

An ACCESS Publication



EMPOWERING WOMEN IN AGRICULTURE

Sitaram Rao Livelihoods India
Case Study Compendium 2014



Preface

While 63 per cent of India's rural male work force is engaged in agriculture, the figure is as high as 79 per cent for women. Women form the backbone of agricultural rural economy in India as farmers, agriculture workers or as agri-entrepreneurs. Women work extensively in production of in land preparation, seed selection and seedling production, sowing, applying manure, weeding, transplanting, threshing, winnowing and harvesting. Similarly in animal husbandry, women have multiple roles ranging from animal care, grazing, fodder collection and cleaning of animal sheds to processing of milk and livestock products. Women work on family farms as well as paid agricultural labour on the fields of other farmers. They also lease in land for cultivation. The majority of workers involved in collection of non-timber forest produce (NTFP) are women, particularly tribal women. Women also augment family resources through tasks such as collection of fuel, fodder, drinking water and water for family members and domestic animals.

In spite of their immense contribution, women in farming remain one of the most vulnerable groups. They typically lack access to education, extension services, land, and credit and are in fact, the largest group of landless labourers with little real security in case of break-up of the family owing to death or divorce. Only 9.3 per cent of rural women actually own land (Agriculture Census 2005 – 2006, Ministry of Agriculture, Government of India) which is in stark contrast to the large proportion of farm labour contributed by women. Inheritance laws and customs discriminate against them. Agricultural development programmes are usually planned by men and aimed at men. Mechanization, for example alleviates the burden of tasks that are traditionally men's responsibility, leaving women's burden unrelieved or even increased. Extension workers almost exclusively aim their advice at men's activities and crops. In some regions, this bias may depress production of subsistence food crops in favour of increased production of cash crops so that family nutrition suffers.

Therefore it is befitting that during the current year which is also the International Year of Family Farming, the Sitaram Rao Livelihoods India Case Study Competition will bring together cases of initiatives that have helped in recognizing the role and rights of women in farming and identify efficient ways to support them.

The cases received covered new knowledge and experiences from programmes relating to women in agriculture in thematic areas such as raising awareness and advocacy for women's land rights; training, extension, input, managerial, entrepreneurial and other support services to women



farmers; helping women farmers move up the value chain; agricultural innovations for reducing drudgery of women farmers; initiatives for food and nutrition security by women farmers; institutional innovations which better meet the needs of farm women; and initiatives to link women farmers to markets.

The Jury of the Case Study Competition comprised of sector experts such as Ms. Subhalakshmi Nandi, UN Women, Ms. Vanita Suneja, Oxfam India , Prof. Madhukar Shukla, Fr Arrupe Center for Ecology and Sustainability, Ms. Mugdha Shah, RALLIS India, and Mr. Suryamani Roul, ACCESS Development Services.

On behalf of ACCESS I would like thank all those who have shown interest in the case study competition and submitted their cases. I express my gratitude to the Jury members for critically examining the cases and helping us with the final list. My sincere thanks to our technical partners for the case study competition Fr. Arrupe Center for Ecology and Sustainability, XLRI and Prof. Madhukar Shukla for helping us narrow down the best ten cases. Lastly, I would like to thank my colleagues Puja, Joy and Varun for their outstanding efforts and energies and for running an effective process and successfully concluding the 2014 Case Study Competition.

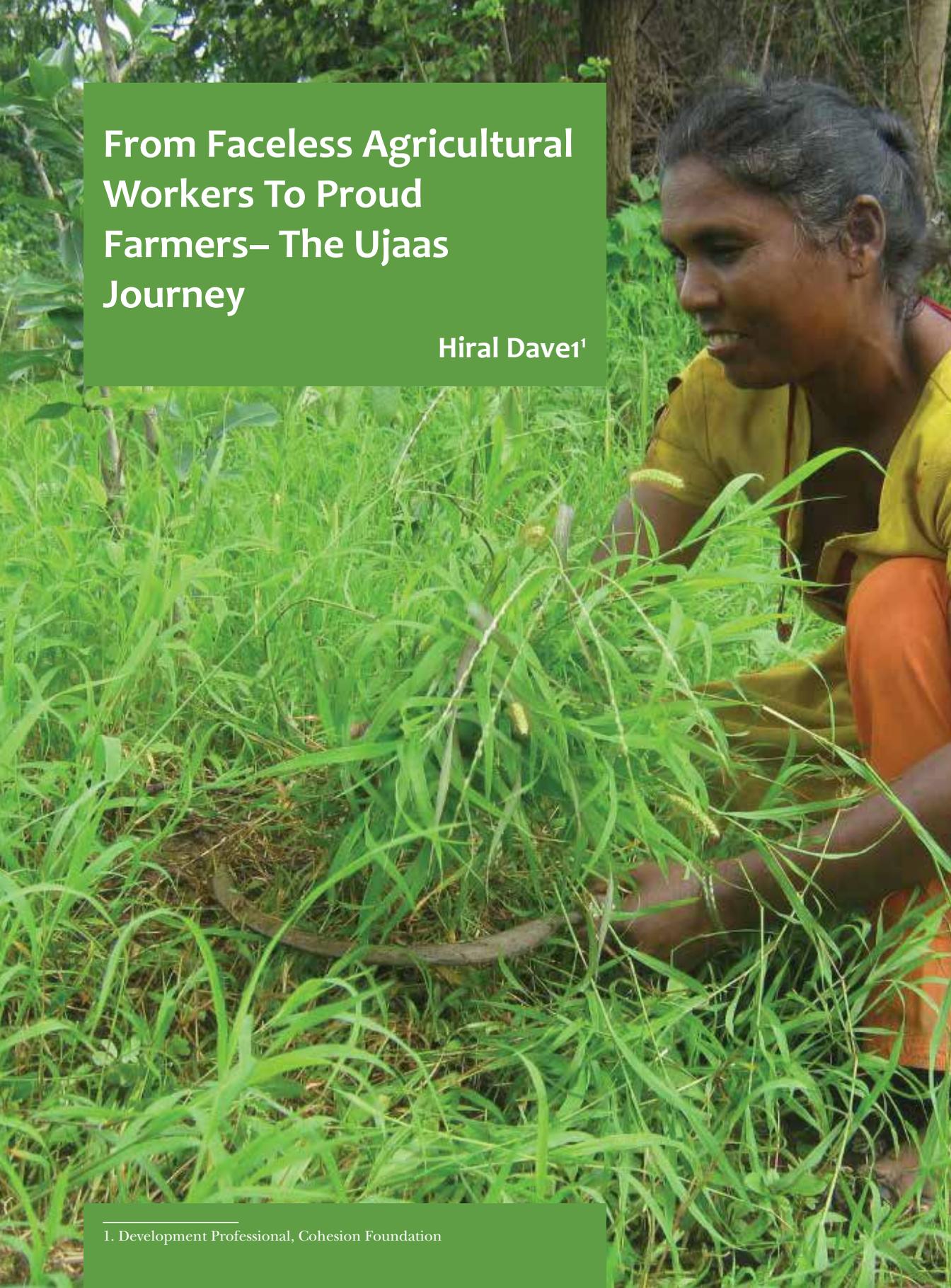
I hope this compendium will bring some new insights on the issue of importance of Women in Agriculture.

Vipin Sharma
CEO
ACCESS Development Services



Contents

Preface	1
From Faceless Agricultural Workers to Proud Farmers – The Ujaas Journey.....	4
Women Farmers: The Pillars of Food Security in Kerala	14
Land of One’s Own: From Dream to Reality.....	32
Paniya Adivasi Women’s Innovative Livelihood Development Endeavours in Farming	48
Sustainable Livelihoods: Feminist Practices	66
Women In Homestead Vegetable Farming	78
The Kodo-Kutki Way.....	90
A Model To Include Women In Developmental Initiatives...	108
Empowering Tribal Women through Vegetable Cultivation: A Case of Institutional Pluralism and Convergence	124



From Faceless Agricultural Workers To Proud Farmers– The Ujaas Journey

Hiral Dave¹

Introduction

Women play a critical role in agricultural production in developing countries, including India, where agriculture accounts for 32% of GDP. Women constitute a substantial majority of the agricultural workforce and produce most of the food that is consumed locally, which makes them the principal agents of food security and household welfare in rural areas. Yet, they are not recognized as farmers.

Their work is merely considered to be an extension of their household chores.

The socio-economic status of women workers in the tribal belt of south Gujarat, where the Ujaas Mahila Khedut Vikas Sangh is operational, is perhaps worse than that of their counterparts elsewhere in the country. One of the reasons for this is the inaccessibility and remoteness of the area. The consequent lack of awareness has meant that let alone women, even the male farmers have not had access to government programmes such as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). The benefits of the schemes for tribal farmers under the Tribal Sub Plan have not reached them either.

“We are no less than the male farmers, but we get no recognition. After joining Ujaas, however, we have got the identity of being farmers,” says Sumitraben of Panikhadak, a remote, under-serviced village in the tribal belt of south Gujarat.

It was with a view to organizing women farmers of Navsari district in south Gujarat and transforming them into agents of social and economic development, that the Ujaas Mahila Khedut Vikas Sangh was established in 2011. The seeds of the initiative were in fact sown earlier, in 2008, when Cohesion Foundation started relief work after the floods in Navsari and Surat Districts. Cohesion started work in the two districts with organizing women in groups

and initiated savings and credit programmes as well as promoting livelihood enhancement of farmers.

This paper gives an account of the Ujjas intervention, highlighting the experiences of the stakeholders, the successes and the

lessons learnt, with the hope that this model may be replicated elsewhere.

The Context

The districts of Navsari, Valsad and Dang where Cohesion is currently working, though natural resource-rich, remain excluded from the government development programmes. These areas are tribal dominant and inhabited by the primitive tribe groups like Kolchas and Kotawalias who make up 70% of the population. The community has remained secluded from the

mainstream development processes. There is poor awareness on part of the tribal population regarding government programmes and their rights and entitlements.

The primary occupation of the people in the region is agriculture, the average land holding size ranging from 0.5 – 2 acres. The main crop of the area is paddy, grown in the monsoon season. About 18-20% households in the area is landless and work as manual unskilled laborer.

After agriculture, animal husbandry and unskilled farm labor forms the next most important livelihood option available to the local communities besides migrating to other areas. These livelihood options are seasonal and highly susceptible to climatic vagaries. Sometimes the climatic inconsistencies render these livelihood options an ‘either-or’ situation for the local communities rather than becoming a constant source of wage (and not income).

Status of women

The women in the community share a disproportionately higher ratio of the work burden (reproductive and care work in family, community work and unpaid labour in productive work as well). They also limited in their mobility and suffer from discrimination in access to education and work outside. In regard to access to various entitlements, women are usually discriminated – more so in health and education. Their

decision making role in the family and community is also minimal, although women do take part in joint meetings.

Status of women farmers

Men and women equally engage themselves in the primary and secondary agricultural work with women doing more than 80% of the labour work like sowing, weeding, watering, harvesting, threshing (manual) and storage of grains. But the gender based discrimination exist here, as well, like the larger society and women are largely excluded from any ownership and control over productive resources and decision making in agriculture. Their discriminated and dispossessed status can be understood by the following facts in regard to control over inputs and productive resources as follows:

- Access to land and water: Women own barely 2% of the overall agricultural land, as traditionally and customarily they are not part of the ownership of the family land and property. The user of water resources like the minor irrigation is also dependent on the land ownership and so women are not part of the water user committees.
- Access to credit and inputs: Access to various agricultural inputs like credits, fertilizers and seeds are also based on the ownership of agricultural land (Khedut Pustika), and/or

membership of the fertilizer or seeds co-operatives, which again are for land holders only. Hence women are denied these inputs.

- Access to extension services and training: These are also meant for the owners of the land, so women are constrained from accessing these services. Cultural and gender barriers of moving out for training also pose restrictions on them
- Access to market: Although on a smaller scale (for consumption purposes) women do go to market and sell/ barter their products and buy/ barter things they need. But agricultural produce markets are dominantly a main domain and women barely access them because of the market place culture, where women find themselves misfit.

The Intervention

Ujaas is the only organization of women in the district. It was started in 2011 with financial as well as technical support from Action Aid, for capacity building of women farmers and developing long term strategy for the federation. The main objective of Ujaas is to focus on the recognition of women employed in various agricultural activities as farmers. With men moving away from the farm to the non-farm sector and women filling in for them without the requisite recognition, it is time to think of radical changes



Women engaged in making bamboo products and rearing goats.

at the policy and institutional levels. The modalities of implementing agricultural plans and programmes, too, need to become more women-oriented. Such changes will require a re-orientation of all the stakeholders in the sector. Ujaas has made a beginning and hopes that the changes it has brought about will catalyse further enhancement in the status of women farmers.

The other problem has been with the narrow definition of farmers used until recently. The recent expansion of the definition by the National Agriculture Policy to include all those involved directly and indirectly with farming, and allied livelihoods is a welcome move. It implies that any intervention in the agricultural sector must expand its outreach to all these groups. The landless workers and forest produce users can, for example, be accommodated in collective farming or promoting agricultural inputs, such as bio-fertilizers. Also, those displaced by the adoption of modern technology must be accommodated in some

other agriculture-related activity, for example, the production and marketing of value-added products.

To begin with, the activities of Ujaas were confined to 10 villages of the Chikhli and Vanzda blocks of Navsari district. Now it has a presence in 35 villages and has a membership of 563 women farmers.

Thus, its beneficiaries include not only women farmers working directly in agriculture and allied activities, but also those engaged in gathering forest products and making articles of bamboo (referred to as *Kotawalia*). While helping women farmers increase productivity and ensuring food sufficiency, it has also been motivating the landless and the artisans to start micro-enterprises and market their produce.

The executive committee consists of 15 members who are peer leaders of



Women farmer members of Ujaas in a meeting.

different villages. According to the rules framed by the committee, these members are elected representatives of the women farmers and the leadership rotates every three years. In keeping with the vision and mission of Ujaas, the executive committee includes representatives from Primitive Tribe Groups (PTG) and landless women farmers as well as those engaged in allied agricultural activities. The Executive Committee of federation meets on every 22nd of the month for a monthly review and planning session.

Objectives and Strategies

Ujaas had the following principal objectives.

- To motivate women to assert their identity as farmers – the first step of which is calling themselves *mahila khedut* (women farmers)
- To facilitate processes to ensure their control over productive resources and equal participation in decision-making
- To enhance their social status and reduce their vulnerability by increasing awareness in the community. To address issues related to other rights and entitlements so as to bring about a comprehensive change in their life and livelihood
- In keeping with its inclusive approach, Ujaas has employed the following strategies.
- It has developed linkages with other like-minded organizations, such as Arch Vahini, BAIF Development Research Foundation and other local community groups and incorporated their learning experiences in its plans.
- It is working closely with government departments so that the people may reap the benefits of the tribal development programmes that are already in place. The organization has received recognition and support from block-level officials.
- It is working towards strengthening the Panchayati Raj Institutions and helping the people secure the benefits of the Panchayats (Extension to Scheduled Areas) Act and the Forest Rights Act.
- While adopting modern technology and management principles it has kept in mind the philosophy and culture of the tribal people.
- It has focused on the most disadvantaged groups.
- It has formed youth groups to focus on the development and well-being of the future generation of farmers.

Achievements

These efforts made over a span of three years to organize women and assist them in becoming self-sufficient have yielded the following results.

1. Training camps were organized for capacity-building and awareness generation. Four leadership development camps were organized to make women aware of their rights and familiarize them with various aspects of gender issues. Six sessions were conducted on the identity of women farmers. Another six sessions focused on government schemes for tribals in general and tribal women in particular. Three training sessions on kitchen gardening were attended by 124 women.
2. Assistance has been extended to women on agricultural inputs. Under this scheme a farmer kit was provided to 540 women. The kit distributed to each farmer included 5 Kg of seeds per farmer of Paddy - GR7 (Organic), Gujarat 7 Bamboo, IR 28 Paddy (Organic) and a kitchen garden kit (*chilli, choli, papadi, karela, bhindi, dudhi, turiya* and tomato.) In addition, 58 women farmers have been supplied with bamboo for making bamboo-based articles.
3. Tie-ups with other organizations have yielded positive results. Six training camps were organized on sustainable agriculture with

the support of the Krishi Vigyan Kendra of Navsari. These camps, that were attended by 250 women farmers, focused on production of biofertilizers (including vermicompost), preserving local varieties of seeds and the impact of climate change on agriculture. The training has helped 23 women farmers to set up their own units for the production and sale of Vermicompost. Under a partnership with the NABARD – WADI Development Programme 1500 farmers (including women) have been identified for the promotion of organic farming.

***“We, the Kotwalias, were not recognized as farmers because we are engaged in bamboo work. But now we can proudly say that we too are farmers”
– says Rikaben of Panikhadak Village.***

4. Under Mission Mangalam of the Gujarat Livelihood Promotion Company, 34 women producing bamboo-based articles have been identified for loans and subsidies for the procurement of bamboo.
5. A three-year project for the marketing of mangoes has been launched in partnership with the German Agricultural Society, GIZ. It shall considerably enhance and improve the livelihoods of women in the region along with ensuring a fair price for their produce by

- eliminating middle men from the value chain. In addition, women farmers shall be provided market orientation and training in handling the sales on their own.
6. In recognition of the work done by Ujaas, block-level officers have assigned its members to work with implanting the Total Sanitation Campaign.
 7. Several strategic tie-ups have been initiated *viz.* Tribal Sub Plan and other government schemes like NRLM, MGNREGA, Indira Awas, PDS system, ICDS, Education and Health Departments. The women farmers are now aware about these schemes and have started availing them.
 8. The women involved in these projects have become vocal about their rights and have learnt to effectively negotiate with government officials and panchayats. They have managed to convince the block officer to provide them with four shops required for the marketing of vegetables, fruits and bamboo-based products and all other produce. They have also been successful in persuading the Panchayat to allot them more land towards the construction of their shops in future. In one incidence, the women protested against the corrupt practices of the Sarpanch/ Patwari in four villages. The Sarpanch/ Patwari had been holding the National Rural Employment Guarantee



Women have adopted the collective farming approach to utilize time, energy and money in the most productive manner.

Act (NREGA) cards of 388 women thereby depriving them from employment. The women were successful in retrieving the cards, thereby setting an example for all women in the region.

9. Traditionally women's names are not included in the *khedut chopdi* (farmer's book) provided by the government. However, Ujjas has encouraged women farmers to maintain their own khedut diary, to give them a feeling of ownership of their farming. This practice has made the women understand the importance of managing their own money and given them pride and confidence. The diary, which is used for crop planning, work planning, seasonal planning, noting down useful and innovative technologies and maintaining accounts, is the first step towards developing farming literacy.
10. A group of 12 women of Toranvera and Chimanpada

“This is the first time that I have met the block-level officer. Now I want to meet the collector, share my views about our institution with him and seek his support for our mission,” says Naseemaben of Dholumber.

villages of Chikhli Block of Navsari district started a collective farming venture on a piece of land taken on lease. Within a year, they were able to make a profit of Rs 3000, and the model was replicated in 10 villages of the Chikli block. The idea was not only to make optimum use of their resources, but to strengthen each other and to work towards improving their social environment. These collectives are trying to evolve a sustainable model of agriculture by adopting innovative technologies, preserving traditional varieties of seeds, promoting organic fertilizers, and so on. They have also succeeded in ensuring better deals in the matter of marketing



Women have also started nurturing dreams about the future generation. However, there is still a long way to go, as Ambaben puts it.

their produce. What is more, they are trying to generate awareness and find ways of addressing social issues, such as domestic violence and alcoholism. Block-level officials have appreciated the collective farming approach and there are signs that more land may be made available for such ventures.

The Way Ahead

Ujaas is in the process of getting registered as a legal entity for institutionalizing, sustaining and scaling up its operations. Some of its plans for the future are as follows.

To help women gain control over land and farm resources

- Promoting share cropping on land taken on lease from big farmers
- Procuring land from the panchayat/ mandal panchayat for collective farming
- Promoting joint ownership of land and inheritance rights of women
- Equipment and tools storehouses are planned to be started for renting out farm equipment
- Promoting local seeds production, for use, sale and conservation
- Promoting vermi composting on individual farms and land taken on lease for sale to members

of women's collectives, other farmers or the market

To help women generate capital

- The sale of seeds, fertilizers, etc.
- Hiring out farm equipment
- Setting up agriculture-based micro-enterprises, such as oil mills and flour mills

Obtaining credit from banks by promoting joint liability groups and on the basis of a woman's share in the household farm

To build capacity

- Organizing training camps and workshops on various aspects of agriculture, including the identity and rights of farmers, share cropping, leasing farmland, and marketing, to which experts will be invited
- Holding workshops on the role and future shape of the institution. It is hoped that the members will decide for themselves as to whether the institution should be registered as a cooperative or a farmers' producer company. Cohesion will lend its support in this process.

To share the lessons learnt from this effort

- Documentation, dissemination of information at village, block and district level.

A woman wearing a red headscarf and a red short-sleeved shirt is working in a field of green plants. She is smiling and looking towards the camera. The background is a blurred field of similar plants.

Women Farmers¹: The Pillars of Food Security in Kerala

Sonakshi Anand² and Manish Maskara³

¹ Farmer is a generic term. However, its use has been biased along the lines of gender as women engaged in agriculture have not been acknowledged as farmers. This is because the agricultural work performed by women is seen as an extension of their household work. This case study emphasizes the use of the term 'women farmers' so that the role of women in agriculture is duly acknowledged and their rightful identity is recognized.

² Research Associate, Institute of Livelihood and Training (ILRT), Hyderabad

From Farm Labourers to Farm Managers

Usha Rao Krishnan⁴ (name changed) used to work as an agricultural labourer on a farm in the area under her gram panchayat, Thirunelli, in the district of Wayanad in Kerala. She used to own some land but it did not suffice even for subsistence. Thus, she was forced to work in the fields of a rich landowner. She was soon joined by her husband. The daily wage at the time was Rs 200–250 and since the wages were seasonal in nature, the couple's income was irregular. There was no certainty regarding the availability of work and they had no say in the kinds of crops to be grown. A year after Usha had started working for the landowner, he suddenly moved to the district of Kottayam to work as a clerk, having sold off his land at a good price to a cash crop producer. Meanwhile, other landowners who did not find their cultivable land remunerative enough preferred to leave their land fallow. Thus, they did not need labourers to work on their land on a regular basis. This meant that Usha and her husband were deprived of a source of livelihood. With hardly any cultivable land of their own, no alternative sources of income in Thirunelli and no skills to take up a new job, the family was struggling. To add to their woes, foodgrains like paddy were not available at cheap rates due to the lack of food security in Kerala. Usha recalls how she felt the pinch while serving her children, husband and other family members as they sat down to eat.

⁴ Usha is one of the women the authors interacted with during the fieldwork of the case study. Her story and the journey of her Neighborhood Group, and subsequently, Joint Liability Group are used to illustrate the impact of Kudumbashree's work in Kerala.

It was not only Usha who found herself in this situation. There were many who lost their income due to the landowners' decisions and choices. The women discussed this issue at the meeting of their neighbourhood group (NHG), called Lavanya, and also talked about the lack of food security at the household level. Various NHGs similar to Lavanya had been formed in all the districts of Kerala under Kudumbashree, the state poverty eradication mission. The idea was to inculcate the habit of savings among women and also, to encourage them to extend support to each other in times of need and during emergencies. According to Usha, "When I approached the women in the neighbourhood to form these groups, they were skeptical. The usual response was, 'How can women, who have never come out of the confines of their homes, be ready to join such initiatives?'" This attitude gradually changed over the years, with persistent efforts, and Lavanya finally started doing well in Thirunelli. When Usha and women in the same straits discussed the problem of lack of work, they hoped that approaching Kudumbashree would help.

When the women approached Kudumbashree, the latter suggested that they could engage in farming, either on an individual or a collective basis, on the fallow lands. The response of the members of the NHGs was not encouraging. However, with some persuasion, a few

women started showing willingness to follow Kudumbashree's advice and soon, some of them tried their hand at collective farming. Their understanding of paddy cultivation grew slowly but steadily. In view of the existing community institutions of women in the state, Kudumbashree preferred that the women should take up collective farming. For this purpose, a joint liability group (JLG) was formed. In time, the women became very motivated to engage in paddy cultivation and with the help of Kudumbashree, various methods of irrigation and improved cultivation were introduced.

Describing her current situation, Usha says, "While eating at home, I proudly remind my husband of the fact that the rice we are eating is the fruit of my efforts. It is Kudumbashree that gave me the confidence to voice my opinion in front of my husband. I have also become confident about engaging in collective farming and vegetable cultivation."

Context

Until 2004, in 14 districts of Kerala, the size of the landholding owned by households falling in the Below Poverty Line (BPL) category was considered a significant indicator of their 'way of life'. Women of households which owned around 10–20 cents⁵ of land were identified as landless. Such women, who mostly belonged to the Scheduled Castes

5 Cents is a measurement of land. (100 cents = 1 acre)

(SCs), Scheduled Tribes (STs) and minorities, could not depend on cultivating their land for their sustenance because it did not suffice. There were variations in this category of households across regions due to differences in the landscape. For example, in hilly terrain and forested areas, the women were left with little choice but to work as farm labourers. The near absence of choices compelled the landless women to depend on the big landowners for their livelihood. They worked as farm labourers on the larger landholdings of the latter. This was their major source of income and their daily wage was merely Rs 200–250. All able male members of the household also worked as farm labourers.

The landowners, on their part, preferred to leave their cultivable land fallow due to unsatisfactory returns from cultivation. This preference has also been attributed to the phenomenon of urbanization. Some landowners shifted their focus from the cultivation of food crops to the production of cash crops, such as coffee, rubber and pepper. Others migrated to the neighbouring towns and cities to search for alternative sources of income. On the whole, a lot of productive land was being left fallow and as a consequence, the landless women were deprived of their means of earning a living.

Kerala lost over 500,000 hectares of paddy fields between 1980 and 2007. The harvest came down by almost 50%, to 630,000 tonnes in 2007,

severely threatening food security in the state⁶. The use of productive land for commercial purposes in a state like Kerala, which depends on rice and vegetables, led to a severe food crisis. It seemed unlikely that the authorities would be able to ensure food security unless the production of food crops was stepped up.

Enabling Factors for the Intervention

Given the prevailing situation, Kudumbashree decided to intervene by taking measures to ensure food security and improve the livelihood of landless women in Kerala. It first gauged the willingness of the landless women who had earlier been working as farm labourers to organize themselves for the purpose of cultivating food crops on fallow lands. With this intervention, which was launched in 2004, Kudumbashree aimed to transform the identity of the women from that of farm labourers to that of farm producers.

Kudumbashree's agricultural intervention was facilitated by certain pre-existing factors. The foremost of these was Kudumbashree's existing three-tier community institution of women in all 14 districts of Kerala. Federations of these institutions at the gram panchayat level were called Community Development

6 Ensuring Food Security through Group Farming in Paddy Cultivation, Working Paper series No.2, Evaluation Division, Kerala State Planning Board, November 2012

Societies (CDS), while the ward-level federations were called Area Development Societies. The CDS is a registered body formed during 1998 under the Travancore Cochin Literary Scientific and Charitable Societies Registration Act, 1955.

The lowest unit of the three-tier institution of Kudumbashree is the NHG, which comprises of 10-20 women from poor, neighbouring households. Before the intervention, these women who were farm labourers, were involved in thrift and credit activities. Such a community-based organizational structure played a vital role in mobilizing the women, whether as individuals or as groups, for the purpose of farming on leased land.⁷

With this intervention, which was launched in 2004, Kudumbashree aimed to transform the identity of the women from that of farm labourers to that of farm producers.

Another factor which made it easier to implement the intervention was the abundant availability of cultivable land that had been left fallow. Lastly, the positive interface between the CDS and the gram panchayats helped to make the fallow land available for farming.

7 Farming on leased land is a system prevalent in Kerala in which land is leased out for cultivation by the landowner. In India, there are no legal provisions allowing for such transactions. However, in Kerala, due to the ease with which land is leased out, farming on leased land is very popular, so much so that there has been a good deal of policy advocacy on the matter.

The Intervention: Timeline, Strategy and Activities

Kudumbashree entered the field of agriculture in 2004, when it made efforts to motivate the members of the NHGs in all districts to take up farming on leased land, either as individuals or in groups. The women who were interested in farming forwarded their applications to the CDS concerned at the gram panchayat level. The CDS then stated how much land would be necessary for cultivation. Some women took up farming on their own cultivable land, while others started farming on leased land. Those who chose collective farming were members of neighbouring NHGs.

