

REFLECTION

ANNUAL REPORT

(April 2016 - March 2017)



**Agricultural Training Centre
&**

State Agricultural Management & Extension Training Institute (SAMETI)

**RAMAKRISHNA MISSION ASHRAMA
NARENDRAPUR, KOLKATA 700103**

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Foreword

Agriculture is an ever-changing subject. From the nomadic age to the age of present, the huge development in agriculture actually represents the evolution of civilisation of human being. At the same time it is also true that the pace of change with the flow of time was not homogeneous throughout the world. The huge population of the world, the countries like India in particular, is now a big challenge to the agricultural scientist, technologist and also the policy-makers. India has tremendous potential with its wide variation in climate, soil, vegetation and above all the traditional knowledge. The synergy of the modern science and technology along with traditional knowledge and wide bio-diversity may perhaps lift the country to its lost glory.



The Agricultural Training Centre is one of the oldest and important institutions of our Ashrama and obviously of the state also. For more than 50 years, it has been showing path towards further development to the agricultural community of the state. For its sincere and dedicated work, the Government also expect much from it. After establishment of the State Agricultural Management and Extension Training Institute (SAMETI) with the same body, its responsibility towards the development of farm and overall agriculture has increased to a great extent. At present, along with directly serving the farmers, the institute is providing human resource development efforts to the extension functionaries of allied sectors like Animal Resource Development, Fisheries, Horticulture and Agricultural Marketing etc. along with the Agricultural sector. Bridging knowledge gap of large number of input dealers who are basically providing the first hand agricultural advisory to more than 70 lakhs farm families of the state, becomes one of the primary tasks. Strengthening agriculturally educated rural youths towards agricultural enterprises by this institute, has already created enthusiasm in rural areas. Farmers are also being benefitted through other different extension services, which are reflected by the visits of large number of farmers and other agricultural stake holders on regular basis to the institute.

This sincere and dedicated service with only modest resources is only possible as there is inspiration of Swami Vivekananda and blessings of Sri Sri Ramakrishna and Holy Mother Sri Saradadevi. I pray to the Holy trio to shower their blessings towards the staff members of the institute for more hard sincere work for the cause of further development of the agricultural community of the state.

Swami Sarvalokananda

Secretary

Preamble

More than 50 years ago on 20th January the presently Agricultural Training Centre (ATC) and the State Agricultural Management & Extension Training Institute (SAMETI) under Ramakrishna Mission Ashrama, Narendrapur started its journey with the name 'Gram Sevak Training Centre' with the holy blessings of Swami Vireshwaranandaji Maharaj, the then President of Ramakrishna Math and Ramakrishna Mission. Starting with a few trainees and few villages for extension work, it gradually extended its responsibility in depth and spread based on the hard and sincere work of the faculties and staff members of the institute with the ideology of Sri Ramakrishna and in the path laid down by Swami Vivekananda.

The role of human resource development is the most important factor for any development anywhere. Mere materials cannot cause development, if the capacity of the client is not developed properly. India is endowed with physical and intellectual resources with a tremendous potentiality to lead the World. Unfortunately, many of the wealth is improperly used, underused and even wasted to a large extent due to the lack of awareness, attitude, skill and knowledge development of the client.

In 2005 both the Govt. of India and Govt. of West Bengal nominated the Agricultural Training Centre, Narendrapur as State Agricultural Management & Extension Training Institute (SAMETI) with wider and greater responsibilities. At present along with Department of Agriculture, the other Departments related to Horticulture, Food Processing, Animal Resource Development, Fishery, Marketing etc. are also to serve by this institute.

Our ATC and SAMETI is meant for providing the awareness, developing attitude, upgrading skill and knowledge for the clients with the aim of transferring the resources in to the wealth for the development of agriculture and the farming community. During the reporting period (April, 2016-March, 2017) our institute has conducted 89 on-station programme with the participation of 4255 extension functionaries, entrepreneurs, para-extension workers (including agri-input dealers), SHG/ FIG leaders, Cooperative members and progressive farmers from different departments of the Governments, NGOs, Private sectors, Cooperative Societies/ Farmer Producing Organisations etc. All total 38466 trainee-days has been covered. Along with these programme, several field training programme, farmers exposure visit, running of extension projects, evaluation programme, organization and participation in agricultural exhibition/ Kisan mela, soil testing etc. were also important functions. Demonstration of technologies, conduction of trials, quality seed production etc. in farms supported the over all human resource development activities.

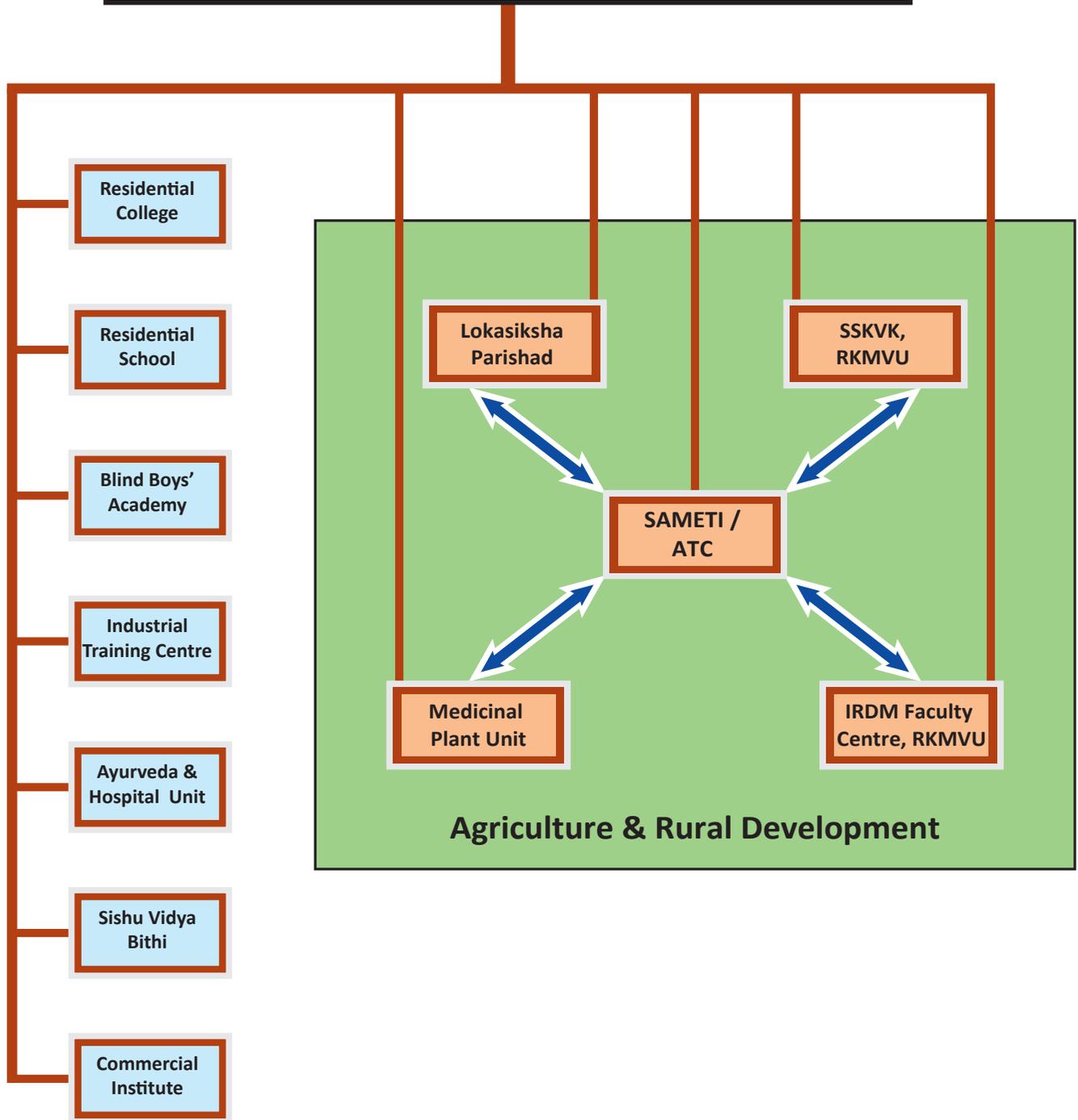
For performing all these responsibilities satisfactorily, the most important factor is our enriched, updated and dedicated human resource. The atmosphere of the Ashrama plays important role to remain the people disciplined, spirited and in knowledge-receiving attitude. Co-ordinating mechanism among the institutes of the Ashrama, particularly, the complementary role in maximizing utility of resources and experiences of other rural development units like Faculty Centre for Integrated Rural Development & Management, Lokasiksha Parishad, Shasya Shyamala Krishi Vigyan Kendra (SSKVK) etc. is important. Endless support from different Government Departments, Institutes, Universities and

other agencies are definitely very vital for the success of the institute. Above all expectations of the general mass particularly the farming community always pushes the institute to go for further better performance. We pay our gratitude and respect to all these personnel and organizations for their support for this developmental endeavor for the state and so for the nation.

There is no end of development as the degree and nature of need of the general mass, particularly the agrarian community which face every day with new challenges, is also changing. The institute, to which expectations are enormous, has to be well conscious about that demand and so be equipped. We expect that the institute will be able to meet the challenges being in reality with the supports from the Government, other developmental organization, general masses and above all with the inspirations and blessings of Sri Ramakrishna, Ma Sarada Devi and Swami Vivekananda.

Manas Ghosh
Principal & Director

Ramakrishna Mission Ashrama, Narendrapur



Introduction

“Let the New India comes out of the Huts of the Peasants, from the tip of the plough....” was uttered by Swami Vivekananda more than 100 years ago. To fulfil the mission, envisaged by Swamiji, more than 180 branch centers are working in India and abroad. Ramakrishna Mission Ashrama, Narendrapur is one of the prominent branch centres, under the Head Quarter Belur Math, well-known for its dedicated services for its excellence in education and also for rural and agricultural development activities in rural Bengal. During mid 1950s, the area of the present Ashrama, was named ‘Narendrapur’ according to the name of Swamiji ‘Naren’. The city of Calcutta was far away from the place of the place and the monks and dedicated workers of the Ashrama started their works for agricultural development in the surrounding villages. Now hardly any village is found around Narendrapur but its main thrust of agriculture and rural development remain same by spreading its mission in large number of villages, lying all over West Bengal.

During early 1960s, a village fair, centering live demonstration on different agricultural technologies, organized by the Ashrama every year, was the cause of attraction to the State Agricultural authorities. As a consequence of the success of that type of agricultural activities and understanding the capabilities of the Ashrama of motivating agricultural communities, the then Department of Agriculture and Community Development offered one training Centre (Gram Sevak Training Centre) to the Ramakrishna Mission Ashrama, Narendrapur in the year 1965 for the training of the ‘Gram Sevaks’, the extension workers at Panchyat and village level for agriculture and rural development.

Influenced by dedicated and quality service by the GSTC of the Ashrama and seeing the potentiality of that centre, the Government extended all sorts of facilities and also upgraded the centre time to time as of the other centre (GSTC) of Government. In the era of intensive agricultural programme, that Gram Sevak Training Centre, with specific agricultural development emphasis, was transformed to the Agricultural Training Centre (ATC) during the 1980s. Along with the Training of the Krishi Prayukti Sahayak (KPS) for their long duration Pre and In-Service training, the centre was later empowered for training of the village youths on ‘Farm machineries and Implements’. With the demand of the situation, the centre later on supported the farmers directly by pertaining different training for better implementation of advanced agricultural technologies. As part of the service of the Ramakrishna Mission, the centre started implementation of different agricultural extension services and implementation of different rural development programmes.

With the start of the new Millennium, the scenario in Indian agriculture changed with a tremendous speed. Justifiably Govt. ventured for reforms in the extension of agriculture also. To bear the crucial task of change of attitude, knowledge and skill of the extension functionaries of all sectors related to Agriculture, Govt. nominated the Agricultural Training Centre, Narendrapur as the ‘State Agricultural Management and Extension Training Institute (SAMETI)’ under Ramakrishna Mission Ashrama, Narendrapur in 2005. Since then crucial development in the mode of delivery of the ATMA scheme occurred with relevant revision and updatation in 2007, 2010 and again in 2014.

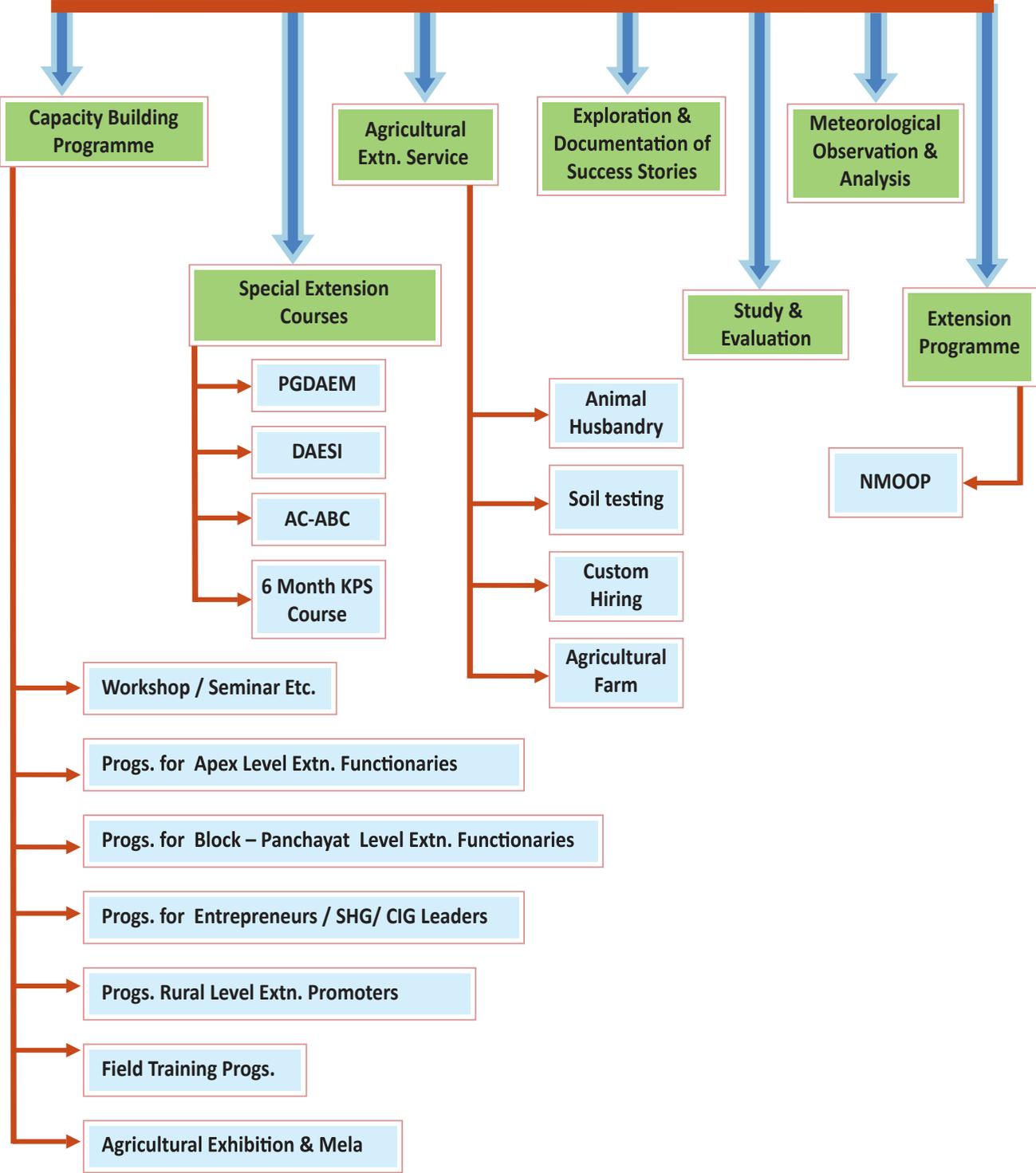
At present the Institute, is the place of resource of every level of clients in the sector of development in agriculture and allied sectors for the state.

The Institute has kept its pace with the change and evolution of Indian Agriculture and at present it is providing crucial supports to all levels viz. national, state, district and rural agricultural clients. In one side it is practicing the advanced and innovative farm technologies and gaining experience about their management. On the other hand it is regularly interacting with farmers while delivering the technologies and implementing agricultural – rural development programmes. The faculties are in interactions with the extension functionaries of the state and receiving their regular views to set the need of HRD of the state. They are also receiving inputs through different courses in national level institutes to address the needs of the state. These opportunity of multifarious receiving, analysis and delivery makes the institute unique to bridge the reality of rural India with the desired intension of the policy makers of Indian Agricultural Development.

The ATC/SAMETI is an integral part of the Ramakrishna Mission Ashrama, Narendrapur with the wholehearted support from the State and Central Govt. The atmosphere of the Ashrama imbibes the sincerity and devotion within the learner. The advantages of multi academic institutes within the same campus exerts a synergistic effect. Resources sharing among the agriculture and rural development oriented institutes strengthens the delivery.

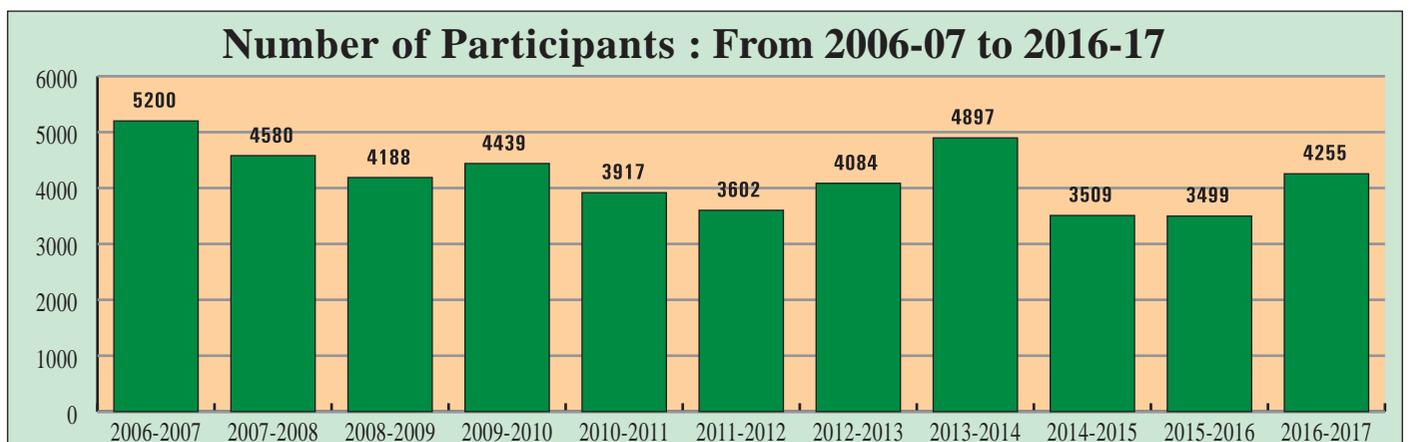
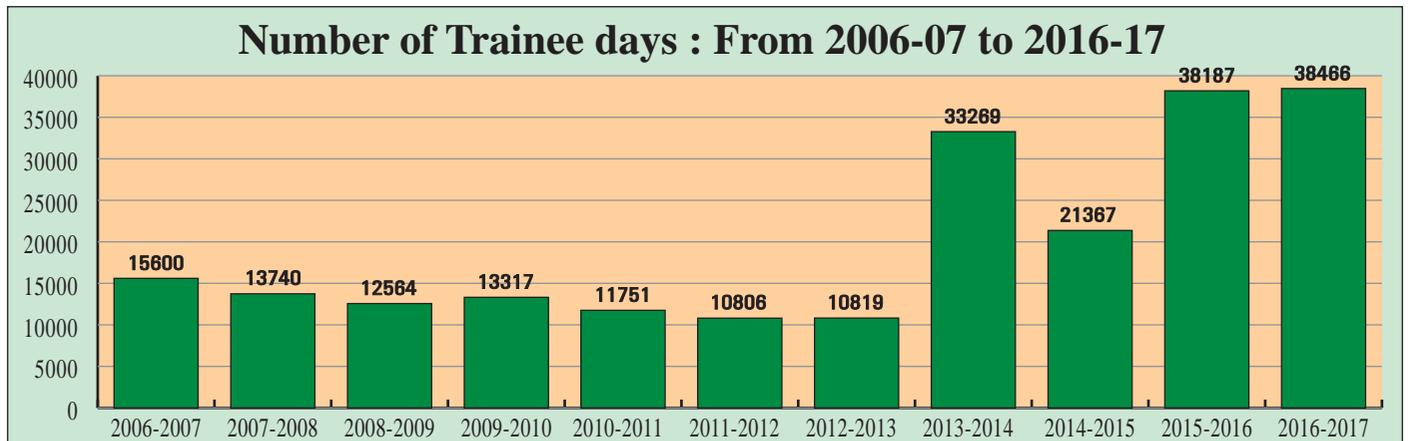
At present the Agricultural Training Centre and SAMETI are in an unique combination for the purpose of human resource development in Agricultural sector. In one side it is continuing to cater the need of training directly to the farmers for their better livelihood and also training to the all levels of extension functionaries. On other side, the institute becomes prominent in promotion of Agri-entrepreneurship for rural youth along with providing academic support in the sector of extension and management through postgraduate and under graduate diploma. The whole report in basically a ‘reflexion’ of all these varieties of activities of 2016-17 for the service of farmers, farming community and overall agriculture of the state.

SAMETI / ATC



Performance of the Institute (2006-07 TO 2016-17)

| Year | No. of Programmes | No. of Participants | No. of Trainee days |
|-----------|-------------------|---------------------|---------------------|
| 2006-2007 | 106 | 5200 | 15600 |
| 2007-2008 | 101 | 4580 | 13740 |
| 2008-2009 | 123 | 4188 | 12564 |
| 2009-2010 | 141 | 4439 | 13317 |
| 2010-2011 | 137 | 3917 | 11751 |
| 2011-2012 | 102 | 3602 | 10806 |
| 2012-2013 | 104 | 4084 | 10819 |
| 2013-2014 | 118 | 4897 | 33269 |
| 2014-2015 | 137 | 3509 | 21367 |
| 2015-2016 | 76 | 3499 | 38187 |
| 2016-2017 | 89 | 4255 | 38466 |



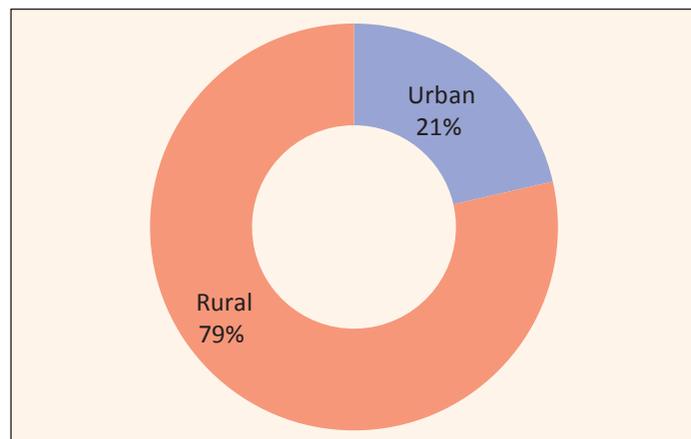
I CAPACITY BUILDING PROGRAMME

The main focus of the State Agricultural Management and Extension Training Institute (SAMETI) along with the Agricultural Training Centre of Ramakrishna Mission Ashrama, Narendrapur, is to cater the Human Resource Development so far agriculture is concerned. The institute is performing HRD through seminar, workshop, different level of training courses for different levels of extension functionaries, in close co-ordination with the different departments of state government and others. The total capacity building programme organized in this financial year, 2016-17, has been classified into five broad sub-sections as follows:

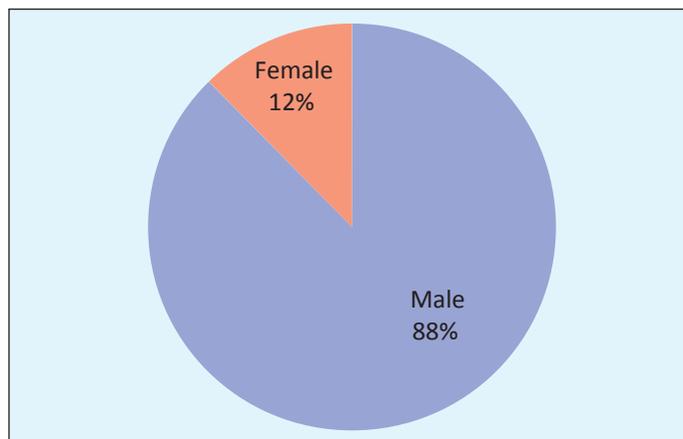
- A. Workshop / Seminar etc.**
- B. Training Programmes for District / Block Level Extension Functionaries**
- C. Training for Grass Root Level Extension Workers, Rural Entrepreneurs, Group Leaders etc.**
- D. Training for Progressive and Demonstrator Farmers & Exposure Visit**
- E. Special Programmes: Agricultural Exhibition & Agricultural Fair**

| Sl. No. | Target Group | No. of course / Programmes. | No. of Participants | No. of Trainee days |
|---------|--|-----------------------------|---------------------|---------------------|
| 1 | Seminar / Workshop | 13 | 1167 | 1167 |
| 2 | Training for district / block level extension functionaries | 30 | 1283 | 5820 |
| 3 | Training for grass root level extension workers, rural entrepreneurs, group leaders etc. | 26 | 1022 | 28083 |
| 4 | Training for progressive and demonstrator farmers | 18 | 783 | 3396 |
| 5 | Special Programmes. | 2 | | |
| | Total | 89 | 4255 | 38466 |

Total Participants in various programmes in 2016-17



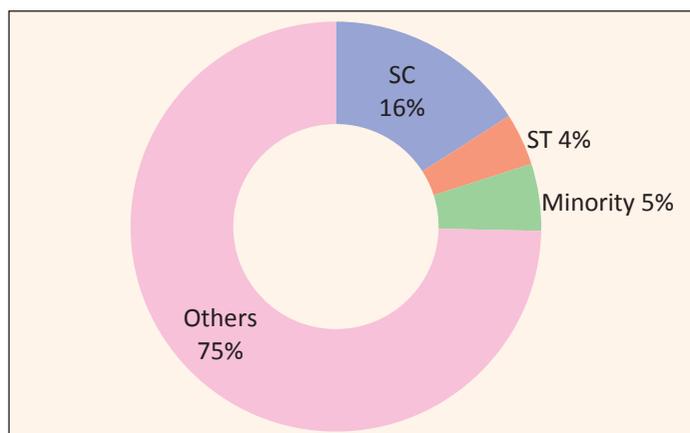
Share of Rural-Urban Participants in 2016-17



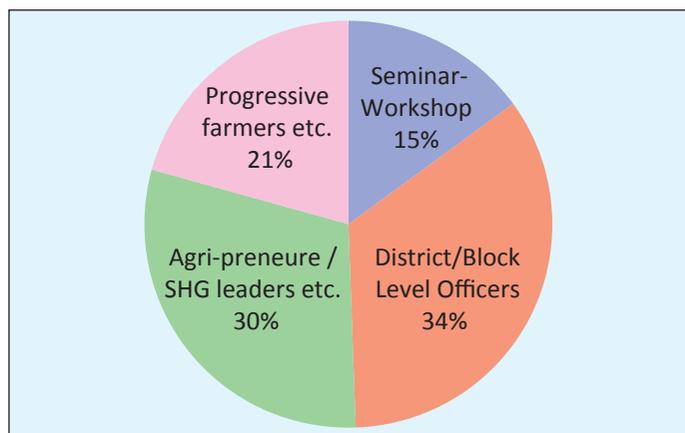
Share of Male-Female in 2016-17

“As long as I live, so long do I learn.”

– Sri Ramakrishna



Share of SC-ST-Minority-Others in 2016 - 17



Share of different programme categories in 2016 - 17

A. Workshop / Seminar etc.

During the reporting period the institutes organised several seminars – workshops for different levels of participants. Some of them are State Level Review Workshop of ‘Diploma on Agriculture Extension Service for the Input dealers (DAESI)’ Programme, Seminar on Land Use Planning & Future Agriculture, ATMA Review Workshop, ATMA-KVK Convergence Workshop, Workshop of NGOs on Community Radio Station (CRS), Workshop on ‘Matirkatha Portal’, Workshop on ‘Preparation of training modules for skill development on agricultural technologies’, Exchange meet of Extension functionaries, Workshop of Head Masters of Vocational-Agriculture on Apprenticeship. District & block level extension officers from various departments, University faculty members, KVK representatives, NGO executives, KPS, Agri-entrepreneurs, SGH leaders, Progressive farmers etc. actively participated in these seminar-workshops to make those programmes successful. A total of 13 programmes (10 types) with 1167 participants were conducted by the institute. The details of the programmes are as follows:

| Sl. No. | Title of Training to cover the thrust area | Date | Target Group | Total |
|---------|---|------------|--|-------|
| 1. | State Level Review Workshop of ‘Diploma on Agriculture Extension Service for the Input dealers (DAESI)’ Programme | 27.10.2016 | KVK, State- and district level officers, dealers | 240 |
| 2. | Seminar on Land Use Planning & Future Agriculture | 21.01.2017 | Extension Functionary, NGO Executive, University Student & Scholar, Prog. Farmer | 113 |
| 3. | ATMA Review Workshop | 08.08.2016 | Project Directors, Deputy Project Directors | 75 |
| 4. | ATMA-KVK Convergence Workshop | 26.08.2016 | KVK persons | 31 |
| 5. | Workshop of NGOs on Community Radio Station (CRS) | 13.09.2016 | NGO & Govt. Representative | 33 |

“I tell you one thing - if you want peace of mind, don not fault with others.”

