



PHT AND VALUE ADDITION

Agro Processing Made Farm Women Self-sustenance



Directorate of Research on Women in Agriculture (DRWA), Bhubaneswar formed a Sangram Vikram Self Help Group (SV SHG) in Keonjar village of Odisha with 14 members of farm women. Group opened a bank account in State Bank of India, Pipili in September, 2002. Group has leased in 0.2 ha of land for a period of 3 years @ Rs 650/year and cultivated vegetables such as tomato, cauliflower, beans, potato and greens and earned a gross income of Rs 1278 with a net profit of Rs 958 within a period of one season.

Further, group members underwent training at DRWA and established a fruit processing unit under the technical guidance of DRWA. Within a year they earned a net profit of Rs 2368 by selling lime and orange squash as well as baddi with black gram. With initiation of the President of group, M/s Hindustan Lever Limited placed an order for 40 bottles of lime squash. This inspired the group to get a loan of Rs 50000 from the State Bank of India for expanding the unit. They prepared 2000 bottles of lime squash and 50 bottles of tomato puree and different types of spices including turmeric powder which was sold in the exhibition organized by Odisha State Government and earned a net profit of Rs 28000. Each member of the group earned a net profit of Rs 900/month. After repaying the entire bank loan, group deposited more than one lakh in bank account of the unit. Group has



Salient Features

- Group members worked with team spirit as well as self confidence
- Group established functional linkage with credit agencies and renowned company for marketing their products
- Developed leadership as well as entrepreneurship among farm women
- Farm women self-sustained through agro-processing technologies

also ventured in micro-financing and extended Rs 40000 loan to Sarala Self Help Group with 12% interest per annum. Group is continuing with the tie of M/s Hindustan Lever Limited for regular supply of squash.

By retaining Principal amount in bank, the net profit earned was distributed among the group members. This has helped members to improve their status within the family and society. They utilize this money for their children's education, health, household consumption and better nutrition. Now group runs smoothly with more profit because of the efforts rendered by each woman in the group .

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Chronicles of Hard Work



Md P. M. Kunhi Mohammed, Padinjarakath House, Poovakkodu, Maruthur P.O., Pattambi belongs to a poor rural family. Md Kunhi Mohammed and his family were struggling to meet their both ends with the meagre wages which he obtained from field work as a farm labourer. His family included aged father and younger brothers. Seeking for a better opportunity, he tried the career of Madrassa Teacher, again to be disappointed, as he could not support his big family. Md Yusuf, his brother who was doing B. Com., dropped the college due to financial stringency. At this juncture, two brothers attended one month training course on processing of fruits and vegetables at KVK, Palghat in 1998. Immediately after completion of the training, they started to produce jam and halwa investing a capital of Rs 3000 which they managed to borrow from friends and relatives. Their venture suffered a set back as the products could not catch the attention of the customers in the market and resulted in a complete loss of their investment.

Though their first attempt gave them a bitter fruit, without losing their heart they took it as a challenge and decided to go ahead with some other products. Thus, they purchased mangoes from their neighbourhood and started producing mango pickles using pickle production technology learnt from KVK. They prepared small polythene packets of mango pickle and marketed in the premises of Vanneri High School at Puthanpalli, Perumpadappa, the main customers being the students. Each packet was sold at Rs 0.50. This continued for two months and they could gain Rs 500 from an investment of Rs 50. With this first success, they got motivated and decided to expand the business.

With this Rs 500 they purchased variety of fruits such as mango, lemon, dates and garlic. They started producing different types of pickles and prepared 250 gm pickle packets. Selling price was Rs10 for all pickles, except for garlic which was sold @ Rs15 per packet. They used bicycle for door-to-door marketing of the products. They were getting a profit of



Salient Features

- Started pickle processing with an investment of Rs 50 for the production of 10 kg mango pickle and earned an income of Rs 500 in 1998
- Invested Rs 300 for the production of 40 kg pickles of different fruits and vegetables and earned an income of Rs 2000 in 2000
- Invested Rs 10000 for the production of 1000 kg pickles of different fruits and vegetables and earned an income of Rs 40000 in 2005
- Invested Rs 60000 for the production of 3000 kg pickles of different fruits and vegetables and earned an income of Rs 120000 in 2009
- KVK Palghat acts as the king pin behind their escalation

