

# ATARI Kolkata **NEWS**



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*'Congratulations to Dr. Pradip Dey for his new assignment as Director, ICAR-ATARI Kolkata'*

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## From the Director's Desk

*'Farmers . . not only produce the food and fiber we need, but they help ensure our national security and economic stability' - Michelle Grainger*

ICAR-ATARI Kolkata is continuously engaged in implementing, monitoring and reporting various Central and State Government sponsored schemes being run by the KVKs at district level. This is being accomplished through visiting farmers' fields, organizing both offline and online review meetings and workshops, discussing through focussed groups, conducting field days etc. which ultimately benefitted the agricultural farming community of this zone. Not only that, this office also signed Memorandum of Understanding (MoU) with other institutes, prepared action plan for holistic agricultural development for Chotanagpur plateau region, established horticulture based integrated farming system, celebrated many days of National and International importance and many more.



In addition to physical and financial reporting to the Council on various aspects, publication of books, research papers, technical articles, annual report, newsletter, news items etc. was also the part of the activities of scientists and staff members of ATARI Kolkata. I must appreciate the contribution of each one of them working for this institute.

Finally, I congratulate the hard work of those scientists and staff for bringing out this volume of newsletter in time which gives us the chronicle of this institute during last six months. Suggestions and feedback are most welcome for further improvement.

  
(P. Dey)

## Technologies applied successfully

### Impressive success story of a woman bee keeper

Beekeeping is an age-old practice of Murshidabad district, West Bengal. Although many farmers including farm women were associated with beekeeping, it could not provide significant changes of their livelihood income for last few decades. Lack of scientific knowledge, improper guidance to the farmers, poor quality honey production, lack of marketing channel etc. might be the reasons behind the development of the enterprise. After analysing the problems, scientists of Murshidabad (Addl.) KVK, Sargachhi, Murshidabad, West Bengal organized awareness and training programme on scientific beekeeping for the farm women, rural youths and other beekeepers. At the initial stage, the women beekeepers faced some difficulties like lack of alternative honey bee

flora in the local areas, huge input cost involvement during dearth period, problems of supervising bee boxes during migration, absence of any government outlet or super market, lack of knowledge for establishment of value chain system, unavailability of processing



plant in the district, poor investment capacity of women involved in beekeeping, forced to sale raw honey due to non-existence of processing plant, lack of knowledge about royal jelly, bee venom, bee wax and other by products and lack of support and knowledge for branding, packaging and preparing other products from honey etc. After that, Sargachhi KVK in collaboration with NABARD, Murshidabad organized special training programme on beekeeping for selected women farmers from Alor Disha Farmer Producer Company (FPC) vide Regd. No.- U01110WB2018PTC226611 under the leadership of Mrs. Ila Roy Biswas

(contact no.- 07431016127), Village - Khidirpur, Block- Hariharpara, Distt.- Murshidabad, West Bengal. During the year 2020, a group of 30 women started beekeeping with 60 bee boxes which was gradually increased by 200 boxes at the end of the year 2022. To establish honey bee as enterprise, NABARD funded Rs. 300000/- to the group. The *Apis cerena* and *Apis mellifera* are the major honey bees reared by them. During the last year, the production of honey per annum was 57.68 quintal and the net profit per annum was Rs. 303580/-. Marketing was one of the major constraints for



beekeeping activities faced by this FPC. The major portion of honey were sold to the middlemen, and the remaining amount was sold to the local market. Now, KVK and FPC are trying their best to link existing marketing channels for fetching proper market value.

Source: Murshidabad II KVK, W.B.

## Important activities of KVKs (January to June, 2023)

Activity	Achievement
Number of on-farm trials conducted	251
Frontline demonstrations conducted (Number)	5297
No. of farmers and farm women trained	24289
Extension personnel trained (Number)	5732
Participants in extension activities (in lakh)	7.50285
Production of seeds (in quintals)	4517.4
Planting materials produced (in lakh)	12.30885
Livestock strains and fish fingerlings produced (in lakh)	13.23156
Soil, water, plant and manures samples tested (in lakh)	0.09044
Mobile agro-advisory provided to farmers (in lakh)	76.20738



## News from KVKs

### *Training programme on jute handicrafts conducted*

One ten days training programme on making eco-friendly jute handicrafts was organized by Bankura KVK in collaboration with ICAR-NINFET, Kolkata w.e.f. 22.02.2023 to 03.03.2023. All together a large number of women from 20 SHGs participated in the programme. The valedictory session of training was enriched with the address of Dr. P. Dey, Director of this institute who highly appreciated the effort of ICAR-NINFET to organize such kind of training programme and suggested to replicate that kind of trainings at other KVKs in West Bengal, Odisha and A & N Islands. He also advised to form new SHGs/FPOs/FPCs on environment friendly jute based diversified products and to build an enterprise hub.



### *Golden Jubilee Year of KVKs celebrated*

A special function was organized at KVK Khordha, ICAR-CIFA, Bhubaneswar on 21.03.2023 to commemorate the Golden Jubilee Celebrations of KVKs. Dr. P. Dey, Director, ICAR-ATARI Kolkata graced the occasion as Chief Guest. He lauded the efforts of all KVK staff for their outstanding service to the farming community and underlined the necessity for KVKs to act as district agri-tech epicentres. Earlier, in his welcome address, Dr. P. Das, Director (I/C), ICAR-CIFA,



Bhubaneswar highlighted the role of KVK in the development of farming community, particularly the SCs/STs in Khordha district. Dr. K.S. Das, Pr. Scientist, ICAR-ATARI Kolkata, Dr. H. K. De, Pr. Scientist, ICAR-CIFA and Dr. A. K. Dash, SSH along with all staff members of KVK Khordha were also present on the occasion. Padmashree Batakrushna Shaoo was felicitated on this special occasion. Besides, six progressive farmers in the field of integrated fish farming, fish seed and vegetable production and three women farmers producing millet value added products and vermicompost were also felicitated to mark the occasion of Golden Jubilee of KVKs. After that, dignitaries visited KVK farm.



