

**Farmers Field and Business School Intervention
in Pathways SGP Project of CARE India:
A Study in Kandhamal and Kalahandi Districts of Odisha**

By

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At- Ramchandrapur, Po - Jatni, District - Khurda, Bhubaneswar 752050, Odisha, India

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Published by : Centurion University of Technology and Management
At- Ramchandrapur, Po - Jatni, District - Khurda,
Bhubaneswar 752050,
Odisha, India

Printed at :Srimandir Offset Pvt. Ltd., Bhubaneswar

Acknowledgement

We are grateful to the CARE India for assigning the evaluation of FFBS to us. We would like to thank Mr. Satish Kumar, Mr. Tapas Das, Mr. Mausam Mhaskey for their unstinted support and cooperation during the field visits in Kandhamal and Kalahandi villages.

We would like to extend our gratitude to the field staff of Pathways Mr. Tapas Das and Mr. Mausam for providing us all the necessary background and support in the field. We would also like to thank the two Master Integrators, Mr. Bholanath Das and Mr. Padman for their immense support in the field. The community resource persons Ms. Bishnupriya Majhi, Ms. Rajbala Singh of Kandhamal and Mr. Abhimanyu and Mr. Biswa Majhi of Kalahandi for providing insights based on their long term engagement with the local communities and, supporting data collection.

The women members of different SHGs in both the districts gave us time and useful inputs for the study. We gratefully thank them for their valuable time and contribution to this evaluation study.

Dr. Smita Mishra Panda
Dr. Supriya Pattanayak

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Abbreviations

CRP	Community Resource Person
FFBS	Farmer Field Business School
FGD	Focus Group Discussion
ICDS	Integrated Child Development Services
LSP	Livelihood Service Provider
MI	Master Integrator
NTFP	Non-timber Forest Produce
NGO	Non-governmental Organisation
SC	Scheduled Caste
ST	Scheduled Tribe
SGP	Supplemental Grant Period
SHG	Self Help Group

EXECUTIVE SUMMARY

- Kandhamal and Kalahandi two of the extremely poor districts of the country have about 70% ST and SC population and large proportion of them do not have access to basic services and opportunities. The aim of Pathways project was to mainstream and realise sustainable livelihood security for directly about 13,000 women from SC and ST households and additional well being benefits to another 48,000 persons in their households. Building on the traditional Farm Field School (FFS approach) which places emphasis on hands-on management skills based on adult learning principles, the FFBS is unique in its inclusion of community approaches to visioning and planning, sustainable agriculture, market engagement, nutrition, gender and performance management. CARE India through its Pathways project has taken the initiative of intervening through NGO partners in the initial stages and subsequently themselves in implementing Farmer Field and Business School (FFBS). The aim of the FFBS was to promote a hands-on, learning by doing approach through which (around 25-30) farmers meet regularly during the course of cropping season to learn the new agricultural techniques and technologies and experimenting these treatments on group managed demonstration plots or any other area specified. Training was also provided on livestock management, sustainable collection and post-management of NTFPs, market engagement and value chain development, nutrition and gender. The focus of the interventions was to build capacities of women farmers through the SHG platforms at the village level. The SHGs were those formed by the government through ICDS and Mission Shakti programme. Efforts have been made to federate the SHGs in both the districts. The project period was from 2012 to 2015 and was extended to March 2017.
- CARE India requested Prof. Smita Mishra Panda and Prof. Supriya Pattanayak of the Centurion University of Technology and Management (Odisha) to undertake the study of implementation of FFBS and assess the impact of the interventions on SC and ST women smallholder farmers' productivity and empowerment in more equitable agriculture systems at scale. In addition, the study aimed to further recommend implementable strategies for capacity development of women farmers in both the districts.

- The field visit was undertaken from 15th to 18th March 2017 in selected villages of Kandhamal and Kalahandi. Relevant literature was collected and discussion took place with various stakeholders. Because of the researchers past association with the area and support of the CARE India field staff, the short time was productively used. The researchers had a series of interactions with district coordinators, master integrators, community resource persons, livelihood support providers, Agri-kiosk owners, male champions and women SHG members and non-members. Major observations and concerns were presented before various stakeholders to solicit their comments and feedback. In doing the above exercise, the researchers followed the FFBS manual and tool kit as a reference point. Data was collected through questionnaires, focus group discussions, key informant interviews and secondary literature such as baseline and endline studies. Based on the findings and observations, the researchers have prepared this report for CARE India.

Summary of Findings

CARE India has developed a manual called Pathways Global FFBS toolkit for the purpose of “hand holding” support to all implementing authorities while up-scaling the programme. It comprises 8 modules - a) Facilitation in which the trainer should organize herself for administering the modules, b) Agriculture, c) Livestock, d) Non-Timber Forest Produce, e) Marketing, f) Nutrition, g) Gender, h) Monitoring and Evaluation through adoption of FFBS approach. The findings are presented below:

Agriculture Productivity

Women farmers in both the districts mentioned having undertaken the following trainings and adopting improved agricultural practices. The package of practices included summer ploughing, germination testing of seeds, seed treatment, line sowing, adoption of improved (high yielding) drought and pest resistant seed varieties, use of technology in sowing, weeding, spraying of organic pesticides, threshing and winnowing, moisture content testing, installation of bird perches, proper harvest and post-harvest practices, storage and diversification of crops.

The major agricultural produce includes paddy, black and green gram, kandula and channa dal, millets, maize and cotton. Line sowing and use of technologies were the best learnings mentioned by the women farmers. The benefits of these learnings were attributed to reduced labour cost, increased productivity and drudgery reduction.

Livestock

Implementation included primarily poultry and goat farming – feed management, reproduction, disease management, rearing of chicks, construction of goat sheds and poultry house etc. Livestock rearing was adopted by women farmers to supplement income during lean season and in times of adversity. However, women preferred to rear country birds than the improved varieties of chicken that were promoted by the project.

Non-Timber Forest Produce (NTFP)

Mahua flower is the most important NTFP in both the districts and the largest supplement to the household income. The other NTFPs are Harida, Bahada, Amla, Bhalia seeds, Char seeds, Sal seeds, Hill broom, Tamarind, Mango, Turmeric (grown in the forest), Sal and Siali leaves.

The best learnings mentioned by women farmers included collection of NTFP in a clean manner, drying, weighing, aggregation and marketing. Some women were able to take greater advantage of these learnings than others because of the group dynamics and the quantum of NTFP collection.

Marketing

The best learnings for NTFP marketing were aggregation and therefore better bargaining capacity, proper weighing and therefore lesser chance of exploitation, and better market information (display boards in every village). However, with respect to agriculture produce, most respondents reported that paddy was largely cultivated for household consumption, while a small number (that too in a good year) reported that any excess was sold in the local market.

The women farmers had mixed responses to Agri-kiosks. Where Agri-kiosks were located close to the communities, the uptake of agricultural inputs was much higher than when they were at a distance or where there were other players in the market.

Nutrition

Improved agricultural productivity, diversification and kitchen gardens have augmented women farmers and their households' nutrition requirements. More importantly, the training has created increased awareness of the importance of eating nutritious food such as vegetables, legumes and animal protein.