40% from their value addition activity. In addition they participated in a three days local Vipanana Mela and sold their products. They could gather a profit of Rs 3000 from the sale of pickles in the Mela which increased their confidence. Then, under the technical guidance of KVK, they established pickle processing unit initially at Puthanpalli and gradually shifted to Pattambi with brand name as *Puthuma Achar* with SSI register number 0907/16342. Now they are running the unit in a building of their own. The unit possesses a ginger slicer developed by Md Kunhi Mohammed himself, and also a mixy, an electronic weighing balance and a sealing machine. Products are distributed in neighbouring districts of Malappuram and Thrissur also, for which they purchased 6 carriage vehicles (2 jeeps, 2 auto rikshaws and two wheelers). Presently, there are 22 assistants employed in the unit. Marketing assistants are engaged on 25% commission basis. Puthuma Pickle unit has shown an example of empowerment through value added fruits and vegetables.

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Value Addition Generated Women Self Employment



There was lack of awareness on post harvesting technologies as well as leadership among the SHGs in Washim district of Maharashtra. But KVK Washim successfully introduced value addition and processing technologies that has created employment to members of SHGs. KVK created awareness among 30 SHGs as well as trained their members on value addition and processing of fruits, vegetables, cereals and pulses and also on leadership skills.

These SHGs of 300 women have established home-scale enterprises on banana wafers, potato wafers, papaya tutti fruity, aonla supari, aonla candy, etc. under the brand name SWAMINI under the guidance of KVK. Sales outlet was created for SHG products by NGO on free of cost at Risod which is a tahsil place. As per the record, each SHG member earned on an average Rs 1995/month with the maximum income of Rs 56667/month in case of soya based products from their home-scale units.

Success of above SHG members lead to many women entrepreneurs from other parts of Maharashtra and contacted KVK for training on Vegetable and fruit processing. Two SHGs in Mangrulpir tahsil established home-scale enterprises on banana wafers and soya products. Two SHGs at Malegaon and Krishna village in

Salient Features

- KVK Washim created awareness and capacity building among members of SHGs on value addition and processing technologies
- A total 43 home-scale processing units were established by women SHGs
- Women members of SHGs got self employment as well as earning additional income in their leisure time at their home through post harvesting technologies

Washim district established soya processing units. Three SHGs working under SEWA NGO from Ahmednagar established Agarbatti, candle and chalk making units. Six SHGs from Mothegaon and Ganeshpur village in Washim district established soyanuts and masala and chilli powder making units. Products like soya processing, masala production, turmeric pickle etc., have spread in many pockets of the district. Similarly large publicity through Agro won newspaper has attracted many dealers from Pune, Kolhapur, Ahmednagar, Sangamaner, Newasa, Akola and Jalgaon districts of Maharashtra.



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Income Generation through Value Addition



Farming systems of district Hamirpur are mixed and subsistence in nature. Each household in the district is involved in agriculture, horticulture and animal husbandry activities. Participation of women in agriculture and animal husbandry sectors is more than 70%. During lean periods, rural women devote their time in preparing pickles and nuggets (*barian*) at household level as the district has surplus of fruits, vegetables, milk, pulses and cereals. To make such women as rural entrepreneurs, KVK Hamirpur in collaboration with Department of Agriculture and Horticulture organized 7 vocational training courses wherein trained 110 farm women of different Self Help Groups (SHGs) for preparation of various value added products viz. pickles, jams, squash, nuggets (*barian*), vermicelli (*sevian*) and so on during 2001-02 and 2002-03.

A Self Help Group consisting of 20 farm women established an enterprise unit on value addition in 2001-02. Products are prepared almost round the year except dried items like nuggets (*barian*), vermicelli (*sevian*), seera whose preparation is avoided during rainy season. They were not only engaged in value addition but also in cultivation of mushroom because it has to be used as raw in put in their products. In the year 2009-10, members of this group prepared 4 q pickles, 5 q nuggets, 4 q vermicelli, 2 q seera, 1 q Chutneys, 70 kg mango powder, 1 q triphala



Salient Features

- KVK developed capacity building of farm women on value addition
- Farm women formed as Self Help Groups and started entrepreneurship development activities through value addition of fruits and vegetables
- Created round the year on-farm employment among farm women
- Process of entrepreneurship had made farm women self reliant and helped them build up self-confidence
- Each one of the member of SHG earned an additional income through out the year through value added products

powder and 1 q amla candy. Group is procuring raw material at cheaper rates during the peak season and available in abundance and preserving and using them on demand basis. Simultaneously, 4 other SHGs established value addition of fruits and vegetables units in the district in 2001-02 and at present about 70 groups are associated with the value addition activity.

