**FFID – CHETNA OCIP – FELISSIMO**

**Peace-By-Peace Foundation (PBPF)**

**'A Collaborative Program Towards Supporting Smallholder Cotton Farmer Households**

From South Odisha and North Telangana'

# ANNUAL REPORT

**01ST APRIL 2021 – 31ST MARCH 2022**

Submitted to: **Peace-by-Peace Foundation**

Submitted by: **Forum For Integrated Development (FFID)**

Submitted on: **20th May 2022**

## 1. PROJECT AT-A-GLANCE

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|---|---|---|
| **Report Title** | : | Peace-By-Peace Foundation (PBPF): 'A Collaborative Project for Supporting Smallholder Tribal Cotton Farming Households' |
| **Report Type** | : | Annual Report (01st April 2021 – 31st March 2022) |
| **Submitted To** | : | Peace by Peace Foundation, Japan |
| **Submitted By** | : | Forum For Integrated Development (FFID) – Grant Recipient |
| **Beneficiary** | : | 14,232 Smallholder Cotton Farmers (pre-dominantly tribal) of Chetna Organic |
| **Project Location** | : | South Odisha & North Telangana |
| **Type of Fund** | : | Yearly Grant |
| **Reason** | : | (i) Transitional Support Towards Organic<br>(ii) Education Support |
| **Supported By** | : | Peace by Peace Foundation, Japan |
| **Reporting Date** | : | 20th May 2022 |
| **Author/s** | : | Y M M Srikar and Arun Ambatipudi (with inputs from field) |

## 2. CONTEXT

During the year 2021-2022 the project 'A Collaborative Project for Supporting Smallholder Tribal Cotton Farming Households' had to witness the unprecedented emergence of Covid-19 a dangerous virus spread across India has affected the health and livelihoods of all the sections of the society equally. The

virus spread started in the year 2020 and continued till June 2021 in India with a gap of a few months in between there was a spread of the 3 wave.

The farmers from the project area had to face many eventualities to overcome the Covid-19 challenges. PBPF has supported FFID to integrate a few activities along with the regular project to build the capacities of the farming communities to overcome the Covid-19 challenges. Farmers facing financial difficulties due to loss of livelihoods have received support from PBPF to meet the seed costs by that the farmers wouldn't lose the Agri year and Organic Certification.

The project also could oversee the below impacts with the support provided to the conventional farmers to transform into organic farming. Some of the major changes the project has observed during the year in the project area and at the policy level of the state and central government are as follows.

- 1000 new farmers have been enrolled in IC1 (In-conversion 1) during the year 2021-2022 and they were provided handholding support to understand the organic practices.
- Zero usage of chemicals by the farmers has reduced the cost of cultivation by 36%
- The application of organic inputs has helped in improving the organic carbon by 10%
- Measures taken by farmers through the adoption of prophylactic sprayings for every 20 days have helped farmers to protect the crop.
- Village level tuitions or classes organized in 17 villages have benefited the students from the rural areas to engage in studies during the lockdown.
- First time in history the cotton markets have been pro-farmers due to the continuous increase in the price of seed cotton. The markets have observed an increase of around 61% compared to the Minimum Support Price (MSP) of INR.6025/- per quintal (100 KG) whereas the market price was INR.7500 to INR.9500. At present, the market for seed cotton has reached INR.12500/- by March 2022.
- 40,000 bio-mass plants such as gliricidia, kaisemaio, Pongamia pinnata, Subabul, were planted on the farm bunds. The trees planted have helped in mulching (retains moisture) composting (manuring with green leaves and Agri waste) and nitrogen-fixing in the soils.

- The introduction of economic support of INR.6000/- per year for farmers by the Central and State Governments is helping the farmers to meet Agri requirements to some extent.
- Big farmers, who have stored the seed cotton and sold it after the hike in the cotton price have benefitted.
- An increase in cotton price during the last year is expected to increase the cotton area in both the regions for the year 2022-2023.
- Government cropping policy to promote paddy and failing to buy back the produce from the farmers has discouraged the farming community.
- Farmers are in total confusion on whether to follow the Government guidelines for crop production.
- In Telangana, the Government is promoting palm oil as there is a severe shortage of oils. The special Agri policy is intended to subsidize the farmers shifting to palm oil production.

