

**Repository of significant  
research outputs,  
scientific breakthrough,  
technologies, innovations,  
methods, tools of  
ATARI, Bengaluru**

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**(A) Research**

The ICAR-ATARI, Bengaluru is carrying out research work as one of its mandate through Scientists. Research projects are being formulated, discussed and approved in Institute Research Council (IRC) wherein Director of the Institute is Chairman and all Scientists are Members. Further, these approved projects are being presented in Research Advisory Committee (RAC) of ICAR-ATARIs for further suggestions and modifications if any required before implementation. In fact, IRC and PME Cell were constituted on September, 2020 for ICAR-ATARI, Bengaluru. Since then Scientists are formulating and implementing different zonal and national level research project on small scale apart from the coordination and monitoring of KVKs in Zone-XI. Details of research work done at this Institute are presented here under.

**(a) Significant research work done**

**Zonal/Institute level:** Eight research projects were carried out by Six Scientists of ICAR-ATARI, Bengaluru including the Director for the past five years from 2020-21 to 2024-25. Research project wise salient achievements are given below:

**(i) Research project - AGEXATARIXISIL201800200003 :** Analysis of skill development training conducted by KVKs for the aspirations of participants and constraints faced by trainees and trainers.

Results:

- Trainers have suggested to reduce the training duration to about 15 days, which is manageable for both trainees as well as trainers.
- Trainees expressed that the training curriculum needs to be suitably redesigned to reduce the training duration.
- ASCI has to simplify its uploading processes, which appears to be very complex at present, and heavily time and energy consuming.

**(ii) Research project-AGEXATARIXII201800100002:** Effectiveness of dairy production interventions under Farmer FIRST Project.

Results

- Net return/day per animal (Rs.172.29) and per farm (Rs.287.62) was more in FFP adopted clusters as compared to FFP non-adopted clusters (Rs.134.69 & Rs. 206.73, respectively).
- The significant differences in milk production parameters and components of livelihood security were due to efficient and scientific nutritional and health management practices in FFP adopted clusters as compared to non-adopted clusters.

**(iii) Research project- AGEXATARIXII201900100004:** Study on agri based entrepreneurship development among youth.

## Results

- Education and family status were significantly influenced perceptions of youth towards agro-enterprises.
- Ranking analysis of five agro-enterprises based on initial investment, net income, employment generation, BC ratio, Pay Back Period and Internal Return Rate criteria revealed that nursery and Processing & Value Addition enterprises occupied highest ranks in terms of preferences.
- Seasonal price fluctuation of raw materials and lack of adequate market information as well as market linkage are the problems faced by the Processing & Value Addition entrepreneurs.

**(iv) Research project-AGEXATARIXISIL202100100006:** Analysis of Integrated Farming Systems in different Agro-climatic situations in the state of Karnataka for need based Technology Application and Capacity Development.

### Results:

- Major farming systems found in Northern dry zone are Agri + Dairy, Agri + Horti + Dairy + Sheep + Goat, Agri + Horti + Poultry, Agri + Horti + Sheep and Agri + Horti + Fisheries. In Eastern dry zone, additionally Agri + Sericulture and in Southern dry zone Agri + Horti + Sheep + Mushroom were observed. In Northern transition zone, other components like Apiculture and in Hilly zone, Value addition were found in combination with Agri, Horti, Dairy, Poultry, Goatry and Fisheries.
- The net income also varied from 5.85 lakh to 6.56 lakh in Northern dry zone, 4.0 lakh to 5.9 lakh in Eastern dry zone, 2.29 lakh to 6.58 lakh in Southern dry zone, 2.5 lakh to 24.6 lakh in Northern transition zone and 13.16 lakh to 40.61 lakh in Hilly zone. The increase in annual income under various IFS models in Northern transition zone was 149 per cent and 1347 per cent in hilly zone as compared to mono-cropping in respective agro climatic zones.
- The employment generation in IFS models varied from 250 to 826 man-days per annum as compared to 150 to 320 man-days per annum in the mono-cropping systems.

**(v) Research project-AGEXATARIXISIL202100200007:** Assessment of Technological and Capacity Needs perceived by Dairy Farmers and Extension Functionaries in Karnataka state.

### Results:

- KVK adopted cluster, dairy animals produced more milk (10.11 l/animal/day) as compared to KVK non-adopted cluster.
- Dairy animal's productivity can be improved with organized breeding programs, better management practices to hasten the efficiency of milk production and livelihood security of resource poor farmers.

**(vi) Research project-AGEXATARIXICIL202100300008:** Impact Assessment of Arka Technological Products Implemented by Krishi Vigyan Kendras of Karnataka and Kerala.

Results:

- Performances of Arka technological interventions on input use indicated that 85% of farmers have started using ICAR-IIHR inputs compared to before interventions (15%).
- Arka varieties of different crops gave higher returns ranged from 10.58% to 58.04% which were significant as compared to their respective local varieties.
- KVKs and farmers suggested that the technological products to farmers may be supplied through FPOs, KVKs and agro-input dealers apart from IIHR sale counter/online.

**(vii) Research project-AGEXATARIXISIL202100400009:** Identification and development of farm leaders through KVKs for up-scaling agricultural technologies in Karnataka, Kerala and Lakshadweep.

Results:

- Project enabled to identify a total of 7500 farm leaders of which 5247 from Karnataka (33 KVKs), 2226 from Kerala (14 KVKs) and 27 from Lakshadweep (KVK Lakshadweep).
- On an average 70 per cent of Farm leaders served as valuable manpower for effective dissemination of agricultural technologies with less cost, time and energy of KVKs/line departments.

**(viii) Research Project: AGEXATARI-XISIL202100500010:** Development and operationalisation of online portal 'Kisan Samruddi' for marketing products of KVKs and its farmers in Karnataka, Kerala and UT of Lakshadweep Islands.

Results:

- Project was under taken to develop and operationalise online portal for marketing products of KVKs and its farmers in Karnataka, Kerala and UT of Lakshadweep Islands. The KisanKart online portal is currently operational in Karnataka, Kerala, and Lakshadweep, connecting KVKs, farmers, agri-entrepreneurs, and consumers.
- The portal enables direct online sales of seeds, planting materials, bio-products, value-added products, and technological items produced by KVKs, supported FPOs, entrepreneurs, and SHGs.
- It promotes wider reach, transparency, market access, and fair pricing. It fosters entrepreneurship and expands market access. Institute has obtained the Kisan Samruddhi trademark registration in five classes covering about 150 products and services.
- Four KVKs viz., Pathanamthitta, Gadag, Kolar and Idukki are integrated to **Kisan Samruddhi** Online Market Portal : Digital Vyapar Network (DIVYAN) and successfully displayed and marketed their products through online.
- Based on the success, option is given to all 48 KVKs in Zone-XI for registration to the KISAN SAMRIDDHI portal for online sale of their products/produce by following the administrative procedure and approval of their respective host organizations. If any constraints for registering for sales through online, then those KVKs can associate with KISAN SAMRIDDHI portal for displaying their products like that of FPOs/SHGs/Agripreneures.
- DG-ICAR and Secretary-DARE launched KISAN SAMRIDDHI online marketing portal

on 03.01.2025 at CPCRI, Kasaragod.

- Honorable Union Minister of Agriculture & Farmers Welfare launched KISAN SAMRIDDHI Mobile marketing App on 18.01.2025 at Sagara, Shivamogga.

**National level:** Two network research project was carried out at ICAR-ATARI, Bengaluru as lead centre and 10 ICAR-ATARIs as cooperative centres for the past five years from 2020-21 to 2024-25 and salient achievements are given below:

**(i) GEXATARI-XICIL202000100005:** National Network project on Impact of ARYA on promotion of agri-preneurship and alternative livelihoods.

Results:

- On an average each unit functioned for 179 days during 2017-18, 206 days during 2018-19, 226 days during 2019-20 and 253 days during 2021.
- The average gross turnover increased from Rs.197163 (2017-18) to Rs.328499 (2020- 21), which indicated the slow and steady progress in the enterprises. The average gross turnover among group units was higher among group units Rs. 420986 (2017-18) to Rs. 652364 (2020-21) compared to Rs. 149736 and Rs.2542053 respectively for individual units.
- Average net income increased form Rs. 92276 during 2017-18 to Rs. 197553 during 2020-21. During 2020-21, highest net income was achieved with nursery enterprises (Rs.484556) and the least was with vermicomposting (Rs.29410).

**(ii) National network research project:** Measuring tangible and intangible benefits and costs of interventions under Farmer FIRST project

**Progress:**

- The project was approved in third RAC meeting for ICAR-ATARIs held during November 19-20, 2024. In consultation with ATARIs, implementing Centres and their host institutes Co-PIs for the network project were finalized. As per the suggestions given in RAC meeting, the title was simplified as “Measuring tangible and intangible benefits and costs of interventions under Farmer-FIRST project”.
- It was suggested to study the spill-over effects, before-after and with-without situation. As suggested, intangibles like awareness about technology options, and achievement motivations that drive better performances would be carefully and systematically measured. Besides household as unit, farm will also be taken as sample unit as it is likely that on a given farm, there could be series of interventions leading to complementary effects.
- Discontinuation of any of the interventions need to be studied for reasons and constraints analysis. RAC recommended that, since the measurement of intangibles have not been attempted systematically so far, this research project is important.

**(ii) Other national network projects:** There are six other Network Research Projects wherein ICAR-ATARI, Bengaluru is Cooperating Centre with Co-PIs which are given below:

- Impact assessment of popular pulses varieties and technologies disseminated by KVKs through Cluster Frontline Demonstration of Pulses (CFLD-P) in India.
- Impact of Climate Resilient Technologies in Different Agro - climatic zones in India:

A Study in National Innovations in Climate Resilient Agriculture (NICRA) Project Areas.

- Assessing Impact of Nutri-SMART Village on Dietary Pattern, Consumption Level and Food Availability in India.
- Impact assessment of KVKs interventions on Doubling Farmers' Income (DFI).
- Analysis of agricultural programmes conducted in Aspirational Districts in India.
- Impact of Technological Interventions of KVKs on Socio-Economic Empowerment and Sustainable Livelihood Security of Tribal Farmers.

Results of these projects were compiled, tabulated, analyzed and documented in their respective ICAR-ATARIs and presented in RAC of ICAR-ATARIs.

**(b) Impact of achievements in quantifiable terms to increase productivity/profitability/sustainability**

- On an average, each functional unit of enterprise established under ARYA generated a gross turnover of Rs.560440 and a net income of Rs.333381/unit during four years.
- The return on investment (ROI) is calculated to be 10.74, which means, every rupee spent under ARYA project has generated Rs.10.74 rupees benefit to the entrepreneurs.
- Each unit under the ARYA project generated 878 person-days of employment during the period of four years. When extrapolated to 2352 units, the total employment generated works out to 20.38 lakh employment days.

**(c) Publications**

- i. Chandre Gowda M.J., Rajendra Hegde, and D.V.Srivinasa Reddy, 2020. Effectiveness of training on land resource inventory in terms of knowledge, satisfaction, willingness to adopt and interest in future training. *The Mysore Journal of Agricultural Sciences*, **54 (4)**: 31-36.
- ii. Thimmappa K., T. Damodaran and R. Raju, 2020. Impact of Bio-growth Enhancer Adoption on Input Use and Profitability in Salt-affected Smallholder Farms. *Journal of Soil Salinity and Water Quality*, 12(1): 121-126.
- iii. Raju R., Ranjay K. Singh and Thimmappa K. 2020. Human Resource Development and Sustainable Management of Agricultural Land Resources in Sodic Environment of Uttar Pradesh. *Journal of Soil Salinity and Water Quality*, 12(2): 290-296
- iv. Chandre Gowda M.J. 2021. Role of ICT and e-Resources in Agricultural Education under the
- v. new Education Policy 2020. *Journal of Farm Sciences*, 34(5):478-480.
- vi. Chandre Gowda M.J. and Mallikarjun B. Hanji. 2021. Occupational aspirations and profile of the participants of skill training in Karnataka. *The Mysore Journal of Agricultural Sciences*, 55(1):24-29.
- vii. Chandre Gowda M.J. and Mallikarjun B. Hanji. 2021. Understanding the aspirations and profile of the skilled rural youth to promote occupational opportunities. *The Mysore Journal of Agricultural Sciences*, 55(4):76-82.

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- ix. Kolekar D.V., Chandre Gowda M.J. and Sairam C.V., 2021. Support of Desi cows in the daily livelihood of farm households in Karnataka. *Indian Journal of Dairy Science*, 74(5):445-448.
- x. Dubey S.K., Atar Singh, Singh A.K., Chahal V.P., Randhir Singh, Mishra A., Singh S.K., Singh S.S., Lakhan Singh, Tripathi A.K., Prasad V.G., Anjani Kumar, Chandre Gowda M.J., Deka, B.C., Rajbir Singh, Sadhana Pandey and Rajeev Singh, 2021. Unanticipated Dividends of Technology Dissemination: Experiences of Cluster Frontline Demonstrations of Pulses in India. *Journal of Community Mobilization and Sustainable Development*, 16(1): 1-6.
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- xii. Chandre Gowda M.J., Ravi Y and Netravati Yattinamani. 2022. Somatic status and dietary pattern of farm families in the rural areas of Karnataka state. *The Pharma Innovation Journal*, 11(10):2393-2399.
- xiii. Singh A.K., Keshava, R.R.Burman, S. Paul, S.Som, A.Kumar, B.C.Deka, A.K.Tripathi, Y.G.Prasad, A.Singh, R.Singh, L.Singh, S.S.Singh, S.K.Singh, M.J.Chandre Gowda, A.Mishra and V.P.Chahal. 2022. *Indian Journal of Agricultural Sciences*, 92(3):362-6.
- xiv. Naveenkumar G S, Mallikarjun B Hanji, MJ Chandre Gowda, K N Krishnamurthy, DM Gowda, KB Umesh, K P Suresh and S. S. Dolli. 2022. Analysis of socio-economic and other farm level factors for farmer decision making pattern in adopting agricultural innovations in Karnataka. *The Pharma Innovation Journal*, 11(11):811-814.
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- xvi. Venkatasubramanian, V., Rayudu, B.T., Thimmappa, K., Hanji, M.B., Mishra, J.P., & Kadhivel, G. (Trans.). (2023). Influence of ‘Mann Ki Baat’ on Farmers Producer Organizations (FPOs): Lessons from Successful Cases. *Indian Journal of Extension Education*, 59(3), 7–11.
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- xviii.** Chandre Gowda M J, Rajesh Kumar Rana, Partha Prathim Pal, Shantanu Kumar Dubey, Amrendra Kumar, M. S. Meena, Randhir Singh, R. Bordoloi, A. Bhaskaran, A. A. Raut, T. Rajesh, Bagish Kumar and K. Thimmappa. (2023). Economic Performance of Enterprises Promoted under ARYA and Relationship with Entrepreneurial Competencies. *Indian Journal of Extension Education*, 59(2), 10-15.
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- xxiii.** Chandre Gowda M. J., Venkatasubramanian, V., Rajesh Kumar Rana, Randhir Singh, Ranjay K. Singh, Udham Singh Gautam. (2024). Technology application driven farmers' income enhancement: Evidences for spatial, sectoral and social inclusiveness. *Indian Journal of Agricultural Sciences*, 94 (3-SI):124-131
- xxiv.** Chandre Gowda M. J., Rana KR, Dubey SK, Meena MS, Raut AA, Pal PP, Bhaskaran A, Amrendra Kumar, Bordoloi R, Rajesh T. (2024). Drivers of functioning or discontinuation of small-scale agri entrepreneurship in rural India. *International Journal of Small Business Entrepreneurship Research*, 12(2):25-58.
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- xxxiii. Sudhakar Soundarajan, Preethu K Paul, Ashiba A1, R Marimuthu, S N Sushil, G Sivakumar, T Venkatesan, M Nagesh, V Venkatasubramanian and B T Rayudu (2024) Eco-friendly management of pests and diseases in small cardamom. *Indian Farming* 74 (03): 74-79

#### **KVK Scientists (SMSs)**

KVK staff of Zone XI published a total of 824 research papers in different reputed research journals under the technical guidance of Scientists (Nodal Officers) at ICAR-ATARI, Bengaluru.

#### **(d) Citation of 30 most important publications**

Citations were available for most of the research articles published by Scientists at ICAR-ATARI, Bengaluru and Scientists of KVKs in Zone XI. Most significant citation was made at national and international level on the paper entitled 'Influence of 'Mann Ki Baat' on Farmers Producer Organizations (FPOs): Lessons from Successful Cases published in *Indian Journal of Extension Education*, 59(3), 7–11 authored by Venkatasubramanian, V., Rayudu, B.T., Thimmappa, K., Hanji, M.B., Mishra, J.P., & Kadhivel, G. (Trans.) in 2023.

#### **(e) Significant advance made in science/technology:**

##### **(i) Digital Vyapar Network (DIVYAN): A Landmark Achievement for Empowering Farmers Through Digital Market Access & Branding**

This initiative is a first-of-its-kind digital intervention in agricultural extension, offering KVKs, farmers, FPOs, and agripreneurs a structured platform for branding, market intelligence, and direct sales.

**KVK** - an Agriculture Gateway touching new horizons in Indian Agriculture has its one of the mandated activities in empowering farming community with the production of quality technological products (seeds, planting materials, bio-agents, and livestock) and make it available to farmers. As of now, farmers are getting these products through on-site sales at KVKs which is a difficult proposition for farmers to visit KVKs in person and procuring these products. Estimated value indicates that the range of these technological products

produced by the KVKs annually amounts to Rs.14.66 crore (Seeds: Rs. 4.80 crore, Planting Materials: Rs. 2.80 crore and Bio products: Rs. 3.19 crore, Livestock: Rs.0.91 crore, Farm produce: Rs.0.45 crore, Value added products: Rs.0.49 crore, Outsourced products: Rs.1.21 crore and Others: Rs.0.81 crore).

To help the farmers in getting these products at their doorstep an effort has been initiated by ICAR-Agricultural Technology Application Research Institute (ICAR-ATARI), Bengaluru in bringing this transformation from on site to online sales keeping in view the user-friendly digital platform. Accordingly, developed the Web based platform for marketing products of KVKs, ICAR Institutes and farmers across zone XI as well as across the country by involving KVK, Pathanamthitta and KVK, Idukki. Details commerce with are given below:

- The developed framework of KISAN SAMRIDDHI online marketing platform includes integration of KVK details, associated firms' details, product details and then user- friendly web portal e- suitable software and server domain.
- The salient features of KISAN SAMRIDDHI online marketing portal are
  - ✓ Exclusive portal for Agri-products
  - ✓ Uniform brand - KISAN SAMRIDDHI,
  - ✓ Exclusive Page for each seller (KVKs)
  - ✓ Unlimited Product Uploads
  - ✓ Possible product categorization
  - ✓ Enhanced Product Dashboard
  - ✓ Payment Gateway for each seller (KVKs)
  - ✓ Report Generation
  - ✓ Market Analysis
  - ✓ Registration and Login facility for all consumers
  - ✓ Delivery partner and product tracking facility, and
  - ✓ Facility for placing advertisement as well display of products.
  - ✓ Effective e-market platform through Data Decision Support System,
  - ✓ Achieve the sustainable e-market, feedback of end users (Consumers) to respective source Institutions through KVKs,
  - ✓ Provide direct sales by elimination of intermediaries that makes price transparency and fair pricing for each product,
  - ✓ Product can reach consumers quickly and easily at their doorstep with competitive price across the country,
  - ✓ Reduce the post-harvest losses, encourage to maintain desirable quality of the products,
  - ✓ Encourage tertiary value addition and facilitate export opportunities,
  - ✓ Enable continuous availability of regional products across the nation,
  - ✓ Collect the data from end-user for decision making,
  - ✓ Promote special and local products as well as access to inputs and services, and
  - ✓ Empower small and marginal farmers through digital financial inclusion.