### *Hon'ble Secretary, DARE and DG, ICAR inaugurated demonstration unit of natural farming*

Dr. H. Pathak, Hon'ble Secretary DARE and DG, ICAR inaugurated the Natural Farming Demonstration Unit of Purulia KVK on 22.05.2023. In his address, Dr. Pathak apprised the farmers and others present during

the occasion about the significance natural farming for reducing input cost of cultivation and increasing the farm income. Dr. P. Dey, Director, ICAR-ATARI Kolkata urged the farmers to adopt nature friendly farming for livelihood improvement of the farming community and reducing carbon footprint.

### *Hon'ble Secretary, DARE and DG, ICAR visited North Bengal KVKs*

A special function was organized on 05.04.2023 at KVK Cooch Behar under the aegis of ICAR-ATARI Kolkata to commemorate the Golden Jubilee Year of KVKs. The Hon'ble Secretary, DARE & DG, ICAR, Dr. H. Pathak graced the occasion with the flagging



off the Millet Procession for awareness generation among the common mass as a part of yearlong celebration of 'International Year of Millet 2023'. He mentioned that KVKs as frontline extension institutions played a unique role in the arena of technology transfer in Indian agriculture and established their footprint in every successful technology developed by agricultural research institutions and adopted by the farmers and stressed upon the need of training of the SMSs in advanced and/ or modern agricultural technologies for further capacity development of the farmers, the messengers

and main strength of KVKs, in the cause of economic development of the rural areas in the country. The Hon'ble Vice-Chancellor of UBKV, Dr. S. K. Chakraborty, lauded the efforts of all KVK Staff for their outstanding service to the farming community. In his remarks, Dr. P. Dey, Director, ICAR-ATARI Kolkata underlined the necessity for KVKs to act as district agritech epicentres. The Director, ICAR-CRIJAF, Barrackpore- Dr. G. Kar; DEE, UBKV- Dr. P. K. Pal and Head, Cooch Behar KVK- Dr. B. Roy and other KVK staff members including about 200 farmers were present on this occasion. Twelve progressive farmers including women farmers as well as FPO representatives who actually took part in farmer's mobilization in technology dissemination process were felicitated by the Hon'ble DG, ICAR on the occasion to memorialize Golden Jubilee Year of KVKs. A bulletin on 'Natural farming for sustainability' in local language for the benefit of farmers was also released on the occasion.



On 06.04.2023, Dr. Pathak visited the BM Mushroom Enterprise at Jatrapur village in Cooch Behar District, West Bengal who was producing high quality mushroom spawn, mushroom value-added products being marketed to different parts of the country. He interacted with the engineer turned mushroom entrepreneur, Mr. B. Bhowmik, the head of the



enterprise. Dr. Pathak lauded the effort and said that youth of today's society need to come forward in this kind of farming. He also appreciated the way in which KVK was guiding the rural youth to become entrepreneurs. Dr. P. Dey said that there was a need to spread that type of entrepreneurship in rural areas to turn youths from job seekers to job giver. Dr. P. K. Pal, Dr. B. Roy, other scientists of research institutes and SMSs of KVKs were also present in the programme.

On 07.04.2023, KVK Jalpaiguri organized a program involving 155 farm men and women including the members of different FPOs, FPCs and SHGs under the patronage of ICAR- ATARI Kolkata and WBUAFS, Kolkata at KVK Campus to celebrate the 'Golden Jubilee Year of KVKs'. The Hon'ble MP of Jalpaiguri District, Dr. J. K. Roy praised the activities of KVK and urged for quality seed production and the need of infrastructure facilities like multipurpose cold storage facilities for the region to mitigate the problems of surplus production and forced selling of vegetables and other agriculture products. Dr. H. Pathak shared his vision for sustainable agriculture development and better adoption of area specific modern technologies by the farmers through KVK extension network. He mentioned that such assembly of Policy makers-Scientists-FPOs-FPCs-

farmers could be very important for agricultural development. He suggested low-cost environment-friendly zero energy cool chamber in the region to avoid distress selling of commodities by the farmers.



Dr. P. Dey outlined the importance of KVK activities for socio-economic development of the small and marginal farmers through undertaking various collaborative activities with the line departments in the convergent mode. He emphasised about the importance of FPOs/FPCs to achieve the scale of production as per market demand and thereby attracting the market towards farmers' doorstep. The certificates of appreciation and mementos were given by the Hon'ble guests to the lead farmers, FPOs, FPCs and SHGs members for their outstanding performance in different sectors of agriculture and allied disciplines. The programme was attended by Dr. N. J. Maitra, Deputy Director of Research, Extension and Farm, WBUAFS, Kolkata; Dr. B. Das, SSH of KVK; Dr. A. K. Sit, Pr. Scientist & OIC, ICAR- CPCRI, Jalpaiguri and SSHs/ SMSs/ staff from other KVKs.

### ***Memorandum of Understanding (MoU) signed***

One day workshop was organised at KVK Hooghly on 1<sup>st</sup> June, 2023 in collaboration with ICAR-ATARI Kolkata and ICAR-National Research Centre for Orchids, Sikkim





on the cultivation of orchids in non-traditional areas and intensification



in traditional areas of Eastern India. On the occasion, a Memorandum of

Understanding (MoU) was signed between ICAR-ATARI Kolkata and ICAR-NRC for Orchids. Dr. P. Dey, Director, ICAR-ATARI, Kolkata and Dr. S. P. Das, Director, ICAR-NRCO, Sikkim signed the MoU on behalf of their respective organisations.

## Events

### *'Republic Day 2023' celebrated*

The 'Republic Day 2023' was celebrated at ICAR-ATARI Kolkata on 26<sup>th</sup> January, 2023. All staff members of ICAR-ATARI Kolkata assembled in front of the institute to commemorate the spirit of independent India. The Director, Dr. P. Dey highlighted the importance of the day and urged everybody to work at their full ability to strengthen this office as well as our nation.