Gender

Awareness about gender relations and more importantly gender equality was visible among the women farmers. The training has made a positive impact on gender behaviour change promoting women's empowerment and men's engagement.

Male spouses participation in all household activities as well as agricultural operations has increased substantially as reported by women farmers.

Women's decision making ability at the household level has enhanced especially with respect to education of children, healthcare and asset building.

Sustainability and Impact

- Sustainability of the project depends on capacity to manage the strategic and operational activities, including financial and institutional viability of the SHGs. While SHGs have been graded and FFBS interventions have been differentially targeted, efforts have not been made to include all SHGs in the village. Some of the SHGs that had become non-operational have been revived in the past two years, which goes to prove that women find SHGs a very useful institution.
- Although the sustainability strategy of FFBS was to establish linkages with government programmes (e.g procurement systems, ITDAs, Animal Husbandry/Veterinary, Horticulture, Fisheries, Health, Education, etc.) and field functionaries, there was not much evidence of the same in the villages visited.
- Diversification of crops and kitchen gardens has added to food and livelihood security among the communities.
- Only limited technology was provided to women farmers, both in agriculture and allied activities. Women farmers expressed desire for more

technology, and in some instances even for manual devices as it would enable them to use them in the absence of power supply.

- Disaster mitigation and risk reduction was not addressed by FFBS, although it is central to sustainability of agricultural production and people's livelihoods in remote areas.
- There is limited effort to enhance NTFP production in both the districts.

Lessons learnt/ Conclusions – way forward

- Women farmers who were previously excluded from the mainstream have started operating in the market, in both input and output sides, with a higher bargaining power because of support from the Pathways project. Even those who are not members of the SHGs have also benefitted because of the demonstration effect of the FFBS activities. In a sense, the marginal members of the local community became active participants in the development process.
- Spouses of women farmers have also shown changes in their attitude and behaviour, especially when it comes to sharing household responsibilities as well as agricultural operations. Such a change enabled women to participate in meetings in the public domain and engage independently with the banks and the market. It has also enhanced women's decision making role at the household level. In some villages, women's collectives were empowered enough to stop brewing of illicit alcohol and its use to a great extent. Signs of transformation in gender relations for a more egalitarian society are clearly evident in the study villages. The idea of developing male champions in the villages has been a success in the Pathways project.
- Although there has been some effort to federate the women SHGs, members are yet to achieve shared understanding about the ownership of the people's institution. The programme has not sufficiently explored the linkages with SHGs, especially in terms of using the savings for agricultural purposes. There is a need to help in technology diffusion for productivity enhancement, aggregation and marketing of farm produces to benefit the farmers. The role of the Agri-kiosk is critical as it is manned by a progressive farmer from the village. However, it is inadequately utilised (e.g Agri-kiosk can work as an aggregator more effectively). The Agri-kiosk

owner needs to be compensated for his/her involvement in the SHG and federation activities. Given their financial condition, expectation of voluntary action is unrealistic. CARE India must provide mentoring services to the SHGs and the federation for sufficiently long time so that they can stand on their own feet.

- The Community Resource Persons who form the backbone of the programme are small in number and poorly remunerated. While they are performing to the best of their capacity, they have limited knowledge to start with in agriculture and allied sciences, market dynamics and linking with government programmes. CARE India should consider deploying appropriately qualified human resources at the field level for better implementation of the programme especially strengthening the SHG and federation functioning, streamlining their internal operations, mobilizing members for better participation, productivity enhancement and market linkage, at least for three more years.
- Ecosystem approach could have been sustainably adopted, which seems to be a missed opportunity.
- The overall implementation of the FFBS trainings in Kalahandi is less effective compared with Kandhamal district. The selection of villages in Kandhamal was more coherent (in 2 compact clusters) as compared with Kalahandi villages which were far flung. Therefore, the CRPs were less efficient in performing their role in Kalahandi villages.
- As the villages in Kalahandi were large compared to Kandhamal, the spread effect within the village was limited.
- Although the package of practices as outlined in the FFBS tool kit are of very high quality, however, they have not been adequately utilised due to limited capacities of the CRPs and LSPs.

To consolidate the gains thus far and put the community in a trajectory of sustainable livelihood security, active support through CARE India, for another three years will be essential. Subsequently, CARE India can withdraw in next 3 years.

SECTION I: BACKGROUND OF THE FARMERS FIELD AND BUSINESS SCHOOL INTERVENTION

1.1 Introduction

Kandhamal is one of the tribal dominant districts of Odisha. More than 60 percent of the population of the district belongs to excluded SC and ST communities. As per the 2011 census the population of the district is 7,33,110. Out of the total population the ST constitute 53.58 % of the population while SCs comprise 15.76 percent of total households. 65.12 percent of the total population is literate. Similarly, Kalahandi district has a total population of 1,57,6869, out of which 18.17% are SC and 28.50 are ST population. The literacy rate is 60.22 percent. A large proportion of the SC and ST communities in both the districts presently do not have access to many education, health, livelihoods opportunities as well as government facilities.

CARE India through its Pathways project sought to enhance poor women's productivity and empowerment in more equitable agriculture systems at scale using a strong gender focus. The project is committed to promote women in smallholder agriculture in developing countries around the world to meet the food requirements of their households. Pathways project has promoted kitchen gardens and establishing the Farmers Field Business School in the districts of Kalahandi and Kandhamal in Odisha. The aim of the FFBS was to promote a hands-on, learning by doing approach through which (around 25-30) farmers meet regularly during the course of cropping season to learn the new agricultural techniques and technologies and experimenting these treatments on group managed demonstration plots or any other area specified. The focus of the interventions was to build capacities of women farmers through the SHG platforms at the village level. Interventions were made in 20 and 15 villages of Kandhamal and Kalahandi districts respectively. Annexure 1 gives the list of the villages in both the districts. Care India has developed a manual called Pathways Global FFBS toolkit for the purpose of "hand holding" support to all implementing authorities while up-scaling the programme. It comprises 8 modules – a) Facilitation in which the trainer should organize herself for administering the modules, b) Agriculture, c) Livestock, d) Non-Timber Forest

Produce, e) Marketing, f) Nutrition, g) Gender, h) Monitoring and Evaluation through adoption of FFBS approach.

Objectives of the Project

The broad objective of the study is to assess outcomes of Women Farmers Field and Business School (FFBS) approach in Pathways SGP project villages in Kalahandi and Kandhamal districts of Odisha.

The specific objectives of the study are to:

- Understand the context (including market) within which women farmers operate,
- Identify the opportunities and constraints faced by various stakeholders (SHG group members), community resource persons, etc.
- Assessment of the adoption of new knowledge and technologies for increased productivity amongst women farmers through an SHG model, and
- Suggest implementable strategies for capacity development of women farmers in both districts.

The purpose of the study was to assess the impact of FFBS trainings particularly on women farmers in selected villages of Kandhamal and Kalahandi districts in terms of uptake of the learnings and its application.

1.2 Terms of Reference

Based on the request of CARE India, Prof. Smita Mishra Panda and Prof. Supriya Pattanayak of Centurion University undertook the study to assess the outcomes of the FFBS interventions in selected villages of Kandhamal and Kalahandi in the extension period.

