

# Report 2019-20





Sarojini Majhi of Sanchergaon, Golamunda, Kalahandi with her Brinjal harvest

## Our Work

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## Note from Chairperson



Dear Friends and Patrons,

I write this note at a time our country and the world are going through a major crisis the likes of which we have not experienced in our lifetime. Even after we flatten out the Covid-19 impact curve, the economic fallout will remain. Small enterprises, workers at the margins, and deprived sections are likely to feel the brunt more than others. Some of the poorest districts of the country where we work in have seen an influx of migrant labour recently. We are equipping ourselves to rise to the challenge of working with these communities and provide them more diversified livelihood options.

We continue to work on demonstrating to farmers scientific methods of agriculture. This year 29,129 farmers adopted improved practices on paddy cultivation in 25,576 acres of land. As a result of practicing SUDHA - HYV, (Sustainable Assured Rice Production), the yield per acre is 319 kgs more than in non-SUDHA-HYV areas. We believe that increased farm production is the key. It will prevent migration of labour, and improve the declining share of agriculture in the GDP.

Nutrition is another area where we have focused on. As the resource organization to the Odisha Livelihoods Mission (OLM), we are training the OLM staff and cadres on Nutrigardens, their different models; we are continually focusing on better nutrition through the Nutrigarden model. 13, 410 families have adopted kitchen gardens, in our bid to promote dietary diversity.

Our foray into education is now three years old. We are serving almost 400 children in 16 villages in Bissamcuttack block. Our model of local teachers, mothers' support through farm activities, and learning beyond the classroom are sustainable practices. We expanded to 8 govt schools in Kujanga block (Jagatsinghpur), integrating with other interventions in livelihood and health.

Our work on solar energy continues, as we know that clean energy is the future. We have provided drinking water and water connections in toilets for 1004 households in ten villages of Rayagada district using solar energy, among other initiatives. I look forward to the Harsha Trust team carrying out its work in the years to come with the same enthusiasm and commitment as they have shown since 2002.

Harsha Trust is grateful for the generous support provided by different departments and agencies of Govt of India and Govt of Odisha; DFID, national and international corporate entities, institutions, trusts and others. We thank the community, partner organisations, other agencies and independent professionals for their kind contribution. We will continue our journey to bring in technology based, market linked and community centric institutions for eco-friendly, equitable and sustainable socio-economic development of rural people.

Sincerely

Kalyan Kumar Bandrj Chairperson

### About Harsha Trust

Harsha Trust is a not for profit organization working in the state of Odisha since 2002 on key issues of vulnerability and exclusion, in the pockets which have been geographically isolated from the seats of power and administration. Our commitment has always been on better lives for the poor, though with time, we have changed our approaches based on our empirical experiences. We started out by a singular and concerted focus on livelihoods, particularly on agriculture and livestock, but we diversified and added more things to our platter as we understood the myriad dimensions of deprivation. We as an organization now are not just committed to making bold dents at poverty and deprivation, but also understand that to change lives, human development in the form of better healthcare, better sanitation, access to education are also important ingredients. Thus, in the last few years we have ventured into promotion of better quality education for the under privileged children through need based outside and inside school interventions in complementary and/or supplementary mode with government initiatives.