Interventions made during the year have helped the farming communities to re-establish themselves confidently with the support extended to them to overcome the Covid-19 challenges. Seed support to needy farmers has helped to retain the organic certification and the awareness campaigns carried out have built the confidence of the farming community to overcome the Covid-19 challenges.

During the year the broad components covered under the project are as below.

(1) Transitional Support to organic Cotton Farmers
(2) Education Support

The activities built under the above components have helped the project to reach out to 14,232 small and marginal farming households from 314 villages (See Annex-1 for project area details). The learnings and impacts generated with the project are documented in this report.

## 3. SEASONAL CONDITIONS AND CROP STATUS

Though the 2nd and 3rd wave of Covid-19 has impacted the lives of the farmers the interventions carried out to support the farming community to overcome the challenges have helped the farmers to re-establish themselves. The agriculture operations for the season have started in a slow pace but it has regained the

momentum. As usual, the seasonal conditions didn't cooperate with the farmers to carry out the operations smoothly. Some of the conditions experienced by both the regions in the area are as follows.

| Particulars | Telangana | Odisha |
|---|---|---|
| Normal Rainfall | 1000-1100 mm | 1100-1300 mm |
| Rainfall Received (2021-2022) | 1900-2000 mm | 750-900 mm |
| Incessant Rains | Aug-200 mm | Aug -200 mm |
| Dry Spell/High Temperature | Sep | Sep |
| Diseases Observed | Weeding/Inter-cultivation Operations | Leaf Folder |
| Normal Yields (Kgs) | 700-800 | 550-700 |
| Current Yields | 700 | 550 |
| MSP | INR.6,025/- | INR.6,025/- |
| Market Price | INR.10,000 | INR.10,000/- |

*Table.1.1*

Both the regions have experienced mixed seasons as the details shown in the above table 1.1 Odisha has received the deficit rainfall, whereas the Telangana region has received the excess rainfall. Odisha has experienced severe issues with leaf folder disease and the yields have dropped to 550 kgs per acre. An increase in market price has saved the farmers though there is a drop in yields.

## 4. STATUS OF ACTIVITIES UNDER PbP PROJECT

Unlike last year all the project activities were implemented smoothly, though there was a lockdown in between with the emergence of 2nd and 3rd waves of Covid-19. The focus during the year was to identify 1000 conventional farmers and to provide them the handholding support to build their confidence in organic

practices. With the transformation of 1000 farmers (500 TS & 500 OD), the total organic farmers under the project have reached to 14,232 small farming households directly from 314 villages.

To help farmers understand the organic farming practices, Chetna has facilitated organizing various kinds of demonstration units in the villages, organized training, and exposures. To provide education to the students impacted with lockdown the village-level schools have been organized in 17 villages on regular basis to engage the students in studies and to motivate them by that they wouldn't drop out of the school.

### 4.1. Target Cotton Farming Households

Total households covered during the year 2021-2022 are as below.

| State | District | Cluster | Target HHs |
|---|---|---|---|
| TELANGANA | Adilabad/Asifabad | Utnoor/Narnoor/Sirpur(U)/Kerameri/Jainoor/Asifabad | 5,183 |
| ODISHA | Kalahandi | Bhawanipatna | 2,060 |
| | | Gollamunda | 2,064 |
| | | Lanjigarh | 1,855 |
| | Bolangir | Kantabanji | 1096 |
| | Rayagada | Muniguda | 1,974 |
| TOTAL | **05** | **11** | **14232** |

*Table: 1.2*

Table 1.2 shows the details of the areas with a total number of farmers under the project. In the year 2021-2022 a total of 1000 farmers have got the handholding support with the implementation of capacity building activities.

5. Support to Rehabilitate Small and Marginal Farmers Affected with Covid-19

Farmers facing financial difficulties due to Covid-19 were identified and they were provided with seed support to initiate the Agri season to re-establish their livelihood and also to protect their organic certification. The provision of seed support has helped 2000 needy farmers to begin the Agri season if not these families would have lost the season & income to sustain themselves for a year and this also would have exerted pressure on the community and the government to provide relief. The seed support has rehabilitated 2000 small and marginal farming households covering a total population of 8000, which means the activity has benefited 8000 members in rebuilding their livelihoods apart from protecting organic certification of 1000-IC1 farmers and 1000-IC2 farmers covering 2000 acres. On average, each farmer could get a yield of 500 kg of seed cotton, which was sold at INR.10,000/- compared to the MSP (Minimum Support Price) of INR.6025. After a long time, the markets were pro-farmers as the price of seed cotton increased from time to time. It is understood that the seed cotton price has increased by 61% breaking all the records.

