ಅವುಗಳನ್ನು ರೈತರು ಬಳಸಿಕೊಂಡು ಸಮಗ್ರ ಸಾವಯವ ವೇಸಾಯಕ್ಕೆ ಒತ್ತು ನೀಡಬೇಕು ಎಂದರು.

ರಾಸಾಯನಿಕ ಗೊಬ್ಬರಗಳ ಬಳಕೆಯಿಂದ ಮಾಲಿನ್ಯವು ಕೂಡ ಹೆಚ್ಚುತ್ತಿದೆ ಆದ್ದರಿಂದ ನಾವು ಸಾವಯವ ಗೊಬ್ಬರಗಳ ಬಳಕೆ ಹೆಚ್ಚಿಸಬೇಕು. ರೈತರ ಆರ್ಥಿಕ ಸ್ಥಿತಿಯ ಅಭಿವೃದ್ಧಿಗೆ ತಂತ್ರಜ್ಞಾನಗಳ ಬಳಕೆ ಅತ್ಯಗತ್ಯ ಎಂದು ತಿಳಿಸಿದರು.

ಕೃಷಿ ಇಲಾಖೆಯಿಂದ ಸೌಲಭ್ಯ ಪಡೆಯಲು ಆರ್‌ಟಿಸಿ ಬಹಳ ಮುಖ್ಯವಾಗಿದೆ. ಆದರೆ, ಕೊಡಗು ಜಿಲ್ಲೆಯಲ್ಲಿ ಹೆಚ್ಚಿನ ರೈತರ ಭೂಮಿಯು ಜಂಟಿ ಖಾತೆಯಾಗಿರುವುದರಿಂದ ಸರಕಾರಿ ಸೌಲಭ್ಯಗಳನ್ನು ಒದಗಿಸಲು ಸಾಧ್ಯವಾಗುತ್ತಿಲ್ಲ ಇದರಿಂದ ಆರ್.ಟಿ.ಸಿಯಲ್ಲಿರುವ ದೋಷಗಳು ಸರಿಪಡಿಸಬೇಕು ಎಂದು ಹೇಳಿದರು.

ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರದ ಮುಖ್ಯಸ್ಥ ಡಾ. ಸಾಜು ಜಾರ್ಜ್ ಮಾತನಾಡಿ, ಕೃಷಿ ಇಲಾಖೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಬಹಳಷ್ಟು ಆಪ್‌ಗಳು ನಮ್ಮ ಮೊಬೈಲ್ ಪ್ಲೇ ಸ್ಟೋರ್ ನಲ್ಲಿ ಲಭ್ಯವಿದೆ. ಅದರ ಬಳಕೆ ಬಗ್ಗೆ ಸರಿಯಾದ ಅರಿವು ರೈತರಿಗೆ ಇರಬೇಕು. ತರಬೇತಿಗಳನ್ನು ನೀಡಿದರೆ ಸಾಲದು ತರಬೇತಿಯಿಂದ ಮುಂದೆ ಏನು ಮಾಡಬಹುದೆಂಬ ಕಾರ್ಯಯೋಜನೆಯನ್ನು ಕೂಡ ತಯಾರು ಮಾಡಬೇಕಾಗುತ್ತದೆ ಎಂದು ಹೇಳಿದರು.

ಕಾಫಿ ಬೋರ್ಡ್ ಉಪ ನಿರ್ದೇಶಕಿ ಡಾ. ಶ್ರೀದೇವಿ ಮಾತನಾಡಿ, ತುಂಬಾ ಕಷ್ಟಪಟ್ಟು ದುಡಿಯುವ ಬದಲು ತಂತ್ರಜ್ಞಾನವನ್ನು ಬಳಸಿ ಬುದ್ಧಿವಂತಿಕೆಯಿಂದ ಕೆಲಸ ಮಾಡಬೇಕು. ಚತುರ ಕೃಷಿ ಪದ್ಧತಿಯಿಂದ ಹವಾಮಾನ ವೈಪರಿತ್ಯಗಳಿಂದ ಆಗುವ ಹಾನಿಯನ್ನು ತಡೆಗಟ್ಟಬಹುದು. ಕೀಟ ಅಥವಾ ರೋಗಬಾಧೆಯನ್ನು ಡ್ರೋನ್‌ಗಳ ಸಹಾಯದಿಂದ ನಿಭಾಯಿಸಬಹುದು ಎಂದರು.