### *'World Intellectual Property Day 2023' celebrated*

ICAR-ATARI Kolkata organized 'World Intellectual Property Day 2023' on 26.04.2023 under the Chairmanship of Dr. P. Dey, Director of the Institute on the theme 'Women and IP: Accelerating Innovations and Creativity'. The Scientists from ICAR-NBSS & LUP, Kolkata Centre, and scientists and all the staff of ICAR-ATARI Kolkata were present in the occasion. Dr. B. N. Ghosh, Pr. Scientist, NBSS



& LUP, Kolkata Centre emphasized on the theme of the event highlighting the ICAR initiative in celebrating the Day in a big way. He underlined more and more women participation in research and their contribution towards patents, trademarks, copyrights etc. Later, the Director, ATARI Kolkata made a presentation on 'Management of IP Portfolio: Know your rights' and he highlighted different types of intellectual properties and ways to protect IPs in ICAR research ecosystem. Patentability and patent application process were discussed in details. He also stressed upon the multidisciplinary team work in filing and obtaining the patent. Thereafter, a Q & A session was held on various aspects of intellectual properties in



which scientists and other staff of NBSS & LUP, Kolkata and ATARI Kolkata were actively participated.

### *'World Environment Day 2023' celebrated*

The 'World Environment Day 2023' was celebrated at ICAR-ATARI Kolkata on 5<sup>th</sup> June, 2023. In this context, all staff members of ICAR-ATARI Kolkata assembled in the Conference hall of the institute to take a 'Pledge for LiFE- The Lifestyle for Environment'. Dr. P. Dey, Director of this institute briefed the importance of the day and stressed on the planting of trees to make environment pollution free for coming days.



### *'International Yoga Day 2023' celebrated*

'International Yoga Day 2023' was conducted at ICAR-ATARI Kolkata on 21<sup>st</sup> June, 2023. All the staff of ATARI Kolkata practiced different yoga Asanas (Taadasana, Ardha Chakrasana, Vrikshasan, Uthanasan



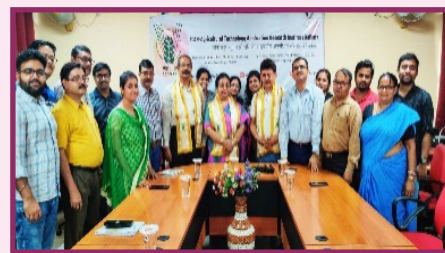
etc.) and Pranayams (*Kapalbhati, Anulom Vilom, Bhramari*) with full enthusiasm. The advantages of practicing yoga in our daily life were also discussed in the occasion.



## 'International Women Day 2023' celebrated

The 'International Women's Day 2023' was celebrated at ICAR-ATARI Kolkata on 08.03.2023 to recognize the role of women in different spheres, their challenges and achievements. The theme of this year was '*DigitALL: Innovation and technology for gender equality*'. Mrs. T. Banerjee, Pr. Scientist from ICAR-NBSS & LUP Kolkata

Centre was the Chief Guest in the programme. On the eve of the day, Dr. P. Dey felicitated with a token of gift to all the female staff members of this office and encouraged them for their future endeavours.



## Meeting/ workshop/ training programme organized/ conducted

### Institute Management Committee (IMC) Meeting organised

The Eighteenth Institute Management Committee (IMC) Meeting was conducted on 17<sup>th</sup> January, 2023 at ICAR-ATARI Kolkata under the chairmanship of Dr. S. K. Roy, Director, ICAR-ATARI Kolkata. Dr. F. H. Rahman, Pr. Scientist-cum-Member Secretary, IMC formally welcome all the dignitaries and then, the chairman shared salient achievements of ICAR-ATARI Kolkata during the period. The members discussed each agenda item in details and approved those items following all necessary codal formalities.

### Farmers' fields of ARYA visited

Dr. (Ms.) S. Das, SRF, ARYA project, ATARI Kolkata along with SMSs and YP-I of Purulia KVK visited the farmers' fields of ten villages of Purulia district, West Bengal w.e.f. 18<sup>th</sup> to 22<sup>nd</sup> January, 2023 to monitor the different

activities of ARYA project. She attended the DLC meeting there where all dignitaries gave their valuable suggestions for further improvement. It was observed that brood lac of *kusmi* and *rangini* were not only fetching good market price but also were the source of raw materials for the lac farmers. The SHG formed by the local female lac farmers was good example of woman empowerment. Introduction of polyhouse, sprinkler irrigation, mulching, vermicomposting and portray technology by the KVK improved the protected cultivation of vegetables enterprise by reducing mortality rate of seedling, weed infestation, amount of fertilizers and pesticides and ultimately the cost of cultivation.



### Fields of FPO and SHG visited

Farmers' fields of Sambalpur district on 18.01.2023 and of Bargarh district on 19.01.2023 were visited by Dr. A. Halder, Pr. Scientist, ATARI Kolkata



along with Prof. B. D. Pradhan and Dr. A. Khuntia, JD (EE), OUAT, Bhubaneswar, Odhisa to monitor the progress of strawberry cultivation, mushroom production and conservation of 1100 paddy varieties by one FPO, and value added products of rice, millets, spices and milk by one SHG under the technical guidance of Sambalpur and Bargarh KVK, respectively. The visibility of transfer of knowledge and technology to the farming community was captured.

Another field visit of Kandhamal district was conducted on 04.02.2023 by Dr. Halder and concerned KVK personnel to monitor the activities of the KVK for developing value





chain system for the production and marketing of organic turmeric powder, jackfruit seed flour and jaggery from naturally grown fishtail palm trees.



### **Workshop-cum-capacity building programme of natural farming organised**

ICAR-ATARI Kolkata organized a workshop-cum-capacity building programme of natural farming for KVKs of Odisha (17 KVKs), West Bengal (16 KVKs) and A & N Islands (1 KVK) under this zone from 15.02.2023 to 16. 02.2023 at WBUAFS, Kolkata to discuss on progress of the activities, action plan, utilization of funds etc. of the project entitled 'Outscaling of Natural Farming through KVKs'. Prof. T. K. Mondal, Vice-Chancellor, WBUAFS, Kolkata; Dr. P. Dey, Director, ICAR-ATARI Kolkata; Prof. G. N. Chattopadhyay, Emeritus Professor, Seacom Skills University; Dr. P. K. Pal, DEE, UBKV; Dr. F. H. Rahman, Principal Scientist and Nodal officer of the Project, ICAR-ATARI Kolkata; SSHs all 34 KVKs along with Nodal SMSs of the respective KVKs, YPs and other staff of WBUAFS attended the workshop.