– Sarada Devi

| Sl. No. | Title of Training to cover the thrust area | Date | Target Group | Total |
|----------------------|--|--|---|-------------|
| 6. | Workshop on 'Matirkatha Portal' | 05.10.2016 | State level Officers, KVK, SAMETI | 25 |
| 7. | Workshop on 'Preparation of training modules for skill development on agricultural technologies' | 8-11.11.2016 | BLEF / DLEF | 32 |
| 8. | Exchange meet of Extension functionaries | 22.01.2017 | Extension Functionary | 116 |
| 9. | Workshop of Head Masters of Vocational-Agriculture on Apprenticeship | 04.11.2016 | Head Masters of Voc-Ag of Paschim & Purba Medinipur, North-24 Pgs | 45 |
| 10. | Workshop on 'Soil sample collection in relation to the Universalisation of Soil Health Card Scheme (USHC)' | 25 .04.2016, 27.04.2016, 28.04.2016, 06.05.2016 | NGO Executive and Rural Youth, AC-ABC trainees | 457 |
| 13 Programmes | | | | 1167 |

A1. State Level Review Workshop of 'Diploma on Agriculture Extension Service for the Input Dealers (DAESI) Programme

Since 2013-14 SAMETI-West Bengal is conducting this 1-year course on 'Diploma on Agriculture Extension Service for the Input dealers (DAESI)' to bridge the knowledge of the Agri-input dealers, who are supposed to be mostly approached by the farmers. To have a discussion on the future actions to disseminate the programme, introduction of courses for the 2016-17 and to award certificates to the successful candidates of 2015-16 batches; a 1-day state level review workshop was organized at SAMETI on 27th October, 2016 with the participation of about 250 participants including input dealers, representatives of different KVKs, state level officers controlling different agri-input sections etc. The most important aspects of that programme was the presence of Mrs. V. Usha Rani, IAS, Director General, MANAGE, Hyderabad and Sri Pradip Mazumdar, Advisor to the Honourable Chief Minister on the aspects of Agriculture and allied sector, Govt. of West Bengal. Besides those, the other important dignitaries were Swami Sarvalokananda, Secretary, Ramakrishna Mission Ashrama, Narendrapur; Mrs. Madhumita Chowdhury, Agriculture Commissioner, Dept. of Agriculture, Govt. of West Bengal; Sri Jayanta Chakraborty, President, Eastern India Crop Care Association; Dr. N. Balasubramani, Deputy Director, MANAGE, Hyderabad; Dr. N. J. Moitra, Senior Scientist, Sri Ramkrishna Ashram Krishi Vigyan Kendra, Nimpith, South 24 Parganas. The Joint Director of Agriculture, Deputy Director of Agriculture –Training (HQ) and Programme Coordinators of different KVKs were also present on that occasion.



“Let New India a rise-out of the peasants’ cottage, grasping the plough; out of the huts of the fisherman, the cobbler, and the sweeper”

– Swami Vivekananda

A2. Seminar on ‘Land Use Planning for Future Agriculture’



On 21st January, 2017, on the occasion of annual celebration of the institute, a seminar was arranged on “Land Use Planning for Future Agriculture”. Dr. Manas Ghosh, Director, SAMETI put the background of the topic of the seminar. The main speakers of the seminar was Dr. D. C. Nayak , Director & Head, National Bureau of Soil Survey and Land Use Planning (NBSSLUP), ICAR Regional Centre, Kolkata, presented his view on the aspect of Land Use Planning in view of future Agriculture. He presented different data and graph received from satellite at different times depicting the changes in land use pattern in India. Dr. Koushi

Brahmachari, Professor, Department of Agronomy, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia mainly focused on the Crop Planning based on Land situation and also gave an idea what types of crops could be grown in different types of land situation with special reference to West Bengal State. Sri Rahul Marik, District Horticulture Officer, Govt. of West Bengal narrated his practical experiences about changing cropping pattern of a particular area of Nadia district in such changing scenario. More than 100 participants from different districts comprise of agricultural and horticultural technologists, extension functionaries, University faculties, scholar, students and progressive farmers participated that seminar.

A3. ATMA Review Workshop

In all the states of India, the reformed structure of Agricultural Extension in the popular name of ‘ATMA’ is going on. In West Bengal, it was started in 2005 and scaled up in all the districts in 2007. It is a decentralized structure up to block level and with the convergence of all the line departments (Agriculture and allied). Since 2005, the guideline of the ATMA Scheme had been modified several times on the basis of need felt at the time of implementation. Now in West Bengal, the system is in full operation with manpower in each block and district. A review meeting on the evaluation of progress and the planning for the next months of the year was



organized at SAMETI on 8th August, 2016. Project Directors/ Deputy Project Directors from each district and for having direct feedback from block level, one Assistant Director of Agriculture/ Block Technology Manager were called in the workshop. Discussions were held on implementation of individual activities

“I slept and dreamt that life was joy. I awoke and saw that life was service. I acted and behold, service was joy.”

– Rabindranath Tagore

(training, demonstration, farm school, group mobilization, exposure visits etc.) along with the status of fill up of vacancies, overall fund utilization; reporting, specially data entry in Electronic Review and Monitoring System (ERMS). Some of the success stories were found very encouraging and decision was taken for scaling up in other areas also. Joint Directors of Agriculture and other ATMA Cell members from the head quarters guided the participants in the workshop. Overall 75 participants from all over West Bengal participated in the workshop.

A4. KVK - ATMA Convergence Workshop

The ATMA extension system is a pluralistic approach and also targeting the convergence of Research and Extension for the ultimate benefit of the farmers. After initiation of ATMA, it is an issue of convergence of the ATMA activities along with along with the activities of KVKs (research-extension wings of ICAR) and accordingly joint guideline has also been released. Moreover, Department of Agriculture, Cooperation and Farmer Welfare, Govt. of India in recent time initiated some of the important programmes, where KVKs are supposed to play very important role. Generating awareness among the KVK persons as well as agriculture



and allied department functionaries about those new programmes and for review and monitoring of the convergence matter, a 1-day workshop was organized at SAMETI on 26th August, 2016. The Principal Scientist of ATARI, ICAR, Govt. of India; Joint Directors, Deputy Directors and Assistant Director of Agriculture of head quarters of Dept. of Agriculture, closely associate with the implementation of the ATMA Scheme and the Senior Scientists or their representative from different KVKs in West Bengal, participated in that workshop. The new schemes like ‘Skill Training for Rural Youth (STRY)’, ‘Farmers Skill Assessment and Certification (FSAC)’ and ‘Diploma in Agricultural Extension Service for the Input dealers (DAESI)’ etc. were presented and vividly discussed among the participants. On the aspects of convergence at field level activities further steps had been discussed and was emphasized to strengthen the linkage between ATMA-KVKs. A total of 29 candidates from KVKs, SAMETI and Dept. of Agriculture participated in the workshop.

A5. Workshop on ‘Community Radio Station’

After discussion in the Senior Officers’ Meeting at Nabanna, it was advised by the Additional Chief Secretary, Dept. of Agriculture that besides the Agricultural Training Centres of the state, different renowned NGOs of the state will be encouraged to apply for the establishment of Community Radio Station (CRS) under ATMA Scheme. Accordingly all the district agricultural authority was communicated to identify well established NGOs for CRS purpose. After having response from the 15 different districts, a 1-day workshop was organized to orient the executives of the interested NGOs along with the representative of the district agriculture on 13th September, 2016. The workshop started under the chairmanship of Sri J. Roy, Joint Secretary, Dept. of

“Science without religion is lame, religion without science is blind.”

– Albert Einstein

Agriculture and valuable suggestions from Sri A. Lahiri, Joint Director of Agriculture (Plan). The participants are primarily oriented with the concept of CRS followed by rules and guidelines for establishment of CRS. The eligibility, responsibility and liabilities of the NGO for CRS were crucial. Role of ATMA in guiding NGOs for CRS was also discussed. An interaction session was also held to answer the queries of the participants. Procedure of filling up of the recommended format of the Ministry of Information and Broadcasting was demonstrated. At the end of the workshop a road map for the process was formed.

A6. Workshop on ‘Matirkatha Portal’

West Bengal is the first state where the grass root level public extension functionaries have been given ‘Tablet PC (Tab)’ with internet and GIS facilities for efficient advisory to the farmers with modern technologies and updated information. This ICT –based farmer centric agri-extension application is being implemented since July, 2015. About 90,000 farmers queries have been handled through the question answer module by this application. Apart from that, there is rich content on 87 crops and other different aspects of agriculture. A review workshop on the content of the ‘Matirkatha Portal’ for its betterment, up-gradation, to make more user-friendly and useful was organized on 5th October, 2016. The state level officers, particularly who are dealing different flagship schemes, KVK representatives, persons from Ingreens, who are the brain behind this portal; faculties of Agricultural Training Centre and SAMETI etc. gave their comments for improvements after a thorough demonstration of the portal. Sri Jiten Roy, Joint Secretary, Dept. of Agriculture, Govt. of West Bengal chaired the whole session.

A7. Workshop on ‘Preparation of Training Modules for Skill Development’



Training is an effective tool for HRD and there are so many institutes for that purpose. Unfortunately in majority of cases, planning of training, particularly preparation of training module is not done properly. In West Bengal, to bridge such gap for the institutes of HRD related to agriculture and allied sectors, a 4-day training cum workshop on ‘Preparation of Training Module’ was organized by SAMETI in collaboration with Extension Education Institute, Jorhat during 8-11 November, 2016. Training In-charges of the Agricultural Training Centre, Krishi Vigyan Kendra and state level In-charges of the agriculture and allied sectors were invited

to participate. Totally 32 participants from different districts joined the programme. Topics like: Need and importance of preparing training module, Formulation of general and performance objectives, Identification of topic, content selection, Procedure of training module preparation, Day-wise training schedule preparation etc. were discussed. Emphasis was given on skill base training programme, particularly related to the programme of ‘Skill Training for Rural Youth (STRY) and ‘Pradhan Mantri Kausal Vikash Yojona (PMKVY)’. Along with orientation lectures, lot of exercise, group discussion followed by presentation and interactions sessions made

“The best way to find yourself is to lose yourself in the service of others.”

– Mahatma Gandhi

the programme very effective. Experts from the University of Jorhat Assam, EEI, SAMETI, and State Dept. etc. took different sessions.

A8. Exchange Meet of Extension Functionaries

On 22nd January, 2017 morning, the Reunion Meet of the Ex-students of ATC and SAMETI started with a pleasure of game of ‘Tug of War’ between the present staff members of ATC and Ex-students of ATC. The re-union function took place in the ATC Conference Hall with presence of more than 100 ex-students from different batches. Swami Sarvalokananda, Secretary of the Ashrama as the President; Ms. Madhumita Chowdhury, IAS, Agriculture Commissioner, Dept. of Agriculture, Govt. of West Bengal as Chief Guest and Sri Amitava Ganguly, Deputy Director of Agriculture (Training-Head Quarter) as Special Guest, addressed the ex-students. The book ‘Sonali Fasal’, mainly published on the occasion of the Golden Jubilee of the Agricultural Training Centre, was presented to all the ex-students, ex-staff and present staff of the ATC.



The book ‘Sonali Fasal’, mainly published on the occasion of the Golden Jubilee of the Agricultural Training Centre, was presented to all the ex-students, ex-staff and present staff of the ATC.

A9. Workshop on ‘Agricultural Apprenticeship under BOPT’



Recently, Dept. of Agriculture of the State Govt. initiated a venture to engage the 10+2 Vocational Agriculture passed students to build experience by engaging them in different agricultural technology and extension like: Soil sample collection, crop cutting, organic farming, organizing demonstration, conducting training etc. for a year. As the venture is for the first time, to generate awareness and to mobilize the students of different vocational (Agriculture) schools, a 1-day workshop with the participation of the Head Masters of the school, was organized on 4th November, 2016. The Head Masters or their Teacher

representative from 45 schools of Paschim Medinipur, Purba Medinipur and North 24 Parganas participated that workshop. Sri Arunava Chakraborty, Asst. Director and Sri Anindya Bhattacharya, Skill Development Officer, both from BOPT, Govt. of India along with Deputy Director of Agriculture (Training-HQ) oriented the participants about the venture, procedure and road map. After returning, the participants mobilized their students to register online.

“He alone is the true teacher who is illumined by the light of true knowledge.”

– Sri Ramkrishna

A.10 Workshop on ‘Soil sample collection in relation to the Universalisation of Soil Health Card Scheme (USHC)’



Soil is the base of agriculture. It provides major number of nutrients as well as water. In the era of sustainability, soil is the most important component for production of agricultural crops and also for the standard of livelihoods for lakhs of farmers in India and world. Unlike previous decades, soil is now considered as a living matter. To a farmer, the health of the soil becomes most crucial for his sustenance. There were several efforts from the Govt., Non Govt. etc. sectors about making awareness among the farmers about the soil health as well as to provide them status of the soil health of their individual fields after soil testing. But in reality satisfactory output

could not be observed due to the vastness of the task. Recently Govt. of India in collaboration with the state Govt. has launched a programme on ‘Universalisation of Soil Health Card (USHC) for giving all individual farmers soil health card (SHC) of their agricultural plots. In West Bengal more than 13 lakh soil samples has to be collected within very short time for this purpose and all sorts of possibilities are being explored. With this background and with the intension of sincere participation of the individual registered organizations, SAMETI conducted several on-station and out-station workshops with the field level NGOs, FPOs and AC-ABC candidates to involve them in this Mega-venture. In all the workshops, importance of SHC, procedure of soil sample collection, knowledge on GPS of collection of soil sample, data to be collected during sample collection, uploading of basic information in to web portal etc. along with mechanism of the venture were discussed. During this financial year, four workshops were conducted, details of which given below.

| Sl. No. | Date | Place of Workshop | Organisation based on | No. of participants |
|---------|-------------|---|-----------------------|---------------------|
| 1 | 25 April-16 | Tamralipta Guchha Samity, Dakshin Narikeldah (TGS), Purba Medinipur | Purba Medinipur | 141 |
| 2 | 27 April-16 | SAMETI, Narendrapur | South 24 Parganas | 77 |
| 3 | 28 April-16 | Kangsabati Guchha Samity, Ratulia, Paschim Mednipur | Paschim Medinipur | 80 |
| 4 | 6 May-16 | SAMETI, Narendrapur | Different districts | 159 |
| | | | | 457 |

B. Programmes for District / Block Level Extension Functionaries

Under this section, the major courses conducted, for the district and block level extension functionaries are - Orientation of ATMA staff, District Co-ordinators Training on ‘Farmers’ Portal’, Orientation of FPOs on soil health card, Contact Classes and examinations of Semester I and II of PGDAEM course, Training on ‘Sustainable Technologies to Agriculture’, ‘Crop Insurance and role of NGO, Orientation of Kisan Call Centre

“The brain and muscles must develop simultaneously.
Iron nerves within intelligent brain – and the whole world is at your feet.”

– Swami Vivekananda

FTA Level-I, Training on ‘Farmer Producer Organization: Issues and Challenges’, Syllabus Review of KPS Programme., Orientation on Agricultural issues of Probationary Officers of SBI, Training on ‘Seed Certification’, Study Tour of ATC / SAMETI Staff, Training on ‘Advances in Training methods and training management’, Training on ‘Geo Tagging of RKVY Assets’, NMOOP Officers Training and Review Programme, etc. Totally 30 (15 types) such programmes for district / block level extension functionaries have been conducted and 1283 Extension functionaries have participated. The details are as follows:

| Sl. No. | Title of course to cover the thrust area | Date | Target Group | No. of Courses | Total |
|---------|--|--|---|----------------|-------------|
| 1. | Orientation of ATMA staff | 18-21 Jul. 2016 | ATM/BTM/CP/ Accountant | 1 | 28 |
| 2. | District Co-ordinators Training on ‘Farmers’ Portal’ | 8-10 Aug. 2016 | District Co-ordinator of Matir Katha | 1 | 22 |
| 3. | Orientation of FPOs on soil health card | 4 May 2016 | PFO Executives | 1 | 39 |
| 4. | PGDAEM –Contact Class (3 batches) and examination of Semester I and II | 23-27 May, 30 May-3 Jun., 13-17 Jun., 2-6 Aug., 5-9 Sep., 13-17 Sep. & 19-23 Sep., 6-10 Dec. 2016 | Extension Functionaries | 8 | 458 |
| 5. | Training on ‘Sustainable Technologies to Agriculture’ | 30 May-2 Jun. 2016 | SHG, Fig Leaders, NGO functionaries | 1 | 18 |
| 6. | Training on ‘Crop Insurance and role of NGOs’ | 5 Jun. 2016 | NGO Executive | 1 | 226 |
| 7. | Orientation of Kisan Call Centre FTA Level-I | 13-15 Jul., 18-20 Jul., 21 - 23 Jul. 2016, 10-11 Feb., 23-24 Feb. 2017 | Farm Tele Advisors (FTAs) of Kisan Call Centre. | 5 | 51 |
| 8. | Training on ‘Farmer Producer Organization: Issues and Challenges’ | 24-27 Oct. 2016 | FPO Executives | 1 | 32 |
| 9. | Syllabus Review of KPS Training. | 25 Jan. 2017 | ATC Faculty | 1 | 15 |
| 10. | Orientation on Agricultural issues of Probationary Officers of SBI | 4 Oct. 2016 | SBI Pos | 1 | 25 |
| 11. | Training on ‘Seed Certification’ | 7-8 Feb., 9-10 Feb. 2017 | DELFI, BLEFI, NGO exe. | 2 | 56 |
| 12. | Study Tour of ATC / SAMETI Staff | 12-14 Nov. 2016 | Staff | 1 | 26 |
| 13. | Training on ‘Advances in Training methods and training management’ | 14-17 Feb. 2017 | BLEFI / DLEFI | 1 | 30 |
| 14. | Training on ‘Geo Tagging of RKVY Assets’ | 21 Feb., 22 Feb, 23 Feb. 2017 | State level Officers | 3 | 147 |
| 15. | NMOOP Officers training and Review Programme | 12 Dec. 2016 & 16-17 Mar. 2017 | Implementing organisation and officers | 2 | 110 |
| | | | | 30 | 1283 |

“One should desire of God desirelessness. Desire is the obstacle to liberation.”

– Sri Sarada Devi

B1. Orientation Training of ATMA Staff



West Bengal has been implementing the ATMA scheme since 2005. As per guidelines of 2014, functionary support has been provided for smooth operationalisation of the scheme. Recently Uttar Dinajpur District has recruited the functionaries at their district and block level and an orientation to these newly recruited functionaries was very essential. The orientation training programme of newly recruited Block Technology Managers (BTM), Assistant Technology Managers (ATM), Computer Programmer and Clerk cum Accountant was organised during 18-21 July, 2016 at SAMETI. The topics of discussion were: concept of ATMA, operationalisation process of the extension reforms, concept about Strategic Research and Extension Plan, different activities under the scheme, electronic monitoring system, Farm school etc., Accounts keeping along with the role of the individual functionaries. In the last day the trainees practiced the electronic monitoring system with online computer by their own.

B2. District Co-ordinators Training on 'Farmers' Portal'

West Bengal is the first state where the grass root level public extension functionaries have been given 'Tablet PC (Tab)' with internet and GIS facilities for efficient advisory to the farmers with modern technologies and updated information. These Tabs are uploaded with different software and programmes, enable to display different package of practices of crops with intended information with the support of the 'Matir Kataha', the portal of Dept. of Agriculture, Govt. of West Bengal. This Tab is also being used for uploading different field data like information on soil sample collection, uploading monitoring data of of these system and continuous up gradation, the 'Ingreens', a private venture for promotion of better agriculture, has been given responsibility and they engaged District Level Coordinator for efficient implementation of this IT programme.



During 8th to 10th August, 2016, a 3-day training programme was organized for these 'District Coordinators'. Sri Jiten Roy, Joint Secretary, Dept. of Agriculture, Govt. of West Bengal addressed the district coordinators.

“The Man who works for others, without any selfish motive, really does good to himself.”

– Sri Ramakrishna

Different IT experts and other sectors took different sessions. A Total of 22 trainees attended the programme.

B3. Orientation of FPOs on ‘Soil Health Card’

In the era of sustainability, soil is the most important component for production of agricultural crops and also for the standard of livelihoods for lakhs of farmers in India and world. Soil is now considered as a living matter. ‘Universalisation of Soil Health Card (USHC) has been launched by Govt. of India for giving all individual farmers soil health card (SHC) of their agricultural plots. With this background and with the intension of sincere participation of the organizations, SAMETI conducted orientation programme of FPOs on ‘Soil Health Card’ to involve them in this Mega-venture. In this programme, importance of SHC, procedure of soil sample collection, knowledge on GPS of collection of soil sample, data to be collected during sample collection, uploading of basic information in to web portal etc. along with mechanism of the venture were discussed. A total of 39 FPO executives attended the orientation programme.



B4. Programmes of Post Graduate Diploma in Agricultural Extension Management (PGDAEM)



The 1-year course on Post Graduate Diploma in Agricultural Extension Management (PGDAEM) is found very popular and effective through the evaluation of MANAGE, Hyderabad. The institute is conducting this course since 2007 and for the 2015-16 batch, 175 officers have enrolled in the course from different departments like Agriculture, Animal Resource Development, Fishery, Horticulture, Marketing, Krishi Vigyan Kendra etc. During this financial year total nine programmes were organised by the institute covering term end examinations, contact classes, special contact class and one special examination for backlog candidates in

different batches. A total of 458 officers attended in eight programmes (contact class of Semester I & II in different batches, Exam. of Semester I & II) in this financial year. The details of this PGDAEM course is given in **Subsection A: of Chapter II, ‘Special Extension and Academic Courses’**

“You can’t cross the sea merely by standing and staring at the water.”

– Rabindranath Tagore

B5. Training on ‘Organic Farming and Sustainable Technologies’



On the basis of demand from extension workers, entrepreneurs and progressive farmers from different corners of the state, a 4-day training on ‘Organic Farming and Sustainable Technologies’ were organised during 30 May-2nd June, 2016. The sessions were conducted on the aspects like: procedure of production of organic manure, vermicomposting procedure, introduction to earthworm, liquid manures, its preparation and use; pesticides based on natural products, its preparation and use; soil, its health and soil testing; principles of organic farming etc. Eighteen candidates from the districts of South 24 Paraganas, North 24 Parganas, Paschim

Medinipur, Burdwan, Hooghly etc. joined the training programme.

B6. Programme on ‘Crop Insurance’

Unpredictable climate is one of the critical hindrances of Indian Farmers. Every year large number of farmers had to face loss due to vagaries of climate. The Crop Insurance scheme in different model for the farmers are in operation for many years but unfortunately farmers are not getting full advantage of it. Among many reasons, awareness, ignorance, lack of knowledge about the process etc. are main causes of unsatisfactory result of this scheme. The local NGOs spread over the villages may have very crucial role in this juncture. SAMETI took the advantage of assemblance of more than 250 NGO-executives from about 12 districts of West Bengal, on the occasion of ‘Secretaries Conferance’ organised by Lokasiksha Parishad of the Ramakrishna Mission Ashama, Narendrapur.



On 5th June, 2016, a session on Crop Insurance and role of NGOs was organised at Narendrapur. Different aspects of crop insurance and Pradhanmantri Fasal Bima Yojona etc. was discussed. Role of NGOs in making awareness and other supports to bring the farmers of their area under the insurance scheme was discussed. Dr. Sumit Kumar Ghosh, Project Consusltant, Crop Insurance unit of Govt. of West Bengal and Sri Sourav Gupta of Agricultural Insurance India Ltd. acted as experts.

B7. Orientation of Kisan Call Centre FTA Level-I

The Kissan Call Centre is now said to be the heart of farmers’ communication. In every state, Govt. has created an option for toll-free calling (18001801551) to experts on any problems on agriculture for the

“Finish the few duties you have at hand, and then you will have peace.”

– Sri Ramakrishna

farmers solutions. Farmers from any corner of the state may ask for probable solutions in their local languages. The Farm Tele Advisor (FTA), experts of Level-1 on the other hand are a band of educated team in the sector of field crop, horticulture, animal husbandry, fishery, sericulture etc., use to receive the calls and communicate the farmers with solutions instantly on the basis of their knowledge, or consulting knowledge- portals or transfer the call to the 2nd level of experts (University faculty etc.). This system of farmers' problem solving process, the 'Kisan Call Centre (KCC)', has become very effective and popular. As



agriculture is a very dynamic subject and new technologies are coming for specific region on regular basis, updating of the FTAs of Level-1 experts are essential for quality farmers' advisory services. The SAMETI of the state use to arrange the refreshers training for these experts of the KCC on regular basis. Before the training, one day need assessment workshop was also arranged to identify the need-areas of the training. A total of five number 2/3-day training programmes and a assessment programme were organised during this financial year for the FTAs of Level I staff of KCC, in which 51 FTAs and other officers attended the programmes.

B8. Training on 'Farmer Producer Organization: Issues and Challenges'



To have a thorough discussion on issues and challenges on establishment and operationalisation of successful FPO / FPCs in the state, a 4-day training cum workshop was organized at SAMETI, Narendrapur on 'Farmer Producer Organisation: Issues and Challenges' during 24-27 October, 2016 in collaboration with MANAGE, Hyderabad. The departmental officers who are playing key role in establishment and running of FPCs for Agriculture and horticulture and the executives of the selected FPCs of the state were invited in that 4-day programme. Sessions were conducted on different topics like: Status of

FPC programme in West Bengal, Steps involved in success of FPC establishment and running, different legal aspects related to the FPC, Finance-accounts and audit in FPCs, Preparing business plan for FPCs, Role of NABARD in development of FPCs, Formulation and appraisal of bankable projects, Issues related to the sustenance of FPC, scope of linkage of ATMA in FPC development etc. Besides above, a 1-day field visit to

"All the wealth of the world cannot help one little Indian village if the people are not taught to help themselves"

— Swami Vivekananda

one of the successful FPCs was also organized and a full session on analysis of cases was held for better understanding of the situation and scope of development. Resource person from MANAGE, Hyderabad; the CEO of Leganin Aid, a leading FPC from Karnatak; the state level officers dealing the FPC, representative from NABARD, faculties of SAMETI etc. took different sessions. Thirty two participants from Bankura, Purulia, Murshidabad, Howrah etc. participated the programme.

B9. KPS Syllabus Review Programme

Refreshing and upgrading the knowledge of the grass root level extension worker is an important aspect to keep rolling agriculture upward. Dept. of Agriculture, Govt. of West Bengal has initiated the process of up gradation of knowledge of the existing KPS. As a process of initiation, a workshop was organized with the participation faculty members of seven Agricultural Training Centres of the state for revision of Syllabus of the In-service KPS training. The workshop was held on 25th January, 2017 at SAMETI. Based on the Pre-service training syllabus and last In-service Training syllabus, several changes have been recommended, particularly, for inclusion of the current issues like, ICT, Value addition, marketing, agri-portals etc. The recommended syllabus is ultimately approved by the Director of Agriculture, Govt. of West Bengal.

B10. Orientation on Agricultural issues of Probationary Officers of SBI

Thirty one Probationary Officers of State Bank of India was on a 1-day Orientation programme on 4th October, 2016. The programme was organized in collaboration with the State Bank learning Centre of Salt Lake, Kolkata. The newly recruited officers were oriented about general agriculture, crucial agricultural technologies, farmers' situation, farm entrepreneurship etc.

B.11 Training on Seed Certification

Two training programmes for the extension functionaries and progressive farmers for production of quality seeds of oilseed crops under National Mission on Oilseed and Oil Palm were organized during 7-8 February, 2017 and 9-10 February, 2017. Totally 54 extension functionaries of South 24 Parganas participated the programme.



B.12 Study Tour of ATC / SAMETI Staff

The staff members of ATC/ SAMETI were on an exposure visit to different agricultural and allied activities at Nadia 12-14 November, 2016. The floricultural activities by the FIGs in Nakashipara area, Nursery business, High value crops and their marketing in to different areas were exposed to the staff members.