ಸಂಶೋಧನ ಇಂಜಿನಿಯರ್ ಶ್ರೀನಿವಾಸ ಪಾಟೀಲ ಡಾ. ಅವಿನಾಲಪ್ಪ ಹಟ್ಟಿ, ಲೀಡ್ ಬ್ಯಾಂಕ್ ನಿವೃತ್ತ ವ್ಯವಸ್ಥಾಪಕ ಆರ್. ಕೆ ಬಾಲಚಂದ್ರ ಸಂಪನ್ಮೂಲ ವ್ಯಕ್ತಿಗಳಾಗಿ ತರಬೇತಿಯನ್ನು ನಡೆಸಿಕೊಟ್ಟರು.

ನಬಾರ್ಡ್ ಜಿಲ್ಲಾ ಅಭಿವೃದ್ಧಿ ವ್ಯವಸ್ಥಾಪಕ ರಮೇಶ್ ಬಾಬು, ಬೆಂಗಳೂರು ಪಬ್ಲಿಕ್ ಅಫೇರ್ಸ್ ಫೌಂಡೇಶನ್ ನಿರ್ದೇಶಕಿ ಅನ್ನಪೂರ್ಣ, ಹರೀಶ ಎ. ಇಂದ್ರ ಪಿ. ಇದ್ದರು.

4. Shakthi, Virajpet Edition

ಸುಧಾರಿತ ಕೃಷಿ ಪದ್ಧತಿಗೆ ಮುಂದಾಗಲು ಕರೆ

ವೀರಾಜಪೇಟೆ, ಜೂ. 26: ತಂತ್ರಜ್ಞಾನಗಳು ಕೃಷಿಗೆ ಪೂರಕವಾಗಿವೆ, ಅವುಗಳನ್ನು ಬಳಸಿ ರೈತರು ಸುಧಾರಿತ ಕೃಷಿ ಪದ್ಧತಿಗೆ, ಮುಂದಾಗಬೇಕೆಂದು ಸಹಾಯಕ ಕೃಷಿ ನಿರ್ದೇಶಕ ಮುತ್ತುರಾಜ್ ಕರೆ ನೀಡಿದರು.

ಪಬ್ಲಿಕ್ ಅಫೇಸೇ ಫೌಂಡೇಶನ್ ಬೆಂಗಳೂರು ಹಾಗೂ ನಬಾರ್ಡ್ ಸಂಸ್ಥೆಯ ಸಹಯೋಗದಲ್ಲಿ ಕೃಷಿ ತಂತ್ರಜ್ಞಾನ, ಕುರಿತ ಒಂದು ದಿನದ ತರಬೇತಿ ಕಾರ್ಯಾಗಾರದಲ್ಲಿ ಭಾಗವಹಿಸಿ ಅವರು ಮಾತನಾಡಿದರು.