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Value Addition Added Income



Smt Krishna Yadav, a resident of Rewlala Khanpur village of south west Delhi, was a caretaker of orchards of Ber and Karonda. During an interaction with Subject Matter Specialist of KVK, she came to know about training programmes conducted by the KVK. Being a caretaker of fruit orchards, she attended a training programme on preservation of fruits and vegetables at KVK Delhi during the year 2001-02.

After attaining the training, she prepared 100 kg karonda pickle and 5 kg chilli pickle in 2001-2002, in which an investment of Rs 3000 was made including the cost of raw materials from orchard at market price. Processed products were sold for Rs 5250. This step encouraged her to start home scale processing of fruits and vegetables including karonda. In 2003-2004, she produced 5kg of karonda candy. This produce was new for the area. It fetched good price. Initiative brought confidence on Smt Krishna. Presently she is processing around 500 q of pickles with almost all vegetables and fruits locally available every year. As the scale of production has increased, she is generating about 1500 man days of work/



Salient Features

- Smt Krishna Yadav, a caretaker of orchards of Ber and Karonda underwent training on post harvest processing of locally available fruits and vegetables at KVK
- She became as successful entrepreneur by preparing a quantity of 500 q of pickles from locally available fruits and vegetables
- She gave employment opportunities to her neighbours
- She is now running her own retail shop of pickles

employment to her neighbours. Products prepared are being marketed successfully in local market by the neighbours. Besides, she has a retail shop for sale of different products prepared by her.

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Farm Women Gained Income from Home Scale Processing



Problem of lower income in agriculture is due to lack of local value addition. Much of the produce is sold as raw. Value addition is being made at cities and reaching back to the village at a higher price. This can be avoided by setting up value addition facilities at villages and marketing value added products to cities at a higher price. Value addition as a rural enterprise has potential to generate more local jobs, better income and services and reducing rural migration. In this direction, KVK Kancheepuram is working with farm women in formation of SHGs as well as technological backstopping for establishing home scale processing units through various processes including technology standardization, awareness creation, technical and enterprise training, initiating and nurturing income generation activities.

As a result, a total of 25 home scale processing units were established by farm women trained at KVK in the district. Out of which, 7 units on fruit products such as Squash, Jam, 6 units on vegetable pickles, 3 units on milk products, 5 units on masala powder preparation and 4 units on cereal products. The units are selling 60 % of their products to the value of Rs 500 – 1000 directly to consumers by self and remaining 40% selling through hired stages that valued more than Rs1000. Further, KVK helps these units by developing market linkages through various stages like conducting and participating exhibitions/fairs, awareness meetings, sale in the farmers mandies. KVK also providing marketing facilities as arranging weekly bazaar within the premises of KVK. Further, NABARD came forward to assist these units to start Rural Mart at Potheri near KVK.



Salient Features

- Farm women were trained on processing technologies
- Farm women established home scale processing units on various aspects like pickle, fruit products, milk products etc.
- Home scale processing units on average producing products more than 40 kg per month
- Around 60 % of their products are sold by themselves directly to the consumers
- Created self employment and gained better income from home scale processing of cereals, spices, fruits and vegetables

Few of the women who run the home scale processing units are Smt M. Kasthuri (09444761776) from Chengalpet, Smt Venkateshwari (09444323912) from Guduvancherry, Smt Shanthi (09094579501) from Kalpakkam, Smt R. Shantha (09884516019) from Potheri, Smt U. Gowri (09444781997) from Konathi in the district. All farm women from these 25 units opined that there was an increased appreciation from family members, friends and relatives, recognition from officials, self satisfaction, freedom from financial insecurity fears and ability to take up new enterprises.

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Dehydrated Mushroom Adds to Income



Kerala's hot humid climatic conditions aids in the cultivation of oyster mushroom and milky mushroom with minimal investment in general and Malappuram district in particular as availability of raw material for growing mushroom in the district is fairly good. KVK Malapuram has introduced mushroom cultivation in 2005 through vocational training. Besides this a simple and feasible technology of dehydrated mushrooms developed by Kerala Agricultural University was advocated for extending the shelf life of mushrooms for more than six months. Production of dehydrated mushrooms helped to reduce the weight to one tenth of its original weight enabling ease in transportation. Besides this dehydrated mushroom has the capability for rehydration and regaining its original weight and all other quality attributes in terms of its organoleptic properties. Benefit Cost Ratio for the production of dehydrated mushroom is 3.2.