1.3 Methodology

As specifically mentioned in the terms of reference, the evaluation has used various practical methodologies. Desk review of documents given by CARE India was undertaken. The information were collected from women members of SHGs, MIs, CRPs, LSPs and district coordinators of CARE India office in the two districts, and key informants at the village level. The quantitative data were collected from base-line and end-line studies. A questionnaire was administered

to the women farmers at the village level (Annexure 2). Besides, FGDs were held in each village to understand the dynamics of the SHGs, their learnings from FFBS and its impact on their livelihood and empowerment. A checklist was prepared for the same (Annexure 3). Interviews with key informants were conducted to understand the overall implementation and impact of the FFBS trainings. Annexure 4 gives the names of the women farmers belonging to different SHGs, interviewed from different villages of Kandhamal and Kalahandi districts. Further, the trainings women farmers underwent is also listed.

1.4 Report Presentation Plan

This report has been presented in three sections. After the brief introductory section (understanding the context), section two deals with the main findings (assessment of the opportunities and constraints of various stakeholders, adoption of new knowledge and technology by women farmers). The final section presents the challenges, conclusions and recommendations.

SECTION II: FFBS ACHIEVEMENTS AND IMPACTS

2.1 Introduction

Farmers Field Business School trainings started in April 2016 and was implemented in selected villages of Kandhmal and Kalahandi districts. In Kandhamal, FFBS was implemented in 10 villages each in Phiringia and G. Udaygiri blocks. Similarly, in Kalahandi, it was implemented in 6 blocks – 4 villages each in Junagarh and Bhawanipatna blocks, 2 villages each in TH Rampur, Narla, M. Rampur blocks and 1 village in Dharamgarh block. Prior to FFBS, Pathways implemented the Farmers' Field School programme from 2012 in several villages of both the districts. Out of the 8 domains of the FFBS trainings, 5 (setting the environment, facilitating adult learning, how to conduct a training session?, qualities of a good facilitator and feedback formats for facilitators) were meant to be administered by the project implementing authorities to the Community Resource Persons who would in turn impart training to the different target groups (mostly women farmers) for different stages of agriculture (including harvesting, post-harvest operations and marketing), NTFP management, Livestock development, Nutrition and Gender. The FFBS is located on the SHG platform meant to provide equitable training to all members.

2.2 Main Findings

Objective 1 – Understanding the context

This programme acknowledged for the first time the central role of women in agriculture. The FFBS interventions were planned to ensure increased productivity, and drudgery reduction and empowerment of women. The SHG platform was used as an entry point and was meant to spearhead the interventions of FFBS. CARE India has taken up the challenge of implementing FFBS in some of the most difficult geographies of Odisha, where the interventions are most needed. The markets in the region are typically exploitative, where middlemen and moneylender abound. FFBS aimed to empower women to independently negotiate with the market and government functionaries. The multi-pronged approach of FFBS is indeed praiseworthy.

Obectives 2 and 3 - Assessment of the opportunities and constraints of various stakeholders; adoption of new knowledge and technology by women farmers

Various stakeholders experienced numerous opportunities and constraints. Needless to mention, in the field of agriculture, the adoption of the new technology was one of the greatest opportunities for women farmers in terms of increased productivity and exposure to innovative package of practices, reduced drudgery and empowerment. One of the major constraints to expansion of activities was non-availability of water and small landholdings. The training to change gender behaviour and attitudes was another major outcome benefiting women and men.

Agriculture Productivity

Women farmers in both the districts mentioned having undertaken the following trainings, gaining agricultural knowledge and adopting improved practices. The package of practices included summer ploughing, germination testing of seeds, seed treatment, line sowing, adoption of improved (high yielding) drought and pest resistant seed varieties, use of technology in sowing, weeding, spraying of organic pesticides, threshing and winnowing, moisture content testing, installation of bird perches, proper harvest and post-harvest practices, storage and diversification of crops. The women farmers interviewed mentioned that they benefited most from line sowing, seed treatment, use of technology (sprayer, weeder and thresher) and improved seed varieties. Line sowing has distinctly reduced the cost of labour and drudgery of women while increasing the productivity by 50 percent. Use of technology saved considerable time for the women farmers. One respondent reported “One person does the work of three persons”. Adoption of these practices and increased productivity enhanced the nutrition and food security of the households. Despite that there were lean periods where approximately 30% of the households had to seek alternate sources of income such as NREGS, local labour and sale of NTFP and livestock.

Most farmers reported small landholdings, which does not give them surplus paddy for sale in rainfed Kandhamal villages. Therefore the produce is mostly consumed at the household level and in some instances does not cater for the entire year. However, in Kalahandi villages, paddy production is higher due to canal irrigation and therefore the farmers are able to trade in paddy. Insofar as

maize cultivation in villages of Kalahandi is concerned farmers mentioned that they benefited immensely from the moisture testing kit.

The major agricultural produce includes paddy, black and green gram, kandula and channa dal, millets, maize and cotton. Line sowing and use of technologies were the best learnings mentioned by the women farmers. The benefits of these learnings were attributed to reduced labour cost, increased productivity and drudgery reduction.

As part of diversification of crops pulses, oil seeds, mushroom and seasonal vegetables have been promoted. They have not only contributed to nutritional security of the household, but also, increased their income. A more recent phenomena in Kalahandi district is one of cotton farming where contractors are providing the inputs and buy back mechanism which has proved profitable to the farmers. However, the farmers are ill-informed of the long term consequences - detrimental to the soil fertility.

Disaster mitigation (drought) in the form of 5 percent (digging 5% of the agricultural land into a water body) has limited intervention in the villages of Kandhamal district due to small size of the landholdings. Whereas in Kalahandi district, 5 percent intervention for water harvesting was not implemented by the FFBS trainers.

Livestock

Implementation included poultry and goat farming which in the module mentions feed management, reproduction, disease management, rearing of chicks, construction of goat sheds and poultry house etc. However, women farmers' recollection of package of practices was minimal. In addition, for veterinary extension services the linkage with government programmes is paramount but they are weak at the ground level. The input of the Master Integrator in this regard is minimal.

Livestock rearing is a critical supplement for women farmers to augment their income during the lean season. Observations showed that women preferred to rear country birds than the improved varieties of chicken (Vanraj) which due its weight is unable to flee when pursued by predators. So therefore many households could not increase the number of birds.

Non-Timber Forest Produce (NTFP)

Mahua flower is the most important NTFP in both the districts and the largest supplement to the household income. The other NTFPs are Harida, Bahada, Amla, Mahua seeds, Char seeds, Hill broom, Sal seeds, Bhalia seeds, Turmeric (cultivated in the forest), Tamarind, Mango, Sal and Siali leaves. Mahua yields well during alternate years and is available for collection for one month only. So from one full bloom tree the output is approximately 100-120 kilos (dry) which can fetch them an income of Rs 2000. Typically one household earns about Rs 10,000 per season from Mahua flower sale. The collection is done from 2 locations - trees on their own land and trees from the forest. Income from NTFP is a critical source of livelihood for all women farmers and their households. Women are mostly engaged in the collection of NTFP and it is difficult to find them in the villages during the season. When there is no Mahua yield, men tend to migrate out for income earning to places like Kerala and other adjoining states. A discussion with the district coordinator on out-migration revealed that except Kerala, in most places, migrants from Kandhamal and Kalahandi are exploited by their employees.