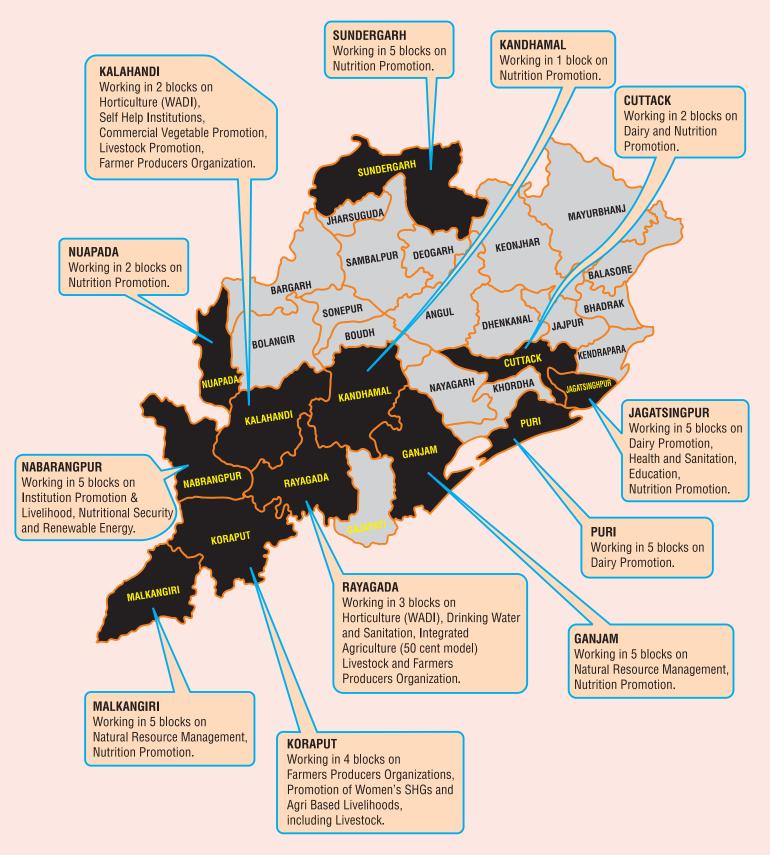
Harsha Trust realizes the importance of building people's institutions at the grassroots. We understand that these community institutions can play important roles in building community cohesion, generating solidarities among the poor and vulnerable sections and empowering them to seek their entitlements. These agencies of the poor, now as a result of our engagement with them for more than a decade, have emerged as powerful institutions at the village and panchayat level which are beginning to influence grassroots governance in their favour. Our Cluster Level Forums and Farmer Producer Organizations have memberships in the thousands. The share capital generated from their members is making them gradually sustainable.

We have taken sides in our development dialogue with women, as we recognize that their deprivation is multiplied by their gender, over and above their ethnicity and geographical isolation. We recognize that women farmers produce half the world's food but often they and their children go hungry. Our nutrition initiatives target these women and seek to change the intra-household distribution of food and other resources.



### Our Locations

We have 17 offices in 12 districts cutting across one of India's poorest state.





## Our Vision, Mission & Values

**Vision** - To be a professional based institution of excellence for promoting technology led and market driven institutions primarily through community based organizations.

**Mission** - To ensure the livelihood security and improve the quality of life of the rural poor.

**Values** - Integrity, Discipline, Transparency, Caring, Quality & Innovation.

## Transformative Agriculture with the Poorest Populations

Agriculture employs almost half the country's workforce but it contributes to just 17.5% of the GDP (at current prices in 2015-16). While it contributed more than 50% of GDP in the 1950s, it went down to 15.4% in 2015-16 (at constant prices). India's production of food grains has been increasing every year, and it is among the top producers of several crops such as wheat, rice, pulses, sugarcane and cotton - Odisha continues to show low production in many of the major crops.

Table-I: Year Wise Yield of Different Crops in Kg (per Hectare) in Odisha: (Source: Status of Agriculture in India)

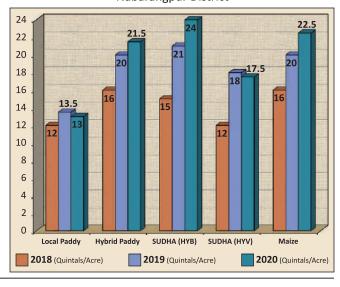
State/UT	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Odisha – Total Yield of food grain	1,300	1,349	1,369	1,484	1,363	1,262	1,432	1,303	1,592	1,625	1,733
Comparing Food G	Comparing Food Grain Yield of Odisha with Best Performing State										
Punjab	4,040	3,986	1,359	4,255	4,231	4,144	4,280	4,364	4,347	4,500	4,144
Comparing Rice Y	ield of Odish	a with Best Pe	erforming Sta	ate							
Punjab		3,858	3,868	4,019	4,022	4,010	3,828	3,741	3,998	3,952	3,838
Odisha	-	1,531	1,534	1,694	1,529	1,585	1,616	1,450	1,814	1,821	1,989
Comparing Pulses	Yield of Odis	sha with Best	Performing	State							
Himachal Pradesh		713	932	1,062	758	681	1,213	954	1,413	1,763	1,251
Odisha	-	416	445	446	481	461	486	471	513	537	527