ಕೃಷಿಯಲ್ಲಿ ಹಲವು ಸವಾಲುಗಳಿವೆ. ಕೃಷಿಯ ಕಡೆ ಜನರ ಒಲವು ಕಡಿಮೆ ಆಗುತ್ತಿದೆ. ತಂತ್ರಜ್ಞಾನದ ಜೊತೆಗೆ ಕೃಷಿಯನ್ನು ಮಾಡಲು ರೈತರು ಮುಂದಾಗಬೇಕು ಎಂದರು. ಐಸಿಎಆರ್ ಕೊಡಗು ಹಿರಿಯ ವಿಜ್ಞಾನಿ ಹಾಗೂ ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರದ ಮುಖ್ಯಸ್ಥರಾದ ಡಾ. ಸಾಜೂ ಜಾರ್ಜ್ ಮಾತನಾಡಿ, ಕೊಡಗು ಜಿಲ್ಲೆಯಲ್ಲಿ ಕಾಫಿ, ಕರಿಮೆಣಸು ಮತ್ತು ಭತ್ತವನ್ನು ಬೆಳೆಯುತ್ತಾರೆ. ಇಲ್ಲಿ ವಿವಿಧ ಹಣ್ಣುಗಳನ್ನು ಬೆಳೆಯುತ್ತಾರೆ. ಹಣ್ಣುಗಳಿಂದ ವಿವಿಧ ಉತ್ಪನ್ನ ಗಳನ್ನು ತಯಾರಿಸುತ್ತಾರೆ. ಆದರೆ ಅದರ ಮಾರುಕಟ್ಟೆ ವ್ಯವಸ್ಥೆ ಸವಾಲನ್ನು ಎದುರಿಸುತ್ತಿದ್ದಾರೆ. ಇದಕ್ಕೆ ತಂತ್ರಜ್ಞಾನ ಮಾರುಕಟ್ಟೆ ವ್ಯವಸ್ಥೆ ಪರಿಹಾರವಾಗಿದೆ ಎಂದರು.

ಮತ್ತೋರ್ವ ಅಥಿತಿಗಳಾದ ಕಾಫಿ ಮಂಡಳಿ ಉಪ ನಿರ್ದೇಶಕಿ ಡಾ. ಶ್ರೀದೇವಿ ಕೆ. ಮಾತನಾಡಿ, ಹೇಗೆ ತಂತ್ರಜ್ಞಾನವನ್ನು ಬಳಸಿ ಮುಂದುವರಿಯುತ್ತೇವೆ ಎಂಬುದು ಬಹಳ ಮುಖ್ಯ ವಿಚಾರವಾಗಿದೆ ಎಂದು ತಿಳಿಸಿದರು.

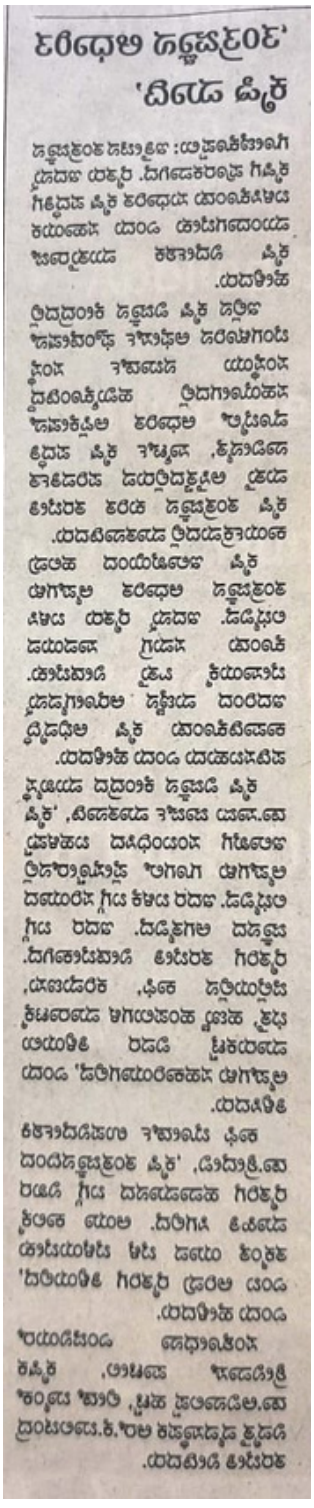
ಸಂಶೋಧನಾ ಇಂಜಿನಿಯರ್ ಹಾಗೂ ಕೃಷಿಕರಾದ ಶ್ರೀನಿವಾಸ ಪಾಟೀಲ- ಸರ್ವೋದಯ ಸಂಸ್ಥೆಯ ಕನ್ಸಲ್ಟೆಂಟ್ ಅವಿನಾಲಪ್ಪ ಹಟ್ಟಿ- ಹಾಗೂ ಲೀಡ್ ಬ್ಯಾಂಕ್ ನಿವೃತ್ತ ವ್ಯವಸ್ಥಾಪಕ ಆರ್.ಕೆ. ಬಾಲಚಂದ್ರ ಸಂಪನ್ಮೂಲ ವ್ಯಕ್ತಿಗಳಾಗಿ ತರಬೇತಿ ನಡೆಸಿಕೊಟ್ಟರು. ತರಬೇತಿಯಲ್ಲಿ ಭಾಗವಹಿಸಿದ ರೈತರಿಗೆ ಪ್ರಮಾಣ ಪತ್ರಗಳನ್ನು ವಿತರಿಸಿದರು.

