

## Chapter-9

# KVK: Success Stories and Learning

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### CASE STUDY – 1

Story: Oyster mushroom cultivation using niger sticks in Koraput

Traditionally, the tribals of Koraput collect mushroom from the forest and fields during rainy season. They, not only consume mushroom but also earn by selling those in the local markets. Mushroom" is a popular diet among the tribals for delicacy.

Looking the potentiality of mushroom cultivation in the district. KVK intervened and introduced oyster mushroom cultivation.

During various trainings and trials, it was found that oyster mushroom cultivation by utilising paddy straw as the substrate was having several difficulties. Due to less area under paddy crop, the availability of straw was less. Traditional method of threshing by bullock treading makes the straw unsuitable for mushroom cultivation. Keeping the above constraints in view, KVK introduced locally available materials such as nigerstick, ragi straw and banana leaf petioles as the substrate materials. The results obtained from niger sticks was very much encouraging, with 20 per cent higher yield of mushroom than paddy straw. Niger sticks are available in plenty in the locality which have no other economic use. Hence, this can be conveniently used for growing oyster mushroom profitably. Several farm women from the villages like Durkaguda, Pakjhola, Malidoliamba and Dalnigmia of the district were interested to go for oyster mushroom cultivation.

As a capacity building measure, each trainee was supplied with 10 spawn bottles with 20 polythene bags as critical inputs to grow and asses the performance of oyster mushroom. The beneficiaries could harvest around

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30 kg of mushroom from 20 beds. After family consumption of about 10 kg they have sold 20 kg and got gross return of Rs. 1200 within one and half months. Presently they are able to prepare around 200 beds in a span of 4 months (November-February) with an income of Rs.20, 000.

### **CASE STUDY – 2**

Story : Oyster mushroom cultivation -an alternative vocation in Kandhamal

The villages of Kandhamal district are mainly dominated by tribal people consisting of small, marginal farmers and landless labourers. The tribal women work from morning to evening in field. In lean period, they go to forest for collection of siali leaves for making leaf plates and sale it in market. From this they get less income. After harvest of rice the straw are left in the field.

Taking into consideration to the availability and local resources and favourable climate, KVK Kandhamal advocated the rural women for oyster mushroom cultivation. The farm women were trained on cultivation of oyster mushroom, alter care and harvesting. Being trained, Smt. Bhaktimala Naik of village Guduripadi was interested to adopt oyster mushroom cultivation. Frontline demonstration on oyster mushroom was conducted in her home stead Smt. Naik purchased mushroom .spawn bottles of variety *P. sajarcaju* & *P.florida* and started a mushroom unit with 100 beds. The fruiting of both variety was very good i.e. average 1.2 kg per bed. She sold it nearby home and local market @ Rs.50 per kg and earned Rs.3,500 as net profit from 100 beds after home consumption. The primary problem encountered in this vocation was unavailability of good spawn. *To* solve this, contact was established with the spawn producers in Bhubaneswar. She is now encouraged to lake up mushroom cultivation in large scale.

### **CASE STUDY – 3**

Story : Mushroom cultivation - a rewarding enterprise in Ganjam

Mrs Banila Bisoyi of village Benakunda of Ganjam district was in need of a job to supplement the family income. After attending a training programme on mushroom cultivation organized by KVK, she started practicing, mushroom cultivation in small scale. She used to consult with KVK scientists on various problems of mushroom cultivation. On farm testing was also conducted for cultivation of paddy straw mushroom during winter

in low cost poly house. She had constructed a 100 bed unit with bamboo and bricks with paddy straw roof. Spawn was provided by the KVK and bed preparation was done under direct supervision of scientists. With proper management practices, she is producing 240 kg mushroom and earning a profit of Rs 8400 per month. This was beyond her expectation. She is fully employed and able to manage her family. Now she has become an inspiration for other mushroom growers of that area.

#### **CASE STUDY – 4**

Story : Off-season vegetable cultivation by tribal ladies in Koraput

Agro-climatic condition of Koraput is considered favourable for vegetable cultivation. With growing demand, it was felt to go for off season vegetable cultivation, which promises a better economic margin. Major constraint for vegetable cultivation is unavailability of irrigation water. Farm women use to carry water from long distances to irrigate the crops. This caused unimaginable hardship and drudgery to the rural women.

The scientists of KVK, Semiliguda observed that irrigation was the major cause of drudgery and financial misery for the women. Training and demonstrations were conducted for various women groups of adopted villages like Chalanput, Malidoliamba and Durukaguda etc. Considering the topographical features, Krushak Bandhu pumps were supplied to farmwomen of Chalanput village. It had proved to be more efficient than the prevailing methods of irrigation.