Source: https://prsindia.org/policy/discussion-papers/state-agriculture-india

It is in response to very low productivity of agriculture in Odisha that we introduced different aspects of SUDHA<sup>1</sup> in paddy and line transplantation and other techniques in different crops. The agricultural interventions mostly focused around the implementation of improved package of practices (POP) in crops.

29,129 farmers adopted various improved practices on paddy in 25,576 acres of land. We trained the farmers and the Community Resource Persons (CSPs) on different aspects of SUDHA. Our work on increasing agriculture production in different districts is being supported by Axis Bank Foundation. Graph-I shows yearly increase as a result of our intervention.

**Graph I:** Rise in Production in Papadahandi Block of Nabarangpur District



SUDHA (Sustainable Assured Rice Production)

Some of the practices taken up by the farmers as a part of adopting SUDHA paddy were:

- Application of compost during last ploughing in the main field to reduce the requirement of chemical fertilizers.
- Raised seedbed was prepared in small patches for raising seedlings.
- Seed treatment campaign to ensure both organic and inorganic methods for disease free seeds.
- 16,780 farmers adopted (SUDHA) where zinc, boron and fertilizers are applied during nursery stage for production of healthy seedlings.

Due to an active monsoon, farmers of Kalyansingpur block of Rayagada district were able to harvest an average of 18 quintals/acre (paddy) which was earlier reported at 12 quintals/acre. In 92 villages of Bissam Cuttack block, based on a survey done with 2,038 farmers by Harsha Trust, the average yield/acre adopting SUDHA for HYV varieties was 18.92 quintals as against HYV using non-SUDHA being 15.73 quintals. Muniguda block of Rayagada district showed an average yield of 24.03 quintals/acre (DRR 44)<sup>2</sup>; 17.04 quintals/acre (DRR 42); 19.22 quintals/acre for Sahabhagi; and 19.48 quintals/acre for Bina - 11 STRV. This data is drawn from 87 farmers, surveyed by Harsha Trust.

**Rice Crop Manager:** 3,351 farmers adopted Rice Crop Manager (RCM) system for efficient fertilizer utilization developed by International Rice Research Institute (IRRI). This is an ICT based application which provided farmers with personalized information and actionable recommendations on

- 1. Improved Nutrient Management;
- 2. N, P, K, Zn a. Sources b. Rates c. Timing

Though RCM is also used for Crop Health Management, Seed Advice and Controlled Irrigation, we used it for Fertilizer Management alone.

What did we do to link farmers with RCM: We collected the information from the farmers and entered it in the RCM software to get the appropriate fertiliser doses. As per the advice provided in the software, we convinced the farmer to apply appropriate quantities of fertiliser in their fields. We regularly followed up during the fertilizer application time.