ನಬಾರ್ಡ್‌ನ ಜಿಲ್ಲಾ ಅಭಿವೃದ್ಧಿ ವ್ಯವಸ್ಥಾಪಕರಾಗಿರುವ ರಮೇಶ್ ಬಾಬು ಮೊಬೈಲ್ ತಂತ್ರಜ್ಞಾನ ಬಳಸಿಕೊಂಡು ಸಣ್ಣ ರೈತರು ಕೂಡ ಅಭಿವೃದ್ಧಿ ಹೊಂದಬಹುದು. ಕೇಂದ್ರ ಸರ್ಕಾರ ಇತ್ತೀಚೆಗೆ ಜನ 'ಸಮರ್ಥ' ವೆಬ್ ಪೋರ್ಟಲ್ 'ಅನ್ನು ಬಿಡುಗಡೆಗೊಳಿಸಿದ್ದು ಇದರಲ್ಲಿ ರೈತರಿಗೆ ವಿವಿಧ ಯೋಜನೆಗಳ ಬಗ್ಗೆ ಮಾಹಿತಿ ದೊರೆಯುತ್ತದೆ ಅದನ್ನು ಸದುಪಯೋಗ ಪಡೆದುಕೊಳ್ಳಬೇಕಾಗಿ ತಿಳಿಸಿದರು. ಅನ್ನಪೂರ್ಣ, ನಿರ್ದೇಶಕರು ಪಬ್ಲಿಕ್ ಅಫೇರ್ಸ್ ಫೌಂಡೇಶನ್ ಬೆಂಗಳೂರು ಸಂಸ್ಥೆಯ ಪರಿಚಯ ಮಾಡಿಕೊಟ್ಟರು. ಹರೀಶ ಎ. ಕಾರ್ಯಕ್ರಮವನ್ನು ನಡೆಸಿಕೊಟ್ಟರು ಮತ್ತು ಸಂಪೂರ್ಣ ಕಾರ್ಯಕ್ರಮದ ಉಸ್ತುವಾರಿಯನ್ನು ಇಂದ್ರ ಪಿ. ವಹಿಸಿದ್ದರು. ತರಬೇತಿಯಲ್ಲಿ 30 ರೈತರು ಭಾಗವಹಿಸಿದ್ದರು. ರೈತರಲ್ಲಿ ಹೆಚ್ಚಿನವರು ಮಹಿಳಾ ರೈತರೇ ಇದ್ದದ್ದು ವಿಶೇಷವಾಗಿತ್ತು.