Off season vegetable cultivation was popularized in the villages through awareness campaign, training, FLD and OFTs. Smt. Mani of village Chalanput of block Semiliguda in Koraput district usually cultivates vegetables in one acre during kharif season. By using KB pump, she had cultivated tomato in one acre, brinjal-0.50 acre and beans 0.25 acre during rabi and summer seasons. She got the yield of 80qtl softamats, 30qtls of brinjal and 8qtls of beans with net profit of Rs.90,000. After this success, she was motivated to invest in purchasing a pair of bullock at a cost of Rs.15. 000 and a diesel pump set worth Rs. 18,000. With these facilities, she can manage more area under vegetable cultivation.

#### **CASE STUDY – 5**

Story: Off season cabbage cultivation at Kandhamal

Kandhamal district is located at a higher altitude of 644mt above mean sea level. Cool climate prevailing in blocks like G.udayagiri, Raikia, Daringbadi, Tikabali etc. are favourable for off-season vegetable cultivation, A farm woman Smt. MithilaDehury of Brainguda village in Tikabali block owns one acre of arable land in which she cultivates maize in traditional method. Considering the prevailing climatic condition and market demand for cabbage, the farm woman was advised by the KVK to take up off-season cabbage cultivation.

She was trained on seed treatment, methods of raising off-season vegetable nursery, planting method and after care, boron application in cabbage and method of packaging harvested produce. The farm woman raised cabbage in her half acre of arable land. She adopted all the improved method of production such as raising of nursery in shade, planting seedlings at appropriate spacing, spraying of boron, balance nutrition and need based plant protection measures. From half acre of land, she harvested 30.25 qtl cabbage. Due to off-season, she sold the cabbage @ Rs. 10 per kg earned a profit of Rs. 14,500 with an expenditure of Rs. 15,750. The main problem encountered during off-season cabbage cultivation was difficulty in raising of nursery during rainy season. She was advised to raise nursery in raised bed, thus reducing seedling mortality. She is now planning to increase the area under off-season cabbage cultivation to improve her economic status.

#### **CASE STUDY – 6**

Story: Floriculture by farm women of Kalahandi

Kantamal of Kesinga block is an adopted village of KVK, Kalahandi. Villagers of Kantamal are resource poor and usually grow cotton & paddy as their main crop. Smt Sumitra Pradhan wife of Sri Suryaniani Pradhan of the village is an innovative farm woman, actively involved in cultivation of cotton, paddy, arhar, greengram, blackgram etc. As part of her hobby, she was also cultivating flowers in a small patch near her residence. While doing PRA survey, scientists of KVK met Smt. Pradhan in the village. She was not interested for paddy or cotton crop, rather she was in search of doing something which is interesting, labour saving and able to supplement her family income. Looking to her interest and the market demand, the scientists of KVK suggested her to adopt floriculture in commercial basis.

KVK had organized capacity building activities through various training programmes and on farm demonstrations. With all interest, Smt. Pradhan attended these programmes. She was trained about commercial cultivation of rose, marigold and tuberose. She was motivated to go for floriculture, particularly marigold, rose and tuberose in 1.25 acres of land.

Smt. Sumitra Pradhan developed her own nursery and used the seedlings in the main field. Most of the farm works were performed by herself and her husband with least engagement of outside labourers, Instead of using huge chemical and fertilizer, she used FYM, oil cakes and traditional plant protection materials. Thus with minimum investment, she earned nearly Rs.50,000 during last year. From this income, she had purchased a motor cycle and mobile phone for the family. This will facilitate marketing of flowers and other agricultural produce. She has become an inspiration for other women of the area.

### **CASE STUDY – 7**

Story: Agarbati making: a profitable enterprise for rural women at Kendrapara

In rural India, there is high rate of gender discrimination among the people. To solve the problem, emphasis has been given for strengthening of women, who need to be empowered technically and financially. It will help the rural women to generate their own income which ultimately will help establishment of small' scale rural enterprise. Smt. Kanchana Mohapatra of village Jajanga in Kendrapada district having no landed property manages her family of four with much difficulty.

Once she was exposed to vocational trainings organized by Krishi Vigyan Kendra, Kendrapara. Being a women friendly vocation, agarbati making was appreciated by the women. The women formed one SHG namely Shakti SHG in 2007. Skill oriented training on preparation of agarbati was imparted to them. They were given training on mixing raw material, preparation of dough, rolling of stick, addition of scent, drying of sticks in shade, packaging and marketing of the product.