Prof. T. K. Mondal urged the field scientists for strategic implementation of natural farming component to build a green and glorious nation and also proposed to make innovative models and strategies for agricultural sustainability through natural farming to reduce the cost of cultivation and to help in arresting growing needs for fertilizer and reduce subsidy burden. Dr. P. Dey addressed the importance of soil health management, gender participation, decreasing cost of production, increasing production to dovetail 3F of agro-ecosystem i.e. Farm-Farmer-Farming. Prof. G. N. Chattopadhyay emphasized on



the need of on farm management of resources to meet the food grain demand of escalating population of our country. Dr. P. K. Pal pointed out about how natural farming is fused in our Indian civilization since ancient days and time has come for its reincarnation. Earlier, Dr. F. H. Rahman, Pr. Scientist and Nodal Officer of the Project appreciated the role of different KVKs for mass awareness campaign and crop demonstration module of this project. He also highlighted the salient achievements and physical-financial progress of KVKs. All the KVKs presented their progress of activities under this Natural farming project.

### **Workshop on promotion of use of botanical pesticides for crop protection organized**

ICAR-ATARI Kolkata in collaboration with Nimpith KVK organized a one-day workshop on 'Promotion of the Use of Botanical

Pesticides Based on Locally Available Resources/Plants in Zero Budgeting Organic Farming for Crop Protection and Enhancing Crop Productivity' on 17.02.2023 at Nimpith KVK. The



program was sponsored by IPFT, Gurugram, under the Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers, GoI. Swami Sadananda Maharaj, Chairman of the KVK welcome the dignitaries. Dr. J. Kumar, Director, IPFT, gave an overview of the workshop and the role of IPFT in creating awareness of the farmers on usage of botanical pesticides apart from safe and judicious use of agro-chemicals giving examples of some common plants like neem, babool, karanja, calotropis, lemon grass, brahmi, which could be used to prepare bio-pesticides at home. Dr. P. Dey, Director of this institute and Chief Guest of the workshop, emphasised on the environment friendly, economically viable and gender friendly agriculture using botanical pesticides and also emphasised on 'One Health' concept to save the health of soil, plant, animals and human in a continuum. Dr. A. Halder, Pr. Scientist of ATARI Kolkata congratulated Nimpith KVK for the role in improving the overall





agriculture situation in the district by transforming vast areas of paddy monocropping into intensive cropping and cautioned the farmers from indiscriminate use of chemicals to prevent the residual effects in the entire food chain. More than 200 farmers from different blocks of South 24 Parganas participated in the workshop.

### **Management Development Programme (MDP) conducted**

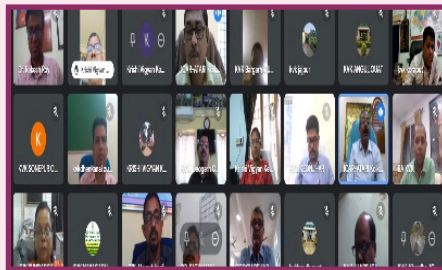
The 3<sup>rd</sup> phase of Management Development Programme (MDP) for newly recruited Senior Scientist and Heads (SSH) of KVKs of this Zone was conducted from 01.03.2023 to 05.03.2023 at ICAR-ATARI Kolkata. Dr. S. Mondal from Birbhum KVK, West Bengal attended the programme. During five days programme, he was acquainted with the various activities of ATARI Kolkata and special trainings were imparted by the staff of this institute to improve their administrative and financial management skills for smooth running of KVKs.



### **Interaction meeting with KVKs organized**

One virtual interaction meeting with the scientists of ATARI Kolkata and 59 KVKs of this Zone was organized on 09.03.2023. Dr. P. Dey, Director of this institute stressed the need to transform KVKs to serve as a change-catalyst and convergence hub for Indian agriculture during the 'Amrit Kaal' to accomplish the aspirations of the Nation by 2047. He emphasized the need for KVKs

to serve as district agri-tech epicentre and ensure the disseminated technologies which are nature-, gender- and environment-friendly. He highlighted the importance of millets, *Kisan Sarathi* registration, 'one scientist one product' concept of ICAR. The constraints being faced by the KVKs were also briefly discussed. The programme was coordinated by Dr. A. Haldar, Pr. Scientist of ATARI Kolkata.



### **Field visit of homestead agroforestry project conducted**

One field visit on homestead agroforestry funded by NABARD was conducted on 17.03.2023 by Director of this institute, Dr. P. Dey; DEE of BCKV, Prof. U. Thapa, Pr. Scientist-cum-PI of the project, Dr. A. Haldar and the scientists and SSH of Purba Medinipur KVK. Farmer's fields of model homestead agroforestry, spread over a total of land of 5.74 ha with the involvement of 287 farm families at Panskura Block were monitored by the team. The team appreciated the continuous efforts taken by the scientists of KVK to utilise the backyard barren land for developing three-tier system agroforestry model (Fruit plants + Forest plants + Vegetables/ Spices) with the active participation of 287 farm families. It was felt that the project opened a new



scope of employment generation, household nutritional security from vegetables and fruits and economic development with a hope of insurance or pension resource of a farm family out of the forest plants in the adopted villages. Dr. Dey suggested to join hands with the State line Departments and diffuse such homestead agroforestry model through mass awareness program in other areas for benefiting a greater number of farm families.



### **FFP Review Workshop-cum-monitoring field visit organized**

The two-days Review Workshop-cum-Monitoring Field Visit of Farmer FIRST Programme (FFP) was organized on 21-22.03.2023 at Bhubaneswar by ICAR-ATARI Kolkata in collaboration with ICAR-CIFA, Bhubaneswar under the Chairmanship of Dr. P. Dey, Director-cum-Chairman, ZPMC, FFP. In his inaugural address,



Chief Guest Dr. P. K. Roul, VC, OUAT, Bhubaneswar conveyed great satisfaction about the way the project is achieving its objectives and motivated the farmers to build greater coordination with institutes for achieving desired outcomes in crop cultivation. He also emphasized on adopting one or two villages and converging the



efforts of all four centres in Odisha so that a replicable model emerges that would certainly draw the attention of other stakeholders and help us establish the contribution of scientific farming practices. Dr. Dey, in his opening remarks, pointed out the project status, its implementation and suggested that centres would have an optimum mix of crop, horticulture, livestock including fisheries, natural resource management, agri-enterprise and IFS module. He also suggested that a proforma of structured impact assessment for the entire project could be prepared to gauge the impact of the project with respect to livelihood improvement of the targeted beneficiaries. Dr. K. S. Das, Pr. Scientist and Member-Secretary, ZPMC, FFP, ATARI Kolkata presented a brief overview of FFP programme by explaining its objectives, uniqueness of the programme, past achievements including fund allocation and utilization by different centres.