Men are more valuable than all the wealth of the world

– *Anonymous*

Members also visited Nakashipara Farmers Producers' Company and have interaction with the management of the company regarding marketing and other aspects. In the evening of 12th November, 2016, a discussion session was held on how to improve work efficiency within an organization. Director, SAMETI conducted the session and all the staff members on the visit exchanged their views and suggestions. On 13th and 14th November, 2016 staff members visited the rural development activities of Sargachhi Ashrama, Murshidabad along with Hazarduari and ISKCON. Staff members enjoyed the tour.



B.13 Programme on 'Advances in Training Methods and Training Management'



With the change in days and with the opportunity of upcoming technologies, different aspects of Human Resource Development are also changing. Training is one of the most important tools of HRD and change in the training methods is also now inevitable. To update the faculties of HRD institutes related to agricultural development in West Bengal, a 4-day training programme on 'Advances in Training Methods and Training Management' was organized at SAMETI in collaboration with Extension Education Institute (EEI), Jorhat, Assam during 14-17 February, 2017. Thirty faculties from different ATCs, KVKs all over

West Bengal and state level training institutes participated that programme. Different aspects and topics were discussed in participatory methods like: lesson and session planning, programme designing, modern training methods, experiential learning cycle, techniques of conducting demonstration, techniques of participatory lectures, techniques of group discussion and brainstorming in training session, communication transaction and Eco-gram etc

B14. Training on 'Geo Tagging of RKVY Assets'

Rastriya Krishi Vikash Yojana (RKVY) is mainly for infrastructure development scheme targeting four percent agricultural growth. During last seven years, many assets have been formed in all the districts of West Bengal. To identify the assets and its effectivity, online tagging of those assets is evolved. To train the district level officers of agriculture and allied sectors, a 1-day module has been developed by which officers were trained in three batches on 21st February, 22nd February and 23rd February, 2017 at SAMETI. Experts from ISRO and

"Be the change that you wish to see in the world."

– Mahatma Gandhi

National Centre for Remote Sensing trained the participants online. All together 147 officers of agriculture and allied Dept. were trained on that aspect. Sri Jitendra Roy, Joint Secretary, Dept. of Agriculture, Govt. of West Bengal inaugurated and supervised the programme.

B.15 NMOOP Officers training and Review Programme

The programme on the promotion of cultivation of oilseed is going on through ATC, Narendrapur since 2003. In the mean time the remarkable expansion of cultivation area of sunflower and maize in South 24 Parganas and sesame in Paschim Medinipur has been found as an impact of the programme. On 12th December, 2016, a 1-day Review on NMOOP programme was organized with the participation of the implementing NGOs of grass root level and representative farmers of the area. Review was made on the implementation and planning for the Rabi season was chalked out. Sri Sudip Ganguly, Assistant Director of Agriculture, dealing the NMOOP at state level, was present in the programme.



Similarly two-days training programme on MNOOP was organised on 16 – 17 March, 2017. Main topics of discussion were: insect pest of oilseeds in West Bengal and their management; diseases of oilseeds in West Bengal and their management; use of small implements for oilseed production, role extension functionaries to farmers' extension; interactive session on problems and prospects of oilseed cultivation in West Bengal etc. A total of 110 extension functionaries and NGO representatives attended these two programmes.

C. Training for Grass Root Level Extension Workers, Rural Entrepreneurs, Group Leaders etc.

Programmes targeting Grass Root Level Extension Workers, Rural Entrepreneurs, Group Leaders etc. are discussed in this section. The major programmes are 'Bio-Based Farming; Diploma in Agricultural Extension Services for Input Dealers, 'Agri-Clinic and Agri-Business Centre (AC-ABC)', 6- Month training for Krishi Prajukti Sahayak (KPS), Farm Mechanisation, KVK-Farmer-Bank interaction, Training of IFFCO Kissan Mitra, Training of Lead Resource Persons on 'PGS Certification (PKVY)', Organic Farming and Vermicompost, Training of Kirlosker on Mechanic, Programme on Farmers Interaction & Prize Distribution of Achiever

“Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.”

—1st Earl of Chatham, William Pitt

Farmers, Training of Agri Apprentices, Inaugural & valedictory Programmes of AC-ABC, Field Exposure and practical training of Extension Workers and Group Leaders. A Total of 26 Programmes (12 types) were organised for 1022 trainees. The details of the programmes are given below:

| Sl. No. | Title of Training to cover the thrust area | Dates | Target Group | No. of Programmes | Total |
|---------|--|---|---|--|-------------|
| 1. | Training on Bio-Based Farming | 11-12 May 2016 | FIG, Progressive famers | 1 | 27 |
| 2. | Training on 'Diploma In Agricultural Extension Service for The Input Dealers (DAESI)' | October-16 to Sept-17, Oct, | Input Dealers | 6 (2 batches on station + 4 batches outstation) | 241 |
| 3. | Training on 'Agri-Clininc and Agri-Business Centre (AC-ABC)' 8 th Batch, 9 th Batch & 10 th Batch | 30 May – 29 July, 22 Aug.-18 Oct. 2016, 19 Dec. 2016 - 18 Feb. 2017 | Agriculturally educated youths | 3 | 83 |
| 4. | 6-Month Krishi Prajukti Sahayak (KPS) training | 7 Nov- 6 May & 15 March- 14 Sept | KPS Pre-service & in service trainees | 2 | 72 |
| 5. | Farm Mechnisation | 5-7 Apr., 19-21 Apr., 19-21 Sep., 22-24 Sep., 16-18 Nov. 2016 | Technician etc. | 5 | 77 |
| 6. | KVK-Farmer-Bank interaction | 8 Jul. 2016 | Farmers, Extension functionaries, Banking persons | 1 | 60 |
| 7. | Training of IFFCO Kissan Mitra | 11-13 Jul. 2016 | Kisan Mitras of IFFCO | 1 | 23 |
| 8. | Training of Lead Resource Persons on 'PGS Certification under (PKVY)' | 19-20 Aug., 26-27 Aug., 17-18 Aug. 2016 | Farmers: Bankura, Purulia, Paschim Medinipur | 3 | 128 |
| 9. | Organic Farming and Vermicomposting | 16-19 Nov. 2016 | Entrepreneur & Progressive Farmer | 1 | 31 |
| 10. | Farmers Interaction & Prize Distribution of Achiever Farmers | 22 Jan. 2017 | Farmers | 1 | 138 |
| 11. | Training of Agri Apprentices | 6- 10 Feb. 2017 | Voc- (Ag) - selected candidate by Govt. | 1 | 31 |
| 12. | Field Exposure and practical training of Extension Workers and Group Leaders | 17-21 Mar. 2017 | Progressive Farmers, Officers etc. | 1 | 30 |
| | | | 26 Progs. | 26 | 1022 |

C1. Training on Bio-Based Farming

Awareness about the ill-effect of un-judicial use of chemicals in agricultural fields is at a stage, from where many farmers are now eager to go for use of organic compound for sustainability of the production. Many agricultural organizations have come forward along with the Govt. in this aspect. Bengal Chamber of Commerce & Industry (BCCI) along with Rural Development Dept. of Visva Bharati University and SAMETI in a joint venture organized 2-day training programme for the farmers of a village of Birbhum district,

"Agriculture is the noblest of all alchemy; for it turns earth, and even manure, into gold, conferring upon its cultivator the additional reward of health."

– Paul Chatfield

where the farmers want to go for bio-based farming. During 10-11 May, 2016 in a training at SAMETI, the participants learnt and practiced in their own hand on vermicomposting with locally available sources and also about other aspects of bio-based farming. Dr. Sanjeev Chopra, Additional Chief Secretary, Dept. of Agriculture, Govt. of West Bengal; Mr. Ambarish Dasgupta, President, BCC; Dr. Sujit Paul, Director of the Rural Development Dept. of Visva Barati University; Sri Subhadeep Ghosh, Director, BCC; Sri Satyabrata Mukherjee, Chairman, Agri and Rural Development Committee, BCC and Swami Sarvagananda, Secretary, Ramakrishna Mission Ashrama, Narendrapur were present on this occasion.



C.2 Diploma in Agricultural Extension Service for the Input dealers (DAESI)



The Diploma in Agricultural Extension Service for the Input dealers (DAESI) course is mainly for bridging the knowledge gap of the input dealers in the country. This course also strengthens the agricultural extension system. SAMETI, being the state Nodal Institute for this course, started the venture as a pilot project in the year 2013. On the gradual increase of demand, this year (2016-17 session), six courses (each with 40 candidates) have started, two with SAMETI and other four spread in three Krishi Vigyan Kendras (KVK-Nimpith, KVK-Purulia and KVK-Hooghly). With the Govt. order on restriction of new business-license without proper educational qualification; fresh candidates, without Agri-input-dealership license, also applied and for them two courses are running (one at SAMETI and 1 at KVK-Nimpith). For the candidates of the new session (2016-17), classes as per prescribed syllabus is going on and primarily the subjects like agro-climatic regions, basic of crop production, basics of plant protection, package of practices of winter season crops etc. are covered. The 81 candidates of two batches (SAMETI and

“Anyone who has never made a mistake has never tried anything new.”

– *Albert Einstein*

Nimpith), of 2015-16 session have completed their course and appeared in the final exam during 3rd week of December, 2016. Six new batches 2 on station and 4 outstation consisting of total 240 input dealers are also going through the DAESI course from November, 2016. **Details of DAESI course in discussed in Section B of Chapter II.**

C3. Training on Agric Clinic Agri-Business Centre (AC-ABC)

In this financial year training programmes of three batches (8th, 9th & 10th batch) of Agric Clinic Agri-Business Centre (AC-ABC) have been completed. The trainees of these batches of 2-month course on Agric Clinic Agri-Business Centre (AC-ABC) who are basically Agriculturally educated youths were selected from large number of applicants by a selection committee consisting of the expert of the MANAGE, Hyderabad; NABARD, Kolkata; Lead Bank representative and State Govt. representative and KVK. The Agriculturally educated 83 candidates went through the 2-month course, where technical knowledge



orientation was the one part, specially with the scope of entrepreneurship and service, like: food processing, commercial vegetable/ flower/ medicinal plant/ crop cultivation, poly house and shed-net technologies, poultry, dairy, farm mechanisation etc. The other important part of the course is knowledge and skill development in the sector of entrepreneurship and small business management including market survey, project preparation, cash management, customer dealing, farmers' extension and service etc. At the end of the course, all the 83 candidates have prepared bankable projects and submitted to their respective banks for financial support. In the valedictory programme, the General Manager, NABARD- Kolkata, Manager of the different local Bank, ATMA representatives of the district etc. frequently visited the course at different time. Handholding programmes for establishment of the ventures are going on along with survey of establishment for the candidates trained during the current financial year. The detail of this AC-ABC course is given in **Subsection C of Chapter II, 'Special Extension and academic Courses'**.

C4. Six-Months residential training of Krishi Prajukti Sahayak (KPS)

Along with other states, in West Bengal also the Krishi Prayukti Sahayak (KPS) is the cadre to reach the farmers with those messages. For such huge importance of the KPS, in recent time, Govt. has taken measures by new recruitment of this grass root level extension workers. After a Pre-service training, all the KPSs have to go through another 6-month In-service training to refresh and upgrade their skill and knowledge. In this financial year two courses of KPS – Pre-service and KPS In-service were conducted have been started. The 6-month long Pre-service KPS Training started from 7th November, 2016 and ended on 6th May, 2017. The In service training of the KPS, having same duration started from 15th March, 2017, along with other ATCs, at Narendrapur and will end on 14th September, 2017. All the 72 trainees (both Pre-Service

“Let New India a rise – out of the peasants’ cottage, grasping the plough; out of the huts of the fisherman, the cobbler, and the sweeper”

– Swami Vivekananda

and In-service) has gone through the approved syllabus both theoretical and practical on the subjects like: Agro-meteorology, Soils, Manures and Fertilizers; Soil conservation, Irrigation, Drainage and Agricultural Implements; Crop Husbandry; Horticulture; Plant Protection; Integrated Farming system, Agricultural Extension, New initiatives in agriculture etc. The detail of this KPS course is given in **Subsection D of chapter II, 'Special Extension and academic Courses'**.



C5. Training on 'Farm Mechanisation'

A 3-days training programme, in collaboration with the 'Kirloskar Oil Engines Ltd., Pune', has been organised for the rural level technician and service provider on 'Product service training on power tiller'. Under this course two training courses were conducted on different aspects of farm mechanisation , specially



on power tiller, like: details of tillage, parts of power tiller, repair and maintenance of power tiller, engine of power tiller, assembling and trouble shooting, performance and economics of power tiller etc. Experts from the ATC/ SAMETI and private company took different sessions both in practical and theoretical mode. Five batches were trained with 17, 15, 14, 20 and 11 (77) members during 5-7 April and 19-21 April, 2016, 19-21 September, 22-24 September, 16-18 November of 2016 respectively for the youths of West Bengal and also for Orissa, Bihar, Assam, Uttar Pradesh, Maharastra, and Jammu and Kashmir.

C6. KVK - Farmer - Bank Interaction

A Farmer -Extension worker - Bank interaction was arranged in collaboration with the Sassya Shyamala KVK at SAMETI for the farmers of South 24 Parganas on 8th July, 2016. The scientist cum extension workers of KVK, departmental experts, SAMETI faculties and Managers of different banks of Narendrapur-Baruipur interacted with the farmers. The farmers raised the issues related to crop production, marketing, processing and marketing etc. The experts present, supports them with their advice from the angle of technology-credit and inputs and advisory. About 46 farmers from difffeent blocks of South 24 Parganas along with 8 extension functioneries and 6 banking persons participated the sessions.

“Do not afraid; the Master is behind you, and I am, too, as your Mother”

– *Sarada Devi*

C.7 Training of IFFCO Kisan Mitra

The Indian Farmers Fertilisers Corporation (IFFCO) has built up an unique extension system in the name of 'Kissan Mitra'. The Kissan Mitras are the village youth having experience in cultivation. They are groomed through different training-practice-exposure cycle and evaluated at six month interval. They are placed in one village each and provide different technologies and quality input to the farmers of that village with continuous follow up throughout the season. The periodical evaluation and training usually held at SAMETI since initiation of the project in West Bengal by IFFCO. During 11-13 July, a 3-day training was organised at SAMETI for 23 such Kissan Mitras from South 24 Paraganas, North 24 Parganas, Bankura, Purulia, Malda, Purba and Paschim Medinipur. During these 3-days, the trainees were oriented and updated with advanced agro-chemicals, high tech agriculture and modern equipments, treatment of animal diseases, rice seedling raised in Dapog method, scope of pulse crop in West Bengal, multi-tire horticultural crop production, use of ICT in agriculture etc. Their performance of last 6-months were reviewed and planning for the next 6-months also made through group discussion.



C8. Training of Lead Resource Persons on 'PGS Certification under PKVY'



India stands 7th in terms of area under organic agriculture. Govt. of India for promotion of organic agriculture has launched a flagship programme in the name of 'Parampragat Krishi Vikash Yojana (PKVY). Govt. has targeted to form 10,000 organic clusters (50 farmers each) to bring 5 lakh acre under organic farming in next three years in the country. Keeping this broader objective, a 2-day module has been prepared for basic orientation for the Lead Resource Persons (LRPs). Being the leader of the clusters, these LRPs will guide the members of the clusters for its formation and mobilization and to some extent technical supervision. SAMETI organized three such programmes (17th-18th August, 19th-20th August and 26th-27th August) with the main focus of Documentation of PKVY clusters for Participatory Guarantee System (PGS), Online Registration of clusters, Methods of vermicomposting; Preparation of Green manuring, Preparation of different liquid manure, bio-fertiliser, botanical pesticides etc. A total of 128 LRPs attended the programmes.

“As long as I live, so long do I learn.”

– Sri Ramakrishna

C.9 Training on ‘Organic Farming and Vermicomposting’



Along with the consciousness of general mass and farmers about the toxic effect of the food products from pesticide and disadvantages of chemical fertilizer etc., demand for organic product and organic farming are increasing. For organic farming, the most crucial thing is supply of organic matter for soil health. For that reason, presently maximum emphasis is given on vermicomposting. On the basis of their demand, 31 farmers from different corners of West Bengal went through 4-day programme on organic farming. During the 4 days (16-19 December, 2016), discussion and practical classes on the aspects of concept of organic farming, preparation of vermicomposting, preparation of liquid manures like panchagavya, plant propagation techniques, green manuring, use of bio-pesticides, home-made bio-pesticides, non chemical methods of disease management of plants, soil health management etc. were arranged. Experts of SAMETI, practitioners etc. took different sessions.

C.10 Farmers Interaction & Prize Distribution of Achiever Farmers

On 22nd January, 2017, a programme on ‘Farmers Interaction & Prize Distribution of Achiever Farmers’ was organised. It was a part of the annual exhibition of the institute. In this programme Ms. Madhumita Chowdhury, IAS, Agriculture Commissioner, Dept. of Agriculture, Govt. of West Bengal was present as the Chief Guest. Sri Atanu Dutta Mazumdar, Additional Director of Agriculture (General) and Sri Amitava Ganguly, Deputy Director of Agriculture (Training-Head Quarter) chaired as Special Guests of the function. The first three rank holders of different academic courses like ‘Post Graduate Diploma in Agriculture Extension Management (PGDAEM)’ and ‘Diploma in Agricultural Extension Service for the Input dealers (DAESI)’ were honoured with memento and Certificates. Six Agri-Clinic Agri-business (AC-ABC) passed out students, who have shown excellence in establishment of Agri-ventures, were honoured with special memento and certificates. One Organisation and two farmers, who offered significant contribution in extension works, were also honoured with memento and certificates. The main attraction of the prize giving ceremony was offering different types of agricultural tools and equipments as prizes to the achiever farmers participated in ‘Vegetable and Fruit Show’ of the exhibition’. More than 150 such prizes were given to the farmers on this occasion.

C.11 Training of Agri-Apprentices

Establishing agriculturally educated technical youth is a process towards development of agriculture. The Board of Practical Training (BOPT), under Ministry of HRD of Govt. of India engages such eager technical candidates as apprentice in related areas for one year to offer on the job training with stipend. Recently, Dept. of Agriculture, Govt. of West Bengal has decided to engage the 10+2 Vocational Agriculture candidates in different technology implementation in training mode. To orient those candidates about the process



“I tell you one thing - if you want peace of mind, don not fault with others.”

– Sarada Devi

of 1-year apprentice and aspects of technology leaning, a 5-day orientation programme was organized for the Agri-apprentices of Purba Medinipur district. Thirty one such candidates including 13 female went through different aspects like: Agro-climatic regions of West Bengal, importance of extension in agricultural development and its network in the state, some important technologies influencing agricultural development of the state, methods of demonstration, process of conducting training and campaign, flagship agricultural schemes, how to collect information of farmers, how to prepare a success story and report etc.

C-12. Field Exposure and Practical Training of Extension Workers and Group Leaders

At the time of review of NMOOP programme on 12th December, 2016 it was discussed to have field exposure to different success cases of different districts. In that programme it was also decided to have an exposure to South 24 Parganas district. Accordingly a field Exposure and practical training was organised for thirty extension workers and group leaders of Paschim Medinipur, Purba Medinipur Bankura, where NMOOP programme is running very well. The programme was organised during 17-21 March, 2017 at Kakdwip and Patharpratima area of South 24 Parganas district to have an idea and exposure of the agriculture of the district. The programme covered visit of successful agriculture field of maize and sunflower cultivation with filed practical and management of those cultivation practices.

D. Training for Progressive and Demonstrator Farmers

In this section mainly the programmes are discussed related to Progressive and Demonstrator Farmers, representatives of block level ATMA farmers' representatives like FIAC and FAC members from different districts of West Bengal etc. A total of 18 programme were organised for 783 Progressive and Demonstrator Farmers. The details of the programmes are as follows:

| Sl. No. | Title of Training to cover the thrust area | Target Group | No. of Programmes | Total |
|---------|--|---------------------|----------------------|------------|
| 1. | 5-Days capacity Building Programme | Progressive Farmers | 5 | 150 |
| 2. | ATMA Farmers exposure visit cum Training | ATMA farmers | 5 | 307 |
| 3. | FAC Farmers visit cum Training | FAC members etc. | 8 | 326 |
| | | | 18 Programmes | 783 |

D1. 5-day Farmers Capacity Building Programme

The 5-day Farmers Training is the regular programme of the Agricultural training Centres for orienting the farmers directly on different established technologies and information. A module for this 5-day training has been prepared on the basis of the need of the present time and famers of the area including the subjects Like: Integrated farming, Crop insurance, Nutrition garden, Soil health-vermicomposting, growing of papaya, line and banana; SRI technology of



“Let New India a rise-out of the peasants’ cottage, grasping the plough; out of the huts of the fisherman, the cobbler, and the sweeper”

– Swami Vivekananda

paddy cultivation, improving plant quality by grafting and budding, Formation and mobilization of Farmers Organisation, Integrated Pest Management, Fish culture, Backyard animal husbandry etc. Both theory and practical portion were kept in the ratio of 50:50. Besides, exposure visit to model agricultural farms etc. was also within the module. During the reporting time, five such training programmes were conducted in which 150 farmers of Murshidabad, South 24 Parganas, North 24 Pgs, and Howrah participated. The details of the programmes are given below :

| Title of Training to cover the thrust area | Dates | Target Group | No. of Programmes | Total |
|--|------------------------------|---------------------|-------------------|-------|
| 5-day Farmers Capacity Building Programme | 7-11, 21-25, 26-30 Dec. 2016 | Progressive farmers | 5 | 150 |

D2. ATMA Farmers’ exposure Visit Cum Training

To operationalise the ATMA extension system properly, there is crucial role of the members of different committees of ATMA of block and district level. Exposure and upgraded training of the members is crucial input in that direction. During the reporting period five such visit cum upgraded training of the ATMA members were conducted at SAMETI.

| Sl. No. | Title of Training to cover the thrust area | Dates | Target Group | Total |
|---------|--|-----------------|---|------------|
| 1 | Farmers exposure visit and training | 14-16 Jul. 2016 | Kolaghat ATMA farmers | 61 |
| 2 | Farmers exposure visit and training | 22-23 Jul. 2016 | Chandrakona-II, Paschim Medinipur | 41 |
| 3 | Farmers exposure visit and training | 22-23 Jul. 2016 | ATMA Farmers, Balurghat | 52 |
| 4 | Farmers exposure visit and training | 1-3 Sep. 2016 | ATMA Farmer, Kulti, Burdwan | 53 |
| 5 | Farmers exposure visit and training | 24 Sep. 2016 | ATMA Farmer- Budge Budge, South 24 Parganas | 100 |
| | | | 5 Progs. | 307 |

D3. FAC Farmers’ Visit cum Training

Orientation of functionaries of the different institution created under the ATMA Scheme for planning, implementation and review is one of the important tasks for their mobilization. For that purpose, orientation of the members of the ‘Farmers’ Information and Advisory Centre (FIAC) and other related farmers is the very important. Targeting that objective, Exposure visit come orientation programmes are conducted in collaboration with different ATMA during the reporting time, eight such programme have been conducted in which 326 FIAC members form Hooghly, Purba Medinipur, Burdwan, South 24 Parganas participated in the programs is given in the next page :



“I slept and dreamt that life was joy. I awoke and saw that life was service. I acted and behold, service was joy.”

– Rabindranath Tagore

| Sl. No. | Title of Training to cover the thrust area | Date | Target Group | Total |
|---------|--|-----------------|---|------------|
| 1. | Training cum Visit of FAC members etc. | 7-9 Nov. 2016 | FIAC members, Farmers etc. - Polba-Hooghly | 25 |
| 2. | Training cum Visit of FAC members etc. | 23-24 Nov. 2016 | ATMA - FIAC members, Farmers etc. - Ghatal, Purba Medinipur | 27 |
| 3. | ATMA persons Training cum Visit | 28-29 Nov. 2016 | FIAC, Farmers Ketugram, Burdwan | 50 |
| 4. | Farmers' Exposure Visit cum training | 15 Dec. 2016 | ATMA farmers & FIAC members, Mathurapur, South 24 Parganas | 42 |
| 5. | ATMA Farmers Visit cum Training | 1-3 Mar. 2017 | FIAC Members etc: Ghatal, Purba Medinipur | 34 |
| 6. | ATMA Farmers Visit cum Training | 6 Mar. 2017 | FIAC Members etc. Canning-II, South 24 Parganas | 50 |
| 7. | ATMA Farmers Visit cum Training | 9 Mar. 2017 | FIAC Members etc. Canning-II, South 24 Parganas | 50 |
| 8. | ATMA Farmers Visit cum Training | 13 Mar. 2017 | FIAC Members etc Mathurapur, South 24 Parganas | 48 |
| | | | 8 programmes | 326 |

E. Special Programmes: Agricultural Exhibition and Agricultural Fair

Two types special programmes are organised by the institute in this financial year. One is the Annual Celebration and Agricultural Exhibition and other is the agricultural fair at Rajarhat area. The details for these programmes are given below:

| Sl. No. | Date | Title of Training to cover the thrust area |
|---------|--------------------|--|
| E1 | 20-23 January 2017 | Annual Celebration and Agricultural Exhibition |
| E2 | 4-6 March 2017 | Agricultural fair at Rajarhat area |

E1. Annual Celebration: Agricultural Exhibition and Agricultural Fair

The Agricultural Training Centre, erstwhile Gram Sevak Training Centre celebrated its Annual Celebration along with the completion of the Golden Jubilee year of the institute during 20-23 January, 2017. This year also was the 50th Annual Celebration, which was started with the first Annual Celebration of the Gram Sevak Training Centre in the year 1968.

Inauguration

The inauguration of the Annual Celebrations was done by Sri Sadhan Pande, Hon'ble Minister In Charge of Self-Help Group & Self-Employment and Dept. of Consumers Affairs,



“Science without religion is lame, religion without science is blind.”

– Albert Einstein

Govt. of West Bengal by lighting lamp and amongst the holy Vedic chanting in front of the image of Sri Sri Ramakrishna. Swami Sarvalokananda, Secretary, Ramakrishna Mission Ashrama, Narendrapur and all other monks of the Ashrama were also present. The Minister also inaugurated the exhibition of the institute along with the 'Vegetable and Fruit Show'. In his address, the MIC told about his old link with different developmental activities of Ramakrishna Mission Ashrama, Narendrapur, specially child and mother development initiatives. He expressed his satisfaction about the sincere service devoted by Mission in the sector of agriculture and other rural developmental activities in West Bengal. The Secretary of the Ashrama appealed to the Minister to favour smooth fund flow of the Govt. for different developmental initiatives taken by the Ashrama in collaboration with the Govt. On the occasion of the Golden Jubilee Celebration of Agricultural Training Centre, a book containing different articles on agricultural issues and reminiscence of the former staff members of the ATC, monks etc. with the title of 'Sonali Fasal', was released by the honourable Minister. Swami Sarvalokananda, Secretary of the Ashrama published the 'Reflection', the Annual Report of ATC/ SAMETI of 2015-16.

Exhibition



This year the theme of the exhibition of ATC/ SAMETI was 'Components of Sustainable Agriculture for Small and Marginal Farmers'. We know, in one hand sustainable production of agriculture is a big challenge due to drastic degradation of soil health and environmental pollutions. On the other hand more than 80 percent farmers are with very small land holdings. In these two major contexts, the theme of this year was very crucial. The exhibitions mainly four components: one dealing with Soil health, where the composting techniques along with vermicompost was shown in live model. Here the process of preparation and use of different

liquid manures like 'Panchagavya', 'Sassya gavya', 'Kunapajala' etc. were demonstrated. The ingredients, mainly the cow dung and cow urine are very easily available in every farm house. At present those liquid manures are considered as most crucial components for rejuvenating soil health. In another sector options for the small and marginal farmers to tackle the pest and disease problem (without any synthetic pesticide) within their capacity was shown. Here preparation of environment-friendly home-made pesticides from different plant parts etc. are shown along with use of sticky trap, yellow trap, pheromone trap etc. In the third part, Farm Mechanisation was exhibited with options of more than fifty agricultural tools and implements, mostly suitable for the very small land holdings. The last part focused rural agri-based entrepreneurship, which are possible in very small space. In this sector, the ornamental fish-culture, combined mushroom culture along with vermicomposting within single land area, techniques of hydroponic within very small space etc. were exhibited. Large number models, live specimens, well presented color posters, original tools and instruments and different videos attracted large number of farmers, agricultural technologists, students and general people.

In relation to this exhibition the Sassya Shaymala Krishi Vigyan Kendra displayed different established technologies suitable for the agriculture of South 24 parganas through model, live specimen, posters and

"The best way to find yourself is to lose yourself in the service of others."