**(ii) Lakshadweep Islands Declared Organic : A Game Changing Effort by KVK Lakshadweep.**

KVK Lakshadweep with the guidance of ICAR-ATARI, Bengaluru, actively involved with administration of Lakshadweep Union Territory in the process of getting Scope Certificate (large area organic farming) from PGS – India, Ministry of Agriculture, Cooperation and Farmer Welfare, Govt. of India for different crops in Kadmat, Andrott, Agatti, Kalpeni, Minicoy, Kavaratii, Kiltan, Amini, Chetlat islands of Lakshadweep Union Territory for the

crops grown in the farmers' fields.

The standards given to the farmers by PGS India are in tune with National Standards for Organic Production (NSOP) prescribed under National Programme for Organic Production (NPOP) maintaining uniformity in organic production process and quality of organic products.

After detailed deliberation with the Lakshadweep Administration and other stakeholders, ICAR-ATARI Bengaluru initiated the process of channelizing technologies of ICAR Institutes located in Karnataka, Kerala and Tamil Nadu. ICAR Institutes under their TSP programme are extending technological support to KVK Lakshadweep in different commodities.

After Sikkim State, Lakshadweep is the second territory in the country to get the whole territory declared as organic and getting the Large Area organic certification. Ladakh also now in the process of going organic after Lakshadweep.

#### **(f) Patents obtained/Intellectual property**

**(i) Registration of Trade Mark (Kisan Samridhhi) for different agricultural goods and services:** Developed a Trademark "KISAN SAMRIDDHI" and it was registered on the name of ICAR-ATARI Bengaluru by involving KVK, Pathanamthitta and KVK, Idukki for selling the technological inputs and products produced by KVKs and farmers.

Registered Trade Mark in respect of goods and services for e-marketing through DIVYAN in the following 5 classes:

- class 32 under No. 5492205 dated 18 June, 2022
- class 9 under No. 5992223 dated 23 June, 2023
- class 16 under No. 5992224 dated 23 June, 2023
- class 38 under No. 5992225 dated 23 June, 2023
- class 41 under No. 5992226 dated 23 June, 2023

Further, applications for Trade Mark in classes 1, 9, 32 and 35 are submitted for registration which is under progress for grant of certification.

#### **(g) Technologies developed and commercialized**

##### **(i) Technologies developed and certified by ICAR**

- Rural Agri-preneurship Incubation Centre (AIC) Model for Youth
- Impactful Model for Farmer FIRST Programme Implementation

##### **(ii) NABL Accreditation to KVK Soil Testing Laboratories**

With the efforts and guidance of ICAR-ATARI, Bengaluru three KVKs Viz, Bagalkot, Darward and Balagavi received NABL accreditation to the Soil and water testing laboratories.

##### **(h) Livestock/poultry/fish varieties/breeds developed: Not applicable**

##### **(i) External fund mobilized for research at ICAR-ATARI, Bengaluru**

One externally funded research project entitled “Development and demonstration of AI enabled weather and market information-based Decision Support System (FARWM-DS) for sustainable farm productivity and profitability and evolve profitable cropping pattern” where in ICAR-ATARI, Bengaluru is one of the cooperating centre funded by National Agricultural Science Fund (NASF) with the budget of Rs.486500 during 2023-24 and Rs.632876 during 2024-25.

**Progress:**

- During the period, 23 years (2010-23) data on weather information and market prices were collected from NASA power and AGMARKET (based on nearby and frequently visited markets), respectively.
- The collected data was compiled as per the format provided by the cooperating centre TNAU, Coimbatore. Based on the area under cultivation the districts with higher area were identified and primary data on farming experience and crop economics for the project crops [Groundnut (54), Cotton (51), Pigeon pea (50) and Tomato (43)] were collected. Statistical analysis and forecasting of project crops and their cropping pattern is being computed.
- To support the development of the DSS, good quality photographs of various diseases, insect pests and weeds of the project crops in the farmers’ fields, experimental fields and research institutes were attempted and provided to the project team. Kannada translation of names of project crops diseases, pests and their management practices were made.
- Preliminary testing of DSS software developed by Indian Institute of Technology, Dharwad was carried out and the feedback was provided to the project team.

**(j) Seed hub implemented and outcome against the target**

Timely availability of adequate quantity of quality seed is one of the most critical factors to enhance the productivity of pulses. In this direction the Department of Agriculture, Cooperation & Farmers Welfare (DAC & FW), Government of India, New Delhi has sanctioned a project on ‘Creation of Seed Hubs for Increasing Indigenous Production of Pulses in India’ under National Food Security Mission (NFSM) with ICAR-Indian Institute of Pulses Research (ICAR-IIPR), Kanpur as Nodal Agency for its implementation at 150 Seed Hub centres across the country through State Agricultural Universities/Krishi Vigyan Kendras/ICAR Institutes.

As a part of it, eight KVKs viz., Bagalkot, Bidar, Belagavi-II, Dharwad, Kalaburagi-II, Mysuru, Vijayapura-I and Mandya established Seed Hubs under ICAR-ATARI, Bengaluru and started functioning from 2016-17. Outcome of seed production is around 90 per cent with the target fixed by the seed hub KVKs. Year wise seed production under these seed hubs during the past five years from 2020-21 to 2024-25 is given in Table-3.

Table-3: Seed production of pulses through seed hubs under NFSM by KVKs of Zone-XI

| Crop         | Seed produced (q) |                |                |                |                | Total (q)       |
|--------------|-------------------|----------------|----------------|----------------|----------------|-----------------|
|              | 2020-21           | 2021-22        | 2022-23        | 2023-24        | 2024-25        |                 |
| Chickpea     | 1646.00           | 816.89         | 1000.50        | 1094.75        | 462.40         | 5020.54         |
| Pigeonpea    | 735.70            | 621.98         | 684.35         | 521.15         | 1196.00        | 3759.18         |
| Blackgram    | 621.90            | 218.94         | 193.63         | 577.55         | 550.70         | 2162.72         |
| Greengram    | 26.55             | 154.32         | 203.20         | 103.80         | 60.88          | 548.75          |
| Cowpea       | 13.80             | 23.05          | 9.65           | 2.00           | 18.85          | 67.35           |
| Field bean   | 0.00              | 12.43          | 12.42          | 1.90           | 18.30          | 45.05           |
| Horsegram    | 3.30              | 4.30           | 3.30           | 0.00           | 6.20           | 17.1            |
| <b>Total</b> | <b>3047.25</b>    | <b>1851.91</b> | <b>2107.05</b> | <b>2301.15</b> | <b>2313.33</b> | <b>11620.69</b> |

### **(B) Extension education**

#### **(a) Vocational training programmes organized & beneficiary & impact**

This activity is mainly formulated to impart technical ‘know-how’ and ‘do-how’ to the farmers, farm women and rural youth by following the principle of ‘learning by doing’.

**(i) Training programmes organized:** Keeping in view the principle, organized 26546 capacity development courses through KVKs which included 4108 courses for farmers, and 595 courses for rural youth during the period from 2020-21 to 2024-25. In addition, 535 sponsored and 175 vocational courses were organized

**(ii) Beneficiaries:** All together a total of 175427 participants were trained comprising of 153599 farmers and 21828 rural youth.

**(iii) Training effectiveness:** Training efficiency depends not only on what happens during training, but also on what happens before the actual training and what happens after the training has formally ended. Evaluation should, therefore, be done of both the pre-training and post-training work. Training effectiveness is being carried out through need analysis, pre and post knowledge test, course evaluation and feed-back.

**(iv) Training Impact:** The adoption of technologies by the direct contactees in their back-home situation certainly inspired the fellow farmers in their native villages as well surrounding villages which reflect on the improvement of their socio-economic status. The feed-back information received from ex-trainees revealed that around 20% of the trainees are keen on extending the imparted technology/skill to fellow farmers to bring desirable changes in their attitude towards farming. Further, the knowledge and skills imparted to the field extension personnel contributed to the diffusion of technologies among all categories of farming community indirectly. The quantification of socio-economic status due to these technologies in exact figures is difficult because many other factors simultaneously contribute.

## **(b) Farmers covered and impact in various programmes during 2020-21 to 2024-25**

**(i) Technology assessment (OFTs):** Implemented Technology Assessment Programme through KVKs in Zone-XI by conducting 1238 OFTs wherein assessed 2809 technologies including crops, livestock and enterprises for their location specificity across the states of Karnataka, Kerala and Lakshadweep involving 6245 farmers.

**(ii) Frontline Demonstrations (FLDs):** A total of 27152 FLDs were conducted through KVKs including 5781 on cereals and millets, 1143 on oilseeds, 2375 on pulses, 130 on commercial crops, 364 on fibre crops, 542 on fodder crops, 2638 on vegetable crops, 329 on tuber crops, 1196 on fruit crops, 445 on flower crops, 707 on plantation crops, 1143 on spices, 40 on medicinal crops, 2075 on hybrids of various crops, besides 1182 demonstrations on agricultural farm implements, 2318 demonstrations on livestock and 2739 demonstrations on enterprises in the states of Karnataka and Kerala and Lakshadweep.

**(iii) Frontline extension activities:** Organized 26851 capacity development courses through KVKs which included 4108 courses for farmers, 595 courses for rural youth and 305 courses for extension personnel. A total of 212602 participants were trained comprising of 153599 farmers, 21828 rural youth and 11704 extension personnel. In addition, 535 sponsored and 175 vocational courses were organized.

**(iv) Impact:** Many technological interventions implemented through KVKs have created significant impact at state level among farmers and few of them are presented here under:

### **Karnataka**

- In Bidar district, 8% of the redgram cultivated area is adopting transplantation method
- High Yielding redgram variety BRG-1 is adopted in 21000 ha in Tumkur district and the realized increase in yield was 35.03%
- In Chitradurga district BRG-2 redgram variety is cultivated in 16000 ha
- KVK Mandya popularized Integrated Crop Management in sugarcane resulting in a increase in yield of 31.76% and the technology is adopted in 19250 ha
- KVK Belgaum-II promoted Integrated Crop Management in soybean, which is spread to 10000 ha
- Introduction and popularization of wilt resistant JG-11 and GBS-964 Bengalgram varieties in Bagalkot and Raichur districts increased the yield by 21.9% and 35.5% respectively and these two varieties have been covered in 13500 ha.
- MR-6 ragi variety is cultivated in 98361 ha in Tumkur district
- Cultivation of GPBD 4 variety of groundnut increased the yield by 50%, 34.1%, 23.4% and 66.51% respectively in Dharwad, Gadag, Mandya and Shimoga districts and the area under this variety extends to 4430 ha
- Dryland mango cultivation is promoted in 200 ha in Gadag district
- As a part of farm mechanization, 265 twin hoe weeder is provided to the farmers in Gadag district
- High yielding onion variety Arka Kalyan is cultivated in 2000 ha in Bagalkot district and 250 ha in Dharwad district
- 500 farmers in Shimoga district adopt feed management through azolla for dairy cattle

## Kerala

- KVK Idukki promoted high yielding Jaya variety in 1100 ha of hilly zone
- Trainings conducted by KVK Malappuram on Integrated Nutrient Management in Kole land paddy cultivation is widely practiced in 1200 ha by more than 1500 farmers
- KVK Malappuram promoted farm mechanization including helical blade puddler, transplanter in paddy cultivation is adopted in more than 1500 ha
- KVK Kannur promoted the idea of Agricultural produce sale centre within KVK centre which enabled farming community to sell their value added products under various brands
- KVK Pathanamthitta proved that paddy cultivators in Kerala can realize yield of 6 tons/ha through Integrated Crop Management under Systems of Rice Intensification
- KVK Alleppey promoted 75 farmers to adopt Integrated Farming System with duck cum fish culture in 30 ha of land and this technology disseminated not only in the district but throughout Kerala
- KVK Thrissur facilitated production and supply of seeds and planting materials of horticultural crops through SHGs paving way for income generation of Rs.3000-5000/month/person to farm women

## Lakshadweep

- KVK introduced Barn Owl as a biological control method to reduce rat menace in the Lakshadweep islands. Result indicates **25%** reduction in rats' population due to Barn Owl introduction.
- **Coconut climbing machine:** Self-employment through- CDB's "Friends of Coconut Tree"
- **Waste to wealth:** Fish waste management machine developed by ICAR-CIFT, Cochin was Installed for demonstration.
- **First time Neera production:** Quality Neera Production using ICAR-CPCRI make Coconut Sap Chiller.
- **Vegetable production as intercrops in Coconut gardens:** More than 5 ICAR research institutes collaborated and supplied seeds and the programme was implemented under the guidance of scientists of the respective Institutes.

## (c) E-learning materials for farmers produced

- Development of KISAN SAMRIDDHI Mobile marketing App: Honorable Union Minister of Agriculture & Farmers Welfare launched KISAN SAMRIDDHI Mobile marketing App on 18.01.2025 at Sagara, Shivamogga.
- Kisan Mobile Advisory services: KVKs of the zone produced e-learning technological capsules and text messages and sent 67075 text messages to 18.13 lakh farmers during the period from 2020-21 to 2024-25. The messages were related to crops, weather, other enterprises, livestock, awareness and marketing.

#### **(d) Extension publications, Radio talks and press coverage:**

These are print, audio and visual media termed as mass contact methods-a form of extension education which are used to disseminate information among diverse audience simultaneously to reach a large number of people at the same time. These methods are particularly useful for creating general awareness about new technologies, schemes and government initiatives in a short time. They can also reinforce previous learning and are generally less expensive due to wider coverage. Keeping this in view, ICAR-ATRI, Bengaluru has made efforts in mass media activities during past five years period from 2020-21 to 2024-25 and details of which are given below:

- Extension publications: A total of 2591 extension literature in form of folders, leaflets etc and 1370 popular articles were published.
- Radio talks: A total of 2305 radio talks gave by the Scientists of KVKs in Zone XI.
- TV Talks: A total of 1014 TV talks gave by the Scientists of KVKs in Zone XI.
- Press coverage: A total of 10661 events were covered in different local daily newspapers through KVKs in Zone XI.

#### **(e) Innovation in extension education**

Innovation helps extension programmes adapt to changing needs and challenges, such as climate change, market fluctuations and evolving technologies. In fact, it is crucial in extension education as it enhances its effectiveness and impact, promoting more efficient and impactful learning and engagement. It involves utilizing new technologies and methods to deliver information, improve learning experiences, and empower individuals to make informed decisions. In this direction, ICAR-ATARI, Bengaluru has initiated and implemented many innovative programmes and few of them are presented here under:

#### **(i) Development of Kisan Samridhhi Online Market Portal : Digital Vyapar Network (DIVYAN)**

- This initiative is a first-of-its-kind digital intervention in agricultural extension, offering KVKs, farmers, FPOs, and agripreneurs a structured platform for branding, market intelligence, and direct sales.
- In recent times agriculture considered as business activity wherein e-commerce becoming an important part of this shift. The e-commerce is not only creating efficient and sustainable ways to connect farmers/Agri entrepreneurs directly with consumers but also eliminate middlemen for marketing their produce.
- Agri-entrepreneurs are not getting appropriate rates for their produce and products whereas e-commerce has ability to play an important role in helping economic benefit more than traditional agriculture marketing because marketing expenses and chain of middleman reduced thereby get higher profit margin, provide the details descriptions with photos, videos, contents, methods of use etc. Market outlet diversification can be done in e-commerce at low cost. If agriculture produces are available year round, it gives stable e-commerce.
- In this direction, developed Digital Vyapar Network (DIVYAN), online agricultural portal under registered trade mark Kisan Samridhhi and its operationalization in the KVK System across Karnataka, Kerala and Lakshadweep. It includes integration of KVK details, associated firms' details, product details and then user-friendly web portal e- suitable software and server domain. Details of Digital Vyapar given below:

- ✓ Connecting farmers, FPOs, KVKs, SHGs, and agripreneurs
  - ✓ 5000+ products worth ₹64+ crores listed from 48 KVKs
  - ✓ 9 Trademark Registrations for branding agri-tech & value-added products
  - ✓ KVK Hub & Farmers Hub – Direct sales, branding & competitive pricing
  - ✓ Future Expansion: PAN-India rollout via ICAR & KVKs
- Four KVKs viz., Pathanamthitta, Gadag, Kolar and Idukki are integrated to ***Kisan Samriddhi*** Online Market Portal : Digital Vyapar Network (DIVYAN) and successfully displayed and marketed their products through online.
  - Based on the success, option is given to all 48 KVKs in Zone-XI for registration to the KISAN SAMRIDDHI portal for online sale of their products/produce by following the administrative procedure and approval of their respective host organizations. If any constraints for registering for sales through online, then those KVKs can associate with KISAN SAMRIDDHI portal for displaying their products like that of FPOs/SHGs/Agripreneures.
  - Hon'ble MOS for Agriculture & Farmers Welfare released trademark “Kisan Samriddhi” during KVKs Zonal Workshop 2022 held at UAS, Dharwad
  - DG-ICAR and Secretary-DARE launched KISAN SAMRIDDHI online marketing portal on 03.01.2025 at CPCRI, Kasaragod.
  - Honorable Union Minister of Agriculture & Farmers Welfare launched KISAN SAMRIDDHI Mobile marketing App on 18.01.2025 at Sagara, Shivamogga.

**(ii) Registration of Trade Mark (Kisan Samriddhi) for different agricultural goods and services**

- Registered Trade Mark in **class 32** under No. 5492205 dated 18 June, 2022 in respect of goods and services for e-marketing through DIVYAN.
- Registered Trade Mark in **class 9** under No. 5992223 dated 23 June, 2023 in respect of goods and services for e-marketing through DIVYAN.
- Registered Trade Mark in **class 16** under No. 5992224 dated 23 June, 2023 in respect of goods and services for e-marketing through DIVYAN.
- Registered Trade Mark in **class 38** under No. 5992225 dated 23 June, 2023 in respect of goods and services for e-marketing through DIVYAN.
- Registered Trade Mark in **class 41** under No. 5992226 dated 23 June, 2023 in respect of goods and services for e-marketing through DIVYAN.
- Applications for Trade Mark in **classes 1, 9, and 35** are submitted for registration which is under progress for grant of certification.

### **(iii) Lakshadweep Islands Declared Organic**

- It is a Game Changing Effort by KVK Lakshadweep.
- KVK Lakshadweep with the guidance of ICAR-ATARI, Bengaluru, actively involved with administration of Lakshadweep Union Territory in the process of getting Scope Certificate (large area organic farming) from PGS – India, Ministry of Agriculture, Cooperation and Farmer Welfare, Govt. of India for different crops in Kadmat, Andrott, Agatti, Kalpeni, Minicoy, Kavaratii, Kiltan, Amini, Chetlat islands of Lakshadweep Union Territory for the crops grown in the farmers' fields.
- After detailed deliberation with the Lakshadweep Administration and other stakeholders, ICAR-ATARI Bengaluru initiated the process of channelizing technologies of ICAR Institutes located in Karnataka, Kerala and Tamil Nadu. ICAR Institutes under their TSP programme are extending technological support to KVK Lakshadweep in different commodities.