The best learnings mentioned by women farmers included drying, weighing, aggregation and marketing. This eliminated the exploitation by middlemen, improved the product quality, gave them higher bargaining power and enhanced their incomes.

Marketing

The best learnings were aggregation, proper weighing, moisture content testing of produce, and better market information (display boards in every village), which gives them greater choice and reduces scope for exploitation. Where collective marketing was undertaken, women farmers benefited immensely.

Agri-kiosks were established to provide better inputs and extension support to the farmers. It was invariably run by a progressive farmer, mostly men. However, women farmers had mixed responses to Agri-kiosks. Where Agri-kiosks were located close to the communities, the uptake of agricultural inputs was much higher than when they were at a distance or where there were other players in the market. With respect to agriculture produce, most respondents reported that paddy was largely cultivated for household consumption, while a

small number (that too in a good year) reported that any excess was sold in the local market.

Nutrition

Improved agricultural productivity, diversification and kitchen gardens have augmented their nutrition requirements. Food security does not necessarily mean nutrition security. However, the focus on developing kitchen gardens has enabled a more balanced diet for women and their families. Women themselves agreed that their health has improved due to better intake of vegetables and animal protein in addition to more leisure time. FFBS input in this regard has created awareness about nutrition especially green vegetables, pulses and animal protein.

Gender

Pathways places women's empowerment at the heart of its work with the belief that by empowering women, agricultural productivity and profitability will increase and household resilience will be improved. To achieve this, the FFBS incorporates three key interventions – 1) Women's empowerment using CARE's Agency, Structure and Relations model, 2) Engaging men and boys for improved gender and social relations and 3) Empowering collectives and communities.

Below are some of the statements by respondents:

“We were afraid to come out of our houses and speak a few years ago. But, with the FFBS trainings and exposure visits, we are able to do so”
(Woman farmer).

“Now I can talk bravely and in a loud voice; I am not afraid of anyone”
(SHG leader).

“In our village, women have come together to stop brewing alcohol and its use. This has reduced domestic violence, although drinking by men is not completely eradicated” (woman farmer).

“Men are supportive of the initiatives of FFBS since they have also benefitted from the package of practices” (SHG member).

“Men are helping us in household tasks as well as agricultural activities”
(woman farmer)

The above clearly indicates that there are signs of change in gender relations. Women and men take joint decisions at the household level. Male participation in all household activities as well as agricultural operations has increased substantially as reported by women farmers. Women's decision making at the household level has enhanced especially with respect to education of children, healthcare and asset building. The greatest outcome of these trainings is that women are beginning to understand the importance of gender equality and their agency role in empowering themselves.

SECTION III: CONCLUSIONS AND RECOMMENDATIONS

3.1 Concluding Remarks

Objective 4 – Challenges, Conclusions and Recommendations

Both Kandhamal and Kalahandi are characterised by high rates of poverty in Odisha. Agriculture, Horticulture, NTFP and Micro-enterprises are the main sources of livelihood of the people. Agriculture is characterised by small land holdings, upland terrain, traditional cultivation practices, limited irrigation, poor water conservation, low productivity, limited crop diversification and low yields of food grains. Both districts have been always in the news for hunger, famines and deaths. Although agriculture continues to be the primary source of employment in the region, but the sector has suffered from minimal investments, declining growth and frequent natural disasters.

Keeping the above in mind CARE India through its Pathways programme (2012-2015) intervened to develop smallholder agriculture with a focus on women farmers who are not considered as farmers and therefore do not receive institutional support. The objective of the initiative was to enable more productive and equitable participation of SC and ST women farmers in sustainable agriculture and in the process empower them. The Bill and Melinda Gates Foundation has extended the Pathways programme (April 2016 to March 2017 under the Supplemental Grant Period (SGP) for the purpose of consolidating the project outcomes and learnings for sustainability.

Agriculture Productivity

Women farmers in both the districts mentioned having undertaken the following trainings and adopting improved agricultural practices. However our observations in the field show that the in the villages of Kandhamal the uptake of the FFBS trainings were better as the villages were smaller (35-60 households). Whereas in case of Kalahandi, the villages were larger (600-1000 households) and therefore not all women were covered in the programme as one or two SHGs were targeted by the CRPs. Typically, one would find that some parts of the large villages of Kalahandi, women farmers have not heard of the FFBS trainings.

In all the villages, agricultural productivity (paddy) has gone up by 30-50%. Some had surplus for sale, most mentioned that it was enough to see them through the year. However, there were some (20%) who mentioned that they had to buy grains for 4-5 months in a year from outside.

Line sowing and use of technologies were the best learnings mentioned by the women farmers. The benefits of these learnings were attributed to reduced labour cost, increased productivity and drudgery reduction. Women also mentioned that men were eager to participate in the training programmes and applied the same in their fields.

Livestock

Livestock rearing was adopted by women farmers to supplement income during lean season. However, women preferred to rear country birds than the improved varieties of chicken. Goatery and poultry were mostly reared by the women. However, the backward and forward linkages to sustain the practice were found to be weak in both the districts.

Non-Timber Forest Produce (NTFP)

Mahua flower is the most important NTFP in both the districts and the largest supplement to the household income. The other NTFPs are Harida, Bahada, Amla, Bhalia seeds, Char seeds, Sal seeds, Turmeric (grown in the forests), Tamarind, Mango, Sal and Siali leaves. Women farmers form the backbone of the NTFP economy in both districts. Mahua fetches a good market and women are very keen to maximise their returns from this product. However, the forest department or any other agency have not focused on improving the productivity of the Mahua as an NTFP product. Pathways had trained women to collect the NTFP in a clean manner by spreading a plastic sheet beneath the tree, but there is limited uptake of the same. Thus, if women could follow systematically the clean practices, they are likely to receive a better price for the products especially Mahua. Trainings in weighing and aggregation have benefitted the women immensely.

Marketing

Besides training in weighing and aggregation, women farmers' exposure to market information displayed on a board in the village widened their knowledge in choice of markets as well as their bargaining power. The women farmers had

mixed responses to Agri-kiosks introduced by the project. Where Agri-kiosks were located close to the communities, the up take was much higher than when they were at a distance or where there were other players. Besides the kiosk owners were not so pro-active in promoting the products.

Nutrition

Improved agricultural productivity, diversification of crops and kitchen gardens has augmented their nutrition requirements. This was evident from the health of the women and also their family members. Women were aware of their nutritional needs (green vegetables, pulses and animal protein) and with drudgery reduction, they were able to look after their health as well of their family members.

Gender

Transformation in gender relations is evident from the interviews with the women farmers. In a few villages, women's collectives have been able to fight illicit liquor brewers and traders. Although they have not been able to completely stop men from drinking alcohol, there has been substantial decline in consumption and related domestic violence. Men have started participating in household activities thereby allowing women to undertake FFBS related activities. Men also help in agriculture related activities along with women. Women's decision making power has improved to a great extent at the household level.

With the inputs from FFBS women are able to operate more independently and engage effectively with different agencies such as Banks, markets, cooperatives, health and educational institutions. This translates into women being empowered in their everyday lives as well as building assets.