Institutional Interface– access to cultivable land

The intervention utilized the interface between the CDS and local self-government bodies (in this case, the gram panchayat) to procure fallow land from the landowners on lease at an economical rate. The land was leased either at a fixed rent or on the basis of the crop harvested. On an average, depending on the crop season, the rent for the fallow land varied from Rs 4000–8000 per acre. The gram panchayat and CDS helped the landowners and women to enter into the leasing arrangement, and helped in the resolution of any disputes.

In order to motivate the women to take up farming on leased land, Kudumbashree came up with a scheme to provide them with incentives with the assistance of the state government.

Incentive structure for farming

In order to motivate the women to take up farming on leased land, Kudumbashree came up with a scheme to provide them with incentives with the assistance of the state government. Area incentives were given to only those women who had taken land on lease in order to make it cultivable, whereas production incentives were given to those who were cultivating either their own farmland or leased lands. The incentives varied according



to the type of food crops grown. No incentive was given to women cultivating plantation or cash crops. The area incentive was disbursed prior to the harvest and was about 10% of the production cost, on an average. The women eligible for the production incentive were those in whose case the yield exceeded a certain average level determined by the government. The incentives differed for women cultivating their own land and those cultivating leased land. For example, the latter received an additional 10% of the incentive. Initially, incentives were sanctioned only for commercial cultivation. Individuals cultivating more than 0.1 ha and groups cultivating more than 0.8 ha were considered commercial cultivators. Groups engaged in organic farming were entitled to an additional 50% of the incentive, provided they received certification from the agriculture office.



Labour, selection of crops and support from agencies

Once land had been made available to the women, the decision regarding the food crops to be grown was solely theirs. The decision depended on the season, geographical features of the area, returns from the produce and the sources of irrigation available. The usual crops grown included paddy, tapioca, banana, carrot, black-eyed beans, brinjal, bitter gourd, ginger, turmeric and tubers. The labour required for cultivation was provided by the women of the groups. In cases in which individual women had taken up farming, their fellow farmers provided the necessary labour, with matters related to payment being settled by the women. Kudumbashree sought a tie-up with Kerala Agricultural University so that the women farmers could receive training to ensure a better yield. They were also provided input subsidies through the gram panchayats by the agricultural department. The women could sell their produce in the local market or the traders themselves collected the produce from the fields. Kudumbashree also tied up with the Vegetable and Fruit Promotion Council Keralam (VFPCCK) and SupplyCo, who had their own collection centres, to facilitate the sale of the women farmers' produce. The government of Kerala forged partnerships with various agencies that marketed crop produce to ensure that the women earned a certain level of income. The

local self-government bodies also facilitated the marketing and sale of the produce by organizing weekly fairs and markets.

Streamlining the Intervention

In the first few years of the intervention, the activities that had been initiated did not gain much momentum and only a very small area of land was brought under cultivation. In addition, the distribution of incentives to the eligible cultivators was very irregular. By 2006, it was realized that if the incentives did not reach the eligible women, they might lose their motivation to take up farming. This would perpetuate the vulnerability of the women, as well as the problem of food security. Hence, activities like bringing fallow land under cultivation, the distribution of incentives and the promotion of group-based farming were scaled up.

Putting collective farming over individual farming

It was observed that there were more individuals than groups farming on leased land and it was decided to promote only group-based farming from 2006 onwards. The situation was strictly monitored to ensure that only collective farming was promoted. Since the groups were formed by women who came

from the same or neighbouring NHGs, there was an emotional link between them that was conducive to the sharing of responsibilities. It also made it easier for them to arrive at a consensus when taking decisions related to farming. Group-based farming contributed to peer learning, and facilitated the division and distribution of labour on the fields, as and when necessary. Further, it made it possible to cultivate different kinds of food crops at the same time, depending on the amount of land leased. In many ways, group farming led to the distribution of input costs, risks and profits. The produce from group-based farming helped not only to meet the consumption needs of the women's households, but also provided them with the means to generate income.

Reduction in labour costs—convergence with NREGA

The enactment of the National Rural Employment Guarantee Act (NREGA) in 2005 aided the intervention as far as farm labour was concerned. The farming groups received support from the NREGA programmes for their land development and water conservation activities. The wages were paid by the government. Thus, the input costs for labour were reduced. The gram panchayats facilitated the convergence with NREGA.

Institutional innovation— farming as Joint Liability Group

Kudumbashree's previous experience with agricultural interventions had shown that the main constraint was access to agricultural credit. Even if the groups did manage to obtain credit, it was at a very high interest rate. The rate charged by the moneylenders could go up to 20%. The groups also took internal loans from the NHGs, at an interest rate of 12%. By 2010, Kudumbashree felt that it was crucial to enable the farming groups to access credit at a low interest rate. This ultimately resulted in an institutional innovation—the joint liability groups (JLGs). On the basis of the guidelines of the National Bank for Agriculture and Rural Development (NABARD), a policy was formulated in 2010 to organize and register groups of women farmers as JLGs.

A JLG consisted of 4–10 members, and had a president and a secretary. It could be formed by women who were members of the same NHG or of different NHGs. The groups which had been formed earlier were brought under JLGs. The JLGs were registered in the CDS with an affiliation number known as the unique identification number (UID). The UID, along with a management and information system, were used to track the performance of the JLGs. The JLGs maintained a register on their farm activities, economic matters and calendar of operations.

When necessary, the groups would produce the documents before organizations like the ADS, CDS and Panchayat.

To encourage the formation of JLGs, NABARD gave the facilitating agency a promotional incentive of Rs 2000 for each JLG formed and linked.

In the course of the intervention, the CDS was made the facilitating agency and became eligible for the promotional incentive. With the constant efforts of Kudumbashree, the JLGs were also brought under the purview of the interest subsidy scheme (5% subsidy on agricultural loan at 7% interest rate) facilitated by the government of Kerala.

Meetings were held with the banks to work out a common set of banking procedures for Kudumbashree JLGs across the state, especially in the matter of the documents to be produced by the groups while opening savings and loan accounts. This would simplify matters, both for the banks and the groups. The JLGs were also made eligible for the Kisan Credit Card (KCC) scheme. Under this scheme, Kudumbashree JLGs would not only get 5% subsidy on interest, but could also once again borrow the amount they had paid back and would need to pay interest only on the outstanding amount. Each JLG member was made eligible for personal accidental insurance. Groups could continue in the scheme for three years with one-time registration. In the course of the intervention, the JLGs also came to be covered by the National

Agricultural Insurance Scheme, promoted by banks, and state agricultural insurance, promoted by the agricultural department.

Outreach

Over a period of time, more and more women from all districts of Kerala got involved in farming. The outreach of the intervention can be gauged from the tables in Annexures 1 and 2. It is evident that with the introduction of JLGs in 2010, the disbursal of incentives for farming increased to a great extent. In addition, there was an increase in the area of land under food crop cultivation (Refer tables in Annexures for data till 2014).

Impact

The impact of the intervention was multidimensional, as far as the livelihoods of the women were concerned. The intervention led to the development of land as a natural resource as well. It also empowered the women farmers in Kerala and indicated that the same could be possible elsewhere in the country. The power of women's collectives became evident from the role that they came to play in decision-making on farming. The intervention opened up several avenues for landless women. These are summarized below.

Farm labourers to producers to farm managers

The landless women, who had earlier been wage labourers, became farm producers thanks to the intervention. From the selection of the food crops to be cultivated to the distribution of profits following the sale of the produce, the women were the sole decision-makers. Thus, they gradually made a transition from being farm labourers to being farm managers. This restored their dignity and identity.

Enhanced Income

Before the intervention was launched, the women's wages were of a seasonal nature, which naturally put them in a vulnerable position. Once they could engage in farming as producers, there was an increase in their income, which was augmented by the diversification of the crops that they could now grow. The share of income of the members of a group and the revenue generated from the produce varied, depending on the crop. The revenue was utilized for the repayment of loans, meeting the input costs and adding to the group's savings. One acre of land under paddy cultivation yielded an average of 1500 kg over a period of 3–4 months, with the total cost of inputs being around Rs 10,000–12,000 per acre. Due to the initiative of the Kerala government, the paddy was sold to SupplyCo at a rate of Rs 18 per kg, which meant

an income of Rs 15,000. The sharing of profits was in keeping with the consensus among the women and also depended on the number of women in the group. In addition to their income from farming, the women also earned through their involvement in NREGA work, when it was available. On the whole, group-based farming provided the women with an income with which they could educate their children, get their own house constructed, and even buy gold, etc. The women also realized their dream of buying land with their own income.

Group-based farming provided the women with an income with which they could educate their children, get their own house constructed, and even buy gold, etc. The women also realized their dream of buying land with their own income.

Preference for innovative farming practices

Over time, the women farmers developed preferences for certain farming practices, for instance, organic farming. Women who had received training in various kinds of farming came to appreciate and apply the methods of zero-budget natural farming, integrated farming, and so on. Such farming practices are associated with the minimal use of chemical fertilizers, pesticides, etc.

Soil fertility and productivity of fallow land

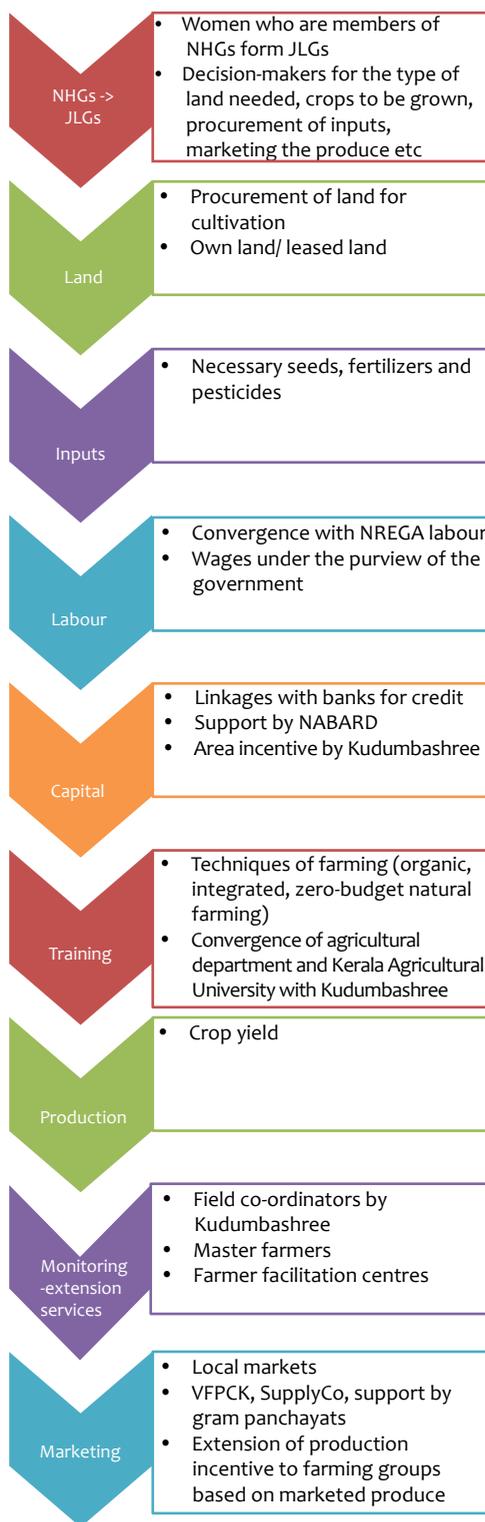
By utilizing the fallow land for cultivation, the women farmers converted it into fertile land, which augmented the productivity of the land. It has further incentivized the agricultural department to take an active interest in identifying fallow land for the purpose of farming.

Translation to a nationwide scheme – Mahila Kisan Sashaktikaran Pariyojana

In 2011, on the basis of Kudumbashree's experiences with collective farming, the Mahila Kisan Sashaktikaran Pariyojana (MKSP) was conceived as a sub-component of the National Rural Livelihood Mission for the promotion of farming by women across the country. The intervention launched by Kudumbashree in 2004 is currently functioning under the banner of the MKSP, which has set an example for all women labourers in the country to aspire to become farm producers.

Women as Master Farmers

Following the guidelines of the MKSP, Kudumbashree initiated the process of identifying 'master farmers' in the community who would share the best practices in farming with the others. These women were given an opportunity to share their experiences in farming, their knowledge of credit-linking



strategies, the problems they faced in farming, and their indigenous knowledge and information on the practices they used to promote environment-friendly agricultural techniques. The ‘master farmers’ are now looked upon as role models for women who wish to graduate from being farm labourers to being farm managers.

The following diagram outlines the entire course of Kudumbashree’s intervention, starting from encouraging the women to engage in collective farming to the sale of their produce.

Issues and challenges faced

Several issues and challenges were faced during the process of transformation of the women from farm labourers into farm producers. These broadly pertained to the aspects of land, labour and capital, apart from limited access to other natural resources required for agriculture. In this section, we shall discuss the challenges and go on to recommend possible ways out.

Availability of land

Since the programme focused on landless women, the availability of suitable cultivable land which could be taken on lease was a major concern. Another major problem was that of fragmented land. Most of the groups were offered plots that were far from each other, rather than

contiguous ones. This naturally made it difficult to manage the plots.

Collective leasing as a practice

Since the women farmers had converted the fallow land into fertile and productive land, the landowners began to wonder whether it was wise to lease out their land to the women on a regular basis. Thus it happened that with increasing frequency, the landowners began to offer their land only for a short period. As a result, the groups incurred heavy losses. In addition, the rates demanded by the landowners for leasing out their land often differed in different localities. Moreover, no clear incentives were being offered to the landowners to motivate them on the development of asset-based activities on their land. If this situation continued, it would undo the progress that had been made and the women farmers would find themselves in the vulnerable position they had once been in.

Convergence with NREGA

Another problematic area was sustaining the utilization of the NREGA to decrease the input costs. Though initially, labour engaged in the necessary land development activities on the leased land was being paid under the NREGA, the engagement of such labour was subsequently made a one-time affair.

Expenditure on irrigation and electricity

It was observed that the farming groups spent a huge amount on irrigation. Scarcity of water was one of the major problems encountered in the course of the intervention. The groups had even greater difficulty meeting the expenditure on electricity since unlike irrigation facilities, these expenses were not subsidized by the agricultural department. Moreover, the women farmers were not very good at the judicious management of water for irrigation, and did not know much about water conservation, the maintenance of soil health, soil conservation, etc.

Facilitation of credit and incentives

A significant component of the intervention was to facilitate the provision of credit to the women so that they could meet the costs of production. The farming groups depended on various sources for their credit requirements. For example, they could avail themselves of linkage loans or internal loans disbursed by the NHGs. Many farming groups also borrowed from private moneylenders at higher interest rates. The reluctance of commercial banks to finance the JLGs of Kudumbashree was a major hindrance to agricultural growth. The groups were unable to produce

the required documents and the banks often refused to release the loans, raising technical objections. It was problematic for the groups to produce documents since most of them were cultivating leased land. The women farmers did not receive the production incentives specified by the intervention because according to the eligibility criterion, their yield had to reach a certain level, which was not always possible for them. Finally, the Kudumbashree JLGs were often not granted insurance coverage for their crops.

Technological challenges

Though the women farmers were familiarized with the necessary capacity-building techniques to ensure better farming practices, the use of these techniques was limited. The convergence of various extension departments for the provision of technical inputs to the women remained a challenge. Since the extension services to be provided were generally decided upon by the departments concerned, the actual requirements of the women were not taken into account.

Plugging the gaps

To ensure the sustainability of such an intervention, efforts must be made to develop policies on farming on leased land. More particularly, steps should be taken to incentivize landowners to lease out their land. Kudumbashree is making efforts to this end. With an eye to reducing

the cost of labour, it is working on convergence with the NREGA programme on an institutional basis. In addition to this, a robust monitoring and evaluation system needs to be put in place to measure the performance of the farming groups. Such a mechanism would do away with the redundant task of gathering data on the JLGs. It would also help in identifying the kind of support required during the course of farming. Once such needs are identified, the farmer facilitation centres under the MKSP can be utilized to the optimal level.

Though the extension of credit was one of the significant components of the intervention, the insurance of crops remains a distant dream. Kudumbashree has been trying to create systems for the mitigation of risk so as to reduce the vulnerability of the landless women farmers. Savings-linked insurance coverage of crops could be a possible solution.

It must be ensured that the women who have been identified as ‘master farmers’ transfer their knowledge and expertise to boost the skills of their peers.

As for the potential of replication of the intervention, the emergence of the MKSP at a pan-India level, on the lines of the Kudumbashree’s intervention speaks volumes. The rest of the country has already taken notice of the efforts towards the empowerment of women farmers in Kerala and these have begun to make a mark.

A Successful Livelihood Intervention

The challenges aside, the intervention offered the landless women an opportunity for farming, which enhanced their income and reduced their dependence on landowners, from whom they had been receiving meagre and variable daily wages earlier. It converted the landless women into ‘farm managers’—something which would have been unthinkable otherwise. The involvement of these farm managers in agriculture was not a matter of token participation. Instead, the women controlled decisions concerning farming practices and the cropping pattern, and were not confined to their households. Their membership of JLGs gave them the necessary bargaining power in the market. Though the existing community institutions of women acted as an enabling factor for the intervention, it must be noted that the intervention was able to channelize the NHGs and put them on the right course. This was reflected in

As a result of Kudumbashree’s intervention, the women had more choices as to which crops they wanted to cultivate. The cultivation of land not only allowed the women to meet their consumption needs, but also provided them with a surplus that they could sell.

the collective decision-making on farming activities, as well as the sharing of responsibilities in the area of farm labour. They became the pillars of their families, given their ability to produce enough food to feed their family members. As the intervention was scaled up to a state-wide one and bore fruit in all 14

districts, one could even term the women the ‘pillars of food security’ in Kerala.

Belonging to farming groups instilled a sense of self-confidence in the women and made them feel empowered, both economically and socially. Another commendable achievement of the intervention was

the development of fallow land. Further, the intervention ushered in the revival of various environment-friendly techniques of farming.

It would not have been possible to launch the MKSP at the national level had it not been for the success of Kudumbashree’s intervention. The women being identified as ‘master farmers’ under this scheme are instrumental in the transfer of knowledge about good agricultural practices and also in helping fellow women farmers build sustainable livelihoods.

Annexures

Annexure 1: Year-by-year data on farming groups*

Sr. No.	Financial year	No. of groups	Beneficiaries	Area cultivated (ha)	Incentives (Rs cr)
1	2006–07	26499	234812	17370.14	0.65
2	2007–08	31680	249741	21805	3.03
3	2008–09	39770	291074	27270	7.99
4	2009–10	46444	232220	25062	20.12
5	2010–11	39734	175835	19850	7.8

*The data from 2011 up till now may be found in Annexure 2 as the MKSP was launched in 2011.

Annexure 2: State-level data on JLGs in 14 districts (till May 2014)

Total no. of JLGs (at present)		50519
Rural members		242848
Capacity-building target		150000
Capacity-building achievement		201650
Technical training target	Target	50863
	Achievement	54382
	Percentage	107
FFCs* (rural)	Target	972
	Achievement	916
	Percentage	94
Innovative/ indigenous practices	Target	140
	Achievement	119
	Percentage	85

Integrated practices	Target	1900
	Achievement	1559
	Percentage	82
High-technology agriculture	Target	14
	Achievement	10
	Percentage	71.4
Post-harvest markets	Target	140
	Achievement	79
	Percentage	56.4
Capacity-building of master farmers	Target	10628
	Achievement	10598
	Percentage	99.7
Technical training of master farmers	Target	10618
	Achievement	8393
	Percentage	79.0
Seed bank	Target	140
	Achievement	66
	Percentage	47.1

*FFC: Farmer Facilitation Centres. Here the mentioned statistics is about the FFCs opened under every Gram Panchayat. Apart from this the Local Self Government in urban areas too had FFCs.

Annexure 3: Details of JLGs of Thirunelli gram panchayat, Wayanad, Kerala

Sr.No.	Ward name	No. of NHGs	No. of NHG members	No. of JLGs	No. of JLG members
1	Karttikulam	26	328	14	94
2	Kaithavally	24	313	13	77
3	Cheloor	25	340	15	121
4	Oliyode	24	312	9	56
5	Begur	22	273	5	18
6	Appapara	18	213	7	40
7	Tholpetty	34	395	1	5
8	Baveli	28	375	13	84
9	Muthumary	26	329	13	76
10	Thrisslery	24	297	10	58
11	Thirunelly	17	249	1	6
12	Alathoor	26	346	13	72
13	Aramangalam	19	198	4	24
14	Aranappara	17	146	5	33
Total		330	4114	123	764

Annexure 4: Crop-wise details of JLGs (Thirunelli gram panchayat, Wayanad, Kerala)

Sr.No.	Name of crop	No. of JLGs	Area (in cents)	Members involved in cultivation
1	Paddy	202	48182	775
2	Tubers	59	5560	279
3	Vegetables	72	7053	289
4	Tapioca	32	4330	136
5	Banana and other fruits	1	50	6
6	Ginger and turmeric	122	15404	545
7	Banana nendran	36	5162	139
8	Others	1	3	5
Total		525	85744	2174

Annexure 5: Social category-wise details of JLG members (Thirunelli gram panchayat, Wayanad, Kerala)

CDS/gram panchayat		Above poverty line				
Thirunelli	SC	ST	Minority	General	Total	
	0	0	0	15	15	
CDS/gram panchayat		Below poverty line				
Thirunelli	SC	ST	Minority	General	Total	
	15	191	81	462	749	

Annexure 6: Article published by *The Hindu* (Trivandrum edition) on June 14, 2014

Empowering women farm workers

Kudumbasree members undergo Food Security Army training

Special Correspondent

TRISSUR: The smile on Sheeba Sathesh's face says it all. While working in farms, she had been diffident. "I have been an agriculture worker for four years, but lacked skills," she said.

The Food Security Army (FSA) training has inspired confidence in her.

She and several colleagues in the Kudumbasree movement were a part of the FSA training conducted in the district recently.

Soye Celina Varadose of Kodakara. "The training has made us believe that nothing is impossible. We knew nothing about farm mechanisation and service of machinery. We doubted whether women could handle farm machinery. The doubts have been dispelled."

District panchayat president C.C. Seelekmur was the chief guest at the passing-out ceremony of the new FSA batches held at the Agricultural Research Station (ARS) of the Kerala Agricultural University (KAU) at Mannuthy.



The passing-out ceremony of Kudumbasree workers trained at the Agricultural Research Station of the Kerala Agricultural University.

- PHOTO: BY SPECIAL ARRANGEMENT

KAU Director of Extension P.V. Balachandran presided. L. Jukumar, ARS head and FSA Chief, Kudumbasree district coordinator Abdul Manoj, training executive F.A. Eby, and A. Latha also spoke.

Sixty-nine women, split into three batches, have been trained in operation, service and maintenance of different agricultural machinery, at Kodakara, Thudikkulam and Thekkumkara centres. The training programme was implemented by the KAU and the Kudumbasree Mission.

In all, 168 FSA batches have been trained by KAU so far.

"No need to shy away from farm work. Farm machinery makes it easy for women," says F.A. Bushra of Thekkumkara.

An ideal co for young artisans

Special Correspondent

TRISSUR: Is any art in Thirunelli's interested in improve her skills? The N Training and De located in Alapp training program

There are 15 programme, wh training in evolv ough for coo p course is ideal f sons," said A. tension-Cum-T Assistant, NCT

The course participants 5 fibre, yarn, o and mostroul

Applicants: seven the 32 They should and write: 3 sponsored by cooperative s government

Every trai a monthly 5 Twenty per are reserve Caste and candidates. tsc- 94464

Land of One's Own: From Dream to Reality....

Shilpa Vasavada¹



¹ Convener, Working Group for Women and Land Ownership, Gujarat

Introduction

This is an account of the efforts of a group of community-based organizations (CBOs) and non-governmental organizations (NGOs) in the state of Gujarat to enable women to gain access to land, the most productive natural capital. Realizing that the law may remain on paper in the absence of a concerted drive for its implementation at the grassroots level, the group made strategic efforts to facilitate the ownership of agricultural land by over 2470 women in Gujarat. The group's journey and learnings are described below. Hopefully, these will help others to make similar efforts and inspire a nationwide movement to enable women to own agricultural land for livelihood security.

Context

The Working Group for Women and Land Ownership (WGWLO), a network of NGOs and CBOs, has been advocating women's right to land, primarily agricultural land, in Gujarat. Formed in January 2003, this collective has been serving as a platform for sustained action at the grassroots level and in policy advocacy.

Despite the fact that about 1.7 million² women in India are employed in agricultural and allied activities, and are primarily responsible for producing almost

2 Oxfam fact sheet : www.oxfamindia.org/sites/default/files/land.pdf

two-thirds of all agricultural produce and about three-fourths of dairy products, their share of agricultural land continues to be extremely meagre. Seen from another perspective, although families headed by women account for over 32% of all rural households, women own less than 13%³ of all agricultural land. All this despite the fact that the Hindu Succession Act of 1956 prescribes the equal distribution of property among all inheritors, irrespective of gender.⁴

In India, traditionally, male heirs or sons have a much higher chance of inheriting the family land/property than their female counterparts or daughters. In such a scenario, promoting women's access to and control over land is an extremely contentious issue, with individuals and groups raising a veritable storm about the very notion. This attitude is all-pervasive and is reflected even in tribal societies, which are often regarded as being more egalitarian than non-tribal societies.

National policies and plans have attempted to address and correct the gender imbalance in agricultural land rights. The National Policy for the Empowerment of Women (2001), which adopted the Beijing Declaration, underlined the existing gap between the goals enunciated and related mechanisms, on the one

3 Oxfam fact sheet : www.oxfamindia.org/sites/default/files/land.pdf

4 Oxfam fact sheet: www.oxfamindia.org/sites/default/files/land.pdf

hand, and the reality of women's status, on the other. The Tenth Plan included a section which focused on increasing women's access to land by regularizing leasing and sharecropping of uncultivated agricultural land by women's groups.⁵ The Eleventh Plan, too, emphasized the need to strengthen the focus on women in agriculture. Provisions were made for the direct transfer of land to women through land reforms, anti-poverty programmes and resettlement schemes. The Twelfth Plan pursued the objective of making this goal a reality.

Gujarat has adopted a Gender Equity Policy (*Nari Gaurav Niti*). The policy reiterates that women's lack of opportunities, and lack of access and entitlements to economic resources act as barriers to equitable and sustainable development. The policy provides an impetus to efforts aimed at increasing women's control and ownership of land, property and other common property resources.⁶

5 Sujaya, C.P. (2006): Climbing a Long Road, MSS Research Foundation, Chennai

6 Nari Gaurav Niti: Progress / Action Taken Report, January 2007-November 2008, available at http://www.grcgujarat.org/pdf/1Nari_gaurav_Niti_Nov_08_Eng.22-8.pdf, accessed on 10 August 014

The Intervention

Through the years, the GWLO noted that well-meaning laws and policies do not make much difference in the absence of well-intended and focused implementation. Proponents⁷ of the view have argued that there

A woman may have the legal right to inherit property, but this may remain on paper if the claim is not recognized as socially legitimate or if the law is not enforced.

is a difference between the legal recognition of a claim and its social recognition, and between any recognition and its enforcement. A woman may have the legal right to inherit

property, but this may remain on paper if the claim is not recognized as socially legitimate or if the law is not enforced.⁸ When it started its work, GWLO was aware of this dimension of the problem and, therefore, evolved its strategies accordingly.

Studying the grassroots reality

In order to understand the gravity of the problem, GWLO initiated a broad-based study. A cross-sectional study was carried out in 23 villages across 15 randomly selected tehsils of 10 districts. It was found that while 4188 men owned land, only 561 women did. The study also revealed that this situation could be explained by several reasons. The socialization

7 Bina Agarwal (2002), 'Are We Not Peasants Too? Land Rights & Women's Claims in India', *SEEDS*, No.21 at p.3

8 *ibid*

processes in families deter women from asserting their right over immovable property. Daughters, wives, sisters and daughters-in-law are emotionally coaxed by the family and community elders to give up their rights to patrilineal or conjugal property. Since women are not involved in the decision-making process during the division or transfer of land, and the final decision comes upon them rather suddenly, they are often left with no choice but to decide to give up their entitlements. This state of affairs enhances the vulnerability of women, particularly single and widowed women, or women deserted by their husbands. Without any economic asset to fall back upon, they are often pushed into a life of misery.

