

## ANNEXURE 28

### Detailed Report about

### KRISHI VIGYAN KENDRA (KVK)



### **SASYA SHYAMALA KRISHI VIGYAN KENDRA**

### **Ramakrishna Mission Vivekananda University**

At Arapanch, P.O.Sonarpur, Dist. South 24 Parganas, Kolkata-700150

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## **'Sasya Shyamala' Krishi Vigyan Kendra**

### **Introduction:**

Krishi Vigyan Kendra (KVK) is a frontline extension institute established by the Indian Council of Agriculture Research (ICAR), Ministry of Agriculture, Government of India for a district, for transfer of technology in the field of agriculture, horticulture, animal husbandry, aquaculture etc. '**Sasya Shyamala' Krishi Vigyan Kendra** has been newly established for the district of South 24 Parganas under the aegis of *Ramakrishna Mission Vivekananda University* as the 2<sup>nd</sup> KVK in the district. This is as per the policy decision of the Government of India to establish additional KVKs in the larger districts of the country. Sasya Shyamala Krishi Vigyan Kendra is a new KVK established in 2013 with young, energetic, enthusiastic and dedicated fellow Subject Matter Specialists in different disciplines. The KVK is now actively engaged in dissemination of technologies to the farmers, farm women and rural youths and development of farm sector in South 24 Parganas district. This is the first of its kind in the Zone-II in order to facilitate providing better technology service to the farming community of the district, located at Arapanch, P.O.-Sonarpur, Dist.-South 24 Parganas, Kolkata-700150, four kilometre away from Sonarpur Railway Station by the side of the Sonarpur - Ghatakpukur Road.

It came into existence through promulgation of ICAR notification (vide: F.No.6-1/2010 AE-1. dtd: 28<sup>th</sup> February, 2013). However, activities of this new KVK were started from November, 2013. It has been vested upon important responsibilities of developing socio-economic condition of farming community of South 24 Parganas district through its mandated activities on organization of on-farm trials based on farmers' problems, vocational training in agriculture and allied enterprises, frontline demonstration on major cereals, oilseeds, pulses and other enterprises related to agriculture, horticulture, fisheries, animal husbandry, quality seed and planting material production for the farmers.

### **Staff Position (as on 1st April, 2016):**

Sl. No.	Name of the incumbent	Designation	Degree & Discipline
1	Dr. Narayan Chandra Sahu	Sr. Scientist and Head	Ph.D in Agril Chem. & Soil Sc.
2	SMS (Agronomy)	Vacant	-
3	Dr. Prasenjit Kundu	SMS (Horticulture)	Ph.D in Horticulture (Fruits & Orchard Mgmt.)
4	SMS ((Genetics/Plant Breeding)	Vacant	-
5	Dr. Abhijit Ghosal	SMS (Plant Protection)	Ph.D in Agricultural Entomology
6	Dr. Sarbaswarup Ghosh	SMS (Vet. & Animal Science)	M.V.Sc. in Veterinary Bio-Chemistry
7	Dr. Swagat Ghosh	SMS (Fisheries)	Ph.D in Marine Biology
8	Programme Assistant (Lab Technician)	Vacant	-
9	Mr. Anupam Mukherjee	Farm Manager	M.Sc (Ag.) in Agronomy
10	Mr. Chandan Chakraborty	Assistant	B.Com
11	Programme Assistant (Comp.)	Vacant	-
12	Mr. Subhashis Bhaduri	Stenographer Gr III	B.Com
13	Mr. Mokhtar Ali	Driver	Madhyamik
14	Mr. Nikhil Ghosh	Driver	H.S.
15	Miss Piu Sarkar	Skilled Supporting Staff	M.Sc. in IRDM
16	Mr. Tapesh Mandal	Skilled Supporting Staff	H.S.

**Mandate of the KVK:**

Assessment, Refinement and Demonstration of Technologies and Technology products.

### Activities of the KVK:

Based on the mandates following activities have been defined for the KVK -

(a) **On-Farm Testing (OFT)** to assess the location specificity of agricultural technologies under various farming systems.