– Mahatma Gandhi

leaflets. The students of Faculty Centre for Integrated Rural Development and Management (IRDM) presented running model of a village with components of integrated development. The students exhibited different biotechnological development aspects of Agriculture like ‘Tissue-culture raised crop plants’, techniques of preparation of different bio-pesticides and bio-fertilisers etc.



The attractive part of the ATC/ SAMETI exhibitions is ‘Vegetable and Fruit Show’. The Agricultural Training Centre have been supporting the farmers of the neighboring districts with technologies, inputs etc. for several decades. Those farmers along with others are encouraged to display their excellence of production in this 4-day exhibition cum mela. On the basis of the standard of production, the farmers are encouraged with token prizes. This year about 250 progressive/ innovative farmers participated in the product display and out of that, 71 farmers displayed 27 different types of fruits and 193 farmers displayed 38 different types of vegetables.

Seminar

On 21st January, 2017 a seminar was arranged on “Land Use Planning for Future Agriculture”. On this occasion Dr. D. C. Nayak , Director & Head, National Bureau of Soil Survey and Land Use Planning (NBSSLUP), ICAR Regional Centre, Kolkata; Dr. Koushi Brahmachari, Professor, Department of Agronomy, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, Nadia and Dr. Rahul Marik, District Horticulture Officer, Govt. of West Bengal presented different aspects related to the topic of the Seminar.

Reunion & Exchange of views of Extension Functionaries

On 22nd January, 2017 morning (10.00 am), the Reunion Meet of the Ex-students of ATC and SAMETI started with a pleasure of game of ‘Tug of War’ between the present staff members of ATC and Ex-students of ATC. The re-union function took place in the ATC Conference Hall with presence of more than 100 ex-students from different batches. Swami Sarvalokananda, Secretary of the Ashrama as the President; Ms. Madhumita Chowdhury, IAS, Agriculture Commissioner, Dept. of Agriculture, Govt. of West Bengal as Chief Guest and Sri Amitava Ganguly, Deputy Director of Agriculture (Training-Head Quarter) as Special Guest.



“He alone is the true teacher who is illumined by the light of true knowledge.”

— Sri Ramkrishna

addressed the ex-students. The book ‘Sonali Fasal’, mainly published on the occasion of the Golden Jubilee of the Agricultural Training Centre, was presented to all the ex-students, ex-staff and present staff of the ATC.

Prize Distribution

In the afternoon session on 22nd January, 2017, the ‘Prize distribution Ceremony’ took place. In this programme Ms. Madhumita Chowdhury, IAS, Agriculture Commissioner, Dept. of Agriculture, Govt. of West Bengal was present as the Chief Guest. Sri Atanu Dutta Mazumdar, Additional Director of Agriculture (General) and Sri Amitava Ganguly, Deputy Director of Agriculture (Training-Head Quarter) chaired as Special Guests of the function. The first three rank holders of different academic courses like ‘Post Graduate Diploma in Agriculture Extension Management (PGDAEM)’ and ‘Diploma in Agricultural Extension Service for the Input dealers (DAESI)’ were honored with memento and Certificates. Six Agri-Clinic Agri-business (AC-ABC) passed out students, who have shown excellence in establishment of Agri-ventures, were honored with special memento and certificates. One Organisation and two farmers, who offered significant contribution in extension works, were also honored with memento and certificates.

The main attraction of the prize giving ceremony was offering different types of agricultural tools and equipments as prizes to the achiever farmers participated in ‘Vegetable and Fruit Show’ of the exhibition’. More than 150 such prizes were given to the farmers on this occasion.

Fair and cultural Programme

Besides those exhibitions, seminar, extension workers’ meet, vegetable- fruit show etc.; the other attraction of the ‘Ramakrishna Mela was the stalls of the SHGs, Farmers groups, agricultural organizations, District Industry Centres etc., where different handicrafts, rural agricultural produces (Nalen gur, scented rice, publication on agriculture etc.) were obtained. More than 70 different such stalls attracted the general mass.

Every day in the afternoon session and evening session cultural programmes, mainly based on rural folk culture, were organized, which entertained the visitors of the mela and exhibition to a large extent.

In the four days, more than one lakh heads, including farmers, extension workers, agri- technologists, agri-policy makers, school and higher study students, scholars, general rural and urban mass visited/ participated different events of the Celebrations.

E2. Agricultural fair : Rajarhat area

Participation at Krishi Mela at Rajarhat-Gopalpur: A 3-day Krishi Mela was organized with the imitativeness of MIC Agriculture, Govt. of West Bengal at Rajarhat-Gopalpur during 4-6 March, 2017. ATC/ SAMETI participated the mela with a stall for exhibition. Different technologies related to organic farming and urban agriculture were demonstrated. Lot of enthusiasm was generated among the local urban people and school students. Many of them enroll their name for learning such technologies.



“The brain and muscles must develop simultaneously.
Iron nerves within intelligent brain – and the whole world is at your feet.”

– Swami Vivekananda

II SPECIAL ACADEMIC EXTENSION COURSES

A. Post-Graduate Diploma in Agricultural Extension Management (PGDAEM)

Knowledge and skill up gradation of the existing functionaries is one of the crucial considerations for development of any organization/ institute/ Govt. system as the days are changing now in very fast speed with respect to technology, information, idea, concept, research findings etc. along with socio-politico-economic situation of a country or state. Development of India is largely dependent on progress of agriculture and for that reason agriculture has been given importance since our independence. As agriculture is an ever-changing subject and the change is found to be contrasting in last two decades, a paradigm shift in mode of delivery in extension is essential to cope up with the situation. Naturally, Govt. has taken due step in order to bridge this ever-increasing gap in knowledge of the extension functionaries through a well-thought National level course on Post Graduate Diploma in Agricultural Extension Management (PGDAEM) through the National Institute of Extension Management (MANAGE), Hyderabad. It is expected that the diploma would create a professional cadre of farm advisors in the country who eventually would take forward the agenda of agricultural extension.

National Institute of Agricultural Extension Management (MANAGE) has launched the Post Graduate Diploma in Agricultural Extension Management in the academic year 2007-08 especially for the public extension functionaries in distance learning mode. The programme is sponsored by Dept. of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India. In the first phase, the programme would cover extension personnel from the districts where Agricultural Technology Management Agencies (ATMAs) have already been established and functioning effectively.

With the broad objective of creation of professional cadres of farm advisors in the country who eventually would take forward the agenda of agricultural extension in pragmatic and future mode, SAMETI, Narendrapur has been conducting this one year model course for the technical officers of the state since 2007-08 sessions along with the other states of the country. A thorough orientation, conceptualization and to some extent practice in the sectors of Agricultural extension system, Communication, Economic globalization - agricultural trades, Principles of Management, Participatory planning, Market-led extension, Agricultural business and entrepreneurship development, Project management, Use of ICT, Sustainable development approach in agriculture and allied sectors etc are the main objective of the course. For every module, the participants produces an assignment after going through field/ practical work and towards the end of the course a total project is submitted. Enthusiastic and steadily increasing response has been received from the Govt. employees of the sectors of Agriculture, Horticulture, Fisheries, Animal husbandry, Agricultural marketing, Banking sectors etc.

Specific Course Objectives:

- To enhance the techno-managerial competence of extension functionaries.
- To acquaint the extension functionaries on the latest developments in the field of agricultural extension.
- To equip the extension functionaries with latest tools and techniques for participatory decision making.
- To develop an insight into various extension models to enrich the agri-value chain.

“The Man who works for others, without any selfish motive, really does good to himself.”

– Sri Ramakrishna

Course Structure and Contents

The programme has 32 credits and is being offered in two semesters. 1st semester is with 14 credits and 2nd semester is of 18 credits. One credit is equal to 30 hours of study. The programme will have five courses plus five assignments one in each course in the 1st semester and five courses with one assignment in each course plus a project work in the 2nd semester.

The programme is supported with printed reading material, e-learning resources (Pre-Recorded DVD module) and Lecture series-cum-contact classes. The Lecture series-cum-contact classes are organised at SAMETIs for five days in each semester, well in advance of the commencement of examinations.



Study Material

| Semester I | | |
|-------------|---|-------------|
| 1 | Course 101: Introduction to Agricultural Extension Management | (4 credits) |
| 2 | Course 102: Communication and Diffusion of Agricultural Innovations | (3 Credits) |
| 3 | Course 103: Principles and Practices of Extension Management | (3 credits) |
| 4 | Course 104: Participatory Approaches in Agricultural Extension | (2 Credits) |
| 5 | Course 105: Research Methods in Agricultural Extension | (2 Credits) |
| Semester II | | |
| 1 | Course 201: Market led Extension | (4 credits) |
| 2 | Course 202: Agri-Business and Entrepreneurship Development | (3 Credits) |
| 3 | Course 203: Project Management in Agricultural Extension | (2 credits) |
| 4 | Course 204: Information and Communication Technologies for Agriculture Development | (3 Credits) |
| 5 | Course 205: Sustainable Livelihood in Agriculture | (3 Credits) |
| 6 | Course 206: Project Work | (3 Credits) |

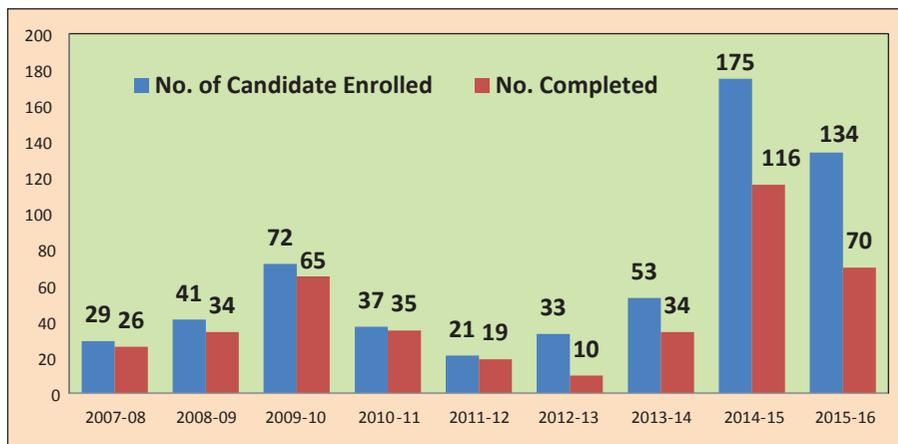
| Batch | PGDAEM No. of Candidate Enrolled | PGDAEM No. Completed |
|---------|----------------------------------|----------------------|
| 2007-08 | 29 | 26 |
| 2008-09 | 41 | 34 |
| 2009-10 | 72 | 65 |
| 2010-11 | 37 | 35 |
| 2011-12 | 21 | 19 |
| 2012-13 | 33 | 10 |
| 2013-14 | 53 | 34 |
| 2014-15 | 175 | 116 |
| 2015-16 | 134 | 70 |
| 2016-17 | 68 | Course on going |
| | 595 +68 | 409 |



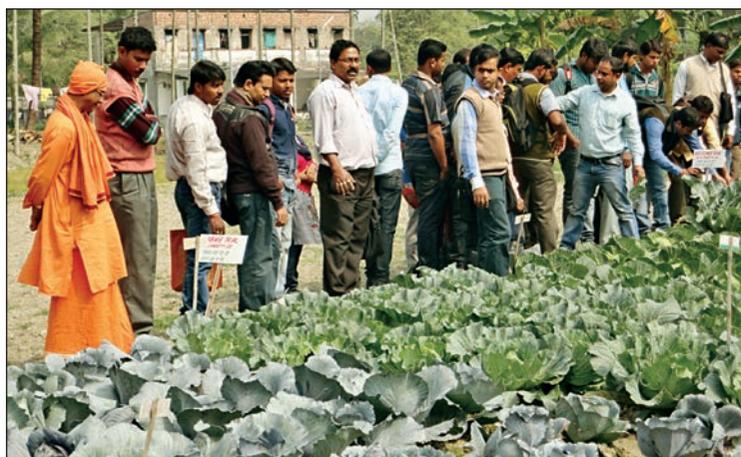
“You can’t cross the sea merely by standing and staring at the water.”

– Rabindranath Tagore

The course started in the September, 2007 with 29 enrollment from all the allied departments. After that the enrolment fluctuated but since 2011-12 the stiff rise in enrollment has been noticed. Till the last batch (2016-17), 409 candidates out of 595 (about 68.73 percent) candidates completed the course. Most of the uncompleted cases are due to the engagement of functionaries during the time of examination in consecutive emergency work in the situation like drought, flood, election duty etc.



B. Diploma in Agricultural Extension Service for Input-Dealers (DAESI)



One-year duration Diploma course for the agri-input dealers has been started at SAMETI since 2013. The course is guided by the 'National Institute for Agricultural Extension Management (MANAGE)', Hyderabad with the approval of Govt. of India. Till 2016-17, 12 batches have been completed with 482 input dealers.

Objective and Goal

The course is to equip the dealers who are engaged in agricultural input supply along with advisory to the farmers, with the knowledge on basic agriculture targeting improved agricultural

extension services and their better business and ultimately leading to agricultural growth.

Background

- There is a large network of about 2.82 lakh Agri-Input Dealers in the country
- Farmers have a very close relation and access to the dealers regularly and they use to receive different suggestions/recommendations on agricultural from them
- Most of the input dealers have hardly any agricultural education and so unintentionally percolates in-effective recommendation, leading to increase cost of cultivation, pollution and other problems.



“Finish the few duties you have at hand, and then you will have peace.”

– Sri Ramakrishna

Bridging the Gap

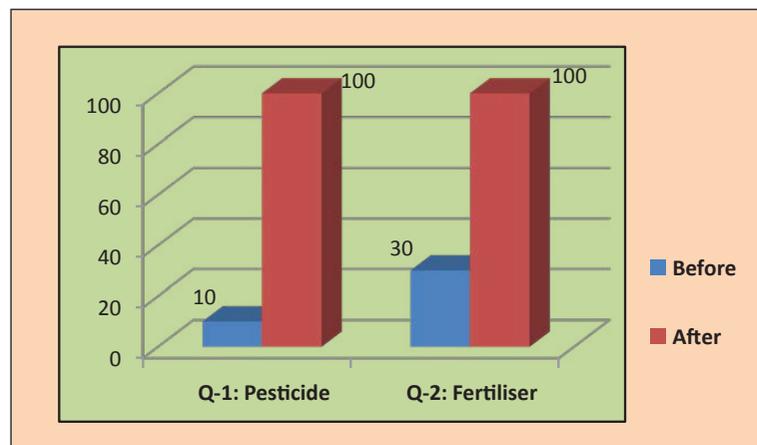
To bridge the gap and also by feeling the urgency of formal education of agri-input selling persons, Govt. of India through National Institutes of Agricultural Extension Management (MANAGE), Hyderabad, initiated the course 'Diploma in Agricultural Extension Service for the Input-dealers (DAESI), in the country.

Action

For the state of West Bengal, SAMETI of the state took initiatives to conduct the course for the input dealers of West Bengal and the SAMETI, Ramakrishna Mission Ashrama, Narendrapur, Kolkata-700103 has been declared by MANAGE, Hyderabad as the Nodal Training Institute for the State.



Difference Created



At the beginning of the course, the knowledge of participants was evaluated through few very simple questions. Two of them were very indicative-

Q1. Carbendazin can control rice stemborer effectively: True/ False (to check whether they are in position to distinguish between insecticide, fungicide etc. as per their function)

Q2. For higher production of pulse crop, higher dose of nitrogen is essential : True/ False (to check awareness about crop-nutrient relationship)

At the end of the course same types of questions were given. The results given above. The details of the DAESI evaluation is given in Chapter IV - Study and Evaluation

Mode of Teaching/ Learning

- Class on a day of every week ,generally Thursday (as convenient of the dealers) for 52 weeks
- Each class day generally contains: Practical hours (morning/ before lunch session) and Theory (after lunch session)
- Cover all the possible crop being in the



“All the wealth of the world cannot help one little Indian village if the people are not taught to help themselves”

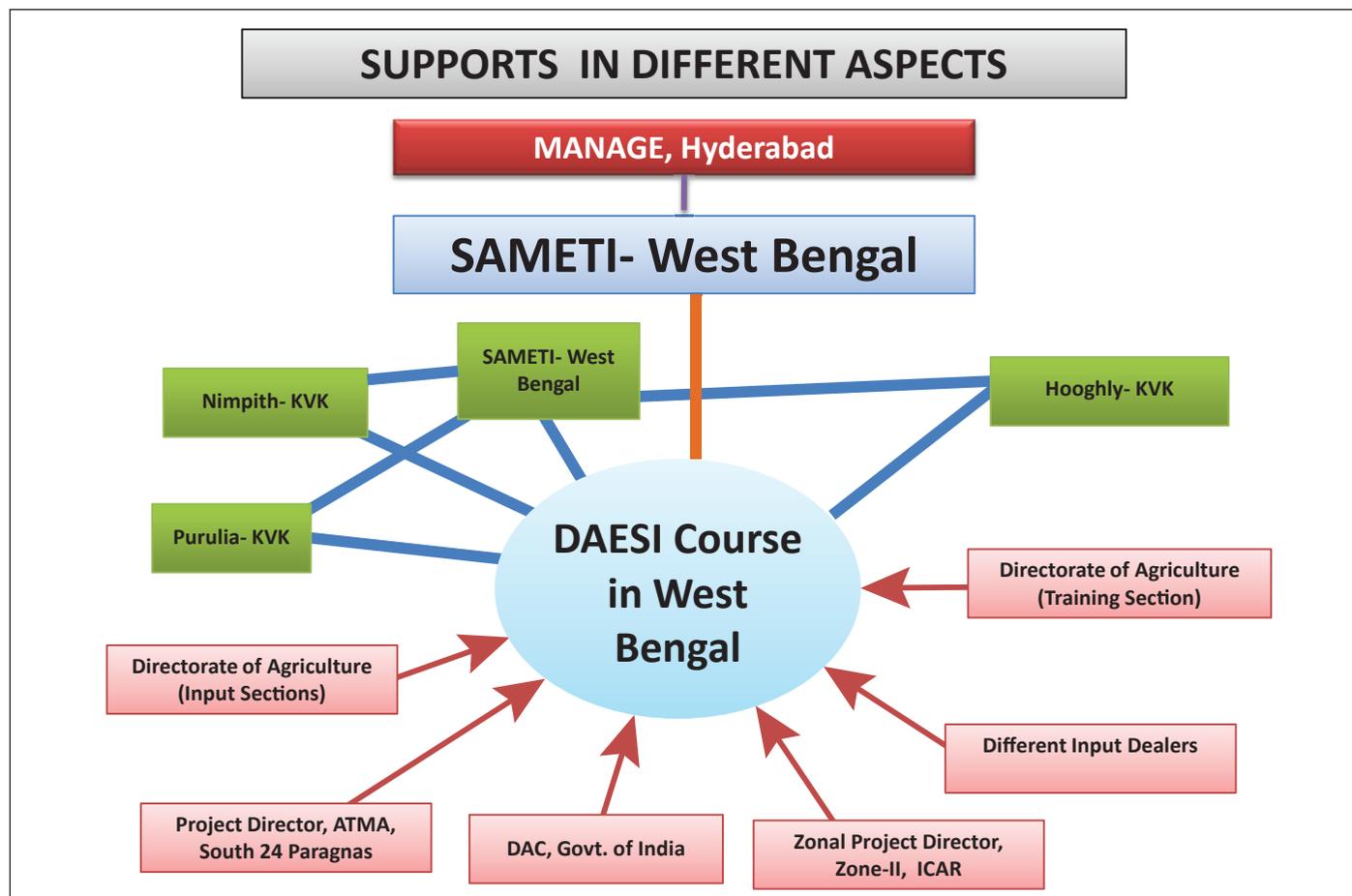
– Swami Vivekananda

field with observation of crop growth, pest incidence at a week interval

- Visits to different laboratories related to studies
- Visit of Institutions/ organisation related to studies
- Visit of success stories/ model farms
- Collection of specimen (insect, disease, weed etc.) , preservation and study
- Continuous data generation on market price of agril commodity etc.
- Record of Farmers problems related to plant protection etc. at their shop and verification of recommendations etc. in the class on regular basis.

Venue of DAESI courses

| Year | No. of Batches | No. of Input Dealers enrolled | Venue of the course |
|---------|----------------|-------------------------------|---|
| 2013-14 | 2 | 80 | SAMETI-West Bengal, Nimpith KVK |
| 2014-15 | 2 | 80 | SAMETI-West Bengal, Nimpith KVK |
| 2015-16 | 2 | 82 | SAMETI-West Bengal, Nimpith KVK |
| 2016-17 | 6 | 240 | SAMETI-West Bengal, Nimpith KVK, Hooghly KVK, Purulia KVK |
| | 12 | 482 | |



Men are more valuable than all the wealth of the world

– Anonymous



“Be the change that you wish to see in the world.”
– Mahatma Gandhi

C. Agri-Clinic & Agri-Business Centre (AC-ABC)

State Agricultural Management & Extension Training Institute (SAMETI), Ramakrishna Mission Ashrama, Narendrapur, Kolkata - 700 103 has been declared as Nodal Training Institute since 2013 for conducting 2-month “Fully Sponsored Professional Residential” Training Course on ‘Agri Clinics & Agri Business Centres (AC & ABC)’ under the Agri Clinic & Agri Business Centre Scheme of Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. of India, in collaboration with National Institute of Agricultural Extension Management (MANAGE), Hyderabad.

The objectives of the scheme are

- Generation of employment through self initiative with agriculturally educated rural youths
- Support to public extension system through the trained agri-preneurs to cater local needs
- To support agricultural development

The Agriculturally educated youths are trained for 2-months and after completion of the training they go for establishment of the Agri-Business Centres with good scope of bank loan in subsidy mode.

Agri-Clinics are envisaged to provide expert advice and services to farmers on various technologies including soil health, cropping practices, plant protection, crop insurance, post harvest technology and clinical services for animals, feed and fodder management, prices of various crops in the market etc. which would enhance productivity of crops/animals and ensure increased income to farmers.

Agri-Business Centres: Agri-Business Centres are commercial units of agri-ventures established by trained agriculture professionals. Such ventures may include maintenance and custom hiring of farm equipment, sale of inputs and other services in agriculture and allied areas, including post harvest management and market linkages for income generation and entrepreneurship development.

Supporting the Trainees during training and follow up

Two months training programme with free of cost aims at transforming persons qualified in the field of agriculture and allied sectors into agri-entrepreneurs. It is an intensive capacity building effort mainly divided into two categories of activities:

- (i) Exposing the trainees into potential agri-ventures in their area and providing additional subject matter training to refresh their knowledge and skills. Besides motivation, training will also concentrate on building communication skills, record maintenance, schemes/ programmes from where financial assistance is available etc. The basic idea is to customize the trainings modules based individual and collective needs of the entire group.
- (ii) Facilitate the trainees to choose a venture and to prepare DPR based on market survey, hands on experience with the support of experienced bankers.

Detailed interactions should be arranged with stakeholders such as farmers, bankers, department officials, input dealers, NGOs working in the area.

Identification and analysis of farmers’ problems and provision solutions through extension and business advisories are focused upon. Assessing technical feasibility and financial viability of ventures, hands-on

“Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.”

—1st Earl of Chatham, William Pitt

interface with the successful entrepreneurs and DPR preparation with assistance by experienced bankers as resource persons are the other crucial parts of this activity.

Linkage with Credit Assistance under the scheme would be purely credit linked and subject to sanction of the project by banks based on economic, viability and commercial considerations. The eligible financial institutions under the scheme are different nationalize Banks refinanced from NABARD.

Project Cost/ Loan Ceiling

After successful completion of the 2-month residential training, the trained person will get the opportunity to have bank loan with Special NABARD Subsidy (36- 44%) of project cost (up to Rs. 20 lakh individually and Rs. 1 crore in group) for doing business with a close follow up and monitoring.

Candidates trained under this Scheme can avail subsidy from any Scheme of Central or State Government related to his/her field of agri-business, if it is Beneficial to the candidate. However, subsidy for the same project cannot be availed from more than one Scheme by a candidate.

Status of training

| Batch No. | Date of Course | No. of Participants | Total No. of Established Units | Amount of Bank Loan (Lakh) |
|-----------|--|---------------------|--------------------------------|----------------------------|
| 1 | 30 th January - 30 th March, 2013 | 28 | 19 | 42 |
| 2 | 5 th August - 3 rd October, 2013 | 35 | 26 | 14 |
| 3 | 9 th December, 2013 - 6 th February, 2014 | 29 | 23 | |
| 4 | 15 th Oct to 13 th December, 2013 | 35 | 29 | 38.46 |
| 5 | 8 th Dec, 2014 - 5 th Feb, 2015 | 27 | 22 | 21.991 |
| 6 | 17 th Nov - 15 th Jan, 2015 | 31 | 21 | 5 |
| 7 | 29 th Jan, 2016 - 28 th March, 2016 | 31 | 20 | - |
| 8 | 20 th June - 18 th August, 2016 | 34 | 23 | 4.78 |
| 9 | 22 th August - 28 th October, 2016 | 20 | 12 | 16 |
| 10 | 19 th December, 2016 -16 th February, 2017 | 27 | 18 | |
| | | 297 | 213 | 142.231 |

Types of Agri-Business established

So far the agri-ventures are established along with advisory in the area of Dairy, Poultry, Goatry Piggery & Agri-clinic, Fishery, Integrated Farming, Custom Hiring, Purchasing & selling of Agril. Input & Output (Stock business), Fertilizer, Pesticide & Seed Shop and Nursery. A total of Rs. 1.42 crore have sanctioned for different banks.



“Agriculture is the noblest of all alchemy; for it turns earth, and even manure, into gold, conferring upon its cultivator the additional reward of health.”

– Paul Chatfield

D. Six months KPS Training (Pre-Service & In-Service)

For improvement of the agricultural scenario, the grassroot level extension workers of Dept. of Agriculture are very crucial. They are the nearest person to provide information and advice directly to the farmers being in their area. Govt. of West Bengal has initiated the recruitment process of the Krishi Prayukti Sahayaks (KPS) by in different districts. Before final engagement, the candidates are to go through a 6-month Pre-service Course, after successful completion of which, the candidates will be placed in different districts. After final joining in their jobs as KPS, they have also gone through again a six months in-service training course. In this financial year two courses of KPS Training have been performed - a six months of pre-Service training (7th Nov., 2016 - 6th May, 2017) and another course of in-service training (15th March, 2017 – 14th September, 2017).

In the inaugural programmes of both the courses, Principal, Agricultural Training Center were present along with representatives of Agricultural Department, Govt. of West Bengal and Swamiji from the Ashrama. The trainees and faculty members introduced themselves and the trainees told about the expectations they have from that training. The trainees were introduced with the overall course structure and how they will go through the course in the next six months. They were also informed about the rules and regulations of the hostels and the overall Ashrama campus. All the 72 trainees (both Pre-Service and In-service) has gone through the approved syllabus both theoretical and practical on the subjects like: Agro-meteorology, Soils, Manures and Fertilizers; Soil conservation, Irrigation, Drainage and Agricultural Implements; Crop Husbandry; Horticulture; Plant Protection; Integrated Farming system, Agricultural Extension, New initiatives in agriculture etc. The details of both the syllabuses are given below

Syllabus of pre-service training

| | Paper No. | Name of the Subject |
|---|-----------|---|
| 1 | Paper-I | Climate, Soils, Manures and Fertilizers |
| 2 | Paper-II | Soil conservation, Irrigation, Drainage and Agricultural Implements |
| 3 | Paper-III | Crop Husbandry |
| 4 | Paper-IV | Horticulture |
| 5 | Paper-V | Plant Protection |
| 6 | Paper-VI | Integrated Farming system and allied activities |
| 7 | Paper-VII | Agricultural Extension |

Syllabus of in-service training

| | Paper No. | Name of the Subject |
|---|------------|---|
| 1 | Paper-I | Agricultural Engineering and Agricultural Meteorology |
| 2 | Paper-II | Soil and Soil Health Management |
| 3 | Paper-III | Crop Husbandry |
| 4 | Paper-IV | Horticulture |
| 5 | Paper-V | Agricultural Entomology |
| 6 | Paper-VI | Plant Pathology and Weed Control |
| 7 | Paper-VII | Agricultural Extension |
| 8 | Paper-VIII | New initiatives in Agriculture |

Syllabus of both the course were reviewed and finalized in workshop mode with representatives of all the ATCs before commencing the courses.

“Anyone who has never made a mistake has never tried anything new.”

– Albert Einstein

Exposure visits/ study



To experience on Integrated Farming System (IFS), the trainees were taken to a model IFS farm at Langalberia, Sonarpur block on 28th August, 2015. The model is actually functioning as a Farm School under ATMA Scheme in the South 24 Parganas district. The visitors learnt about different enterprises, their interrelationships, proportions of individual enterprises within limited resource and being within particular agro-ecological situation, recycling of resources within the farm, farm-market relationship and financial aspects of IFS.