Awareness campaigns on women's control and ownership

On the basis of the findings of the study, the members of the WGWLO launched a campaign to spread awareness across the villages of Gujarat in 2004–05. The process of interacting with women took place at multiple fora. It started at the district and multi district levels in Saurashtra-Kutchh region and tribal eastern belt region, and eventually, campaigns to

The WGWLO members soon realized that socialization had had such a deep-rooted effect on the women that many refused to claim their rights, although they knew that the law was with them.

spread awareness were carried out at the meetings of federations of SHGs. The WGWLO members soon realized that socialization had had such a

deep-rooted effect on the women that many refused to claim their rights, although they knew that the law was with them. It was also seen that it was only widows who were, to some extent, willing to assert themselves

due to the desperate situation in which they found themselves.

Audio-visuals, comic strips, posters and similar tools for information dissemination and awareness generation were developed and employed to reach out to women. Community radio was also used. Skits and role plays were used extensively since these tools are a non-threatening means of creating mass awareness. Another practice adopted by the members of the WGWLO was to launch campaigns to create awareness of ownership of land by women on the occasion of special days, such as International Human Rights Day and Women's Day.

The tools and materials used became the basis for starting discussions in women's collectives. The content of the tools had a direct bearing on land-based livelihood for women. Women in these collectives were encouraged to narrate their stories

so that other women might realize that many like them had struggled and succeeded in getting ownership of land. The interaction between the CBOs and these women armed others with the courage and determination to claim their rights. Thus, many women embarked on the struggle to claim their rightful entitlements.

Bringing men into the fold

As work progressed, some organizations opened channels of communication with men on the issue. Sensitizing men on the issue of ownership of land by women was considered to be as important as the task of educating women. This would help to enlist their support rather than provoke opposition to the movement for ensuring land-based livelihoods for women. It was found that there were men who were not averse to the idea of women having ownership of land. The group then made efforts to identify such men and to use them as motivators to influence other men. This strategy worked well and helped the movement gain wider acceptance in the community.

As a strategy, the network felicitated these men in public. This gave the men a sense of confidence and

also boosted their morale. Many members of the network, including the Sanand and Bawla Mahila Sangathans, Cohesion, Kutch, and Gram Vikas Trust, Dwarka, felicitated husbands and male relatives during conferences on issues related to women and land.

The awareness campaigns also helped to identify couples who either had no children or had only daughters and were apprehensive that the husband's land could be taken over by relatives in the absence of a male heir. Such couples were motivated to transfer the land to the wife or daughters to ensure that this source of livelihood security was not snatched away from them in the future and the land remained within the family.

The awareness campaigns initiated by the network identified couples without a male heir and motivated them to transfer their land in the name of their daughters to ensure security of their source of livelihood.

Building cadre of para-legal workers

As the WGWLO proceeded with its efforts, it came across certain stumbling blocks. The women were inspired, as were their men, but “the

language of the land” – the legal revenue language was as alien to them as it was to the facilitators, i.e. the member organizations. Further, while several women were willing to fight to claim their land as a result of the awareness programmes, the staff

of the member organizations was not equipped to deal with the legal processes.

Thus began the second phase, which focused on familiarising member organizations with the legal and procedural aspects of revenue governance. With assistance from the Centre for Social Justice, a legal support organization, the GWLO started building a cadre of para-legal workers (PLWs). Quarterly training programmes were designed for the PLWs and this training enabled them to take up the women's cases. Regular reflection workshops were held to help both the training team and PLWs understand the nature and intricacies of the difficulties encountered. The legal dimensions were often intricately linked with social dynamics and hence, it was necessary for PLWs to gain an understanding of social dimensions as well. PLWs who understood social dynamics could act as guides, sometimes as mediators and sometimes as well-wishers. The PLWs were instrumental in resolving complex cases related to the ownership of land by women.

Orienting the grassroots revenue officers (patwaris)

In addition there arose the need to work with the administrative wing responsible for land and revenue matters. It was necessary to engage the *patwaris* (a *patwari* is a village-level

revenue officer-cum-secretary). The GWLO realized that since a women seeking an entitlement would have to approach these officers first, sensitising them was of the utmost importance. However, it was not easy to access them. With support of the Office of the Development Commissioner, a training programme was organized at the regional Panchayati Raj Institute (PRI). Under this programme the village revenue officers received foundation as well as refresher



Patwari training at Panchayati Raj Talim Kendra, Sadara.

training. Since 2005, GWLO has conducted over 32 such training programmes at various centers across 5 regions in the state, and more than 1200 *patwaris* have received training. The training focuses on sensitizing them towards the issue of women and land ownership, associated revenue procedures, and the decisive role they can play in cases of inheritance involving women.

Working with village Panchayati Raj Institutions

The other stumbling block identified related to the attitude of the village panchayats, particularly that of the *sarpanch* (village headman). The GWLO member organizations adopted a collaborative strategy

and tackled the matter together with representatives of PRIs and Mahila Swara Abhiyan, a network in Gujarat that focuses on women and governance. Wherever possible, the GWLO used the idea of ‘sympathy’ for women as the basis for motivating the *sarpanchs* to understand the real issues relating to the ownership of land by women. Those who gained an understanding of the matter did not hesitate to take immediate action when required. For example, they explained the law to the women’s in-laws or pushed the village revenue officers to resolve pending cases expeditiously. GWLO collaborated with another organization Unnati to reach out to a large number of village leaders, with the help of satellite communication (SATCOM)-based training programmes.



Swabhoomi Kendra Bawla Mahila Vikas Sangathan, at Bawla Taluka, Ahmedabad District

Working closely with the block revenue offices

The focus of the ongoing phase is to work closely with the revenue department at the block level and establish 'Swabhoomi Kendras' (where the network's members have a presence). Each Swabhoomi Kendra, supported by UNDP, is managed by two trained PLWs (associated with the grassroots women's CBOs), who provide information, guidance and hand-holding support to women in the matters of land inheritance. There are 15 such Kendras operating today and all of them work closely with the block revenue officials, *e-dhara* Kendras⁹ and village revenue officers. Most Swabhoomi Kendras have been receiving support from local revenue officers who think it is important to support the cause of the women's ownership of land. Recently, Swabhoomi Kendras played a major role in ensuring that the name of no woman was left out when the government launched the 'varsai' (inheritance) campaign to set the land records straight. During the last eight months, Swabhoomi Kendras, together with local officials, have organized 70 such camps in various locations, and identified more than 3500 cases of claims to land by women.

⁹ e-Dhara Kendra is a government office at Gujarat. Each e-Dhara Kendra is situated at Taluka Mamlatdar (Block revenue officials') Office. The Gujarat government's e-Dhara project aimed to modernise land administration and to enable farmers to manage this crucial resource better. e-Dhara is the name of the taluka centre, where farmers can access their land records, obtain copies of ownership documents and even apply for ration cards.

The collective efforts of the GWLO member organizations have brought the network a long way since its beginnings as a small entity in 2003. The network has been able to make a considerable difference and the journey shall continue. The work done so far has had several positive outcomes, some of which are described in the next section.

Outcomes

Women who once accepted penury and 'landlessness' as their fate now view ownership of land as their right.

Stories of women who resigned themselves to their fate and gave up on their right to land abound. However, there are many who have become aware of their rights, and have come forward to claim their land from their maternal home or their in-laws. Though the process may have cost them a lot, with the support and guidance of members of GWLO, these rural women, who number more than 2000 across Gujarat, now have the solace of owning land that they can use for their livelihood as well as for their children's upbringing.

Hansaben is just one of the countless women who struggle to own their share of land, but who do not have the faintest idea of how to go about it. They accept the denial of their right as their fate. The collective efforts of the GWLO have given many of these women the strength to challenge this injustice and assert themselves.

The network and number of beneficiaries has grown.

The network has grown from the initial 13 members organizations to include 36 members (18 NGOs and 18 CBOs). It has trained more than 84 PLWs to give women the right advice and support. Over 1200 village land revenue officials have received inputs, and many of them have maintained contact with the member

organizations and shared their stories of change. Several *sarpanchs* and other men have willingly come forward to include the names of their legal (female) heirs in land deeds or to transfer ownership. All this has been possible because the network joined hands with stakeholders from the community and the administration. The number of women who own land will surely increase in the years to come.

Hansaben gets support and guidance in her lonely struggle to own land

Hansaben, who lives in a village in Dhrangadhra tehsil in the district of Surendranagar, lost her husband in 2009. Incidentally, her mother-in-law was also widowed at a very young age. For her livelihood, Hansaben cultivated land given to her by her brother-in-law.

When Hansaben became a widow, she learnt that a part of the jointly owned 16 acres of family land had been sold off by her uncle-in-law without her mother-in-law's knowledge. She asked for their rightful share of the remaining land, but was threatened. Though she was determined to reclaim her rightful share of land, she was at a complete loss as to the proper legal procedure to be followed. When a member organization of the WGWLO (Mahila Vikas Sangh, Dhrangadrha) conducted an awareness campaign, Hansaben saw a ray of hope.

The PLWs of the Swabhoomi Kendra in her vicinity, accessed the relevant land records from the e-dhara Kendra. It was found that the name of Hansaben's father-in-law was still on the records related to the remaining land, and they just needed to enter their- Hansaben's and her mother in law's - names in the records to ensure that the rest of the land was not sold off.

At present, the case is being pursued with the support of the Swabhoomi Kendra. The knowledge that the law is on her side, as well as the support extended by the PLWs of the Swabhoomi Kendra, have made Hansaben feel far more confident about fighting for her right. "In the beginning, I used to feel helpless...being a woman and a widow...I was at a loss...I did not know how to deal with the legal issues...but now I know I am not alone. I will get my rightful share at any cost!" she asserts.

The multiplier effects

Bharubha represented the Kutch Mahila Vikas Sangathan when he joined the first batch of PLWs trained in 2005–06. He became so interested in the legal aspects of ownership of land by women that he eventually left his full-time job at the Sangathan and took to providing women with legal guidance in cases related to land ownership. What is remarkable is that he provides free services to women who consult him about land-related cases. He has made it clear to all member organizations of the WGWLO that they should feel free to contact him whenever they require his guidance in a case pertaining to a woman's entitlement to land.

The village revenue officer of the Selamba group gram panchayat¹ in the tribal district of Narmada gained a thorough understanding on women's land rights following discussions with the local Navijivan Adivasi Mahila Sangathan. He also attended a refresher course at the Panchayati Raj Talim Kendra of the Government of Gujarat, where the network members had taken a session.

This revenue officer has been quite conscientious about ensuring that women get their share of land since the Swabhoomi Kendra was started in Sagbara, the tehsil headquarters. While preparing a family tree, he first asks women about the names of their family members. He then confirms these, not just with village leaders, but also with representatives of the women's Sangathan in the village. It is only after this double verification that he finalizes the family tree, ensuring that no woman is deprived of her right by the family.

During the awareness campaign, he accompanied the PLWs who went to villages to screen films on the subject. After the films, he participated in discussions on the importance of a woman's right to land. During the government's varsai campaign, he kept the PLWs in the loop about all the Government Resolutions he received.

Jasubhai, the sarpanch of a village in the Devgadh Baria taluka, realized the value of women's ownership of land when he interacted with representatives of the Devgadh Mahila Sangathan. He took the initiative to conduct the Varsai camp in his village for a period of one week, during which all the pending entries were taken up. Within seven days, 13 women, whose cases had been pending for the last few years, had been given land titles! His primary role was to push the patwari to furnish the women with the necessary documents and convince their in-laws, when necessary.

Now that the women own land, they have a semblance of livelihood security.

¹ In smaller villages a group gram panchayat for two or three villages is established.

The 2000-plus women who have now become ‘landowners’ live with pride and dignity. Having ownership over land enables them to access it for their livelihood. They can also access many of the government’s land-based schemes for the enhancement of livelihoods. Last but not least, they do not have to live in the constant fear that they have no asset to fall back upon. Land has enormous value as an asset and having control over this asset has made these women feel a sense of empowerment as well as security.

Making men aware of their role in facilitating ownership of land by women can help to alter their attitude.

The patriarchal mindset that land should always be transferred to male heirs is gradually on its way out. Those men who understood the idea behind the network’s initiative appreciated the fact that livelihood security is important for their wives and daughters. In many places, men voluntarily included the names of their wives and daughters in the title deed. There was a noticeable change in the mindset of revenue officials as well. Though the scale at which these changes have occurred is still small, there is reason to hope that men will change if approached the right way.

The efforts of the WGWLO paid off in December 2013, when the informal arrangement for training

“I live with pride and have no worries because I own some land...”

Antarba comes from a village in the Rapar taluka in district of Kutch. She belongs to the Darbar caste, members of which are extremely traditional, feudal and patriarchal. All manner of restrictions are imposed on women, who normally do not step out of the house and confine themselves to household chores. Antarba was widowed when she was 25. She has four daughters—all very young. Like other women, she faced problems from her in-laws. Antarba, however, asserted her right to her late husband’s land. In spite of tremendous resistance from the villagers and her in-laws, she managed to get the land transferred in her name. It is no mean achievement that a woman who was totally shattered by her husband’s death and was at a loss as to how to fend for herself and bring up her daughters has got her daughters married off with dignity. Not only that, she has also repaid their earlier debt of Rs 70,000 and got a borewell constructed on her field. As she puts it, this is all thanks to “having land in my own name!” She says, “I don’t have a husband or son, but I still live with pride and without any worries because I own some land. I am independent and I will hand over my land to my daughters later on.” Her nephews, who are eyeing the land covetously, do not know that she has already willed it to her daughters—just to be on the safe side!

patwaris on land ownership by women was given a formal shape by the office of the Development Commissioner. A government resolution was passed, making such training a part of their syllabus. Following this, the office invited the WGWLO to conduct an orientation workshop—a sort of training of

trainers—for the faculty of all nine government training centres of the government of Gujarat. Further, the State Institute of Rural Development has invited the WGWLO to hold one-day workshops for elected representatives and *patwaris* in the 15 tehsils where it has a presence.

The Gift of Land

The last few years have witnessed changes in the occupational pattern of the villages of Abdasa block in the district of Kutch. While agriculture remains the mainstay of the economy, rapid industrialization has triggered a trend of selling off land to earn money. The liquid cash is spent largely on luxuries like cars and bungalows.

Khetabai, an active member of the Abdasa Mahila Vikas Sangathan, says, “My husband purchased 8 bighas (3.2 acres) of land, out of which I own 5 bighas. My son and I decide what to grow on the land I own. Thanks to good monsoon in the last two years, our efforts to increase the productivity of the land have paid and the yield has gone up. I have grown 200 kg groundnuts on my soil!” Khetabai now plans to take a loan from the Sangathan to make the well deeper, so that two crops can be sown in a year.

Khetabai remembers the days when her husband was contemplating selling his land to a company and migrating to the city to work as a labourer. It had taken her a great deal of effort to convince him not to sell their land. “As we became members of the Sangathan, we learnt how important it is for a woman to own land,” says Khetabai. Afterwards, Khetabai, her two sisters-in-law and seven other women secured land titles.

It is to be noted that Khetabai’s husband, Mumubhai, has been taking a keen interest in facilitating ownership of land by women in this village. He encourages men to transfer some land in their wives’ names. When asked if a woman can manage the farming, Mumubhai responds, “Santan nu bij jo bahen sanchve to kheti nu bij nahi sanchve?(If a woman can manage the seed of mankind in her womb, can’t she manage the farm seeds?)”

The issue of ownership of land by women has been mainstreamed into the government training syllabus.

The GWLO's work has received recognition from others in the development sector.

The GWLO has been invited by other movements and development organizations, donors and implementing agencies, both within and outside Gujarat to share its knowledge of the tricky, sensitive and challenging issue of ownership of land by women. Such support was extended to partners of Oxfam in western Rajasthan and those of ActionAid India in Bihar and Jharkhand, among others. A long-term association has been started with the M.S. Swaminathan Foundation in Wardha.

Learnings

At no point was the GWLO's job an easy one, and there were many ups and downs. In the face of challenges, the members of the network evolved new strategies, many of which worked. The following are some of the lessons which may prove useful to those contemplating similar efforts.

This issue cannot be tackled only by generation of awareness; one has to equip oneself to translate awareness into action.

Merely creating awareness on the fact that a woman has the right to own land will not help. The network's experience has shown that one needs to guide a woman through the process of claiming her land, not only because of the several legal procedures this entails, but also due to the social complications involved. Hence, one needs to have a good grasp of the legal and revenue procedures, and be equipped to deal with the social milieu.

The GWLO has been invited by other movements and development organizations, donors and implementing agencies, both within and outside Gujarat to share its knowledge of the tricky, sensitive and challenging issue of ownership of land by women.

The principal of ahimsa can work even in this case.

It is helpful not to adopt a confrontationist policy and to work with everybody, including the village men and *patwaris*. If one can involve men in the process by making them see the logic behind

helping women possess land, it will work to the women's advantage. The struggle should focus more on convincing men rather than fighting them in the family or in courts. Members of the network have chosen to concentrate more on this policy. It may take some time to bear fruit, but there are likely to be fewer chances of heartburn and animosity after the land transfer.

Changing the patriarchal mindset of those who implement policies may help the cause of women staking a claim over their land.

The network has found that women normally approach PLWs when their right has been denied, which is mostly after entries have been made in the official register. Hence, PLWs usually play a curative role and are instrumental in sorting the matter out. However, it is also important to remember that it is the village revenue officers who make these entries and if they can gain a good understanding of the issue, they can play a preventive role. In the span of his/her career, a village revenue officer will come across innumerable entries involving inheritance by women. If we make attempts to enlighten these officers and encourage them to play a positive role, it can make a big difference to women who want to stake a claim over their land.

Women who take the plunge to challenge patriarchy in the context of land ownership may require mentoring support to establish profitable land-based livelihoods in the long run.

The ownership of a resource does not automatically enhance the livelihoods of a family. Members of the network realized that there is a need to improve a woman's access to other resources as well. It is for this reason that the network started working on making other productive resources accessible to women farmers through the Swabhoomi

Kendras supported by UNDP since January 2014. Yet, a special focus is required for land ownership by women as the entire procedural and legal frameworks are different.

There is a need to connect the micro with the macro environment of land.

All government decisions related to land have a direct bearing on women's engagement with land and her livelihood, which may be different than men's. These may pertain to matters such as land reform policy, computerization of land records and the process of safeguarding land, or taking up cases relating to the disputed property of women on a priority basis. The WGWLO has learnt that in the rapidly changing scenario, one must keep pace with new developments and work on the basis of government resolutions rather than going by hearsay. If these resolutions are used to shape strategies, they can at times serve as effective tools to ensure land ownership rights for women.

Working as part of a network gives one a different identity, strength and a feeling of unity. The network has created its own identity. The feeling of being together, being united and being supported is a unique feeling members have. The network is known in the development sector as WGWLO, and has created its own identity, which has been accepted and internalized very positively by all member organizations as well as others in the sector.

The network derives strength from its diverse membership, which is able to churn out different ideas and work out different strategies. At its meetings and interactions, which are held almost every quarter, the member organizations reflect on the strategies which have worked and those which have not, and new ideas are generated. The efforts of each member become the basis for learning for the others. The member organizations have their independent space, yet, being part of a network working on the same issue, they are interdependent, which creates a larger ripple impact than would have been the case had they been working alone.

Conclusion

Much has been written and said about the significance of land ownership by rural women, and the strategic and systematic efforts of the GWLO have shown that this dream can indeed be turned into a reality. The process is not just challenging, but also time-consuming. In the course of their slow but steady collective journey, the member organizations of the GWLO have had a huge impact on the livelihood security of rural women. Their livelihood security has been enhanced due to the ownership of land, which has enabled them to access other assets.



State Consultation with Shri J.S.Rana, Principal Secretary, Women & Child and Dr. Saheeda Hamida, Member, Planning Commission.



Paniya Adivasi¹ Women's Innovative Livelihood Development Endeavours in Farming

Chandrika C. S.,² Nandakumar P.M.³



1 Adivasis are officially referred to as Scheduled Tribes in India. MSSRF prefers to use the term Adivasis since it conveys their true identity and reflects the political dimensions of their indigenous traditions and cultures.

2 Principal Scientist (Social Science), M. S. Swaminathan Research Foundation, Community Agro-biodiversity Centre, Wayanad

3 Development practitioner in environment and community development, advisory committee member of Integrated Tribal Development Programme of Community Agro-biodiversity Centre, M. S Swaminathan Research Foundation, Wayanad

The state of Kerala is globally acclaimed for its social development, especially its male to female sex ratio, high literacy rate, low birth rate, low maternal mortality, low infant mortality, high life expectancy and average age at marriage. According to Franke and Chasin (1994), the indicators of Kerala are close to those of the United States, despite the low gross state domestic product. However, this rosy picture of progress has been challenged by scholars, development practitioners and members of civil society organizations who have been working with the women, dalits, tribals and fishermen in the state, besides addressing environmental concerns. The concerns emerged during the mid-1980s, when it was found that in this glorified 'Kerala model' of development, there was clear evidence of oppression along the lines of class, caste, ethnicity (tribe) and gender. There were associated manifestations of violence against the marginalized people. Economic and social development are interrelated, and in any development discourse, it is of prime importance to consider the distribution of economic growth and equitable access and control over resources.

Crisis in Kerala

The Kerala model is in crisis, as evidenced by the high rates of alcoholism and suicide, violence against women, morbidity, diseases due to unhealthy lifestyles, economic deprivation, as well as change in the patterns of land use and depletion of natural resources. Adivasis are the worst affected victims of the crisis since almost none of the developmental programmes

and projects really address their needs and the complex issues related to their lives. It is a fact that some of the vulnerable sections of society that ought to have benefited more from the various reforms have ultimately become victims of the reforms.

Brief Demographic Profile of Tribal Communities In Kerala

According to the 2011 Census, the total tribal population of Kerala was 426,204. This constitutes only 12.7% of the total population of the state. The tribal population is comprised of 39 different communities. Among these, the most marginalized and economically and socially backward is the Paniya community. The population of the Paniya community is 92,787 (21.77% of the total tribal population) and the number of Paniya families, 21,604 (20.01%).

The major problems being faced by the tribal population are land alienation, displacement from traditional avenues of employment, malnutrition, ill health, erosion of traditional knowledge and culture, dwindling bio-diversity, denial of or restricted access to common property resources (CPRs), lack of educational opportunities gender inequity, sexual exploitation of and violence against women, alcoholism, and vulnerability due to socio-economic and political powerlessness.

Wayanad: The Adivasi Hotspot, Dispossession and Quest for Remedies

The district of Wayanad has the highest tribal population in the state, accounting for 36% of the total Adivasi population. The Adivasis of Wayanad account for 17.4% of the total population of the district, with the Paniyas numbering the highest among them. The differences in socio-economic conditions between the Adivasi population and that of the rest of the population are manifested in terms of social hierarchy, cultural practices, economic conditions, linguistic affinities, lineage systems, gender relations etc. The major Adivasi communities in Wayanad are Paniya (45.12%), Kurichya (16.49), Adiya (7.31), Mullu Kuruma (13.70), Kattunaikka (11.13), Vetta

kuruma (4.23), Thachanadan mooppan (1.07), Wayanad Kadar (0.44), Mala Arayar (0.11), Ulladar (0.06), and Karimpalan (0.10). The non-Adivasi farmers who migrated from the plains to Wayanad during the first six decades of the 20th century took the Adivasis' land on lease or encroached on it on a large scale, offering them nominal amounts of money or liquor and tobacco in return. Physical threats, too, were used while making the encroachments. The Adivasis had been practising shifting cultivation till then. Ultimately, all the fertile areas of the valley and the gentle slopes came into the possession of the non-tribal immigrants, and the Adivasis had to move to the steep hill slopes and the interior recesses of the forests.

A slew of laws were passed to protect the rights of Adivasis once this issue began to receive attention and also, as a consequence of the land struggle movement. These included the Land Alienation Prevention Act (Restriction of Transfer of Lands and Restoration of Alienated Lands) of 1975 (amended in 1996 in favour of non-tribal immigrants), and the Forest Rights Act 2006, which has not been implemented effectively so far. The Adivasis, who were illiterate and unaware of the need to maintain land records, were naturally unable to produce these documents to claim their alienated land. They thus remained landless, vulnerable and dependent on the immigrant landlords and farmers,

working as wage labourers. A great breakthrough was made with the autonomous Adivasi movement which emerged in the 1990s, and which has played a significant role in helping many landless Adivasis to acquire some amount of land. Following the lead provided by this movement, all major political parties tried to mobilize the Adivasis under their banners and help them acquire land elsewhere in Wayanad.

Development Intervention Mandate of M. S. Swaminathan Research Foundation

The M. S. Swaminathan Research Foundation (MSSRF) is a non-profit research organization established in 1988. Its constant endeavour has been to develop pro-nature, pro-poor, pro-women and sustainable on-farm and non-farm livelihoods through appropriate eco-technology and empowerment of the community with knowledge.

The Community Agro-biodiversity Centre (CAbC) was established by the MSSRF in 1997 to cater to the livelihood and food security needs of the poor families of Wayanad in a gender-sensitive manner, through sustainable management of the population's bio-resources. According to Prof. M.S. Swaminathan, the founder of

the CAbC, the centre was “born to serve as a temple of knowledge” in the area of conservation, and for the sustainable and equitable use of biodiversity, specifically agrobiodiversity. The mission of the MSSRF is to adopt economically viable, ecologically sensitive and socially inclusive approaches in research and development, as well as approaches geared to ensuring gender equity, so that the CAbC can work towards providing sustainable livelihoods and food security to the communities in the hilly areas of the Malabar eco-region of the Western Ghats.

Intervention for the Development of Livelihoods and Food and Nutritional Security

This case study is about an intervention by MSSRF for the development of livelihoods, as well as food and nutritional security, to address the issues of poverty and malnutrition among the women and children belonging to the most vulnerable Adivasi community in Wayanad. The case study covers the profile of the target group and sample size, location and period, components of the intervention, information and data, methodology and strategies adopted, analysis, lessons learnt, suggestions and policy recommendations.

Profile of Target Groups

The major Adivasi communities in the district are characterized as agrarian communities (Kurichya, Kuruma), freed bonded wage labourers (Paniya, Adiya), artisan communities (Oorali Kuruma), and forest dwellers (Kattunaikka). The Adivasi people, who were once self-reliant in all respects, have ended up depending on others completely for their subsistence and existence. As a result of land alienation and landlessness, they have become the most vulnerable and powerless section of society. Further, land alienation has led to the disintegration of the traditional commune system and damaged the cohesion of the community. The people's traditional self-governance system with respect to the pattern of land use, cropping pattern employed by them, their practices relating to the conservation of natural resources, their cultural, dietary and health-seeking practices, lineage system, and gender relations have also suffered. The damage has affected each community differently.

Introducing development interventions among the Paniya community is a most challenging task. In addition to the ills mentioned earlier, the life expectancy of males is decreasing, and the community has no access to new technology and no avenues for acquiring skills for new livelihoods. Though the primary focus of the case study was on the women of

the most vulnerable community—the Paniya Adivasis—women of the Adiya, Kattunaikka, Kuruma, Kurichya and Thachanadan Mooppan communities also formed a part of the development endeavors initiated.

Location and Sample Size

The intervention spanned 13 Adivasi villages falling under four gram panchayats of three taluks and one ward of the Kalpetta municipality in the district of Wayanad. The villages were: Kairali in Mukkilpeedika, five villages in Pannikkal (Kollivayal, Aloorkunnu, Kurichiapatta, Kalapurakkal, Chennampatty), three in Puthoorvayal (Chengutty, Mangavayal, Thannikkuni), three in Thirunelly (Gundikaparambu, Nettara, Eruvakki), and one in Muthanga (Ponkuzhi). Among these villages, Kairali and Ponkuzhi are in forested areas. The problems common to all the intervention sites were the absence of livelihood options, proper housing and sanitation facilities, a lack /scarcity of drinking water, remoteness, health problems, inadequate food and nutrition, alcoholism among men, gender-based violence, an increasing school dropout rate, politics of vote banks, raiding of crops by wild animals and associated man-versus-animal conflicts, poor participation and involvement in decision-making bodies, such as the oorukoottam and gram sabha, and poor governmental outreach.



Harvesting salad cucumber from the polyhouse precision farming unit.

Interventions for food and nutrition security, covering 470 families, were initiated in 2011 with the support of the Department of Science and Technology (DST). Beginning in 2012, multidimensional endeavours were undertaken in the sphere of farming with the support of the Kerala State Tribes Development Department (KSTDD), with an aim of developing livelihoods. These focused specifically on 80 Adivasi families of the village of Kairali. Altogether, 550 families benefited from the MSSRF-spearheaded intervention on livelihood, and food and nutrition security.