Seed Distribution & Seed Treatment

**Key Components Supported under PbP**

During the year 2021-2022, the PBPF has broadly supported 2 components to implement in 314 villages. The components supported are as under

A. *Transitional Support to Organic Cotton Farmers*
B. Education Support

***Transitional Support to Organic Cotton Farmers***

Focus on providing transformation support to conventional farmers has continued as per the mandate set in the project. During the year 1000 farmers (500 Telangana and 500 Odisha) have received handholding support on organic

practices. All these 1000 farmers were identified from 314 villages as shown in table 1.2 and all these farmers' capacities were built with Pre-Season, Mid-Season, and End Season training. Timely monitoring and support by technical teams have built the confidence of the farmers to move forward with the execution of the organic practices. During the year the project could reach to 14232 "A" grade organic farmers.

**Critical Support for Soil Fertility & Plant Protection**

Farmers in transition were provided with critical support to improve the soil fertility to protect the plants from disease and pests. During the year various kinds of demonstrations were taken up to build the farmers knowledge on organic practices. Some of the interventions taken up during the year are as follows

| Particulars | No of Units | Total Production (KGS) | Total Areas Covered (Acre) | Impact | Remarks |
|---|---|---|---|---|---|
| Concentrated Organic Manures | 60 | 12000 | 240 | Improved Resistance by 75%-80% | 12000 KGS of Neem Cake, Pongamia, Mahua Cake was produced and this was applied on 240 acres. |
| Vermi-Compost | 06 | 54000 | 108 | Reduced Micro-nutrient deficiency by 80% Increased water holding capacity by 50% Neutralized PH Value | From 06 units of vermicompost units, 54000 kgs of manure were produced and the same has been used in 108 acres. |

| | | | | | |
|---|---|---|---|---|---|
| NADEP Compost | 10 | 120000 | 120 | Maintains Soil Ph Soil Moisture Improves by 60% | From 10 units of NADEP compost, a total of 12000 kgs of manure was produced and spread over 120 acres. |
| Organic Nutrients | 50 | 40,000 litres | 667 | Enhanced productivity by 25% Improves Water holding Capacity, | From 50 units of organic nutrients, 40,000 litres were produced and were used on 667 acres |
| Bio-Mass (Plants) | 40,000 | 800000 | 1600 | Water holding capacity increased by 60%. | 800000 kgs of manure were produced and applied on 1600 acres. |

Table: 1.3

The above table shows that interventions carried out in the project area has improved the resistance of the plants making plants tolerant to the climatic conditions. The yields per the year have been saved to a large extent with the interventions if no the plight of the farmers would have been pathetic.

Vermi Compost Unit

Apart from this the major change observed is the improvement of water holding capacity by which the moisture in the farm is extended by 10 days. The Ph value is neutralized and maintained in a few farms.

## Training & Exposure

As per the SAP (Standard Agriculture Practices) developed by Chetna a training schedule was developed for training the Staff, model farmers, and for follow-up training at the village level.

Village Level Trainings to Farmers

Some of the training covered under the project are as follows

1. Pre-Season Training
2. Mid-Season Trainings
3. Post-Harvest Trainings


Exposure to Model Farms

The trainings were initiated in a TOT (Training of Trainers) model in which Staff and Model farmers were involved after which the village level trainings were carried out covering all the 314 villages. Each training was organized for 2-days in a residential manner and a strategy to reach out to the farmers was developed with fixed deadlines. After the trainings at the village level, the technical team of Chetna visited all the villages to build the confidence of the farmers in organic practices. Follow-up by the technical team has helped the farmers to adopt prophylactic

Village Level Training

treatment which has helped the farmers to manage the pest and disease in time. The trainings have also helped the farmers to enhance their knowledge on bio-extract preparation, manure preparation, liquid manure preparation, and execution of various farm-level activities as per the requirement.