(b) **Frontline Demonstration (FLD)** for out scaling farm innovations and to showcase the specific benefits/worth of technologies on farmers' fields.

(c) **Training** for capacity development of farmers, farm women, rural youths and extension personnel to update their knowledge and skills in modern agricultural technologies and enterprises.

(d) **Knowledge and Resource Centre** for improving overall agricultural economy in the operational area.

(e) Conduct **frontline extension programmes** and provide farm advisories using Information Communication Technology (ICT) and other media on varied subjects of interest to farmers.

(f) **Documentation, characterization and strategic planning** of farming practices.

(g) **Production of quality seed and planting materials** of different field and horticultural crops, fish seed, kids, chicks, ducklings etc.

(h) Provide **soil health cards** to the farmers

### Jurisdiction of 'Sasya Shyamala' Krishi Vigyan Kendra:

Out of 29 blocks of South 24 Parganas following 14 blocks are under the jurisdiction of the newly established 'Sasya Shyamala' KVK for its intensive activities:

Sl No	Name of the Sub-division	Blocks under Sub-division
1	Alipore (Sadar)	Bishnupur-I, Bishnupur-II, Budge Budge-I, Budge Budge-II and Thakurpukur-Maheshtala
2	Baruipur	Baruipur, Sonarpur, Bhangore-I and Bhangore-II
3	Diamond Harbour	Falta
4	Canning	Canning-I, Canning-II, Basanti and Gosaba
<b>Total</b>	<b>4 Sub - Divisions</b>	<b>14 Blocks (out of 29 Blocks in the District)</b>

### **Thrust areas identified:**

- ❑ Introduction and dissemination of HYVs and improved management practices for major crops, improved breeds of livestock and Integrated Farming System.
- ❑ Technology dissemination for Improvement of Soil health and reclamation of saline soil.
- ❑ Introduction and extension of technologies and contingency plan to mitigate the losses for natural calamities and in flood prone areas.
- ❑ Promotion and extension of high value crops and enterprises for better income generation of farmers.
- ❑ Production of quality seed and planting materials of different crops and supply to the farmers.
- ❑ Scientific composite fish culture, air breathing fish farming and ornamental fish culture for better income and alternative livelihood option of fishermen communities.
- ❑ Promotion of income generation through non-conventional fishery with culture of Crabs, Bhetki, Parse, Khaira etc.
- ❑ Biodiversity conservation and culture extension of indigenous endangered fish species viz. Punti, Murala etc.
- ❑ Promoting scientific backyard poultry farming by women SHGs and introduction new poultry breed with special reference to layer birds.
- ❑ Propagation of ornamental bird rearing by SHGs and its linkage to market.
- ❑ Productivity enhancement of farm animals by scientific cross breeding programme.

### Linkages established with different stakeholders:

Name of organization	Nature of linkage
Directorate of Agriculture, Govt. of West Bengal	Submission of projects for implementation under ATMA & RKVY
Directorate of Animal Husbandry and Veterinary Services and CEO, Paschim Banga Go Sampad Bikash Sangsthan, Govt. of West Bengal	Regarding implementation of different schemes and projects related to animal husbandry and dairy
Coconut Development Board (CDB)	Organizing sponsored training program
National Fisheries Development Board (NFDB)	Organizing sponsored exposure visit of fish farmers, Implementation of projects
SAMETI, West Bengal	Attending training programmes organized by SAMETI as resource person.
Agricultural Training Centre (ATC), R K Mission Ashrama, Narendrapur	Attending training programmes organized by ATC as resource person; organizing On-campus training programme of KVK
Central Institute of Fisheries Education (CIFE), Kolkata Centre	Consultation regarding programme implementation in the field of fisheries
Indian Institute of Horticultural Research (IIHR), Bangalore	Technology demonstration on horticultural crops
National Centre for Integrated Pest Management (NCIPM), ICAR, New Delhi	Project implementation and Organizing Training Programme
National Institute of Research on Jute & Allied Fibre Technology (NIRJAFT)	Project implementation under Mera Gaon Mera Gaurav and Swachh Bharat Aviyan Programme
Dept. of Microbiology, Faculty of Vet. & Animal Sciences, West Bengal University of Fisheries & Animal Sciences (WBUAFS)	Analysis of Milk samples for OFT
Sundarban Cooperative Milk and Livestock Producers Union	Marketing Linkage of Duck and Brown egg