Integrated Home Nutrition Gardens for Food and Nutrition Security

Food and nutrition insecurity is a persistent problem in almost all the tribal villages of Wayanad, especially among vulnerable communities such as the Paniyas, Adiyas and Kattunaikkas, making the population vulnerable to a number of health risks. One of the major reasons for food insecurity was the elimination of traditional food crops from the homesteads. The deprivation of access to traditional and wild foods exacerbated the vulnerability of the landless communities. They were not allowed to gather, or could gather only to a limited extent, cultivated and wild edibles, such as tubers, leafy greens, fruits, roots mushrooms and honey. The same held good for fish, crabs and animals. As a result, their nutrition security was severely

affected, and hunger, anaemia, stunted growth and low birth weight of 600-800 gms. were common problems.

To combat these maladies, integrated home nutrition gardens were introduced in all the intervention sites. These allow for cultivation of vegetables, mushrooms and herbs in the homestead. Another component is that of poultry farming in the backyard. The main focus was on women and children suffering from malnutrition.

In the home nutrition gardens, the farmers were to grow traditional varieties of vegetables rich in nutrition. These consisted of cultivated and wild tubers and legumes, seasonal vegetables and leafy vegetables, besides fruits. Often, the Adivasis dealt with seasonal poverty by consuming tubers, both cultivated and wild, in bulk. To ensure and enhance the availability of cultivated and wild varieties of tubers and legumes, 10 community germplasm plots of tubers and legumes were established in the intervention sites. A common nursery of primary vegetables, such as tomato, brinjal, papaya, chilli, curry leaves, drumstick, okra, spinach, beans and vegetables grown in the cool season, was also established to ensure the availability of quality seedlings.

This intervention helped not only to resolve the problems related to nutritional deficiency among the women and children, but also gave the Adivasis the opportunity to acquire nutritional knowledge in the changed context and the skills to manage their resources accordingly. The activities were designed in such a way that the male members of the community and children are now able to participate in home nutrition gardening along with the women.

Poultry units were set up in the farmers' backyards and household-level mushroom cultivation was introduced to enrich the food basket and diet of the household. Unstructured herb gardens were set up in the homesteads of the community members. These were meant for cultivation of 10 varieties of primary plants that serve as home remedies, the idea being to revive traditional health-seeking practices. In addition, eight medical camps were held to identify and address the prevalent health problems. These camps helped to engender awareness of the importance of a nutritious diet and the components of such a diet.

Health issues diagnosed in the health camps

Men	Women	Children	Preventive measures taken
Diseases related to malnutrition	Addiction to betel chewing	Undernourishment, malnutrition	Introduced integrated home nutrition gardens with vegetable cultivation, backyard poultry farming and oyster mushroom cultivation, for which farming skills were imparted
Diseases related to substance abuse	Pallor and symptoms of anaemia	Symptoms of calcium and vitamin deficiency in 70%	
Gastric disorders due to alcohol abuse and abuse of other stimulants	Thyroid abnormalities and goitre	Upper respiratory infections	
Leukoplakia	Pelvic inflammatory symptoms	Cervical lymph adenopathy	
Chronic cough	Menstrual disorders (e.g. dysmenorrhoea)	Scabies	Classes and counseling to make the women, men and adolescents aware of issues related to health and hygiene
Tuberculosis	Leukoplakia and keratosis	Symptoms of rickets and beriberi	
Trauma-related pains	Multiple joint pains and trauma-related pain due to falls on the slopes		
Renal calculus			

Model Germplasm Plots of Tubers and Legumes

The conservation of species and genetic diversity of traditional cultivars are of paramount importance in ensuring food and nutrition security. Modern agriculture has accelerated the pace of shrinkage of traditional varieties. This has also resulted in the erosion of cultural diversity that had a direct bearing on the conservation of biodiversity. There has been a substantial reduction in the formerly

widespread occurrence of several varieties of traditional food crops in the homesteads. Many food crops are no longer grown in the immediate vicinity of the tribal communities. As mentioned earlier, the shrinkage of the traditional food crops has direly affected their nutritional status, resulting in malnutrition and the associated health risks. In order to minimize the health risks by reviving the traditional food crops in their homesteads and backyards, 10 field germplasms of traditional cultivars were raised. They consisted of tubers (19 varieties of dioscorea, 4 of

cassava, 2 of elephant foot yam, 10 of taros), legumes (25 varieties) and vegetable crops. The community has

welcomed this initiative with open arms, which bodes well for the health of the people.

Details of the preferred and nutrition-rich items in integrated home nutrition gardens

Items	Varieties
Vegetables (traditional and wild varieties)	Tomato, cucumber, ridge gourd, leafy greens, brinjal, okra, bitter gourd, drum stick, papaya
Tubers (traditional and wild varieties)	Yam, taro, kasava, sweet potato, little known tubers
Legumes (traditional and wild varieties)	<i>Chenappayar, valan payar, machakkotta, chandanappully, manju payar, cheriya kuruthola, kuttippayar, wayanadan, soya bean, chatura payar</i>
Mushroom	Oyster mushroom
Backyard poultry	4 hens and 1 cock

Need for Agricultural Initiatives For Livelihood Development For Paniya Women

Income plays a cardinal role in the economic security of the family. It increases the family’s purchasing power and also enhances its well-being. Owing to the lack of a

consistent income and the absence of sources of income, the Adivasis are among the most economically backward and vulnerable communities. Extreme economic deprivation has landed them in a state of perpetual penury and distress. During lean periods, they often resort to starving for days.

The MSSRF’s activities for generation of income focused mainly on Paniya women in Kairali, an Adivasi village. These activities were undertaken with the support of the KSTDD. The Paniya women had been earning

a living by working as casual wage labourers in others' agricultural land since they had no agricultural land of their own. Thus, they plunged into abject poverty when there was no opportunity for wage labour. The skills of the Paniya women were related mainly to only paddy cultivation and associated activities. It was in this context that the initiative for the comprehensive development of livelihood activities was introduced.

Kairali is located in Mukkilpeedika in the Vythiri taluk of Wayanad. The village falls under the Muppainad gram panchayat and has a land area of 32 ha. This is forest land, which was assigned to Adivasi families in 2008 under the Forest Rights Act 2006. The families occupied the land under the aegis of a political party as part of the Adivasi land struggle movement. The Paniya community constitutes 75% of the population of the entire settlement and the remaining 25% belongs to the Thachanadan Mooppan community. The village is inhabited by 80 families, which live in makeshift houses and dismal conditions. The livelihood of 96% of the population is seasonal agricultural labour. The deplorable living conditions, such as the absence of proper pathways, drinking water, sanitary latrines and power connectivity, in addition to the remoteness of the area, are taking an especially heavy toll on the women, who perform both productive and reproductive roles.

Patterns of Landholding and Land Distribution (in cents)



Polyhouse Precision Farming: A Giant Leap In Transfer of Technology

The implementation of polyhouse precision farming in the Adivasi village disproved the popular perception that only educated and progressive farmers can use such advanced technology. The 'uneducated' Adivasi women scripted a new saga of success in high-technology farming in Kerala. Though the village of Kairali had still not been touched by modern civilization and development, the women and their families took to precision farming and imbibed the state-of-the-art technology in a short span of time. (Report in *The Hindu*: Vegetable farming goes hi-tech in tribal hamlet, May 10, 2014; see the URL: <http://www.thehindu.com/todays-paper/tp-national/tp-kerala/vegetable-farming-goes-hitech-in-tribal-hamlet/article5995271.ece>). The construction of a polyhouse was a formidable task as Kairali is

far from any road and, therefore, the villagers had to carry the construction materials to the village on their heads. They overcame all kinds of adversities to construct the 400 sq m polyhouse. The attempt to introduce such high-technology farming to a community lying on the lowest rung of development was quite new. Training was imparted to the entrepreneurs by experts in the field. To instill confidence in the farmers, exposure visits were arranged to those initiatives which had been successful.

The significant achievement of this initiative was that it kept the intermediaries at bay by finding a regular market for the produce. A tie-up was established with the Wayanad Institute of Medical Science (WIMS), a private medical college in the area of the same gram panchayat. WIMS provided the farmers with a free market slot at a prominent place in the campus as their products were pesticide-free and reliable. This simplified the formidable task of marketing.

Direct marketing enabled the farmers to fetch full price for their produce. In three months, the four women farmers engaged in the salad cucumber had harvested 2000 kg of salad cucumber. The cucumber was sold at Rs 35 per kg and a single crop fetched the farmers a total of Rs 70,000 over a period of three months. Thus, the women engaged in the cultivation of salad cucumber earned an amount of Rs 5,800 per

Manju, one of the women involved in the venture, said, “A total of 20–60 kg of salad cucumber is harvested every two days and sold through the WIMS outlet located not so far from our village. We sell our produce directly to the end users. The outlet, which we have been able to use due to the support of the MSSRF, is a source of great relief to us. We can easily sell 50–60 kg of salad cucumber in a matter of 2–3 hours. Actually, we are not able to cater to the high demand of the buyers. We are selling the cucumber at Rs 35 per kg.”

month. Since this venture did not require full-time involvement, they could engage in other activities too.

Animal Husbandry as a Means of Livelihood

Dairy farming is a familiar livelihood option for the Adivasi communities. In order to promote income generation activities, 12 women were provided with two milch cows each. As a result, their families were able to earn enough to lead a decent life and no longer needed to work as wage labourers in others' fields. On an average, they were able to earn



Rs 450 every day by selling 15 litres of milk. Thus, their monthly income from dairy farming was Rs 13,500. Further, being an avenue of self-employment, dairy farming boosted their self-esteem substantially.

The other livelihood option which formed a part of the income generation activities was goat-rearing. Fourteen women were provided with five goats each. The goateries were promoted as a supplementary source of income that would help the women's families meet expenses such as the children's school fees, and so on. As goats multiply rapidly, the women started earning a good income by selling additional goats.

Mushroom Cultivation

Another means of livelihood to which the tribals were introduced was mushroom cultivation. Although Adivasis are very familiar with harvesting wild edibles and mushrooms, cultivating mushrooms was a totally new experience for them. They participated eagerly in the training and imbibed the skills they were being taught. One large-scale unit and nine household-level units for the production of mushrooms were set up. These were functioning smoothly and brought in a good income. Those running the household-level units earned

an average of Rs 400 a day. Four women were working in the large-scale production unit. They sold the

mushrooms at a rate of Rs 200 per kilogram and earned Rs 500–600 a day.

Details of income generation activities

Sl no	Activity	No. of families benefited	No. of animals/ plant varieties / equipments	Results
1	Dairy farming	16	24 cows and 21 calves	Another 18 cows and 10 calves were added within 6 months with financial assistance from the milk society. Nutrition and health improved due to the consumption of milk. The biogas plants provided to 2 group and 8 single beneficiaries improved the women's living conditions.
2	Goatery	14	70	The consumption of milk improved nutrition.
3	Poultry farming	8	96	This provided a source of income and improved nutrition
4	Vermi-composting	4		Besides providing a source of income, this gave the farmers a bio-input for their own farms.
6	Mushroom cultivation	11	Cultivating oyster mushroom	This increased the women's income. Eleven Adivasi women were trained in cultivating and marketing of mushrooms.
7	Apiary	15	50 boxes	Well-trained in a new livelihood option
8	Polyhouse precision farming	4	400 sqm	The tribal women were successfully trained in practising modern agricultural techniques.
9	Promotion of agro-biodiversity	80	700 saplings of trees, including 5 species of medicinal trees 2580 seedlings of various horticrops	60% of the seedlings survived. This component ensured a long-term means of livelihood from their own land.
10	Agricultural implements	80	Tool kit with 5 items	Availed access and ownership on essential agricultural tools

Promotion of Agro-Biodiversity

In keeping with the 4C approach (conservation, cultivation, consumption and commercialization) adopted by the MSSRF, one of the activities taken up was crop diversification in the farmers' homesteads. This consisted of the integration of dioscorea, taros and other little known tubers, plantains, fruit trees, medicinal plants, coffee, pepper and cardamom. The notable feature of this component was that women spearheaded the conservation efforts.

Replicability and Sustainability

The interventions related to food and nutrition security have made the project replicable in several ways. Even after the duration of the project had been completed, the community took its own initiative to increase the number of community germplasm plots of tubers, legumes and vegetables. This indicates that there is scope to integrate this demand-driven component into the micro-plans of gram panchayats. Line departments like the agriculture department, have now started supplying inputs for homestead gardens.

To bring about further improvements and make periodic assessments of the sustainability of measures to enhance the population's

nutritional status, MSSRF has built partnerships with medical institutions, line departments, and experts and counselors in the field of nutrition. In addition, for making primary health services available to the villagers in their own vicinity, two girls from the village who had studied up to the 12th standard were sent to the 'Aswsini Tribal Hospital' in Gudallur for a two-year nursing course. Both students did very well, securing distinction. Now they are working under their community health programme so that they can gain experience and serve their village later on.

In order to make the women capable of sustaining the interventions, they were trained in multiple skills. In addition, a sensitization programme was conducted to raise awareness on various aspects on the programme.

Challenges

The intervention related to the development of livelihoods was supported by the state government and was time-bound, but it was difficult to complete the work in the short span of time available. Moreover, the funding was not requisite. Another major obstacle to the smooth implementation of the interventions was political interference. Unless all concerned stakeholders cooperate and make concerted efforts to further the development of the vulnerable Adivasi communities, the successful implementation of the Adivasi

development project will remain a mirage.

Lessons Learnt and Policy Recommendations

Pro-active policies must be adopted to promote socio-economic development, keeping in mind the heterogeneity of the Adivasis and the diverse developmental issues affecting this marginalized and vulnerable group. Policies and programmes should focus on addressing the gender concerns, especially to address nutritional maladies and empower women through equitable redistribution and transfer of resources, to ensure that they have access to and control over tangible and intangible resources. The designing of programmes/projects for the sustainable development of the Adivasis should always be participatory, taking into consideration their preferences, traditional knowledge and regional peculiarities. The allocation of funds for and implementation mechanisms of projects/ programmes aimed at Adivasi populations living on the fringes of forests and in remote areas require special attention.

It is extremely important for programmes concerned with food and nutrition security as well as those concerned with livelihood development to address both the practical and strategic needs of the women of the Paniya tribe and other vulnerable communities. The tools of participatory gender analysis must be used for planning and implementing similar development initiatives for different categories of women to ensure equitable access to and ownership of resources. Also, infrastructural facilities, such as safe housing, sanitation, clean drinking water, and roads and transportation amenities, should be developed to enhance and sustain the results of any livelihood development activity.

In the MSSRF initiative, a common facility centre (CFC) was established as part of the livelihood development intervention in order to organize the people of the village. It was intended to serve as a platform for them to air and share

The most important lesson learnt is that long-term hand-holding and support services are required to empower the vulnerable Adivasi communities, and the development stakeholders must have a clear strategy regarding withdrawal.

their views on developmental issues pertaining to them. Before the CFC was established, there was not a single venue where the community members could interact or training could be imparted. The CFC and the mushroom cultivation centre

were built with green architecture technology: mud was used as the medium of construction for the superstructure, while no cement, sand and stone chips were used. Training in green architecture technology was imparted to five women, resulting in the formation of a bank of novice skilled labourers in the hamlet. The direct involvement of the primary stakeholders in the construction of the CFC helped to instill confidence in them and paved the way for their opting for green architecture technology for their homes later on. The MSSRF has conveyed its opinion to the high-level decision-makers in the state and convinced them of the desirability of introducing green architecture technology. This

innovative intervention for livelihood development has been instrumental in bringing about a paradigm shift in decision-making on infrastructure development for the Adivasis in the state, which has sanctioned the construction of 10 houses in the village, using green architecture technology, on a pilot basis.

Conclusion

Extensive land alienation has plunged the Adivasis into abject poverty. The existing laws restrict their access to forests and have made it difficult for them to collect non-timber forest produce (NTFP) and wild food. The collection and sale of NTFP and wild food used to contribute significantly to their



Women with mushroom harvested under the project.

economic and their food and health security, respectively. The consumption of wild foods helped them battle malnourishment to a large extent. The scenario today is very different. It is shocking that in 2013, 52 Adivasi children and women died of malnutrition in Attappadi, Kerala, a state acclaimed throughout the country for its social development model. Since the district of Wayanad has the highest Adivasi population and number of landless families, the problem of malnutrition among Adivasi women here has to be tackled by the government in partnership with other development stakeholders concerned if such a disaster is to be avoided. As for the Paniyas, one of the vulnerable Adivasi communities in Wayanad, both open and hidden hunger exist among the population, and studies have shown that the people suffer from numerous malnutrition-related health problems.

As elsewhere in the world, the pace at which biodiversity is dwindling in the district is reaching a dangerous level. Cultivated varieties are similarly endangered. As Wayanad is a biodiversity and climate hotspot, a major focus of MSSRF

has been the area of community agro-biodiversity. The Foundation employs the 4C approach, and the Adivasis have been recognized as the primary stakeholders of the related development programmes. Many of the food crops grown in the kitchen gardens and homesteads have been relegated to the category of orphan crops.

The fact that the Adivasi women involved in this project were able to learn the methods of innovative farming proved beyond doubt that they are capable of successfully going beyond conventional development perspectives. If they are given access to and control over cultivable land and agricultural implements, and equipped with new skills,

The fact that the Adivasi women involved in this project were able to learn the methods of innovative farming proved beyond doubt that they are capable of successfully going beyond conventional development perspectives.

knowledge and technological knowhow, they will script a success story in their area.

The project included some components to reduce the load on the women and to improve their

life situation. The women who had been provided with cows had a heavy burden on them as they had rear the cattle now, in addition to their domestic chores and routine jobs to earn their livelihood. The biogas (gobar gas) units set up for the

dairy beneficiaries helped reduce the burden of collecting fuelwood. Another advantage of the biogas units was that they did away with the need to use firewood for cooking and minimized smoke-induced health hazards. The dairy beneficiaries were also provided with fodder grass slips, to be cultivated in their homesteads, in order to reduce the burden of collecting fodder from faraway places.

Seven hundred saplings of trees, including those of five species of medicinal trees and fruit trees, were planted to promote agro-forestry. In order to increase the productivity of the existing cultivated area and diversify crops, 2580 seedlings of various horticulture crops were planted in the homesteads of 80 families. It was planned that the Adivasis would use these for the development of a long-term means of livelihood in their own land.

The specific initiatives for the Paniya women have yielded quantitative and qualitative results as far as the six pillars of livelihood development—physical, social, natural, human, financial and cultural capital—are concerned.

The authors are grateful to Dr. N. Anil Kumar, the Director of the Community Agrobiodiversity Centre of the MSSRF, for his unending support. They also thank Meena Nair, Vipindas, Babu P.C., Shajahan and Bindu Joseph for taking active

part in the intervention. Finally, they would like to express their gratitude to all the Adivasi women, men and children who participated in the intervention activities and whose whole-hearted response helped to achieve positive results.

References

1. Franke, R.W., & Chasin, B. H., 2000. Is the Kerala model sustainable? Lessons from the past, prospects for the future. In G.Parayil (Ed), Kerala: The development experience: Reflections on sustainability and replicability, Zed Books, London.
2. Franke, R.W., & Chasin, B. H., 1994. Kerala: Development through radical reform. Promilla, New Delhi
3. Kunjaman, M., 1989. Development of Tribal economy, Classical publishers, New Delhi.
4. Ekbal, B., 2013. Genocide in Attappadi, Report on the visit to Attappadi by the medical team.
5. Kjosavik, Darley, Jose, Shanmugaratnam, N., 2004. Integration or Exclusion? Locating indigenous peoples in the development process of Kerala, South India, Forum for Development Studies, No.2-2004.
6. Basic information on Scheduled Tribes (2008), 2012. Scheduled Tribes Development Department, Kerala.

Sustainable Livelihoods: Feminist Practices

ANANDI



Navliben, Chandaben and Kamtiben live in Panchiyasaal village, about 30 km from the block headquarters of Devgarh Baria of Dahod district, one of the most backward districts of Gujarat with a predominantly Adivasi¹ population. Their homes lie amid a forest on hilly terrain. They own between 1 and 1.5 bighas² of land and are hence categorized as marginal landholders. Before 2007, they were able to cultivate only the kharif crop, dependent entirely on rainfall. The yields sufficed for only 4–5 months of the year and hence, they had to migrate to Saurashtra, a region of Gujarat about 400 km away, to undertake wage work on farms there. Says Kamtiben, “All of us took turns to migrate at different times of the year and came together as a family for only two days during Holi.” Navliben’s situation was perhaps even worse because she had taken loans from the local moneylender at a monthly interest rate of 1.5% to buy chemical fertilizers. Chandaben who was from a similar background, helped change their fortunes after she became an active member of the mahila mandal initiated by ANANDI.

Under the Sarvangi Vikas Karyakram (SVK), a holistic development programme, launched by ANANDI, Chandaben received training in vermicompost production. She then inspired Navliben, Kamtiben and three other women to start a vermicompost unit with her. Within a year-and-a-half, they were able to earn Rs. 79,730 by selling the surplus vermicompost. Says Navliben, “My daughter-in-law Manju and I used

our share of the money (Rs 30,310) to purchase a buffalo and reclaim a silver necklace we had mortgaged to the moneylender.” Besides, by using the vermicompost in their own fields and by reaping the benefits of the group lift irrigation scheme of SVK, they were able to raise two crops a year. “Now my 1.5-bigha land yields enough food to last us the whole year. We no longer migrate in search of work. What is more, I have been able to retrieve the 1 bigha of land that I had mortgaged for the treatment of my son eight years ago,” says Kamtiben.

Chandaben, the first woman from the village to take up vermicompost production, says, “I now train other women in compost production, earthworm rearing, preparing vermi-wash, and so on. This is unbelievable! Despite migrating every year, my husband and I never managed to earn more than Rs. 10,000 a year, and now, I have earned Rs. 24,570 in just one-and-a-half years. I have repaid the Rs. 15,000 I had borrowed from the self-help group for the treatment of my son. I have also got back the land I had mortgaged to the moneylender for Rs. 4000.”

The setting up of vermicompost units is not a novel idea. What is significant in this case is that such units have been used to liberate women who face multiple vulnerabilities from a cycle of migration and indebtedness, and help them assert their identity as women farmers and ensure food security for their families.

1 The term ‘Adivasi’ is used to refer to indigenous communities in India; also referred to in official documents as Scheduled Tribes (STs).

2 1 bigha=0.33 acre

About ANANDI

ANANDI (Area Networking and Development Initiatives) is a voluntary organization that has been active since 1995 in villages eastern tribal belt of Saurashtra region of Gujarat that have a large Adivasi population. Its objective is to organize and empower marginalized rural women on the one hand, and change the systemic forces which are responsible for the marginalization of women, on the other. In keeping with its community-based approach, ANANDI uses a participatory methodology. It focuses on raising consciousness and building a consensus and encourages collective problem solving and strategy development. It seeks to build women's capacity not only in terms of acquiring technical skills, but also in the spheres of social and political analysis, critical thinking and strategy development. In short, in its quest to transform women into agents of social and economic change, ANANDI focuses as much on the process as on the outcome.

Since its inception, ANANDI has laid emphasis on organizing the most marginalized members of society. Thus the people's organizations promoted by it have women from marginalized groups as their leaders. The village-level organizations, called mahila mandals, form the operational base of all of ANANDI's efforts. It is at these forums that women discuss and prioritize their problems and undertake collective

ANANDI's objective is to organize and empower marginalized rural women on the one hand, and change the systemic forces which are responsible for the marginalization of women, on the other.

action, such as putting up claims to government officials at the village level, block level, district level and even state levels. Participation in the activities of these village-level collectives makes women gain confidence and familiarizes them with the processes of rational decision-making and consensus-building and equips them with the skills needed for civic engagement and leadership.

The next level in ANANDI's organization of women's collectives is the sangathan. These federations of the village-level collectives deal with problems that are beyond the realm of the village, or which are shared by women of other regions. The federations give the women better visibility at the block and district levels. The sangathans differ in nature and purpose—some are loosely federated to take up common issues, while others deal with more specific income-generation needs. Table on the following page lists the seven federations instituted by ANANDI. Together, they have a membership of over 7000 women.

The seven federations of village-level collectives

Name of Sangathan	Location	Primary Membership	Focus
Devgadh Mahila Sangathan (DMS)	Devgadh Baria, Dhanpur, Dahod district Ghogamba, Panchmahal district	Adivasi and other backward communities (OBC)	Social and development issues
Ratanmahal Adivasi Mahila Sajeev Khet Utpadak ane Vechan Mandali	Devgadh Baria, Dahod district	Producers of agricultural inputs and agricultural produce	Livelihood issues
Panam Mahila Sangathan (PMS)	Shehera, Panchmahal district	Displaced Dalit, Adivasi and OBC women	Social and development issues
Panam Mahila Bachat ane Dhiran Sahakar Mandali	Shehera, Panchmahal district	Displaced Dalit, Adivasi and OBC women	Microfinance and livelihood issues
Maliya Mahila Shakti Sangathan (MMSS)	Maliya, Morbi (recently separated from Rajkot) district	OBC, Muslim, Dalit women affected by the Kutch quake	Social, development and microfinance issues
Azad Mahila Machhimar Sahakari Mandali	Maliya, Morbi district	Fisherwomen	Livelihood issues
Mahila Swaraj Manch (MSM)	Shihor, Umralla and Bhavnagar, Bhavnagar district	Elected representatives of the local self-governance bodies	Women's representation in socio-political life

In this case study, we will discuss the roles of two such sangathans – the Devgadh Mahila Sangathan and the Ratanmahal Adivasi Mahila Sajeev Khet Utpadak ane Vechan Mandali.

Project Area – Vulnerabilities and Opportunities

Adivasis in the districts of Panchmahal and Dahod have traditionally sustained themselves on rain-fed agriculture and by collecting and selling non-timber forest produce. The living conditions of Adivasis and other marginalized groups, mainly Dalits and Muslim communities, living in rural areas have remained largely unchanged in contrast with the upward trend in the economic status of the general population of the state. In fact, the degradation of natural resources, including soil, and shrinking land holdings has led to a further deterioration in their condition. The family-owned farms (less than 1-2 ha) are small and the farmers are not cognizant of alternative cultivation methods and irrigation systems that could be used to increase production. The low social status of the Adivasis and their consequent exclusion from community organizations have contributed to unsustainable survival strategies and increased their vulnerability. Thus, between February and September, more than 50% of the small rural families face food scarcity and in August and September, in

particular, 92% of the small farmers do not eat two square meals a day (study conducted by ANANDI). This has compelled a major chunk of the Adivasi population to migrate to different parts of the state, to work as construction or agricultural labourers and informal wage workers. Migration is either seasonal or annual with the migrants working at a destination for about 4-10 months and returning for two months or less for social functions such as weddings or festivals or to sustain farming. The low level of literacy and lack of occupational skills forces the Adivasis to take up tedious jobs characterized by dreadful working conditions, no social protection and economic exploitation. For women these problems are compounded by sexual exploitation.

Despite the gruelling work, these families are hard put to meet their minimum requirements and have to resort to borrowing money from local moneylenders at exorbitant rates, especially for expenditures on weddings, the construction or repair of a house and for conflict resolution by a panch under the local justice system. Illness is another drain on the meagre resources of these families and a major cause for indebtedness. The disease burden is high due to poverty and unhygienic living conditions and the Primary Health Centres (PHCs) are ill-equipped. Consequently, illnesses are not treated promptly or adequately, leading to greater losses in terms of earning capacity.

Poverty and vulnerability go hand-in-hand. Vulnerable groups experience tension in maintaining their existing status, which is potentially liable to deteriorate further in the face of risks and crises situations. If the Adivasi communities of the districts in question are vulnerable then the women of these communities are even more so. Traditionally, they have no right over the family land even though it is they who sustain farming in the absence of the men who migrate to other parts of the state. The literacy level of women in Dahod is 49% and in Panchmahal is 60% as against the state average of 71% (2011 census). As per the NFHS – III (2006-07), the overall Gujarat scenario is quite dismal as regards the health status of women, with 41.9% of rural women showing a below normal BMI and 61.7% of pregnant women suffering from anemia. Though there are no concrete figures for the districts of Panchamhaals and Dahod, our field experience has shown that the women of these districts fare much worse. In the absence of qualified pregnancy and birth support, one out of eight women dies during delivery or due to post-natal complications.

The status of single women, whether unmarried, widowed, or deserted, and of the elderly who are past the

reproductive age is even worse. For them, securing two meals a day and shelter is a luxury. Wage labour in agriculture is their only means of survival and gender discrimination makes it hard for them to find such employment.

ANANDI has been working since 1995 to improve the development outcomes by focusing on the most marginalised and vulnerable.

It is in this context that ANANDI has been working since 1995 to improve the development outcomes by focusing on the most marginalised and vulnerable.

The organization believes that these communities are unable to reap the benefits of development due to failures at multiple levels – the failure of the communities to realize their potential, the failure of the state to provide basic education, health and security, and the failure of the markets to integrate the ‘bottom of the pyramid’ as suppliers.