Sustainability and Impact

Sustainability of the project depends on capacity to manage the strategic and operational activities, including financial and institutional viability of the SHGs. While SHGs have been graded and FFBS interventions have been differentially targeted, efforts have not been made to include all SHGs. Some respondents mentioned that the inputs could have been more equally distributed to benefit more members.

- Although the sustainability strategy of FFBS was to establish linkages with government programmes and field functionaries, there was not much evidence of the same in the villages visited e.g agriculture, horticulture and veterinary extension offices.
- Diversification of crops has added to livelihood and nutritional security in the communities especially with the increase in paddy production and kitchen gardens.
- Only limited technology was provided to the women farmers, both in agriculture and allied activities. Respondents indicated their requirement of manual technologies in some instances that would enable them to operate the same in the fields.
- Disaster mitigation and risk reduction was not addressed by FFBS, although it is central to sustainability of agricultural production in remote areas particularly in drought prone regions of Kalahandi and Kandhamal.
- There is limited effort in promoting NTFP in both the districts, where forward and backward linkages are very weak.

3.2 Recommendations

The FFBS has been ongoing from 2012; the endline report indicates good progress. This was a quick stocktake following the extension period. Needless to say the impacts have been varied depending on the district, the availability of natural resources, the capacities of human resources deployed, the training and the capacities of women farmers. However, there are some recommendations should CARE India decide to undertake further programmes such as this.

In terms of institutional arrangements, more thought should have gone into making the CRP a revenue generating model such that sustainability could have been ensured. As it stands, with the closure of project, all interventions will come to a standstill and there is a strong possibility that farmers will revert to previous practices. More handholding support and confidence building could have been ensured, with the deployment of skilled human resources.

Providing skills for employability and entrepreneurship could have been considered. Some respondents reported that they would have liked to have

received sewing machine and leaf press machine training (Off-farm and Non-farm skills).

Agriculture productivity

While the focus on paddy has meant an increase in productivity and a change in the diet, minor millets should have been promoted, as traditionally these were crops of choice, especially in the Kandhamal district. Maize cultivation especially in Kalahandi district which is highly remunerative has only been raised for own consumption. It should be considered for scaling up.

Technology for agriculture is an important intervention of the FFBS and has helped substantially in drudgery reduction. There was scope for greater mechanisation for transplanting/ line sowing, seed treatment, etc. using local material thereby making maintenance easier. However, the local differences in providing technology have not been taken into account. Some of the respondents requested that they be provided with mechanical threshers as they need to be able to transport them to the fields. Technology could also have been provided for post-harvest practices, such as solar dryers (especially for vegetables), which would have not only ensured nutritional security for longer periods, but would enable them to get a better market price (NTFPs). Threshing/ Drying platforms which are part of a government programme could easily have been accessed by establishing linkages with officials.

Agri-kiosks were a missed opportunity. They were mostly operated by men. Their role could have been expanded to support collective marketing and promoting more organic products, including vermi-compost. More number of Agri-kiosks could have been promoted to improve access to products and services.

Livestock

This was a very weak link and should have been strengthened in as many ways. Goat rearing especially contributes substantially to the family income. More thought should have gone into using grazing as a land management technique for invasive plant species. Links with government veterinary extension services should have been strengthened.

Further, providing hatcheries for collective marketing of chicks could have been considered since merely providing Vanraj birds has had varying results. Marketing of chicks could prove to be a more sustainable option as livestock.

Non-timber forest produce

Value addition of non-timber forest produce should have been considered. While aggregation and collective marketing has meant better prices for products, maintaining quality aspects (clean product with limited moisture content and proper storage) should be the focus. Plantation of some of the high yielding NTFP trees, especially Mahua should have also been considered and has the potential to strengthen linkages with government horticulture departments. Introduction of technology for skill and entrepreneurship in off-farm and non-farm occupations could be considered.

Marketing

Online/ digital commodity exchange platforms should be considered to ensure better prices for the NTFPs, especially Turmeric and Mahua which are grown/ gathered in large quantities. Value addition would also fetch better prices.

Nutrition

Careful analysis of the food patterns of the districts, past and present, needs to be done. The kitchen garden has proved a very beneficial intervention as reported by the respondents, however access to water is a major problem. Again linkages with government programmes would mean that farmers can get lift irrigation points with large subsidies, which could cater to the entire community and make it sustainable, ensuring seasonal crops throughout the year. In addition, this can be built on the SHG platform.

Gender

As reported by some respondents this was the most beneficial intervention of the FFBS. However, sustained efforts need to continue to ensure equality and the agency role for women.

In conclusion, to consolidate the gains thus far and put the community in a trajectory of sustainable livelihood security, active support through CARE India for another three years will be essential.

Annexure 1

List of Villages

Kandhamal District

S.No	Block Phiringia	Block G. Udaygiri
1	Baimaha	Bandenaju
2	Tiberkuti	Gamuli
3	Karandagada	Kambanaju
4	Dandikia	Kakamaha
5	Dalibadi	Burupati
6	Tandalnaju	Damengi
7	Biraguda	Gressingia
8	Paderipada	Magarguda
9	Sarumaha	Dadapada
10	Daminaju	Damuguda

Kalahandi District

Block	Villages
Junagarh	Bondoguda Pitaguda Dedara Borguda

Bhawanipatna	Chanchu Budhidhara Sikirguda Bhulia
TH Rampur	Gokulma Katghara
Narla	Balsinga Boringpadar
M Rampur	Uparanuagaon Talanuagaon
Dharamgarh	Aamguda

**Study on Immediate Outcomes of Farmers Field and Business School
Intervention in Pathways SGP project**

Questionnaire for Women Farmers

A. General

Name of the Farmer: Social Category: SC/ST/Other Age:
HH Size: Spouse Occupation:
Name of the SHG: Member of the SHG since: Years
Duration of CARE Training: Name of Relevant CRP:

B. About Agriculture Training

1. List of Trainings Received
2. List of Learnings from the FFBS
3. Learnings Applied in the Field and Benefits of Each
4. List the Use of Training in Other Areas
5. List Learnings Passed to Spouse
6. List most important Learnings You Have Had?
7. List the Learnings Related to Marketing
8. List the Use of Training Related to Decision making/ Time spent on unproductive tasks/ Changes in Attitude and Behavior of Spouse
9. Proportion of produce you retain for home consumption
10. Proportion of Retained Produce for self-consumption
11. Is it adequate to meet food and nutrition requirement for the family for the entire year (check year on year improvement in availability of food)?

12. Have you been able to motivate other women and men in your village to undergo FFBS training?
13. Has the training helped you in negotiating with other agencies linked to agricultural production – like banks, cooperative societies and agricultural input kiosks?
14. Do you have the confidence to implement the learnings independently?
15. List the support you need to carry on with your work according to the learnings of FFBS
16. Have the new practices, reduced your drudgery for different agricultural tasks?
17. Have the new practices, saves your time for different agricultural tasks?
18. List the activities being pursued, in addition to agriculture, to meet your livelihood needs
19. List the activities you do to assess and mitigate natural disasters (drought, cyclone, floods)
20. List the actions you undertake during times of food stress

C. About Livestock Training

1. How long have you been involved in livestock rearing?
2. Why did you take up raising livestock?
3. How has the FFBS training on livestock raising helped you?