ಮಲೇರಿಯಾ ವಿರೋಧಿ ಮಾಸಾಚರಣೆ

ಸೋಮವಾರಪೇಟೆ, ಜೂ. 26: ಜಿಲ್ಲಾ ಆರೋಗ್ಯ ಮತ್ತು ಕುಟುಂಬ

5. Prajvani



ಕೃಷಿಯಲ್ಲಿ ತಂತ್ರಜ್ಞಾನ' ಬಳಸಿ

ವೀರಾಜಪೇಟೆ: ಯುವಜನತೆಯು ಸೃಜನಶೀಲ ಯೋಚನೆಗಳೊಂದಿಗೆ ಕೃಷಿಯಲ್ಲಿ ತೊಡಗಿಸಿಕೊಳ್ಳಬೇಕು ಎಂದು ಹಿರಿಯ ವಿಜ್ಞಾನಿ ಹಾಗೂ ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರದ ಮುಖ್ಯಸ್ಥರಾದ ಡಾ. ಸಾಜೂ ಜಾರ್ಜ್ ಹೇಳಿದರು.

ಪಬ್ಲಿಕ್ ಅಫೇರ್ಸ್ ಫೌಂಡೇಶನ್ ಬೆಂಗಳೂರು ಸಂಸ್ಥೆಯು ನಬಾರ್ಡ್ ಸಂಸ್ಥೆಯ ಸಹಯೋಗದಲ್ಲಿ ಕೃಷಿ ತಂತ್ರಜ್ಞಾನ, ಕುರಿತ ಒಂದು ದಿನದ ತರಬೇತಿ ಕಾರ್ಯಾಗಾರದಲ್ಲಿ ಭಾಗವಹಿಸಿ ಅವರು ಮಾತನಾಡಿದರು.