**HYB PADDY HYB MAIZE** RAGI **VEGETABLES PULSES SUDHA** NO. OF **SEASON FAMILIES Farmers Farmers Farmers** In Acres **Farmers Farmers** In Acres In Acres In Acres In Acres **Farmers** In Acres 27,308 **Kharif** 32,929 26,554 4,777 6,779 13,836 7,987 14,942 2,701 6,190 2,811 28,329 24,776 Rabi 11,888 166 194 993 1,746 700 379 9,803 2,513 320 261 800 800 Summer 1,381 1,044 337 TOTAL 46.198 26.720 27.502 5.770 8.525 14.536 8.366 25.789 5.551 6.510 3.072 29,129 25.576

Table - II: Our Coverage under Agriculture

Source: Harsha Trust

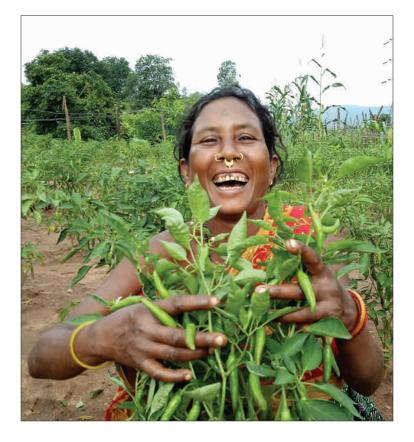
<sup>&</sup>lt;sup>2</sup> DRR Dhan 44 is characterized by very high yield under limited water conditions.



Pictures of Paddy Crop Cutting and Measuring the yield

Kharif Vegetable Cultivation: Farmers in most parts of the state where there is no assured irrigation grow vegetables only in the Rabi season. We have managed to successfully initiate this practice among our partner community in all the seasons by developing irrigation systems for them. We are working with farmers from the tribal communities (indigenous groups) among whom vegetable cultivation was not a popular practice. With significant dependence on forest produce in the past for many vegetables was not a part of their diet. We have also introduced a more balanced diet which includes different kinds of food groups in their plates, as well as an additional income.

Around 14,942 farmers took up vegetable cultivation in 2,701 acres and harvested different vegetables like beans, chilli, cabbage, cauliflower, tomato, bitter gourd and brinjal.





Rabi Vegetables: While our partner community was already into growing vegetables in the Rabi season in a small scale, we have increased the scale, modernized the techniques and helped establish appropriate backward and forward linkages. 9,803 farmers went for Rabi vegetables in 2,513 acres of land. The major crops grown were tomato, brinjal, onion and cauliflowers. To provide better quality seedlings, community nurseries were developed at the village level. See table below to understand the scale of vegetable production.

Table - III: Details of Vegetable Production in Dhobagudi Village

BLOCK	VILLAGE	BENEFICIARIES	VEGETABLE Grown	AREA IN ACRES	TOTAL Production In Quintals	TOTAL AMOUNT In (RS LAKHS)	AVERAGE INCOME PER BENEFICIARY IN RS.
Muniguda	Dhobagudi	25	Cowpea	2.51	92.96	2,83,300	11,332

Source: Harsha Trust

## Nurseries at a Commercial Scale Producer Groups Make a Breakthrough

Availability of quality planting material is highly essential for successful commercial vegetable cultivation. Usually small farmers make small nurseries in their homesteads for personal usage. The farmer maintains and manages the nursery till the seedlings are transferred to the field. However in this period any pest and disease incidences, natural calamities, increases the seedling mortality in the nursery as well as the main field which make it extremely difficult for the farmer to recover or have sufficient time to raise a new nursery for the season.

Thus the concept of community nursery seed beds was thought up and farmer groups were encouraged to develop commercial nursery beds for the community as a whole. Producer Groups (PG) were provided with poly-houses/net-houses for raising community nursery beds and produce quality planting material on a commercial basis under protected conditions. They were provided with the structure, with accessories and initial consumables, and were trained on advanced nursery management technologies like soil solarisation, sowing, fertilisation, germination, fertilizer application, raised beds, pest and disease management activities, etc.

#### Objectives of this Activity

- Develop skills of the farmers in hybrid seedling production in protected areas.
- Produce quality planting material to improve productivity and enhance income.
- Promoting Agri-Entrepreneurs.