### **OFTs Conducted during 2014-15 & 2015-'16:**

- Assessment of effect of different dates of sowing in Rabi Sunflower
- Studies on the Bio-efficacy of Pretilachlor and Oxyflurofen in boro transplanted rice and its effect on the soil microflora in medium to low land situation of South 24 Parganas district
- Assessment of fertilizer dose for increasing yield of onion
- Assessment of performance of organic and inorganic pesticides for the management of Diamond Back Moth of Cabbage
- Assessment of different hybrid varieties of Sunflower in Rabi season
- Evaluation of submergence tolerant rice varieties for low land situation of South 24 Parganas district
- Studies on the package of management for Scampi (*Macrobrachium rosenbergii*) culture in extensive pond culture system of S-24 Parganas district
- Studies on the performance of integrated fish-duck-dyke vegetables production System
- Evaluation of different mode of disinfectant application on udder health and low milk yield of crossbred cows
- Assessment of performance of different improved poultry breeds in backyard system in South 24 Parganas district
- Assessment of techniques to reduce leaf curl disease of chilli for higher production and productivity
- Management of aphid in Mustard by combination of yellow sticky traps along with conventional insecticides for farming situation of South 24 Parganas district

### **Technologies identified for dissemination in the District:**

- System of Rice Intensification (SRI)
- Drum Seeder technique of rice cultivation
- Introduction of submergence tolerant and salt tolerant rice varieties
- Scientific weed management practices
- Cultivation of Oilseeds and pulses
- IPM in rice
- Cultivation techniques of high value crops like Broccoli, French bean and Capsicum
- Kharif onion cultivation

- Vermicomposting, Green Manuring and Brown Manuring for soil Health Management
- Soil testing and fertilizer recommendation
- Multitier Horticulture
- Protected cultivation techniques of vegetables
- Orchard development with ber and guava
- Coconut climber for easy climbing
- Root feeding technique for control of important pests of coconut
- Integrated farming system (IFS)
- Entrepreneurship development in Mushroom cultivation and bee keeping
- Introduction of improved breeds of poultry and duck and pig
- Cross breeding of farm animals
- Commercial Rearing of ornamental birds for entrepreneurship development
- Vaccination for control of infectious animal diseases
- Community fodder seed production
- Entrepreneurship development of rural youths through Mud crab fattening and culture, Ornamental fish culture, Air breathing fish culture, Scampi culture, Brackish water farming of Bhetki and Parse
- Culture of Indigenous fishes like punti, mourala and nados etc.

### Yearly Achievement of different activities:

#### 1. Training Programme:

2014-15

Target Group	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
<b>Farmers &amp; Farm Women</b>	61	279	96	108	821	452	863	181	14	117	826	471	1899
<b>Rural Youth</b>	17	88	25	31	337	42	158	61	0	1	486	67	553
<b>Extension Personnel</b>	3	44	44	88	16	12	28	2	3	5	62	59	121

2015-16



Target Group	No. of Courses	No. of Participants									Grand Total		
		Other			SC			ST			M	F	T
		M	F	T	M	F	T	M	F	T			
Farmers & Farm Women	53	295	92	399	859	340	1199	62	40	102	1228	472	1700
Rural Youth	20	111	42	153	287	91	347	24	6	30	422	139	561
Extension Personnel	3	145	9	154	44	5	48	4	1	5	192	15	211

## 2. Different Extension activities during 2014-'15 & 2015-'16:

Item	No of courses / programmes	No of participants
Extension Activities	2265	94325
FLD	160.864 ha + 159 units	1306 farmers
OFT	12 nos.	9 locations (132 farmers)