### **(iv) Accreditation of Soil Testing Laboratories of KVKs in Zone-XI by NABL**

- Strengthened Soil Testing Laboratories of KVKs in Zone-XI up to the mark to get recognized by the Government of India standards.
- In this process many KVKs got accreditation certificate from National Accreditation Board for Testing and Calibration Laboratories (A Constituent Board of Quality Council of India) based on specific criteria fulfillment to the requirements of NABL for Government Soil Testing Laboratories.

### **(v) Establishment of Sale Counters at KVKs**

- Sale counters were established in each KVK of the Zone for easy access to farmers, visitors and other stakeholders for purchasing different technological inputs and other products on payment.

#### **(vi) ICAR Technology Hub**

- Initiated to create ICAR technology hubs at KVK campuses. MOU signed between ICAR-NBAIR, Bengaluru and KVK Idukki is one example for such type of technology hubs.

#### **(vii) Buyer and Seller Meet**

- It was coordinated by KVK Ernakulum on the occasion of Foundation Day celebrations of the Central Marine Fisheries Research Institute from February 1 to 3, 2025. The meeting was focused on addressing marketing issues faced by farmer-producer organisations, self-help groups (SHGs), and farmer-entrepreneurs.
- Meet provided platform for farmer groups, SHGs and small-scale entrepreneurs to showcase their locally produced and authentic farm products, local foods and agro inputs like manures, seeds and planting materials free of cost and secure business deals with potential buyers.
- The event also helped for feature product launch sessions, opportunities for experience sharing and networking, and talks by experts on new marketing strategies using digital platforms. A retail sales section will also be part of the meet, allowing the public to visit and purchase directly from the participants.

### **(viii) SC Farmers Implements and Equipment Utility Centre**

- Established in each KVK by following the guidelines of SCSP Scheme during 2022-23.
- SCSP and TSP Cell/Committee constituted by the Competent Authority of the respective Host Organization.
- Each implement/ equipment has labelled as SCSP 2022-23. SC Farmers/Labourers with free of cost. Other farmers like Custom Hiring Centre fixed normal hiring charges towards the general repair and maintenance.
- Wide publicity/awareness is being given by KVK among SC villages/population to make use of “SC Farmers Implements and Equipments Utility Centre.

### **(f) Impact of extension programmes**

Extension programmes significantly impact individuals and communities by improving livelihoods, enhancing knowledge and skill, and fostering community development. Extension programmes implemented by ICAR-ATARI, Bengaluru have created significant impact on individuals-improved livelihoods, enhanced skills and knowledge, increased productivity and empowered as well as on groups-community strengthening, addressing local needs, and sustainable development. Many such impacts are documented and few of them are given below:

#### **(i) ARYA Programme**

- On an average, each functional unit of enterprise established under ARYA generated a gross turnover of Rs.560440 and a net income of Rs.333381/unit during four years.
- The return on investment (ROI) is calculated to be 10.74, which means, every rupee spent under ARYA project has generated Rs.10.74 rupees benefit to the entrepreneurs.
- Each unit under the ARYA project generated 878 person-days of employment during the period of four years. When extrapolated to 2352 units, the total employment generated works out to 20.38 lakh employment days.

#### **(ii) Introduction of Saffron (serene hills) in Idukki district, Kerala (2022-2023)**

- This is the first time saffron is being cultivated and harvested in Kerala.
- OFT conducted by KVK, Idukki during 2022-23 by SMS who collected the corms from Saffron Research Station, Pampore where HRD training was also given. It was conducted on the field of Shri Ramamurthy at Perumala, Kanthalloor of Idukki district.
- Results Indicate that three to five flowers (1.5 mm) are obtained depending on the size of the tuber harvested within 30 to 50 days of planting. Up to one lakh tubers can be planted in one acre with that 2.4 lakh to 2.50 lakh flowers will be obtained from this. It weighs one and a half kilograms. One kilo of saffron flower costs Rs 3 lakh.

### **(iii) Water harvesting structures through NICRA projects**

- Instrumental in creating 4.2 lakhs cubic meters of water storage capacity and 92.5 ha critical irrigation potential (though farm ponds -about 108, check dams – 5, renovating of farm ponds-18, renovation of checkdams-11 and renovation of community ponds- 5 in numbers) in D.Nagenahalli, Tanaganahalli and Chikkadoddavadi villages of Koratagere taluk, Tumakuru, Karnataka, during 2011 to 2022.
- Under Natural resource Management constructed 45 farm ponds harvested rain water (13500cum), 07 check dams were renovated by desilting and increased the water holding capacity of check dams (36,128.8 cum) under NICRA of KVK, Davanagere.
- A total of 13 percolation ponds, eight farm ponds, one nala bunds, five check dams and and desilting was done in existing community ponds with water storage capacity of 3.7 Crore Liters, benefitting 25 farmers. 36 out of 18 defunct open wells and 58 out of 32 defunct bore wells were recharged due to water harvesting structures and created protective irrigation potential in 58.50 ha during Kharif under NICRA of KVK, Chikkaballapura.
- Increasing water storage capacity of around 320 Lakh Liter through de-silting of 16 check dams, 110 open wells and one community farm pond under NICRA of KVK, Kalaburagi-I
- Desilting of community water harvesting farm ponds and check dams (3020 cum) and 17 Borewell recharging units have helped created harvesting 98.86 crores liters of water and brought 27 ha area under protective irrigation. Protective irrigation of Maize, Green gram and Red gram gave additional income from Rs 4,000 to 23,000 per ha under NICRA of KVK, Gadag.
- Created 7,275 Cubic meter water storage capacity via NRM works of Contour trench, Road Water Harvesting Structure, Contour Continuous Trench and Husk pit under NICRA of KVK, Wayanad.

### **(iv) Initiation and development of women agriprenurship through KVKs**

- With a vision to promote women agriprenurship KVKs are continuously involved in skilling and scaling of women through appropriate technologies and business process backstopping. It is therefore important to create a start up ecosystem powered by branding and marketing in view of creating a conducive platform for women agriprenurs.
- A total of 106 success stories of farm women entereprenures were documented in the form of Directory of Women Agriprenures Mentored by KVKs of Karnataka, Kerala and Lakshadweep.
- Organised the first KVK Zonal Women Agriprenures Conclave by ICARATARI, Bengaluru in collaboration with KAU and KVK Thrissur on 20.01.2023. It is an important step in the process of empowering women agriprenurs. A total of 106 women entrepreneurs from KVKs of Karnataka, Kerala and Lakshadweep were participated in

the two days conclave which gave an opportunity for women agripreneurs through direct learning and participation.

#### **(v) Doubling of Farmers Income (DFI) - KVKs of Karnataka and Kerala**

A total of 5193 successful DFI cases of farmers whose income was doubled with help of KVK interventions which included 3648 cases from Karnataka and 1545 cases from Kerala were compiled and submitted to ICAR for the national level documentation as a part of the national initiative to commemorate the 75 years of India's Independence (*Azadi Ka Amrith Mahotsav*).

- **Karnataka:** The average income of farm households supported by KVKs in Karnataka was more than doubled (2.47 times) between 2016-17 and 2020-21. Horticulture, the dominant source of household income, showed 2.5 times increase in its contribution to household income. The share of enterprises in household income, although small, experienced nearly four-fold increase during the period. Livestock income increased by 3.1 times, consolidating its share in the household income to 11.26 per cent in 2020-21 from 8.98 per cent in 2016-17.
- **Kerala:** The average income of farm households supported by KVK in Kerala was more than doubled (2.65 times) between 2016-17 and 2020-21. The share of enterprises in household income experienced 5.3 times increase, Enterprise share in the household income increased to 11.32 per cent in 2020-21 from 5.65 per cent in 2016-17. Fisheries income increased by 5.1 times, although its share in total income was negligible. Horticulture, the dominant source of household income, experienced 2.4 times increase in income due to KVK interventions. It is the major source of income before as well as after, with a share of 68.66 per cent and 62.73 per cent respectively. Its share in total income has marginally declined, but is still the biggest contributor to additional income with 59.15 per cent.

#### **(g) Effective linkages with stakeholders especially with development departments with documentary evidence of impact**

The local line departments like agriculture, animal husbandry, fisheries and other rural development organizations mainly transfer the technologies through the various schemes and programmes sanctioned or operated by the governments (State and Central). Further, these departments use the extension literature in the form of folders, leaflets, pamphlets, handouts, technical bulletins etc prepared and published by the research institutes of ICAR, SAUs and KVKs besides their own publications. The communication channels like AIR, doordarshan, news papers, farm journals, farm magazines also being utilized by the departments for passing the information regarding various aspects of agriculture and allied sectors among wide range of people.

In fact, there are several programmes being operated by the line departments for effective dissemination of technologies. Among them, training, demonstrations, agricultural seminars, workshops, farmers fairs, exhibitions, study tours, field visits, home visits etc are similar programmes of transfer of technology methods being arranged by KVKs also. However, these programmes are distinct from that of line departments.

Further, KVKs possess well qualified multi-disciplinary faculty to provide adequate and distinct technical-back up for effective implementation of various programmes of line departments/ organizations. KVKs encourage other line departments/organizations for common planning, joint execution, monitoring and purposeful evaluation of TOT programmes by judicious and efficient use of resources available with each of them. The nature of linkage with line departments and other organizations include joint diagnostic survey, participation in meetings and workshops, arranging awareness programmes, training programmes, seminars, health camps etc. Therefore, KVKs linkage and convergence programmes are complementary to the similar activities of other line departments.

Thus, ICAR-ATARI, Bengaluru gives much emphasis to successfully integrate the transfer of technology programmes with the similar activities of other line departments/ organizations functioning in the district. KVKs in Zone XI maintain close functional, collaborative and coordinative linkages with various development departments, financing institutions and voluntary organizations operating in the area for launching various programmes effectively. This linkage and integration is being carried out with active support of the host institution in terms of human resources, training facilities, other infrastructure facilities, various outreach programmes etc.

**Achievements:** Many documented. Few of them are presented below:

**(i) Success stories mentioned in PM Mann Ki Baat from Zone-XI are the best documentary evidence.**

- The successful Honey unit run by Shri Madhukeshwar Hegde under the technical guidance of KVK, Uttara Kannada was mentioned in PM Mann Ki Baat.
- The Aland Bhootai Millets Farmers Producer Company started working in Kalaburgi, Karnataka and Hulsoor Mahila Kisan Millets Producer Company Ltd, Bidar under the supervision of the Indian Institute of Millets Research, Hyderabad.

**(ii) Convergence with ATMA during 2020-21 to 2024-25**

- KVKs have effective linkage with ATMA with successful implementation of activities such as Meetings, Research projects, Training programmes, Demonstrations, Kisan melas, Technology week,
- Exposure visits, Exhibitions, Soil health camps, Animal health campaigns etc.
- As part of convergence with ATMA, KVKs participated in 4697 programmes organized by ATMA
- KVKs organized 2985 programmes in collaboration with ATMA.

(iii) External funds received by KVKs from development departments to organize various programmes and activities through convergence and linkage during 2020-21 to 2024-25

- A total of Rs.2389.06 lakh was received by KVKs of Zone XI of which Rs.1715.67 lakh by KVKs of Karnataka and Rs.673.39 lakh by KVKs of Kerala from line department to organize various programmes and activities through convergence.

- Support from the state governments and development departments were high in both Karnataka and Kerala for convergence and linkages to optimum utilization of available resources. Among them, Rashtriya Krishi Vikas Yojana (RKVY), National Food Security Mission (NFSM), projects of various ICAR Institutes and National Bank for Agriculture and Rural Development (NABARD), Karnataka Renewable Energy Development Limited, MANAGE, Sanjeevini-Karnataka State Rural Livelihood Promotion Society, and National Horticultural Mission (NHM) were the major agencies that funded/supported KVKs to organize various programmes and activities.

### (h) Resources generated

Generation of resources at ICAR-ATARI and its KVKs are in three ways –Physical resources, financial resources and human resources (trained manpower). Further, resources are generated or conserves particularly in terms of natural resources, fertile soil, water, environmental sustainability and social wellbeing through implementation of National Innovations in Climate Resilient Agriculture (NICRA) project through KVKs. Details are given below:

(i) **Physical resources** : Infrastructure established at KVKs is presented in Table-4

Table-4: State wise details of infrastructure available in KVKs of Zone XI

| Type of infrastructure       | Infrastructure (No.) |        |             |       |
|------------------------------|----------------------|--------|-------------|-------|
|                              | Karnataka            | Kerala | Lakshadweep | Total |
| Administrative buildings     | 33                   | 14     | 00          | 47    |
| Farmers hostels              | 30                   | 12     | 00          | 42    |
| Staff quarters               | 19                   | 09     | 00          | 28    |
| Demonstration units          | 49                   | 31     | 00          | 80    |
| Rainwater harvesting units   | 10                   | 06     | 00          | 16    |
| E-connectivity               | 11                   | 10     | 00          | 21    |
| Soil and water testing labs  | 24                   | 13     | 01          | 38    |
| Portable carp hatcheries     | 04                   | 03     | 00          | 07    |
| Minimal processing units     | 01                   | 02     | 00          | 03    |
| Plant health diagnostic labs | 09                   | 05     | 00          | 14    |
| Four wheelers                | 33                   | 14     | 00          | 47    |
| Two wheelers                 | 63                   | 28     | 03          | 94    |
|                              |                      |        |             |       |

**Infrastructure established during 2020-21 to 2024-25 is given below:**

- **Strengthening of farm equipment at KVK farms:** Strengthened farm equipment through release of capital fund to each KVK for effective maintenance of KVK farms in the Zone.
- **Guidance and suggestions for the management of infrastructure at KVKs and other special programmes/ projects:** Guided/suggested KVKs of the Zone-XI for effective utilization of infrastructure especially labs, demo units, training halls and farmers hostels which serve as resources for trainee farmers and other stakeholders.

- **Maintenance of KVK labs and demo units:** Monitored effectively the maintenance of labs and demo units of 48 KVKs in Zone XI which includes 38 soil testing labs, 7 Portable carp hatcheries, 3 Minimal processing units, 14 Plant health diagnostic labs, 16 rain water harvesting units, 80 technology demonstration units and 21 e-connectivity units.

## (ii) Financial resources

External funded projects: A total of Rs.1816.01 lakh budget was received externally through different projects during 2020-21 to 2024-25.

**(iii) Human resources:** Human Resources (HR) is crucial for agriculture because it manages the workforce, ensuring the right people are in the right roles, fostering a positive work environment, and helping the organization achieve its goals. HR professionals handle recruitment, training, benefits, and performance management, all of which contribute to employee satisfaction, productivity, and retention. In this direction, ICAR-ATARI, Bengaluru is being putting efforts for the development of Human resources at KVKs as well as field level. Details are given below:

- ✓ **Entrepreneurship Development in Dairying for Farmers of Karnataka:** organized a five-day capacity development on “Entrepreneurship Development in Dairying” from October 1-5, 2021 for progressive dairy farmers nominated by KVKs of Karnataka wherein participated 35 Dairy farmers.
- ✓ **Virtual Training on ICAR-IIHR Technologies for KVK Professionals:** organized an online training programme for the KVK professionals of ATARI, Zone XI on “ICAR- IIHR Technologies” during December 17-18, 2021 wherein participated 150 SMSs attended.
- ✓ **Sensitization Workshop on Food and Agriculture Standards of India:** ICAR-ATARI, Bengaluru and Bureau of Indian Standards (BIS) Ministry of Consumer Affairs, Food & Public Distribution Government of India, Bengaluru Branch Office (BNBO) jointly organized Sensitization Workshop on Food and Agriculture Standards of India for the Scientists of KVKs viz., Bengaluru Rural, Chikkaballapur, Kolar, Tumakuru-I, Hassan, Ramanagara and Mandya with off-line (Physical participation) and online for remaining KVKs of the Zone-XI on 18 September, 2021 in the Conference Hall of ICARATARI, Bengaluru. Above 100 KVK Heads and Scientists were participated in the workshop.
- ✓ **Capacity Development program on Technology Backstopping to Karnataka FPOs:** One-day workshop on “Technology Backstopping to Karnataka FPOs” was organized by ICAR-ATARI, Zone XI in collaboration with University of Agricultural Sciences, Bengaluru through on-line mode on February 11, 2022 wherein participated 60 FPOs.
- ✓ **Lecture cum visits during KVKs Zonal Workshop 2023:** KVKs Zonal Workshop 2023 on “Technologies for strengthening secondary agriculture for entrepreneurship development” organized by the institute in collaboration with University of Agricultural

Sciences, Bengaluru during June 20-21, 2023 at UAS Bengaluru. All 48 KVK Heads have participated along with 75 SMSs.

- ✓ **Inter-KVK Cross Learning Exposure Visit:** organised Inter-KVK cross learning exposure visits to Kerala state covering ICAR-KVKs Pathanamthitta, Alappuzha and Kollam from August 16-18, 2023. The visit intended to provide exchange of experiences and mutual learning opportunity for KVKs wherein staff of four KVKs were participated.
- ✓ **Orientation workshop on Protection of Plant Varieties and Farmers Rights Act:** One day workshop for sensitizing farmers and officials of KVKs from Kerala, Karnataka and Lakshadweep on Protection of Plant Varieties and Farmers Rights Act (PPV and FR) was organized by KVK, Kottayam on October 14, 2023 wherein 90 Scientists from KVKs and other institutes were participated.
- ✓ Training programme on " IFS approaches to achieve food and nutritional security for enhancing a profitability, employment and climate resilience under National mission on natural farming scheme. It was organised jointly by ICAR-ATARI, Bengaluru and ICAR-KVK, Shivamogga during 17 - 26 March, 2025 wherein participated 35 Scientists from KVKs across the Zone XI.
- ✓ HRD of staff at the Institute and its KVKs: Senior Scientists and Head of KVKs are being deputed regularly to NAARM Training. Further, staff of ATARI, Bengaluru as well as KVKs of Zone-XI were deputed for different programmes organized by different Institutes/ agencies/ organizations for developing their capacity especially courses like Natural Farming, LDS, Integrated Farming Systems etc.
- ✓ ICAR-ATARI, Bengaluru conducts Zonal Workshop on different themes for KVKs and SMSs of KVKs every year.