Exposure visits were organized to the farmers to model farms and to the Chetna research centers to enhance the understanding of the farmers on organic practices and demonstrations on nursery raising, seed banks, cotton trials, manure development, solar energy water management, etc.

## Eco-Centers & Seed Conservation

04 eco centres under the Chetna control have organized various types of low-cost demonstrations easily adoptable by the farmers. Demonstration units such as compost making, soil and moisture conservation, drip irrigation, seed banks, dairy management, best performance long-staple cottonseed production, vegetable cultivation, horticulture promotion, rainwater harvesting structures, mulching with glyridedia, liquid manure preparations, botanical extract preparations, organic tonic preparation, etc., were established. CORCC at Lanjigarh is surrounded by barbed wire fencing to protect the research centre from animals and human trespassing. This has helped the college students from government and private to get exposure to various kinds of organic practices. From Chetna project areas 476 farmers have come to the centres to learn about the organic practices.

## Farmer Level Eco Centre

In Telangana 4 farmer level eco centres were established to promote the learnings of the farmers at the grass-root level. The model farmers from 4 clusters were selected from the villages which are in the mid-distance to other villages and model farmers from these villages were provided assistance to raise compost pits, bund plantation, inter-cropping, mixed cropping, soil and moisture conservation, vegetable cultivation, agroforestry, and organic practices. Farmers from surrounding villages have got the opportunity to visit the demonstration and promote the same on their farms.

Farmer Level Eco-Centre Displaying Pheromone Traps/ Yellow Sticky Traps

## CORCC Development

New Borewell at CORCC

Chetna research centre is building the confidence of the farmers for over a decade. Cost-effective demonstrations taken up in the research centre is helping the farmers to adopt the technology on their farms. Farmers witnessing the demonstrations are able to transform the learnings into their own farms. During the year fencing of CORCC up to 1750 ft was taken up to protect the farm from trespassing by the animals and the humans. Apart from that nursery units, land development activities, cotton varietal trials, soil and moisture conservation activities, and vegetable cultivation with low-cost technology for water efficiency were demonstrated. Seed banks at

the research centre have been renovated and the existing seeds have been distributed to the farmers for multiplication.

## Promotion of Diversified Cotton Farming Systems

### *a. Development & strengthening of seed banks*

04 seedbanks have been renovated to strengthen the conservation methods. All the seed banks have been provided with new racks, jars, and containers to improve the storage methods. A survey has been conducted to review the traditional seeds and it has been documented to share with the farmers at the community level. Cluster wise seed exchange programs were organized to promote seed conservation methods through the exchange and multiplication of seeds between the farmers of different villages.

Seed Bank

Some of the activities implemented during the year under seed multiplication and conservation are hereunder.

| Location of Seed Bank | Managed by | Activities taken up during the year |
|---|---|---|
| CORCC, Lanjigarh cluster | COFA | Trials were conducted on 31 varieties of hirsutum and harborium in the research centre to study the performance of the seed in different soils and climatic conditions. Trials at the farmer level were also conducted and the data from both the areas have been recorded for interpretation. A total of 620 kgs of foundation seeds have been acquired for further multiplication for the next season. Apart from |

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|---|---|---|
| | | this multiplication of millets, green gram, and black gram, the red gram was taken up to conserve the local seeds. Soil and moisture conservation activities through the application, of manures, mulching, bunding, leveling, etc. were also taken up. |
| | | Demonstration of inter-crop is helping the farmers to start the same system in their farms as this is the staple diet in the area. This method has been introduced last year and the same has been continued to motivate the farmers to adopt the method on a large scale. Farmers understood that in case the cotton crop fails the farmers will have food security through the promotion of millets as an inter-crop. In the research centre after 4 rows of cotton 1 row of millet is being promoted. |
| | | A new borewell has been dug in the research centre to meet the extensive needs of the research centre and attached it to a drip irrigation system to promote water use efficiency in the farms. |
| Golamunda Cooperative | Basumata Coop | Installation of barbed wire was taken up to protect the eco-center from animals from the village and forest. To date, 1750 ft of fencing has been installed.<br><br>Research on cotton varietals was conducted in the eco center to record the performance of each variety under light and heavy soils. Baby trials were also conducted in the farmers' fields and data from all the farms have been collected for reporting. |