During these six months courses, the KPS trainees were on four exposure visits/ study tours.

They visited Sri Ramkrishna Ashrama Nimpith and experienced different activities and demonstrations of Krishi Vigyan Kendra, like ornamental fish culture, land shaping model of crop cultivation, improved poultry cultivation, model of cotton cultivation in saline soil etc. They were also in the Vivekananda Institute of Bio-technology of the Ashrama and observed the preparation methodology and demonstrative effect of bio-fertiliser, bio-pesticide, azolla culture, vermicomposting, mushroom culture etc.



The trainees visited the Central Integrated Pest Management Centre of Govt. of India at Salt Lake, Kolkata. Trainees became aware about the bio-control methods including mass multiplication methods of different egg parasites, larval parasites, antagonistic and entomopathogenic fungus, bacteria, virus etc. A session on implementation of IPM was also taken by the expert of the CIPMC. The trainees also oriented with the quarantine activities

The trainees were at the Belur Math, Dakshineswar and Science City Museum.

“Let New India arise – out of the peasants’ cottage, grasping the plough; out of the huts of the fisherman, the cobbler, and the sweeper”

– Swami Vivekananda

Besides general aspects of tourism, they were oriented about the value system in our education, society and farming society in particular. At Belur Math the trainees visited the Ramakrishna Mission Samaj Sevak Sikshan Mandir, where the rural youths are trained on different agro-based rural entrepreneurships like fruit and vegetable processing, mushroom cultivation, ornamental bird rearing etc. The visitor trainees were oriented about 'ideas of Swami Vivekananda on rural development' at the Ramakrishna Mission Vivekananda University.

They visited the agri-entrepreneurship filed like vermicomposting developed by one of the trained entrepreneurs of Amtala area of South 24 Parganas; agri-entrepreneurship on floriculture and high value vegetables at Nakashipara area of Nadia District. The in-service trainees also visited the Agri-horticultural Society of India, Kolkata and Regional Meteorological station at Alipur, Kolkata.



Farmers Livelihood Survey

As a part of the study of the both pre-service and in-Service KPS course, the trainees were sent to the farm families of different area of the state to practice survey methodologies on the agricultural practices and livelihood of the farm families. Before sending the trainees to the field, a questionnaire was developed by the experts and an orientation about the questionnaire as well as survey procedure was given. The compilation of the survey data and preparation of a report was also discussed.



The students on different holidays approached 10 farm families each and surveyed on the aspects like: general aspect of the farm families, agricultural resources, pattern of earning and expenditure of the family, soil health including soil test, use of manure and fertilizer; cultural practices for the main crops (field crop, orchard, animal husbandry, fishery), production, use and marketing, plant protection aspects, agricultural information flow and farmer capacity building, Kisan credit card, Kisan call centre use, farm machinery use, supports from agriculture and allied departments' and major problems of the farmers. After completion of the survey, the

trainees submitted 10 filled up survey schedule, compilation sheet along with a report on the survey.

After six months training on different aspects of agriculture through theoretical, practical, exposure visits and survey of the farmers, the trainees have successfully completed the course and awarded certificates.

“Be the change that you wish to see in the world.”

– Mahatma Gandhi

E. Skill Training of Rural Youth (STRY)

To upgrade the skill of the rural youth on different aspects of agriculture, is suppose to increase the agricultural production, productivity, processing and marketing. This will also encourage the rural youth to grab the agriculture as profession for standard income. With all these objectives, Govt. of India has initiated a 7-day module in selected areas for training of the rural youths and named the venture as ‘Skill Training for Rural Youths (STRY)’. This year SAMETI, Narendrapur has received 11 such programmes to be conducted through different KVKs. Accordingly a workshop was organized with the KVKs about implementation of the STRY and seven of KVKs were allotted with the programmes. During December-February, 2017, all the programmes have been conducted in which 165 rural youths have been trained. The details of which given below.

| Sl. No. | Name of the KVK | No. of progs. | Title of the Training Programme | Date & Duration | No. of Trainees |
|---------|---------------------------------|---------------|--|-------------------------------------|-----------------|
| 1 | KVK, Nimpith, South 24 Parganas | 2 | Fish rearing and management | 8-14 January, 2017 | 15 |
| | | | Protected Cultivation of High value crops | 8-14 January, 2017 | 15 |
| 2 | KVK, Majhian, Dakshin Dinajpur | 2 | Organic Farming | 16-22 January, 2017 | 15 |
| | | | Duck Farming | 06-12 February, 2017 | 15 |
| 3 | KVK, Kalyan, Purulia | 2 | Repair and Maintenance of Farm Implements | 18-24 December, 2017 | 15 |
| | | | Duck Farming | 18-24 December, 2017 | 15 |
| 4 | KVK, Chinsurah, Hooghly | 1 | Vermicomposting & Mushroom Production Technology | 16-21 January, 2017 | 15 |
| 5 | KVK, Coochbehar | 2 | Nursery management practices | 18- 24 December, 2017 | 15 |
| | | | Mushroom Production Technology | 26 December, 2016 – 1 January, 2017 | 15 |
| 6 | KVK, Kalimpong, Darjeeling | 1 | Nursery Management | 3-8 January, 2017 | 15 |
| 7 | KVK, Chopra, Uttar Dinajpur | 1 | Nursery Management | 20-26 December, 2016 | 15 |
| | | 11 | | | 165 |

F. Agri-Entrepreneurship – On Job Training

Establishing agriculturally educated technical youth is a process towards development of agriculture. The Board of Practical Training (BOPT), under Ministry of HRD of Govt. of India engages such eager technical candidates as apprentice in related areas for one year to offer on the job training with stipend. Recently, Dept.

Men are more valuable than all the wealth of the world

– *Anonymous*

of Agriculture, Govt. of West Bengal has decided to engage the 10+2 Vocational Agriculture candidates in different technology implementation in training mode. To orient those candidate about the process and aspects of technology leaning, a 5-day orientation programme was organized for the Agri-apprentices of Purba Medinipur district. Thirty one such candidates including 13 female went through different aspects like: Agro-climatic regions of West Bengal, importance of extension in agricultural development and its network in the state, some important technologies influencing agricultural development of the state, methods of demonstration, process of conducting training and campaign, flafship agricultural schemes, how to collect information of farmers, how to prepare a success story and report etc.



“Do not afraid; the Master is behind you, and I am, too, as your Mother”

– Sarada Devi

III AGRICULTURAL EXTENSION SERVICE

A. Animal Resource Development – Training, Demonstration & Extension

The base of the sustainable agriculture in India is basically ‘Integrated Farming system’. In that context Agriculture and Animal Husbandry are very closely associated with each other and in case of rural farmers this is an undivided sector. For the training, demonstration, exposure visit and overall capacity building of the stakeholders, the Animal Husbandry (AH) Unit within our Ashrama is considered important unit for ATC/SAMETI.

Field Extension Activities

The Animal Resource unit is dedicated mainly for demonstration in the mode of learning through production in situ. Another aspect is field extension in which learning in the farm is disseminated in rural areas. The major areas of extension in this relation are direct farmer advice, up-gradation of animal breed (mainly cow) at farmers’ house through artificial insemination, awareness and measures towards preventive to different diseases of animal and birds, regular clinical test of animal, recycling of animal-byproducts through vermicomposting etc. Details of the Field Extension activities performed during the reporting period are given in the table below.



TABLE-1 (Extension Performance)

| | |
|--|------------|
| No. of cows artificially inseminated for breed up-gradation | 167 |
| No. of farmers provided advice for technology development | 92 |
| No. of poultry bird vaccinated for F-1 RD | 120 |
| No. of animal treated for Deworming | 379 |
| Clinical test against Mastitis disease of cow | 30 |
| Support to the Production & distribution of Vermicompost (ton) | 7.5 |



“As long as I live, so long do I learn.”

– Sri Ramakrishna

The important courses dealt by this unit are related to Dairy development, Poultry development, Green fodder development, Health and Hygiene of the animal, General and Scientific maintenance of Animal Farm; Breeding development, specially Artificial insemination; Entrepreneurship development through animal husbandry and Animal Farm management.

Units Under Animal Husbandry

The above courses are directly supported by the well maintained units like – Dairy Farm, Poultry Farm, Green Fodder Land, Bio-gas Plant, Vermicompost Unit etc.

Dairy Unit

The existing dairy unit is an asset for pertaining quality training. This unit includes pure breed of Gir as well as several cross breeds of well maintained Pe-digree. The cross breeds includes Holstein-Frizian (HF) x Gir; HF x Sahiwal (S); Jersey x Gir and Jersey x Sahiwal. The dairy stock at a glance is given below:

TABLE-II

| Sl. No. | Cattle | No. |
|---------|----------------------|------------|
| 1 | Milch Cow | 58 |
| 2 | Dry Pregnant cow | 10 |
| 3 | Training Cow | 5 |
| 4 | Pregnant Heifer | 5 |
| 5 | Heifer above 18 M | 8 |
| 6 | Heifer above 12 M | 8 |
| 7 | Heifer above 6 M | 10 |
| 8 | Heifer below 6 M | 5 |
| 9 | Male Calf below 10 M | 11 |
| | Total | 120 |



The bio-security and scientific disease control are the two main factors for this well maintained dairy. The Bio-security and Disease control becomes standard for the dairy for West Bengal.

TABLE-III (Bio-security)

| Sl. No. | Test | Frequency per year |
|---------|--------------------------------------|--------------------|
| 1 | Milch test for Mastitis | 4 times |
| 2 | Blood test for Brucellosis | Once |
| 3 | Blood test for IBR | Once |
| 4 | Blood test for Protozoa | Once |
| 5 | Tuberculin test for Tuberculosis | Once |
| 6 | Stool Examination for Endo-Parasites | Thrice |
| 7 | Disinfectant Spray in Cattle Sheds | Once in a week |
| 8 | Use of Bio-waste materials in | 3 Bio-gas plants |



“I tell you one thing - if you want peace of mind, don not fault with others.”

– Sarada Devi

TABLE-IV (Disease Control)

| Sl. No. | Preventive measures | Frequency per year |
|---------|--|--------------------|
| 1 | Vaccination against B.Q., H.S, Anthrax | Once |
| 2 | Vaccination against F.M.D. | Twice |
| 3 | Vaccination against Theileria | Once |
| 4 | Blood test for Diagnosis of diseases | Once |
| 5 | Routine De-worming | 4 times |

The average daily milk production of the unit is 500 kg. with average 4.8 percent fat and average 8.75 percent SNF (Solid Net Fat), becomes a subject to the dairy management students and entrepreneurs.

The University students from WBUAFS and also IRDM Faculty Centre use to come to the unit regular basis to learn the dairy technologies and management. The production serves the student of the Ashrama. A major share goes to the dairy workers also the children, aged persons and ailing persons of the surrounding communities.

Poultry Unit

A flock of 300 birds are maintained in 'All out system' mainly coinciding with training courses. Generally 'White Leg Horn' is reared as broiler to demonstrate scientific poultry rearing targeting entrepreneurship development by the rural youth and women SHGs.

Green Fodder Cultivation

The AH unit emphasizes to feed its animal mainly on Green Fodder. The unit fully utilizes its land through continuous cultivation of Hybrid Napier, Para Grass and on seasonal basis on Maize, Cowpea, Berseam, Oats etc. The visiting farmers and the trainees directly learn about cultivation of green fodder and its importance.

Other Units

The Gobargas (Bio-gas) Plant and Vermicompost is an attached unit and an integrated part of the A.H. Farm Management. The dairy workers use the gobargas as light and fuel throughout the year, while the vermicompost goes to the Ashrama Farm, vegetable garden of the workers of AH units and also to the farmers of the surrounding areas. Both the units act as demonstration and training component of the learning trainees.

Extension Work

Throughout the year the AH Unit serves the farmers of the surrounding villages as well as the farmers of far districts.

The thrust areas of extension and the actual performance during the reporting period is shown below:



“Let New India a rise-out of the peasants’ cottage, grasping the plough; out of the huts of the fisherman, the cobbler, and the sweeper”

— Swami Vivekananda

- Improvement of the local cattle breed through cross-breeding.
- Practical oriented training to the youth for self-employment.
- Establishment of small, medium and large sized livestock farms.
- Additional income generation for rural women through rearing of Cow, Goat, Poultry and Ducks in Low-cost technology.
- Distribution of green fodder seeds/cutting.

TABLE-V (Extension Performance)

| | |
|--|-------|
| No. of cows artificially inseminated for breed up-gradation | 240 |
| No. of farmers provided advice for technology development | 341 |
| Vaccination to cows against Foot & Mouth Disease | 460 |
| No. of poultry bird vaccinated for F-1 RD | 800 |
| No. of animal treated for Deworming | 685 |
| Distribution of No. of Green fodder cuttings to the farmers | 6,500 |
| Clical test against Mastitis disease of cow | 290 |
| Support to the Production & distribution of Vermicompost (ton) | 9.25 |



B. Soil Testing Laboratory

Soil is the base of agriculture. It provides major number of nutrients as well as water. In the era of sustainability soil is the most important component for production of agricultural crops and also for the standard of livelihoods for lakhs of farmers in India and world. Unlike previous decades, soil is now considered as a living matter. Sustainability of agricultural production largely depends on the sustainability of soil health



and fertility to a great extent. Soil testing is the base for management decisions about fertilizer requirements. Naturally use of fertilizers, manures, soil amendments, micro-nutrients must be based on the need of the respective soil; otherwise cost of cultivation will increase rapidly as well the soil health will deteriorate.

Fertilizers such as NPK, lime or gypsum are recommended to improve soil fertility. Fertilizer application, which is based on soil testing, usually leads to an increase in yields and profits by providing the correct amounts of needed nutrients. It also leads to balance application of nutrients in a field. As nutrient availability

“I slept and dreamt that life was joy. I awoke and saw that life was service. I acted and behold, service was joy.”

– Rabindranath Tagore

becomes less variable, the crop growth is more uniform. Regular soil testing also contributes to environmental sustainability as the use of excess fertilizers can be avoided. It provides an opportunity to the farmer to have a clear idea about the fertility level of the tested land and the status of plant nutrient elements.

The institute has a modern soil testing laboratory, providing service to the farming community to know their soil quality. Testing of soil covers - pH of soil, electrical conductivity, organic carbon, available phosphorus and potassium. During last one year 2540 soil samples have been tested. The institute took an initiative



to establish small soil testing laboratories at village level with the support from Dept. of Horticultural, Govt. of West Bengal. The village organization (registered under society act) closely associated with rural development activities of Ramakrishna Mission were selected for such venture.

The objectives are :

- To create awareness about soil health and importance of soil testing among the farmers
- To create minimum infrastructure at village level for soil testing at the doorstep of the farmers.
- To provide speedy feedback and recommendation to the farmers.

The Major Instruments provided to the field laboratories are

- | | | | |
|-------------|------------------------|-----------------------------|-----------------------|
| i) pH meter | ii) EC meter | iii) Colorimeter | iv) Flame photo meter |
| v) Shaker | vi) Electronic Balance | vii) Distilled water plant. | |

Type of Analysis done

Routine Analysis Done (pH, EC, Organic Carbon %, Available P kg/H, Available K kg/H, lime requirement, gypsum requirement)

Process of collection of soil Sample

Sample collection through Rural development infrastructure, clubs, S.H.G., individuals etc.

No. of laboratories Situated – 5 nos.

Burdwan Deepan Yuba Ghosthi, Block Khandakosh, Burdwan

Sahid Khudiram Srmiti Sangha, Block – Keshpur, West Midnapore

Kansabati Guchha Samity, Block – Panskura, West Midnapore

Sagar Mongal, Block – Sagar , South 24 Parganas

Patharpratima, Block – Pathar Pratima, South 24 Parganas

“Science without religion is lame, religion without science is blind.”

– *Albert Einstein*

The Responses

Initially the responses of the Farmers were very low because of the gap of communication.

Later on with Awareness camp in the area and also getting feedback from benefitted farmers, the number of sample is increasing gradually.

In the financial year 2016-17, 2540 numbers of soil samples have been tested by all the soil testing laboratories and based on the analysed result, recommendations were provided to perspective farmers.

C. The Custom Service Unit

The workshop wing is an important wing of the institute. It is operates in full swing with the teaching guidance of experienced manpower.

The basic objectives of the unit are

- i) To provide technical expertise & extension service to farmers, KPS, officers rural youth, women farmers, University student etc.
- ii) To provide custom hiring service to farmers of inside and outside the campus in reasonable rate.
- iii) To promote agricultural Mechanization in both rural urban areas
- iv) To be engaged in operation, maintenance & repair of various agricultural implement.



The activity of the units is manifold with different types of services.



- i) Imparting training to various categories of participants
- ii) Tillage and puddling operation both inside & outside the campus with tractor drawn rotavator, cultivator and power tillers.
- iii) Providing trolley for transport purpose.
- iv) Organising Krishi Mela, demonstration etc.
- v) Preparing bankable projects for custom hiring centre and form implements
- vi) Maintenance & repair of agricultural implements
- vii) Conducting exposure visit to farm implements, custom hiring centre etc.

“The best way to find yourself is to lose yourself in the service of others.”

– Mahatma Gandhi



The unit is well equipped with several manual and power operated agricultural machineries such as Tractor, Power tiller, Trolley, Cultivator, Rotavator, Reaper, Pumpset (various), Mist blower cum duster, Engine operated sprayer, Battery operated sprayer, Knapsack sprayer, Foot sprayer, Rocking sprayer, Hand compression sprayer, Busket sprayer, Manual transplanter, Drumseeder, Seed treatment drum, Cono weeder, Paddy weeder, Tools adequate, Petrol engine, Twin Wheel Hoe, Hand seed drill, Seed cum fertilizer, Mould board plough, Peg hyper, dry land weeder, Sweep cultivator, Seed grader, Chain saw, Brush cutter.

During this year (Apr. 2016 - Mar. 2017) the wing has provides the following services to the farming community of the nearby area of the institute :

| Sl. No | Services | Hours |
|--------|--|-------|
| 1. | Ploughing/Puddling with power tiller | 413 |
| 2. | Ploughing / Puddling with tractor drawn implements | 87 |
| 3. | Transport with tractor trolley | 65 |



D. Agricultural Farm: Demonstration, Experimentation, Seed Production

Agricultural Farm is an asset for any agricultural educational institution. For the Agricultural Training Centre & SAMETI, the Agricultural farm acts as one of the integral unit of education and training by acting as the base of demonstration of technologies, demonstration of methods, model of production, direct aids to classes of training and education, as a base supportive to different trial and experimentation and also a place of visit of farmers.

During the reporting period the following activities are conducted:

Demonstration

Different agricultural technologies were on demonstration like System of Rice Intensification, Drumseeder technology of paddy cultivation, use of paddy transplanter, micro irrigation, protected cultivation, demonstration of production of different high value vegetables like: broccoli, salary, leek, zukini, chinese cabbage, red

“He alone is the true teacher who is illumined by the light of true knowledge.”

– Sri Ramkrishna

cabbage, brussels sprout, colour capsicum etc. Demonstration was done on onion cultivation and scientific cultivation of mustard. More than 700 farmers visited those demonstration at different time.

Seed production : Demonstration cum Production of Quality Seed

Large number of farmers use to come to have a training on quality seed production of different crops and even groups of farmers use to visit the farms at crucial points of different culture related to the seed production to learn about it. In the pre-kharif season, foundation and certified seeds were produced on the crop green gram with variety Samrat. On Boro paddy, the seed production was conducted on the variety IET-4786. In Kharif season, quality seed production methods were demonstrated on Paddy of variety IET-4786, MTU- 7029, MTU-1010 for foundation and certified seed. Besides that on demand from the farmers, the Truthful Level of seed of paddy variety ‘Super Shankar’ was produced. In Rabi season, seed production of potato was done on the variety Kufri Joyti.



Experimentation and Trial



Experimentation on Organic Farming: In collaboration with the Integrated Rural Development and Management (IRDM) Faculty Centre of the Ramakrishna Mission Vivekananda University, the experimentation on organic farming as part of the Network Project on Organic Farming (NPOF) under Indian Council of Agricultural Research (ICAR) is being conducted at the Agricultural farm. The main objective of this centre is to validate indigenous farming knowledge scientifically, which have been practiced in India traditionally to improve the plant growth and its yield. The experiment was based on four cropping systems and six

cropping managements (based on different nutrient source i.e. organic and inorganic) as shown below.

The four Cropping System are :

- Basmati (Paddy) – Broccoli – Green Manure (Legume)
- Satabdi (Paddy) – Mustard – Green Gram (Legume)
- Satabdi (Paddy) – Capsicum – Green Gram (Legume)
- Satabdi (Paddy) – French Beans (Legume) – Sesame

Men are more valuable than all the wealth of the world

– Anonymous

The management practices as treatments are:

| Sl No. | Treatment No. | Treatment Detail |
|--------|---------------|---|
| 1 | T-1 | 100% Organic Sources |
| 2 | T-2 | 75% Organic + 25% Innovative approaches |
| 3 | T-3 | 50% Organic + 50% Inorganic fertilizers |
| 4 | T-4 | 75% Organic + 25% Inorganic fertilizers |
| 5 | T-5 | 100% Inorganic fertilizers |
| 6 | T-6 | State Recommendation |



Detailed descriptions of Manure or Fertilizer used in the treatments:

| | |
|--------------------------------------|---|
| Organic Sources | Vermicompost (Nitrogen content – 1.5%) Innovative approaches: Sashyagavya (20% solution) or Panchagavya (3% solution) |
| Inorganic Sources | Urea Single Super Phosphate (SSP) Muriate of Potash (MoP) |
| Pesticide or Insecticide used | Dashaparni (10% solution) Cow Urine (10% solution) Neem oil (5% solution) |



So far, over two years of study, it has been observed that integrated nutrient management (i.e, combination of both organic and inorganic) is performing better based on net returns (in terms of rupees per hectare) than inorganic. A similar trend has been documented in all four different cropping systems. However, it has been observed that Basmati rice is performing better in terms of yield under organic cultivation.

E. National Mission on Oilseeds and Oil Palm (NMOOP)

National Mission on Oilseeds and Oil Palm (NMOOP) launched during 2014-15 envisages increasing production and productivity of oilseeds crops and oil palm through bringing in fallow areas under oilseed crops and diversification of area from low yielding cereals. It aims to achieve the required target by addressing major constraints to crop productivity through promotion of relevant technological interventions. The experience gained during the course of implementation of Integrated Scheme on Oilseeds, Pulses and Maize (ISOPOM) has revealed that a sound backup of adaptive research strategy in emerging areas is supportive to bridge the yield gap. Moreover, many technological interventions are needed on location-specific refinements for

“The Man who works for others, without any selfish motive, really does good to himself.”

– Sri Ramakrishna

ensuring their effectiveness at the grass root level. Besides, a good number of innovations made by the farmers/ extension functionaries, need scientific validation before their large scale promotion. In a few instances, there is lack of resource-relevant technologies for addressing crop productivity related constraints. In view of the above, a provision has recently been made under NMOOP for supporting scientific research on subjects crucial for attaining goals of the Mission during the 12th Five Year Plan. This makes it necessary to develop guidelines detailing procedure for funding and monitoring of projects under Mission sponsored adaptive / strategic research component in a systematic way.

Themes/areas of research

Financial support will be available for adaptive/strategic research in the following areas:

1. Crop improvement including planting materials but excluding basic research.
2. Crop production including cropping systems, inter-cropping etc.
3. Integrated pest management.
4. Water use efficiency.
5. Integrated plant – nutrient management including precision farming.
6. Post harvest management including oil extraction efficiencies.
7. Seed production technology.
8. Farm mechanization.
9. Any other research area for enhancement of oilseed crops production and productivity.

Nature of research qualifying for support

- Adaptive/strategic research that aims at refinement and value addition to existing crop production / resource conservation/post-harvest technologies through farmers' participatory programme.
- Addressing research gaps crucial to accomplishment of objectives of the Mission in short/medium term so that the outcome is available within 2 years for adoption on large scale.
- Scientific validation of innovative technologies made and used by farmers.
- Anticipated outcome of the project should be practically feasible and economically viable.

Various components of the Scheme

1. Production of quality oilseeds.
2. Conducting Training of Farmers and Officers or Extension Workers.
3. Conducting crop demonstration (DC).
4. Supplying principal nutrients (P).
5. Distribution of pipes for carrying irrigation water.
6. Distribution of plant protection equipments.
7. Distribution of plant protection chemicals.
8. Distribution of seed bins for proper storage.
9. Intra-state exposure visit

“One should desire of God desirelessness. Desire is the obstacle to liberation.”

– Sri Sarada Devi

The physical achievement of oilseed, under this programme from 2004-05 to 2016-17 is as under:

| Year | 1. Rape & Mustard | | | 2. Groundnut | | |
|--------------|-------------------------------|------------------------|-------------------|-------------------------------|------------------------|-------------------|
| | Quality seed distributed (Kg) | Area covered (Hectare) | Farmers benefited | Quality seed distributed (Kg) | Area covered (Hectare) | Farmers benefited |
| 2004-05 | 2113 | 282 | 2107 | 7485 | 100 | 750 |
| 2005-06 | 3000 | 400 | 3000 | 9380 | 120 | 900 |
| 2006-07 | 1171 | 166 | 1245 | 7980 | 106 | 795 |
| 2007-08 | 869 | 116 | 870 | 5250 | 70 | 525 |
| 2008-09 | 935 | 125 | 938 | 14580 | 194 | 1455 |
| 2009-10 | 0 | 0 | 0 | 3900 | 52 | 375 |
| 2010-11 | 375 | 50 | 375 | 4470 | 60 | 450 |
| 2011-12 | 450 | 60 | 450 | 10680 | 142 | 1065 |
| 2012-13 | 450 | 60 | 450 | 7290 | 97 | 727 |
| 2013-14 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2014-15 | 175 | 25 | 566 | 1500 | 25 | 358 |
| 2015-16 | 350 | 50 | 1208 | 6000 | 100 | 1675 |
| 2016-17 | - | - | - | 1200 | 200 | 2860 |
| Total | 9888 | 1334 | 11209 | 79715 | 1266 | 11935 |
| Year | 3. Sesame | | | 4. Sunflower | | |
| | Quality seed distributed (Kg) | Area covered (Hectare) | Farmers benefited | Quality seed distributed (Kg) | Area covered (Hectare) | Farmers benefited |
| 2004-05 | 450 | 60 | 450 | 630 | 126 | 1890 |
| 2005-06 | 974 | 130 | 974 | 1075 | 215 | 3225 |
| 2006-07 | 371 | 49 | 367 | 500 | 100 | 1500 |
| 2007-08 | 272 | 36 | 270 | 564 | 125 | 1875 |
| 2008-09 | 664 | 88 | 660 | 0 | 0 | 0 |
| 2009-10 | 230 | 31 | 230 | 0 | 0 | 0 |
| 2010-11 | 1000 | 133 | 1000 | 1000 | 200 | 3000 |
| 2011-12 | 1000 | 133 | 1000 | 1425 | 285 | 4275 |
| 2012-13 | 2721 | 362 | 2721 | 1425 | 285 | 4275 |
| 2013-14 | 3000 | 400 | 3000 | 2000 | 400 | 3000 |
| 2014-15 | 350 | 50 | 412 | 750 | 150 | 1423 |
| 2015-16 | 1050 | 225 | 2310 | 1250 | 150 | 1545 |
| 2016-17 | 700 | 100 | 875 | 1750 | 350 | 4120 |
| Total | 12782 | 1797 | 14269 | 12369 | 2386 | 30128 |

“The brain and muscles must develop simultaneously.
Iron nerves within intelligent brain – and the whole world is at your feet.”

– Swami Vivekananda

NMOOP implementation at a glance during 2016-17

| Sl. No. | Components | Unit | Physical | | No of Benefited Farmers |
|---------|-------------------------------------|---------|-------------|--------------|-------------------------|
| | | | Target (ha) | Achievement | |
| 1 | Sunflower DC | Hectare | 350ha | 350 ha | 4120 |
| 2 | Groundnut DC | Hectare | 200ha | 200 ha | 2860 |
| 3 | Sesame DC | Hectare | 100 ha | 100ha | 875 |
| 4 | Pipes | Metre | 40000 m | 40000 m | 3250 |
| 5 | Seed bins | Nos. | 1000 Nos. | 1000 Nos. | 1000 |
| 6 | Seed Treatment Drums | Nos. | 1000 Nos. | 1000 Nos. | 1000 |
| 7 | SSP Fertilizer | Hectare | 1200 ha | 1200 ha | 2780 |
| 8 | Farmers' Training | Nos. | 13 Nos. | 13 Nos. | 520 |
| 9 | Officers/Extension Workers Training | Nos. | 3 Nos. | 3 Nos. | 150 |
| 10 | P.P. Chemicals | Hectare | 100 ha | 100 ha | |
| 11 | Exposure visits within State | Nos. | 1 Nos. | 1 Nos. | 50 |
| | | | | TOTAL | 16605 |

Market linkage

The main hurdle of the farmers is that they fail to get good price from their produce, especially for newly introduced crops like sunflower and white sesame. In order to solve such problems contact has been made with various companies with the farmers to link their produce with the markets and now the farmers cultivating sunflower and white sesame and getting good price now. The motivated farmers now growing white sesame in various blocks of Paschim Medinipur districts such as Ksehpur, Chandrokona-I, Chandrokona-II, Dashpur, Sabong, Pingla etc. and South 24 Parganas since 2008-09. Now a well established market has



been developed and farmers are getting more remunerative price from their produce. About 370 bigha (about 122 acres) of white sesame were cultivated in the last year and the farmers received 20-25 percent more price than conventional brown sesame like Tilottama, Rama etc. Similarly sunflower areas are being increased. Training / workshop organized in Patharpratima block for sunflower cultivation. The farmers are extracting oil from their produce to sell in the market. So, the market sale price sunflower has been increased 20 per cent or more than earlier. So, the farmers are very much benefited as the cost for post harvest operations are reduced.