(Practice prior to FFBS training and after: Breeds, feed, disease management, shed construction and its cleanliness, insurance, etc.)

D. About NTFP Training

1. What are the NTFP you are dependent on to support your livelihoods?
2. How has the FFBS training helped you in improved collection and post collection practices?
3. List value addition possibilities for different NTFPs
4. List the helps received from FFBS for marketing of NTFPs

E. About Marketing Training

1. List the support FFBS provided in getting input (seeds, fertilizer, pesticide, tools, etc.)
2. List the support FFBS provided in your post-harvest practices (storage, transport, controlling waste, processing, timeliness of activities, etc.)
3. List the support FFBS provided in marketing of produce (sorting, aggregation, weighing, price fixation, identifying vendor, getting payment)

Annexure 3

Focus Group Discussions with Women

1. **Membership in FFBS** (SHG members, Non-SHG members, Men)
2. **Training Quality** (List of Trainings, Process of Training, Benefits/Loss, Possible areas of improvement)
3. **Extent of support by Community Resource Persons** (selection process, possible areas of improvement)
4. **Extent of involvement of non-SHG women and men in FFBS**
5. **Support by men at home for women's FFBS activities** (public spaces)
6. Engagement of **women in decision making** in agriculture and livestock related matters
7. List of **changes happened at the HH level and Community level** in terms of decision making and autonomy
8. **Kitchen garden and its sustainability**
9. **Health and nutrition change** of the community and consequences (changes in food habits, ailments, etc.)
10. **Suggestions for sustainability** of the initiatives of the programme (*Integration into SHG's activities; Post-harvest activities: storage, transport, controlling waste, processing, timeliness of activities; Market linkage: sorting, aggregation, weighing, price fixation, identifying vendor, getting payment*)

Focus Group Discussions with CRPs

1. **Training Quality** (List of Trainings, Process of Training, Benefits/Loss, Possible areas of improvement)

2. **Extent of support from Expert Trainer** and CARE (possible areas of improvement)
3. **Extent of involvement of SHG women, other women and men in FFBS**
4. **Support by men for women's FFBS activities** (public spaces)
5. Engagement of **women in decision making** in agriculture and livestock related matters
6. List of **changes happened at the Community level** in terms of decision making and autonomy
7. **Kitchen garden and its sustainability**
8. **Health and nutrition change** of the community and consequences (changes in food habits, ailments, etc.)
9. **Suggestions for sustainability** of the initiatives of the programme (steps in making CRP services: a paid one)

Annexure 4

Sl.No.	Name of the Village	Name of the SHG	Name of the Respondent
1	Paderpada	Maa Bhagabati	Nipungi Pradhan
2	Palibadi Phiringia	Maa Shakti	Tilotama Pradhan
3	Palibadi Phiringia	Shiv Shakti	Susama Digala
4	Biraguda	Maa Shakti	Lalita Kanhara
5	Biraguda	Maa Shakti	Draupadi Pradhan
6	Biraguda	Maa Shakti	Chandrabati Bidhani
7	Biraguda	Maa Shakti	Suryakanti Pradhan
8	Baimala	Maa Sailendra	Rasumita Kanhara
9	Baimala	Maa Sailendra	Sebati Kanhara
10	Baimala	Maa Sailendra	Adimati Kanhara
11	Biraguda	Maa Shanti	Sarojini Bidhani
12	Paderpada	Maa Tarini	Sabita Rana
13	Sarumaha	Maa Bignabinashini	Lalita Malik
14	Paderpada	Maa Parbati	Gahali Pradhan
15	Sarumaha	Maa Bignabinashini	Jhunu Malik
16	Tiberkuti Barasahi	Maa Brundabati	Saidei Kanhara
17	Tiberkuti Barasahi	Maa Brundabati	Sumitra Kanhara
18	Tiberkuti Barasahi	Maa Brundabati	Ramani Kanhara
19	Tiberkuti Barasahi	Maa Saraswati	Pinki Kanhara
20	Tiberkuti Barasahi	Maa Brundabati	Libana Kanhara
21	Tiberkuti Barasahi	Maa Saraswati	Ana Kanhara
22	Tiberkuti Barasahi	Maa Saraswati	Tanushree Kanhara
23	Tiberkuti Barasahi	Maa Saraswati	Namita Kanhara
24	Tiberkuti Barasahi	Maa Brundabati	Champi Kanhara

25	Ambaguda	Maa Lakshmi Narayan	Sumati Dharani
26	Pitaguda	Pitambari	Guna Majhi
27	Pitaguda	Pitambari	Padha Majhi
28	Pitaguda	Pitambari	Swarna Majhi
29	Pitaguda	Pitambari	Phulotola Majhi
30	Pitaguda	Pallabi	Surya Majhi
31	Pitaguda	Pallabi	Ghamani Majhi
32	Boroguda Junagarh Kalahandi	Jagruti	Bishnupriya Majhi
33	Boroguda Kalahandi	Maa Thakurani	Damayanti Majhi
34	Boroguda Kalahandi	Maa Thakurani	Parbati Jani
35	Boroguda Junagarh Kalahandi	Jagruti	Tanu Dhurwa
36	Boroguda Junagarh Kalahandi	Jagruti	Sombari Majhi
37	Aamguda	Not yet in a group	Chula Majhi
38	Pitaguda	Pitambari	Bada Majhi
39	Aamguda	Biramati	Chitri Majhi
40	Aamguda	Biramati	Padmabati Dharua
41	Aamguda	Lakshminarayan	Bhajpuri Majhi
42	Aamguda	Lakshminarayan	Sukuni Majhi
43	Aamguda	Lakshminarayan	Sulochana Majhi
44	Aamguda	Lakshminarayan	Kumari Majhi
45	Budhidara	Jai Jaganath	Bisoya Majhi
46	Budhidara	Jagdamba	Sajmoni Majhi
47	Budhidara	Maa Mauli	Masua Majhi
48	Budhidara	Jagdamba	Sita Sabar
49	Kambhanajo	Nabajoti	Namita Pradhan
50	Kakamalo	Jagaran	Manasi Pradhan
51	Tiberkuti	Maa Brundabati	Ranti Kanhara

52	Daminaju Phiringia	Maa Sinhabahini	Lalita Kanhara
53	Baimaha	Maa Sailendra	Nayani Kanhara
54	Sarumaha	Maa Bignabinashini	Damayanti Malik
55	Dalibadi	Maa Shakti	Debirani Pradhan
56	Tandanaju	Saraswati	Kalindri Bidhani
57	Tandanaju	Saraswati	Mitarani Kanhara
58	Tandanaju	Mahalakshmi	Devaki Pradhan
59	Daminaju	Singhabahini	Joyee Malik
60	Daminaju	Janini	Sushma Kanhara
61	Daminaju	Janini	Alibha Kanhara
62	Daminaju	Janini	Nirmala Bidhani
63	Karanadagada	Birupakhya	Tapawini Kanhara
64	Karanadagada	Birupakhya	Sumitra Kanhara
65	Karanadagada	Birupakhya	Rina Malik
66	Karanadagada	Birupakhya	Nabadei Malik
67	Tandanaju	Saraswati	Tejamati Kanhara
68	Tandanaju	Sarawati	Manjulata Kanhara
69	Dandikia	Maa Tulasi	Subhangi Kanhara
70	Dandikia	Maa Tulasi	Kakori Kanhara
71	Dandikia	Maa Tulasi	Sebati Kanhara
72	Dandikia	Udayjyoti	Sarathi Kanhara
73	Dandikia	Maa Tulasi	Philomina Pradhan
74	Dandikia	Udayjyoti	Puspalata Kanhara
75	Dandikia	Udayjyoti	Hemalata kanhara
76	Dalibadi	Maa Shakti	Rajani Digal
77	Dalibadi	Shiv Shakti	Namita Pradhan
78	Dalibadi	Maa Shakti	Priyatama Kanhara
79	Kakamaha	Mahalaxmi	Jhunubala Dalabehera
80	Kambhanajo	Mahalaxm	Manjeni Pradhan
81	Kambhanajo	Mahalaxm	Joshila Pradhan