Yam is one of the best tuber foods because of high carbohydrate content, low fat and a good source of energy. It is a popular food among our indigenous populations. Yam has many varieties in Odisha locally known as Similikanda, Rani Kanda, Olua & Khamba Alu (Dioscoreaalata). Its cultivation is very restricted in India with only four states growing yam in substantial amounts. (Andhra Pradesh, Gujarat, Maharashtra and Kerala). Odisha's climate is highly suitable for yam cultivation but Odisha has very few farmers in this crop practice and of those who grow yam do so only for self-consumption. That is why market prices for it are always high. Taking advantage of the high prices, farmers from twenty one households in four villages of Kosagumuda block of Nabarangpur district grew yam in about 10 cents of their land, each. They earned an average additional income of Rs 11,205/- in just one year from a single crop.

Yam Farmers Make a Quick Buck

#### **Rationale of Commercial Nurseries**

Various aspects of nursery production and management have not received proper attention in the past. Therefore, many diseases have spread to virgin areas bringing about economic losses in most of the vegetable growing areas of Southern Odisha. They cause loss of vigor and poor quality of vegetable seedlings. Non availability of quality planting material is one of the major constraints in obtaining optimum quality and productivity in vegetables. Thus nursery raising under shade-net ensures quality seedling. Proper knowledge in management of nursery for the production of good quality seedlings is the most essential component for the establishment and development of good vegetable fields and crops. It germinates and grows well in warm and humid climates

#### Approach & Methodology

In two villages of Kalyansinghpur block of Rayagada district, the Producer Groups Maa Ganga -Jamuna & Salori initiated a commercial nursery for vegetable crops of tomato, brinjal, chilli, cabbage, cauliflowers, and fruit crops like papaya. They were trained and facilitated by the project personnel on preparation and

maintenance of the nursery on a regular basis. These groups cater to the needs of quality planting material for villages in the locality. They earned an additional income of Rs 15,700/- through the nursery. With increasing income every season, the nursery has become a sustainable venture today.

Selection of the beneficiaries was made on the basis of the interest of the farmers and the SHGs. Producer Group functionaries convinced the farmers on the benefits of a community nursery. Harsha Trust supported by Axis Bank Foundation provided all the necessary inputs after meticulous hands on training on the production technology of hybrid seedling production.



#### Results

The average size of each shade net is 600 sq feet (Length - 40X Width 15, Height -12 feet) and three poly houses were established during 2019-20. The cost of raising seedlings ranged from Rs 25,000 to Rs 30,000 per poly house and they earned a net income ranging from Rs. 35,000 to Rs. 40,000 (Income from only the seedlings sold outside have been accounted for.) Rs 50,000 were provided for three poly shade nets.

Table - IV: Details of Commercial Nurseries

SL.	NAME OF THE VILLAGE	NAME OF THE PRODUCER GROUP	FTHE PRODUCER GROUP NO. OF NURSERIES		AREA IN Sq.Ft.
1	Krushnanagar	Maa Salori	1	28	800
2	Karanja	Gangajamuna	1	42	600

Source: Harsha Trust

Table - V: Amount Generated by the Producer Groups (PGs) from the Sale of Seedlings

SL.	NAME OF THE PG	NAME OF THE SEEDLINGS	TOTAL PRODUCTION IN NUMBERS	ON USED INTERNALLY SOLD TO (NAME OF VILLAGE)		IN NUMBERS	Earned (including subsidee)
1	Maa Salori	Chilli	17,000	11,000	Kuradhi	6,000	4,500
		Cauliflower	20,000	7,000	Raghunathpur & Panasaguda	13,000	9,750
		Capsicum	8,000	0	Karanja	8,000	8,000
2	Gangajamuna	Cauliflower	20,000	12,000	Boriguda	8,000	6,000
		Capsicum	8,000	2,000	Melakajaba	6,000	6,000
	Broccoli		5,000	0	Sanabamanaguda	5,000	5,000
			78,000	32,000		46,000	39,250

Source: Harsha Trust

#### **Immediate Outcome**

#### **Impact - Horizontal Spread**

Farmers have accepted the benefits of raising nurseries in pro-trays rather than in nursery beds. Because of better establishment of seedlings in the main fields, farmers feel that gap filling has been reduced as pro-tray seedlings established well.