“You can't cross the sea merely by standing and staring at the water.”

– Rabindranath Tagore

Name of some successful farmers is given below:

| Sl. No. | Name and address of the progressive farmers | Crops cultivated |
|---------|--|------------------|
| 1 | Sri Subhas Paira, Vill.– Rakhaskhali, Patharpratima, South 24 Parganas | Sunflower |
| 2 | Naikmal Jana, Vill. – Parakata , P.O. Anandapur, Paschim Medinipur | White Sesame |
| 3 | Pankaj Maity, Vill. – Balipota, Narajole, Paschim Medinipur | Ground nut |
| 4 | Jhareswar Karan, Vill. – Bhairabdanri, P.O. Chawkbhabani, Patashpur, Purba Medinipur | Ground nut |

Farmers' Service Centres

Farm machineries like seed dressing machines, seed storage bins, delivery pipes, plant protection equipments etc. are being provided to the farmers. But such supports are not sufficient to cover all the farming community. So, in order to serve most of the farmers have developed Farmers' Service Centres in most of the organizations where farm machineries, delivery pipes etc are kept ready and provided to the farmers against a small service charge. Such service charges are 40-50 percent less than the local charges. Registers are maintained and money is collected through receipt. The fund such collected are divided into three portions.



One portion is kept for maintenance of machineries and purchase of extra machineries as required, the second portion is given to one of the workers who are maintaining the entire system and the other portion is kept for development purposes of the organizations. In such ways the farmers are being served as well as the youth organizations engaged in such purposes are being benefited making the NMOOP scheme in a sustainable manner. We have extended our activities related to implementing NMOOP in eight districts so far (South 24 parganas, North 24 Parganas, Howrah, Purba Medinipur, Paschim Medinipur, Burdwan, Bankura and Purulia) of this state as per strength our network, the youth organizations.

Name of successful organization is given below :

| Sl. No. | Name of Organization |
|---------|--|
| 1 | Swami Sarada Nanda Kalyan Samiti, Bankura |
| 2 | Pathar pratima D.k.Lok. R.S.South 24 Pgs |
| 3 | Narajol Maa Sarada Sangha, Paschim Medinipur |
| 4 | Kashpur Shaid Khudiram S.Samity, Paschim Medinipur |
| 5 | Jeler Hat Ghola Mitali Sangha, South 24 Pgs |
| 6 | Ramprasad S. Sangha & Patheghar, South 24 Pgs |
| 7 | Palli Mangal Guchha Samity, Paschim Medinipur |
| 8 | Gram Mangal Gucha Samity, Purba Medinipur |
| 9 | Kansabati Gucha Samiti, Paschim Medinipur |

“Finish the few duties you have at hand, and then you will have peace.”

– Sri Ramakrishna

Information Services

Technical literature cultivation in the form of leaflets was distributed to the farmers to back up demonstration and training programmes. 5000 copies of 'Oilseeds cultivation' were published in Bengali. Besides these following books were distributed to the farmers Two CDs were developed on 'Sunflower' and 'Groundnut' cultivation so as to broaden the information base of the farmers.

Strategic steps towards Sustainability

The Training Centre is trying to run the scheme on a sustainable way and with the consideration following strategies have been taken:

1. Participation of village youth organization to mobilize farmers: More than twenty cluster organizations and 260 youth organizations are participating in all activities such as selection of farmers, selection of demonstration site, organizing the farmers ensuring participation of the farmers in different activities. The progressive farmer-members of the organizations are being trained and they are being utilized as muster trainers so that they can assist to motivate the other farmers towards improved technology. Efforts are being taken to mobilize the



farmers in group formation which are serving dual role i.e. as leaders in development process and as knowledge base for the farmers. Above all, village level youth clubs through whom the programmes are being implemented are permanent feature of the village. Hence, Training and skill imparted to the village youths will also continue to translate into practice leading to the sustainability of the project.

2. Linkage with local panchayet and state agriculture department in implementing the scheme.
3. Coordinating and supervision of various activities of the scheme by the faculty members of the Institution on a regular basis.
4. Involvement of Block Agricultural Officers and Krishi Prayukti Sahayak (KPS) in demonstration, training programmes and workshop organized at the beginning of crop season.

“All the wealth of the world cannot help one little Indian village if the people are not taught to help themselves”

– Swami Vivekananda

IV STUDY AND EVALUATION

Impact Evaluation of DAESI Course for Batch 2015-16

In 2015-16 Batch, totally 81 candidates enrolled and one was woman among them. Among those 81 candidates, 41 enrolled at SAMETI and other 40 in KVK, Nimpith. All the candidates belong to the South 24 Pargans district and deposited Rs.10,000/- each for the course. Out of the total batch, 75 were surveyed after 3 months of completion of their course.

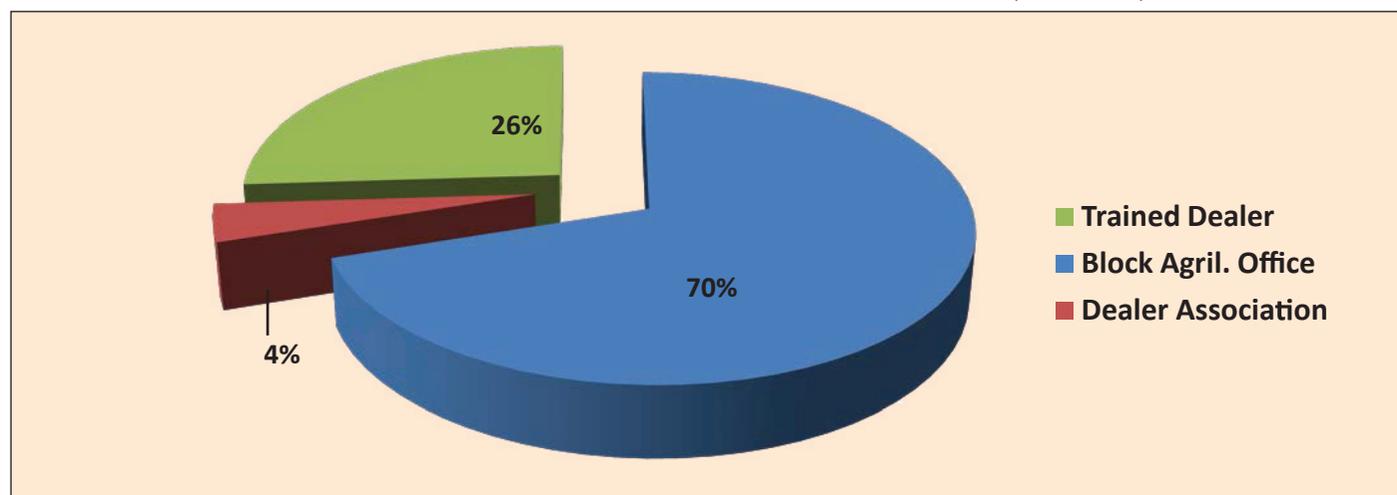
The age group is mainly divided in three categories. Age 31-40 years (28%), 41-50 years (30%) and 20-30 years (25%). Above 50 years was only 3% of the total candidates. By education, majority of candidates belongs to class 10+2 pass (34%). The rest are with class 10 pass (31%) and Graduate (25%). About 10% were with Master degree. In terms of duration of business they are doing, majority spread over 6-10 years range (30%) and decreasing trend with 11-15 years (31%) and 1-5 years (25%). A very small portion (3%) are with over 20 years of business.

In an occasion, 75 candidates assembled at SAMETI and a simple questioner with options to give answer in multiple form and also in descriptive form, was handed over to them. The candidates were first briefed about the questioners and are requested to go through the questioners to understand clearly. After that they were given time to think on each of the question and then write options taking time.

Firstly, the mostly occurred and common answers for each question were identified and made a tally for each option- answer against each question. Finally the options against each question are transformed to percentage.

The findings shows that for the 2015-16 batch the Assistant Director of the block office were the main (70%) to mobilize them for this course. The other source of information about the course were already DAESI passed dealers (26%) and Dealer Association (4%).

GRAPH 1: Source of Information about DAESI Course (No. in %)

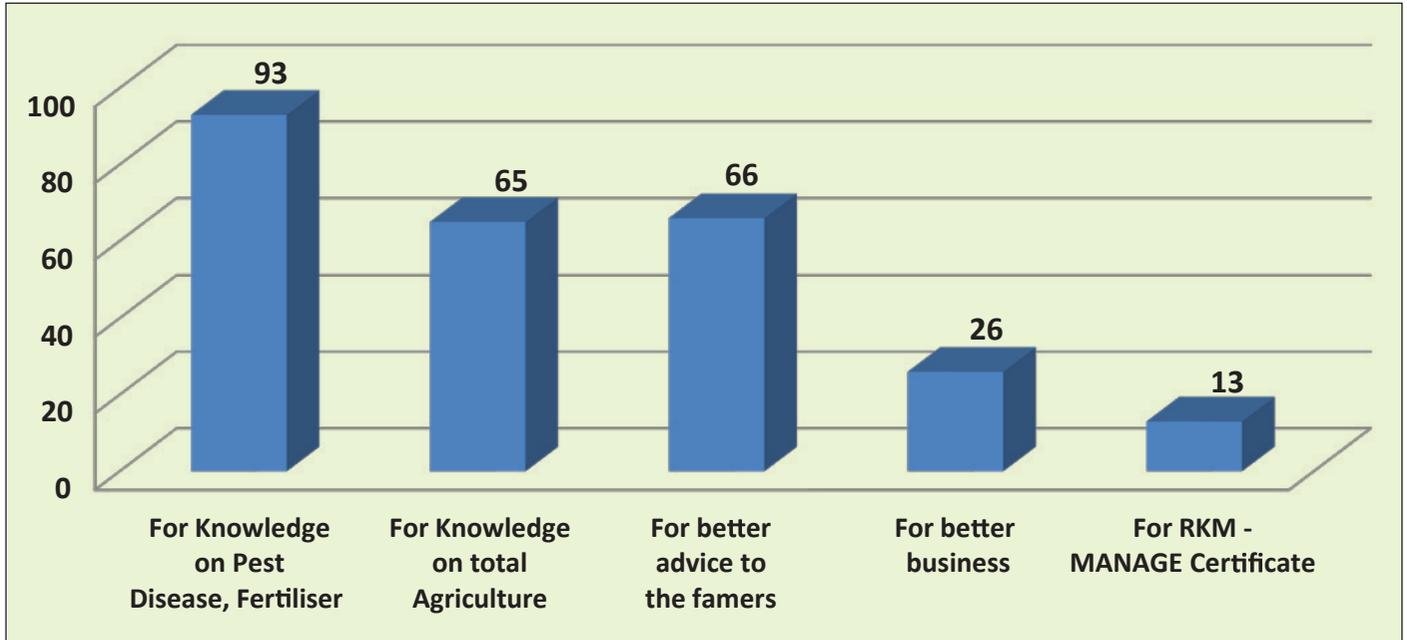


“The brain and muscles must develop simultaneously.
Iron nerves within intelligent brain – and the whole world is at your feet.”

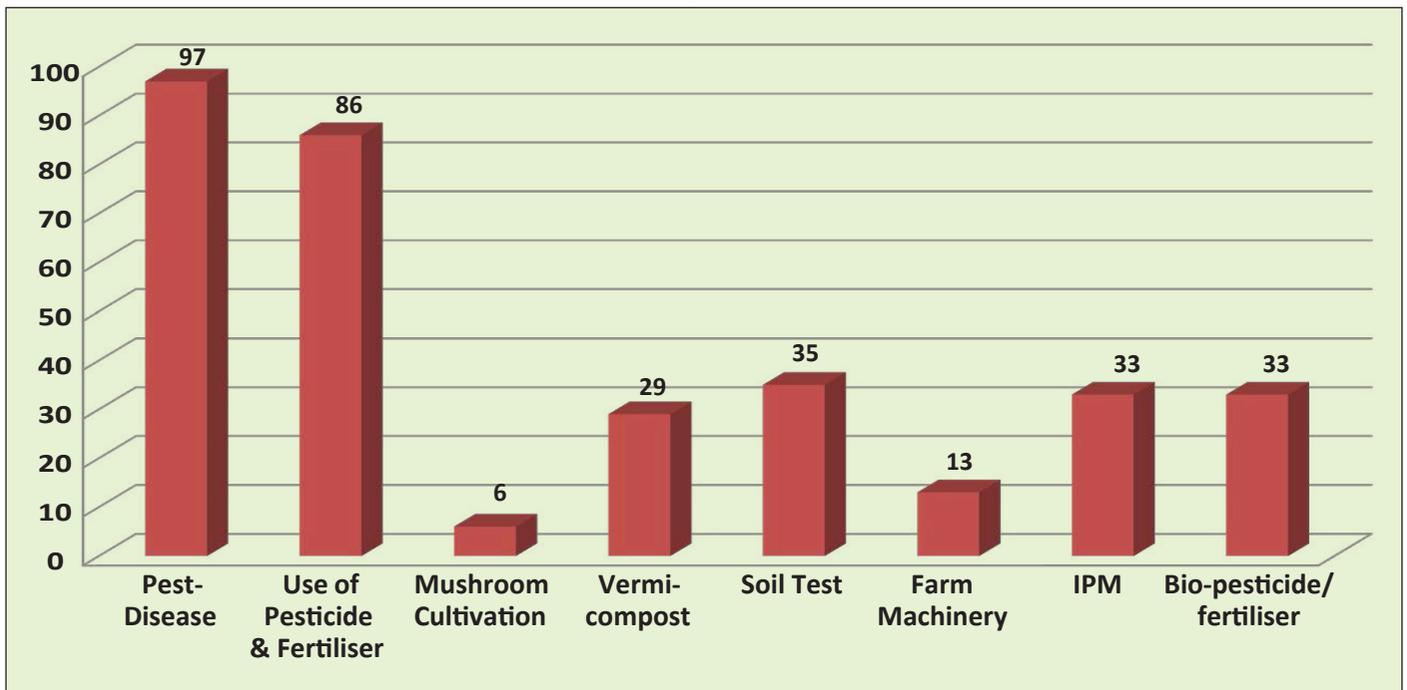
– Swami Vivekananda

All the enrolled candidates in the DAESI course said that they came to join the course to gain more knowledge on ‘pest, disease, pesticide and fertilizer’ (Graph-2). About 93 % of them admitted they gained more knowledge on those sectors (Graph-3).

GRAPH 2: Intension for admission to DAESI Course (No. in %)



GRAPH 3: Areas of new learning from DAESI Course (No. in %)

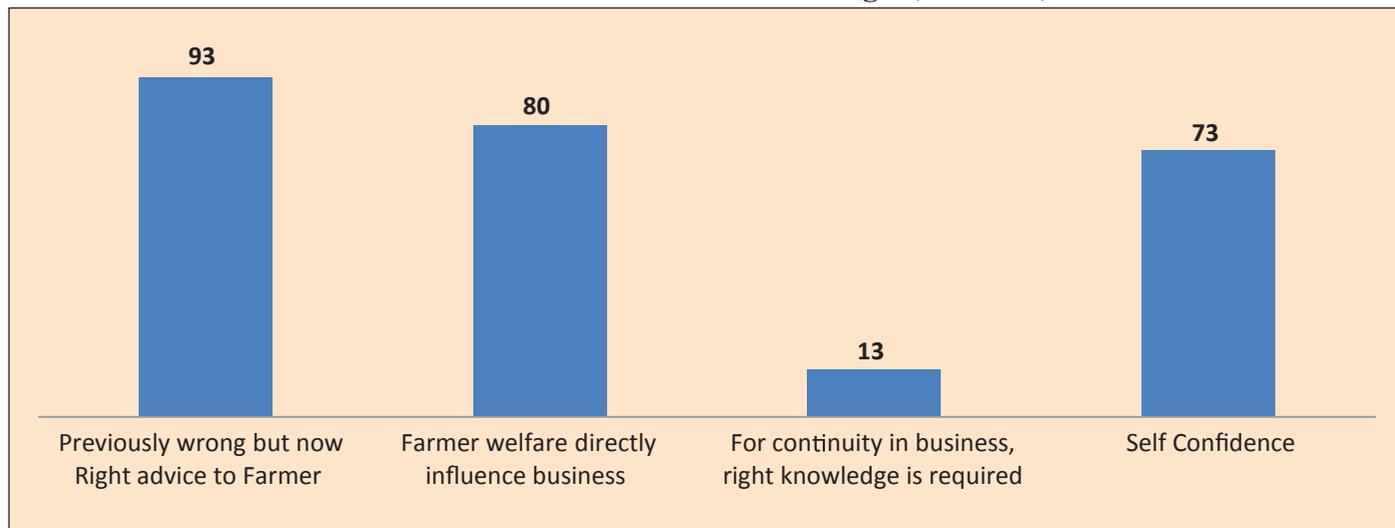


“One should desire of God desirelessness. Desire is the obstacle to liberation.”

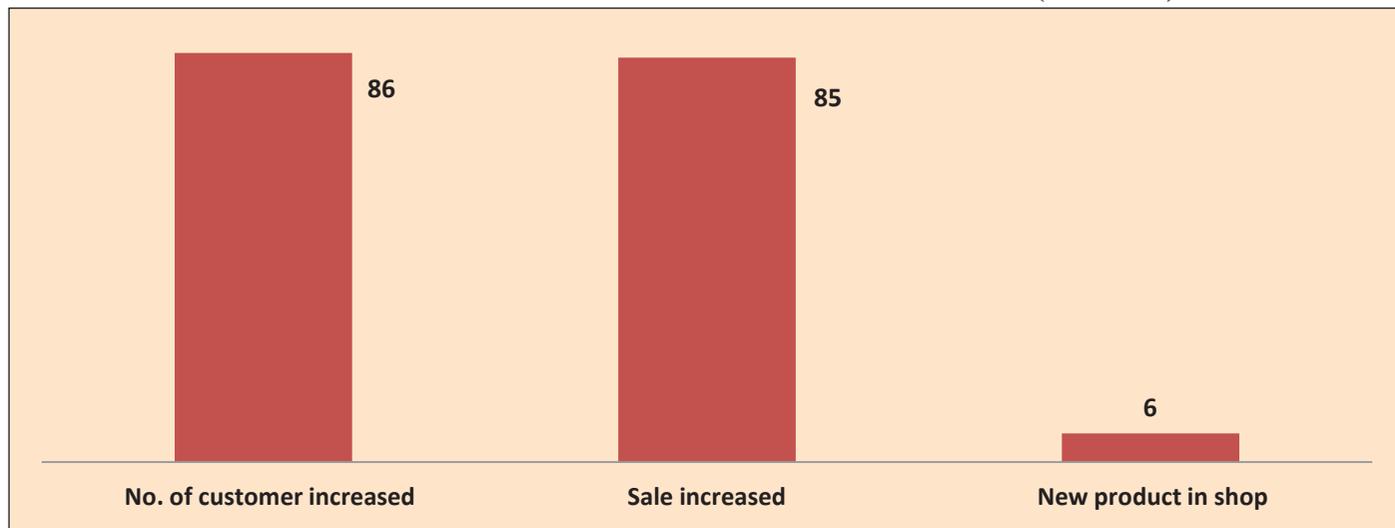
– Sri Sarada Devi

About 93% of the dealers expressed that previously they provided wrong advise, which they can now transformed to right advice. Interestingly 93% of the candidates told that after the DAESI course they are in clear understanding that the volume of their business is directly linked with the benefit of the farmers (Graph-4). In a different questioner, cent percent said that due to the knowledge of the DAESI course and its application, number of customers and therefore quantity of sale is increased (Graph-5).

GRAPH 4: Nature of Attitudinal Change (No. in %)



GRAPH 5: Influence of DAESI Course on Dealers' Business (No. in %)



“The Man who works for others, without any selfish motive, really does good to himself.”

– Sri Ramakrishna

V EXPLORATION & DOCUMENTATION OF SUCCESS STORIES

A. DAESI Case Stories

1. Ramendranath Das

Bagrahat, Bishnupur-II, South 24 Parganas, M- 9836053289

Though my business is of 20 years, I had hardly any technical knowledge of pesticide and fertilizer. Assistant Director of Agriculture, Kulpi block advised me for the DAESI course. I had some expectations, but what I received from Ramakrishna Mission, that are much more. Besides crop cultivation, pesticides and fertilizers; I feel myself a knowledgeable person on vermicomposting, bio-fertiliser, seed treatment, soil testing, mushroom cultivation, drum-seeder, SRI etc. When I use to talk all these technologies to the farmers, they got interest on me. Naturally they believe me more now and that is reflected to my business also. My sale has also increased after this course.



2. Alpana Mondal

Nayabad, Sonarpur, South 24 Parganas, M- 7278986664

After doing all my family work, I attended the course and I have completed this course. I found this course very necessary and would like to request Input Dealers from every remote corners of this district to undergo this course for a holistic gain of knowledge in Agriculture. Before this course, I used to prescribe many medicines and fertilizers without knowing proper uses and proper doses, which are well-known to me, know. Now customers form distance places are coming to my shop and sale has increased than earlier. It would be better if such refresher course is organised in every 2 or 3 years.



3. Gopal Karmakar

Bhandaria, Bishnupur, South 24 Parganas, M- 9836571435

At the time of starting my agri-input business, I felt interest about the details of pesticide and plant protection and from that eagerness I used to read different books, published by agri-input companies. From block office I was informed about DAESI course. The DAESI course has given me number of good and knowledgeable friends, with whom I regularly keep contact. On the other side many farmers prefers to come to me not only for fertilizer/ pesticide but more for my advice. Meanwhile, I motivated some farmers to use bio-fertilisers and bio-pesticides leaving dependency on chemical one only. Now at the end of the course, I am satisfied to a great extent.



“Be the change that you wish to see in the world.”

– Mahatma Gandhi

4. Jayanti Adhikari**Khasmallick, Baruipur, South 24 Parganas, M- 9874549312**

Before this course, I used to prescribe many medicines and fertilizers without knowing proper uses and proper doses. Assistant Director of Agriculture, Baruipur block and other input dealers advised me about this DAESI course. After doing all my family work, I attended the course and I have successfully completed this course. I found this course very necessary and would like to request Input Dealers from every remote corners of this district to undergo this course for a holistic gain of knowledge in Agriculture. Now customers form distance places are coming to my shop and sale has increased than earlier.

**5. Prasenjit Parui****Bishnupur-II, South 24 Parganas, M- 9836764621**

I came to this agri-input business, as I had nothing to do otherwise and I have been continuing selling fertilizer and pesticide for the last 10 years. After going through the DAESI course, I understood that many of my recommendations in the last 10 years were wrong. It would have been better if this course was for 60 days in place of 52 days. This DAESI course has opened my eyes and I felt, how education can make a person responsible, particularly, if it is from Ramakrishna Mission.

**6. Anoara Bibi****Baruipur, South 24 Parganas, M- 9614159759**

I used to prescribe many medicines and fertilizers without knowing proper uses and proper doses. From an input dealer friend I heard about this DAESI course. After doing all my family work, I attended the course and I have successfully completed this course. I found this course very necessary and would like to request Input Dealers from every remote corners of this district to undergo this course for a holistic gain of knowledge in Agriculture. Now customers form distance places are coming to my shop and sale has increased than earlier. After this course I have changed my mentality form traditional chemical based agriculture to bio-based agriculture.

**7. Swapan Kumar Jana****Kakdwip, South 24 Parganas, M- 9735405790**

For the last 28 years, I am associated with this agri-input shop. Assistant Director of Agriculture, Kakdwip block informed me about this DAESI course. Now after finishing of the course, both of us are happy as what I have received from Ramakrishna Mission and returning to the farmers, is worth of more than the course fee. Now farmers listen to me what I had learnt from DAESI every week after returning from the class. I found this course very necessary and would like to request Input Dealers from every remote



“Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.”

—1st Earl of Chatham, William Pitt

corners of this district to undergo this course for a holistic gain of knowledge in Agriculture. Now customers from distance places are coming to my shop and sale has increased than earlier.

8. Apurba Paul

Bishnupur-II, South 24 Parganas, M- 9831429196

My agri-input business has been successfully running for more than ten years. I understood the 'profit-loss' very much but often I felt that the continuous profit is directly related to the knowledge about the things, I am dealing. I knew that I had very poor knowledge in agriculture. That's why, Assistant Director of Agriculture office gave me the news, I enrolled myself in DAESI course even knowing that I have to sacrifice sale of 52 days in that year. I have learnt many things from DAESI and also in an understanding that if we want to sustain, we have to think betterment of the farmers of our area always. In my area farmers are adopting IPM process through my prescription.



9. Arpan Mondal

Diamond Harbour-II, South 24 Parganas, M- 8942985819

A certificate of Hyderabad Institute and Ramakrishna Mission along with recognition of the State Govt. was the main point of interest for doing the DAESI course initially, after getting information about the course from the block agriculture office. Otherwise, I have to pay the course fee and again I have to go every thursday hampering my input business was the botherations. But gradually I got interest in the subject and felt that many times perhaps I did harm to my clients unintentionally due to lack of minimum knowledge of different agri-input and agriculture. After completion of this course and seeing response within my clients, I am in a feeling that what I have gained, that is much greater than what amount I had missed due to absence in my shop, while doing this course.



10. Pritam Halder

Bar Saharpur, Falta, South 24 Parganas, M – 8768553186

I got information about this DAESI course from Assistant Director of Agriculture, Falta. It was not known to me that there is difference in damage patterns in Insect-Fungy-Bacteria-Virus etc. I only knew about 'Rog-poka' (Disease-insect) as a whole. Even I was totally ignorant about the importance of division of Insecticide-Fungicide-Antibiotic etc. Now I am in a position to say that doing agri-input business without minimum knowledge is very dangerous not only for the farmers and environment but also for our own business and our family. Thank you DAESI and Ramakrishna Mission because both me and farmers of my area are benefitted economically as well environmentally from this course.



“Agriculture is the noblest of all alchemy; for it turns earth, and even manure, into gold, conferring upon its cultivator the additional reward of health.”

– Paul Chatfield

B. AC-ABC Success Stories

1. Dipika Maity

ID-WB1267 of Bibhisampur, Block - Bhagwanpur, Pin - 721458, Dist. - Purba Medinipur, West Bengal was an agriculture (10+2) passed unemployed youth. After she came to know about the training programme, she applied for the AC-ABC and was selected for training during 17th November 2015 to 15th January 2016.

SAMETI-WB submitted the Detailed Project Report (DPR) on Animal Feed, Chickens and Medicine Supply Centre cum Advisory Centre to Punjab National Bank for sanctioning the loan. The bank officials visited her place. Once she fulfilled the loan criteria, Rs. 5.00 lakh was sanctioned. Ms. Maity claimed Rs. 2.20 lakh as the subsidy component to NABARD.

Now, Ms. Maity is running the centre with a turnover of Rs. 15.00 lakh and a net profit of Rs. 4.00 lakh per annum. Ms. Maity has build up a strong farmers' network by providing the latest farming technologies & consultancy.



2. Ram Kumar Maji

ID-WB1440 of Haripurdanga, Block - Ganeshpur, Pin -731126, Dist. - Birbhum, West Bengal was an agriculture (10+2) passed unemployed youth. After he came to know about the training programme, he applied for the AC-ABC and was selected for training during 22th August to 28th October 2016.

SAMETI-WB submitted the DPR Horticultural Nursery cum Advisory Centre to the UCO Bank for sanctioning the loan. The bank officials visited his place. Once he fulfilled the loan criteria, Rs. 16.00 lakh was sanctioned. Mr. Maji claimed Rs. 5.76 lakh as the subsidy component to NABARD.

Now, Mr. Maji is running the centre with a turnover of Rs.12.00 lakh and net profit of Rs. 4.00 lakh per annum. Mr. Maji is providing the latest farming technologies & consultancy by developing a strong farmers' network.