The meeting was also attended by Dr. P. Das, I/C Director, ICAR-CIFA, Bhubaneswar; Dr. A. Sarangi, Director, ICAR-IIWM, Bhubaneswar, Dr. P. J. Mishra, Dean, Extension Education, OUAT, Bhubaneswar; PIs and Co-PIs of 4 concerned institutes, scientists and staff members of host institute; progressive farmers including women farmers and many others. All PIs presented the achievements of respective centres. Farmer representatives from all the centres have expressed their views and showed great sense of satisfaction from the project and support



associated with it and assured for sustainability of the project in the coming years.



On the second day, a field visit was also conducted to monitor the progress of different activities being carried out by the Project Team, OUAT at their new adopted villages. The team different Heads of Departments of OUAT and others visited mushroom spawn production unit and various demonstration sites in villages. An animal health camp was organized at Gopalpur village. A Farmer-Scientist interaction programme was organised at Gobindpur village where farmers' queries were addressed.



### *Interactive workshop - cum - capacity development programme of ARYA organized*

ICAR-ATARI, Kolkata organized an interactive workshop-cum-capacity development programme on ARYA project on 28.03.2023.

In this programme, the process of documenting the entrepreneurship development was reviewed and discussed. Along with the 4 ARYA implementing KVKs (Hooghly, Nimpith, Purulia and Uttar Dinajpur), 5 Non-ARYA KVKs (Narendrapur, North 24 Parganas, Howrah, Nadia and Burdwan) also participated in the workshop. More than 50 participants including Scientists of ATARI Kolkata, SSHs and Nodal SMSs of selected KVKs, SRFs, YPs and DEOs of ATARI Kolkata were present in the meeting. Dr. P. Dey chaired the session and advocated to extend the ARYA project in other KVKs of zone V. He advised to popularize the cases of successful entrepreneurs through ICT, peer-reviewed publication and other means and suggested diversifying the enterprises based on the changing need of the districts and popularizing the concept of one SMS five entrepreneurs. Apart from highlighting the success of ARYA



project vis-à-vis percolation to other KVK districts, he underlined the need for detailed analysis to understand / find out the reasons behind discontinuance of certain enterprises by the youth. Dr. P. P. Pal, Pr. Scientist and Nodal Officer, while welcoming the dignitaries, briefed about the inception and objectives of ARYA project and elaborately described how to horizontally spread the benefit among non-beneficiaries. He emphasized on the external fund support and proper marketing to enable the rural youth to go for effective entrepreneurship development as well as employment



generation. ARYA implementing KVKs presented the process documentation, achievements of the project and future plan of action to make it a youth-friendly platform towards entrepreneurship development.



### *Interactive meeting with Agriculture Commissioner, GoI organized*

ICAR-ATARI Kolkata organized an interactive meeting with Dr. P. K. Singh, Agriculture Commissioner, GoI at this office on 17.04.2023. The meeting was also attended by Dr. P. Dey, Director, ATARI Kolkata; Dr. N. Kumar, Director and Shri J. Das, JD, Directorate of Jute Development, GoI; Pr. Scientists and project staff of ATARI Kolkata. Dr. P. Dey briefed the house about the scenario of Jute in West Bengal in his welcome address. He informed that during last five years, 2514 FLDs were conducted by 13 KVKs working in jute in West Bengal. Besides, 209 training programmes, 610 numbers of farmers' meet and 15.95 q of jute seeds were produced by these KVKs. Fifty one trainings were conducted by KVKs for the benefit of SHGs on value addition like jute doll, jute basket, jute tray, jute bag, jute garments etc. Further, he informed the house about the popularization of Fibre Extraction Technology like *CRIJAF Sona* and *NINFET Sathi* and 371 ha area was covered to popularize these two retting technologies. Dr. Dey suggested for developing a network project involving KVKs, ICAR Institutes

and Line Department with sufficient funding and manpower for bigger impact. Dr. P. K. Singh highlighted various on going programmes of GoI as well as upcoming ventures like Agri Stack, geo-tagging, remote sensing technologies like Solace Agriculture Satellite and others for better monitoring and benefit of large number of farmers. He also advocated for direct bank transfer of money under various scheme involving farmers as beneficiaries. Dr. Singh emphasised on switching of frontline demonstration location for better outcome of frontline demonstration. Dr. N. Kumar urged the need to work in convergence mode by conducting training and other capacity building programmes.



### *Interactive meeting on soil health organized*

One day interactive meeting on Soil Health for Eastern Region and Way forward was organized at ICAR-ATARI Kolkata on 05.05.2023 under the Chairmanship of Dr. P. Dey, Director, ATARI Kolkata. Dr. A. K. Patra, Emeritus Scientist and Former Director, ICAR-IISS, Bhopal was the Key speaker in the meeting. Scientists from ATARI Kolkata, SSH from KVKs and other staff of ATARI Kolkata were also present. In the meeting, the



soil status of Eastern Region, its problem, efficiency and the way forward for its improvements was discussed in details among the participants.

### *Interactive meeting-cum-focused group discussion organised*

ICAR-ATARI Kolkata and ICAR-NAARM, Hyderabad jointly organized an interactive meeting-cum-focused group discussion to enhance the efficiency of KVK and ATMA in extension delivery on 09.05.2023 under the Chairmanship of Dr. P. Dey, Director, ATARI Kolkata. The workshop was attended by Dr. P. Venkatesan, Pr. Scientist, ICAR-NAARM, Hyderabad and representative of MANAGE; Dr. K. C. Dhara, DDR, Extension and Farms, WBAUAFS, Belgachia; Dr. P. P. Pal, Dr. A. Haldar, Dr. S. K. Mondal, Dr. F. H. Rahman, Dr. K. S. Das, Pr. Scientists of ATARI Kolkata; SSHs/SMSs of 9 selected KVKs of West Bengal and all the technical staff of ATARI Kolkata.