#### **Employment Generation**

The seedlings are raised in shade nets and sold to other farmers at a reasonable price. The labourers were trained and skilled in handling pro trays and nursery techniques. Many landless farmers got employment opportunities.

#### Scaling Up

These groups are selling their products (seedlings) to other SHGs/Villages and private firms and the demand is soaring. We plan to scale it up next year with 12 more Producer Groups.

#### **Integrated Vegetable Cultivation (50 Cents)**

Harsha Trust promoted the integrated vegetable model among farmer. The objective of this model was to double the farmer's income from their baseline income. Under this model, 50 cents (half an acre) of their land is promoted to grow different crops. They are Bananas - 5 cents; Greens - 5 cents; Permanent creepers like Ivy Gourd, Pointed Gourd in 10 cents, different seasonal vegetables (based on the winner crop selection, that is market demand, suitability of growing etc) like Cabbages, Cauliflowers, Brinjal, Tomato; and seasonal creepers like Beans, Cowpea, Bitter gourd on 10 cents.

We facilitated hundred and five (105) farmers into integrated vegetable cultivation in Koraput district. Each farmer developed 50 cent area for cultivation of the above mentioned crops. In this process the entire land was brought under improved package of practices. This includes, Seed Replacement, Seed Treatment, Water Management, Space Management, Trellis Support, Root Treatment, Balanced Fertilizer Application and Disease and Pest Management. This initiative was supported by HTParekh Foundation.

#### Drudgery Reduction Through Limited Mechanization

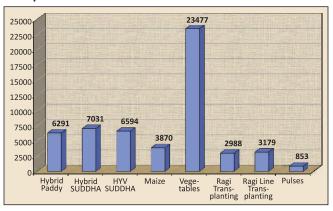
We also introduced Battery Sprayers and Power Weeders in vegetable cultivation to address among other things, drudgery among women farmers and increased labour cost for families with limited labour power. In the adivasi districts of the state, where the major burden of agriculture (on both plain and undulated land) is carried by the women, apart from collection of NTFP and allied activities like animal husbandry, drudgery reduction really counts. Harsha Trust recognizes the need to balance mechanization of farms and reduced work availability as a result of mechanization to ensure better lives for farming communities.

#### Summer Vegetables - River Lift Irrigation Site for Vegetable Cultivation

We are planning to introduce river lift irrigation for summer crops. Solar power will be the key. With this each of the farmers will be able to cultivate an additional crop which could be water melon, brinjal, tomato or cucumber and will provide them with an approximate additional income of Rs.20,000/- per annum. Water Users Group and Self Help Groups are planned to address day to day affairs of water distribution and care and maintenance of the pump (Picture on right: River Lift site at Kosagumuda Block). These are supported by Schneider Electric India Foundation.



Graph II: Annual Increase in Income from Baseline in INR



Summer vegetables were a first for many areas. Previously water harvesting from existing sources (like springs, rivers) was not practiced and thus additional crops apart from Kharif was impossible. 1,381 farmers harvested summer vegetables during the month of April and May. The average production per farmer was 7-10 quintals. Each farmer was able to earn an additional income of Rs.14,000-20,000 from summer vegetables.

Table - VI: Coverage Under Irrigation

TYPE OF ASSET	NO	BEN	EFIT		COST SHARING	G (Rs. In Lakhs)		
		FAMILIES	ACREs	COMMUNITY	HARSHA TRUST	GOVT	TOTAL	
RLI through Govt	49	653	635	4,35,500		1,21,08,500	1,25,44,000	
Bore Well through Govt	40	153	205	24,34,600	23,01,600	1,32,00,000	1,79,36,200	
Solar RLI	29	335	270	98,16,500	1,13,80,000	2,11,96,500		
Dug Well through MGNREGS	53	124	124		40,20,000	40,20,000		
Farm Pond through MGNREGS	44	121	90			18,20,000	18,20,000	
TOTAL	215	1,386	1,324	1,18,15,600	1,23,01,600	3,11,48,500	5,75,16,700	

<sup>\*\*</sup> River Lift Irrigation. Source: Harsha Trust.