The first phase of ten years was dedicated to building mahila mandals and sangathans and undertaking need-based interventions on watershed development, water conservation and harvesting, health and livelihood generation. In the next phase, feminist and empowerment approaches were combined in the existing intervention strategies to create sustainable livelihood options for the most vulnerable communities under the Sarvangi Vikas Karykram, a holistic development programme,

with a special focus on child rights and single/elderly women.

Devgadh Mahila Sangathan

The Devgadh Mahila Sangathan (DMS) was formed as a collective of Adivasi women. All the mahila mandals of the 45 villages of Panchmahal and Dahod are members of the federation, which monitors food entitlements under the public distribution system, and health and nutrition services as mandated by the National Rural Health Mission, besides taking up cases of denial of forest rights and atrocities against Adivasis by the forest department. The Lok Adhikar Kendra (Gender Justice Centre), which has the mission of generating legal awareness, offers counseling support every week. This has strengthened women's action and advocacy on their right to livelihood. Over time, DMS has grown to be a significant community-based forum in the district, acting as a bridge between the community, the administration and other stakeholders for the development of the community and the region.

Sarvangi Vikas Karyakram

Seeing the potential among these women to give shape to development interventions, ANANDI decided to pilot a comprehensive project called the Sarvangi Vikas Karyakram

(SVK) to overcome the failure of the development programmes to include the poorest and the most vulnerable. The project was implemented in the 10 villages of. Khandaniya, Moti Mangoi, Sagtala, Sadra, Fangiya, Jamran, Ruparel, Kundaliya, Sevaniya and Panchiyasal to enhance the livelihood options of 800 of the poorest households, including single women.

To implement the project, Village Sarvangi Vikas Sangathans (SVS group) and village committees were formed. Each committee had about 11 members, including men. These committees were the core decision-making bodies for the selection of respondents, sites and interventions as well as for review.

One of the first livelihood enhancement schemes launched was the setting up of vermicompost units. The village-level committees helped identify single women and elderly women who were encouraged to take up vermicomposting. The prerequisites for setting up the units were:

- Availability of water
- Availability of family land (around 1 guntha³)
- Fencing to protect the earthworms from birds and animals
- Roof to protect the earth worms from direct sunlight

³ 1 Guntha = 101.2 sq mts

The first vermicompost unit, called the Sarvottam Vermicompost Producers' Unit, was launched with 11 single women from Sadra village in the year 2008. This was followed by another unit in Fangia village. The members of the two units were taken for an exposure tour to Bodeli block of Vadodara district, where the NGO Sarjan had been engaged in the production of vermicompost for quite some time. Following the tour, personnel from Sarjan came to ANANDI's project villages to teach the women, how to prepare bio-dung, make the compost beds, prepare compost and maintain moisture in the bed and take care of earthworms. Later, 60

women were trained in preparing bio-dung pits and maintaining daily production activity sheets. The women who were trained not only took up vermicompost production successfully, but also reached out to over 5000 people during the Holi melas in Kanjeta, Jhapatia, Gajapura and Panchpathra, by putting up information-cum-sale counters.

One cycle of production takes 45 days. The number of cycles completed in a year varies in accordance with the capacity of the members, and access to raw materials. By June 2009, there were 15 units in nine project villages, as mentioned in the Table below.

Production figures of vermicompost units

No.	Village	No. of units	Producers	Bags produced during April to June 2009	Bags produced till March 2009	Total bags
1	Khandaniya	4	15	194	0	194
2	MotiMangoi	1	3	0	143	143
3	Sagtala	2	8	138	537	675
4	Fangiya	1	9	0	233	233
5	Jamran	2	9	0	0	0
6	Ruparel	0	0	0	0	0
7	Kundaliya	1	5	28	102	130
8	Panchiyasaal	2	10	0	0	0
9	Sevaniya	1	2	10	128	138
10	Sadra	1	10	84	386	470
Total	10	15	71	454	1529	1983

Thus, 76,450 kg (1529 bags) of vermicompost was produced till March 2009, which increased to 99,150 kg (1983 bags) by June, 2009. Together, the 15 operational units had 71 producers all of whom were single women. By 2010, 21 new producers were selected from the vulnerable groups of widows and other single women and poor households and there were 49 operational units in 10 project villages. All the units are on private land taken on lease by the women collectively. These units are a testimony to women's capacity to become assertive with regard to ownership and marketing, which are traditionally considered male domains.

Initially, the vermicompost unit members used their produce in their own land and sold the surplus to farmers practicing swavlambi kheti (mixed cropping to fulfil their nutritional requirements). However, periodic training sessions helped them acquire better management skills and increase the rate of production. Soon they were able to earn enough to buy additional productive resources such as poultry and cattle, and retrieve mortgaged land or ornaments. What is more, they were able to ensure food security and live with greater dignity.

Women's Cooperatives

The collective enterprise of the women running the vermicompost units inspired the Devgadh Mahila Sangathan leaders to think in terms of launching a livelihood-based cooperative that could provide sustainable livelihood opportunities. The women needed support in technical matters and in establishing linkages with markets, which was provided by ANANDI. The aim of organizing women along the lines of cooperatives was to help them negotiate with contractors and middlemen for better prices, better terms for credit, and better wages. These cooperative units were also launched to raise awareness about government programmes and schemes aimed at livelihood support, so that the women could take advantage of them collectively. The first task, however, was to equip them to handle a formal structure—a difficult task, given the low level of literacy. The first such cooperative to be registered was the *Ratanmahal Adivasi Mahila Sajiv Khet Utpadak Vechan Mandali*.

Periodic training sessions helped the members of the Cooperative to acquire better management skills and increase the rate of production.

Ratanmahal Adivasi Mahila Sajiv Khet Utpadak Vechan Mandali

The Ratanmahal Organic Farm Production and Marketing Mandal was set up with four women farmers from four vermicompost units to look after the central function of marketing and procuring orders. The marketing unit widened the marketing options of the production units by selling the manure to farmers in Dahod district who had been trained by the Foundation for Ecological Security and the Forest Department. It secured orders for 1000 bags (of 50 kg each) and helped 54 of the 71 producers to earn Rs. 400 per month. It also sold 72 tonnes (1456 bags of 50 kgs each) of manure produced by 124 women to the Agro Service Centre. This helped them in earning Rs.1,10,955. As the Mandal gained confidence, it explored marketing options in neighbouring villages, haats and in distant markets Vadodara and Ahmedabad. It marketed vermicompost, vermi-wash, organic pesticide, neem oil, certified maize seeds (produced under a programme sponsored by the Monsanto Company), vegetables and cooked food. In 2013, it participated in the traditional food festival held at the Indian Institute of Management, Ahmedabad for the fourth consecutive year. Thus, with support from ANANDI, these women have challenged the notion that

only men can venture into markets, especially outside the confines of the traditional local markets

The name of the mandali was changed to suit the expansion of its functions to the marketing of products other than vermicompost. Under the SVK programme, the mandali has also acquired assets, such as agricultural tools and equipment. It now owns a tractor, a transport auto, a weeding machine and a neem-oil extraction machine, which has been installed on private land taken on a seven-year lease. The mandali now has 500 members, with an executive body of 17 members which meets every month to discuss issues and progress, and a corpus of Rs. 1,500,000. The members are working towards the registration of the body and formalizing its structure.

Linking the Lessons to Women's Right to Livelihood

Helping economically vulnerable rural women build sustainable livelihoods requires an understanding of the complex, forces which pose limitations on the choices of livelihood. Unfortunately, some of these limitations are imposed by women themselves. Any strategy adopted for the generation of livelihoods for rural women must, therefore, take into consideration multiple factors that are intrinsically

linked, such as poverty, social status, sustainability, empowerment and human rights.

As per the National Policy for Farmers (MoA, GoI, 2007), the term 'farmer' refers to persons actively engaged in the economic and/or livelihood activity of growing crops and producing other primary agricultural commodities. Farmers also include all agricultural operational holders, cultivators, agricultural labourers, sharecroppers, tenants, poultry- and livestock-rearers, fishers, beekeepers, gardeners, pastoralists, non-corporate planters and planting labourers, as well as persons engaged in various farming-related occupations, such as sericulture, vermiculture and agro-forestry. They also include Adivasi families / persons engaged in shifting cultivation and in the collection, use and sale of minor non-timber forest produce.

This brings us to the question of the status of women engaged in such activities. Are they entitled to the rights of farmers under the National Policy? This question takes on a great significance if we consider the number of people in this category and the contribution they make to the economy. A report of the National Task Force on Technological Empowerment of Women in Agriculture (2004) states that the majority of women workers in rural India are engaged in agriculture, largely as subsistence farmers, farm workers and labourers.

Almost all primary processing, storage and cooking of food at the household level is done by women in rural households. Millions of households manage to avert starvation because women take up livelihood activities such as backyard poultry farming, goat rearing, growing vegetables on homestead lands, and collecting tubers from commons.

It is women who engage in subsistence farming on rain-fed marginal lands to produce one-half of the food grains and three-quarters of the pulses produced in India. Allowing for regional variations, women are extensively involved in the production of major grains and millets; land preparation; seed selection and seedling production; sowing; applying manure, fertilizer and pesticide; weeding; transplanting; threshing; winnowing; and harvesting. Invariably, rural farms combine agriculture with livestock production, fish processing, and the collection of non-timber forest produce for livelihood sustenance. Women have multiple roles in these activities, ranging from animal care, grazing, fodder collection and cleaning of animal sheds to processing of milk and livestock products (Dand, 2010).

The term 'livelihood' has been used as an alternative to 'work' or 'employment', with the recognition that the poor engage in multiple survival strategies, several of which cannot be captured by either of the

terms. However, its meaning appears elusive despite the popularity of the term, perhaps due to the complex inter-linkages it draws on. One of the more popular definitions is the one given by Chambers and Conway (1992) – “A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living”. They define sustainable livelihoods as “A livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets and provide sustainable livelihood opportunities for the next generation which contributes net benefits to other livelihoods at the local and global levels in the long and short term” (Chambers and Conway 1992). Livelihood frameworks were introduced as counterpoints to the poverty approach. They attempt to locate poverty, the poor and their strategies in a complex environmental web through which survival is attempted.

ANANDI adopts a feminist approach to work out sustainable livelihood strategies for the most vulnerable groups of rural women. Not wishing to lose our way in debates on gender equality and sustainable livelihoods, we let both these considerations guide policy as well as action at the grassroots level. The pilot project offered women from vulnerable groups the option of collective action to generate income, while taking into account their limitations with regard to time and skills. From being completely marginalized, they were transformed

into individuals proud to identify themselves as women farmers and willing to act to wrest their rights in a hostile environment. The experience of working with these women has given us first-hand knowledge of what it takes to empower members of the most vulnerable groups. And now we are in a position to contribute to the debate on making the definition of farmer more inclusive to incorporate women who are engaged in allied activities, such as the collection of forest produce.

In 2010, we attempted to share the lessons from ANANDI's experiences at a three-day event held in Ahmedabad where 674 women farmers, including wage labourers, forest workers, fisher folk, livestock keepers and organic producers, as well as entrepreneurs and health workers from 73 organizations and collectives of 11 states of India came together and passed a declaration called WOMEN'S ACTIONS FOR REALISING THE RIGHT TO LIVELIHOOD.

Women In Homestead Vegetable Farming

J K Sundaray¹, A Bhattacharya², A D Deo³,
J P Sharma², A G Ponniah⁴ and T K Ghoshal²



¹ Central Institute of Freshwater Aquaculture, Bhubaneswar

² Kakkdwip Research Centre of CIBA, Kakkdwip, West Bengal

³ Central Institute of Fisheries Education, Mumbai

⁴ Central Institute of Brackishwater Aquaculture, Chennai

Backdrop

The world faces the fundamental challenge of ensuring food security for millions of households living in poverty (Adekunle, 2013). The proportion of people living on less than 1.25 USD was 22% in 2010 (World Bank, 2010). Poverty and food insecurity are major issues in India, too, since out of a population of 1.21 billion people (Census 2011), 17.5% are malnourished (FAO, IFAD, WFP, 2012).

Despite radical measures based on scientific advancement, such as the introduction of high-yielding varieties and integrated farming systems, starvation is a reality that the world, especially developing countries like India, cannot ignore. It has become evident that developmental solutions aimed at alleviating poverty and ensuring food security must be built around sustainable exploitation of land and water, the two basic natural resources required for the sustenance of life. Also, any such intervention must focus on women because it is they who sustain rural households by pursuing multiple livelihood strategies.

Throughout the developing world, women are central to agriculture and constitute at least 43% of the agricultural work force (FAO, 2011). In India too they play a crucial role in agriculture and allied activities. However, they face severe handicaps due to the prevailing

social customs which deny them right over agricultural land. With severely limited alternative skills, lack of employment opportunities and the burden of managing large households, rural women are hard put to make ends meet. Given this scenario, self-employment in small-scale enterprises that harness local resources presents a constructive option for income generation (IFAD, 1998). One such enterprise is homestead farming or family farming. In recognition of its potential in reducing poverty and improving global food security, the United Nations has declared 2014 as the International Year of Family Farming.

This is the context in which a study was conducted in the South 24 Parganas district of West Bengal, India, where livelihoods depend on a combination of farming activities and wage labour. The study was a part of the project entitled “Increasing resilience in the agriculture and aquaculture systems in the coastal areas of the Ganges Delta,” funded by WorldFish, Dhaka. The data for the study was collected during 2012-13. The study was conducted with the objectives of analyzing the livelihoods of the people, the contributions made by women in homestead farming systems and the challenges faced by them, as well as the impact of the project.

Research Methodology

The study employed a survey method to obtain primary data. A questionnaire was administered to the beneficiaries of the project for the collection of primary data. The sample constituted 480 households selected through a random sampling method in Kakdwip, Namkhana and Sagarblocks in the coastal region of the district. Secondary data were obtained from various information sources such as local level government bodies, Gram Panchayat and web resources etc. Both primary data and secondary data were utilized for interpretation and analysis.

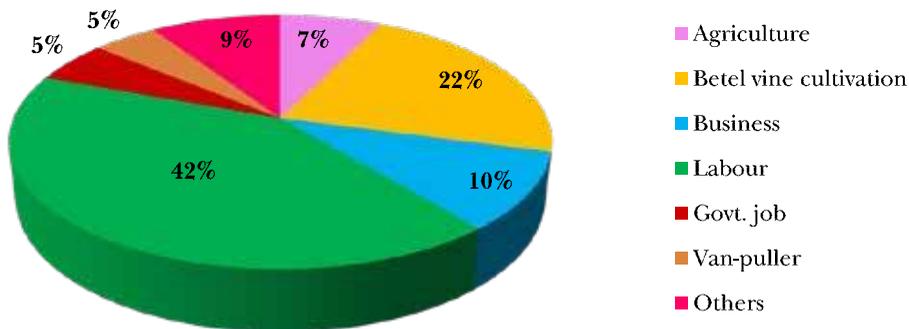
Predominant Livelihoods of Households

The inhabitants of the study area live in physically vulnerable circumstances. The area is prone

to cyclones and tidal surges which push saline water into agricultural fields, causing serious damage to livelihoods. Land holdings are generally small, with more than 91% of the households owning less than 1 ha of land (Bhattacharya et al., 2013). Hence, there is hardly any scope for adoption of technologically advanced practices. The distribution of occupation among the sample households is represented in Figure below, which shows that 42% of the households depend on wage labour for their sustenance. The other important source of income is the cultivation of betel vine, a cash crop suited to homestead farming. The average income of the largely agrarian population is Rs. 15,832/capita/year (AFC Ltd, <http://rkvy.nic.in/dap/wb/CDAP-South2024-Parganas>).

The social status of women is low because of the lower literacy levels. The rate of literacy among females is 68.90%, which is 13.20% less than that among males (Census,

Source of livelihoods in the study area



2011). The rate of crime against women is much higher than the state average with 1214 victims (Human Development Report, South 24 Parganas, West Bengal, 2009).

Homestead Vegetable Farming

is a major component of Homestead Farming System (HFS) which is an integration of aquaculture (fish and shell fish), horticulture (vegetables, fruits and cash crops) and animal husbandry (poultry, livestock). It has the potential not only to alleviate poverty, but also to empower women. It aims at income generation and ensuring food security by proper utilization of land that usually adjoins a dwelling house. It focuses on women since it is they who have traditionally managed such land to enhance the family's supply of food and generate supplementary income.

The entire HFS including the Homestead Vegetable Farming has been an integral part of rural livelihoods and is considered the community's most adaptable and accessible resource for reducing poverty and ensuring food security (Buchmann, 2009).

It aims at increasing the efficiency of this practice by introducing regenerative/integrated farming methods which can make the best use of land's potential and turn it into a productive source of food and economic security. The

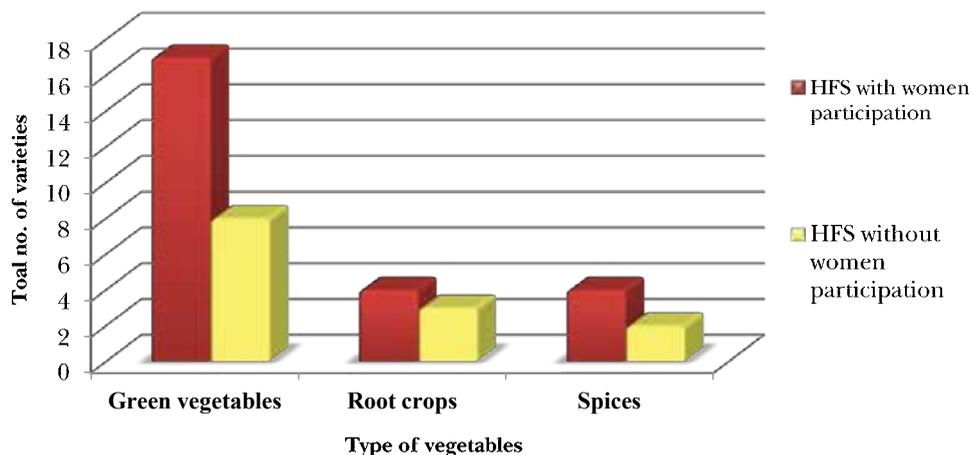
aim of this study was to examine women's participation in homestead vegetable farming and to find empirical evidence to show that such participation is essential for improving household food and nutrition security. The objective of homestead vegetable farming is to supplement the family diet to ensure the intake of essential nutrients, such as fibre, trace minerals and vitamins and to maintain the right balance between carbohydrates and proteins. Homestead farming also aims at helping women become self-sufficient by selling or exchanging their produce in village communities (Ahmad et al., 2007).

The study covered 620 women contributing 43% of the total homestead produce of the area. These women used homestead ponds for the irrigation of crops (Bhattacharya et al., 2012). The study found that an average of eight varieties of crops was cultivated in farms where women participated, as against five varieties in other farms.

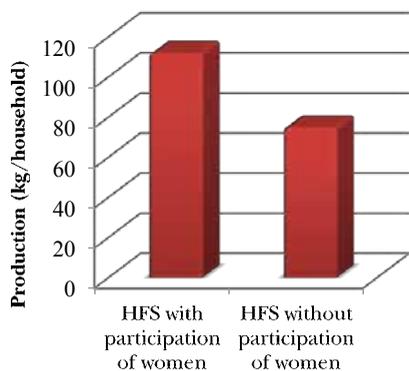
The farms where women participated produced a large variety of green vegetables along with root crops and spices. From this one may conclude that women's knowledge of crop varieties and the diverse use of agricultural products is important for improving food and nutritional security in rural households.

The study also showed that women's participation resulted in a 49% increase in vegetable production

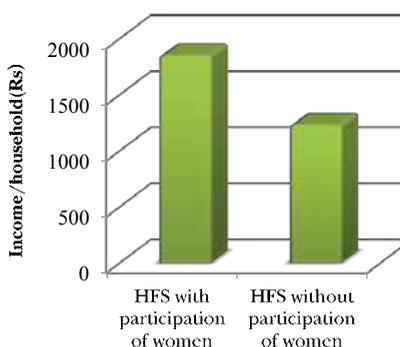
Comparison of HVF with and without women's participation



Production in vegetable farming



Income from vegetable farming



(Income from vegetable farming), which exceeded the FAO estimate of a 20% to 30% increase in yield. The participation of women also led to almost 50% higher income (Figure 5). The increase in production and income with women's participation

can help achieve the Millennium Development Goal 1 of reducing extreme poverty and hunger. Besides, when women participate in decision-making regarding homestead farming and gain control over the family income, they have

The Story of Mrs. Jaba Halder

Mrs. Jaba Halder (45), one of the project beneficiaries, is a typical housewife in a small village of South 24 Parganas. She was trapped in severe poverty before she was provided with support in the form of good quality vegetable seeds and fertilizers, as well as scientific advice for the management of her farm. During 2013-14 her contribution to the homestead vegetable farm has enhanced her household income by 40%. Her contribution from other related enterprises like homestead aquaculture, animal husbandry and betel vine farming has also enabled her husband to expand the homestead farm to grow crops for commercial purposes and ensure a sustainable income of Rs. 1.5 lakh (almost 2500 USD) a year. Jaba Halder's story proves that given adequate support, rural women can develop the skills and vision required to take up small-scale ventures and explode the common myth that businesses led by women do not grow beyond a certain scale.



a positive influence over the health and nutritional status of the family as well as the education of the future generation.

Apart from the economical view the women farmers have made themselves capable in.

Challenges Faced by Women Farmers

Women farmers in the study area face the usual problems of gender bias and lack of institutional support. The shortage of capital, lack of skills related to scientific farming methods, and the lack of quality inputs stand in the way of their making homestead farming a successful venture. In the cases in which women were given

the support required under the present project, a 49% increase in production was noted, as already mentioned. Thus, there is reason to believe that with adequate support, homestead farming can make a difference to the nutritional status and the general socio-economic status of rural households.

Scientific Assistance to Reach Women Farmers

A scientific intervention was initiated in six households living in extreme poverty in two different blocks Kakdwip and Namkhana situating in two salinity zones where Electric Conductivity ranges between

Challenges and Solutions





Woman planting onion saplings on homestead land

0-7.8 dS/m and 0-15.6 dS/m. The salinity of the soil had affected productivity to a great degree by inviting water-borne diseases which reduce production. The aim of this intervention was to provide such agricultural services to farmers that they normally did not have access to. The first task was to motivate the members, especially the women of these households to seek technical advice and trainings for their active participation. The beneficiaries were also provided with quality inputs, such as seeds and fertilizers. These inputs and the technical assistance caused the yield to increase to 2.3 times and the average income to increase by 1.7 times. Thus, proper scientific management and the active participation of women can enhance production.

Impact of the Programme in Promotion of Sustainable Livelihoods

There is a growing realization that agricultural development is a prerequisite for improving nutrition and reducing poverty. Since women play a crucial role in agricultural activities and in managing the household economy, it is imperative to involve them in any intervention aimed at agricultural development and ensuring food security. This study too pointed out that the women participated HVF provide an

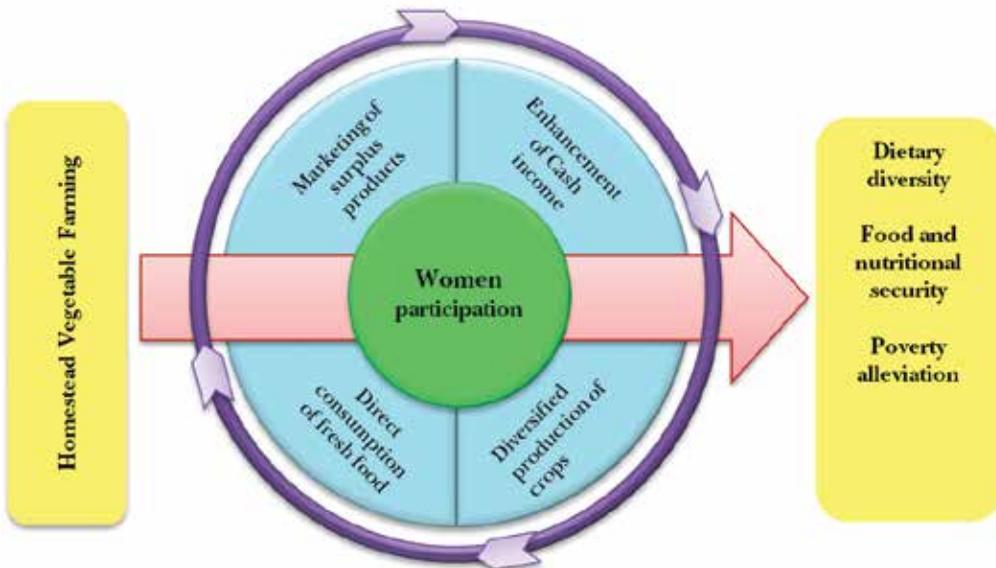
opportunity to consume 39% more vegetables than others. Besides, a greater diversity of vegetables was cultivated in these farms, ensuring food security and nutritional balance for the members of these household. The consequent increase in income also improved the economic status of these households

Figure 6 illustrates how women’s participation can create a link between homestead vegetable farming, dietary and nutritional status of the household and poverty alleviation.

Conclusion

This paper collates the empirical evidence on women’s participation in homestead vegetable farming, setting the stage for subsequent analysis of gender differences in farming activities and the potential gains from empowering women. It proves that given adequate support, women can contribute significantly towards increasing yields from homestead vegetable farming and perhaps towards improving the entire farming system. They can also contribute towards enhancing the household income and improving the nutritional status of rural families.

Benefits of women’s participation in homestead farming



This is heartening in the context of the International Year of Family Farming, which has been declared with a view to promoting development policies that support small farmers, especially women, to reduce rural poverty. Participants at the Asia-Pacific Conference on Family Farming held during 7th-10th August, 2014 under the aegis of the M S Swaminathan Research Foundation felt that women, as agents of rural development, can

contribute immensely to improving livelihoods in families, communities and countries (IFAD, 2014). Our study is a case in point.

Acknowledgment

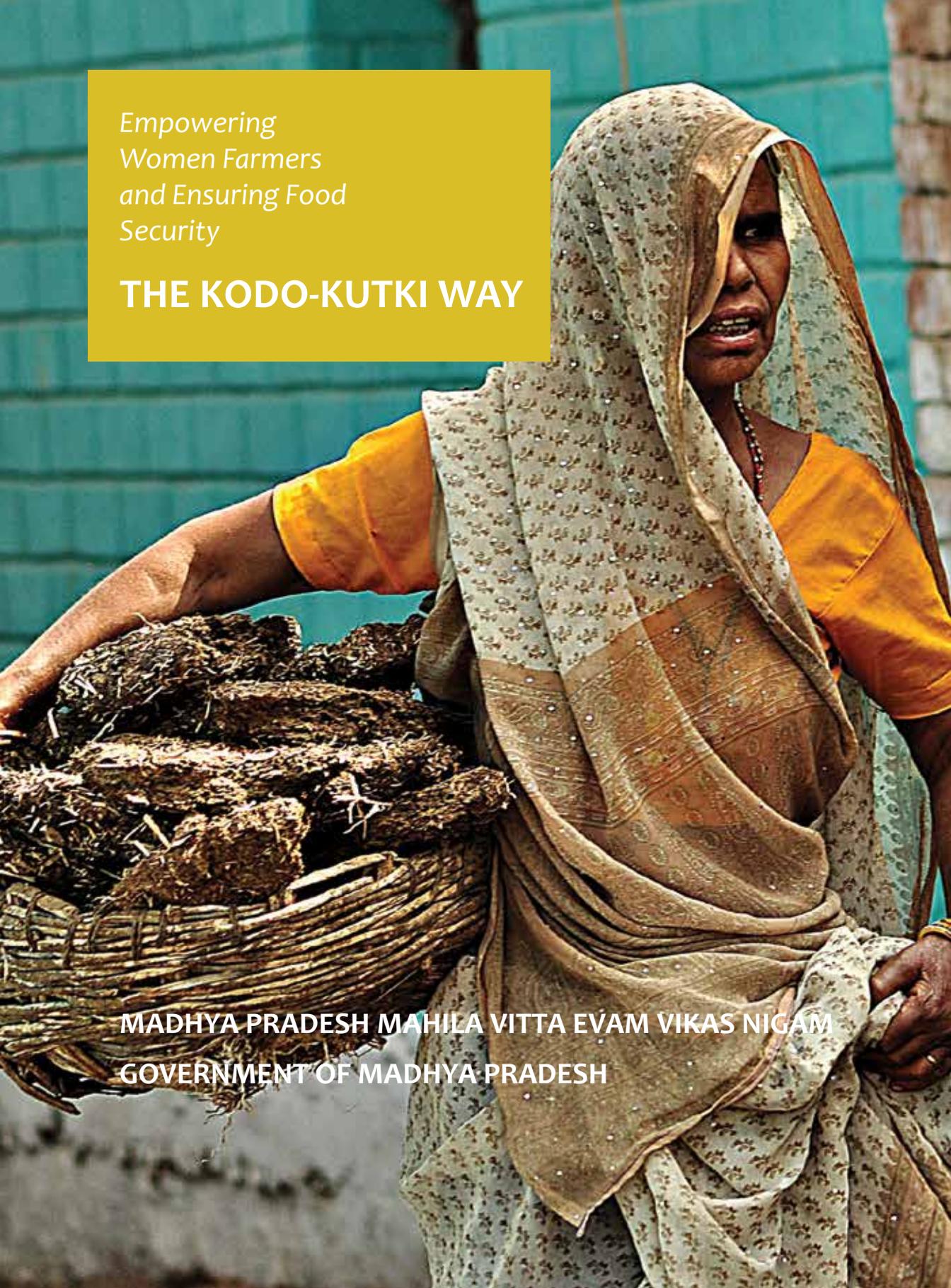
The authors gratefully acknowledge the support they have received from the Challenge Program on Water and Food (CPWF) and the Indian Council for Agricultural Research (ICAR), New Delhi.