## 3. Literature Developed/Published:

### List of Publications

Items	2014-'15	2015-'16
Research papers	12	13
Popular Articles	9	14
Technical Bulletin	1	2
Leaflets	3	18

## 4. SMS PORTAL:

Date of start of functioning of SMS portal								
No. of messages	No. of calls	No. of farmers covered	Types of messages (No.)					
			Crop	Livestock	Weather	Marketing	Awareness	Other
305	-	1050227	186	15	12	14	20	58

## 5. Mobilization of fund from other sources for implementing different program

2014 -'15

Name of the Programme/Scheme	Nos. of the programme	Funding Agency	Amount (Rs.)
Exposure Visit for progressive fish farmers of South 24 Parganas	1	National fisheries Development board (NFDB)	3,81,000.00
Workshop-cum-Training Programme on Protection of Plant Varieties and Farmers' Rights for the farmers	4	PPV&FR Authority Min.of Ag., GoI	80.000.00
Training of rural youth on Improved Technology of coconut cultivation	5	Coconut Development Board, Kolkata	3,56,600.00
Training programme on integrated farming practices for bali island farmers	1	NBSS & LUP	55,000.00
<b>Total:</b>			<b>8,72,600.00</b>

2015 - '16

Name of the Programme/Scheme	Nos. of the programme	Funding Agency	Amount (Rs.)
Workshop-cum-Training Programme on Protection of Plant Varieties and Farmers' Rights for the farmers	1	PPV&FR Authority Min.of Ag., GoI	80.000.00
Training of rural youth on Improved Technology of coconut cultivation	1	Coconut Development Board, Kolkata	73,500.00
Training Programmes and leaflets	8 nos of training program and 12 nos. of leaflets	NABARD Kolkata	5,33,250.00
Training of Govt. Extension Functionaries on Recent Development of Animal Disease Management	2 nos	ARD Dept., Govt. of West Bengal	4,04,000.00
<b>Total:</b>			<b>10,90,750.00</b>

## 6. Successful Technology Demonstration – IFS, IPM, Multitier Horticulture, Vanaraja Poultry Breed



(Pond based Integrated Farming System)



(Integrated Pest management)



(Vanaraja Poultry Breed)



(Multi-tier Horticulture)

## 7. KVK intervention leads to Successful Marketing Linkage to Village Poultry Farmers:-

The newly established **Sasya Shyamala KVK** took up poultry development from the very first year in 2014 in different villages. One such village is Moutala of Baruipur Block of South 24 Parganas district, West Bengal. Most of the farmers of this village were not doing well in traditional poultry farming practices due to lack of adoption of improved management practices and marketing facilities of the eggs.

To establish marketing linkage, Sasya Shyamala KVK tied up with District Administration of South 24 Parganas district and 'Sundarban Co-Operative Milk & Livestock Producers' Union Ltd (SMLU)' for marketing of eggs from village grown ducks and chickens directly to urban customers. Now on an average, 2000 duck and 1000 poultry eggs are being directly marketed per month in the brand name of '**Sundorini**'. Poultry growers of Moutala village are happy now as they are not only rearing their ducks or poultry profitably by adopting better management practices, but also maximising their profit by eliminating middlemen from their supply chain.

Success of this initiative inspired many poultry growers and the groups are expanding now in the region to reap the benefits from better poultry management practices as well as from marketing linkages.

#### 8. Distribution of Soil Health Cards :

Two hundred and ninety eight Soil Health Cards were distributed among the 103 number of farmers from different parts of the jurisdiction area of the KVK on the occasion of Celebration of World Soil Day on 5<sup>th</sup> December, 2015.

#### 9. Protection of Plant Variety & Farmers' Right :

Forty seven (47) different crop varieties have been primarily identified and were sent to PPV&FRA for registration. Four number of Workshop-cum-Training Programme on Protection of Plant Varieties and Farmers' Rights for the farmers were organized by the KVK.