### **(iii) Natural resources management**

- **50000+ Tree plantation:** ICAR-ATARI, Bengaluru implemented tree plantation campaign across Zone-XI (Karnataka, Kerala and Lakshadweep) with a target of 50000+ Tree plantation. This campaign was implemented through all 48 KVKs in Zone-XI and it was done in three phase which are given below:
  - ✓ Phase-I: A total of 19370 trees were planted by KVKs on the occasion of World Environment Day (05 June, 2024)
  - ✓ Phase-II: A total of 22911 trees were planted by KVKs on the occasion of 96<sup>th</sup> Foundation Day of ICAR (16 July, 2024)
  - ✓ Phase-III: A total of 15000 trees were planted by KVKs on the occasion Independence Day (15 August, 2024)

**(i) Awards and recognitions won by extension scientists and KVKs guided farmers at district/state/national level during 2020-21 to 2024-25**

- ICAR-KVK, Bagalakote received the Zonal Best KVK award "Pandit Deen Dayal Upadhyay Krishi
- Vigyan Rashtriya Protshahan Puraskar 2019 for Zone XI.
- Shri. S.C. Thimmaiah, an innovative farmer from Nallur village of Kodagu district in Karnataka and Shri. T. Purushothaman, an innovative farmer from Kerala guided by KVKs in Zone XI were awarded with ICAR Jagjivan Ram Abhinav Kisan Puraskar 2019.
- KVK Kalaburgi bagged the National Best KVK Pandit Deendayal Upadhyay Rashtriya Krishi Vigyan Protshahan Puraskar 2020 (2nd Prize of Rs. 8.00 lakh).
- Shri. Sharanabasappa Patil s/o Shri. Peerappa Patil, R/o: Hal Sultanpur, Kalaburagi (Tq. & Dist.) has been awarded with ICAR-Jagjivan Ram Innovative Farmer Award ( ₹.1.00 lakh).
- Shri Hanumantappa Bheemappa Madlur, Kapageri Village, Sirsi Taluq guided by KVK, Uttara Kannada bestowed with IARI- Innovative Farmer Award -2021.
- The KVK Tumakuru-II and Yelerampura Grama Panchayat of Karnataka were jointly awarded 'Best Village Panchayat'- South Zone, First Rank under 3rd National Water Awards-2020, by Ministry of Jal Shakti, Government of India in recognition of climate resilient work carried out under the project National Innovations in Climate Resilient Agriculture (NICRA) in the area of water conservation and management at D. Nagenahalli village of Yelerampura Grama Panchayat, KolalaHobli, Koratagere Taluk, Tumakuru District, Karnataka since 2011.
- Shri Suresh Vishwanath Patil from Budhihal village of Nippani Taluk, Belagavi district is a humble person who is extremely passionate for innovation in agriculture, trained and guided by KVK Belagavi-I, has been recognized for his achievements and awarded with Pandit Deen Dayal Antyodaya Puraskar which includes a certificate and Rs.50,000/- prize amount.
- Ms. Bindu Joseph, a young woman farmer from Kozhikode, Kerala won the prestigious Pandit Deen Dayal Upadhyay Antyodaya Krishi Puraskar 2021 instituted by the Indian Council of Agricultural Research, New Delhi for her contributions towards quality seedlings production and supply to the farmers.
- Dr. Mohammed Idris Ahmed Quadri who is contact farmer of KVK Bidar has been awarded ICAR-Haldar Organic Farmer Award 2021 for his contribution on development and practice of new technologies like slurry digester, poisonous plant extract for pest management, calves feeding tub, animal lifting device, weed cutter, manure grinding and mixing machine and innovative intercropping in sugarcane.

- Shri. Mohammed Ameerbabu K. nominated by KVK Malappuram was awarded with ICAR-Jagjivan Ram Innovative Farmer Award 2021 during the occasion of the 94th Foundation Day of ICAR at New Delhi for his outstanding contributions in adoption, development and modification of innovative technologies for sustainable productivity and high profitability in agriculture. The award consisting of certificate, citation and a cash prize of Rs.1.00 lakh.
- The Udupi Kalparasa Coconut and All Spices Producer Company Limited (UKCAAS), started under the guidance of District Bharatiya Kisan Sangh and technically trained and guided by KVK Udupi, has received the Best Farmer Producer Organization Award at the national level for its contribution on improving the per tree production capacity of Kalparasa and effectively marketing of its value added products like vinegar, jaggery and sugar. Shri Satyanarayan Udupa Japthi, Chairman of UKCAAS received the award during Agritech Summit and Awards ceremony held at ICAR, New- Delhi on 14 September, 2022.
- Initiated and Motivated/ nominated KVKs and farmers to document their work and apply for different Awards from various organizations and details are given below:
  - ✓ Padma shri Award received by Smt. Tulsi Gowda-2020-KVK Uttara Kannada
  - ✓ Padma shri Award received by Abdul Khader Nadakattin-2022- KVK Dharwad
  - ✓ Plant Genome Saviour Award received by Mr. B K Devarao-KVK Dakshina Kannada
  - ✓ Plant Genome Saviour Award received by Mr. Ramakant Ramchandra Hegde-KVK Uttara Kannada
  - ✓ Plant Genome Saviour Award received by Dr. M I A Quadri- KVK Bidar
  - ✓ Plant Genome Saviour Award received by Mr. Sunil Kumar M.-KVK Wayanad

(j) Success stories: Documentation of success stories are the testimony to the effectiveness of the organisation. In this connection, many success stories were documented and success stories documented in Annual Report of the Institute during the period from 2020-21 to 2024-25 are listed here under:

#### KVKs in Karnataka

- The Hallisri SHG group at Thovinakere of Koratagere Taluk has established home scale processing and value addition of finger millet (KVK, Tumakuru-II)
- Value addition of millets added additional income to Shri Siddanagowda (KVK, Koppal)
- Shri Basavaraj Hulikatti- A medical representative turned as a dairy farmer (KVK, Haveri)
- Direct marketing during covid lockdown became successful enterprise (KVK, Chikkaballapura)

- IFS - Escalates income of Shri Durgappa Angadi (KVK, Shivamogga)
- Value addition in fig made successful during COVID-19 (KVK, Ballari)
- Dsb-21 - A new soybean variety disseminated in 650 ha (KVK, Belagavi-II)
- Indian broad bean as a relay crop in bitter melon with staking (KVK, Raichur)
- Castor oil based bio repellent- Ecodon against wild boars (KVK, Thiruvananthapuram)
- Farmer participatory pearl spot seed production and supply (KVK, Ernakulam)
- Yard long bean with raised bed and plastic mulching (KVK, Pathanamthitta)
- Indoor plants gave sustainable livelihood for a family (KVK, Kollam)
- Blackgram intercropping in pigeon pea gave an additional income of ` .7008 from 0.4 ha as well as provided eight man-days of employment for harvesting of black gram (KVK, Belagavi-I).
- Mango cultivation has motivated a youth engaged in business to become a farmer and earning a net profit of ` .2.57 lakh from 400 mango trees of 11 years old (KVK, Bidar).
- Software engineer couple turned into dairy entrepreneurs and earning ` . 86,000 net income per month from dairy farm with 22 Gir cows established by them (KVK, Haveri).
- Integrated Farming System on 2.60 hectares of land gave a net profit of ` .9.76 lakh as well as providing 515 man-days of employment per year and motivated 410 farmers to adopt similar IFS model in their farms (KVK, Shivamogga).
- Dairy farming by women SHG earning a net profit of Rs.50,000 per month by investing Rs.1,00,000 (KVK, Uttara Kannada).
- Dragon fruit in dryland of Vijayapura district gave a net profit of Rs.11 lakh within four years of its cultivation from 0.80 ha of land (KVK, Vijayapura-I).
- Farmer earning average monthly income of Rs.1.00 lakh through Pearl spot (*Etroplus suratensis*) and also got recognition as regular seed supplier of Pearl spot in Kerala (KVK, Kottayam).
- Horticultural nursery based innovative activities made a couple to earn average annual income of ` .25 lakh from a mere 36 cents of land and got 90,000 subscribers for their YouTube channel named as “Techflora” started in 2019 (KVK, Kozhikode).
- Rabi jowar variety-SPV-2217 (KVK, Belagavi-II)
- Probiotics for optimum post-weaning growth in lambs (KVK, Bengaluru Rural)

- Ginger Candy - a little but something for everyone (KVK, Bidar)
- Smt. Sakamma – A Millet Entrepreneur (KVK, Mandya)
- Drip laterals rolling device by Amaresh Sharanappa Kote (KVK, Raichur)
- BRG-3 – redgram variety resistant to wilt and sterility mosaic (KVK, Ramanagara)
- FPO- Udupi Kalparasa Coconut and All Spice Producer’s Company (UKCAAS) (KVK, Udupi)
- Sheep farming: A Boon to the Farmer (KVK, Chikkaballapura)
- A young woman farmer reaps success through dairy farming (KVK, Alappuzha)
- Blending taste of coffee with the goodness of mushroom-A novel initiative in agripreneurship (KVK, Kollam)
- Eco-friendly management of mango orchard (KVK, Palakkad), Ms. Suja - a blooming nursery entrepreneur (KVK, Pathanamthitta)
- Groundnut + Pigeon pea inter cropping proved profitable (KVK, Belagavi-I)
- Transforming traditional farming: A case study of shri Omprakash Chandragouda Patil’s journey into protected cultivation (KVK, Belagavi-II)
- Industry labourers to farm entrepreneur: A case study of Metre Brothers (KVK, Bidar)
- Pierced silkworm cocoons: Created an opportunity for entrepreneurship development (KVK, Chikkaballapura)
- Transitioning to natural farming: A journey of transformation (KVK, Koppal)
- Effective management of pin worm in tomato through eco-friendly practices (KVK, Dharwad)
- Transforming livelihood of Shri Jinjappa Ningappa Guravin through Narisuvarna breed sheep (KVK, Gadag)
- Empowering sustainable food entrepreneurship through millets (KVK, Bengaluru Rural)
- Nurturing dreams: A journey to Victory Mushrooms (KVK, Palakkad)
- Nurturing dreams: A journey to Victory Mushrooms (KVK, Palakkad)
- Community driven cage fish farming: A case study (KVK, Ernakulam)

- An organic woman entrepreneur - Smt. Simi A J (KVK, Thiruvananthapuram)
- Intercropping of Groundnut + Pigeon Pea (3:1) in Athani Taluka (KVK, Belagavi-I)
- Turning Waste to Wealth: A Successful Banana Fibre Enterprise (KVK, Chamarajanagara)
- Inland fish culture in coastal farm ponds (KVK, Dhakshina Kannada)
- Shri Hanumanthappa Belagumpi: A Pioneer in Organic/Natural Farming (KVK, Kalaburagi-I)
- Adoption and perception of drone technology in agriculture: A case study from the Tungabhadra command area, Karnataka (KVK, Koppal)
- Staking techniques in cucurbitaceous crops for relay cropping system adopted by Shri Basavaraj
- Appemidi mango nursery by Shri Dinesh, S.N (KVK, Shivamogga)
- Silver pompano cage culture in estuaries (KVK, Udupi)
- Nutmeg revitalization through nutrient intervention (KVK, Idukki)
- Empowering Farmer Producer Organizations (FPOs) for sustainable agricultural development (KVK, Kannur)
- Beyond tradition: Siddique's vision for sustainability, diversity, and prosperity
- Pheromone traps against fruit fly management in cucurbits

Further, documented 106 success stories of farm women entrepreneurs in the form of Directory of Women Agripreneurs Mentored by KVKs of Karnataka, Kerala and Lakshadweep.

#### **(j) Entrepreneurship developed**

- **Initiation and development of women agripreneurship through KVKs:** With a vision to promote women agripreneurship KVKs are continuously involved in skilling and scaling of women through appropriate technologies and business process backstopping. It is therefore important to create a start up ecosystem powered by branding and marketing in view of creating a conducive platform for women agripreneurs.
  - ✓ Organised the first KVK Zonal Women Agripreneurs Conclave by ICARATARI, Bengaluru in collaboration with KAU and KVK Thrissur on 20.01.2023. It is an important step in the process of empowering women agripreneurs.
  - ✓ A total of 106 women entrepreneurs from KVKs of Karnataka, Kerala and Lakshadweep were participated in the two days conclave which gave an

opportunity for women agripreneurs through direct learning and participation.

➤ **Value added products and EDP:** Trained many FPOs, SHGs and other stakeholders through Capacity building programmes of KVKs which developed entrepreneurship among them and established many individual/group small/home scale enterprising units. Some of them created wider impact and few examples are given below:

- ✓ The successful Honey unit run by Shri Madhukeshwar Hegde under the technical guidance of KVK, Uttara Kannada was mentioned in PM Mann Ki Baat.
- ✓ The Aland Bhootai Millets Farmers Producer Company started working in Kalaburgi, Karnataka and Hulsoor Mahila Kisan Millets Producer Company Ltd, Bidar under the supervision of the Indian Institute of Millets Research, Hyderabad.
- ✓ The Mudhol breed of dog in Bagalkote of Karnataka was mentioned in PM Mann Ki Baat.
- ✓ Estimated value of the products and produce from 32 KVKs associated FPOs, SHGs and Agripreneurs in Zone – XI during the year from 01.04.2023 to 31.03.2024 was Rs.47.81 Crore (Table-6).

Table-5 : Value of the products and produce from KVKs associated FPOs, SHGs and Agripreneurs in Zone – XI during the year from 01.04.2023 to 31.03.2024

*(in Rs.)*

| SL No. | State     | KVK             | FPOs          |           | SHGs          |          | Agripreneurs  |          |
|--------|-----------|-----------------|---------------|-----------|---------------|----------|---------------|----------|
|        |           |                 | No of Centres | Total     | No of Centres | Total    | No of Centres | Total    |
| 1      | Karnataka | Bagalkote       | 0             | 0         | 0             | 0        | 1             | 9696500  |
| 2      | Karnataka | Belagavi-I      | 0             | 0         | 0             | 0        | 1             | 2104000  |
| 3      | Karnataka | Belagavi II     | 3             | 12562500  | 1             | 90,000   | 7             | 7636700  |
| 4      | Karnataka | Bidar           | 0             | 0         | 0             | 0        | 2             | 30250600 |
| 5      | Karnataka | Bengaluru Rural | 1             | 231000    | 1             | 250000   | 2             | 1423700  |
| 6      | Karnataka | Chamarajnagar   | 1             | 25045     | 0             | 0        | 3             | 2794000  |
| 7      | Karnataka | Chikkamagaluru  | 0             | 0         | 0             | 0        | 5             | 11928000 |
| 8      | Karnataka | Chitradurga     | 1             | 24500     | 6             | 2727575  | 1             | 174000   |
| 9      | Karnataka | Davanagere      | 3             | 400200    | 1             | 14910000 | 2             | 2598400  |
| 10     | Karnataka | Gadag           | 2             | 8478800   | 3             | 2367500  | 3             | 16190000 |
| 11     | Karnataka | Kalaburagi-I    | 0             | 0         | 0             | 0        | 0             | 0        |
| 12     | Karnataka | Kalaburgi-II    | 1             | 79960     | 0             | 0        | 1             | 3800000  |
| 13     | Karnataka | Hassan          | 0             | 0         | 2             | 1140400  | 1             | 1836000  |
| 14     | Karnataka | Chikkaballapura | 1             | 20000     | 1             | 123000   | 1             | 1194000  |
| 15     | Karnataka | Kolar           | 0             | 0         |               | 1800000  | 0             | 0        |
| 16     | Karnataka | Koppal          | 1             | 363500    | 0             | 0        | 1             | 52500    |
| 17     | Karnataka | Mysuru          | 0             | 0         | 0             | 0        | 1             | 815000   |
| 18     | Karnataka | Raichur         | 1             | 80000     | 0             | 0        | 0             | 0        |
| 19     | Karnataka | Ramanagara      | 0             | 0         | 0             | 0        | 2             | 770410   |
| 20     | Karnataka | Tumakuru-I      | 5             | 240000000 | 3             | 225000   | 10            | 5600000  |
| 21     | Karnataka | Tumakuru II     | 1             | 50000     | 1             | 230000   | 8             | 5485400  |
| 22     | Karnataka | Udupi           | 2             | 1238399   | 1             | 5110000  | 1             | 382000   |
| 23     | Kerala    | Alappuzha       | 1             | 1260000   | 0             | 0        | 10            | 4060000  |
| 24     | Kerala    | Kozhikode       | 0             | 0         | 1             | 1000000  | 1             | 3922200  |
| 25     | Kerala    | Idukki          | 0             | 0         | 1             | 131750   | 2             | 1204650  |
| 26     | Kerala    | Kannur          |               |           | 1             | 33000    |               | 6000000  |

|             |        |                |    |           |    |          |    |           |
|-------------|--------|----------------|----|-----------|----|----------|----|-----------|
| 27          | Kerala | Kollam         | 0  | 0         | 0  | 0        | 7  | 16995800  |
| 28          | Kerala | Kottayam       | 1  | 10529000  | 0  | 0        |    | 7984400   |
| 29          | Kerala | Malappuram     | 0  | 0         | 0  | 0        | 2  | 13285000  |
| 30          | Kerala | Palakkad       | 0  | 0         | 0  | 0        | 2  | 5392500   |
| 31          | Kerala | Pathanamthitta | 0  | 0         | 0  | 0        | 2  | 193000    |
| 32          | Kerala | Thrissur       | 0  | 0         | 2  | 1776485  | 5  | 6751100   |
| 33          | Kerala | Wayanad        | 0  | 0         | 0  | 0        | 8  | 346280    |
| Total       |        |                | 25 | 275342904 | 25 | 31914710 | 92 | 170866140 |
| Grand total |        |                |    |           |    |          |    | 478123754 |

**(k) List new technologies promoted and extent of adoption:** Many varieties and technologies are being disseminated through various developmental projects as well as through KVKs in Zone XI. Many new varieties and production technologies have been performed well and by seeing those results farmers are adopting them in their field for the increase of farm income. Based on the feed-back received from the farmers rated the technology adoption and few of them are presented in Table-6.

Table-6: New varieties disseminated through KVKs in Zone XI and their adoption during 2020-21 to 2024-25.

| Crop        | Variety      | Rate of Adoption (%) |
|-------------|--------------|----------------------|
| Bengal gram | BGD 111-1    | 20                   |
| Bengal gram | BGD-103      | 21                   |
| Bengal gram | NBeG-47      | 21                   |
| Bengal gram | NBeG-49      | 19                   |
| Bengal gram | NBeG-776     | 20                   |
| Bengal gram | NBeG-857     | 20                   |
| Bengal gram | Phule Vikram | 21                   |
| Bengalgram  | NBeG-452     | 22                   |
| Bengalgram  | Phule Vikram | 21                   |
| Black gram  | DBGV-5       | 22                   |
| Blackgram   | LBG-791      | 23                   |
| cowpea      | KBC -12      | 20                   |
| cowpea      | KBC-11       | 21                   |
| Field bean  | HA-3         | 22                   |
| Fieldbean   | HA-4         | 22                   |
| Green gram  | DGGV-2       | 20                   |
| Greengram   | BGS-9        | 22                   |
| Greengram   | KKM-3        | 20                   |
| Horsegram   | CRHG 19      | 19                   |
| Horsegram   | PHG-9        | 18                   |
| Pigeonpea   | BRG-1        | 19                   |
| Pigeonpea   | BRG-3        | 20                   |
| Pigeonpea   | BRG-5        | 22                   |
| Pigeonpea   | GRG-152      | 21                   |
| Pigeonpea   | GRG-811      | 19                   |
|             |              |                      |

Further, Krishi Vigyan Kendras assessed crop technologies in farmer's field by considering various traits like yield, profitability, product quality, consumer preferences, disease resistance, crop duration, intercropping suitability and climate adaptation. The farmer's feedback on performance of crop varieties (Table 7), agronomic practices (Table 8), pest and disease management (Table 9), farm machineries (Table 10), and livestock and fisheries technologies (Table 11) are given as under.