82	Kambhanajo	Mahalaxm	Sajana Pradhan
83	Kambhanajo	Mahalaxm	Sunima Pradhan
84	Kambhanajo	Mahalaxm	Sushama Pradhan
85	Dadapada	Janani	Hrulash Pradhan
86	Dadapada	Ma Prabi Devi	Namita Pradhan
87	Dadapada	Ma Prabi Devi	Narmada Kata
88	Dadapada	Ma Prabi Devi	Laxmi Devi
89	Dadapada	Utkal Janani	Jyotsna Pradhan
90	Dadapada	Ma Prabi Devi	Banita Pradhan
91	Dadapada	Ma Prabi Devi	Menaka Pradhan
92	Dadapada	Ma Prabi Devi	Shantilata Pradhan
93	Dadapada	Ma Prabi Devi	Aksumati Pradhan
94	Dadapada	Ma Prabi Devi	Sasmita Pradhan
95	Dadapada	Ma Prabi Devi	Arati Digal
96	Dadapada	Janani	Sarojini Pradhan
97	Dadapada	Janani	Sujata Pradhan
98	Dadapada	Janani	Gumika Pradhan
99	Dadapada	Janani	Mausmi
100	Dadapada	Janani	Sushila Digal
101	Magarguda	Ma Theresa	Charusana Pradhan
102	Magarguda	Ma Theresa	Ilima Nayak
103	Magarguda	Ma Theresa	Pinki Pradhan
104	Magarguda	Ma Theresa	Kumari Pradhan
105	Magarguda	Ma Theresa	Pushpalata Nayak
106	Magarguda	Ma Theresa	Sivaji Pradhan
107	Magarguda	Ma Theresa	Ratnamati Pradhan
108	Magarguda	Ma Theresa	Subashini Nayak
109	Magarguda	Ma Theresa	Sushama Nayak
110	Magarguda	Ma Theresa	Sarada Pradhan
111	Magarguda	Ma Theresa	Chandrama Nayak

112	Magarguda	Ma Theresa	Refan Pradhan
113	Magarguda	Deepa Mahila	Sarala
114	Magarguda	Deepa Mahila	Swarnalata Pradhan
115	Magarguda	Deepa Mahila	Manini Pradhan
116	Magarguda	Deepa Mahila	Gyanabati Pradhan
117	Magarguda	Deepa Mahila	Geeta Pradhan
118	Magarguda	Deepa Mahila	Bandharali Pradhan
119	Magarguda	Deepa Mahila	Jhulisa Pradhan
120	Magarguda	Deepa Mahila	Lalita Pradhan
121	Magarguda	Deepa Mahila	Kamanti Pradhan
122	Domengi	Agragati	Rajalaxmi Pradhan
123	Domengi	Agragati	Lilima Pradhan
124	Domengi	Agragati	Rukmini Pradhan
125	Domengi	Agragati	Subhalaxmi Pradhan
126	Domengi	Agragati	Yasodha Pradhan
127	Domengi	Agragati	Sunita Pradhan
128	Domengi	Jagara	Limanti Pradhan
129	Domengi	Jagara	Nimanti Pradhan
130	Domengi	Jagara	Rukuni Pradhan
131	Domengi	Jagara	Amaravati Pradhan
132	Burupati	Ma Laxmi	Lilima Pradhan
133	Burupati	Ma Laxmi	Namita Pradhan
134	Burupati	Ma Laxmi	Magdalena Pradhan
135	Burupati	Ma Laxmi	Sridevi Pradhan
136	Burupati	Ma Laxmi	Sasimai Pradhan
137	Burupati	Ma Laxmi	Narmada Pradhan
138	Burupati	Ma Laxmi	Sushama Pradhan
139	Burupati	Ma Laxmi	Binita Pradhan
140	Burupati	Ma Laxmi	Ambika Pradhan
141	Gamuli	Subhadra	Mama Pradhan

142	Gamuli	Subhadra	Namanti Pradhan
143	Gamuli	Subhadra	Malasina Pradhan
144	Gamuli	Subhadra	Jhurima Pradhan
145	Gamuli	Subhadra	Milan Pradhan
146	Gamuli	Subhadra	Chandrakant Pradhan
147	Gamuli	Subhadra	Jhunuma Pradhan
148	Gamuli	Subhadra	Sunita Pradhan
149	Gamuli	Jagatjanani	Rajlata Pradhan
150	Gamuli	Jagatjanani	Manaswini Pradhan
151	Gamuli	Jagatjanani	Litchmina Pradhan
152	Gamuli	Jagatjanani	Leena Pradhan
153	Badenajo	Janakidevi	Magdalena Pradhan
154	Badenajo	Janakidevi	Jasoda Pradhan
155	Badenajo	Janakidevi	Minnie Nayak
156	Badenajo	Janakidevi	Banita Pradhan
157	Badenajo	Janakidevi	Pushpita Pradhan
158	Badenajo	Janakidevi	Sukanti Pradhan
159	Badenajo	Janakidevi	Subhajini Pradhan
160	Badenajo	Janakidevi	Suryamani Pradhan
161	Damuguda	Ma Tarini	Dejabati Digal
162	Damuguda	Ma Tarini	Lina Digal
163	Damuguda	Ma Tarini	Kalabati Digal
164	Damuguda	Ma Tarini	Kuni Digal
165	Damuguda	Ma Tarini	Dayamati Digal
166	Damuguda	Ma Tarini	Mami Digal
167	Damuguda	Ma Tarini	Rikuna Digal
168	Damuguda	Ma Tarini	Sanjukta Digal
169	Damuguda	Ma Tarini	Karmada Digal
170	Gresingia	Kalyani	Meeravati Pradhan
171	Gresingia	Kalyani	Aarati Pradhan