#### Areas covered during the PPV & FRA workshop in detail:

1. Importance of conservation of indigenous varieties,
2. Details of PPV&FR Authority and Act,
3. Farmers benefits from PPV&FR Act,
4. Collection of Data and filling up of forms for application related to variety registration, and
5. Submission of the applications to the concerned authority for variety registration

#### Indigenous Plant varieties collected by the KVK for PPV & FRA :

Sl . No.	Crop	Variety Identified
1	Paddy	23
2	Chilli	3
3	Brinjal	4
4	Spinach	1
5	Flat bean	3
6	Ridge gourd	2
7	Snake gourd	1
8	Potato	1

9	Colocassia	1
10	Vine spinach	1
11	Spinach	1
12	Green amaranth	1
13	Blackgram	1
14	Arhar	2
15	Lentil	1

**Production of seeds, planting materials, fish seed and livestock products during 2014-'15 & 2015-'16:**

**1. Instructional Farm:**

Sl No.	Category	Crop	Year	Area (ha/no.)	Prodn (kg/.no.)
1	Seed	Rice	2014-15	9.8 ha	23,256.5 kg
2		Mustard	2014-15	0.133 ha	87 kg
			2015-16	0.15 ha	5 kg
4		Dhaincha	2014-15	0.065 ha	35 kg
5		Black Gram	2014-15	0.065 ha	35 kg
6		Sunflower	2015-16	0.06 ha	standing
7		Green Gram	2015-16	0.06 ha	35 kg
8	Planting Material	Cabbage	2014-15	-	500 nos.
		Tomato	2014-15	-	500 nos.
		Turmeric	2014-15	-	45 kg
		Elephant Foot Yam	2014-15	-	40 kg
9	Livestock	Chicks & Ducklings	2014-15	-	564 nos
10	Fisheries	Rohu, Catla, Mrigel	2014-15	-	112 kg

**2. Village Seed Production:**

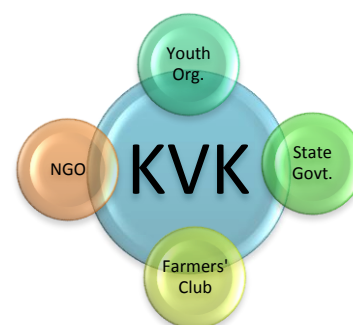
Sl No.	Category	Crop	Year	Area (ha/no.)	Production (kg/.no.)
1	Seed	Rice	2014-15	6 ha	24700 kg
			2015-16	140 ha	409381 kg
2		Mustard	2014-15	16.5 ha	12450 kg
			2015-16	19 ha	16,350 kg
4		Lentil	2015-2016	20 ha	2435 kg
5		Green Gram	2015-16	16 ha	2472 kg
6		Turmeric	2014-15	0.1 ha	2800 kg
			2015-16	0.4 ha	15038 kg

7	Planting	Elephant Foot Yam	2015-16	0.066 ha	3969 kg
8	Materials	Broccoli	2015-16	0.22 ha	4362 kg
9		Chilli	2015-16	0.133 ha	2904 kg
10		Capsicum	2015-16	0.133 ha	4840 kg
11		Onion	2015-16	0.798 ha	174240 kg
12		Cabbage	2015-16	0.29 ha	15972 kg
13		Cauliflower	2015-16	0.133 ha	7260
14		Broccoli	2015-16	0.22 ha	4362

### Future Plan of KVK :

- Increasing outreach of the KVK to all the blocks under jurisdiction of the KVK by converging different stakeholders of the farming community

- Youth organisations of the Ramakrishna Mission Ashrama, Narendrapur
- Farmers' Clubs, Self Help Groups and other Farmers' organisation like SKUS
- State Govt. Dept.
- Non Govt. Organisation



- To develop the KVK as a resource centre of technology with specialization in certain fields-

- Organic Farming
- Fresh water and marine ornamental fish culture for entrepreneurs development
- Ornamental bird rearing for entrepreneurship development
- Production and distribution of quality seed and planting materials of field and horticultural crops, fish fingerlings and livestock
- Mushroom and Honey bee demonstration Units.

- To develop infrastructure in the instructional farm of KVK on model demonstration units, administrative building cum training complex, farmers' and farm women hostel.