**Table 7: Feedback on performance of crop varieties**

| Crop          | Feedback   |
|---------------|--|
| Paddy         | GNV-1109 is a short duration and high yielding variety, resistant to blast, high recovery of puffed and flaked rice.<br>RNR-15048 is high yielding and short duration variety suited for Direct Seeded Rice, good quality of rice with low glycemic index.<br>Sahyadri Kempumukthi is high yielding variety and tolerant to blast and BPH.<br>Gandhasale is resistant to the blast and having good fragrance.<br>Goa dhan-4 is highly suitable for salt affected situations during <i>Kharif</i> season and suitable for late sowing in <i>Kharif</i> season.<br>Sahyadri Megha is high yielding variety suitable for late sowing and good market acceptability.<br>Sahyadri Panchamukhi is medium duration variety and resistance to blast.<br>Pournami performs well in low land conditions during the second crop season. |
| Finger millet | MI-365 is drought tolerant and medium duration variety with good fodder quality. It is suitable for late sowing in <i>kharif</i> and summer, good fodder quality.<br>KMR 630 is a short duration variety suited for late sowing.<br>KMR-316 is a short duration variety and suited for late sowing and resistance to blast disease.  |
| Ridge Gourd   | Arka Prasan variety has medium fruit length, tender fruits with light green colour, recorded higher yield and has consumer preference in the market.<br>COH-1 is high yielding variety with high market demand and resistance to fruit fly.  |
| Bengalgram    | JG-11 is recorded higher yield and resistant to wilt.<br>NBeG-47 is drought tolerant and medium duration variety suited for the mechanical harvesting.   |
| Blackgram     | LBG 791 is resistant to yellow mosaic disease.   |
| Cassava       | Sree Swarna is susceptible to cassava mosaic disease. Sree Reksha and Sree Suvarna were fully resistant to CMD and Sree Reksha is also tolerant to post harvest physiological deterioration.   |
| Castor        | ICH-66 is a higher yielding variety and tolerant to botrytis and semilooper incidence.   |
| Chilli        | Arka Yashasvi is resistant to chilli CV and fruits are thick, long and light green in colour and fetches less price. Arka Tanvi is resistant to chilli CV and fruits are thick, long and dark green in colour and more consumer acceptability. Rudra is a high yielding variety and tolerant to pest and disease incidence.<br>Arka Gagan is a high yielding variety with good consumer acceptability, fruits are high pungent.<br>Arka Nihira has got high pungency with good market price, whereas CO-1 hybrid has got market acceptability.   |

|                   |   |
|-------------------|---|
|                   | Arka Tejasvi has good market acceptability and tolerant to leaf curl disease.   |
| Elephant Foot Yam | Gajendra is high yielding variety with less acrid taste.  |
| Field bean        | HA - 5 is a short duration variety with higher number of secondary branches with higher number of pods and good aroma.  |
| Foxtail millet    | HN-46 is a high yielding variety, tolerant to moisture stress, recorded long ear head and higher number of tillers with synchronized maturity.  |
| French bean       | Arka Sharat recorded higher yield, uniformly green, slender and attractive fruits.  |
| Garden peas       | Among the peas varieties assessed Kashi Ageti is short duration variety with good yield and fetched good price in the market.   |
| Garlic            | DWD-G1 is recorded higher yield and it is short duration variety.   |
| Groundnut         | Dh-256 is high yielding variety and tolerant to foliar diseases.<br>GPBD-4 is high yielding and early maturing variety and resistant to powdery mildew, rust and late leaf spot.<br>DGGV-2 is high yielding variety with taller canopy suitable for mechanical harvesting.  |
| Maize             | RCRMH 2 is heat tolerant variety with good quality fodder and less disease incidence.   |
| Marigold          | Arka Abhi is high yielding variety with good consumer acceptability, better vase life, early flowering and tolerates water stress.  |
| Okra              | Arka Nikita is early yielding hybrid with good consumer acceptability and more number of pickings compared to other hybrids.<br>CO-4 is a high yielding variety with good market preference and resistant to yellow mosaic disease.<br>Anjitha is high yielding variety with good market preference.<br>Phule Vimuktha is resistant to yellow mosaic disease, recorded higher yield with bigger fruits and good shelf life. |
| Onion             | Bhima Shweta performed better compared to local variety with uniform bulb size.<br>Bhima Red has big bulb size with red skin colour and has good market demand.<br>Bheema Super have big bulb size with pink skin colour.   |
| Pigeon Pea        | TS-3R is a medium duration variety, best suited for intercropping in maize and resistant to wilt.<br>GRG-152 recorded higher yield compared to other varieties and resistant to mid early wilt disease.<br>BRG-5 is resistant to fusarium wilt and pigeon pea sterility mosaic virus disease.   |
| Safflower         | PBNS - 12 is suitable for mechanical harvest due to more plant height.  |
| Sorghum           | Phule Mudhu is high yielding variety with higher demand in market.  |
| Soybean           | Dsb-34, KDS-726, are resistant to rust and RVS-24 is resistant to Yellow Mosaic Virus and rust, it recorded higher yield compare to local varieties.  |
| Turmeric          | IISR Prathibha is a high yielding variety and tolerant to rhizome rot.  |
| Wheat             | UAS - 304 is dwarf variety recorded larger ear head diameter compared to DWR - 162 and tolerant to rust.  |
| Yard Long Bean    | Arka Mangala is high yielding variety with lengthy, shiny, high-quality pods (light green) and resistant to diseases.   |
|                   |   |

**Table 8: Feedback on performance of agronomic practices**

| Agronomic Practices  | Feedback  |
|--|---|
| Groundnut + Pigeon pea (3:1)   | Recorded higher yield and income compared to mono cropping of groundnut.  |
| Bed method in cultivation in turmeric.   | This method helps in performing interculture operations, intercropping, enhance rhizome & finger penetration, helps to drain out the excess water during rainy season.                            |
| Cabbage + Sugarcane intercropping  | Cabbage + Sugarcane intercropping helps to get additional income from cabbage and remained plants residue is great manure for main crop during its grand growth stage (3 to 5-month stage).       |
| Vegetable special as all-in-one micro nutrient solution.   | Foliar spray of Vegetable special helps to quick absorption of micro nutrient and supplies adequate required micronutrient which helps to increase the yield. It also reduces cost of production. |
| Seed treatment with <i>Azospirillum</i>  | It helps in better germination and reduce the application of zinc, borax and other nutrients and helped to improve yield parameters and crop yield.   |
| Use of Mango special in Mango  | It helps to reduce the flower and fruit drop. It is cost effective than the soil application of micronutrients.   |
| Use of Pulse magic in pulses   | Spray of pulse magic in pulses has reduced the flower drop and enhanced the fruit set.  |
| Plastic mulching in black pepper   | Mulching reduces wilt incidence.  |
| Maize + Pigeon pea (8:1)   | Intercropping system (8:1) is suited for rainfed farmers, spacing of 60 cm x 30 cm will give higher yield than closer row spacing.  |
| Seed treatment with Bio fertilizers: <i>Azospirillum</i> , <i>Rhizobium</i> and <i>PSB</i> in Maize, Paddy, Foxtail millet and Finger millet | Seed treatment with bio fertilizers had reduced the usage of inorganic fertilizers (urea) and helps to increase seed vigour and reduce diseases.  |
| Green manuring   | Use of in-situ green manuring crops in paddy enhances the soil fertility and also reduces the weed intensity, meanwhile crustation of soil is resolved.   |
| Adoption of border crop and trap crops   | Maize as border crop and Marigold as trap crop resulted in less incidence of sucking pest and fruit borer respectively in Byadagi Chilli.   |
| Arka Vegetable Special   | Application of Arka Vegetable Special resulted in better crop growth without much micronutrient deficiency in Red Onion and Red Chilli  |
| Broad bed furrow cultivation   | Helps to conserve moisture during drought period.   |
| Raised bed technology  | Helps during excess rainfall and dry spell.   |
| Nipping in Pigeon pea  | This method recorded higher yield with quality produce.   |
| Foliar nutrition spray in Cotton   | Foliar nutrition spray reduces leaf reddening and helped to increase the yields.  |
| Aerial spray of Nano urea using  | Easy to apply and reduce cost of cultivation which resulted   |

|                             |                         |
|-----------------------------|-------------------------|
| UAV in paddy                | in increased income.    |
| Trash mulching in sugarcane | Weeding cost decreased. |
|                             |                         |

**Table 9: Feedback on control of pest and disease management technologies**

| Pest and disease management                                     | Feedback   |
|---|--|
| IPDM in Groundnut   | Use of <i>Trichoderma</i> as soil application reduced the stem rot disease and necrosis disease in groundnut.  |
| Management of pink bollworm                                     | SPLAT technology, refugee crop and installation of pheromone traps effectively managed pink boll worm in Bt. Cotton  |
| Management of white grub in Sugarcane                           | Application of <i>Metarhizium</i> and combo trap helped in reduction of white grub infestation.  |
| Management of Panama wilt in Banana through                     | Application of <i>Trichoderma</i> , <i>Pseudomonas</i> and <i>Paecilomyces</i> helps to reduce disease.  |
| Management of leaf minor in tomato                              | Use of pheromone traps in tomato reduced fruit damage.   |
| Management of wilt incidence in black pepper                    | Use of bio agent Arka Microbial Consortium reduced wilt incidence to 8%.   |
| Management of leaf spot in arecanut                             | Foliar application of <i>propiconazole</i> @ 1 ml per liter of water and <i>Propineb</i> @ 2 gram per liter of water helps in controlling the leaf spot disease as well as inflorescences die back and also helps in better yield. |
| Management of ear head bug in paddy                             | Application of <i>imidacloprid</i> + <i>lambda cyhalothrin</i> @ 0.6 ml per litre of water helps in reducing ear head bug population and obtained good quality crop.   |
| Management of spindle bug in arecanut                           | Spot application of <i>Thiamethoxam</i> @ 2 gram per plant helps in reducing spindle bug infestation and better growth of the plant.   |
| Seed treatment  | Seed treatment of <i>Trichoderma viride</i> and <i>Imidacloprid</i> in Byadagi Chilli helped to reduce seedling rot and incidence of sucking pests at early vegetative growth stage.   |
| Management of fruit fly and wilt                                | Use of pheromone traps and prophylactic application of pesticides at specific time reduced the incidence of fruit fly and decreased wilt incidence in Guava.   |
| Eco friendly management of <i>fusarium</i> wilt in banana using | ICAR FUSICONT (Bio fungicide) helps to reduce the incidence of fusarium wilt in banana, but the ICAR FUSICONT is not available in rural areas  |
|   |  |

**Table 10: Feedback on performance of farm machinery technologies**

| Farm Machinery Technology        | Feedback  |
|----------------------------------|---|
| Battery operated Onion de-topper | Use of battery-operated onion de-topper reduced drudgery of operation involved in manual detopping of |

|  |  |
|--|--|
|  | onions and saved time.   |
| Improved turmeric boiler                       | Time and labour efficient and reduced labour cost.   |
| Mechanical harvester                           | Use of mechanical harvesting of Bengal gram reduced labour cost and time.  |
| Seed drill for sowing onion                    | Easy sowing and labour management.   |
| Use of slasher                                 | It helps in controlling weeds in Arecanut plantation, since it cut the weeds on the above surface of the ground, which helps as mulching as well as moisture retention in Arecanut plantation. |
| Mechanized paddy transplanter                  | It is suited for area where there is a labour problem for transplanting paddy. Its saves time and labour cost.   |
| Seed cum fertilizer drill (DSR)                | Use of seed cum fertilizer drill has saved the time and seeds along with fertilizer. Maintains recommended spacing and plant population.   |
| Tractor operated groundnut digger cum elevator | This machine helps to reduce drudgery and it performs uprooting, elevating and windrowing of groundnut plants.   |
| Tractor operated compartmental bund former     | Tractor operated compartmental bund former helps in conservation of soil moisture for getting higher yield.  |
| Coconut palm climbing through machine          | Coconut palm climbing machine helps the farmers for climbing the coconut palm with easy and safely, earning monthly income from this machine.  |
| Portable multipurpose dryer                    | It is portable, fast and uniform heating and saves energy.   |
| Drone technology                               | Use of drone in spraying nutrients covered larger area in a short period and reduced labour requirement.   |
| Paddy power weeders                            | Power weeders reduce labour costs and enhances number of tillers.  |
|  |  |

**Table 11: Feedback on performance of livestock and fisheries technologies**

| <b>Livestock/fisheries technologies</b>                      | <b>Feedback</b>   |
|--|---|
| Fodder crops   | Fodder crops increase in milk yield up to 20% by feeding fodder grown. COFS-31 will yield more quality fodder, than cowpea and Hedge Lucerne. |
| Mineral mixture in semi stall fed sheep                      | Mineral mixture helps to improve in feed consumption and helps to increase growth.  |
| Silage drums for silage production for stall fed goat units. | Good and easy method for off season feeding, high fodder feed intake and increases body weight.   |
| Deworming  | Deworming technology is useful in avoiding nutritional deficiencies in livestock and helpful in better feed conversion efficiency.            |
| Use of Probeads-EC   | Use of probead-EC has decreased the chick mortality by 72% and more economical than feeding plain probiotic.                                  |

|  |   |
|--|---|
| Management of anestrous by PRID protocol in dairy animals                                | Useful to induce estrus induction irrespective of estrus cycle. Skilled person required.  |
| Azolla as dietary supplement for backyard poultry birds                                  | Feeding of fresh Azolla increased body weight of birds and increased number of eggs.  |
| Management of MMA (Metritis Mastitis Agalactia) disease in Sows during Post partum stage | MMA disease drastically reduced due to increased Litter size and increased body weight gain.  |
| Integrated reproduction management for anestrous in cattle                               | Hormonal therapy was found to be beneficial for increasing the conception rate in the cattle.   |
| Tilapia Fish   | Tilapia fishes are suitable for small ponds, vigorous growth, early harvesting (6 months) and good market preferences.  |
| Management of mastitis   | Dry cow therapy is used to cure mastitis.   |
| Management of ticks  | Vitex negundo and Neem leaves are used to control ticks.  |
| Control of flies in dairy cattle shed  | Kairomone trap for control of flies in dairy cattle shed have good effect for trapping the flies and mosquitoes and also reduces the incidence of skin diseases.  |
| Effective microorganism (EM) composting method   | Farmers currently practicing EM composting method for powdering of Goat manure. This method reducing the degradation time of goat manure from 6 months to 30 days |
| Integrated Fish-Duck farming for utilization of homestead pond                           | Integrated Fish-Duck farming was found very effective to improve growth rate as well as weight of birds.  |
| Cultivation of snake head fish (Murrels)   | Increase in growth and market demand for murrels.   |
| CIFAX for fish health management.  | CIFAX was very useful in preventing disease as a prophylactic.  |
|  |   |

### C. Awards/Recognition by Scientists at National level during last five years

- ICAR-KVK, Bagalakote received the Zonal Best KVK award "Pandit Deen Dayal Upadhyay Krishi
- Vigyan Rashtriya Protshahan Puraskar 2019 for Zone XI.
- KVK Kalaburgi bagged the National Best KVK Pandit Deendayal Upadhyay Rashtriya Krishi Vigyan Protshahan Puraskar 2020 (2nd Prize of Rs. 8.00 lakh).
- The KVK Tumakuru-II and Yelerampura Grama Panchayat of Karnataka were jointly awarded 'Best Village Panchayat'- South Zone, First Rank under 3rd National Water Awards-2020, by Ministry of Jal Shakti, Government of India in recognition of climate resilient work carried out under the project National Innovations in Climate Resilient Agriculture (NICRA) in the area of water conservation and management at D. Nagenahalli village of Yelerampura Grama Panchayat, KolalaHobli, Koratagere Taluk, Tumakuru District, Karnataka since 2011.

## D. Overall impact

**(i) Quality seed produced and sold, livestock/poultry/fish germplasm produced and sold**

**(ii) Consultancy money earned: Nil**

**(iii) Patents/G-I/Farmers varieties obtained**

- PPVRA and GI registrations: During the period under report, 11 farmers, 24 Varieties and 6 GIs registered with PPVRA through 8 KVKs viz., Chitradurga, Bidar, Mysuru, Davanagere, Belagavi-I, Trivandrum, Vijayapura-I and Uttara Kannada.
- Developed Kisan Samriddhi Online Market Portal : Digital Vyapar Network (DIVYAN). This initiative is a **first-of-its-kind** digital intervention in agricultural extension, offering KVKs, farmers, FPOs, and agripreneurs a structured platform for branding, market intelligence, and direct sales.
- Kisan Samriddhi trade mark registration:
  - ✓ Developed a Trademark “KISAN SAMRIDDHI” and it was registered on the name of ICAR-ATARI Bengaluru by involving KVK, Pathanamthitta and KVK, Idukki for selling the technological inputs and products produced by KVKs and farmers.
  - ✓ Registered Trade Mark in respect of goods and services for e-marketing through DIVYAN in 5 classess viz., class 9 under No. 5992223 dated 23 June, 2023; class 16 under No. 5992224 dated 23 June, 2023; class 32 under No. 5492205 dated 18 June, 2022; class 38 under No. 5992225 dated 23 June, 2023, and class 41 under No. 5992226 dated 23 June, 2023.
  - ✓ Further, applications for Trade Mark in classes 1, 9, 32 and 35 are submitted for registration which is under progress for granrt of certification.

**(iv) Resources generated through sale of produce**

**Revolving fund:** It is provided by ICAR @ Rs.5.00 lakh to each KVK on the condition to return back the same amount without interest after five years with equal 5 instalments and is in operation at 46 KVKs of the Zone. KVKs are utilizing revolving fund for production of technological products and the net available balance as on December 31, 2025 was Rs.93.08 crore. Twenty-seven KVKs had closing balance of more than Rs. 20.00 lakh, nine KVKs had a balance in the range of Rs.10.00 to 20.00 lakh, nine KVKs had closing balance in the range of Rs.4.00 to 10.00 lakh and two KVKs had closing balance less than Rs.4.00 lakh.

## E. Management efficiency Indicators

**(i) Externally funded project :** The sponsoring agencies/organizations provided 100% fund for the establishment and operation of their projects by ICAR-ATARI, Bengaluru through its KVKs across the Zone-XI subject to budgetary limitations imposed by the Government of India from time to time and utilization was as per GFR rules and guidelines of Government of India. Details of Externally funded projects with sanctioned budget during 2020-21 to 2024-

25 are presented in Table-15. Funds were spent as per the head of items provided in the respective project such as salaries of contractual staff, infrastructure, equipment, civil and recurring contingencies.

Table-15: Externally funded projects with sanctioned budget during 2020-21 to 2024-25

| Name of the Externally funded projects                        | Budget Received (Rs. In lakh) |
|---|-------------------------------|
| Attracting and Retaining Youth in Agriculture (ARYA)          | 42.47                         |
| Farmers FIRST   | 23.87                         |
| National Innovations in Climate Resilient Agriculture (NICRA) | 28.78                         |
| New Extension Methodologies and Approaches (NEMA)             | 15.05                         |
| CFLDs on pulses   | 519.38                        |
| CFLDs on oilseeds   | 657.71                        |
| Model Pulse Villages (MPV)                                    | 161.70                        |
| Oilseed Model Villages  | 199.54                        |
| TSP from different ICAR-NBAIR                                 | 13.80                         |
| SCSP from different ICAR-NBAIR                                | 53.20                         |
| SCSP from ICAR-NIVEDI   | 5.51                          |
| SCSP from ICAR-NAARM  | 5.00                          |
| SCSP from ICAR-ISRI, Lucknow                                  | 65.00                         |
| SCSP from ICAR-IIMR, Hyderabad                                | 25.00                         |
| <b>Total</b>  | <b>1816.01</b>                |

(ii) Finance: Budget was received by ICAR-ATARI, Bengaluru from the sponsoring agencies/organizations directly and then it was released to respective KVKs through proper channel. In that budget was handled with utmost care and UCs as well as AUCs were submitted as per the guidelines of the project in time and there is no audit para raised by the Auditors for the past five years.