References

1. Adekunle O.O (2013). The Role of Home Gardens in Household Food Security in Eastern Cape: A Case Study of Three Villages in Nkonkobe Municipality. *Journal of Agricultural Science*. Canadian Center of Science and Education Vol. 5, No. 10.
2. Agriculture Finance Corporation Ltd .Comprehensive District Agriculture Plan for South 24 parganas district available online at <http://rkvy.nic.in/dap/wb/CDAP-South%2024Parganas%20District.pdf>.
3. Ahmad M, Nawab K, Zaib U, Khan I A (2007). Role of Women in Vegetable Production: A case Study of Four Selected Villages of District Abbottabad. *Sarhad Journal of Agriculture*. Vol. 23, No. 4. pp. 1173-1179.
4. Bhattacharya A, Sundaray J K, Deo A D, Ponniah A G. (2012). Homestead production-strategy for nutrition and food security: An assessment in the coastal villages of Ganges Delta, in: *Global Symposium on Aquatic Resources for Eradicating Hunger and Malnutrition-Opportunities and Challenges*, Mangalore, 4-6 December, pp. 154.
5. Bhattacharya, A., Deo, A D., Sundaray, J K., Ponniah, A G. (2013). Impact of homestead farming system on rural economy: A study in South 24 Pargana district of West Bengal. Abstract no. T09OP02. Presented in Second International Conference on Ecosystem Conservation and Sustainable Development. University of Kerala. 3-5 Oct. Kerala. pp. 405.
6. Buchmann, C. 2009. Cuban home gardens and their role in social-ecological resilience. *Human Ecology* 37: 705-721.
7. Economic Survey (2011-12). Union Budget & Economic Survey, available online at: <http://indiabudget.nic.in/budget2012-2013/survey.asp>
8. FAO (2011). The Role of Women in Agriculture. ESA Working Paper No. 11-02. FAO.
9. FAO, WFP and IFAD (2012). The State of Food Insecurity in the World 2012. Economic growth is necessary but not sufficient to accelerate reduction of hunger and malnutrition. Rome, FAO.
10. Hillenbrand E (2010). Transforming gender in homestead food production. *Gender & Development*. Vol. 18, No. 3, pp. 411 — 425
11. <http://www.census2011.co.in/census/district/17-south-twenty-four-parganas.html>.
12. <http://www.worldbank.org>.
13. <http://www.ifad.org/events/iyff/>.

15. Human Development Report, South 24 Parganas (2009). Development and Planning Department, Government of West Bengal.
16. IFAD (2014). Statement by IFAD President at the Asia-Pacific Conference on Family Farming. Women as key agents for rural development. Available online at http://www.ifad.org/events/op/2014/mssf_gender.htm.
17. IFAD (1998). Women and Small Business (Miroenterprise). Rural women in IFAD's projects. The key to poverty alleviation. IFAD, Rome, Italy.
18. Swaminathan M S (1985). The Role of Education and Research in Enhancing Rural Women's Income and Household Happiness. The Centre for women's Development Studies. New Delhi.
19. Todaro M P & Smith S C (2000). Intermediate Microeconomics (9th ed.). Alan, USA. PLS.
20. Veer U (2004), Crime Against Women, Anmol Publication, New Delhi.

A woman in a yellow sari with a patterned shawl is carrying a large, heavy basket of harvested crops, likely sugarcane, on her shoulder. She is looking towards the camera with a slight smile. The background is a blue wall with a brick pattern.

*Empowering
Women Farmers
and Ensuring Food
Security*

THE KODO-KUTKI WAY

**MADHYA PRADESH MAHILA VITTA EVAM VIKAS NIGAM
GOVERNMENT OF MADHYA PRADESH**

The initiative “The Kodo-Kutki way” was undertaken under Tejaswini Rural Women Empowerment Program implemented by Madhya Pradesh Mahila Vitta Evam Vikas Nigam. The main focus of the Tejaswini initiative are Baiga women farmers from poor families with small landholdings, practicing traditional farming and collecting forest produce for their livelihood. The initiative aims to empower women by formation of self-help groups (SHGs) linked to livelihoods. It has covered 40 villages in the Mehandwani block of the district Dindori and formed 1800 Womens Self Help Groups (WSHGs) with 27,000 women members from as many households. These WSHGs have formed 9 federations (one federation covers 200 WSHGs and 3000 women), each with its own plans for the generation of livelihoods. These plans are based on the resources and skills available in each federation.

In this context, Nari Chetana Mahila Sangh (NCMS), formed in the Mehandwani block of the district in 2012, started a unique initiative related to the cultivation of minor millets (Kodo-Kutki). The members of the federation are from the Baiga tribe and from other backward communities. They have small landholdings with low yields because of outmoded agricultural practices.

Under the project, as a first step, the Baiga women were organized into SHGs. The sensitization programmes and exposure visits organized

under Tejaswani helped to increase their awareness and boost their confidence. They started demanding a greater involvement in economic activities, being assertive in the community and the gram sabhas, as also addressing issues such as sanitation, health and hygiene and community development.

The need for greater focus on economic empowerment was articulated during a meeting of the federation in 2012. At that time the federation was not registered, but fully operational. The principal architect of the initiative was the Managing Director, Women’s Finance and Development Corporation. She floated the idea of scaling up federation-based livelihood activities by improving forward and backward linkages. Since the federation had evolved on its own and was functioning well, she directed the District Programme Management Unit (DPMU) to prepare a detailed plan of action to implement livelihood activities in accordance with the needs of the members of the federation.

Selection of Livelihood Activity

The soil and climate of Dindori is suited to the cultivation of millets, which have a high nutritional value. Another advantage of this crop is its short growing season. The farmers were already cultivating Kodo-Kutki as the main crop. Hence, it was



decided to select this crop for the generation of livelihoods and to ensure food security.

Formulation and Implementation of Plan

The District Project Management Unit (DPMU) discussed the issue of improving productivity with the federation members and the officials of the Krishi Vigyan Kendra (KVK) and chalked out a detailed plan of action. A two tier system was envisaged. The federation would be the lead agency, providing technical, financial and marketing support to its member farmers, while the member farmers would assist the federation in developing as an independent and viable unit.

The following steps were planned for the implementation of the initiative.

The timeline for these activities are shown in the flow chart (the steps mentioned in the text don't match those in the flow chart).

Step 1: Baseline survey

A baseline survey was conducted to identify the women farmers interested in taking up the cultivation of millets as a livelihood activity. An assessment was also undertaken to understand their needs with respect to technology, production and marketing support.

On the basis of the survey a total of 1497 women farmers were identified from 40 villages. Most of these women belonged to the Baiga community, however, some were from other backward communities. It was decided to start with a pilot project under which each woman farmer would cultivate kodo-kutki on 0.5 acre of her land. The idea was to build confidence among the women farmers on improved agricultural practices. They would use the rest of their land for traditional cropping. The total area of land cultivated under the project was 748.5 acres.

Step 2: Sensitization of Farmers

The first challenge before the Tejaswini team was to change the mindset of the community. The Baigas look upon land as their mother and hence, are loath to adopt agricultural practices that are not in keeping with their tradition. The DPMU took up several sensitization programmes to motivate them to change their practices. They were taken on exposure trips to other areas where farmers of their community had adopted improved agricultural practices. The women members were sensitized about the need to improve their livelihood to ensure food security by other women farmers linked with the initiative.





Step 3: Identification and training of master trainers

Since the initiative involved training women farmers from 40 villages, it was felt that master trainers needed to be identified in each village from amongst their own community. These master trainers were trained to provide guidance to women farmers and help them with timely interventions. They were also sent to Jawahar Lal Nehru Krishi Vishwavidyalaya (JNKVV) Jabalpur, Madhya Pradesh to learn more about advanced crop production technology.



Step 4: Training of women farmers

The women farmers were trained in land/bed preparation, seed processing, sowing and transplantation, cropping system and intercultural practices. They were also trained in integrated nutrient management, integrated pest management, vermicomposting, soil testing, etc. They were sent to JNKVV for exposure. The DPMU team contacted local experts from the KVK to provide support to women farmers on cultivation of millets.



Step 5: Cultivation

Demonstration plots were maintained within the community to educate the farmers on improved cultivation practices and motivate them to try it out. These plots were

cultivated with the involvement of the women farmers to instil confidence in them and to familiarize them with the new methods of cultivation.

Step 6: Implementation, collection and monitoring

The activity was implemented from May 2013. A complete strategy was devised collectively with KVK experts to supervise the pre-cultivation, cultivation and post-cultivation activities to ensure the sustenance of the project and to assess its profitability, as well as to monitor the quality of the produce.

Step 7: Marketing

The initiative was started to help farmers attain food security. But over time, it has become a profitable activity for the farmers as well as the federation. The farmers now have surplus produce, which they give to the federation for sale. The federation is also able to make profits from the sale of its share. It has identified potential buyers and tied up with Suruchi Agro, Raipur and Bhola Agro, Samnapur, Dindori.

Value Addition and Brand Development

The State Project Management Unit (SPMU) and DPMU officials and federation members are working with technical experts to develop a brand for value-added products, such as





millet kheer, idli and millet khurma. These products have already gained recognition at the national level. The products were displayed at Jabapur in an exhibition organized by Indian Council of Agricultural Research (ICAR).

Linkages

The initiative has been linked with INS-IMP Scheme of Department of Agriculture, Madhya Pradesh. The Department has approved the proposal prepared by the NCMS and provided the women farmers with a seed processing machine. It has linked many of its activities with this initiative to support the women farmers in their efforts. It is also providing inputs at subsidized rates to the women farmers.



Financial Requirement

The NCMS was provided with a revolving fund for the implementation of the initiative. The interest-free fund was recoverable in five years. A total amount of Rs 33.10 lakh was sanctioned after the detailed business plan submitted by the NCMS to the Tejaswini Programme was scrutinized by a team of experts. The amount was made available in two instalments. The business plan was inclusive of input cost and investment cost. The investment cost comprised the cost of providing training to women farmers and master trainers.



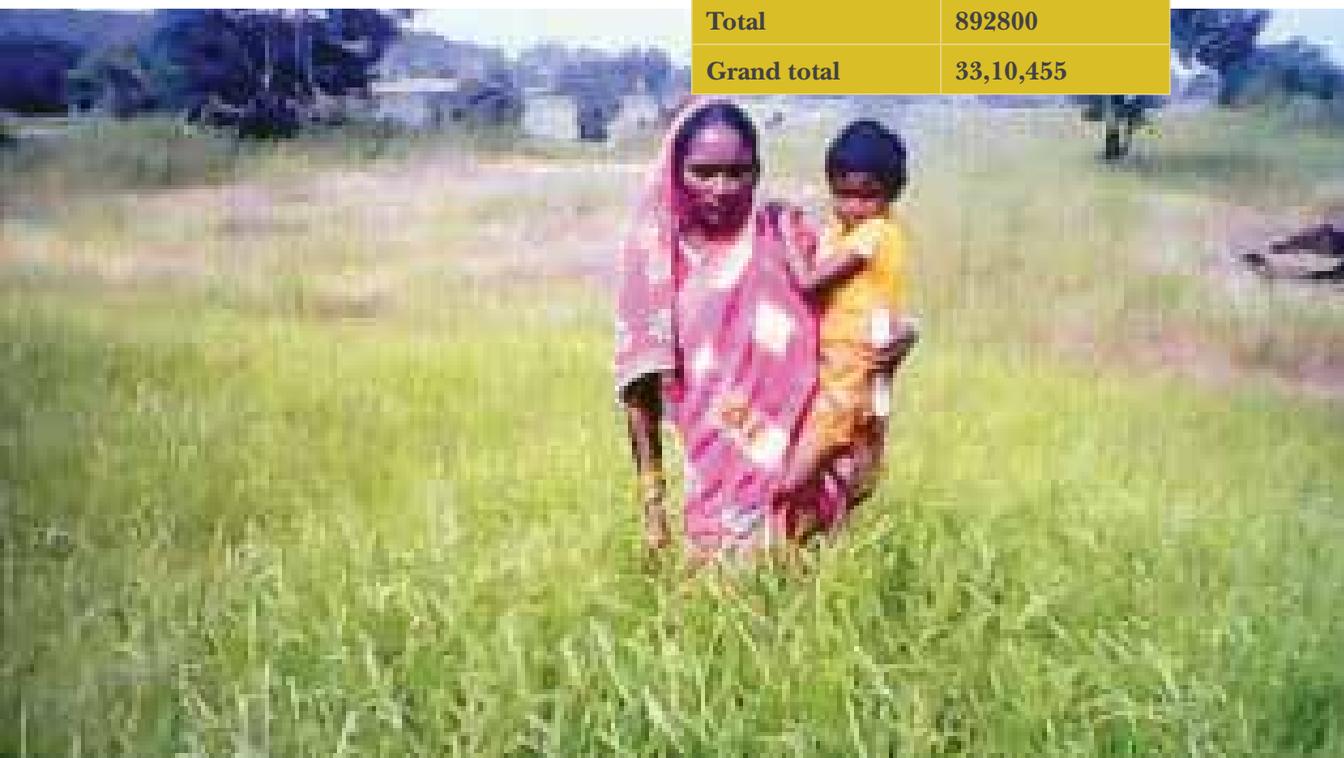
The break-up of the cost of the project is shown in adjoining table.

Results

Cultivation of millets was a win-win situation for the women members as well as the federation. The profits were shared between NCMS and members. The total production of millet was 2245.5 quintals in year one. Each woman farmer was able to produce 1.5 quintals from their piece of land, of which 20 kgs was contributed to the federation and 130 kgs were kept by the women farmers. In the first year, productivity from their land was low due to their initial resistance to using improved cropping techniques. In spite of this, due to improved technology, the farmers could improve the productivity to get 1.5 quintals from 0.5 acres of land.

Break-up of cost of the project

Particulars	Cost
Input Cost	
Hybrid seeds	3,59,280
Farm Yard Manure (FYM) compost	5,98,800
Zinc	2,61,975
Bavastin	74,850
Plant protection chemicals	8,98,200
Storage	2,24,550
Total	24,17,655
Investment Cost	
One-day training	2,99,400
Orientation	2,99,400
Exposure visit	54,000
CRP honorarium	1,80,000
Expert services	60,000
Total	892800
Grand total	33,10,455



The outcome of the initiative

Particulars	Cost
Total Women Farmers	1497
Land used for cultivation	748.5 acres (@ 0.5 acre)
Production	1.5 quintals
Total Produce	2245.5 quintals
Total Income	89.82 lacs
Total Investment	50.73 lacs
Net Profits	39.09 lacs
Profit Sharing	2,99,400
Availability of produce with women farmers	130 Kgs.
Value of Produce (@ Rs. 40/- kg)	Rs. 5200 (including investment)
Availability of Produce in federation	299.40 quintals
Value of produce	11.97 lacs

The initiative has changed the mindset of the women farmers. They have managed to improve their food security by using just a small piece of land and are now motivated to use improved methods of cultivation in the rest of their land to increase their income. Other farmers are also keen to follow their example.

Profitability

The initiative was launched in 2012 and has entered the third year of implementation. It has helped to make the federation a viable institution and has improved the economic status of the women farmers. The Table in the following page compares the production figures and profits for 2012 and 2013.

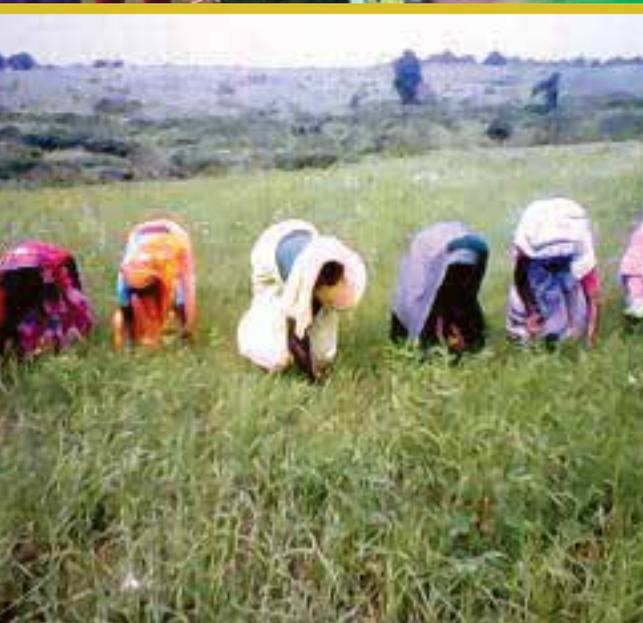


Production and profit for 2012 and 2013

Particulars	2012	2013
No. of villages	41	41
No. of women farmers	1497(@0.5 acre	7500(@0.5acre
Land used for cultivation	748.5 acres	3750 acres
Total produce	2245.5 qt.	15000 qt
Total income	89.82 lakh	Rs.6 crore
Total investment	50.73 lakh	Rs. 1.88 crore
Total profit	39.09 lakh	Rs. 4.12 crore
Profit-sharing	2,99,400	
Farmer's share	130 kg	180 kg
Value of produce	Rs. 5200	Rs.7200
Less investment	Rs. 3389	Rs. 2600
Net income	Rs. 1811	Rs. 4600
Federation's share		
Total produce	299.40 qt	1500 qt
Value of produce	Rs. 11.97 lakh	Rs. 60 lakh
Net value of produce	Rs. 11.97 lakh	Rs. 60 lakh

Returns on investment for federation

Particulars	2012	2013
Total produce	300 qt	1500 qt
Value of produce	Rs. 12 lakh	Rs. 60 lakh
No. of farmers	1497	7500
Total investment	Rs. 33.10 lakh	Rs. 15 lakh
Total income	Rs. 12 lakh	Rs. 45 lakh
Repayment	Nil	Rs. 20 lakh
Loan outstanding	Rs. 33.10 lakh	Rs. 13.10 lakh
Net profit	-	Rs. 25 lakh



The Business Plan of NCMS envisages that the entire amount received by the federation from the programme would be recovered in the third year and the federation will become self-sustainable in 2014. To strengthen its financial position further, it would need to involve more farmers and scale up this system of cultivation in the entire area.

Income of Farmers

The net income of the farmers increased from Rs 1811 in the first year to Rs 4600 in the second year. It is expected to increase further in the third year. What is more, their income could almost double if they could cultivate other crops after the harvesting of millet, the growing season for which is only 100 – 120 days. Diversification could help each farmer earn an additional Rs. 10,000 besides ensuring food security round the year.

Challenges Faced

The greatest challenge before the Tejaswini team was to change the attitude of the farmers. The team made regular visits to the villages to convince the farmers about the merits of scientific methods of cultivation.

Another problem was the lack of skills needed for scientific cultivation. To cite one example, the farmers who used the traditional method of broadcasting seeds, had no idea of the line sowing system. They

required training in integrated pest management, the use of fertilizers, organic farming, etc. The next hurdle was that women failed to turn up for the training sessions because of their involvement in domestic chores. To overcome this problem, the timing of the training sessions was adjusted to suit the convenience of the farmers. One-to-one training sessions were also held.

Outcomes

Any attempt to improve the livelihood status of women farmers is a complex task since it involves numerous stakeholders. In this case, the various stakeholders were the federation, the farmers, the programme implementers, technical experts, community resource persons, line departments, service

providers, marketing professionals and agencies providing backward and forward linkages. This project has experienced remarkable success due to meticulous planning and cooperation among the stakeholders and constant monitoring.

The most significant outcomes of the initiative are as follows

Evolution of a sustainable federation

The federation has evolved as a strong cementing unit for supporting the livelihood activities of its member WSHGs, helping them market their produce, accessing backward support for cultivation and managing technical and financial resources.



Increased food sufficiency

The initiative has involved women from the poorest of poor sections of the society. The adoption of improved agricultural techniques has enabled them to generate enough produce to ensure food security for their families. Prior to the initiative, they were not in the position to ensure food security for more than 120 to 150 days a year, which compelled them to migrate seasonally in search of other livelihood options as wage earners.

Availability of cash income

The women farmers now produce surplus grain, which is sold in markets directly by the federation. The elimination of intermediaries has helped the farmers obtain better prices for their produce and enhanced their income.

Involvement of new farmers

The success of the pilot project has motivated other farmers to join the initiative. Starting with 1497 women farmers and a cultivation area of 748.5 acres, the initiative has expanded to 3000 farmers with 3000 acres under cultivation. Still others from the same village are keen to take up the new system of cultivation in the next season.

Creating an enabling environment for women

The greatest success of the initiative has been to change the mindset of the community on the skills and competence of women farmers. Initially, the women farmers faced a lot of resistance from their family members. However, the sensitization sessions helped them in remaining motivated. The output from their land vindicated them and helped to boost their confidence. Gradually they started having a say in decision-making within the family as well as in the community. Their interactions with the federation members, local buyers and the local/district administration have improved their interpersonal and managerial skills. They have learnt to assert themselves and are increasingly contributing towards the development of the village economy. Their contribution has convinced the villagers about their competence and this has resulted in a large number of WSHG members contesting and winning panchayat elections not only in the villages covered under the activity but also in other neighbouring villages.

Increased efficiency of outputs

The initiative has given a boost to Baiga women farmers in cultivation of land through modern methods. The change in behavior of Baiga

women farmers was an important indicator where the initiative has impacted upon.

Factors Contributing To Success

Cooperative farming

The women members were motivated to try out the activity collectively. This enabled them to make optimal use of their land to increase productivity.

Bulk purchasing

The bulk purchase of inputs, such as fertilizers and seeds by the NCMS helped in reducing the input cost and increasing the income.

Risk mitigation

The cultivation of millet taken up individually by each women farmer has reduced the chances of crop failure. Each women farmer is made responsible for yields from her piece

of land. If there is any profit or loss from the same piece of land, the same is borne by the women farmer who owns the piece of land.

Local employment

The initiative has created employment opportunities for the local people by involving them as master trainers. It has also generated wage employment.

Quality of outputs

Individual cropping has improved the quality of the crop due to the committed efforts of each farmer. The use of vermicompost has enhanced the nutrient value.

Involvement of experts and master trainers

The most critical feature of the initiative was the involvement of experts and the development of



master trainers. The programme management tied up with the KVK to provide technical support to the women farmers. The experts helped the women in the selection of hybrid seeds, use of appropriate fertilizers and pesticides and in weeding and other activities. The master trainers were available at any time when the farmers needed support.

Effective convergence

The DPMU team played an effective role in establishing linkages with the Department of Agriculture. Officers from the department visited the operational area and supported the federation by providing a seed processing machine. The Department of Agriculture has also supported in demonstrating the product at National level exhibition organized by Indian Council of Agricultural Research.

Delivery time of services

The creation of networks has helped in improving the delivery time of services to the women farmers. The induction and training of community resource persons (CRPs) has afforded the programme management an opportunity to develop a strong interface with the women farmers and provide solutions to their problems at their doorstep. The CRPs are also acting as a bridge between the women farmers and the federation. The involvement of technical experts from the district

has expedited the service delivery process. The federation has been delegated all the responsibility by the programme management to ensure smooth implementation of the activity

Sustainability

The initiative, which started in April 2013, has not only sustained but is flourishing, with 16500 families having benefited from it in 41 villages. What is more, another 6000 women from these 41 villages have shown their willingness to join the activity.

The major reason for the sustainability has been the mutually beneficial roles of the women farmers and the Nari Chetana Mahila Sangh (NCMS). Under a formal agreement between the member farmers and the NCMS, their roles are as follows.

NCMS

- To provide inputs and training for the cultivation of millets
- To extend technical and financial support to member farmers
- To provide support for the storage and sale of the produce
- To assist in the processing of millets and in value addition

Member Farmers

- To contribute 20 kg of their produce to NCMS
- To undertake the cultivation of millets for 3 continuous years
- To motivate other farmers to increase production

Financial sustainability

The initiative has proved to be financially sustainable. The total income generated was Rs. 89.9 lakh, while the investment was Rs. 50.7 lakh. The investment includes the cost of training and capacity-building of master trainers in the initial year, an expenditure that will not be required in the years to come.

Social sustainability

The initiative has radically changed the outlook of the farmers who are now looking upon it as a lifeline. It has boosted the confidence of the women farmers, and elevated their status in the community.

Economic sustainability

The initiative is economically viable for the farmers. The per capita investment was Rs 3389 and the per capita profit was Rs 2611, excluding the input cost. This gain was accumulated in a short duration of three months. Hence, the farmers have the opportunity to grow another crop in the rabi or kharif season.

Environmental sustainability

The cultivation of minor millet is adaptable to the socio-eco-cultural environment of the area.

Replicability of the initiative

1. The demonstration effect of the performance of the women farmers initially involved in the initiative paved the way for motivating more women from the same villages to join the next year.
2. The model has been used by other women farmers under the Tejaswini programme for other activities, such as scientific rice intensification and *tulsi* cultivation. The Department of Agriculture has adopted the same technique to benefit farmers outside the Tejaswini programme.
3. The initiative can be replicated worldwide wherever women need empowerment (especially in patriarchal societies).

The scope and applicability of this initiative can be widened by formulating and implementing policies for the transfer of resources and assets to women individually or collectively.

Scalability

The activity can be scaled up by involving more farmers from the villages and also by using more land that may be available with the existing farmers. The federation has been able to scale up the activity by involving another 6000 farmers in the second year. It is also planning to take up multi-cropping and is in the process of drawing up a detailed plan for the rabi and kharif seasons. There is a great demand for millets in the local, national and international markets due to their nutritional value. With adequate linkages, these markets may be tapped to increase profitability.

Future Plans

The NCMS is trying to develop linkages with institutions and bulk buyers to maximize profits. It is also trying to link the initiative with the Small Farmers' Agriculture-Business Consortium (SFAC) to identify buyers. The SFAC has chosen millets as one of its prime crops and is extending support to larger federations.

The NCMS has made provisions for the storage of millets and is in the process of making an inventory to improve its bargaining position. The Department of Agriculture is providing support for enhancing the storage capacity of the NCMS.

The federation has developed a brand for value-added products, such as kodo kheer, kodo mix and kodo khurma. These products are at present sold under the brand name Tejaswini. However a brand name "Bharti" has been duly registered. The products have now started receiving recognition from various agencies and institutions. For example, between August 19-20, 2014 they were displayed at the Jawahar Lal Nehru Krishi Vishwavidyalaya, Jabalpur at an exhibition organized by the Indian Council of Agriculture Research, New Delhi. The demand for the value-added products has motivated the federation to increase the production of millets by involving more farmers in the initiative.



A model to include women in developmental initiatives

Yogesh Bhatt¹ and Sukumar R²



1 Yogesh Bhatt is an Agriculture and Management graduate heading agricultural programme at Dangs Programme Area of AKRSP(I)

2 Sukumar R is a Post graduate in Mathematics & NGO management & Mhil in HR management, heading Research & Monitoring unit at Dangs Programme Area of AKRSP(I)

Introduction

Any discussion on women always veers around to the gender disparities prevailing in the community. This is the case with agriculture, too, where women are never recognized as a core workforce. The subject, "Women in Agriculture" has several aspects: 1. Women's contribution to the total labour in agriculture; 2. Food safety and security for all the women members 3. Women's share of agricultural profit/ loss and natural resources; 4. Women's participation in trainings and exposures organized by state universities, Krishi Vigyan Kendras (KVK), NGOs, and other development partners; 5. Women's involvement in activities allied to agriculture, such as sericulture and fisheries.