Being trained by KVK scientist, Mrs. Kanchan Mohapatra of Shakti SHG became an entrepreneur and subsequently a master trainer for other women and school dropout girls. She had established one unit in her own home and trained 25 numbers of women SHG. She is now collecting incense stick of

other groups and selling about ten quintals of agarbati stick per month. She has taken the entire responsibility of marketing of produce of the SHGs. She is exhibiting/marketing her product in different exhibition.

Now her annual income is Rs. 1,40,000 from the enterprise. From the income, she had converted her house from semi pucca to pucca house. She had furnished. Her house with television, telephone and other amenities. This has encouraged other women of the locality to go for agarbati making.

### **CASE STUDY – 8**

Story: Golden opportunity through golden grass in Kendrapara

Smt. Swarnaprava Swain of village Jajanga in Kendrapada district is a poor woman, who manages her family of five with much stress and strain. She had undergone vocational trainings offered by Krishi Vigyan Kendra, Kendrapara. As golden grass (vertiver) is abundantly available in low land areas of the district, the scientist of KVK had suggested to use it for commercial purpose. Women interested in preparing handicraft materials, were motivated by the scientist for preparation of golden grass product. Accordingly, women SHG was formed and skill oriented training was imparted to them. They were sensitized about availability of raw material, collection technique, period of harvesting, proper drying, processing, colouring, designing, weaving and marketing of the product. As it requires little investment and fetches higher income in the market, members of many SHGs were interested to adopt this enterprise. They were given training on preparation of household decorative items like tray, cap, dinning mat, door screen, wall hanging, pen stand, mobile stand and glass cover.

Being trained by KVK, Smt. Swarnaprava Swain of Mahavir SHG had become an entrepreneur and trained other SHG members, rural women and school dropouts of the district. She had established a society namely "Silpigram Manila Samiti". Till now, Smt. Swarnaprava Swain had trained about 75 women SHGs on preparation of golden grass products. She has taken the entire responsibility of marketing the produces of the SHGs.

She is exhibiting/marketing her products at Puri, Konark, Cuttack and different places of state and outside through the help of DRDA, ORMAS and ORUPA. Her annual income, from the enterprise is more than Rs. 1,50,000. She is a hard working and enthusiastic lady with an ambition to capture international market for sale of the products.

### **CASE STUDY – 9**

Story: Success in cotton cultivation at Kalahandi

Smt Lalita Sahu is a successful farm woman in Dangariguda, an adopted village of KVK, Kalahandi. She owns only 50 decimal cultivated land and plays an important role in the decision making process of her family. She cultivates paddy, cotton, green gram and vegetables in her own land and a leased land.

Previously, she was growing cotton in one acre land under rainfed condition with poor management practices. Due to lack of technical knowledge and other problems she was not satisfied with the yield. However, she was interested to earn more profit from cotton cultivation. During PRA survey, the problem of Smt. Lalita Sahu came to the notice of KVK scientists. They suggested her to take up cotton cultivation with improved production technology including IPM practice to get higher return. KVK had taken up capacity building activities through various training programmes and on-farm testing. Under FLD programme, she was provided with critical inputs like seed, plant protection chemicals, pheromone trap etc. KVK scientists visited her field regularly and provided need based advisory service.

Following the improved production technology and IPM packages, she could able to earn Rs. 15,000 from her demonstration field. Being inspired from the result of demonstration, she was motivated to take up cotton cultivation in four acres of leased land. She followed the entire package of practices and earned Rs. 44,000. From this income she bought a television, a mobile phone and gold ornaments. Now, she is interested for cotton cultivation in large scale with use of improved agricultural implements.

### **CASE STUDY – 10**

Story: Success of a tribal woman at Keonjhar

Saharpur, a small village of Banspal block in Keonjhar districts is dominated by primitive tribal community. Majority of the population are dependent on agriculture, livestock and collection of NTFP for their livelihood. Agriculture is totally rainfed and therefore confined to kharif season. Paddy, maize, sweet potato, arrow root, mustard and cucurbits are some major crops cultivated in this area. In the lean periods, they depend on dried products of maize, jackfruit, mango and mushroom. Mostly they get

cash by selling arrowroot, mustard, maize and poultry. The return from agriculture is often insufficient and cannot fulfil their day to day need.