(iii) Digitization of library: Efforts are being made to prepare a data base on the profile of participants during the period under report. The information of each beneficiary is fed to the computer soon after the critical technological inputs provided with a view to utilize this information for selecting sample for record of reference for future as well as for feed-back studies. The information about the target stakeholders/farmers like their name, address, sex, family size, education status, category, size of land holding etc are being recorded in the data base.

#### **F. Institutional development programmes-funds spent on major infrastructure and equipment**

Budget got sanctioned for the infrastructure and equipment costing more than Rs.5.00 lakh and created infrastructure and equipment at different KVKs in the Zone XI during the past five years from 2020-21 to 2024-25 are given below:



#### **Repairs and renovations of existing administrative buildings, farmers hostels:**

- i. Construction of compound wall of KVKs viz., Bagalkote, Vijayapura-II and construction of new road with interlock paving tiles of KVK, Thrissur.
- ii. Repair and renovation of administrative building, farmers hostel etc., of 21 KVKs viz., Belagavi-I, Belagavi-II, Chamarajanagara, Chikkamagaluru, Chikkaballapur, Chitradurga, Kalaburagi-I, Hassan, Haveri, Kodagu, Tumakuru-II, Mandya, Raichur, Udupi, Uttara Kannada, Shivamogga, Alleppey, Idukki, Kottayam, Malapuram, and Palakkad.
- iii. Farm development works like open well, farm ponds, irrigation units, technology demo units, fencing, poly houses etc., of 10 KVKs viz., Belagavi-II, Vijayapura-II, Chamarajanagar, Kalaburagi-II, Kolar, Mandya, Tumakuru-I, Uttara Kannad, Kottayam and Wayanad.

 **Purchase of new vehicles for KVKs and maintenance of existing KVK vehicles:** Purchased five new vehicles for KVKs viz., Bellary, Kolar, Pathanamthitta, Idukki and Kasaragod by condemning existing vehicles of the respective KVKs. Funds were released to repair and maintenance of 43 KVK vehicles which includes, 43 four wheelers, 94 two wheelers and 40 tractors.

 **Strengthening of SCSP Farm Implements and Equipment Utility Centre:** Strengthened SCSP Farm Implements and Equipment Utility Centre in each KVK for custom hiring to especially SC farmers through capital budget under SCSP during the year 2024-25.

 **Administrative buildings:** Six Administrative buildings of KVKs viz. Uttara Kannada, Kolar, Chikkamagaluru, Yadgir, Belagavi-II and Vijayapura-II

 **Farmers hostels:** Seven Farmers Hostels of KVKs viz., Ballary, Belagavi-II, Kolar, Vijayapura-I, Vijayapura-II, Yadgir and Idukki.

#### **Foundation stone/Inauguration of farmers hostels/administrative buildings**

 Shri. B.C.Patil, Hon'ble Agriculture Minister, Government of Karnataka inaugurated Administrative Building of ICAR-KVK, Uttara Kannada at Sirsi on 17 August, 2020.

 Shri. B. C. Patil, Hon'ble Agriculture Minister, Government of Karnataka inaugurated Administrative Building of ICAR-KVK, Vijayapura-II on February 22, 2021.

 Sushri Shoba Karandlaje, Hon'ble Minister of State for Agriculture and Farmers Welfare inaugurated the Administrative Building of KVK, Kolar on October 10, 2021.

 Sushri Shobha Karandlaje, Hon'ble Union Minister of State for Agriculture and Farmers Welfare, Govt. of India, New Delhi laid Foundation Stone for Farmers Hostel and Staff Quarters at KVK, Belagavi-II on 19 June, 2022.

 Sushri Shobha Karandlaje, Hon'ble Union Minister of State for Agriculture and Farmer Welfare, Government of India laid Foundation Stone of Farmers Hostel at KVK, Ballari on 14.11.2022.

🤝 Sushri Shobha Karandlaje, Hon'ble Union Minister of State for Agriculture and Farmer Welfare, Government of India inaugurated the new administrative building of KVK, Chikkamagaluru on January 10, 2023.

●🤝 Sushri Shobha Karandlaje, laid the foundation stone for Farmers Hostel and Common Incubation Centre at KVK Kolar on January 19, 2023.

○🤝 Sushri Shobha Karandlaje laid the foundation stone for Farmers' Hostel at KVK Vijayapura-I and unveiled the Farmers Hostel on February 22, 2023 at KVK Vijayapura- II.

■🤝 Hon'ble Union Minister of State Agriculture and Farmers welfare, Sushri Shobha Karandlaje inaugurated administrative building and farmers hostel of KVK, Yadagiri on October 13, 2023

□🤝 The Hon'ble Minister of State for Agriculture and Farmers Welfare Sushri Shoba Karandlaje inaugurated the administrative building of KVK, Belagavi-II on 08 March, 2024.

□🤝 The Hon'ble Minister of State for Agriculture and Farmers Welfare Sushri Shoba Karandlaje inaugurated the Farmers Hostel of KVK, Belagavi-II on 08 March, 2024.

□🤝 Dr Pathak, Secretary, DARE and Director General, ICAR laid the foundation stone for Administrative building of KVK, Kasaragod on 03 January, 2025.

□🤝 Inaugurated Farmers Hostel of KVK, Idukki on 09 March, 2025.

#### **G. Any other information that may reflect on the performance of the institution**

**Contribution to State Policy:** Jackfruit value addition and state resource centre was established at KVK, Pathanamthitta. Organic certification of Lakshadweep Islands was awarded. Bran Owl was permitted by the Government of Lakshadweep administration for control of rats in coconut. Kisan Samridhhi online portal was adopted by the KVKs across the states and host organizations.

**Agri-Drones:** Drones to Re-define Farmer Drudgery Mitigation - Facilitated to farmers by KVKs. A total of 28 drones purchased through KVKs/SAUs/ICAR Institutes under ATARI, Zone XI, Bengaluru and trained 30 drone pilots. KVKs conducted demonstrations by drone for spraying of micronutrients and fertilizers.

**Special programmes :** Sponsored developmental projects are being implemented by the Institute through external fund during 2020-21 to 2024-25 and salient achievements are presented in Table-16.

Table-16: Achievements of externally aided developmental projects during 2020-21 to 2024-25

| Title   | Achievements  |
|---|---|
| National Innovations in Climate Resilient Agriculture (NICRA) | <p>Implemented NICRA through fourteen KVKs viz., Chamarajanagara, Chikkaballapura, Chitradurga, Gadag, Haveri, Kalaburagi-I, Tumakuru-II, Alappuzha, Kannur, Kozhikode, Kottayam, Palakkad, Wayanad and Lakshadweep.</p> <p><b>Progress:</b> NICRA KVKs implemented various interventions in four modules and progress during 2020 - 2024 is given below:</p> <p>(I) natural resources management: Technology demonstrations were conducted on 4845 ha by involving 8910 farmers.</p> <p>(II) crop production: Demonstrated climate resilient varieties on 3405 ha by involving 3468 farmers. Contingency measures taken up in NICRA villages during dry spells on 1289 ha by involving 3468 farmers.</p> <p>(III) livestock and fisheries: A total of 25869 activities were conducted wherein 3464 farmers participated.</p> <p>(IV) institutional interventions: Organised 315 capacity development courses wherein 9014 farmers were trained. Conducted 1565 extension activities with the participation of 33688 farmers.</p> |
| Attracting and Retaining Youth in Agriculture (ARYA)          | <p>Implemented ARYA through six KVKs viz., Bengaluru Rural (2016-17), Kannur (2016-17), Uttara Kannada (2019-20), Shivamogga (2019-20), Pathanamthitta (2019-20), Malapuram (2019-20).</p> <p>Progress: ARYA KVKs identified potential youth and trained them on entrepreneurship development skills to start agricultural ventures for self-employment during 2020 - 2024. Organised 7853 training courses wherein trained 2026 rural youth on different agricultural &amp; allied enterprises viz. bee keeping, processing and value addition, mushroom production, poultry, goat rearing and nursery.</p>  |
| District Agricultural Meteorological Units (DAMU)             | <p>Implemented DAMU Phase-I through 16 KVKs with 12 in Karnataka (Bagalkote, Ballari, Chamarajanagara, Chikkamagaluru, Haveri, Kodagu, Kolar, Koppal, Mandya, Ramanagara, Tumakuru, Yadgir), three in Kerala (Kollam, Malappuram, Palakkad), and one in Lakshadweep. DAMUs are inter disciplinary units with the responsibility of preparing and disseminating agro-met alerts for districts and</p>  |

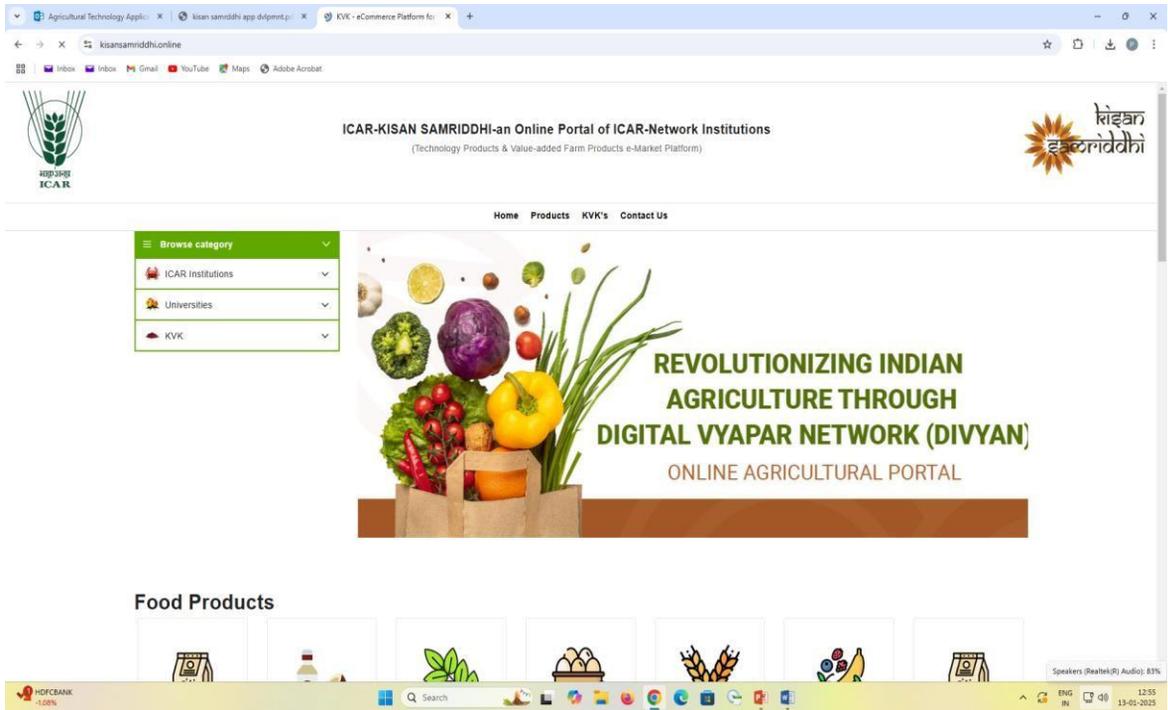
|                                |  |
|--------------------------------|--|
|                                | <p>subdistricts.</p> <p><b>Progress:</b> DAMU KVKs have developed 1555 agro advisories and disseminated to 439632 farmers using various communication methods, prepared 597 agro advisories and disseminated to 56958 farmers via Kisan Portal, conducted 383 farmer awareness programmes, benefiting 27876 farmers and generated 16 videos on district-specific weather-related topics, which were sent to 45817 farmers.</p>   |
| Farmers FIRST Programme        | <p>Implemented Farmers FIRST Programme through three ICAR institutes viz., IIHR (Bengaluru), NIANP (Bengaluru) and CPCRI RS (Kayamkulam).</p> <p><b>Progress:</b> The FFP institutes demonstrate technologies under different modules and the progress during the reporting period is given below:</p> <p>(i) Crop module: Conducted 2176 technology demonstrations by Involving 5956 farmers.</p> <p>(ii) Horticulture module: Conducted 208 technology demonstrations by Involving 997 farmers.</p> <p>(iii) NRM Module: Conducted 323 technology demonstrations by Involving 959 farmers.</p> <p>(iv) IFS module: Conducted 206 technology demonstrations by Involving 634 farmers.</p> <p>(v) Enterprise module: Conducted 1338 enterprise demonstrations by Involving 1454 farmers.</p> <p>(vi) Livestock: Conducted 2703 activities wherein treated 7467 animals and 11300 poultry birds.</p> <p>(vii) Capacity Development programmes: Conducted 1769 training courses wherein trained 5153 farmers.</p> <p>(viii) Extension programmes: Organised 1360 extension activities with the participation of 15516 farmers.</p> |
| Out Scaling of Natural Farming | <p>Implemented the project through 28 KVKs of which 17 KVKs in Karnataka and 11 KVKs in Kerala during the years from 2022-23 to 2023-24.</p> <p>Progress: Conducted 99 trainings with the participation of 3572 farmers, 276 awareness programmes with 7998 farmers, 292 demonstrations</p>  |

|   |   |
|---|---|
|   | with 6624 farmers. Before introduction of natural farming technologies, farmers used massive amount of plant protection chemicals in order to control pests and diseases. After exposed to KVK's activities under the natural farming project, they could able to prepare and use various natural formulations against the application of chemical pesticides and fertilizers and thereby reducing the soil and water pollution. Further, farmers are establishing multiple bio-formulation units with both plant and animal based products towards practicing natural farming system under the technical guidance of KVK Scientists.   |
| Cluster Frontline Demonstrations (CFLDs) on Pulses under NFSM   | Implemented through 37 KVKs in Karnataka and Kerala during 2020-2025.<br><br>Progress: Conducted 11860 demonstrations on different pulse crops like Redgram, Blackgram, Greengram, Chickpea on 4744 ha.   |
| Cluster Frontline Demonstrations (CFLDs) on Oilseeds under NFSM | Implemented through 27 KVKs in Karnataka and Kerala during 2020-2025.<br><br>Progress: Conducted 14102 demonstrations on different oilseed crops like Groundnut, Sunflower, Safflower, Soybean, Linseed, Nizer, Sesamum on 5631 ha.   |
| Project on Model Pulse Villages (MPVs) under NFSM               | Project on Model Pulse Villages (MPVs) approach under NFSM from DA & FW, Government of India through Agricultural Extension Division, ICAR, New Delhi. Conducted 1050 demonstrations in 420 ha. During Kharif, 750 demonstrations were conducted by three KVKs in 300 ha which includes 60 ha on blackgram by involving 150 farmers by KVK Mandya, 120 ha on pigeonpea by involving 300 farmers by KVK Kalburgi-II and 120 ha on pigeonpea by involving 300 farmers by KVK Vijayapura-I. During summer, KVK Mysore has conducted 300 demonstrations on blackgram in 120 ha.   |
| Project on Oilseed Model Villages (OMVs) under NFSM             | Project on Oilseed Model Villages (OMVs) approach under NFSM from DA & FW, Government of India through Agricultural Extension Division, ICAR, New Delhi. KVKs viz., Bidar, Bagalkote, Belagavi-II, Tumakuru-II and Yadgir have conducted 2175 demonstrations on different oilseed crops such as groundnut, sunflower and soyabean 870 ha during Kharif. KVKs- Tumkuru-II and Yadgir conducted 350 and 375 demonstrations in 140 and 150 ha, respectively on Groundnut. KVKs Bagalkote, Belagavi-II and Bidar conducted 250, 250 and 500 demonstrations in 100, 100 and 200 ha, respectively on Soybean. KVKs- Bagalkote, Belagavi-II and Yadgir conducted 75, 250 and 125 demonstrations in 30, 100 and 50 ha, respectively on sunflower. |

## **Initiatives and implementation of administrative and financial aspects:**

- **Created AKMU of ICAR-ATARI, Bengaluru:** Up dated website of the institute from time to time with latest data and events and links provided for Important Govt. of India websites for general public. Well maintained video conference facility with latest camera, display system at dedicated video conference room and conference hall, dedicated line for video conference and suitable router. e-HRMS provided to all Staff of the institute.
- **On Line Reporting System (OLRS):** Monthly reports are being collected from KVKs through OLRs which is maintained at the Institute.
- **Web-site of the Institute:** Updated from time to time. Revised Web-site of the Institute and also updated the content with the help of VPN account obtained from NIC.
- **MIS/PFMS/e-HRS of Institute:** As per the periodical directions from IASRI, implemented MIS/PFMS/e-HRMS and database is being maintained at the institute. All bills are entered through FMS portal before sending to Finance for payment. APARs of Scientists and other staff of ATARI Bengaluru uploaded in the portal as well as timely updated the data pertaining to Scientists of ATARI in e-HRMS portal.
- **KVK and KRISHI Portals:** Monitoring all KVKs to report data/information to the KVK Portal, KRISHI Portal from time to time.
- **Reports submission:** As director, submitted all reports timely to the SMD and ICAR as and when required including Divisional Annual Report during the period under report.
- **Instructional farms and labs as Resource materials for training:** Guided KVKs for establishment of technology demonstration units in the instructional farm of KVKs as well as laboratories and other infrastructure which serves as resource materials for trainees and stakeholders during the period.
- **Clean and Green campus:** Maintained ICAR-ATARI Campus clean and Green through constitution of a committee during the period.
- **Selfie point:** Established selfie point in the Institute as well as in KVKs of Zone XI as per the guidelines of ICAR, New Delhi.
- **Purchases through GEM:** Purchases of all items of the Institute during the reporting year were made strictly through GeM.
- **e-tender:** As per the ICAR guidelines, E-tenders in respect of AMC, contractual staff including housekeeping, security, printing of publication etc., were floated.
- **Preparation of BE/RE:** Prepared BE/RE for the years from 2020-21 to 2024-25 as per the communication and guidelines received from the ICAR and submitted to the Division.
- **Release of fund to KVKs and DEs:** Funds were released to KVKs and DEs under CAPITAL, GENERAL & PAY as per the Final RE for the years - 2020-21 to 2024-25 through PFMS.

- **Monthly Bank Reconciliation Statement:** Timely submitted Monthly Bank Reconciliation Statement (BRS) to the ICAR, New Delhi without any discrepancies during the reporting period.

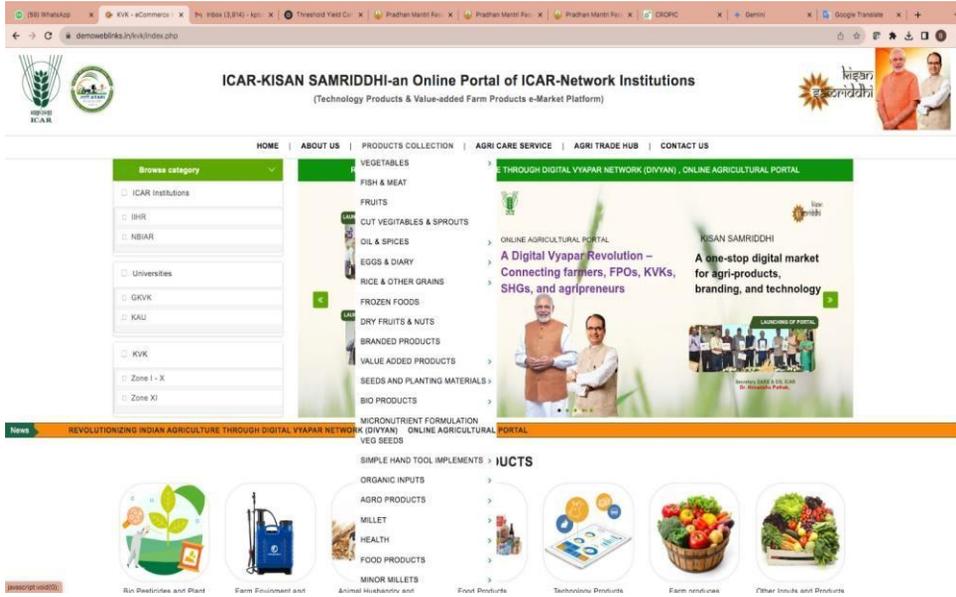


Screen shot of Digital Vyapar Network (DIVYAN)



Brand Logo

# Annexure-IV (56)



**Revolutionizing Indian Agriculture Through Digital Vyapar Network (DIVYAN)**

## Annexure-IV (56)



Indian Council of Agricultura...