| | | |
|---|---|---|
| | | The seed bank established at the centre has been renovated as there was a continuous threat from the rodents. Seeds collected from the farmers have been stored safely for the distribution/multiplication for the next year.<br><br>Multiplication of traditional seeds has been carried out to demonstrate the technology to the farmers. During the year demonstrations such as red gram, black gram, green gram, paddy, millets, and vegetables were taken up. |
| Madding Eco Centre Bhawanipatna | Matrubhumi Coop | Demonstrations such as composting methods, liquid manure preparations, bio-extract preparations, EFYM, et., have been taken up and strengthened for the farmers learning. Varietal trials on hirsutam and herbarium varieties were taken up with 03 replications. |
| | | The demonstration of millet as an inter-crop in cotton has continued to motivate farmers to adopt the method to achieve food security if the cotton crop fails due to climatic conditions. |
| | | Vegetable promotion and dairy management are helping the centre to receive some income from the sales of vegetables and milk. Farmers from the surrounding villages are attracted to the method to promote their farms for additional income. |
| Pragathi Eco-Centre, Ragapur, Sirpur (U) | Pragathi Coop | Seed multiplication and research activities were carried out in the eco-center to enhance the farmers learning on seed conservation and to understand the importance of local seeds suitable to the soils. From the demonstrations, 650 kgs of cotton foundation seeds, 250 kgs of |

| | | |
|---|---|---|
| | | red gram, 120 kgs of castor, 300 kgs of maize, and 150 kgs of okra were multiplied and stored for the farmer's distribution for the next year. |

b. Cotton with Millets as Inter-crop

Demonstrations with farmers on millets as an inter-crop with cotton have been introduced as a pilot. The new system has developed confidence among the farmers as this is helping them to attain food security without hampering cotton production. Regular advice from the technical team has helped the farmers to see this as an alternative income and also the best method to establish food security. For every 4 rows, 1 row of millet was introduced, this has given them a yield of 75 kgs per acre. Most of the farmers have retained the produce for their consumption and the surplus was sold in the markets. The market rate per millet for 100 kgs for the year 2021-2022 was INR. 3500/-

Millets with Cotton as an Inter-crop

**Promotion of Integrated Farming Systems in Organic Cotton**

To improve the living standards of the households' various kinds of life skill interventions were taken up in the communities by integrating the income generation activities suitable for promotion of integrated agri systems. Individuals from the villages who have less land and a few landless families have been identified and their skills have been built on dairy management, goat rearing, poultry rearing, backyard vegetable cultivation, and preparation of bio extracts, manures, etc. During the year some of the interventions introduced are as follows.

## *Backyard Poultry*

50 units of backyard poultry were promoted to help farming households establish alternative income at the family level. Families' skills in poultry management were built and they were provided with 5 birds to raise. All these are local birds that are nutritious, good for health, and have good value in the market. Families have taken up the multiplication of the birds and a few families are able to sell the birds in case of emergency in the market. A few families are able to feed their children with eggs which are good for their health. Due to Coronavirus the consumption of eggs and meat has increased fetching additional income to the families due to the demand. Each egg price has reached INR.10/- and the meat price has touched around INR.600/- in the market. Additional income raised through this has helped the families to meet their needs to some extent during the lockdown.

**Backyard Poultry**

## *Backyard Kitchen Gardens*

Farming families have received support to establish organic back yead Kitchen gardens. During the year 50 families have received a vegetable kit consisting of 10 varieties of vegetable seeds to grow in their backyards. Families have promoted the organic methods in vegetable cultivation has helped them to sell the vegetables for 10% higher in the market. During the lockdown, all these families could get an additional income of INR.750 per month to support their families.

**Backyard Kitchen Garden**

*c.* Goatary

landless households from the organic farming villages have received support from the project to establish an income generation activity with goat rearing. During the year 20 families have received 20 units of goats consisting of 5 goats (1 male + 4 Female). Multiplication of goats has started and the families are happy that they can get milk at present to consume. Apart from this, a few families have received support from financial schemes under the government to establish goat rearing as a livelihood.