3. Palash Rout

ID-WB1267 of Gopal Nagar, P.O. - Hetyagara, Block - Simlupal, Pin - 722151, Dist. - Purba Medinipur, West Bengal was an agriculture (10+2) passed unemployed youth. After he came to know about the training programme, he applied for the AC-ABC and selected for training during 8th December 2014 to 15th February 2015.

SAMETI-WB submitted the DPR on Custom Hiring (Tractor) and Advisory Centre to the United Bank of India for sanctioning the loan. The bank officials visited his place. Once he fulfilled the loan criteria, Rs.8.99 lakh was sanctioned. Mr. Rout claimed Rs. 3.23 lakh as the subsidy component to NABARD.

Now, Mr. Rout is running the centre with a turnover of Rs. 8.00 lakh and net profit of Rs. 3.00 lakh per annum. Mr. Rout has also build up a strong farmers' network by providing the latest farming technologies & consultancy.



“Anyone who has never made a mistake has never tried anything new.”

– *Albert Einstein*

4. Santosh Das

D-WB1379 of Prjankul P.O. - Bhagwanpur, Block - Bhagwanpur, Pin- 721601, Dist. - Purba Medinipur, West Bengal was an agriculture (10+2) passed unemployed youth. After he came to know about the training programme, he applied for the AC-ABC and was selected for training during 20th June to 18th August 2016.

SAMETI-WB submitted the DPR on Fertilizers Selling cum Advisory Centre to Punjab National Bank for sanctioning the loan. The bank officials visited his place. Once he fulfilled the loan criteria, Rs. 4.78 lakh was sanctioned. Mr. Das claimed Rs. 1.72 lakh as the subsidy component to NABARD.

Now, Mr. Das is running the centre with a turnover of Rs.12.00 lakh and net profit of Rs. 3.00 lakh per annum. Mr. Das has also build up a strong farmers' network by providing the latest farming technologies & consultancy.



5. Nityananda Halder

ID-WB1116 of Galadahara, P.O. - Herodanga, Block - Caning, Pin - 721601, Dist-South 24 Parganas, West Bengal was an agriculture (10+2) passed unemployed youth. After he came to know about the training programme, he applied for the AC-ABC and was selected for training during 15th October to 13th December 2014.

SAMETI-WB submitted the DPR on Vermi-Compost Production cum advisory Centre to the Punjab National Bank for sanctioning the loan. The bank officials visited his place. Once he fulfilled the loan criteria, Rs.17.94 was sanctioned. Mr. Halder received Rs. 7.89 lakh as the subsidy component from NABARD.

Now, Mr. Halder is running the centre with a turnover of an amount of Rs.15.00 lakh and net profit is Rs. 4.00 lakh per annum. Mr. Halder providing the latest Farming technologies & consultancy by developing a strong farmers' network.



C. PGDAEM Success Stories

1. Dr. Saroja Rana

Veterinary Officer, Additional Block Animal Health Centre- Soreng, Rangli-Rangliot Block, Takdah, Darjeeling: 2015-16 session.

I primarily joined the PGDAEM course just because other colleagues of mine are joining. There was no other special intension. But after joining the contact classes I got the insight of the course and felt very much interested, 'Course 204: Information and Communication Technology in Agriculture' in particular. Technological innovations in agriculture is the way ahead to come out of the 3-4% growth in agriculture and propel our country ahead. We must emulate countries like Israel, to maximize production, more so in view of our surging population. Another benefit I received as the course gave me a wider outlook of agriculture extension beyond the limit of the Animal Husbandry only.



Perhaps the most important impact of the course was to realize the importance of the holistic approach in advising farmers. Now I frequently go to the field office so that we can work more synergistically for the

“The brain and muscles must develop simultaneously.
Iron nerves withan intelligent brain – and the whole world is at your feet.”

– Swami Vivekananda

welfare of farmers, and take part in each other's field activity, especially in areas of mixed farming, thereby making all the farmer's outputs incentivized.

We know that learning is a continuous process. After completing my formal study in 2004 and taking up job I had never imagined that I could again study, make assignments etc. PGDAEM study has given me that zeal again to me, enhancing my self esteem. The Project work of the course encouraged me towards systematic studies and I am planning to publish the findings of the my AEM-206:Project Work in a reputed journal.

I am satisfied with the method of PGDAEM study at present. Would have liked more contact classes, but considering everyone coming to the course is doing something professionally, I think a week of contact classes in each semester is just, keeping in mind time constraints. And yes, I would have liked some field visits.

2. Dr. Avijit Mondal

Block Livestock Development Officer, Rangli- Rangliot Block, Takdah, Darjeeling: 2015-16 session

I enrolled for the PGDAEM course in the year 2016 for the session 2015-16. After attaining the contact classes, I found that contact classes had a deep insight which helped me to understand the concepts of the different subjects. The study materials were up to date and helped me to keep updated with the newer concepts prevalent at the present times. Although all the portions of the study was pertinent to get an insight to the full course, I particularly liked the Course 201: Market led extension, the reason being we have to prepare the farmers for what the market demands and not produce products they have been producing for generations. Only when we can help them understand and spread the spirit across to the farmers we can fulfill the objective of doubling the farmers income by 2020.



Besides learning, as an impact of the study, I found the study makes my work more systematic and farmer oriented. As I work in the field, the PGDAEM study has helped me in better selection of inputs to farmers through Participatory Rural Appraisal (PRA) concept. For example for veterinary part under ATMA programme we were conducting training programmes only, now after making the farmers chalk out their needs and wants we are also distributing day old chicks along with the training programmes.

I think the method of PGDAEM study is sufficient, also apart from the contact classes the video lessons provided were very helpful and I congratulate the faculty members for the same.

3. Dr. Pradip Kumar Giri

Assistant Director of Agriculture: 2015-16 batch

I have joined the PGDAEM course in the batch 2015-16, learning from my colleague, who has already done the course. In the days of fast advancement and heavy workload, I was thinking to upgrade myself about the recent ideas and options of self development. After completion of the course, I really think myself fortunate to achieve something. Though different aspects were covered in the PGDAEM course and all are found relevant, but the 'Market Led Extension' module gave me to a great extent. In today's perspective, it is very much essential of Market Led Extension. Because, we, the Indian Farmers and the Extensiion functionaries also are found to be not so enriched in



“The Man who works for others, without any selfish motive, really does good to himself.”

– Sri Ramakrishna

knowledge of storage or preservation of Agricultural Commodities resulting huge wastage of raw Agricultural commodities. Hence, by studying this particular section, farmers can properly be guided with different aspects of quality, consumer preference, market intelligence, processing, value addition etc. this kind of knowledge to the Farming community is essential to realize high returns for produce, market oriented agriculture rather than traditional farming, minimize produce cost & improve the product value & marketing. The other aspect is 'Project Management', which is supporting me to do plan and implement many of the scheme and my office work efficiently. The ICT actually gave me new options of extension and communication. The Participatory Approaches gives me an inner sight of success to any work and that I am applying very much in my official extension activities implementation.

Lastly I think, the study may be more practical oriented, if possible as well as the tenure of study course may be extended & elaborated for better study & understanding.

4. Bidyut Majumder

Computer Programmer, ATMA, Hooghly

I joined my service as the staff of ATMA of Hooghly district. My main official job is taking care of work related to computer, like, data entry, report preparation, regular maintenance of the work of the Electronic Reporting and Monitoring System of ATMA etc. Basically though those are work purely related with computer operation knowledge, but I was facing difficulty to understand many terms and also to understand the gravity of the data, information etc. as I had no knowledge about the agricultural area etc. That's why, when I got the chance, I enrolled in the PGDAEM study to understand the area of agricultural work with which I had to deal.



As the study materials are very comprehensive and the resource persons were also very good, I enjoyed the study along with lot of learning. When I went for the project work on the aspect of 'Soil Health Card' I had very good experience about the implementation of the Universalisation of Soil Health Card scheme. It gave me not only updated knowledge about the 'Soil Health' aspect, but also the extension system already established through the portal 'Matir Katha' and its spread among the farmers. Now at this point I feel that the study is also supporting me in managing my task in a systematic manner. I have some suggestion towards betterment of the study. It would be very fruitful if the class days could be increased and some field visit to do some practical could be included in the course module.

“You can't cross the sea merely by standing and staring at the water.”

– Rabindranath Tagore

VI METEOROLOGICAL OBSERVATION & ANALYSIS

Climate is one of the inevitable factors along with soil and genetic ability for the agricultural production besides other factors of contribution. Not only for production but also for extension, higher study, research and trial etc., different parameters of weather become very important. Even in today's advanced situation, the good or bad monsoon is the determinant of the economy of the whole country.

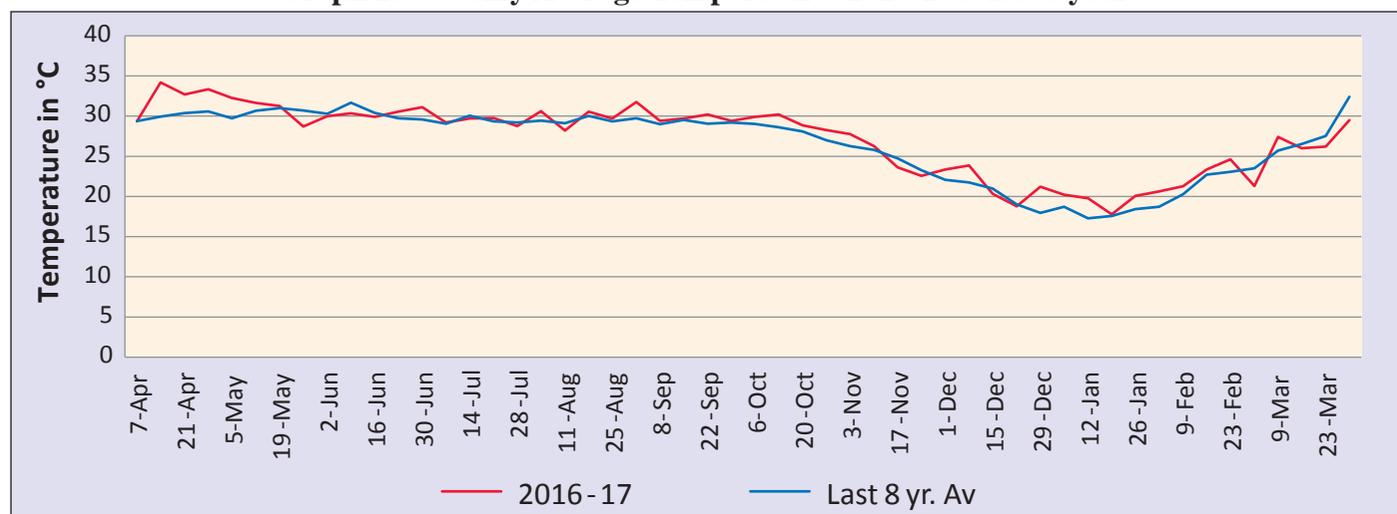
Keeping regular meteorological data is very important for the institute like, Agricultural Training Centre and the State Agricultural Management & Extension Training Institute (SAMETI), as an institute of HRD in the sector of agricultural technology, agricultural extension and management, to support and boost the capacity building, study and research.

Regular data are recorded at farm situation on temperature, relative humidity and rainfall through modest instruments viz. Maximum-Minimum Thermometer, Hygrometer and Rain Gauge. Every day observations and record of all the above-mentioned weather parameters are taken at 6.00 am. and 2.00 pm. With the completion of the year, data are compiled, analyzed and interpreted with the expertise available. Here sophistication is compensated by sincerity of data recording and analysis.

In the reporting year for the period 1 April, 2016 to 31 March, 2017, many important aspects of weather are noticed.

During reporting period, 41°Celsius (°C) was the Maximum Temperature on the date of 10, 11, 12, 13 April, 25 April and 2 May of 2016 where as in last eight years so far the highest temperature was 42°C on 20th May, 2014. In this regard, it is important to note that in last eight years, the highest temperature ranges from 38-42°C and that happened between 11th April to 14th June at Narendrapur. In that sense neither the extremity nor the time of occurrence had any deviation from normal condition (Graph-1a, Graph- 9), where average maximum temperature of a week was highest with 40.57°C and weekly average of 'Average Temperature' was highest with 34.21°C.

Graph 1a: Weekly Average Temperature: 2016-17& last 8 years

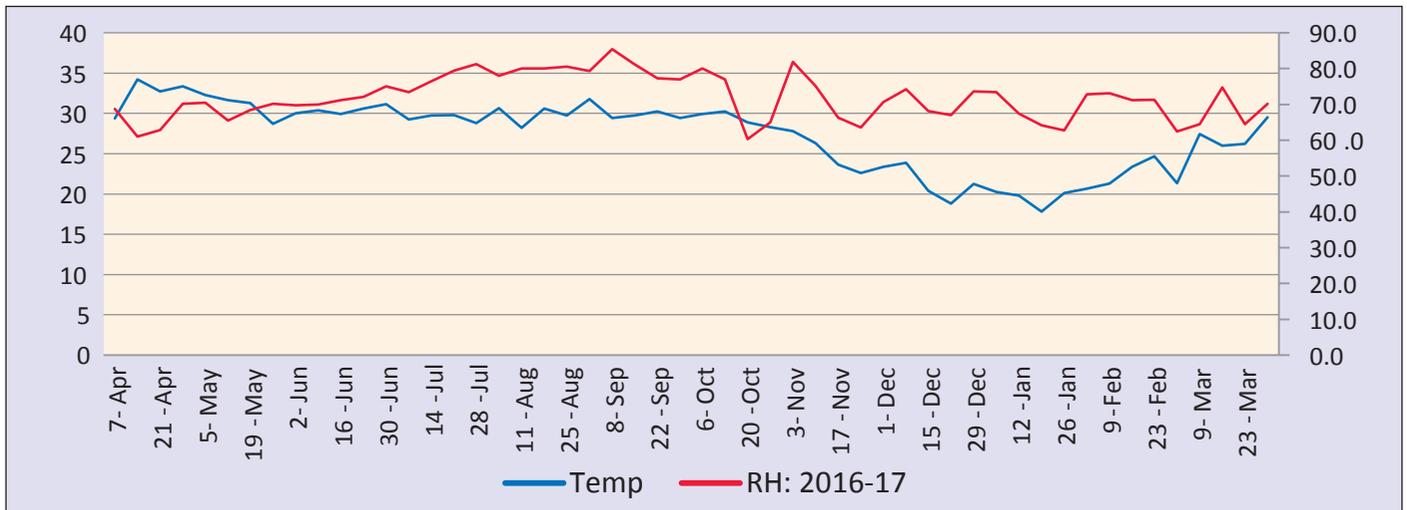


“Let New India a rise – out of the peasants’ cottage, grasping the plough; out of the huts of the fisherman, the cobbler, and the sweeper”

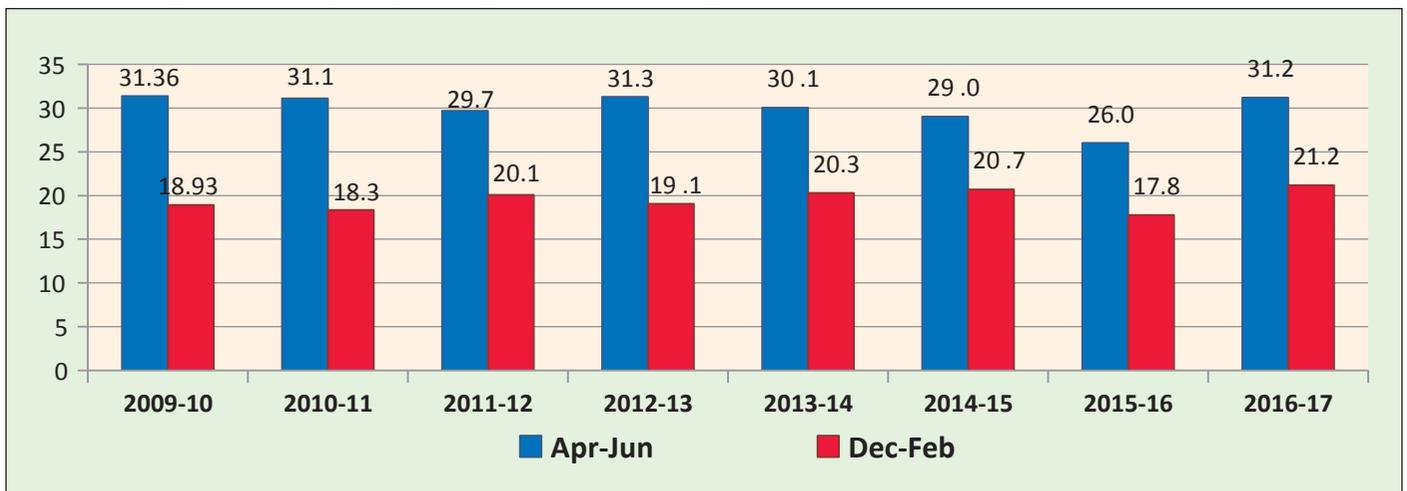
– Swami Vivekananda

The warmest week of the year was 8-14 April, 2016 where average ‘Maximum Temperature’ of a week was highest with 40.57°C and weekly average of ‘Average Temperature’ [\sum (daily Avg. Temp, of the Wk.)/ 7]; Max. range] was highest with 34.21°C. Last year such temperatures were 36.86°C and 33.07°C respectively during 20-26 May, 2015. In last eight years at Narendrapur, the average weekly temperature of the warmest week ranged from 32.36°C to 35.14°C and the days varied from last week of April to 3rd week of August (Graph 1b). In that sense, in spite of higher weekly average of ‘Maximum Temperature’, no major change in degree and dimension of the warmest week was noticed in the reporting period (Graph-9). During summer months (April-June) the average daily temperature remained at 31.2°C, which seems to be normal in comparison to the same of the last eight years (range: 29°C- 31.36°C) (Graph-2).

Graph 1b: Average Weekly Temperature & Relative Humidity: 2016-17



Graph 2: Weekly Avg. Temp. of Summer (Apr-Jun) & Winter (Dec-Feb) in °C: 2016-17



During April 2016 to March 2017, the lowest temperature (minimum) in a day was 10 °C on 17 December, 2016; 15th and 16th January of 2017. In the previous year, it was 09°C on 26th January, 2016. (Graph 9). In last

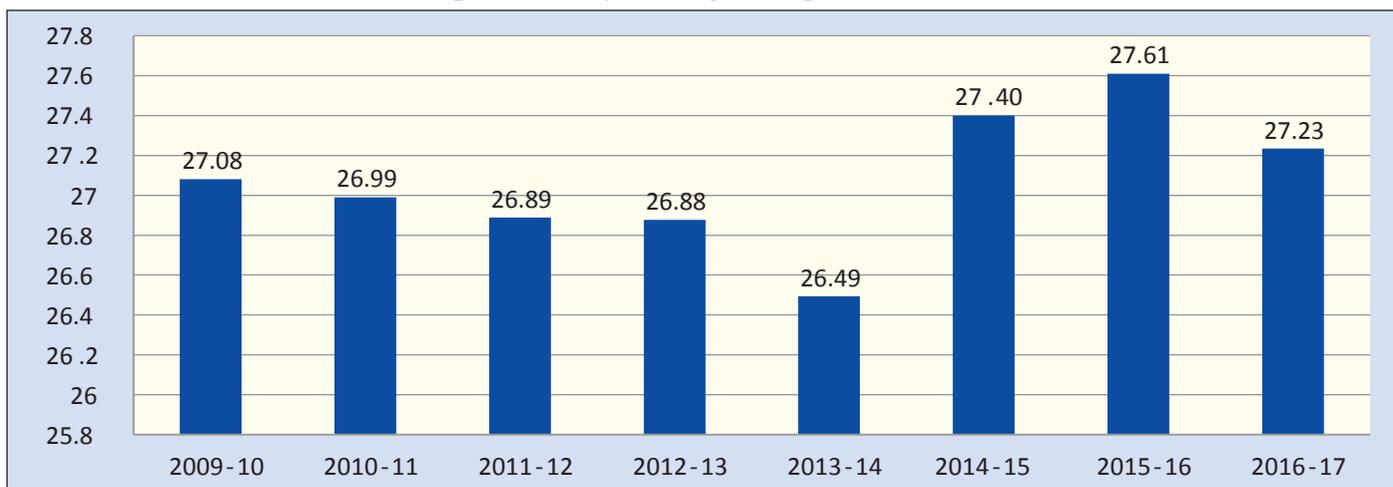
“Do not afraid; the Master is behind you, and I am, too, as your Mother”

– Savada Devi

eight years, the lowest temperature ranged from 7°C to 11°C. The usual occurrence of the coldest day happens to be between 2nd - 4th week of January and in that sense, this year was in normal condition.

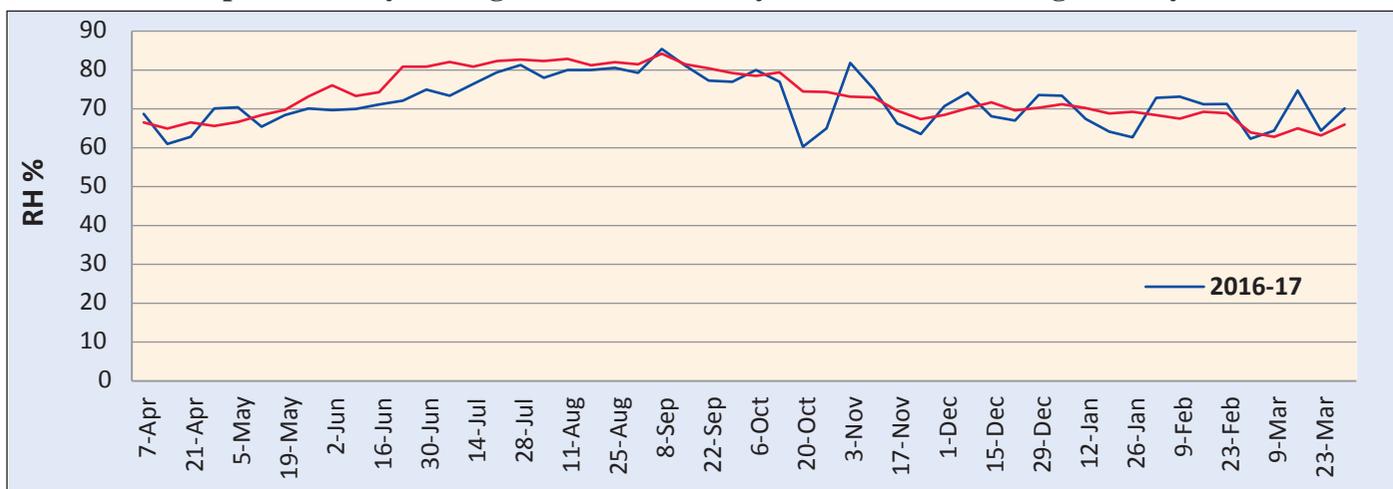
Considering Annual Average Temperature [\sum (daily Avg. Temp of the Yr.)/365]; which ranges from 26.49°C to 27.61°C in last eight years, this year it was 27.23°C. Though it looks normal, a change/ trend is being noticed in last three years. During 2010 to 2014, the reading was below 27°C, but in last three consecutive years the same raised above 27°C each time (Graph-3).

Graph 3: Yearly Average Temp (°C): 2016-17



Last year (2015-16), 16°C was the minimum of weekly average temperature [\sum (daily Avg. Temp, of the Wk.)/ 7; Min. range] of the coldest week, which occurred during 20-26 January, 2016. This year such temperature was 17.79°C during 13-19 January, 2017 (Graph 1b, Graph 9). The lowest of the Weekly Average of ‘Minimum Temperature’ also falls during the same period with 11°C. A little bit increasing trend of minimum of weekly average temperature is noticed though the time of occurrence showed no deviation of ranging from 3rd week of December to 3rd week of February. Increase of temperature in winter becomes clear when we

Graph 4: Weekly Average Related Humidity: 2016-17 and Average last 8 years



“As long as I live, so long do I learn.”

– Sri Ramakrishna

compare the average temperature of the whole winter period (December- February) of the last eight years and the increase is from 18.3°C in 2009-10 to about 21.2°C in 2016-17 (Graph-2).

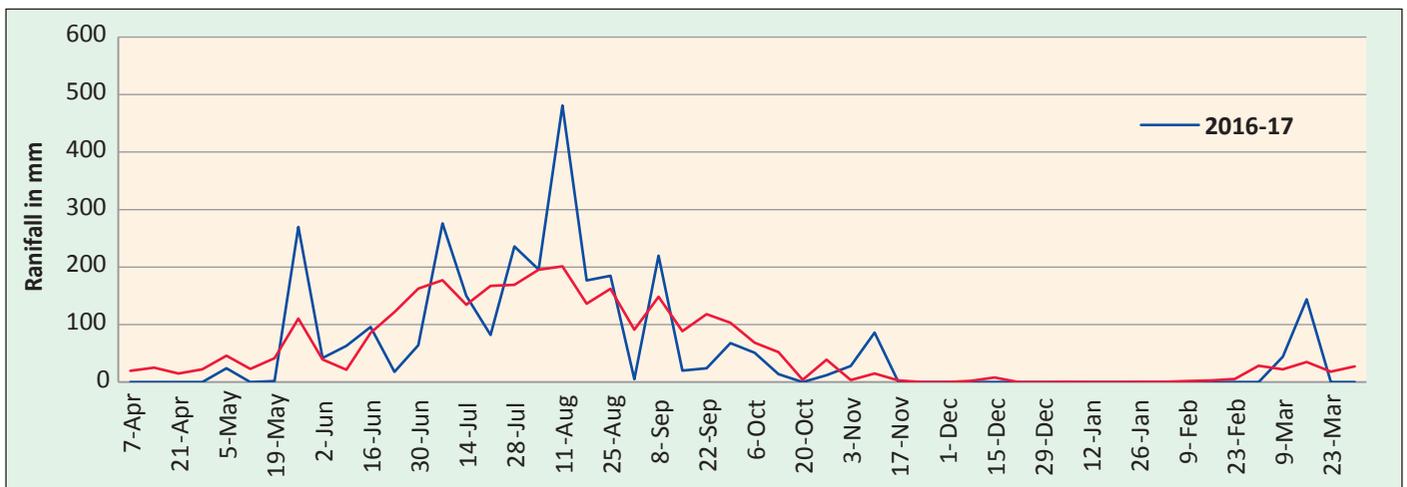
The lowest weekly average of the relative humidity was 60.291% during 14-20 October, 2016). Last year 60 % was the lowest relative humidity (RH) as weekly average, which occurred during 7-13 March, 2016. In last eight years at Narendrapur, the lowest RH ranged from 56% to 61 % showing no significant change in trend of the reporting period. In contrast to the other past years, RH was little low almost thought the year, except few 3-4 weeks, while RH went above 70% (Graph-1b, Graph-9). The Annual Humidity of the year is more or less with same trend of the average of last eight years. $[\sum (\text{daily Avg. RH})/365]$ (Graph 5).

Graph 5: Annual Average RH%: 2016-17



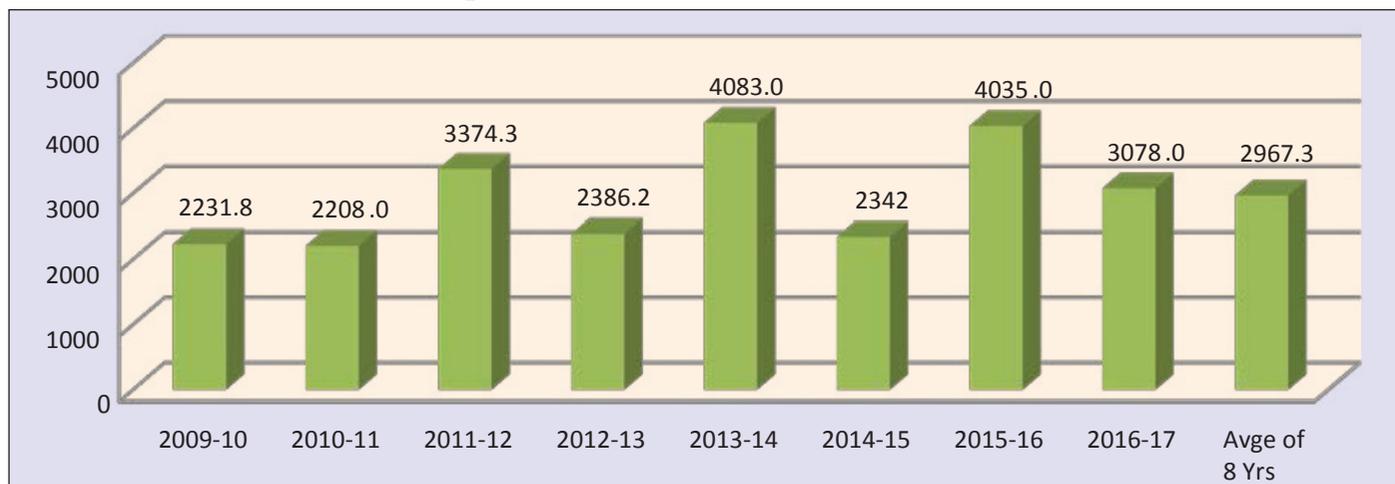
This year the Annual Total Rainfall was in higher side amounting 3078 mm. Though the amount was less than last year (4035 mm), still it was enough higher than the average of last eight years (2967 mm) (Graph-6). Higher rainfall than average occurred during 3rd week of May, 1st week of July and during whole span of August of 2016 (Graph-6).