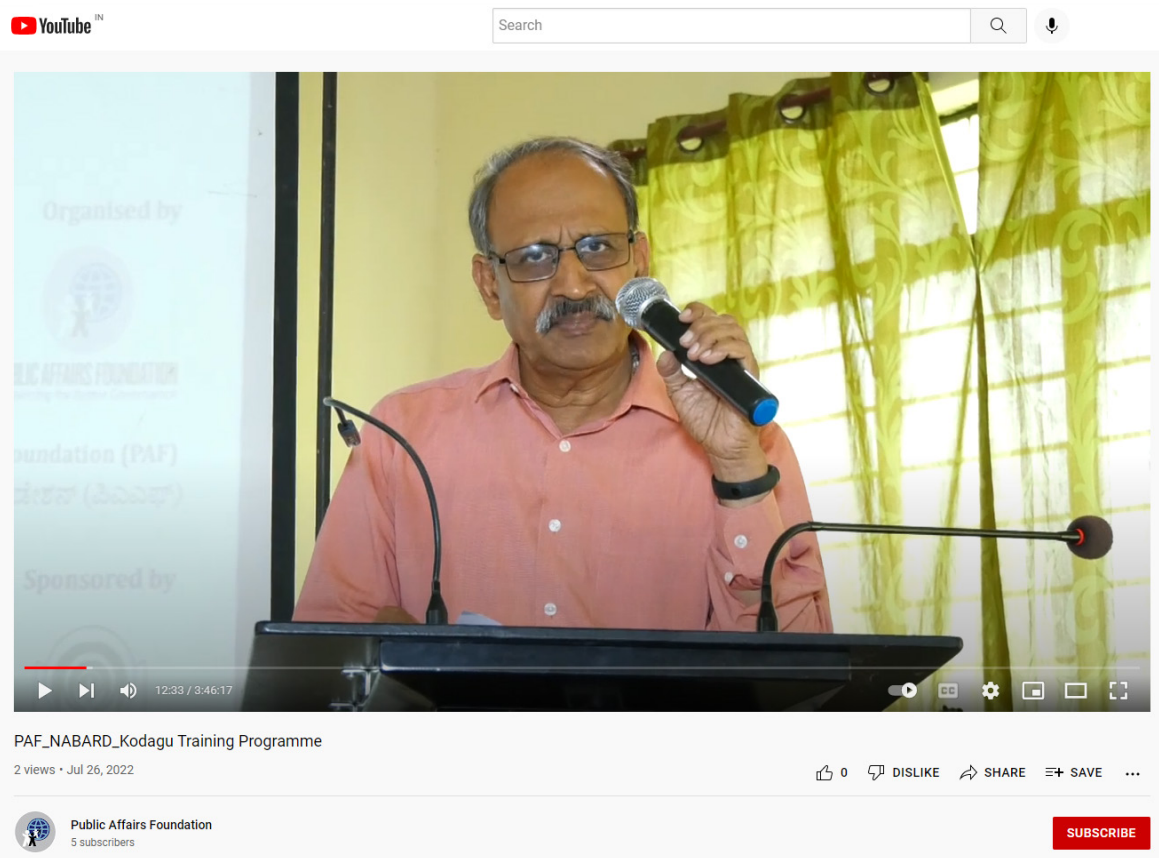
ಕೃಷಿಯಲ್ಲಿ ಹಲವು ಸವಾಲುಗಳಿವೆ. ಕೃಷಿಯ ಕಡೆ ಜನರ ಒಲವು ಕಡಿಮೆ ಆಗುತ್ತಿದೆ. ತಂತ್ರಜ್ಞಾನದ ಜೊತೆಗೆ ಕೃಷಿಯನ್ನು ಮಾಡಲು ರೈತರು ಮುಂದಾಗಬೇಕು ಎಂದರು. ಐಸಿಎಆರ್ ಕೊಡಗು ಹಿರಿಯ ವಿಜ್ಞಾನಿ ಹಾಗೂ ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರದ ಮುಖ್ಯಸ್ಥರಾದ ಡಾ. ಸಾಜೂ ಜಾರ್ಜ್ ಮಾತನಾಡಿ, ಕೊಡಗು ಜಿಲ್ಲೆಯಲ್ಲಿ ಕಾಫಿ, ಕರಿಮೆಣಸು ಮತ್ತು ಭತ್ತವನ್ನು ಬೆಳೆಯುತ್ತಾರೆ. ಇಲ್ಲಿ ವಿವಿಧ ಹಣ್ಣುಗಳನ್ನು ಬೆಳೆಯುತ್ತಾರೆ. ಹಣ್ಣುಗಳಿಂದ ವಿವಿಧ ಉತ್ಪನ್ನ ಗಳನ್ನು ತಯಾರಿಸುತ್ತಾರೆ. ಆದರೆ ಅದರ ಮಾರುಕಟ್ಟೆ ವ್ಯವಸ್ಥೆ ಸವಾಲನ್ನು ಎದುರಿಸುತ್ತಿದ್ದಾರೆ. ಇದಕ್ಕೆ ತಂತ್ರಜ್ಞಾನ ಮಾರುಕಟ್ಟೆ ವ್ಯವಸ್ಥೆ ಪರಿಹಾರವಾಗಿದೆ ಎಂದರು.

ಮತ್ತೋರ್ವ ಅಥಿತಿಗಳಾದ ಕಾಫಿ ಮಂಡಳಿ ಉಪ ನಿರ್ದೇಶಕಿ ಡಾ. ಶ್ರೀದೇವಿ ಕೆ. ಮಾತನಾಡಿ, ಹೇಗೆ ತಂತ್ರಜ್ಞಾನವನ್ನು ಬಳಸಿ ಮುಂದುವರಿಯುತ್ತೇವೆ ಎಂಬುದು ಬಹಳ ಮುಖ್ಯ ವಿಚಾರವಾಗಿದೆ ಎಂದು ತಿಳಿಸಿದರು.