Several mushroom units were established in the district by both individuals and SHGs under the technical guidance of KVK. Use of perforated plastic containers as an alternate for non degradable polybags wherein harvested 437 g of mushroom from one bucket with BC Ratio of 2.2 which is high as compared to use of poly bags. A total of 10 farmers started production of dehydrated mushrooms in Malappuram district during 2006-07 followed by increased the number to 85 farmers during 2007-08, 285 farmers during 2008-09 and 322 farmers during 2009-10. A total of 966 kg of mushroom produced by the farmers of Malapuram district during 2008-09 and it is increased to 4084 kg during 2009-2010 with that farmers earned an additional income of Rs 1.15 lakh and Rs 4.90 lakh, respectively. Mushroom spawn production unit was established at KVK Malappuram with a production capacity of 60 packets/ day. Currently



Salient Features

- Farmers gained skill on dehydrated mushroom production
- Added monthly income of families/ SHGs ranging from Rs 5000 to 15000
- Increased knowledge on nutritional aspects of mushroom
- Group approach enhanced the ability for decision making and social involvement
- Opened avenue for employment generation for rural youth and unemployed women
- Technology is applicable for farmers even with small land holdings

a project of Rs 2.70 lakhs has been sanctioned by SHM for imparting training for farmers in mushroom production, processing and spawn production.

Major mushroom production units in the district are Shri P.V. Dharman (09995062119), Padannavalappil House, Muttanoor P.O, Smt Lathika P.V (0494-2698652), Poochamkunnath House, Kaladi P.O, Smt Sharadha P.I (08086162219), Illathuparambil House, Perumpadappu P.O, Shri Anwar C.P (09809154042), Puthanathani P.O, Shri Shamsudeen P.K (09745127151), Kodakkad House, Vettom P.O., Smt Sheeja C (0494-2631188), Chattikal House, Vettom P.O, Shri Shakir S.P (09947277076), Palliyil House, Puthanathani P.O, Smt Prasanna T.P., Therattil House, Shri P.K.M Abdulkhader, Chemlakath, Edavanna, Shri Kunjupennu, Pulliyur Sreenandanam (0493-3284723), Vattalloor P.O, Kuruva Reshma Mushrooms (09946492711), Kootilangadi and Aiswarya Mushrooms (09946069928), Nilambur.

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Tamarind Trees De-mortgaged



Tamarind trees at Bargur hills of north Erode district could provide a steady seasonal income of Rs 2000- 3000/tree. Shelf life of tamarind is as long as 5 years and trees live for 100 years. Moneylenders advanced loan of a few thousand rupees to tree owners by mortgaging tamarind trees with only one condition that the entire amount would have to be repaid in one lump sum and installments were not accepted. Since more than 20 years, income from trees was enjoyed by money lenders because tree owners did not have capacity to repay the loan in one lump sum. This situation led the tamarind trees to remain in mortgaged with money lenders forever. In this situation, KVK Erode played a crucial role in providing the structure, systems and linkages that enabled the community to explore alternatives to strengthen their self-reliance and improve quality of their lives.

KVK formed people's institutions (Federations of SHGs called Sarva Shakti) in Bargur hills and discussed the issue of the movement for freeing tamarind trees along with 47 other Sanghas in Bargur. It was realized that there is a need for financial support to SHGs in order to release tamarind trees under mortgage. Accordingly, KVK has arranged working capital assistance (as an interest free loan) to some SHGs with the assistance of NABARD's pilot project in 1992. NABARD seed money was used to give loans to SHG members to redeem their tamarind trees in 1993. Except for bank loans accessed directly by individual members, all loans to members came through the Sarva Shakti Federations, the apex bodies of Sanghas organized by Myrada. Sanghas advanced loans to redeem members' trees at a maximum of Rs10000 per member with an interest of 18 % per annum.