172	Gresingia	Kalyani	Monalisa Pradhan
173	Gresingia	Kalyani	Rubina Digal
174	Gresingia	Kalyani	Nirupama Nayak
175	Gresingia	Kalyani	Purnima Pradhan
176	Gresingia	Kalyani	Sagarika Digal
177	Gresingia	Kalyani	Satyabhama Pradhan
178	Gresingia	Kalyani	Sumitra Pradhan
179	Gresingia	Kalyani	Mamata Pradhan
180	Gresingia	Kalyani	Jhumlata Choudhury
181	Gresingia	Kalyani	Shantilata Mallick
182	Gresingia	Kalyani	Geenima Pradhan
183	Gresingia	Kalyani	Putuli Pradhan
184	Gokulma	Budharaja	Susanti Majhi
185	Gokulma	Maa Durga	Basanti Majhi
186	Gokulma	Maa Durga	Kalyani Majhi
187	Gokulma	Maa Durga	Sundari Majhi
188	Gokulma	Maa Durga	Kami Majhi
189	Gokulma	Kalyani	Poornami Majhi
190	Gokulma	Budharaja	Urmila Parobhoi
191	Gokulma	Budharaja	Sangeeta Majhi
192	Gokulma	Budharaja	Singori Majhi
193	Kataghara	Maa Laxmi	Sukumati Majhi
194	Kataghara	Maa Laxmi	Hemadri Majhi
195	Kataghara	Maa Laxmi	Sangeeta Majhi
196	Kataghara	Maa Laxmi	Kumari Majhi
197	Kataghara	Maa Laxmi	Kulumati Majhi
198	Kataghara	Maa Laxmi	Kulamani Majhi
199	Bhulia	Satya Shanti	Shanti Majhi
200	Bhulia	Satya Shanti	Rinki Majhi
201	Bhulia	Satya Shanti	Salpe Majhi

202	Bhulia	Satya Shanti	Sribani Majhi
203	Bhulia	Satya Shanti	Laka Majhi
204	Bhulia	Satya Shanti	Sansrusti Majhi
205	Bhulia	Satya Shanti	Tori Majhi
206	Bhulia	Satya Shanti	Laxmi Majhi
207	Chemchur	Maa Manikeswar	Jamuna Majhi
208	Chemchur	Maa Manikeswar	Mahadei Majhi
209	Chemchur	Maa Manikeswar	Bhudei Majhi
210	Chemchur	Maa Manikeswar	Ujali Majhi
211	Chemchur	Maa Manikeswar	Lacchi Majhi
212	Chemchur	Maa Manikeswar	Bhagawati Majhi
213	Chemchur	Maa Manikeswar	Sakurei Majhi
214	Chemchur	Maa Manikeswar	Ghasana Majhi
215	Chemchur	Maa Manikeswar	Binapani Majhi
216	Chemchur	Maa Manikeswar	Banita Nag
217	Chemchur	Maa Manikeswar	Anita Majhi
218	Chemchur	Maa Manikeswar	Surjya Majhi
219	Chemchur	Maa Manikeswar	Lacchabai Majhi
220	Dedar	Maa Kamalini	Suprabha Bhoi
221	Dedar	Maa Kamalini	Sankranti Majhi
222	Dedar	Maa Kamalini	Sumitra Jani

223	Dedar	Maa Kamalini	Disi Jani
224	Dedar	Maa Kamalini	Gwadi Bhoi
225	Dedar	Maa Kamalini	Swati Bhoi
226	Dedar	Maa Kamalini	Sanju Bhoi
227	Dedar	Maa Kamalini	Rajeswari Bhoi
228	Boringipadar	Savitri Satyavan	Sairendri Majhi
229	Boringipadar	Savitri Satyavan	Netra Majhi
230	Boringipadar	Savitri Satyavan	Bhanumati Rana
231	Boringipadar	Savitri Satyavan	Deepanjali Majhi
232	Boringipadar	Savitri Satyavan	Tulavati
233	Boringipadar	Mahalaxmi	Arnavati Majhi
234	Boringipadar	Mahalaxmi	Bhaguni Majhi-
235	Boringipadar	Mahalaxmi	Mathure Majhi
236	Boringipadar	Mahalaxmi	Sebati Majhi
237	Boringipadar	Mahalaxmi	Kanti Majhi
238	Talanuagaon	Maa Dhabaleswari	Jasovati Dharua
239	Talanuagaon	Maa Santoshi	Padma Dharua
240	Talanuagaon	Maa Tarini	Kanti Majhi
241	Upper Nuagaon	Padmalaya	Banita Pander
242	Upper Nuagaon	Padmalaya	Ahalaya Mandar
243	Upper Nuagaon	Maa Santoshi	Kunthila Majhi
244	Upper Nuagaon	Jai Jagannath	Pushpajanli Dharua
245	Upper Nuagaon	Jai Jagannath	Rajamani Ghadei
246	Upper Nuagaon	Jai Jagannath	Sumitra Kardalei
247	Upper Nuagaon	Maa Brundabati	Sadini Dharua
248	Balsingha	Mahakali	Rebati Harijana
249	Balsingha	Mahakali	Rama Harijan
250	Balsingha	Maa Dakhinakali	Jasoda Patel

251	Balsingha	Maa Dakhinakali	Chandrama Sethi
252	Balsingha	Maa Dakhinakali	Madana Majhi
253	Balsingha	Maa Dakhinakali	Pratima Majhi
254	Balsingha	Maa Dakhinakali	Jayanti Majhi

Note: Individual interviews and Focus Group Discussions were held

Trainings Received (Recall)

Agriculture Production - Land preparation, Soil Sample Collection, Use of Organic Manure, Seed selection, Seed Treatment, Line Sowing, Nursery raising, Transplantation, Weed management, water management, integrated pest management, seed production, drying and storage, integrated pest management, post-harvest management

Livestock - Poultry and Goat rearing – Feed management, Reproduction, Disease management, rearing of chicks, construction of goat sheds, poultry house

NTFP – Improved collection and post collection practices of Mahua flower and other products

Marketing – Moisture testing, Weighing, sorting and aggregation of products and establishing Market linkages, Negotiation with traders for better price realization

Nutrition – Sensitization about nutrition, Food groups, kitchen garden

Gender – Division of labour, household decision making, engaging with men, gender behaviour change.

Authors' Profile

Smita Mishra Panda is Professor and Director Research at the Centurion University of Technology and Management, Odisha. She is a gold medalist from Delhi University in Social Anthropology and Rural-Regional Development Planning and Gender Studies (Ph.D. Asian Institute of Technology, Thailand). Her research focuses primarily on gender and development, natural resource management (livelihoods, policies and institutions), governance, rural development, indigenous peoples and transgender issues. She has more than 25 years of teaching, research and consulting experience in South East Asia and India. Smita has worked as a researcher at the Asian Institute of Technology (Thailand); UN Researcher at the UNCRD (Nagoya, Japan); taught at the Institute of Rural Management, Anand (Gujarat); and has been a visiting faculty at the Norwegian University of Science and Technology (Norway), Monash University (Australia) and Curtin University (Australia). Widely travelled, she has presented papers in several national and international conferences. She has also published extensively in a number of scholarly journals

Supriya Pattanayak is Vice Chancellor of Centurion University of Technology and Management, Bhubaneswar, Odisha. She is trained in Social Work and has extensive teaching, research and policy experience. Her research interest is in the field of gender and development issues, and social work pedagogy. She has worked with NGOs, multilateral and bilateral agencies, federal and state governments. In her role as State Representative (Odisha), Department for International Development India (British High Commission), she collaborated with various development partners in pursuance of harmonization of development efforts and achievement of MDGs. She has taught in Australian Universities and been Visiting Research Fellow at the St Petersburg State University, Russia.