Goatary Support for Livelihood Enhancement

## Incubation Support to the Farmers in Transition

During the year 1000 new farmers have received the Incubation support for transforming to organic farming. All these farmers have been enrolled in IC1 and they were given handholding support to understand the organic methods to meet the requirements to enter into IC2. The technical team is regularly monitoring the farms and they are giving timely advice to the farmers to build their confidence. The internal and external inspection of the farmers is completed and the details of the operations have been recorded in the organic farm dairy (OFD) developed by Chetna which helps in interpreting the data of each farmer at the end of each year.

External Inspection by CU

## Soil Tests

Soil samples of the new farmers have been collected and the tests on these soils were conducted to record the changes taking place with the interventions. The comparison will help in understanding the improvements in the soil and also helps in developing the intervention schedules. Reports from the soil tests show that there is deficiency of Nitrogen, Boron, Sulphur, Ph value is below 6.5 and the nature of the soil is acidic.


Orientation and Installation of Soil Testing Machine

The measures to improve all these components in the soil will be taken up with various interventions in the next year. During the year interventions such as application of 4 tons of EFYM application, 600 litres of liquid nutrients application, 800 litres of botanical extraction application, inter-crop with legume-based pulses, border crops and trap crops.

Staff Conducting Soil Test

***Education Fund Support***

a. *Scholarships*

Last year we couldn't implement this activity due to lockdown, but during the year 2021-2022 all the 50 students from the economically backward category were identified and they were supported with the scholarship as they were facing too many challenges as compared to the last time due to covid-19. During the year the students received support for pursuing streams such as Industrial Trainings, Arts, Bio-Sciences, Agri-Sciences, computer Sciences, Commerce., etc.

**Students pursuing Higher education**

*b.* School Level Competition

We couldn't organize these activities as all the educational institutions were under lockdown due to Covid-19.

*c.* Bridge Schools

02 schools were established in Telangana to help the school dropouts to attend the school established at the village level. Children dropped out from school due to reasons such as lack of interest, financial constraints. distance of the Govt school from the village, family responsibilities such as to attend the household chores have been identified and they are motivated to

**Dropout Students Learning Laptop Operations.**

attend the bridge school. During the year 2 schools have been established and this facility has helped 105 children to attend the classes and learn the syllabus from the classes they have missed. These students have been taken re-admission into the regular school and started attending the classes regularly.

*d.* Providing MAAD/Para-teachers in regular school

Village Level School Organized During the Lockdown

All the 17 para teachers have organized village level schools to engage with the students during the lockdown. The activity has established a platform to motivate the children to attend the classes. The tuitions imparted to the children has helped to cover the syllabus for the classes they have missed. The village level tuitions have also helped the children to update themselves with the subjects if not they would have found a big void as they were promoted to the next class without any examination. The activity has helped 17 villages on an average 50 children have received the tuition from each village and the total number of children who benefitted from the education is 850 for the year 2021-2022.

*e. Life skills development for children belonging to cotton farmer's families:*

Cotton farmer children interested in developing their skills on alternative livelihoods have been identified and they were provided with training on tailoring. During the year 60 girls have utilized the training services. In each batch, 15 girls were trained for 3 months. In total 2 batches of training were organized for the year 2021 to 2022. Certificates of completion of

Tailoring Class in Progress

training were issued to the students after passing out the exams successfully. Out of these 10 students have started their enterprises at the village level and they are earning INR.3000 to 4500/- per month

**Annex-1**

The following table provides the details of operational areas for the year 2020-2021:

| State | Districts | Cluster | # Villages | # Farmers covered in 2019-20 | # Villages having OFT farmers | # OFT certified farmers by Mar-20 |
|---|---|---|---|---|---|---|
| Telangana (Erst while part of AP) | Adilabad/Asifabad | Utnoor | 184 | 5455 | 178 | 4683 |
| | | | | | | |
| Odisha | Kalahandi | Bhawanipatna | 21 | 2147 | 21 | 1811 |
| | | Golamunda | 19 | 2143 | 19 | 1987 |
| | | Lanjigarh | 19 | 1902 | 19 | 1765 |
| | Bolangir | Kantabanji | 20 | 1257 | 20 | 1096 |
| | Rayagada | Muniguda | 51 | 3125 | 24 | 1890 |
| TOTAL | | | **314** | **16029** | **281** | **13,232** |