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Kisan Samriddhi Online **#Market #Portal**  
**#OneICAR #Technology #ICAR MyGovIndia PMO**  
**India Ministry of Agriculture & Farmer's Welfare,**  
**Government of India Press Information Bureau -**  
**PIB, Government of India DD Kisan Department of**  
**Fisheries India Shivraj Singh Chouhan Bhagirath**  
**Choudhary**

<https://kisansamriddhi.online/>

ICAR KISAN SAMRIDDHI an Online Portal of ICAR Network Institutions  
(Technology, Products & Value-added Farm Products & Services Platform)

Home Products KVK's Contact Us

Revolutionizing Indian Agriculture through Digital Vyapar Network (DIVYAN)  
ONLINE AGRICULTURAL PORTAL

Food Products

- Fruits & vegetables
- Milk and Dairy
- Breads, Biscuits
- Wines
- Flour, Rice & other food grains
- Cereals & Pulses
- Spices & seasonings

### KISAN SAMRIDDHI ONLINE MARKET PORTAL

REVOLUTIONIZING INDIAN AGRICULTURE THROUGH DIGITAL VYAPAR NETWORK (DIVYAN)

- Direct Online Sales Portal for seeds, planting materials, bio-products, value-added products, and technological products produced by KVKs, FPOs, entrepreneurs, and SHGs.
- Promotes wider reach, transparency, market access, and fair pricing.
- Operational in Karnataka, Kerala, and Lakshadweep, connecting KVKs, farmers, agri-entrepreneurs, and consumers to foster entrepreneurship and market access.
- The portal aims to establish a Digital Vyapar Network (DIVYAN) for efficient agricultural marketing.
- Developed by ICAR-ATARI, Bengaluru and managed by KVK, Pathanamthitta.

# Certificate Trade mark No. 5992223 (class 9)




 प्रारूप आरजी - 2  
 Form RG - 2  
 क्रमांक No. 3539133

**व्यापार चिन्ह रजिस्ट्री, भारत सरकार**      **Trade Marks Registry, Government Of India**  
**व्यापार चिन्ह अधिनियम, 1999**      **Trade Marks Act, 1999**  
**व्यापार चिन्ह के रजिस्ट्रीकरण का प्रमाणपत्र | Certificate of Registration of Trade Mark**  
 (धारा 23 (2), नियम 56 (1)) | Section 23 (2), Rule 56 (1)

व्यापार चिन्ह संख्या / Trade Mark No. : 5992223  
 दिनांक / Date : 23-06-2023  
 ज. संख्या / J. No. : 2133

प्रमाणित किया जाता है कि व्यापार चिन्ह / जिसका प्रतिरूप इसके साथ संलग्न है, वह ..... के नाम से ..... वर्ग में ..... संख्या के अधीन दिनांक ..... को ..... के संबंध में रजिस्ट्रीकृत किया गया है।

Certified that Trade Mark / a representation is annexed hereto, has been registered in the name(s) of :- ICAR-AGRICULTURAL TECHNOLOGY APPLICATION RESEARCH INSTITUTE, M. R. S. H. A. FARM POST, HEBBAL, BENGALURU-560024, KARNATAKA, A SOCIETY DULY REGISTERED UNDER THE SOCIETIES REGISTRATION ACT REPRESENTED BY ITS DIRECTOR, DR. V. VENKATASUBRAMANIAN, (Society)

In Class 9 Under No. 5992223 as of the date 23 June 2023 in respect of

**Goods and service as annexed**



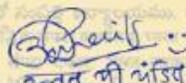
**विकास**  
**इ-एग्रीकल्चर**

आज वर्ष 20..... के ..... माह के ..... वै दिन को मेरे निर्देश पर मुद्रांकित किया गया

Scaled at my direction, this 24<sup>th</sup> day of May, 2024



**व्यापार चिन्ह रजिस्ट्री मुंबई**  
**Trade Marks Registry MUMBAI**



**उत्तम की अंसिप**  
**व्यापार चिन्ह रजिस्ट्रार**  
**Registrar of Trademarks**

रजिस्ट्रीकरण अर्जन की अवधि 10 वर्ष के लिए है और अंततः 10 वर्ष की अवधि के लिए और अर्जित 10 वर्ष की अवधि की समाप्ति पर जो नवीनीकरण किया जा सकता है।  
 यह प्रमाणपत्र विधि कार्यवाही में अर्जन के लिए या विवाद में रजिस्ट्रीकरण प्राप्त करने के लिए नहीं है।  
 टिप्पणी : इस व्यापार चिन्ह के अन्तर्गत में कोई परिवर्तन होने पर, या कारोबार के मुख्य स्थान के पते में या भारत में सेवा के लिए पते में परिवर्तन होने पर परिवर्तन को दर्ज करने के लिए एक बार अर्जित किया जाना चाहिए।  
 Registration is for 10 years from the date of application and may then be renewed for a period of 10 years and also at the expiration of each period of 10 years.  
 This certificate is not for use in legal proceedings or for obtaining Registration abroad.  
 Note: Upon any change of ownership of this Trademark, or change in address, of the principal place of business or address for service in India a request should AT ONCE be made to register the change.

# Certificates Trade mark No. 5992224 (class 16)



**INTELLECTUAL  
PROPERTY INDIA**  
PATENTS, TRADE MARKS,  
GEOGRAPHICAL INDICATIONS



भारत सरकार  
GOVERNMENT OF INDIA

प्रारूप आरजी - 2  
Form - RG - 2  
क्रमांक No. 3543632

**व्यापार चिन्ह रजिस्ट्री, भारत सरकार Trade Marks Registry, Government Of India**  
**व्यापार चिन्ह अधिनियम, 1999 Trade Marks Act, 1999**

**व्यापार चिन्ह के रजिस्ट्रीकरण का प्रमाणपत्र | Certificate of Registration of Trade Mark**  
 (धारा 23 (2), नियम 56 (1)) | Section 23 (2), Rule 56 (1)

व्यापार चिन्ह संख्या / Trade Mark No. : 5992224  
 दिनांक / Date : 23-06-2023  
 ज. संख्या / J. No. : 2133

प्रमाणित किया जाता है कि व्यापार चिन्ह / जिसका प्रतिरूप इसके साथ संलग्न है, वह  
 ..... के नाम से ..... वर्ग में  
 ..... संख्या के अधीन दिनांक ..... को  
 ..... के संबंध में रजिस्ट्रीकृत किया गया है।

Certified that Trade Mark / a representation is annexed hereto, has been registered in the name(s) of :- **ICAR-AGRICULTURAL TECHNOLOGY APPLICATION RESEARCH INSTITUTE, M. R. S. H. A. FARM POST, HEBBAL, BENGALURU-560024, KARNATAKA, A SOCIETY DULY REGISTERED UNDER THE SOCIETIES REGISTRATION ACT REPRESENTED BY ITS DIRECTOR, DR. V. VENKATSUBRAMANIAN, (Society)**

In Class 16 Under No. 5992224 as of the date 23 June 2023 in respect of

**EDUCATIONAL PUBLICATIONS; EDUCATIONAL BOOKS; PRINTED EDUCATIONAL MATERIALS; EDUCATIONAL MATERIALS FOR TEACHING PURPOSES [EXCEPT APPARATUS]; BOOKS; MAGAZINES; PERIODICALS; NEWSLETTERS; PRINTED PUBLICATIONS; INSTRUCTIONAL AND TEACHING MATERIALS**



भारत  
इसका प्रतीक

आज वर्ष 20..... के ..... माह के ..... वें दिन को मेरे निर्देश पर मुद्रांकित किया गया

Seskd at my direction, this 25<sup>th</sup> day of May, 2024



*(Signature)*  
**अनंत पी वंडे**  
 व्यापार चिन्ह रजिस्ट्रार  
 Registrar of Trademarks

रजिस्ट्रीकरण अवधि की अवधि 10 वर्षों के लिए है और प्रत्येक 10 वर्षों की अवधि के लिए और प्रत्येक 10 वर्षों की अवधि की समाप्ति पर दो नवीनीकरण किया जा सकता है।  
 यह प्रमाणपत्र कानून के अंतर्गत में प्रयोग के लिए या विदेश में रजिस्ट्रीकरण प्राप्त करने के लिए नहीं है।  
 टिप्पणी : इस प्रमाणपत्र दिवस के अंतर्गत में को प्रयोग होने पर, या कारोबार के मुख्य स्थान के पते में या भारत में सेवा के लिए पते में परिवर्तन होने पर परिवर्तन को दर्ज करने में लिए एक बार अलग किया जाना चाहिए।  
 Registration is for 10 years from the date of application and may then be renewed for a period of 10 years and also at the expiration of each period of 10 years.  
 This certificate is not for use in legal proceedings or for obtaining Registration abroad.  
 Note: Upon any change of ownership of this Trademark, or change in address, of the principal place of business or address for service in India a request should AT ONCE be made to register the change.

# Certificate

## Trade mark No. 5492205 (class 32)

प्रारूप आरजी - 2  
Form RG - 2



भारत सरकार  
Government of India  
व्यापार चिन्ह रजिस्ट्री  
Trade Marks Registry

व्यापार चिन्ह अधिनियम, 1999  
Trade Marks Act, 1999

व्यापार चिन्ह के रजिस्ट्रीकरण का प्रमाणपत्र, धारा 23 (2), नियम 56 (1)  
Certificate of Registration of Trade Mark, Section 23 (2), Rule 56 (1)



क्रमांक  
No. 3191870

व्यापार चिन्ह संख्या / Trade Mark No. 5494205

दिनांक / Date 18/06/2022

ज. संख्या / J. No. 2081

यह प्रमाणित किया जाता है कि जिस प्रकार चिन्ह की समाकृति इसके साथ संलग्न है, वह .....  
के बारे में दिनांक .....

Certified that Trade Mark / a representation is annexed hereto, has been registered in the name(s) of:-  
ICAR-AGRICULTURAL TECHNOLOGY APPLICATION RESEARCH INSTITUTE (ATARI), HA FARM POST, MRS, HEBBAL, BENGALURU-  
560024, KARNATAKA, A SOCIETY DULY REGISTERED UNDER THE SOCIETIES REGISTRATION ACT REPRESENTED BY ITS  
DIRECTOR, Dr. V. VENKATASUBRAMANIAN, (Society)

In Class 32 Under No. 5494205 as of the date 18 June 2022 in respect of

BEERS; NON-ALCOHOLIC BEVERAGES; MINERAL AND AERATED WATERS; FRUIT BEVERAGES AND FRUIT JUICES; SYRUPS AND OTHER  
NON-ALCOHOLIC PREPARATIONS FOR MAKING BEVERAGES



मेरे निर्देश पर आज ..... के ..... मास के ..... वे दिन को इस पर मुद्रा लगायी गई

Sealed at my direction, this 19<sup>th</sup> day of April, 2023



व्यापार चिन्ह रजिस्ट्री  
Trade Marks Registry MUMBAI

20/04/23  
व्यापार चिन्ह रजिस्ट्रार  
Registrar of Trademarks

रजिस्ट्रीकरण आवेदन की तारीख से 10 वर्ष के लिए है और तदोपरान्त यह 10 वर्ष की कालावधि के लिए और प्रत्येक 10 वर्ष की कालावधि के अन्तर्गत पर भी नवीनीकृत किया जा सकेगा।

Registration is for 10 years from the date of application and may then be renewed for a period of 10 years and also at the expiration of each period of 10 years.

यह प्रमाणपत्र विधि कार्यवाही में प्रयोग के लिए या विदेश में रजिस्ट्रीकरण अधिपत्र करने के लिए नहीं है।

This certificate is not for use in legal proceedings or for obtaining Registration abroad.

टिप्पणी - इस व्यापार चिन्ह के स्वामित्व में कोई परिवर्तन होने पर, या कारोबार के मुख्य स्थान के पते में या भारत में कारोबार के लिए पते में परिवर्तन होने पर परिवर्तन के लिए आवेदन पुरंत किया जाना चाहिए।

Note: Upon any change of ownership of this Trademark, or change in address, of the principal place of business or address for service in India a request should AT ONCE be made to register the change.

# Certificate

## Trade mark No. 5992225 (class 38)



**INTELLECTUAL  
PROPERTY INDIA**  
REGISTRATION OF TRADE MARKS  
GEOGRAPHICAL INDICATIONS



प्राप्त आरजी - 2  
Form RG - 2  
ब्रम्मांक No. 3551627

**व्यापार चिन्ह रजिस्ट्री, भारत सरकार Trade Marks Registry, Government Of India**  
**व्यापार चिन्ह अधिनियम, 1999 Trade Marks Act, 1999**

**व्यापार चिन्ह के रजिस्ट्रीकरण का प्रमाणपत्र | Certificate of Registration of Trade Mark**  
**(धारा 23 (2), नियम 56 (1)) | Section 23 (2), Rule 56 (1)**

|                                       |              |
|---------------------------------------|--------------|
| व्यापार चिन्ह संख्या / Trade Mark No. | : 5992225    |
| दिनांक / Date                         | : 23-06-2023 |
| ज. संख्या / J. No.                    | : 2133       |

प्रमाणित किया जाता है कि व्यापार चिन्ह / जिसका प्रतिरूप इसके साथ संलग्न है, वह  
 ..... के नाम से ..... वर्ग में  
 ..... संख्या के अधीन दिनांक ..... को  
 ..... के संबंध में रजिस्ट्रीकृत किया गया है।

Certified that Trade Mark / a representation is annexed hereto, has been registered in the name(s) of :- **ICAR-AGRICULTURAL TECHNOLOGY APPLICATION RESEARCH INSTITUTE, M. R. S. H. A. FARM POST, HEBBAL, BENGALURU-560024, KARNATAKA, A SOCIETY DULY REGISTERED UNDER THE SOCIETIES REGISTRATION ACT REPRESENTED BY ITS DIRECTOR, DR. V. VENKATASUBRAMANIAN, (Society)**

In Class **38** Under No. **5992225** as of the date **23 June 2023** in respect of

**Goods and service as annexed**

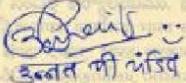


अज वर्ष 20..... के ..... माह के ..... वें दिन को मेरे निर्देश पर मुद्रांकित किया गया

Scaled at my direction, this **26<sup>th</sup>** day of **May**, 2024



**व्यापार चिन्ह रजिस्ट्री मुंबई**  
**Trade Marks Registry MUMBAI**



**व्यापार चिन्ह रजिस्ट्रार**  
**Registrar of Trademarks**

©/Registered/अनुदान की अवधि में 10 वर्षों के लिए है और तदनुसार अनु-10 वर्ष की अवधि के लिए और अवधि 10 वर्षों की अवधि की अवधि पर दो संशोधित किया जा सकता है।  
 यह प्रमाणपत्र कानून के अंतर्गत में प्रयोग के लिए या विवाद में रजिस्ट्रीकरण प्राप्त करने के लिए नहीं है।  
 टिप्पणी - इस व्यापार चिन्ह के रजिस्ट्रीकरण में कोई परिवर्तन होने पर, या कार्यालय के मुद्रा स्थान के बारे में या भारत में सेवा के लिए पते में परिवर्तन होने पर परिवर्तन को दर्ज करने के लिए एक बार अलग किया जाना चाहिए।  
 Registration is for 10 years from the date of application and may then be renewed for a period of 10 years and also at the expiration of each period of 10 years.  
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**Sushri Shobha Karandlaje, Hon'ble MOS for Agriculture & Farmers Welfare released trademark "Kisan Samridhi" during KVKs Zonal Workshop 2022 held at UAS, Dharwad**

### **Annexure- IV (59)**



**Dr. Himanshu Pathak, DG-ICAR and Secretary-DARE launched KISAN SAMRIDDHI online marketing portal on 03.01.2025 at CPCRI, Kasaragod**

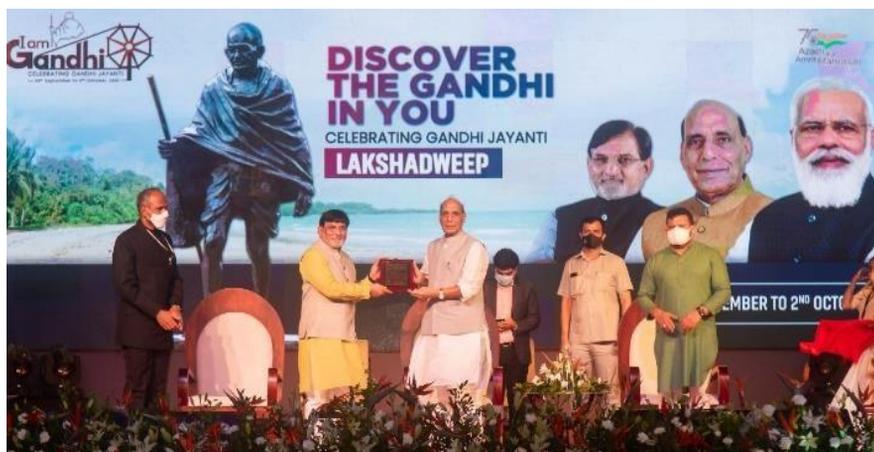
## Annexure- IV (60)



**Shri Shivraj Singh Chouhan, Honorable Union Minister of Agriculture & Farmers Welfare launched KISAN SAMRIDHI Mobile marketing App on 18.01.2025 at Sagara, Shivamogga**

# Certificate

|   |   |   |  |
|---|---|---|--|
|    |  |  | <b>PGS - India</b><br>A Participatory Organic Guarantee Programme<br>Department of Agriculture, Cooperation & Farmer Welfare<br>Govt. of India |
| <b>LAC Certificate No. - 2100000064</b><br><b>Date of Issue (DD/MM/YYYY) - 08/08/2021</b>   |   |   |  |
| <b>Scope Certificate</b>  |   |   |  |
| This is to certify that the product(s) and areas(s) belonging to PGS-India Group<br>Agatti<br>under Large Area Name <b>LAKSHADWEEP</b><br>Registered with Regional Council No <b>PGSI/NEC/RC-4733</b><br><b>KRISHI VIGYAN KENDRA LAKSHADWEEP, PROGRAMME COORDINATOR, KAVARATTI ISLAND</b><br>are in accordance with requirements of<br><b>PGS-India National Standards</b><br><b>For Organic Production</b><br>For the process of :<br><b>"Crop Production"</b> |   |   |  |
| <b>This Scope Certificate</b><br>valid from(DD/MM/YYYY) 08/08/2021 until 07/08/2022<br>for those farmers product(s) and area(s) specified in the annex 65   |   |   |  |
| The validity of this certificate solely depends on the continued compliance with the required standards and PGS-India guidelines.   |   |   |  |
|    |   |   | <b>Signature of PGS India LAC Group Leader</b><br>LAC Group No. LG3700074856   |
| <b>Authorised by :</b><br><b>KRISHI VIGYAN KENDRA LAKSHADWEEP,</b><br><b>PROGRAMME COORDINATOR, KAVARATTI</b><br><b>ISLAND</b><br><b>Regional Council for PGS in LAKSHADWEEP</b><br><b>Authorisation No. - PGSI/NEC/RC-4733</b><br><b>Date - 08/08/2021</b>   |   |   |  |



**Hon'ble Union Defence Minister Shri Rajnath Singh presenting Organic Certificate granted to UT of Lakshadweep to Shri Praful Patel, Hon'ble Administrator, UT of Lakshadweep on 02.10.2021**



VS



**Introduction of Barn Owl in Lakshadweep against coconut rat**



**Coconut climbing machine introduced through Coconut Development Board**



**Fish waste management machine installed at KVK Lakshadweep by CIFT, Cochin**



**First time quality neera production at Lakshadweep using ICAR-CPCRI make Coconut Sap Chiller**

# Accreditation of Soil Testing Labs of KVKs in Zone-XI

 **National Accreditation Board for Testing and Calibration Laboratories**  
(A Constituent Board of Quality Council of India)  
**Recognition Program for Government Soil Testing Laboratories**

**CERTIFICATE OF RECOGNITION**

Criteria: NABL 226 (Specific Criteria to Recognise Government Soil Testing Laboratory)  
Certificate No. : NABL-GSTL-00303  
Issue Date : 26-02-2025  
Valid till : 25-02-2028

This certificate is valid for the scope as specified in annexure for fulfilment to the requirements of NABL.