After formal welcome address by Dr. P. P. Pal, he focused on different extension mechanisms to strengthen KVK and ATMA linkage to achieve the desired level of convergence. Dr. Dey, the Chairman of the programme, laid emphasis on organising an activation workshop for chalking out activities of ATMA and KVKs to align common goals and objectives. Also a tactical convergence based cross-promotion model was proposed by him at ATMA-KVK level for mutual benefit and benefits to farmers. Dr. P. Venkatesan emphasized on the convergence of ATMA-KVK at the grass root level. He focused on strengthening of SMS, reframing of KVK and all mandate of KVK as well as on reviving of KVKs to achieve the desired level of performance. In his words, convergence is not



just fund transfer and actions undertaken but it is actually related to the value chain convergence. A group exercise was organised by dividing the participating KVKs in two groups to decipher the level of convergence. Finally, consolidated feedback was handed over to Dr. Venkatesan.

### *Workshop for development of Chotanagpur plateau region organized*

ICAR-ATARI Kolkata organised a Workshop on 'Implementable technologies for Chotanagpur plateau region of Eastern India' at Kalyan KVK, Purulia on 22.05.2023. Chief Guest of the Workshop Dr. H. Pathak, Hon'ble Secretary DARE and DG, ICAR, New Delhi told that Chotanagpur region requires farming/production systems which are suited to different toposequences in sloppy terrain. He called for



convergence and coordination of various agencies for development Chotanagpur region including State Departments, ICAR Institutes, SAUs, KVKs, Financial Institutions, NGOs, and FPOs. He suggested for integrated farming system with crop, horticulture, animal, fisheries and agri-enterprise for improving farm income with reduced water and carbon foot print.

Dr. P. Dey, Director, ATARI Kolkata and convener of Workshop mentioned that Chotanagpur Plateau region is a geo-historically unique region which is dominated tribal population with diverse agricultural activities. He stressed

that the outcome of this workshop will help in identification and assemblage of doable technologies for conservation of soil fertility, efficient use of water and genetic diversity which will further improve the agricultural production and uplift the livelihood of the farming community as a whole.



The ceremony was attended by about 130 participants from Jharkhand, Odisha and West Bengal including scientists of ICAR Institutes, SAUs, KVKs, officials of line departments and progressive farmers. A panel discussion was also held to focus on the technologies that could be used for overall development of the region. A newly developed heat resistant and highly immunogenic vaccine was released during the occasion. The live attenuated thermostable lentogenic strain ND vaccine does not need the strict maintenance of cold chain facilities, enabling it to be transported to remote village areas for vaccination of the backyard poultry birds. Several publications in local languages for the benefit of farmers were also released. During the occasion, an exhibition



was also organized where various low-cost farm machineries which were being disseminated by Purulia KVK were displayed for the benefit of functionaries of FPOs and famers.

### *Annual Zonal Workshop 2023 of ATARI Kolkata organized*

Annual Zonal Workshop for 59 KVKs under ATARI Kolkata was organized by this office in collaboration with UBKV-KVK Kalimpong w.e.f. 07-09.06.2023 at Kalimpong, West Bengal. The KVKs of A & N Islands (3), Odisha (33) and West Bengal (23) participated and presented their progress report (2022-23) and action plan (2023-24). Sri R. S. Lepcha, Hon'ble MLA, Kalimpong, the Chief Guest of inaugural ceremony hoped that the discussions held during the workshop would help in solving the issues in agriculture and allied sectors. He expressed his concern over the rising population and at the same time, he appreciated the efforts of scientists in making



our country self-sufficient in food. Dr. U. S. Gautam, DDG (AE), ICAR, while appreciating the contribution of KVKs at National level, stressed upon the necessities of strengthening KVKs as 'Single Window Delivery System' or 'One Stop Solution'. He emphasized on the convergence of KVKs with different Ministries/Departments and mentioned about some unique new initiatives to be taken in future and also informed the house that the ICAR would be in process of taking



up necessary steps for staff welfare of KVKs across the country. In the break out session, mentioned about the need for taking up in house research project by ATARs. Dr. S. K. Chakrabarti, Ex-VC, UBKV appreciated the unique review system of KVKs. He mentioned that KVKs immensely contributed toward food and nutritional security of the nation. Dr. P. Dey, Director, ATARI Kolkata mentioned that about 20 flagship projects were



being operated by this ATARI and presented the salient achievements of those projects. He emphasized that during the 'Amrit Kaal', there was a need to transform KVKs to serve as a catalyst and convergence hub for Indian agriculture in order to achieve the Nation's aspirations by 2047. Dr. S. S. Singh, DEE, RLBCAU, Jhansi and Ex-Director, ATARI Kolkata requested KVKs to give emphasis on the infrastructure development from different funding sources other than ICAR. He urged upon the KVKs of this zone to focus on expansion of area under floriculture, enhancement of oilseed production, precision farming, capacity building etc. Dr. S. P. Das, Director, NRC on Orchid, Sikkim mentioned about the MoU signed between ATARI Kolkata and NRC on Orchid for promotion of orchid farming in the region. He emphasized specifically for promotion of orchids in plains. Six KVKs of West Bengal were identified for intensifying their works on orchid cultivation. Dr.

H. K. Senapati, Chairman, ZMC, NICRA stated that KVK could be a platform for education, research and extension. The KVK scientists are continuously working for social and economic upliftment of the farming community of the country.

Twenty four publications of ATARI Kolkata and different KVKs were released and two MoUs were signed during the occasion. After the inauguration, the KVKs presented their achievements (2022-23) and action plan (2023-24) in three concurrent technical sessions and the reports of all Technical Sessions were presented in the Valedictory Session. A total of about 140 persons including MLA, DDG (AE), ADG (AE), Vice-Chancellor, Directors of different ICAR institutes, DEEs of SAUs, Pr. Scientists (AE) and ATARI Kolkata, Scientists from RRS of ICAR and UBKV, SSHs and SMSs of KVKs, staff of UBKV-KVKs and many others attended the workshop.