Over the years, Federation has accessed loans from local commercial banks, NABARD, Sanghamitra Rural Bank and other financial sources. It has been a long journey since

Salient Features

- De-mortgaged 455 tamarind trees of 30 SHGs groups in 19 villages in Bargur hills and gained an income of Rs15.92 lakh
- De-mortgaged 38 tamarind trees of Tribal SHG Padakal madappa of sholakanai village and gained Rs1.71 lakh in 2005
- Established RURAL MART with the support of NABARD in 2006
- SHGs accessed Rs 29 lakh under SGSY scheme with 50% subsidy component over the 17 years of KVK's active guidance
- Now, not a single tree in Bargur hills is in the hands of money lenders and the people of Bargur

1993. The movement which was started with two groups viz., Basaveshwara Sangha in Thattakarai and Veerbhadraswamy Sangha in Thamarakarai motivated and enabled 30 groups from 19 villages in Bargur hills to avail loans from Federation and provide financial support to tamarind farmers and the process of redeeming tamarind trees from the hands of money lenders was successfully carried out and totally 455 trees have been released from mortgage. Many trees which were under bondage for more than 15-20 years were freed by this approach which made farmer/SHG members to get relieved from the tiring debts. The family who has de-mortgaged their tamarind trees is now earning an income of Rs 4000-5000/tree/year by selling 200-250 kg processed tamarind. Further, seeds and rind removed during processing are also sold which is utilized for paying the labours of 21 man days required for manual processing that costs Rs1350. Thus, a sour story resulted in a sweet ending with the intervention of KVK.

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Kisan Cooker Cheers Farm Women



Gadag district is basically a drought prone area. Farm women have to walk 4-5 km as well as spend most of their leisure time for collecting firewood due to scarcity. Because of using traditional vessels and traditional chulha, farm families need high quantities of fire wood (10-15 kg) daily and on an average farm women spend 4-5 hours for cooking in a day. Many research studies have proved that cooking in traditional Chulha for 3 hours a day is equal to smoking of 20 cigarettes per day.

KVK Gadag refined Surakshita cooker developed by Rural Home Science College, UAS, Dharwad in 2002-05 to suit farm women of Gadag district and named it as Kisan Cooker. It has 18 gauge metal (thicker metal) that increases durability for about 10 to 12 years, 1000 -1200 gm capacity cooker bowl to suit medium size farm family and round shape bottom edge to catch full fire of chulha as well to enhance fuel efficiency and costs Rs 400/unit. It was introduced to farm women through 20 demonstrations in 13 villages viz., Dundur, Kadadi, Basapur, Asundi, Hulkoti, Kanavi, Hombal, Mallasamudra, Keralli, Harthi, Soratur, Chikkahandigol and Kurthakoti of the district during 2005-06 to 2007-08 and trained 377 members of women SHGs. Further, KVK supplied 129 Kisan Cookers, out of which 71 to KVKs within the state viz., Mysore (10), Raichur (10), Dharwad (10), Koppal (10), Gulbarga (6), Bellary (10), Bijapur (5), Bidar (10), and 5 to Rural Home Science College, UAS Dharwad and 53 to KVKs in other states viz., Pondicherry (10), Kasaragod (3), Thiruvannamalai (10) and Sholapur (30). Besides, 356 Kisan Cookers



Salient Features

- Kisan Cooker takes less time for cooking and requires only 0.5 kg firewood/day that costs Rs 2 for cooking
- Kisan Cooker reduced drudgery of farm women while cooking
- With Kisan Cooker 3 food items can be cooked at a time in one chulha
- No continuous attention is required while cooking by Kisan Cooker
- Gives more taste and smell to cooked food through Kisan Cooker

were supplied to farm women belonging to Gadag, Sirsi, Kumata, Mangalore, Raichur etc.

Kissan Cooker saves 2 hours of time, 3 kg of firewood and Rs 12/day which amounted to saving of 2.56 lakh hours of time, 3.84 lakh kg firewood and Rs 5.38 lakh in a year from 356 Kisan Cookers supplied to farm women. This implies medium size family can save 60 hours of time, 90 Kg of firewood and Rs 360 in a month. Few of farm women using Kissan Cooker are Smt Vijayalaxmi Somaraddi from Asundi village, Smt Jayashree Benni from Harti village, Smt Yellavva Basappa Kavalur from Basapur village, Smt Veena Bailey from Hombal village, Smt Kusuma Bhandi from Dundur village of Gadag district. Besides, drudgery in collecting firewood as well as cooking and inhalation of smoke was reduced daily by 2 hours. This made women to feel cheers in Kitchen.

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