ಸಂಶೋಧನಾ ಇಂಜಿನಿಯರ್ ಹಾಗೂ ಕೃಷಿಕರಾದ ಶ್ರೀನಿವಾಸ ಪಾಟೀಲ- ಸರ್ವೋದಯ ಸಂಸ್ಥೆಯ ಕನ್ಸಲ್ಟೆಂಟ್ ಅವಿನಾಲಪ್ಪ ಹಟ್ಟಿ- ಹಾಗೂ ಲೀಡ್ ಬ್ಯಾಂಕ್ ನಿವೃತ್ತ ವ್ಯವಸ್ಥಾಪಕ ಆರ್.ಕೆ. ಬಾಲಚಂದ್ರ ಸಂಪನ್ಮೂಲ ವ್ಯಕ್ತಿಗಳಾಗಿ ತರಬೇತಿ ನಡೆಸಿಕೊಟ್ಟರು. ತರಬೇತಿಯಲ್ಲಿ ಭಾಗವಹಿಸಿದ ರೈತರಿಗೆ ಪ್ರಮಾಣ ಪತ್ರಗಳನ್ನು ವಿತರಿಸಿದರು.

ನಬಾರ್ಡ್‌ನ ಜಿಲ್ಲಾ ಅಭಿವೃದ್ಧಿ ವ್ಯವಸ್ಥಾಪಕರಾಗಿರುವ ರಮೇಶ್ ಬಾಬು ಮೊಬೈಲ್ ತಂತ್ರಜ್ಞಾನ ಬಳಸಿಕೊಂಡು ಸಣ್ಣ ರೈತರು ಕೂಡ ಅಭಿವೃದ್ಧಿ ಹೊಂದಬಹುದು. ಕೇಂದ್ರ ಸರ್ಕಾರ ಇತ್ತೀಚೆಗೆ ಜನ 'ಸಮರ್ಥ' ವೆಬ್ ಪೋರ್ಟಲ್ 'ಅನ್ನು ಬಿಡುಗಡೆಗೊಳಿಸಿದ್ದು ಇದರಲ್ಲಿ ರೈತರಿಗೆ ವಿವಿಧ ಯೋಜನೆಗಳ ಬಗ್ಗೆ ಮಾಹಿತಿ ದೊರೆಯುತ್ತದೆ ಅದನ್ನು ಸದುಪಯೋಗ ಪಡೆದುಕೊಳ್ಳಬೇಕಾಗಿ ತಿಳಿಸಿದರು. ಅನ್ನಪೂರ್ಣ, ನಿರ್ದೇಶಕರು ಪಬ್ಲಿಕ್ ಅಫೇರ್ಸ್ ಫೌಂಡೇಶನ್ ಬೆಂಗಳೂರು ಸಂಸ್ಥೆಯ ಪರಿಚಯ ಮಾಡಿಕೊಟ್ಟರು. ಹರೀಶ ಎ. ಕಾರ್ಯಕ್ರಮವನ್ನು ನಡೆಸಿಕೊಟ್ಟರು ಮತ್ತು ಸಂಪೂರ್ಣ ಕಾರ್ಯಕ್ರಮದ ಉಸ್ತುವಾರಿಯನ್ನು ಇಂದ್ರ ಪಿ. ವಹಿಸಿದ್ದರು. ತರಬೇತಿಯಲ್ಲಿ 30 ರೈತರು ಭಾಗವಹಿಸಿದ್ದರು. ರೈತರಲ್ಲಿ ಹೆಚ್ಚಿನವರು ಮಹಿಳಾ ರೈತರೇ ಇದ್ದದ್ದು ವಿಶೇಷವಾಗಿತ್ತು.

Annexure 5: Video Link of the Training Programme



https://www.youtube.com/watch?v=cKMTu8S51qY

Annexure 6: Photograhs

Group Photo

Memento handover to Resource person

PAF team with Resource persons

Registration

Participants

Lunch

Conceptualised& Designed By

PUBLIC AFFAIRS FOUNDATION
Partnership for Better Governance

Web : www.pafglobal.org

Phone : +91 80278 39918/19/20

Address : No 15, KIADB Industrial Area,
Bommasandra – Jigani Link Road,
Bangalore – 560105, Karnataka, India