### **Field visit of horticulture-based integrated farming conducted**

One visit related to horticulture-based integrated farming of Shri A. Chetri, resident of Village- Sangsey, Block- Algarah-II, District-



Kalimpong, West Bengal which was spread over 2.4 ha of hilly terrain land was made on 09.06.2023. The project has been funded by NABARD. Shri. Chetri applied many innovative ideas to fetch an annual net return of Rs. 8.78 lakhs from that land with a resource use efficiency of Rs. 3.40 per rupee invested. Shri Chetri maximized income from spices cultivation, particularly large cardamom, dalle chilli, coriander and ginger. Shri Anand has integrated cattle, goats and poultry birds to keep flow of the bio-economic circularity of his farm resources costing Rs.36500/- round the year.



### **Workshop of CSISA organized**

A workshop on convergence platform of CSISA was jointly organized by ICAR-ATARI Kolkata, CSISA, Bhubaneswar and Dean, Ext. Education, OUAT at Bhubaneswar on 16.06.2023. The aim of the workshop was to converge towards common goal of bridging the yield gaps and to develop a consensus in promoting demand driven research and extension within Odisha and West Bengal. Dr. A. K. Padhee, IAS, Pr. Secretary, DAFE, Govt. of Odisha and the Chief Guest of the programme pointed out the needs for sharing and exchanging of training materials with Government Department and other extension agencies on assessment and mutual interest in *kharif* season. Prof. P. K. Roul, VC, OUAT and Chairman of the session appreciated the



convergence among all the stakeholders for a better agriculture in Odisha and West Bengal. He advocated to conduct OFTs and on farm research on maize in selected districts of Odisha for its replication in the entire state/region. Dr. P. Dey, Director, ATARI Kolkata and Convener emphasized that the synergy between policy makers, researchers and field functionaries is essential for inclusion of suitable technology in Govt. policies. Joint efforts were being proposed through creation of network of all partners including ICAR institutes through ATARIs, SAUs, KVKs and public as well as



private sector-based input sector for evidence-based data generation in selected districts. Dr. R. K. Malik, Country Coordinator, CSISA-CIMMYT told that this model has been piloted in three states including UP, Bihar and Odisha.

He suggested for joint evaluation of technologies in few districts before releasing based on the consensus of joint demonstrations.

### ***NABARD funded project on integrated farming concluded***

The project completion-cum-convergence workshop of NABARD funded project entitled 'Formulation of Area Development Schemes and Development of Area-specific Software Template for Model Integrated Farming across Six Agro-climatic Regions of West Bengal' was organized at ATARI Kolkata on 30.06.2023. The Chief Guest, Dr. J.K. Ray, IAS, Secretary, PSC, Arunachal Pradesh in his address suggested to connect agripreneurs with integrated farming system and mapping of infrastructure to identify the deficiency. He also suggested to upload different bankable project templates of IFS model in ATARI Kolkata website so that farmers could opt for suitable model according to their convenience. Dr. P. Dey, Director of the institute depicted the significance of IFS towards circular economy and ecosystem services. The Guest of Honour Shri P. Sengupta, Director and Ex-officio Secretary, Department of Agriculture,

GoWB, emphasized on formation of FPC to facilitate group activities as well as the marketing for the farmers for facilitating IFS. Dr. A. Haldar, Pr. Scientist and PI of the project, delivered a presentation on the initiation, fund allocation, objectives, area covered, activities, results and achievements of the project in a comprehensive manner. The meeting was attended by Dr. S.N. Mandal, Asst. Professor, Kalyani Govt. Engineering College and Co-PI of the project; Mr. S. Priyadarshi, Asst. Manager, NABARD, Kolkata; Dr. D. B. Shakyawar, Director, ICAR-NINFET; Dr. G. Kar, Director, ICAR-CRIJAF, Barrackpore and Shri J. K. Aikat, Commissioner, Department of Food Processing Industries and Horticulture, GoWB; scientists, SRFs, YP-Is, DEOs and other staff of ATARI Kolkata.



## **Important meetings/workshops/symposia etc. attended by scientists/ staff**

<i>Sl. No.</i>	<i>Name of the programme(s)</i>	<i>No. of scientist(s)/ staff attended</i>
1	Scientific advisory committee (SAC) meeting of KVKs	6
2	Online and offline review meetings/ workshops of various schemes/ projects of ICAR-ATARI Kolkata	10
3	Selection committee meeting as Chairman/Member for selecting SRF/YP-I/Project Assistants of FFP/ARYA/NEMA/NABARD funded projects at ICAR-ATARI Kolkata	10

<i>Sl. No.</i>	<i>Name of the programme(s)</i>	<i>No. of scientist(s)/ staff attended</i>
4	Online and offline meeting of Director and other staff ATARI Kolkata with DG, DDG (AE), ADGs, Pr. Scientists and other administrative staff of the Council on financial, administrative and other various issues	8
5	Online meeting with PIs/CO-PIs/SSHs of KVKs of different network projects	6
6	Review meeting with PIs/CO-PIs of different Institute projects	4
7	Meeting with Director, ICAR-ATARI Kolkata on various issues	12
8	Attended DDG's Online meeting on 'Mann Ki Baat' organized by SMD (Agri Ext), ICAR, New Delhi	6
9	Organized Annual Zonal Workshop 2023 of KVKs of Zone V at Kalimpong organized by ATARI Kolkata	10
10	Attended a workshop on Fuzzy Logic Cognitive Mapping of the farmers on Dairy Farming organized by ERS, NDRI, Kalyani	2
11	Attended Online PM Kisan Samman Nidhi Program organized by PMO	10
12	Attended meetings as an Expert Committee Member organized by various other institutes/ KVKs for promotion of personnel/ award of degree/ IRC / selection of manpower in KVKs etc.	5
13	Online and offline meeting with DDG/ADGs/Pr. Scientists/ Under Secretaries of AE (Ext.), ICAR, New Delhi and Director/ Pr. Scientists/ AAO/AFAO/others on fund utilization, progress of schemes/projects and other administrative issues	10
14	Other meetings on various issues	10

## Distinguished visitors at ATARI Kolkata

- ✦ Dr. P. K. Singh, Agriculture Commissioner, GoI
- ✦ Dr. N. Kumar, Director, Directorate of Jute Development, GoI
- ✦ Shri J. Das, JD, Directorate of Jute Development, GoI
- ✦ Dr. A. K. Patra, Emeritus Scientist and Former Director, ICAR-IISS, Bhopal
- ✦ Dr. S. P. Das, Director, ICAR-NRC for Orchid, Sikkim
- ✦ Dr. P. Venkatesan, Pr. Scientist, ICAR-NAARM, Hyderabad
- ✦ Dr. J. K. Roy, IAS, Secretary, PSC, Arunachal Pradesh



- ✦ Dr. S. Gupta, IAS, Joint Secretary, GoWB
- ✦ Dr. P. Sengupta, Director, Agriculture, GoWB and Ex-Officio Secretary
- ✦ Dr. R. Mondal, Jt. Director, ARAH, GoWB
- ✦ Dr. Y. Tamang, Director, DAR&AH, GoWB
- ✦ Mr. S. Priyadarshi, AM, NABARD, Kolkata

## Publications

### Research articles

Das S and Pal PP. 2023. Assessment of entrepreneurship development through attracting and retaining youth in agriculture (ARYA). *Biological Forum- An International Journal*, 14. (Accepted).