The Aga Khan Rural Support Programme (India), which has focused on identifying and reducing the challenges faced by tribal communities in south Gujarat for the last three decades, has used the crosscutting themes of gender and development as the basis for all the development initiatives under it.

The main tribes of south Gujarat are Bhil, Konkani, Kotwalia and Kunbi. Traditionally these communities are marginal farmers who depend on rain-fed agriculture and non-timber forest products for survival. Over-exploitation and outmoded agricultural practices have eroded the natural resource base of these communities and pushed them into a vicious cycle of poverty and indebtedness. Women, who play a pivotal role in

creating livelihood options and are involved in almost all agricultural activities, are in general worse off as their role is never recognized and ownership of the land lies with the men. The AKRSP(I) has tried to bring about small but qualitative changes in the lives and livelihoods of these communities through the management of natural resources. Some of the activities initiated by the AKRSP(I) were diversification of agriculture, participatory irrigation works, livestock rearing, improvement of land, and protection of forest and forest-based livelihood initiatives. Women were encouraged not only to participate in these activities, but to spearhead social change through village-level institutions. This was achieved by introducing women-specific agriculture activities, and through capacity-building of women's institutions. It is not easy to bring women out of the confines of their homes and to motivate them to take their own decisions, especially in tribal communities, but continuous dialogue, rapport building, training and extension programmes, education on financial decision-making and inclusion in developmental activities have brought about changes which are visible at the field level. Women in the AKRSP(I) working area are now managing SHGs, running micro-enterprises, agro centers, farm tool libraries, managing irrigation assets and also fighting for land rights.

This paper discusses the strategies adopted and steps taken under the inclusive model of development implemented in the Dang district of Gujarat.

Organizational Profile

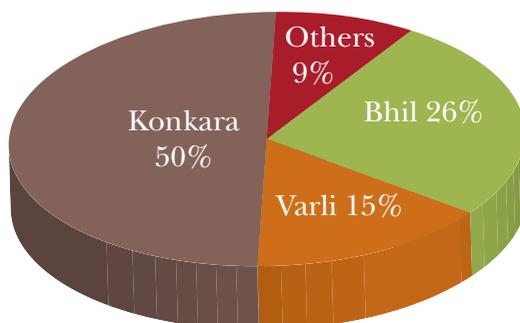
The Aga Khan Rural Support Programme (India) is a non-denominational, non-government rural development organization, established in 1984. It is active in three distinct socio-geographical areas (the coastal Junagadh district, the drought-prone Surendranagar district and the tribal, rain-fed Bharuch-Surat-Tapi-Narmada districts) of Gujarat. In the year 2004, AKRSP (I) expanded its sphere of action to Madhya Pradesh and set up an office in Khandwa and in 2008, it started working in Bihar.

AKRSP (I) believes that though NGOs cannot replace the State, they can provide models of participatory, bottom-up development and evolve approaches for replication. Its mission is *to enable the empowerment of rural communities and groups, particularly the under privileged and women, to take control over their lives and manage their environment, to create a better and equitable society*".

In July 2010, the AKRSP (I) extended its activities to the Dang through its livelihood initiatives. The main objective was to improve the quality of life of the tribals with the involvement of other development partners.

The Dang District

The Dang is a predominantly tribal district in south Gujarat. It is the smallest district in the state, with

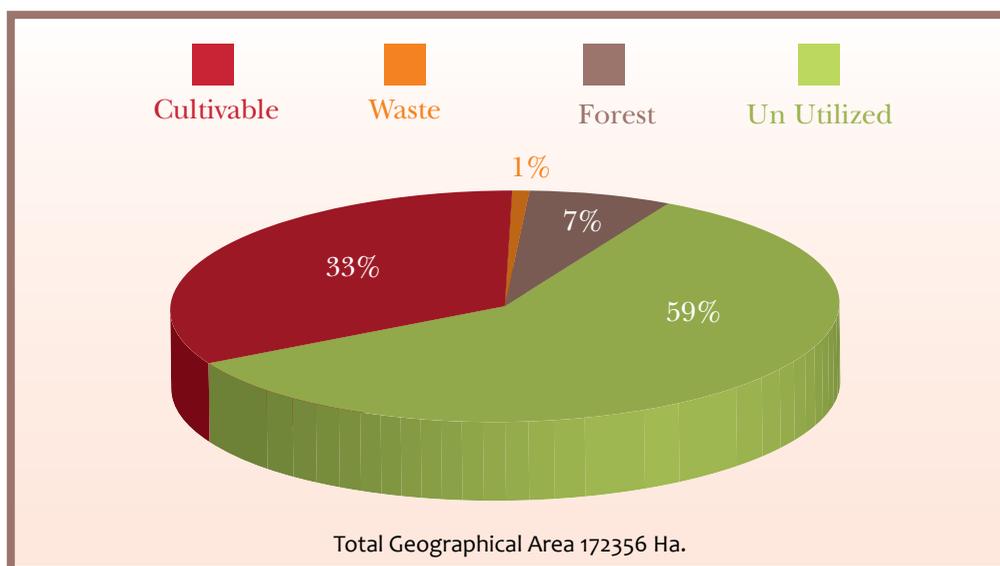


three talukas and 311 villages. The district headquarters is in Ahwa town.

As per the Census 2011, the total population of the district is 228,291, 96% of which is tribal. The major tribes are the Konkans (50%), Bhils (26%) and the Varlis (15%).

Though rich in land, water and forest resources, the district is among the poorest in the state. It is also one of the lowest ranking among the tribal regions of the country with respect to the HDI and gender-related development. It is ranked as among the most backward areas in the country in terms of the wages and output of the agricultural sector, according to a ranking of 477 districts by the Planning Commission (Source: Planning Commission, 2003).

It is noteworthy, however, that the district has a sex ratio of 1006 women for every 1000 men.



Topography

The total geographical area of the district is about 1.7 lakh hectares, out of which only 33% is under cultivation. The predominantly hilly district has a forest cover of 59% and only 1% of the area is waste land.

The average annual rainfall is 3000 mm over about 100 days, but run-off is high due to hilly topography. The low-lying areas have fertile black soil, while the rocky red soil on the slopes is prone to erosion.

Economy

Agriculture is still the main economic activity, with 90% of the population depending on it for their sustenance. For many small farmers, however, the income from agriculture does not suffice, so they are forced to migrate in search of supplementary income. A large part of the population comprises landless tribals engaged in cattle-rearing and

agricultural labour. Other than these, there are the Kotwalias, one of the most disadvantaged landless tribal communities, who make bamboo articles for a living. Firewood meets the fuel requirement of 91% of the households.

There are approximately 100 small-scale industries in the Dangs. Tourism, which is already one of the important industries can be developed further. With proper management, the forests could serve as a sustainable means of generating livelihoods. Plantations and nurseries may be developed to generate employment as may agro-processing and dairy units.

Agriculture

Paddy, *nagli*, pulses and oilseeds are the main kharif crops, while gram, black gram, groundnut, sugarcane and wheat are the main rabi crops in the area. Finger millets (*ragi*) are the

best adapted for cultivation in the Dangs as it can grow on hill slopes and in comparatively dry conditions. Mangoes and custard apples are the major fruits grown in the area, exotic fruits like strawberries have started being grown in the Shamghan area.

Intervention Approach

Agriulture is the major source of livelihood for the rural population. Hence any intervention aimed at enhancing incomes at the village level must aim at increasing agricultural productivity. AKRSP(I)'s intervention programmes on agricultural development, water resource development, and soil and water conservation are all implemented with the objective of enhancing agricultural income in a sustainable manner. The interventions are designed not only to be environmentally sustainable but also institutionally sustainable. Consequently, they are carried out through the medium of village institutions. AKRSP (I)'s experience has shown that efforts at income generation through increased productivity must be accompanied by measures to improve awareness and access. Hence AKRSP(I)'s agriculture programme consists of two parts:

1. Interventions/ technologies for enhancing incomes through agriculture

2. Extension programmes to ensure effective dissemination and adoption of the interventions

Overall AKRSP(I) approach revolves around Village institutions, where farm based and non farm based programmes are implemented and hence village institutions are cross cutting across all the programmes.

The extension of the programmes are also ensured through the Village institutions

VI- Village Institutions, APD- Agriculture Programme Development, WRD- Water resource Development, SWC- Soil and Water Conservation, FDP- Forest Development Programme

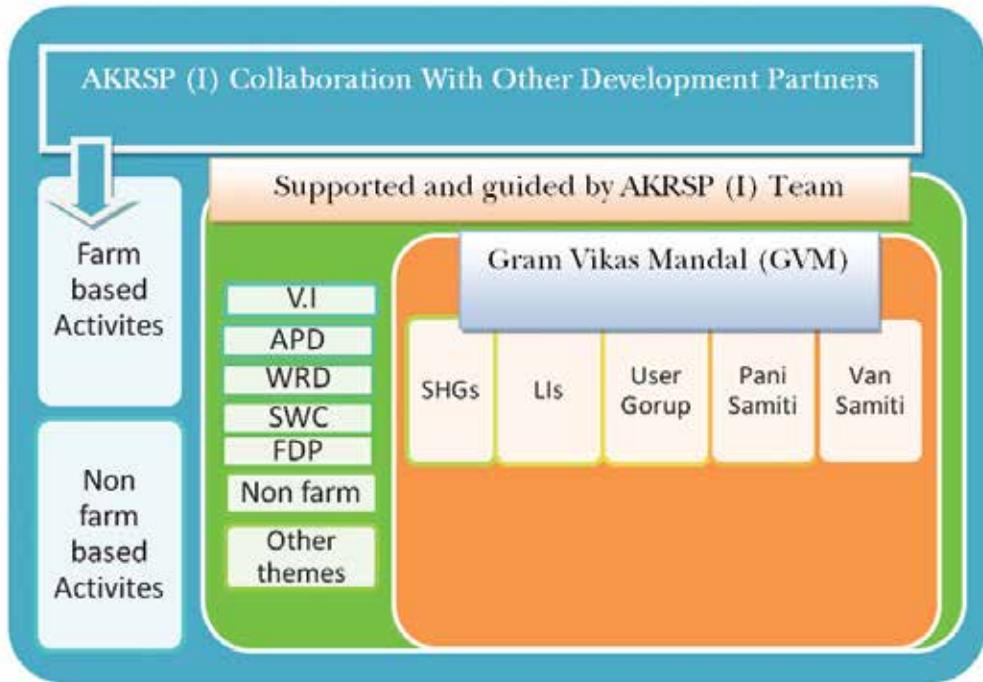
Agriculture-Related Interventions

Interventions in other areas

In Bharuch, Narmada, Surat, Tapi, and Vadodara, where the AKRSP (I) has been mobilizing tribal communities for the management of natural resources for three decades, women have been the chief focus of its activities. Altogether 11, 362 women have been involved in various activities listed in the following table. These women have formed village-level mahila vikas mandals and self-help groups. Four federations of mahila mandals, called mahila manches, have also been formed.

The following model gives an idea of our approach

AKRSP(I) Vision and Mission



Activities Involving Women

Agricultural activities	Soil and moisture conservation ctivities	Water resource development activities
Agriculture demonstration	Leveling land	Constructing check dams
Input supply	Plugging nalas	Setting up lift irrigation systems
Horticulture	Constructing gabions,	Digging and deepening wells
Organic farming	Bunds and check walls	Mobile engines
Root intensification		Working on micro irrigation schemes
Vegetable cultivation		
Vegetable kits		
Setting up vegetable nurseries		
Vermicomposting		

Women take the lead

Navagam is a village of 219 households. The majority of the population belongs to the Vasava community. The intervention in this village started in 2009 with the formation of a mahila mandal comprising of 120 members. AKRSP organized training sessions for these women to help build their capacity and boost their confidence. Initially, the mahila mandal started with demand generation for activities such as biogas, SRI and growing nurseries.

In 2012, under an employment guarantee programme of the Forest Department, the mahila mandal undertook the construction of 10 boribandhs³. On successful completion of this project they were further awarded the work of border plantation from the department, for which they earned Rs. 30,000 (approximately). Next they were entrusted with the building of a check dam along the border of three villages. With an outlay of Rs. 4,412,000, this dam has helped raise the water table in the village and directly improved the irrigation facilities of 15 persons. The women are now planning to start a fishery in this dam.

The mahila mandal has taken up watershed work for a scheme under the National Rural Employment Guarantee Act. What is more, it has become involved in the conservation of 171 hectares of forest belonging to the village. It has persuaded the forest department to ban the felling of trees and has dug a trench around forest. About 10 to 12 women take turns in guarding the forest regularly.

The growing confidence of the women has helped them take the lead in the decision-making process in the village. This has become a source of inspiration for other tribal villages in the area.

³ Temporary placement of cement bags filled with stones, mud and sand during the time of low stream flows directly on small streams and above existing check dams on the larger ones, for capturing late season flows.

In keeping with the philosophy of AKRSP (I), to begin with, staff members interact with the village leaders and women to make them aware of the organization's activities. Next, the villagers are taken to other project areas to get a feel of what AKRSP (I) does. After the initial interaction the Gram vikas mandal (GVM) is formed, which acts as a platform for learning through the sharing of ideas, the villagers elect their own leaders. It is mandatory to have an equal number of leaders from among men and women. The GVM meets once a month to discuss the activities initiated by the AKRSP (I) as well as other development issues. Under the GVM, which is a general forum, there are thematic groups like SHGs, user groups, lift irrigation society and pani samiti. The problems faced by these sub-groups and their agendas are discussed at the monthly GVM meetings. For The GVM selects extension volunteers (EV) to help the AKRSP (I) staff to implement different programmes at the village level. These volunteers get an incentive for the work they do. The AKRSP (I) facilitates the functioning of the village-level institutions in the initial phase. Later they are able to conduct the procedure themselves. Many EVs, for example, are very active and are doing wonderful work on their own initiative.

Replication in The Dangs Area

Community mobilization

When AKRSP(I) entered the Dangs in 2010, its initial task was to understand the community and build bridges. In January 2013, with support from the Axis Bank Foundation, it launched the Dangi Vikas Project with the objective of improving the livelihoods of more than 20,000 households in the Dangs and the adjacent blocks over a period of five years.

Women's Involvement in Agriculture and Allied Activities

Women are actively involved in the decision-making process of the village-level institutions. They participate in agricultural decision-making, training, field-level demonstrations, input procurement, and financial decisions. Certain activities, such as kitchen gardening and vermicomposting are designed especially for women. Some of the ways in which women are involved in different activities are as follows.



1. *Input procurement*

Every year the AKRSP (I) facilitates the procurement of agricultural inputs worth around Rs 3-4 million by the farmers in Dangs. Women leaders and GVM members collectively decide on the seed varieties and other inputs required through negotiated price with the vendors by. The women help in the process by taking loans from SHGs, which plan savings during the peak season. Since the women are able to arrange for the money from their SHGs, they have the right to take decisions. Women leaders of the GVM also keep track of the demand for inputs and are involved in buying these inputs.

2. *Trainings and Exposures*

The AKRSP (I) strategy is to take the farmers through a rigorous process of training and exposure before launching an activity. The activities launched in the Dangs are the system of rice intensification (SRI) entailing a rotation of paddy and gram and some other measures, vegetable

cultivation, landless garden, and vermicomposting. Under the SRI programme, AKRSP (I) involved around 4000 women farmers from new and old villages in village-level field days or exposure trips organized with a view to familiarizing them with the new cropping system. Women's SHGs have been formed for the dissemination of knowledge.

3. *Field-level implementation*

Women have been participating actively in the implementation of the SRI programme. In the peak cropping season, especially during monsoon, when rainfall is unpredictable and there is a shortage of labour, women's groups have been coordinating effectively to carry out the SRI in their land. In 2012-2013 and 2013-2014, when there was a shortfall of rain, it was the determination of the women's workforce that led to the success of the SRI programme.



Adar is a common practice in the Dangs. Under this practice, 2-3 months before the sowing of paddy and millets, farmers prepare the land by burning crop residue, wood, leaves and cow dung and mixing the ashes with the soil. They believe that this speeds up the process of germination and enhances the fertility of the soil. In reality this practice reduces soil fertility by destroying nutrients in the soil. It is also a waste of raw material that can be used as manure.

The AKRSP (I) has been dissuading the farmers from carrying on with this practice and has been promoting raised-bed nurseries instead. It conducted demonstrations and trainings for women as they form the major workforce involved in *adar*. In 2012, when this initiative began, only 68 farmers prepared raised beds. By 2014, the number of farmers practising the raised bed system increased to 800. This is one of the best examples of how women can serve as agents of change at the grassroots level.



Another initiative was to promote landless gardens⁴ among women of very poor households to ensure the nutritional security of such households. Training sessions were held for farmers' groups and for SHGs, with a special focus on women. More than 1000 women were trained in the skills of growing vegetables on homestead land. It was seen that just a small investment of around Rs 50 could fetch them visible gains.

4 In landless garden, vegetables are grown by specific method. A plastic gunny bag is filled with soil, FYM and manure in appropriate proportion. A piece of bamboo is inserted vertically in the middle of bag to make passage for watering, which is removed later on. About eight holes are made on the sides of the bag and seeds of particular vegetable are sown in the soil. When branches come outside, these are stacked with wall so that it may spread on the roof.

Support Activities

Promotion of organic agriculture

The tribals of the Dangs traditionally use crop residue and dung to make organic manure, so there is a lot of scope to develop this district as an organic district. Realizing this, the AKRSP (I) worked closely with SHGs to mobilize women for the production of vermicompost and Amrit pani⁵. Women were given support in the form of training and exposure to take up vermicomposting for their own use and for sale among farmers as a means of earning their livelihood.

5 An organic pesticide



Training In Income Generating Activities

Women are also being trained in other income-generating activities, such as mushroom cultivation and bee-keeping. The SHGs are directly involved in these activities. Landless women and widows of select tribal communities like the Kothwalia are being encouraged to take up goat-rearing. The AKRSP(I) provides each woman with five goats and helps with insurance.

Improved Housing

About 90% of the houses in this district are made of wood and bamboo, cemented by slurry of dung and mud. Earthen tiles are used for roofing and there is hardly any provision for ventilation or the passage of sunlight. Women and small children suffer the most as they spend the longest hours in these dingy, airless houses. In an effort to improve their living conditions, acrylic sheets have been used as improvised skylights to allow the passage of sunlight.

Dissemination of Knowledge

The AKRSP (I) encourages its beneficiaries to share their experiences with others during events organized under Mission Mangalam, a government initiative to promote SHGs, and those organized by other development partners.

Initially, the AKRSP staff was actively involved in disseminating information at such events, but now the women feel confident enough to share their experiences at such forums. They have also helped in the development of communication material, such as a documentary on SRI developed by the AKRSP (I).



Improvement of land and conservation of water

Though the district receives a lot of rain during the monsoon, there is heavy run-off due to the hilly terrain, and deforestation has added to the problem. The result is an acute scarcity of water during the *rabi* and summer seasons and the gradual erosion of soil. The AKRSP (I) is promoting watershed management to conserve both soil and water. The selection of the villages for such projects, as well as the planning, organization of physical labour and the payment of wages are handled by the GVM leaders. A number of women have been participating in these projects as members of GVMs as well as workers.

Another initiative to facilitate irrigation has been to provide mobile pumps to SHG members who are interested and eligible for forming user groups. The management of these pumps is in the hands of the SHG members under the guidance of the AKRSP (I) staff.

Conservation of Forest

AKRSP (I) has had a very rewarding experience in its efforts to promote Joint Forest Management (JFM) in the Netrang located in tribal South Gujarat region, where people have been involved in the protection of thousands of hectares of dense forest. The Dangs area already had *Van Samitis*, at the village level, formed by the Forest Department. However, these people's institutions



were not active. The AKRSP (I) took the initiative to revive these *Samitis* and get women to participate in JFM. As a result, women are now taking a keen interest in for the conservation of forest.

Emergence of Village-Level Leadership and Resource Persons

One of the most important indicators of development is the emergence of local leaders who take their own initiative to resolve local problems. The efforts made by the AKRSP (I) to nurture village-level leaders and resource persons in the Dangs have begun to bear fruit. The EVs and GVM leaders are capable of implementing programmes at the field level under the supervision of the AKRSP (I) staff. Women leaders groomed in the SHGs and GVMs have become vocal about

the village-level problems and are implementing programmes on their own. They have become assertive about their rights to drinking water supply and sanitation; demanded proper accounts and social audit of government programmes; and are fighting against alcoholism.

Outcome of Interventions

Although it is too early to talk about fundamental changes, there are definite signs to show that the process of improving the status of women has begun.

Membership of women In institutions

Area of work	Total
Working villages	86
- GVMs	78
- Pani samitis	16
- Lift irrigation societies	3
- User groups	20
SHGs	440
SHG members	4,865
SHG savings	2,246,786

In a short span of time (two years) AKRSP(I) has been able to touch the lives of the people of 86 villages and formed 78 GVMs for the implementation of various development interventions. About 50% of the members of these GVMs are women. One of the activities of the GVMs in which women have been participating actively is the collective procurement of agricultural inputs. In 2014 alone, inputs worth Rs 4 million were procured, helping the villagers save a net amount of Rs 0.7 million. This is a great achievement not only in terms of monetary gain, but also because it helps the community to appreciate the value of the collective approach.

The total number of SHGs formed in 84 villages is 440 and the total savings of these SHGs is Rs 2,246,786. Sixteen groups have been formed to tackle the problem of safe drinking water and women are taking the lead in this initiative. Women's SHGs have formed 19 user groups for the acquisition and use of mobile pumps for irrigation. In sum, armed with greater financial resources, women are not only acquiring assets collectively, but also becoming a part of the decision-making process.

System of Rice Intensification

The system of rice intensification was launched in the Dangs region in 2012. Initially, it was difficult to convince the farmers to adopt this system. However, once women were involved in training and extension programmes, it gained acceptance among the community. In the first year, only 247 farmers opted for the system, but the figure increased to 743 in the following year and in 2014, the total number of farmers practicing SRI was 2620. Some of the measures taken to increase productivity and reduce the cost of production are collective procurement of seeds, replacing the adar system with the raised-bed nursery method and the introduction of Cono Weeders for weeding. As the table in the following page shows, the net result has been a 40-50% increase in production.

Comparison of yields

Cluster	Grain production/acre (quintals)		Straw production/acre (quintals)	
	Traditional	SRI	Traditional	SRI
Ahwa	30.58	48.11	60.04	93.24
Subir	24.48	36.29	34.96	47.0976
Vansada	22.57	42.56	57.09	85.26336
Waghai	20.9	30.16	0	0

Conclusion

Women must be the focus of any agricultural programme. Though they are usually not assertive and not involved in the decision-making process at the rural level, they have the capacity to bring about fundamental change at the grassroots level. To tap the resources of this silent workforce, a programme must be designed to address their needs and interests, which may be area-specific. It must

be designed to include activities that can be implemented primarily by women, for example, homestead gardening. It must also focus on raising awareness among women, building their capacity and helping them to generate sustainable livelihoods. Once women are motivated, not only does the success rate of the agricultural programme in question increase, but there are visible improvements in the living conditions of the community.



Empowering Tribal Women through Vegetable Cultivation: A Case of Institutional Pluralism and Convergence

Sujit Sarkar¹, R.N.Padaria², R.R.Burman³, J.P.Sharma⁴,
Saheb Bhatyacharya⁵ and N.A.Kittur⁶



Scientist¹, Principal Scientist², Senior Scientist³, , Head⁴, Division of
Agricultural Extension, Indian Agricultural Research Institute, New Delhi;
Team Leader⁵, PRADAN; Project Leader⁶, Syngenta Foundation of India

Introduction

Empowerment of women is a major social issue which requires attention from all sections of society. The family structure and religion are among the important factors which can play a role in this context. Though the tribal population is an integral part of India's social fabric, it is still far from the mainstream of development. Historically, women in the tribal community played the dominant role in agriculture and all household activities, but never received any recognition. Moreover, they were deprived of education, besides being the victims of child marriage and domestic violence.

It is in this context that we conducted our study, choosing a block in the tribal-dominated district of Hoshangabad, Madhya Pradesh. The district is home to tribal communities such as the Gonds, Baigas, Korkus and Bhils, the majority of whom live in difficult geographies like forests, hills and undulating, inaccessible terrain, far from the cities.

Preliminary investigations about their socio-economic profile revealed that they lived as isolated entities for centuries, largely untouched by the society around them. This seclusion was responsible for slowing down their economic growth. From time to time, several developmental agencies took initiatives to change the fate of the destitute tribal women, but with little success. Gradually, they realized that the convergence of all developmental agencies was required

if the goal of empowering tribal women was to be achieved.

Operational Area Context

The study was conducted in the Kesla block of the district of Hoshangabad, which has been identified as a 'backward region' (Backward Regions Grant Fund [BRGF] district) under the 5th Schedule of the Indian constitution. More than 80% of the people belong to the Scheduled Castes (SC)/ Scheduled Tribes (ST) and have only marginal landholdings. The condition of the women is extremely deplorable. Only 35% cast their vote according to their own choice. They are illiterate and extremely poor, suffer from malnutrition, and are the victims of social oppression at the hands of the dominant social class. Almost half of the women (47%) either do not participate or participate only passively in the *gram sabha*. Nearly three-fourths (68%) either have no assets or no access to assets, making them more or less dependent on their husbands. Cases of extreme gender-based violence, including physical torture, forced labour and restriction on movement, are very common¹. The average size of landholdings in undulating terrain with low water-holding capacity is 1.5 ha. Almost half of the area (40%) is under forest cover. The net sown area is 40% of the total area and 37% of the total area is under irrigation.

1 Survey by Institute of Social Studies Trust, Delhi

The annual rainfall is 1030 mm, just below the national average. The major crops grown are wheat and paddy. The productivity is very low—that of, wheat is 1.5 tonnes per hectare (t/ha) (national average 2.6 t/ha), of paddy, 0.8 t/ha (national average 1.9 t/ha) and soya bean 0.62 t/ha (far lower than the national average of 1.1 t/ha)².

Development Context

The majority of the people in the area (60%) are food-insufficient. There are few employment opportunities due to the undulating, difficult terrain and the absence of industries. Outmoded practices of land husbandry are employed and the farmers rely mostly on rainfed agriculture, which makes for very low productivity. Neither the government, nor any private organization has introduced any systematic institutional mechanisms of investment for the development of resources that would help to economically empower the tribal women. Most people migrate to the nearby cities in the off season. This results in a social vacuum in the community and multiple gender or social problems. On the whole, the population is extremely vulnerable because of its low levels of literacy, awareness and knowledge, and its lack of skills related to modern livelihood opportunities. Moreover, their social morale, degree of self-

² BRGF Document, 2011–12

realization, self-belief, confidence and motivation are very low due to prolonged social oppression.

Methodology

As mentioned earlier, this study was conducted in four villages (Bhargada, Duari, Sadhpura and Chitapura) in Kesla block of Hoshangabad District. They were selected purposively as they are dominated by the tribal community. These villages were chosen also because PRADAN, a non-governmental organization (NGO) which works mostly with the Adivasis, has been implementing interventions in the area for several years. Twenty-five farmers were selected purposively from each village (12 self-help groups [SHGs]). In addition, data were collected from the control group to assess the actual impact of vegetable cultivation on livelihood security. The control group consisted of 40 farmers. Thus, a total of 140 farmers were interviewed for the study. Interviews, focus group discussions and group meetings were conducted to collect data from the tribal women. Secondary data were also collected to supplement the primary information. The key informant method of interview was used for the collection of in-depth information on selected parameters.

Interventions in Kesla

PRADAN started functioning in 1987, deploying teams to facilitate rural industrialization and the development of artisans. Its major focus was on agri allied activities—mainly poultry farming and mushroom cultivation. In 1998, an SHG-based approach to mobilization was adopted to create vibrant institutions at the grassroots level for tribal women and help them secure sustainable livelihoods. PRADAN started its intervention in integrated agriculture and natural resource management from 2005 onwards.

The journey of PRADAN was not smooth. The field staff faced strong resistance from the tribal community and the upper-caste communities, besides other obstacles. The impediments are listed below.

1. The tribals felt that their land was not suitable for the cultivation of vegetables
2. The cultivation of vegetables required substantial investment, which the tribal community could not afford.
3. The women had no knowledge of vegetable cultivation.
4. Hidden social and political agendas of the upper-caste communities and panchayats obstructed progress.

5. There was a lack of unity among the villagers.
6. The high level of inter-caste conflict damaged the cause.
7. There were insufficient storage facilities for vegetables.
8. There was no market nearby and the middlemen were unwilling to collect vegetables from such remote villages.
9. The tribals had no knowledge of pest management and soil-testing facilities.
10. Good-quality seeds for vegetables were not available.
11. It was problematic to bring resource persons to these remote villages to provide training.
12. The community's attitude towards development was characterized by indifference and they preferred to adopt a casual approach.