## Cultivating Millets and Pulses

Millet Cultivation: Millets, traditionally the staple diet of tribal communities is fast being replaced by rice, because of its easy availability in the Public Distribution System. Millets in their natural forms are rich in micronutrients and gluten free. 34.4% of children in Odisha are stunted (weight for age) and 20.4% are under-weight (Weight for height,). Hence, there is a need for providing micro nutrients in the ICDS and the MDM program, and Government of Odisha's Millet Mission is geared towards it. We are a partner in this venture with the government.

We are working with the Odisha Millet Mission in two districts of the state, Koraput (Borigumma block) and Nabarangpur (Jharigaon block). The Odisha government has now initiated procurement of millets under the PDS (Public Distribution System) to supply nutritious food to students of government schools. 6,709 farmers have cultivated Ragi (Finger Millet) in 4,829 acres of land by adopting System of Millet Intensification (SMI). It includes raising nurseries, transplanting young seedlings, mechanical weeding and application of organic manures. The increase in income per farmer out of improved millets has been found to be around Rs 6,800 per annum.



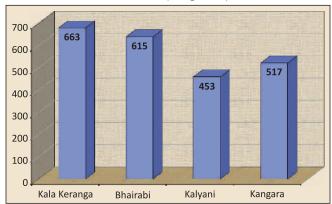
#### Harsha Trust was also involved in:

- Generating awareness among millet growing farmers on provisions and schemes of the Odisha Millet Mission.
- Registering 974 farmers under the Millet Mandis (markets) and ensuring Minimum Support Price (MSP) of Rs.31.50 per kg.
- Preparation and application of organic manure for millet cultivation.
- Collection of sample data of yield on different variety of millets.

Graph III: Increase in Millet Yield (in Kg/Acre)

600
500
400
200
100
Baseline Yield Average Current Yield Average Increase in Yield per acre in Kg

**Graph IV:** Yield of Different Varieties of Millets Cultivated (in Kg/Acre)



**Cultivating Pulses:** We promoted pulses with 6,510 farmers in 3,072 acres of land. The major crops grown were Pigeon Pea and Black Gram.

#### Major Activities Undertaken

- Exchange of quality seeds among the farmers by organising seed melas at Gram Panchayat level.
- Promoting Pigeon Pea as an intercrop with cotton
- Using nipping machines for pruning to promote lateral branches and increased flowering.

The undulating hills on which the indigenous populations (adivasis) hold land in the southern districts of Odisha require different approaches to cultivate. We have adopted the strategy of de-risking farms by the promotion of Integrated Crop Cultivation Models. Our integrated crop cultivation models takes into account the slope of the land, the availability of water, the kind of soil and plans crops and horticulture accordingly. For sloping lands on high altitude which can be classified as Cultivable Waste (we have adopted the agro horticulture model). Cashew and Mango were some of the main plantations in undulating lands of this kind. Apart from pit digging and pit filling for cashew plantation and planting of grafted cashew plants we are also encouraging existing WADI farmers to intercrop Sweet Potato in their plantation. We are supported in our Agro Horticulture programme by NABARD.

#### Line Sowing not Broadcasting Pulses

In traditional methods farmers broadcasted the Pulse seed (Pigeon Pea). They did not do any line sowing, or weed management or fertilizer application. No plant protection measurements were taken. Thus only four quintals per acre was the yield in the traditional method.