Das S, Ghosh B, Ghosh S, Pal PP and Dey P. 2023. Critical factors affecting *rabi* groundnut (*Arachis hypogaea*) yield in different agro-ecological zones of eastern India. *Agroecology and Sustainable Food System* (Submitted).

Ghosh B, Das S, Ghosh S and Pal PP. 2023. Appraisal of cluster frontline demonstration on groundnut (*Arachis hypogaea*) in West Bengal and Odisha. *Journal of Community Mobilization and Sustainable Development* **18**(2): 1-11.

Goyal V, Bhardwaj KK and Dey P. 2023. Refinement of Fertilizer Prescriptions Equations of Bt. Cotton Hybrids under Integrated Plant Nutrient Supply in Semi-Arid Inceptisols of Haryana. *Journal of the Indian Society of Soil Science* **71**(1): 87-98.

Krishna Murthy R, Basavaraja PK, Bhavya N, Dey P, Saqueebulla HM, Gangamurtha GV and Venkata Shiva Reddy JS. 2023. Development and validation of soil test

based fertilizer prescription equations for enhancing yield, uptake and nutrient use efficiency of foxtail millet (*Setaria italica*) under dryland condition. *Journal of Plant Nutrition* (DOI: 10.1080/01904167.2023.2188065).

Pal P, Aggarwal A, Rajput YS, Deb R, Joshi VG, Verma AK, Haldar A, Singh I, Grewal S, De S. 2023. Development of B cell epitopes-based enzyme linked immune sorbent assay for detection of bovine anti-Mullerian hormone. *3 Biotech* **13**:241. (<https://doi.org/10.1007/s13205-023-03622-y>).

Sarkar B, Saha N, Mukherjee S, Basak JS, Dutta S, Dey D and Dey P. 2023. Selection of an extraction method suitable for estimating potentially available phosphorus under the organic production system of new alluvial zone of the lower gangetic plain of India. *Journal of Soil Science and Plant Nutrition* (<https://doi.org/10.1007/s42729-023-01193-8>).

Shrivastav A, Srivastava A, Pachauri SP, Singh V, Bhatnagar A, Bahadur R and Dey P. 2023. Comparing distinct soil test methods for available nitrogen, phosphorus and potassium for groundnut (*Arachis hypogaea*

L.) and wheat (*Triticum aestivum* L.) grown in North Western India. *Annals of Plant and Soil Research* **25** (1): 18-30. (<https://doi.org/10.47815/aprs.2023.10231>).

### Technical bulletins

Das KS, Mondal SK, Roy SK, Pal PP, Haldar A and Rahman FH. 2023. ATARI Kolkata News. Published by the Director, ICAR-ATARI Kolkata, Vol 6, No. 2, pp:1-12.

### News items published in ICAR, KVK Portal and ATARI Kolkata website

- 'Review Workshop-cum-Monitoring Field Visit of Farmer FIRST Programme (FFP)'
- 'Golden Jubilee Celebration of KVKs'
- 'Interactive Workshop-cum-Capacity Development Programme on Attracting and Retaining Youth in Agriculture (ARYA)'
- 'Secretary, DARE & DG, ICAR visited North Bengal on the occasion of celebration of Golden Jubilee Year of KVKs and International Year of Millet 2023'
- 'Secretary (DARE) & Director General (ICAR) visited an entrepreneurial mushroom unit of a young engineer guided by Cooch Behar KVK'
- 'High level FPOs-FPCs-Farmers' Meet Chaired by the Hon'ble Secretary, DARE & DG, ICAR'

- 'Interactive meeting on Extension approaches towards Natural Fibres in West Bengal organised'
- 'World Intellectual Property Day 2023'
- 'Hon'ble Secretary DARE and DG, ICAR inaugurated Natural Farming Demonstration Unit at Kalyan KVK'
- 'Annual Zonal Workshop 2023 of KVKs under ICAR-ATARI Kolkata organized at UBKV-KVK Kalimpong, West Bengal'
- 'ICAR-ATARI Kolkata organized NICRA Field visit at Paiyong Busty, Kalimpong'
- 'Workshop on Convergence Platform of CSISA organized jointly by ICAR-ATARI Kolkata and OUAT Bhubaneswar'
- 'Project Completion - cum - Convergence Workshop on Integrated Farming System'

## Recognition

Dr. S. K. Mondal, Pr. Scientist of this office was awarded Certificate of Excellence in Reviewing for Asian Journal of Extension, Economics and Sociology; and International Journal of Environment and Climate Change.

## Personalia

### Joining

Dr. P. Dey, Pr. Scientist and Project Coordinator, STCR joined as Director of this Institute on 06.03.2023 (Morning).



### Relieving

Dr. F. H. Rahman, Pr. Scientist has been relieved from this Institute on 22.06.2023 (Evening) to join his new assignment as Head, NBSS&LUP, Kolkata Centre.

Dr. S. K. Roy, Pr. Scientist has been relieved from this Institute on 14.03.2023 (Evening) to join his new assignment as Director, ICAR-ATARI, Pune.



A PDF version of the Newsletter is also available at: <http://www.atarikolkata.org/publications>

### ATARI Kolkata News

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Bhumi Vihar Complex, Block-GB, Sector- III, Salt Lake, Kolkata- 700097 (W. B.)

Tele-fax: +913323352355, E-mail: [atarikolkata@gmail.com](mailto:atarikolkata@gmail.com), Website: [www.atarikolkata.org](http://www.atarikolkata.org)



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