Through PRA exercise by KVK Keonjhar, it is revealed that lack of suitable enterprise during lean season is the major problem. So, off-farm enterprises were given prior importance. Through the members of women SHG, various programmes were introduced by the KVK. Several FLDs, OFTs and training programmes were conducted in the village. FLD on scientific cultivation of arrowroot, turmeric, hybrid maize and intercropping of maize with cowpea was conducted. Trainings on value addition, medicinal plants and mushroom cultivation has been conducted in the village. Mrs Bimala Dehury, President of Maa Ranagapat, group took keen interest and actively participated in the programmes. She had got good production and profit from intercropping of maize with cowpea. She had also prepared value added products from jackfruit, papaya and mango. Hygienic preparation of mango pulp (*Ambasada*) is highly appreciated by the villagers and local business men.

By growing crops like maize, cow pea, mustard, turmeric, pumpkin and arrowroot with value added products she earned annual income of Rs 36,500 against previous income of Rs 19,200. With the income, she had purchased some agricultural implements and a bicycle. She had also opened one small grocery shop in her village. Her son is also reading in a residential school in Keonjhar. She is very much satisfied with her achievements and determined to earn more in future,

### **CASE STUDY – 11**

Story: Lac cultivation in Balasore

Availability of suitable species in Balasore district provides opportunity for lac cultivation. Understanding this, the scientists of Krishi Vigyan Kendra have advised farmers to go for lac cultivation. Smt Satyabhama Khandei, a marginal tribal farm woman of Gagapal village was having 4-5 kusum trees within her home stead land. She alongwith the group members were given training on lac inoculation. During initial culturing, kusum trees were directly inoculated on tender branches. It was done during June-July (Aghani), 2009 with 60 mesh nylon sieve. For the purpose of brood-lac the recommendations of Indian Institute of Natural Resin and Gum (IINRG), Ranchi were followed. With proper care, the insects were released to the



host tree. During the period of 6 months the female insects got impregnated. Then the infant insects were ready for release when lac became matured and turned pale yellow in colour. The harvested crop was named as Aghani. These were inoculated on new host and self inoculated for Jethwi crop. This process generated two crops per year. However, only Aghani crop could provide 2-3 quintals of brood and scrap. From this, she could fetch Rs. 25,000. She was further encouraged for manufacturing lac-based rural crafts. This had generated an additional income of Rs 1,500 per month. On an average through lac cultivation and its craft manufacture, Satyabhama could able to earn Rs. 5,000 to Rs. 6,000 per month.

### **KVK: THE VISTAS AHEAD**

The whole episode of empirical research work generates the following recommendation for a successful functioning of KVK.

- While classifying adopted and non-adopted villages, the ‘spill over’ effect should be considered, i.e., the idea of isolated entity of adopted and non-adopted villages may go apparently vague.
- There should be catalogued information on education, holding size, income, motivation etc. while selecting trainees for KVK training programme.
- There should be an information inventory on adoption and rejection discontinuance and reinvention data, specially for farmwomen to conduct a back cross analysis or to elicit the missing links.
- Gender studies with special reference to women’s unique preferences for crop variety, season, cultural need or perceived constraints on training efficacy training method, venue and time too. All these would be rendered presentable at time of delineating researchable extension agenda at KVKs.
- The modeling of technology socialization process with gender issues and elements may go nationally important for forming a policy to support farm women for attaining sustainable development.
- Market-led extension, crop women taskforce, climate change task group, weather intelligence, women- driven- farm -Kiosk, Nutrition-

intelligence, micro-training-centers, canopy communication approach etc can be innovative intervention for capacity building of farmwomen.

- Special attempt should be given for networking success stories of SHGs for creating a 'base paper' for each of KVKs.
- Girls dropout from secondary and high secondary school (10+2) can be successfully be tuned to development programme. They can be trained up for data collection from meteorological observations, disease and pest scouting, Kiosk operating, nutrition management for primary school children, and of course, trainer to other constrained women trainees.
- A comprehensive policy needs to be formulated to the community women technocrats to make social transformation a reality of billion dollar smile, not an insipid rhetoric for the academicians on gender studies only.
- Researchable Extension agenda and issues need to isolated from some over capping areas o subjectivities.
- The spill-over effect o KVK over to so called non- adopted villages need to be researched out so that impact on adopted villages can be done.
- Social osmosis in technology transfer can be studies to elucidate the impact of KVK on farmer or farmwomen either.
- The gender issues and impacts consequent to KVK functioning may be researched. Thought categorizing the respondents further into age, income, education, adoption levels to get classified responses.
- Modeling of training, capacity building, impact analysis, socializing technology, cum further be research.
- Comparative researches can be conducted for generating location specific, system specific and enterprise specific impact of training on farm women.