Graph 6: Weekly Total Rainfall: 2016-17 and last 8 years



“I tell you one thing - if you want peace of mind, don not fault with others.”
 – Sarada Devi

Graph 7: Annual Rainfall (in mm): 2016-17

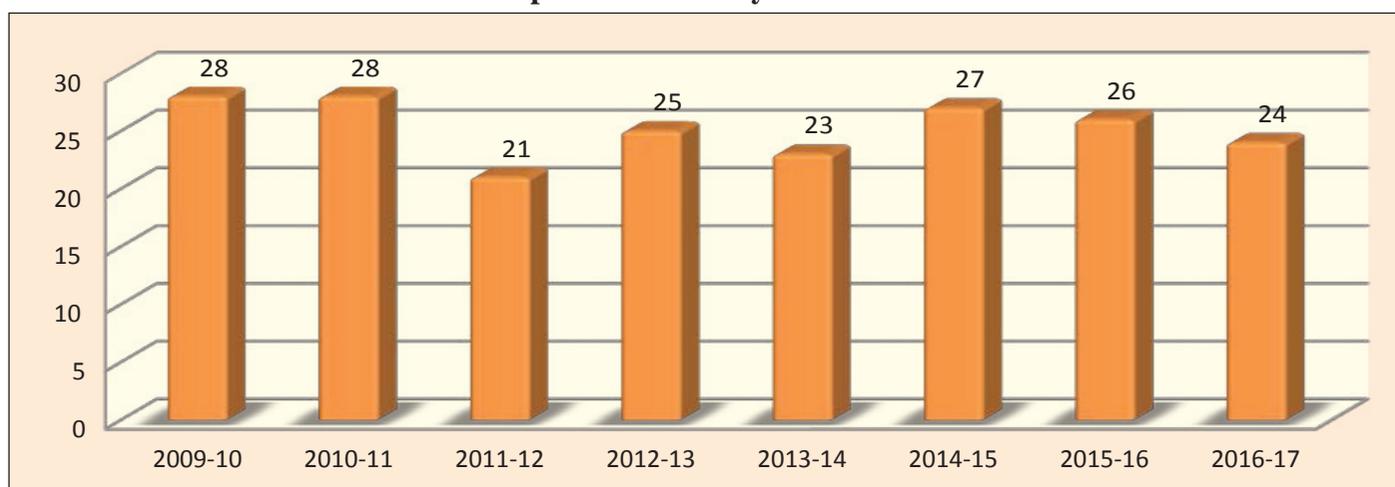


Maximum rain fall in a day occurred during the reporting period on 22nd August, 2016 and the amount was 162 mm. The other significantly higher rainfall day were 6th September (144 mm), 18th August (142 mm), 9th August (123 mm) of 2016. Last year the maximum rainfall in a day occurred with 335 mm (10th July, 2015), which was significantly higher than the current year. The peak of the rainfall came during 5-11 August, 2016. A considerable amount of rain fall occurred in lean period during 10-16 March week of 2017, which generally occurs in February in other years. (Graph-6, Graph-9).

The week of 5-11 August, 2016 was the maximum rainfall week with 481 mm. During reporting period the August month had maximum rainfall of 32% followed by July with 26% of total rainfall. Rainfall of July and August together contributes around 50% of annual rainfall matches the general trend.

Last year 8-14 July, 2015 with a total weekly rainfall of 541 mm, was the highest rainfall in a week. This year the maximum rainfall week falls within 5-11 August week with weekly total rainfall of 481 mm. the 2015-16 year was an exceptional, otherwise as per last eight years record the week with maximum rainfall generally

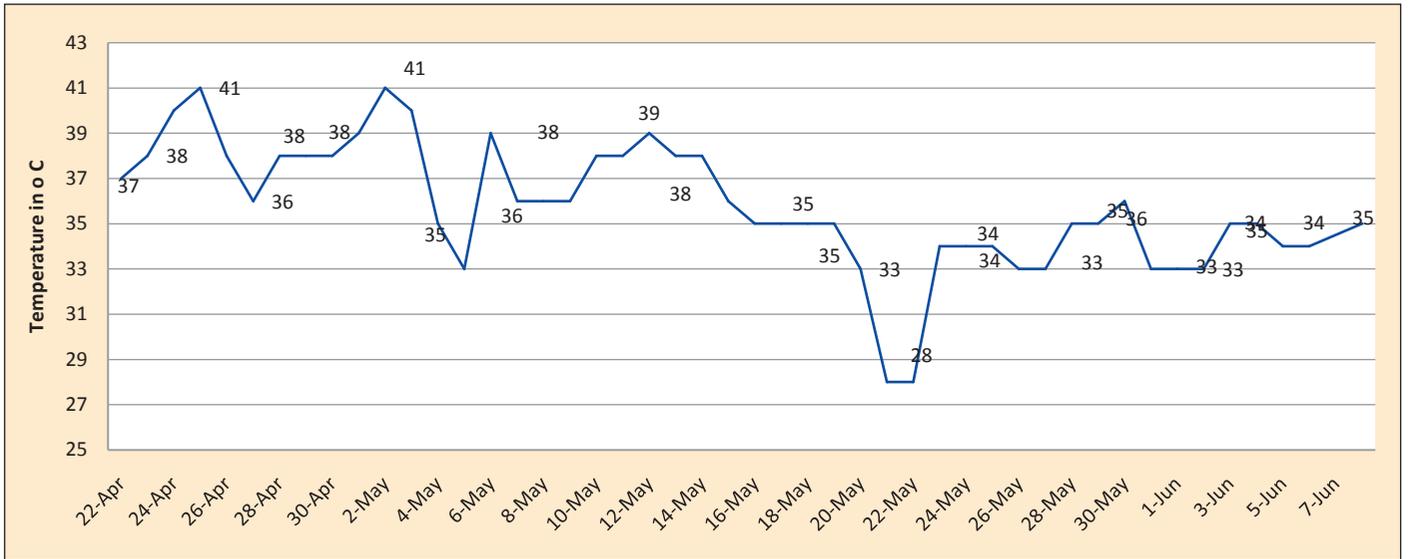
Graph 8a: No. of Dry Week: 2016-17



“Let New India a rise-out of the peasants’ cottage, grasping the plough; out of the huts of the fisherman, the cobbler, and the sweeper”

– Swami Vivekananda

Graph 10: Max. Temp. over a span of 43 days during Summer, 2016



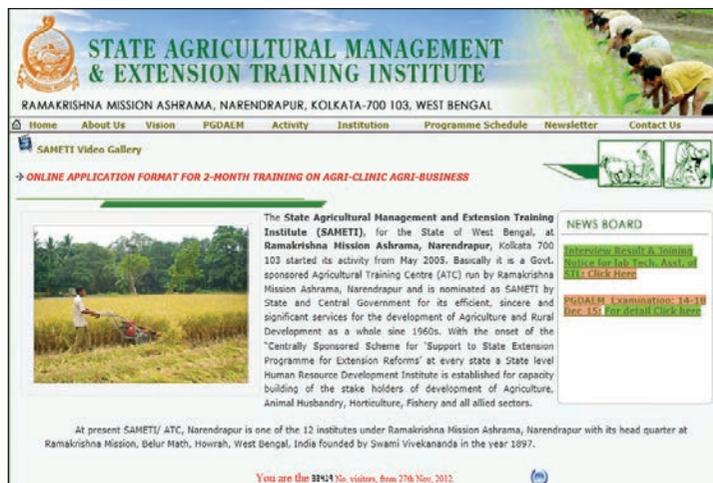
“The best way to find yourself is to lose yourself in the service of others.”

– Mahatma Gandhi

VII PUBLICATIONS

By going through the publication of an institute, anyone can easily get an idea about the institute. The publication itself describes the activities of the institute like a spokesman. Similarly the website of the institute is the document which can be browsed from any corner of the world. The Institute has a regularly updated website: www.sametiwb.org of about 20 pages, displaying the programmes and activities of the institute along with other related information. Updated information, programme images, activity schedules are updated in the website on regular basis. Yearly tentative training programmes workshop-seminar, programme performed in the last year, important coming programmes etc. are displayed in the website. Important announcement and information like ATMA recruitment of different districts, schedule of PGDAEM semester examinations etc. are displayed in the website notice board in home page. Since 2006-07 the Annual Report of the institute is available in the website in pdf form. The provision for on-line form fill up for the Agri-clinic and Agri-Business Centre (AC-ABC), PGDAEM and DAESI courses have been developed in the website. Various notices of the institute, Govt. Departments related to agricultural reforms are being displayed in the website for interest of the people. Regular feed backs, information; suggestions are coming through website contact address. Last year about 75000 people have clicked the website for various information.

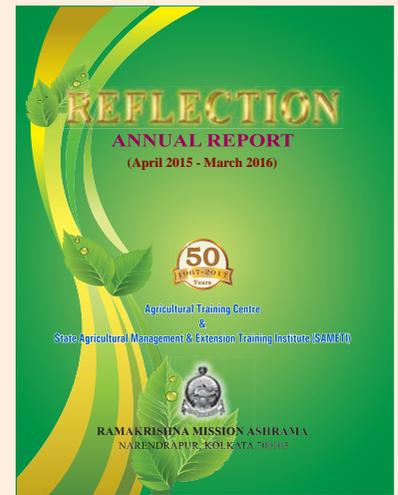
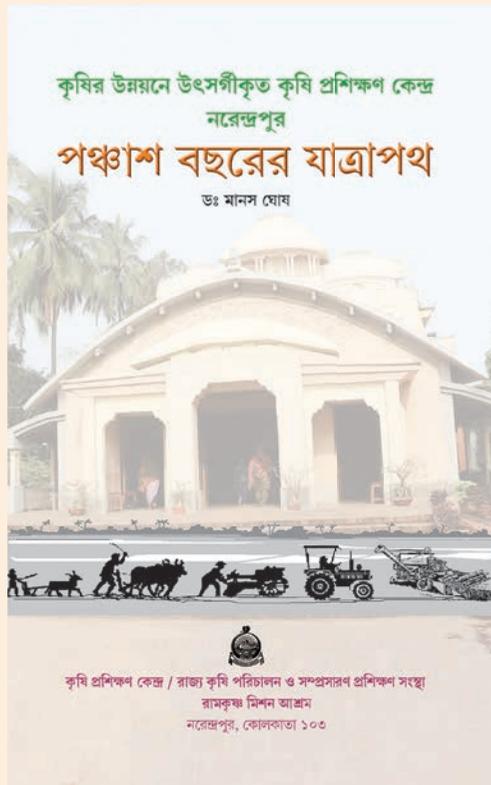
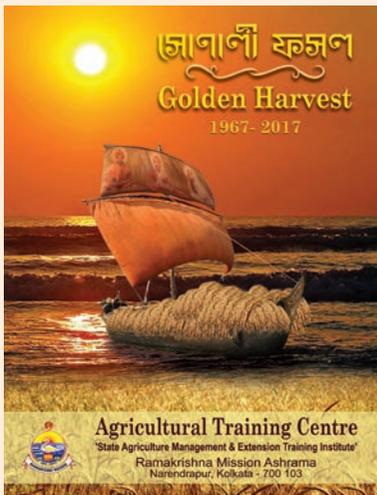
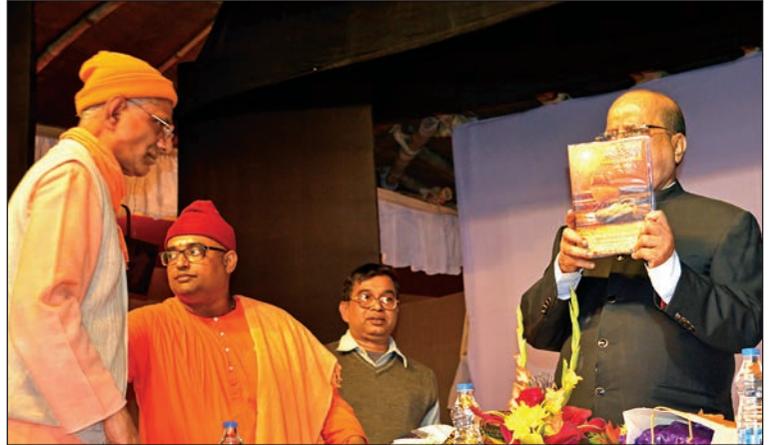
The 'News Letter' of the institute is published regularly on quarterly basis. It is of four pages colour publication. The newsletter contains the news covering the major programmes performed by the institute, news pegs, coming programmes, about SAMETI West Bengal etc. The pdf soft copies of all the newsletters are also uploaded in the institute website. The design of the newsletter has been upgraded five times since inception. Since January, 2010 to March, 2017 the newsletter has published in 6 volumes containing 29 numbers.



“Finish the few duties you have at hand, and then you will have peace.”

— Sri Ramakrishna

The institute has been published its' renowned Annual Report (Reflection) based on financial year. This Annual Report reflects the overall activities of the institute through the year. It mainly consists of performance of the institute, capacity building programme, special extension courses, agricultural extension service, evaluation of any study done, exploration & documentation of success stories, meteorological observation & analysis, publications, list of resource persons etc. The pdf copies of all the annual reports of the institute are available in the website: www.sametiwb.org.



'Diploma in Agricultural Extension Service for the Input dealers (DAESI)' Course in West Bengal
State Agricultural Management and Extension Training Institute (SAMETI)
Ramakrishna Mission Ashrama, Narendrapur, Kolkata - 700 103
Website: www.sametiwb.org / sametiwb@rediffmail.com

One-year duration Diploma course for the input-dealer has been started at SAMETI since 24th August, 2013. The 2nd batch of course started from 14th October, 2014. The course is guided by the 'National Institute for Agricultural Extension Management (MANAGE)', Hyderabad with the approval of Govt. of India.

Objective and Goal
The course is to equip the dealers who are engaged in agricultural input supply along with advisory to the farmers, with the knowledge on basic agriculture targeting improved agricultural extension services and their better business and ultimately leading to agricultural growth.

Background:

- There is a large network of about 2.82 lakh Agri-input Dealers in the country.
- Farmers have a very close relation and access to the dealers regularly and they use to receive different suggestions/ recommendations on agricultural from them.
- Most of the input-dealer have hardly any agricultural education and an unintentionally propagate ineffective recommendation, leading to increase cost of cultivation, pollution and other problems.

Bridging the Gap

- To bridge the gap and also by fixing the urgency of formal education of agri-input selling persons, Govt. of India through National Institute of Agricultural Extension Management (MANAGE), Hyderabad, initiated the course 'Diploma in Agricultural Extension Service for the Input-dealer (DAESI)' in the country.

Action
For the state of West Bengal, SAMETI of the state took initiative to conduct the course for the input-dealer of West Bengal and the SAMETI, Ramakrishna Mission Ashrama, Narendrapur, Kolkata - 700103 has been declared by MANAGE, Hyderabad as the Nodal Training Institute for the State.

News Letter
Volume 8, No. 1 (January - March, 2016)

State Agricultural Management and Extension Training Institute (SAMETI)
Ramakrishna Mission Ashrama, Narendrapur, West Bengal
www.sametiwb.org

Annual Celebration of the Institute
The Agricultural Training Centre, erstwhile Gram Sevak Training Centre Celebrated its Annual Celebration along with the completion of the Golden Jubilee year of the institute during 2015 January - 2017. This year also was the 50th Annual Celebration, which was started with the first Annual Celebration of the Gram Sevak Training Centre in the year 1967.

The inauguration of the Annual Celebrations was done by Sri Sachin, former Minister in Charge of Fisheries, Government of West Bengal and Director of Consumer Affairs, Govt. of West Bengal by lighting lamp and amongst the holy Vedic chanting in front of the image of Sri Sri Ramakrishna, Sr. Swami, Ramakrishna Ashrama, Narendrapur.

and all other officials of the Ashrama were also present. The main celebration, named on 'Developmental Works of 50 years of Lokashiksha Parishad' was also inaugurated by the SAC. The Minister also inaugurated the exhibition of the Agricultural Training Centre and SAMETI along with the 'Vegetable and Fruit Show'. In this address, SAC expressed his satisfaction about the sincere service provided by Mission in the sector of agriculture and other rural developmental activities in West Bengal. On the occasion of the Golden Jubilee Celebration of Agricultural Training Centre, book containing different articles on agricultural issues and introduction of the former staff members of the ATC, Kolkata, with the title of 'Sonal Fost' was released by the Honorable Minister, Swami Sevaksashana.

In this Issue

- Annual Celebration of the Institute
- Programme on 'Advances in Training Methods and Training Management'
- 8-days Orientation Program for the Agri-apprentices
- Orientation of Farm-Tele Adhives of Khan Coll Centre
- Seminar on Land Use Planning for Future Agriculture'
- Workshop on 'Crop Tagging'

“All the wealth of the world cannot help one little Indian village if the people are not taught to help themselves”
— Swami Vivekananda

During this financial year 2016-17 the publication published so far is given of are given below:

| Sl. No. | Type of publication | Name of the Publication | About the publication (Language) |
|---------|--------------------------------|--|---|
| 1. | Book | Sonali Fasal (Golden Harvest) – 1967 – 2017. | It is compilation of articles about the institute, collection of old articles and modern technology, having three sections – <i>Sonar Tori</i> , <i>Pandulipi</i> and <i>Krishi Kakhono Theme Thake Na</i> . This bilingual book is published on the occasion of Golden Jubilee of the Institute. |
| 2. | Book | Panchas Bachharer Jatrapath | About back history behind the formation and present activities of the institute published on the occasion of Golden Jubilee of the Institute (in Bengali). |
| 3. | Film | Short film of the Institute | 20 minutes film about the Institute. |
| 4. | Brochure - reprint | Diploma in Agricultural Extension Services for Input Dealers (DAESI) | Information related to the course including admission form (in English). |
| 5. | Brochure - reprint | Post Graduate Diploma in Agricultural Extension & Management (PGDAEM) | Information related to the course including admission form (in English). |
| 6. | Annual Report | Reflection | Annual report of the institute for the period April 2015 - March 2016 (in English). |
| 7. | News Letter | SAMETI Quarterly News letter | News letter based on quarterly activities of the institute (in English). |
| 8. | Brochure with application form | DAESI | About DAESI Programme (in English) |

“The brain and muscles must develop simultaneously.
Iron nerves withan intelligent brain – and the whole world is at your feet.”

– *Swami Vivekananda*

VIII RESOURCE PERSONS OF THE INSTITUTE

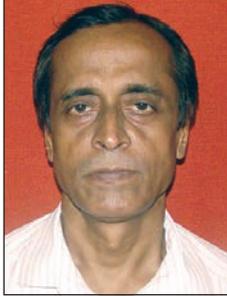
The resource persons are the most important asset of the institute. Along with national and international exposures and education, all the members have continuous deep rooted relation and intervention with the agricultural and overall rural life and its development.

A. Internal Resource Persons:

| | Name, Mobile No. & E-mail id | Designation | Field of Specialization |
|---|---|--|---|
|  | Dr. Manas Ghosh M: 9433390828 E-mail: sametiwbkrkm@gmail.com | Principal, ATC & Director, SAMETI | Plant Protection, IPM, Rural Development |
|  | Sri Amiya Kumar Raj M: 9748524121 E-mail: amiyakumarraj.59@gmail.com | Senior Lecturer & Faculty | Leadership, Motivation, Information Management |
|  | Sri Dilip Maity M: 9674214752 E-mail: dilipmaityatc@gmail.com | Senior Lecturer & Faculty | Farm Management, Seed Technology |
|  | Dr. Kamalakanta Hajra M: 9433887830 E-mail: drkkhajra@gmail.com | Senior Lecturer & Faculty | Plant Protection, IPM, Mushroom Cultivation |

Men are more valuable than all the wealth of the world

– *Anonymous*

| | Name, Mobile No. & E-mail id | Designation | Field of Specialization |
|---|--|-------------------------------|---|
|  | Dr. Sourendranath Das M: 9830636511 E-mail: sourenks@gmail.com | Senior Lecturer & Faculty | Plant Protection, Bio-Pesticides, IPM, Organic Farming |
|  | Sri Soumyesh Mondal M: 9732985150 E-mail: soumyesh@rediffmail.com | Chief Instructor & Faculty | Farm Mechanisation, Irrigation Engineering, Agri- Entrepreneurship |
|  | Sri Jagadish Tanti M: 9433366608 | Farm Mechanic | Farm Machineries, Civil Work |
|  | Sri Subhas Adak M: 9732520361 E-mail: subhas.adak@rediff.com | Senior Lecturer & Faculty | Soil Science, Agri-Entrepreneurship, Crop husbandry |
|  | Sri Subhrasil Basu M: 9432356923 E-mail: sbasu3010@gmail.com | Instructor & Faculty | Social Welfare, Mainstreaming Gender |

“Be the change that you wish to see in the world.”

– Mahatma Gandhi

| | Name, Mobile No. & E-mail id | Designation | Field of Specialization |
|---|--|-------------------------|---|
|  | Sri Debabrata Giri M: 9143044313 E-mail: giriadc@gmail.com | Instructor & Faculty | Rural Development, Project Management, Agri-Entrepreneurship, Publication |
|  | Md. Rabiul Haque M: 9831114782 E-mail:hoque.robiul60@gmail.com | Krishi Prajukti Sahayak | Vermi composting, Agri-Entrepreneurship |
|  | Sri Sudipta Chakraborty M: 9830935421 E-mail: sudiprkm@gmail.com | Clerk cum Cashier | Administrative Rules, Computer Application |
|  | Sri Anirban Dutta Roy M: 9062086755 E-mail: anirban_duttaroy@rediffmail.com | Clerk cum Accountant | Finance and Accounts |
|  | Sri Sujay Chakraborty M:9830935421 E-mail: sujay_chakraborty 04@yahoo.com | Accountant cum Clerk | Accounts |

“He alone is the true teacher who is illumined by the light of true knowledge.”

– Sri Ramkrishna

| | Name, Mobile No. & E-mail id | Designation | Field of Specialization |
|---|--|------------------------|---|
|  | Dr. Piyal Bhattacharya M: 9432666243 E-mail: drpiyal15@gmail.com | Audio-Visual Assistant | Audio-Visual, Computer Application, Data Management |
|  | Smt. Sonali Debnath (Saha) M: 9804050994 E-mail: sonalisaha.off2013@gmail.com | Computer Operator | Computer Application, DTP, Digital Designing |

* The list does not represent seniority

B. External Resource Persons

| Sl. No. | Name | Status | Qualification, Specialization etc. |
|---------|------------------------|--|---|
| 1. | Sri Prasanta Dasgupta | Former Senior Lecturer, Agricultural Training Centre, Narendrapur | M. Sc. in Botany–Horticulture |
| 2. | Dr. Ashutosh Das | Former Senior Lecturer, Agricultural Training Centre, Narendrapur | Ph. D., M. Sc. (Ag.), PGDAEM |
| 3. | Dr. Satinath Das | Former Senior Lecturer, Agricultural Training Centre, Narendrapur | B.V. Sc., PGDAEM, Dairy Management |
| 4. | Dr. S. K. Musiar Ali | Former Senior Lecturer, Agricultural Training Centre, Narendrapur | Ph. D., M. Sc. (Ag.) in Agril. Extension Management |
| 5. | Dr. Dibyendu Sen | Former Director of Extension & Education, BCKV, the State Agricultural University | Ph. D in Agril. Extension |
| 6. | Dr. Debabrata Dasgupta | Former Vice Chancellor, Bidhan Chandra Krishi Viswavidyalaya, the State Agricultural University | Ph. D in Agril. Extension |
| 7. | Dr. Debabrata Basu | Professor, Agricultural Extension, Bidhan Chandra Krishi Viswavidyalaya, the State Agricultural University | Ph. D in Agril. Extension |
| 8. | Dr. Sankar Acharya | Professor, Agricultural Extension, Bidhan Chandra Krishi Viswavidyalaya, the State Agricultural University | Ph. D in Agril. Extension |
| 9. | Dr. Rupak Goswami | Asst. Professor, Integrated Rural Development & Management Faculty Centre, Vivekananda University | Ph. D. in Agril. Extension |
| 10. | Dr. Gopal Mishra | Ex. Deputy Director, Extension, Bidhan Chandra Krishi Viswavidyalaya, the State Agricultural University | Ph. D |

“The brain and muscles must develop simultaneously.
Iron nerves within intelligent brain – and the whole world is at your feet.”

– Swami Vivekananda

| Sl. No. | Name | Status | Qualification, Specialization etc. |
|---------|------------------------------|---|---|
| 11. | Dr. A. K. Pani | Professor, Army Management Institute, Kolkata | Ph. D in Agricultural Marketing |
| 12. | Dr. Paromita Dhar | Faculty & Corporate Trainer, The Strategy Academy | Ph. D |
| 13. | Dr. R. B. Mallick | Head of the Dept. Agronomy, Ballygunj Science College, Calcutta University | Ph. D |
| 14. | Dr. Vivek Roychowdhury | Professor of Indian Institute of Foreign Trade | Ph. D |
| 15. | Dr. N. C. Sahoo | Programme Co-ordinator, Sashya Shamalaya, Krishi Vigyan Kendra | Ph. D |
| 16. | Dr. Avijit Ghosal | Subject Matter Specialist, Sashya Shamalaya, Krishi Vigyan Kendra | Ph. D |
| 17. | Dr. Sarbaswarup Ghosh | Subject Matter Specialist, Sashya Shamalaya, Krishi Vigyan Kendra | M. Sc. in Animal Husbandry |
| 18. | Dr. Swagat Ghosh | Subject Matter Specialist, Sashya Shamalaya, Krishi Vigyan Kendra | Ph. D |
| 19. | Dr. P. K. Ghosh | Former Scientist, ICAR | Ph. D |
| 20. | Dr. Manasi Chakraborty | Subject Matter Specialist, Nimpith Krishi Vigyan Kendra | Ph. D |
| 21. | Dr. Prashanta Chatterjee | Subject Matter Specialist, Nimpith Krishi Vigyan Kendra | M. Sc. |
| 22. | Dr. Animesh Sikdar | Deputy Director, Animal Resource Dept. Govt. of West Bengal. | M. Sc. in Animal Husbandry |
| 23. | Dr. S. N. Biswas | Joint Director, Fishery, Govt. of West Bengal. | Ph. D |
| 24. | Dr. Subhodip Nath | District Horticulture Officer, Murshidabad | Ph. D |
| 25. | Dr. U. K. Panja | Joint Director of Fishery (HQ), Govt. of West Bengal. | Ph. D |
| 26. | Sri Soumyajit Das | Managing Director, SFDC, Govt. of West Bengal | Fishery Management |
| 27. | Dr. Pratap Mukherjee | Ex-Principal Scientist, Central Institute of Fisheries Education, ICAR | Ph. D |
| 28. | Dr. B. K. Mahapatra | Principal Scientist, Central Institute of Fisheries Education, ICAR | Ph. D |
| 29. | Dr. A. K. Roy | Ex. Principal Scientist & Head of Social Division, Central Institute of Fisheries Education, ICAR | Ph. D |
| 30. | Mr. Dharam Chaturvedi | Executive, SPENCER, Kolkata | Public - Private Partnership |
| 31. | Sri Sambhu Nath Banu | Entrepreneur, Progressive Enterprise (vermicompost) | Graduate |
| 32. | Sri G. Nayaban | Deputy Director of Agriculture (HQ), Govt. of West Bengal | M. Sc. (Ag.) |
| 33. | Sri Prashanta Chatterjee | Subject Matter Specialist, Krishi Vigyan Kendra, Nimpith | M. Sc. |
| 34. | Dr. S. S. Gupta | Consultant Scientist, Ramakrishna Mission Ashrama, Narendrapur, | Ph.D; D.Sc. |
| 35. | Sri Suvakriti Saha | Manager, IDBI Bank, Narendrapur Branch | M. Sc. |
| 36. | Sri Gautam Mukherjee | Deputy Director, Agriculture Marketing | Agriculture Marketing |
| 37. | Mr. Sarada Prashad Choudhuri | Assistant General Manager, Keventer Agro Ltd. | Agriculture Marketing & Contact Farming |
| 38. | Sri Sudipta Mukherjee | Spencers | Marketing |

“One should desire of God desirelessness. Desire is the obstacle to liberation.”

– Sri Sarada Devi