**SOIL TESTING LABORATORY, ICAR-KVK DHARWAD**  
SAIDAPUR FARM, DHARWAD, KARNATAKA, INDIA

Signed for and on behalf of NABL

  
Anita Rani  
DIRECTOR



 **National Accreditation Board for Testing and Calibration Laboratories**  
(A Constituent Board of Quality Council of India)  
**Recognition Program for Government Soil Testing Laboratories**

**CERTIFICATE OF RECOGNITION**

Criteria: NABL 226 (Specific Criteria to Recognise Government Soil Testing Laboratory)  
Certificate No. : NABL-GSTL-00295  
Issue Date : 24-02-2025  
Valid till : 23-02-2028

This certificate is valid for the scope as specified in annexure for fulfilment to the requirements of NABL.

**SOIL TESTING LABORATORY, MATTIKOPP-KVK**  
BAILHONGAL TALUK, BELAGAVI, KARNATAKA

Signed for and on behalf of NABL

  
Anita Rani  
DIRECTOR



 **National Accreditation Board for Testing and Calibration Laboratories**  
(A Constituent Board of Quality Council of India)  
**Recognition Program for Government Soil Testing Laboratories**

**CERTIFICATE OF RECOGNITION**

Criteria: NABL 226 (Specific Criteria to Recognise Government Soil Testing Laboratory)  
Certificate No. : NABL-GSTL-00431  
Issue Date : 26-03-2025  
Valid till : 25-03-2028

This certificate is valid for the scope as specified in annexure for fulfilment to the requirements of NABL.

**SOIL TESTING LABORATORY, ICAR-KVK BAGALKOTE**  
OLD BADAMI ROAD, BAGALKOTE, KARNATAKA

Signed for and on behalf of NABL

  
Anita Rani  
DIRECTOR



## Success story

### Braving COVID-19 crisis, farm women of Ballari script an inspiring success story in fig value addition

Fig is an important horticulture crop grown in Ballari district in Karnataka. 'Ballari Red', a locally grown fig variety, is one among the few varieties grown throughout the year in India. It has excellent quality, sweetness and colour. The variety covers 1100 hectares of farmland in the district. Chennai and Bengaluru are two major markets for Ballari Red. The COVID-19 lockdown in 2020 led to a break in the supply chain of raw figs and a sudden drop in demand. As these fruits have a very short shelf life, they were left unharvested on the fields as the small farmers considered it as a burden to incur additional labour cost for picking of fruits.

KVK, Ballari responded quickly to this unprecedented situation on a war-footing. KVK refined a post-harvest technology for producing fig bars and fig rolls, developed originally by UAS Raichur, to suit the local needs. This was disseminated to farm women of Srinivas camp, Kurugodu taluk in Ballari district where figs are grown extensively. Hands-on trainings, online advisories, field visits and demonstrations organized by KVK Ballari for the farm women, led to impactful results. Self Help Group (SHG) leaders Mrs. Sudha and Mrs. Pooja learnt the process of making value added products. FSSAI licences were obtained, branding and labelling were done.

With the market intelligence gained, the group is now planning to produce 15-20 quintals of fig rolls each day by employing 60 skilled women.

KVK-Ballari helped to establish links between the entrepreneurs and local administration. This helped to install Solar Tunnel Dryers by the Dept. of Horticulture. Under the Prime Minister's Formalisation of Micro Enterprises (PM FME) 'One District-One Product' (ODOP) scheme, fig is identified as a potential crop for Ballari district. KVK-Ballari arranged a platform for interaction of the farm women entrepreneurs with the expert advisors of PM FME scheme. Thus a small but a firm step in fig value addition is evolving into a long successful journey with the able handholding of ICAR-KVK, Ballari.





Shri. B.C.Patil, Hon'ble Agriculture Minister, Government of Karnataka inaugurated administrative building of ICAR-KVK, Uttara Kannada at Sirsi on 17 August, 2020



Shri. B. C. Patil, Hon'ble Agriculture Minister, Government of Karnataka inaugurated the Administrative Building of ICAR-KVK, Vijayapura-II (Indi)



The Hon'ble Minister of State for Agriculture and Farmers Welfare Sushri Shoba Karandlaje inaugurated the administrative building of KVK, Kolar on October 10, 2021



Foundation stone of farmers hostel laying by Hon'ble Minister Sushri Shoba Karandlaje at KVK, Belagavi-II



Foundation stone of staff quarters laying by Hon'ble Minister Sushri Shobha Karandlaje at KVK, Belagavi-II



Foundation stone of farmers hostel laying by Hon'ble Minister Sushri Shobha Karandlaje at KVK, Ballari



Sushri Shobha Karandlaje, Hon'ble Union Minister of State for Agriculture and Farmer Welfare inaugurated the new administrative building of KVK, Chikkamagaluru on January 10, 2023.



Sushri Shobha Karandlaje, laid the foundation stone for Farmers Hostel and Common Incubation Centre at KVK Kolar on January 19, 2023.



Sushri Shobha Karandlaje laid the foundation stone for Farmers' Hostel at KVK Vijayapura-I and unveiled the Farmers Hostel on February 22, 2023 at KVK Vijayapura-II.



Hon'ble Union Minister of State Agriculture and Farmers welfare, Sushri Shobha Karandlaje inaugurated administrative building and farmers hostel of KVK, Yadagiri on October 13, 2023



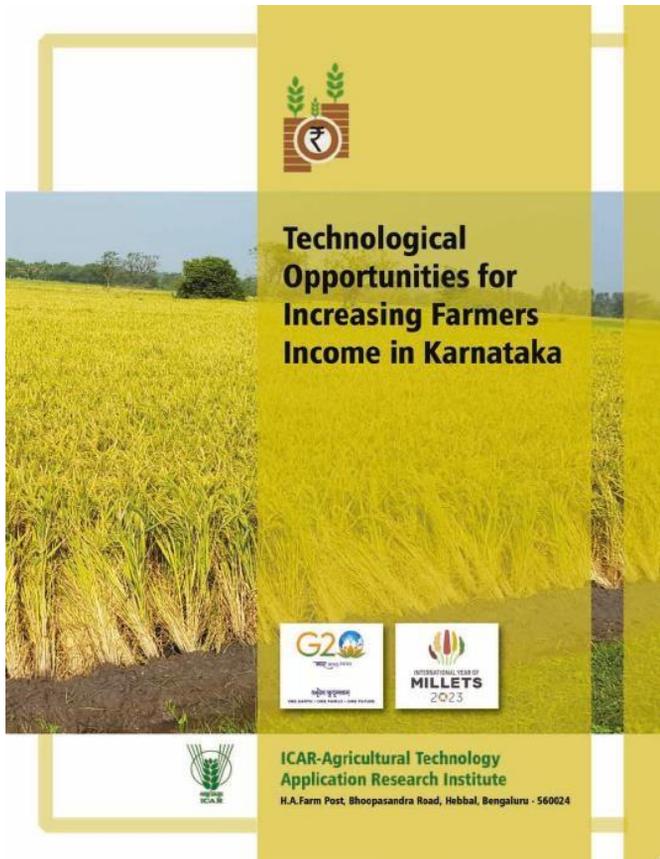
The Hon'ble Minister of State for Agriculture and Farmers Welfare Sushri Shoba Karandlaje inaugurated the administrative building and Farmers Hostel of KVK, Belagavi-II on 08 March, 2024



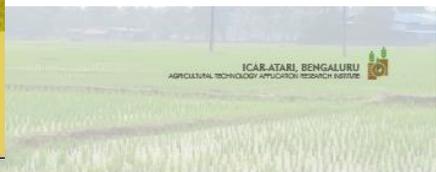
Dr Pathak, Secretary, DARE and Director General, ICAR laid the foundation stone for Administrative building of KVK, Kasaragod on 03 January, 2025



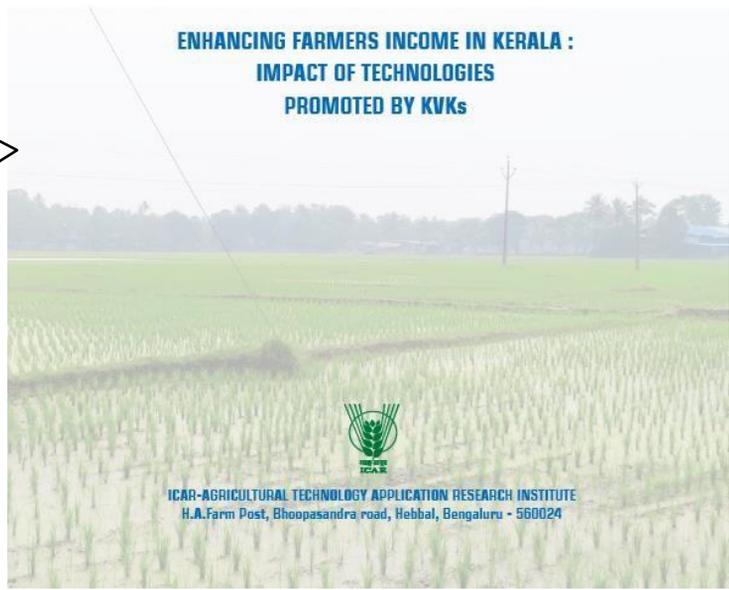
Inauguration of Farmers Hostel of KVK, Idukki on 09 March, 2025



**DFI in Karnataka through KVK interventions**



**DFI in Kerala through KVK interventions**







Saffron cultivation for the first time at Perumala, Kanthalloor of Idukki district

# PADMASHRI AWARDEE FARMERS

## KVK UTTARA KANNADA

**Smt. Tulsi Gowda**

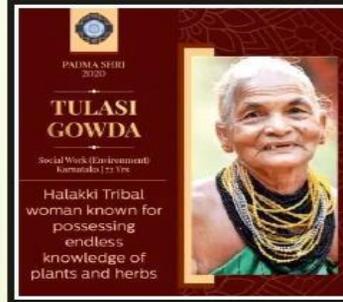
At : Honnali  
Tq : Ankola  
Contact No. : 8197228177

**Padma Shri Award, 2020**

**Awarded by Govt of India**

**Encyclopedia of forests**

Protection of the environment  
from past 6 decades,  
planted more than  
30000 saplings



## KVK, DHARWAD

**Abdul Khader Nadakattin**

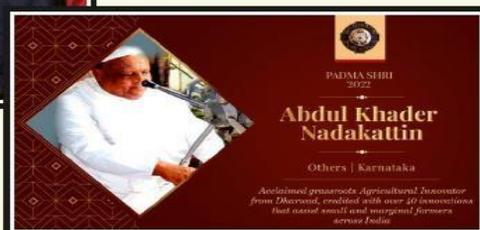
Vishwshanthi Agricultural Research  
and Industrial Development Center,  
R.S.No. 836/1B, Hebsur Road,  
Horakeri Oni, Annigeri,  
Tq: Navalgund, Dist: Dharwad,  
Pin-582201, Karnataka,  
Contact No. : 9632518730

**Padma Shri Award, 2022**

**Awarded by Govt of India**

**Farm Implements**

(More than 40 innovations  
that assist small and  
marginal farmers)



## PPVFRI AWARDEE FARMERS

### Belagavi-II

**Shri. Shankar Langte**

At Post: Gundyenatti,  
Khanapur Taluk,  
Belagavi District

Conservation of traditional  
paddy varieties

PPVFR, New Delhi- Plant  
Genome Savior Award  
(Farmer Recognition):



### Belagavi-I

**Shri. Shivagouda M Patil**

Address: At/Post:  
Pogathyanatti, Tq: Chikkodi,  
Dist: Belagavi (591222),  
State: Karnataka  
Contact No.: 8722141489

Horticulture -Adoption of 72  
varieties of Banana, 12  
varieties of mango, 8  
varieties of Guava, 4  
varieties of Jackfruit, 6  
varieties of sweet potato, 3  
varieties of Turmeric, 3  
varieties of Ginger, 3  
varieties of Mint, 5 varieties  
of Lotus, 8 varieties of Rose  
and 96 different types  
Horticulture crops from  
nude and corners of the  
world

PPVFR, New Delhi- Plant  
Genome Savior Award  
(Farmer Recognition):  
2018-19



### KVK Dakshina Kannada

**Mr. B. K. Devarao**

Mittabagilu Village,  
Belthangady Taluk  
Contact No.: 9448287051

Plant Genome Savior Reward  
for the year 2020-21 &  
2021-22

Agriculture - Rice  
Germplasm Conservation



### KVK Davanagere

**Mr. Anajaneya A.N.**

Address : S/o Nagappa A.  
Kumbaluru at Post  
Harihara taluk  
Davanagere District  
Contact No.: 9972088929

Plant Genome Savior Reward  
by PPV & FRA, New Delhi,  
2013-14.

Conservation of traditional  
Rice varieties

### KVK - Mysuru

**Shankarguru M.K,**

S/o M. Kempanna, Organic  
Farmer & Seed Grower  
Madrahalli Village, Kannalli  
Post, T. Narasipura Taluk,  
Mysore Dt. Karnataka - 571442  
Phone: +919900658921

Plant Genome Savior Farmer  
Recognition awardee,  
2014-15

Paddy Variety, NMS 2



## Annexure- IV (68)



Awareness and sensitization programme on PPVFR Act 2001, conservation and registration of farmer's varieties and Farmers' rights, & exhibition held at KVK, Kottayam on 14.10.2023

## Success stories mentioned in PM Mann Ki Baat



Mann Ki Baat: From Indian toys to dog breeds, PM Modi stresses upon 'Atmanirbhar Bharat'

The Mudhol breed of dog in Bagalkote of Karnataka was mentioned in PM Mann Ki Baat.



The successful Honey unit run by Shri Madhukeshwar Hegde under the technical guidance of KVK, Uttara Kannada was mentioned in PM Mann Ki Baat.



ಕಲಬುರಗಿ: ಅಳಂದ ಭೂತಾಯಿ ಸಿರಿಧಾನ್ಯಗಳ ರೈತ ಉತ್ಪಾದಕ ಕಂಪನಿ ಮೆಚ್ಚಿದ ಪದಾಧಿನಿ ನರೇಂದ್ರ ಮೋದಿ - Mann ki baat pm narendra modi lauds millet farmer...



The Aland Bhootai Millets Farmers Producer Company started working in Kalaburgi, Karnataka and Hulsoor Mahila Kisan Millets Producer Company Ltd, Bidar under the supervision of the Indian Institute of Millets Research, Hyderabad.





A view of Buyer and Seller Meet held at KVK, Ernakulam





Directory of  
Women Agripreneurs  
Mentored by  
KVK's of  
Karnataka, Kerala and  
Lakshadweep

# ICAR KVKs

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First KVK Zonal Women Agripreneures Conclave held at KVK Thrissur on 20.01.2023



**First Prize by Ministry of Jal Shakti, Government of India  
(National Water Award 2020)  
(KVK, Tumakuru-II)**



Received **Best NICRA KVK -2019** award under ATARI-Zone XI by ICAR-Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad during annual review meeting held on 14-16 June, 2019.



Tree plantation by Hon'ble DG, ICAR



Tree  
plantation by  
Hon'ble  
Minister



KVK Kolar



KVK Belagavi-I

## Drones to Re-define Farmer Drudgery Mitigation - Facilitated to farmers by KVKs

| S.No. | Name on the Project<br>Implementing<br>Centre (PIC)  | No. of Kisan<br>Drones<br>Sanctioned | No. of Kisan<br>Drones<br>Purchased by<br>the PIC | No of<br>Pilot<br>trained |
|-------|--|--------------------------------------|---|---------------------------|
| 1     | KVK Ramanagara   | 1                                    | 1   | 1                         |
| 2     | KVK Uttara Kannada   | 1                                    | 1   | 0                         |
| 3     | KVK Kolar  | 1                                    | 1   | 0                         |
| 4     | KVK Udupi  | 1                                    | 1   | 1                         |
| 5     | KVK Belagavi - II  | 1                                    | 1   | 1                         |
| 6     | KVK Kalaburgi - I  | 1                                    | 1   | 1                         |
| 7     | KVK Wayanad  | 1                                    | 1   | 2                         |
| 8     | KVK Palakkad   | 1                                    | 1   | 2                         |
| 9     | KVK Kottayam   | 1                                    | 1   | 2                         |
| 10    | KVK Kollam   | 1                                    | 1   | 2                         |
| 12    | ICAR-CMFRI   | 2                                    | 0   | 0                         |
| 13    | ICAR-NBAIR, Bengaluru  | 2                                    | 2   | 2                         |
| 14    | ICAR-DCR, Puttur   | 2                                    | 2   | 2                         |
| 15    | ICAR-IIHR, Bengaluru   | 2                                    | 2   | 2                         |
| 16    | ICAR-CIFT, Cochin (Allotted to KVK<br>Davanagere and KVK Pathanamthitta on<br>12.10.2023) Initiated purchase process | 2                                    | 0   | 0                         |
| 17    | ICAR-CPCRI, Kasaragod  | 2                                    | 2   | 2                         |
| 18    | ICAR-CTCRI, Thiruvananthapuram   | 2                                    | 2   | 2                         |
| 19    | ICAR-IISR, Calicut   | 2                                    | 2   | 2                         |
| 20    | KAU-Thrissur   | 2                                    | 2   | 2                         |
| 21    | UAS-Raichur  | 2                                    | 2   | 2                         |
| 22    | UHS-Bagalkot   | 2                                    | 2   | 2                         |
|       | <b>Total</b>   | <b>32</b>                            | <b>28</b>   | <b>30</b>                 |





SC Farmers Implements and Equipment Utility Centre at KVK, Idukki