Given this scenario, PRADAN started an intervention focusing on integrated agriculture and natural resource management in 2005. A total of 714 SHGs were formed in 178 villages of two districts, covering 9335 families. PRADAN provided initial support for the formation of an SHG—linking the group with the bank, opening the bank account, maintaining the account of the group, etc. It then unrolled

some livelihood programmes, with the SHG members being given training for farming or any other self-employment activity of their choice. Initially, PRADAN supported the tribals by training them in improved practices of wheat and paddy cultivation, like System of Rice Intensification (SRI), System of Wheat Intensification (SWI), integrated pest management (IPM), integrated nutrient management (INM), line sowing and irrigation management. Later, the NGO realized that rice or wheat cultivation can bring only food sufficiency, without really resulting in economic empowerment of the people. Therefore, it started a campaign for vegetable cultivation to increase economic gain. It arranged for the necessary inputs, like seeds, fertilizers, insecticides and pesticides, by establishing linkages with different institutions. The NGO's staff also conducted varietal demonstrations and crop demonstrations, built greenhouses and polytunnels, etc. to convince the farmers that vegetable cultivation is possible in their area as well. PRADAN then helped the tribal community with collective marketing by developing vegetable production clusters of 6–10 of the surrounding villages, drawing on the experience of the world's largest poultry

PRADAN felt it was necessary to study the impact of multi-institutional interventions on the economic uplift of the tribal community.

cooperative, the Kesla Poultry Sangh (KPS). It introduced the collective procurement of inputs and door-to-door marketing of vegetables. It also established a farmers' collective in Dhodramau. PRADAN not only helped the tribal farmers directly by providing inputs and giving advice, but also helped them access credit from the bank, leveraging additional credit through mainstream linkages

with government agencies and departments like the Agricultural Technology Management Agency (ATMA) and Krishi Vigyan Kendra (KVK). It also utilized the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme for the creation of village assets and watershed development or renovation.

Though PRADAN tried overall empowerment of tribal women through commercial cultivation of vegetables, one cannot clearly say how far it managed to change things. For this reason, it was deemed necessary to study the impact of multi-institutional interventions on the economic uplift of the tribal community. This case study was conducted to examine the impact of such a development model on the livelihood security of tribal women.

Interventions of different institutions

Area of intervention	Organization	Intervention
Varieties/seeds	The Syngenta Foundation of India (SFI) provided seeds to PRADAN and selected the beneficiary farmers directly	Supplying the following— Cabbage: BC64, BC 73, BC 76, summer queen, green globe Cauliflower: Pawas, Suhasini, Snow heart, Barsati Okra: OH-016, OH-152 Tomato: Abhinav, Anup, Avinash-2, All-rounder, Rocky, To-1458
Creation of SHGs	PRADAN	Mobilizing farmers, holding meetings, training, linking with banks and providing follow-up support
Pesticides/herbicides	SFI	Supplying Actra, Proclaim, Cigna, Pegasus, Rifit, Gramoxone, Topik
Training and extension activities	PRADAN, ATMA, KVK	Organizing demonstrations and field days, holding meetings and campaigns, providing training on SRI, vermicomposting, IPM, INM, line sowing, irrigation management, etc.
Resource and infrastructural support	Panchayats and state development department	Providing legal or institutional support to villagers, constructing roads, setting up schools and hospitals, and providing <i>panchayats</i> with a building to hold public meetings
Credit support	Commercial and cooperative bank	Extending loans for crops and SHGs, providing <i>kissan</i> credit card, etc.

Results and Discussion

Socio-economic profile of respondents

The majority (60%) of the respondents were from the Gond community, followed by the Korku community (37%). The remaining 3% were from the Baiga community. Most of the respondents were above 40 years of age, barring 20%, who were newly married tribal women below the age of 30 years. As for educational status, 60% of the respondents had never been to school, 36% had studied till the primary level and a mere 4% had attended school up to a higher level. None of them had college or university education. All the respondents were dependent primarily on agriculture for their livelihood. Almost one-third (31%) had taken up poultry farming as a secondary occupation and 48% worked as labourers to supplement their farming activities

Communication pattern

Traditionally, women in tribal societies have not been allowed to make contact with people from the outside world. Activities like marketing, purchasing inputs and making bank transactions, which require social communication, are performed mainly by the males. However, the women were involved in all types of labour-intensive work,

like preparing the fields, cutting crops, sowing and irrigation. All the respondents reported that they had not received information on improved agricultural practices from any development agency, such as the Agricultural Development Officer, KVK and ATMA. Only 16% of the respondents listened to radio programmes regularly, and a mere 6% were lucky enough to be able to watch television programmes.

The communication behaviour of the women changed entirely once they joined the SHG. The members of the group now began to move around freely, be it to different places in general, institutions like the bank, the state development department, the PRADAN office, *panchayat* meetings, the police station or the neighbouring cities, like Kesla, Hoshangabad and Beetul, to market their vegetables.

Impact of vegetable cultivation

The focus of this research was to answer the question of how introducing the tribal community to vegetable cultivation helped to reshape the village economy and aided in the overall empowerment of tribal women. The case study attempted to explore the multiple impact of vegetable cultivation on the livelihood of the tribals and the specific mechanisms used by PRADAN to reshape the economy, i.e. engaging women in successful means of livelihood.

Change in Cropping Pattern

Season	Crops grown		Nature of changes
	2005	2013	
Kharif	Rice	Rice, maize, brinjal, chilli, bottle gourd, cucumber	The cropping pattern has changed from cereal to mixed (cereal + vegetable) cropping.
Rabi	Wheat, <i>kodu</i> , <i>kotku</i>	Wheat, chickpea, tomato, cabbage, cauliflower, carrot, radish, pea, okra	Traditional crops like <i>kodu</i> and <i>kotku</i> have been replaced by wheat and vegetables.
Summer	—	Tomato, brinjal, chilli, bottle gourd, cucumber, ridge gourd, pumpkin, okra	Fallow land is converted to productive land through vegetable cultivation.

Change in cropping pattern, practices and cropping intensity

The cropping pattern of the tribal community was dominated mainly by wheat and chickpea in the *rabi* season. In the forest area, the members of the community grew *segun*, *mohua*, species of bamboo and the *tundu* plant. However, they have started growing a few vegetables as well in the last five years, both in and around their villages. These include chilli, cabbage, cauliflower, tomato, brinjal and okra. Moreover, there

has been a shift from traditional methods of cultivation to methods using advanced technology. The farmers are now practicing line sowing of vegetables, drip irrigation and the furrow method of sowing. They have become familiar with plastic tunnels, nursery bed raising, the use of polyhouses, IPM, INM, etc. In practicing the new techniques, the farmers adopt a group approach. The use of inputs like fertilizers, pesticides, green manure and vermicompost has enriched the agricultural land. The cropping intensity has also gone up as farmers

are now growing both summer vegetables and rabi vegetables, besides kharif rice and rabi wheat. Ninety per cent of the farmers in the area have begun using certified High-Yield Variety (HYV) seeds instead of traditional seeds.

Increase in knowledge

A short test was conducted to assess the impact of the training on the farmers' knowledge of vegetable cultivation. The test consisted of five multiple-choice questions and one open ended question. The questions were framed with the help of PRADAN officials as well as farmers, so that they would be applicable to the area where farmers had received group training.

Table 3 shows that 79% of the women from the SHG knew the name of the tomato variety they were growing, whereas only 34% of the farmers from the control group knew the name of the variety being cultivated. The proportion of SHG members (88%) who knew about the optimum date for sowing brinjal was high, compared to those who were not members. Sixty-seven per cent of women from the SHG answered the question on the recommended dose of fertilizer for cabbage correctly, as against 11% from the control group. However, the proportion of SHG members with a good knowledge of IPM (48%) and the water stress-resistant variety of tomato (39%) was low.

Overall, the farmers had a good knowledge of different aspects of vegetable cultivation, but they were not very well-informed about a few new and complex matters, like IPM, INM and the water stress-resistant variety of tomato. Therefore, training should emphasize these complex and technical issues.

Skills and capacities

Various skill development programmes were introduced as part of the interventions. Table 4 shows that the majority of the farmers (42%) had learnt and practised the techniques of nursery bed preparation for vegetable cultivation. Almost half of the respondents (45%) had some difficulty learning and practising it, while 36% had mastered it and could practise it efficiently. New skills related to building greenhouses and polytunnels had been acquired and were being put to use by 13% and 33% of the farmers, respectively. Less than one third of the beneficiaries had mastered the skills required for practising IPM and INM (27% and 14%, respectively). The acquisition of skills related to modern irrigation techniques, like drip and sprinkler irrigation, helped to save water in areas with a shortage of water. Training the tribal community in how to sort and grade vegetables and the utilization of this knowledge (68%) paved the way for the practice of commercial agriculture. Thirty-six per cent of the farmers learnt how to

Knowledge level of women (treatment group, n=100 and control group, n=40)

Sl No.	Question	Treatment group (SHG members)	Control group (Non-members)
1	Which of the following is a variety of tomato in your area?	79	44
2	Which of the following is the optimum date for sowing brinjal?	88	32
3	Which among the following is the critical stage for irrigating the chilli field?	74	27
4	Which of the following is the recommended dose of fertilizer for cabbage?	67	11
5	Do you know about IPM? If so, then describe it.	48	14
6	Which of the following varieties of tomato is grown under conditions of water stress in your area?	39	7

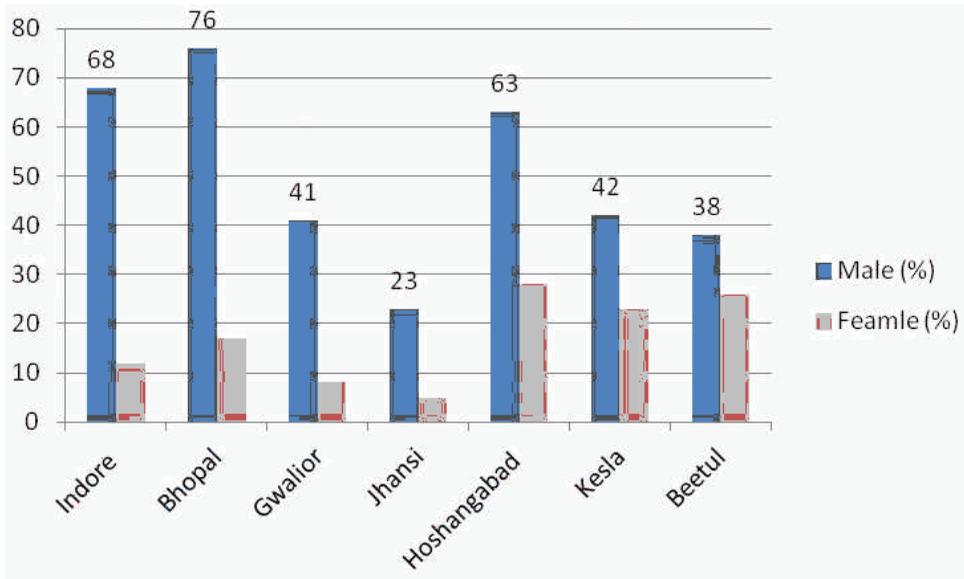
use new machinery, like seed drills, zero tillers and knapsack sprayers, introducing mechanization to the area. However, 58% reported that they were finding it difficult to use some of the new machinery, and sought more training and guidance from the NGO. Twenty-four per cent of the farmers reported that they had learnt and were using the methods of staking for tomato and brinjal, and air layering for bitter gourd, bottle gourd, etc. The farmers reported that their marketing skills had improved. The training had made them better

equipped to persuade and impress the consumer, and their bargaining power had increased. The soft skills they had learnt, like conducting meetings, record-keeping and book-keeping, had helped them feel like empowered and vibrant women who were capable of fighting for their rights at any forum.

Skills Acquired by Tribal Women (n=100)

Skill acquired	Fully learnt and practising efficiently	Learnt and practising with some difficulty	Learnt but not practising
Nursery bed preparation	42	38	20
Polyhouse	36	45	19
Greenhouse	13	27	60
Polytunnel	33	46	21
Integrated pest management	27	35	38
Integrated nutrient management	14	38	48
Modern irrigation techniques like drip irrigation, sprinkler irrigation, etc.	37	43	20
Sorting and grading of vegetables	68	30	2
Operating seed drills, knapsack sprayers, etc.	36	58	6
Staking and building layering structure	24	36	40
Marketing and selling skills	54	23	23
Soft skills, like conducting meetings, book-keeping, etc.	74	16	20

Migration pattern



Migration

Earlier, the entire farming system was dominated by cereal farming, which was quite insufficient for the livelihood of the people. As a result, poverty and malnutrition were quite rampant and the inhabitants of the region had to struggle much harder for their livelihood than the population in the other regions of Madhya Pradesh. The adverse conditions led to a high rate of migration to the cities nearby.

The farmers used to go to cities like Indore and Bhopal to work in the fields of big farmers. By way of wages, they used to get wheat (4 qt), which was used for home consumption for entire year. The migration pattern of 2005 is presented in Figure 1, which shows that the majority of

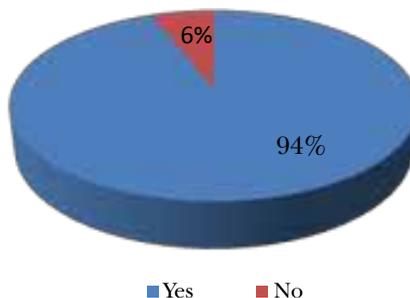
the respondents (76%) went to Bhopal in search of employment as daily wage labourers in construction work, agriculture, as cleaners, etc. It may be noted that while women migrated to cities nearby, like Kesla, Hoshangabad and Beetul, men migrated to far-off cities, like Indore, Bhopal and Gwalior.

The fact that most migration is caused by economic factors suggests that it can be reversed with the help of continued interventions to strengthen the population's livelihoods. In this case, the introduction of vegetable cultivation by PRADAN has motivated almost all the households of the village to continue practising agriculture and this, in turn, has reduced the migration of the youth to different cities and towns.

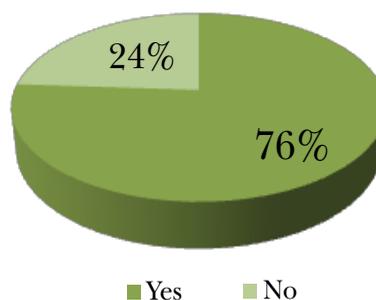
Food and nutritional security

The seasonal variation in income used to have an impact on the food intake of the farmers. Almost 30% of the respondents agreed that there was such a variation in their food intake before they started cultivating vegetables. Among the non-beneficiary families, 87% reported that at present they still face seasonal variations. Before the intervention, the beneficiaries had reported that they did not have sufficient food round the year. They had to supplement their incomes by working as daily labourers for a minimum of two to three months. Some of them migrated to other states during these months, together with their families. However, as a result of the interventions of PRADAN and its sister institutions, the availability of vegetables has increased round the year. In the case of certain communities, milk and milk products have also entered the food basket of the beneficiaries. The availability and consumption of vegetables has helped to ensure the nutritional security of the people. In order to get quantitative responses, we asked the respondents how many meals they had had in the last week. Almost 94% of the beneficiaries responded that they had had three meals a day in the preceding week. The corresponding percentage for the non-beneficiaries was approximately 76. The stark difference between the beneficiary and non-beneficiary villages reflects

Food security of SHG members & Food security of non-SHG members



Food availability among non-SHG members



the impact of vegetable cultivation on the food and nutritional security of women.

Institutional Impacts

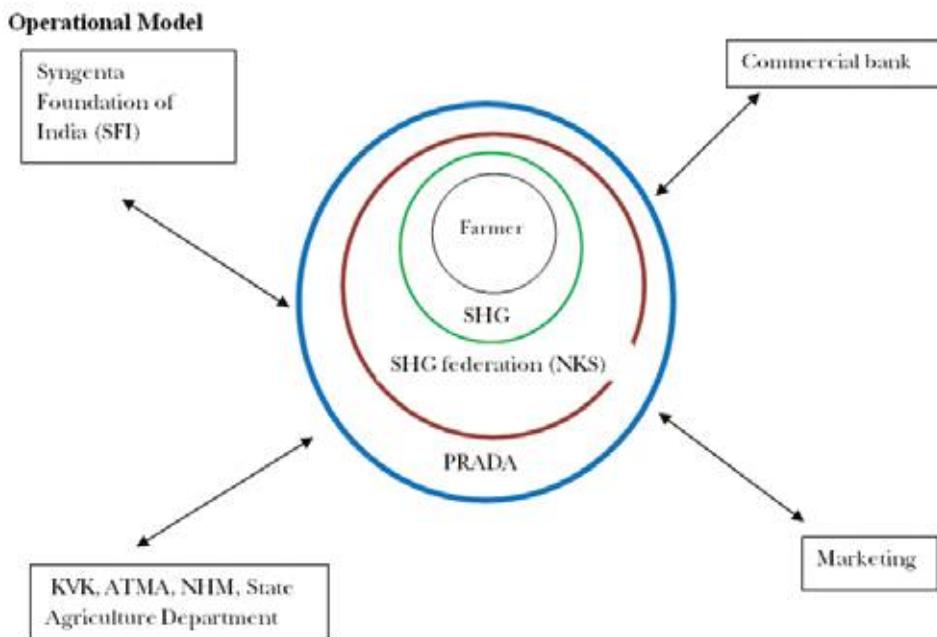
The major social impact of the intervention has been the creation of new institutions and the establishment of linkages with these for the overall empowerment of the tribal women. The cluster approach to vegetable cultivation for the development of livelihoods

has resulted in the creation of numerous women's SHGs in the villages. All members of the SHGs were required to be women and to belong to the SCs/STs. After an SHG had functioned successfully for three years, it was linked to the commercial bank to start its own venture or create livelihood opportunities. Technological support was provided both by private institutions like the SFI and government agencies, such as ATMA, ICAR and Krishi Vigyan Kendra. The SHGs were also linked with market agencies, middlemen and input dealers for commercial vegetable cultivation to augment their income from vegetable cultivation.

It was realized that for the farmers to be able to fight for their rights and sustain their efforts, they required a strong institution which would help them take care of themselves even after PRADAN or the SFI withdrew their support. So, the Narmada Krishi Sangh (NKS), a federation of SHGs, was created. Now the NKS arranges for all the inputs required for growing different vegetables and the inputs are procured at a minimal cost. It also sells the farmers' produce collectively to maximize profit.

On the basis of the case study, we have conceptualized an operational model which can be replicated in other states as well.

Institutional linkage model



Cultural Impact

The beneficiaries reported that the major socio-cultural impact of the interventions is an increase in their prestige and the recognition they receive, these being a product of their ability to earn more. They are now treated with greater respect by those belonging to the upper castes. More than three-quarters (84%) of the women reported that the additional income from vegetable cultivation has enabled them to spend more on their children's

education, while 81% said the same with respect to their children's healthcare (81%). All respondents agreed unanimously that the community's food habits have undergone a sea change since the introduction of vegetable cultivation. Earlier, they consumed mostly *Kodu* and *Kutki* with *chana dal*, but now they have all kinds of vegetables. Vegetables like capsicum, bottle gourd, okra and cabbage were not common earlier, but now these form a part of their diet.

Cultural impacts (n=100)

Sl. No.	Area of impact	Type of impact	%
1	Prestige and recognition	The farmers' prestige and the recognition given to them have increased due to the rise in their income from wheat cultivation.	68
2	Capacity to spend on children's education	The farmers can now dream of investing in their children's education, something which was unthinkable earlier.	84
3	Ability to spend on health of family members	The farmers are able to meet their emergency medical expenses out of the income they earn from farming activities and from the savings of SHG funds.	81
4	Change in food habits	Earlier, the members of the tribe used to regularly consume black <i>rotis</i> made of <i>kodu</i> and <i>kotki</i> . This was tasty as well as good for the health. Traditionally, they offered <i>rotis</i> made of wheat only to guests or had them on special occasions. Many consumed such <i>rotis</i> with <i>mahua</i> flower juice, i.e. wine.	100
5	Status of women in the family	The status of women in the family has improved.	73

The impact of vegetable cultivation is evident even in the attitude and mindset of the tribal women. They not only cultivate vegetables, but also do not hesitate to fight various social evils, such as rape, alcoholism and oppression by the upper castes, under the Narmada Mahila Sangh, a federation of tribal women which fights against all types of social injustice.

Economic Impact

Impact on income

Earlier, the tribal women grew only wheat in the *rabi* season, paddy (in the lower land) in the *khari* season and maize, to some extent. However,

these cereals were consumed mostly by the farmers themselves. As a result, they did not earn much from agriculture and had to sell *mahua* fruit, *mahua* wine and *tendu* leaves to meet their requirement for cash. This income did not suffice to finance their children's education, healthcare needs, requirements of clothing and expenditure on festivals. Vegetable cultivation has helped them solve this problem to a large extent. On an average, a farmer owning 0.6 acres of land earns Rs 12,900 (in one season). The farmers are, therefore, convinced that cultivating vegetables is far more profitable than growing traditional cereals.

Income from vegetable cultivation (n=100)

Crops	Area	Production (qt)	Cost (only external cost) (Rs)	Income (Rs)	Net profit (Rs)
Paddy	1 acre	6-7	3000-4000	7000	3000-4000
Wheat	1 acre	8-10	10000-12000	13000-15000	3000-5000
Chilli	10 decimel	2	1800	4000	2200
Brinjal	10 decimel	2	1500	4500	3000
Tomato	10 decimel	1	1300	3000	1700
Cabbage	10 decimel	8	1500	5000	3500
Okra	10 decimel	1	1000	2000	1000
Field pea	10 decimel	1	1000	2500	1500

Creation of new assets

The farmers were encouraged to use more land for the cultivation of vegetables. The additional income from vegetable cultivation was used for purchasing different assets.

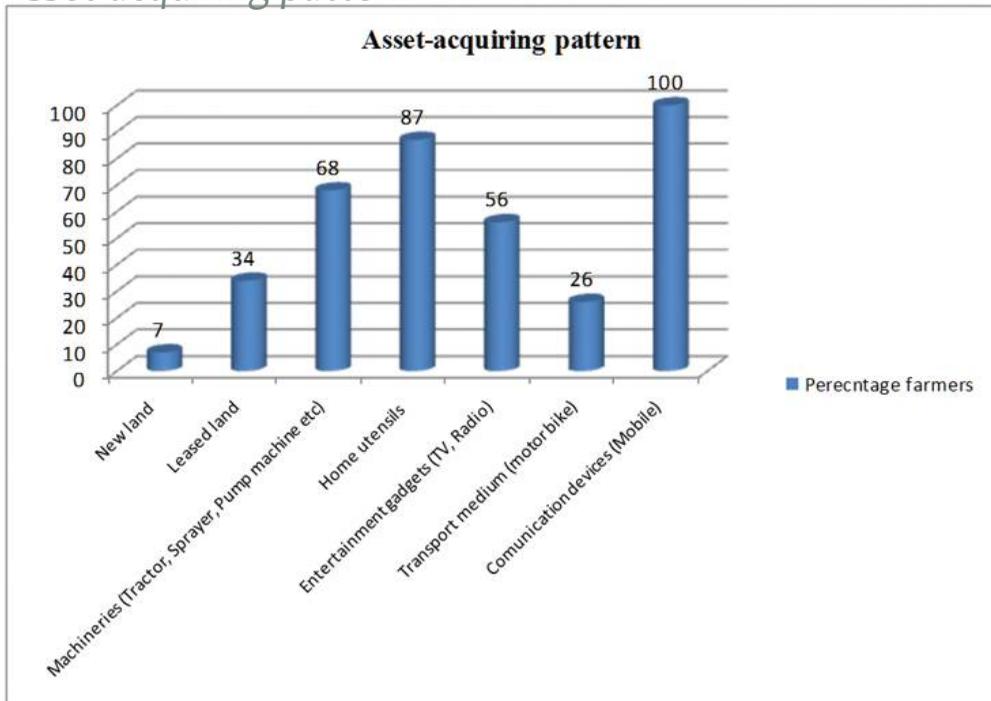
From the Figure below, it is clear that 7% of the farmers purchased new land for vegetable cultivation, while 34% took land on lease for this purpose. New machinery, like tractors, sprayers, pump machinery and seed drillers, was purchased by 68% of the farmers. The majority of the respondents (87%) are now able to buy the necessary utensils for their kitchens and have adopted more sophisticated living standards. Television and radio sets have been purchased by 56% of the respondents, and about a quarter

(26%) have purchased motorcycles. All respondents reported that they have mobile phones, which they use very frequently to contact the input agency, marketing agency and staff of the NGO.

Reduced dependency on moneylender

Most members of the tribal communities are credit-constrained, which is a major reason for the lack of economic opportunities and social development. SHGs have allowed the beneficiaries to pool their resources and access credit at a much lower interest rate than that demanded by moneylenders, who not only charge exorbitant interest rates but also exploit the poor and marginal

Asset-acquiring pattern



farmers. The SHG approach has helped to reduce the farmers' dependence on moneylenders.

Factors Critical to Success

The in-depth discussions with the farmers and officials of all the institutions identified the following factors as being critical to the sustainability of this model.

- 1) The philanthropic philosophy of PRADAN and its determination to serve the tribal community
- 2) The deployment of a group of young dedicated field staff and community service providers from the villages
- 3) The attempts to explain the concept of SHGs to the farmers and convince them that they can benefit from them
- 4) The technological and financial support from the SFI and its sister institutions
- 5) Building strong linkage among all stakeholders
- 6) Forming a federation of SHGs—a major factor behind the success of the model
- 7) The cooperation of the panchayats

- 8) The will of the tribal women to break the shackles of poverty
- 9) The visible benefits of vegetable cultivation, in the form of more cash and assets
- 10) Continuous persuasion, training and support by PRADAN

Strategy

The women were still facing some problems and the main strategies suggested to solve these, as mentioned by the respondents, were as follows.

1. Subsidy on major inputs like seeds, fertilizers and petrol would lower the cost of cultivation. Purchasing in bulk through the SHG federation would also help to some extent.
2. Constructing different water management structures in the fields could solve the problem of irrigation, and training the women in water harvesting could solve the problem of water stress.
3. Training the farmers in IPM would be useful as they could then manage the insect and pest problem by mechanical, cultural and biological methods.
4. The farmers could be motivated to approach a government department to have their soil tested and PRADAN could also

set up a soil testing facility for the convenience of the farmers.

5. The MNREGA scheme could be linked with farm operation to solve the labour problem in the area through the intervention of PRADAN and the Panchyats.
6. Building small low-cost structures for the storage of vegetables, with locally available raw material, would be useful.

Conclusion

The results of the work done by PRADAN have been positive. The introduction of different interventions has led to an increase in livelihood opportunities for the people. There has been a reduction in seasonal variations in income and consumption, and this has brought stability in the lives of the beneficiaries. Entrepreneurial capabilities have been developed among the beneficiaries and they have started taking steps towards self-sustenance. They spend the surplus from their increased income on the education of their children, better healthcare for their families and the creation of assets. Since the intervention was launched, the assets of the beneficiaries have increased substantially. These include not only fixed assets like land, but also movable assets like home accessories, motorcycles and farm equipment. The interventions have had a considerable impact

on the beneficiaries' income and food security, besides leading to occupational diversification and helping to strengthen people's institutions. From the study, it can be concluded that the convergence of different development institutes and their synergistic action helped to enhance the livelihood security of the tribal women. The case study highlighted the need for a group approach to farmers with small holdings. The concept of forming federations of SHGs involved in a particular enterprise, like the KPS and NKS, was proven to be a sustainable model for livelihood security, as well as the overall empowerment of tribal women.

Reference:

Project Report (PPT and word file), PRADAN, Kesla, Madhya Pradesh.





Dedicated to Late Sitaram Rao, mentor and guru of Indian microfinance and livelihoods movement, the Case Study Competition seeks to compile best practices, breakthroughs on the ground, sectoral innovations and efforts that have helped the poor to move from subsistence to sustainable levels of livelihoods. The Compendium which is a part of the Knowledge Series is envisaged to inform and influence practitioners, promoters and policy makers supporting livelihoods promotion.

The theme for this year's Sitaram Rao Livelihoods India Case Study Competition 2014 was **Empowering Women in Agriculture**. The Case Study Competition invited cases of initiatives that have helped recognize the role and rights of women in farming and identify efficient ways to support them.

ACCESS Development Services

28, Hauz Khas Village, New Delhi – 110016

Tel: 011 26510915, Fax: 011 26850821

www.accessdev.org