But after our intervention, we facilitated seed treatment with broad spectrum fungicide followed by inoculating the seeds with Rhizobium bacteria (after seven days of seed treatment) and dried it in the shade. This was followed with line sowing with the recommended spacing so that it was easy both for mechanical & manual weeding whichever was practiced. After that basal application of FYM & recommended fertilizer was applied for more root growth & branching. At 15 days intervals, Neem oil was sprayed regularly as a preventive against disease & pest management. Mechanical nipping was practiced after 45 days of sowing to increase further branching & reduce plant height. No chemical pesticides were used as PP measure. The yield subsequently increased to six quintals per acre in this method. So this practice saw an increase in production of 50% from the traditional method.

## Agro Horticulture

#### The Story of Rukuni and her Family's Prosperity

Rukuni Majhi of village Barakaudi of Dumerpadar Panchayat in Thuamul.Rampur block of Kalahandi District has a big family of seven to support. She has six acres of land. Till 2015, she along with Hangta (her husband) used to grow only paddy, millets and oil seeds (Niger) in the kharif season to feed the family and



earn some money. In spite of owning six acres of land, their family struggled due to low production and meagre income from agriculture. In the year 2016, Rukuni was encouraged to develop an acre of a WADI patch on her land where productivity was low. In this land, they planted twenty cashew and sixteen litchi trees. Along with this they also planted four mango plants. In the first year apart from tending to the plants they also intercropped other vegetables in the WADI field. Harsha Trust also facilitated an exposure for the farmers to learn intercropping and pest management. This made them further diversify and they started growing vegetables, pulses and fruits for increasing income, reducing risk and improving sustainable livelihood.

In 2017, the family was supported by Harsha Trust to build an irrigation structure. i.e. Ring well and Solar Pump which enabled the family to grow high value crops like broccoli, capsicum and green pea. They also started growing millets and pulses by adopting an improved package of practices and were able to earn an additional income of about Rs.15, 000/- from this intervention.

They purchased better quality seeds from the FPC promoted by Harsha Trust. This year the family earned an additional income of about Rs.20, 000 from vegetables, millet and paddy. They have also started their own cashew plantation in three acres and are selling cashew grafts to other farmers which have given them Rs 5,000 additionally. The family is well off today. Their upland has finally paid off.



4,945 households are engaged in agro horticulture activities like cashew, mango, and litchi as well as pomegranate plantation. About 700 farmers harvested mango and cashew during this year. The average income per farmer is about Rs.40-50,000 from this intervention. Active convergence with the horticulture department has further facilitated this activity. (Picture: Mango harvesting at Golamunda block of Kalahandi district)

Usually mangoes are sold by farmers through wholesalers and retailers during the months of May and June which often does not provide good revenue to the farmers. Due to the rise in price of mangoes this year, we established a mango stall at the block level to increase the market access for mango farmers in Rayagada and Kalahandi District. This activity helped farmers to earn an additional income of Rs.10-15 per kg of mango by directly selling to the consumer.

Anandi Bhoi of Golamunda was a marginal farmer and an agriculture labourer. She was facing difficulty, even to feed her family, from the small patch of land that she owned. From the NABARD supported and Harsha Trust promoted Mango WADI project, Anandi could harvest a bumper crop. From the proceeds of mango sales she could own a tractor and a thresher, which her son is managing today.



#### Promotion of Lemon Grass Cultivation at Bandhugaon Block in Koraput

Lemon grass has been promoted with 656 farmers in 656 acres of land in Bandhugaon block of Koraput District. Each farmer has grown lemon grass in an acre of land. In a year, farmers will be able to extract 65 litres of lemon grass oil from 1 acre of land. Lemon grass oil has medicinal properties and has high demand in the market. There are many oil extraction units established by private entrepreneurs in Bandhugaon block. Each farmer from lemon grass was able to earn about Rs.60, 000-70,000 per year.

#### Bamboo Plantation at Bandhugaon Block in Koraput District

Bamboo has huge ecological benefit and economic value. It has also excellent structural property, given its high strength-to-weight ratio. It is because of these advantages, and as bamboo grows in all kinds of climates, we promoted bamboo plantation with thirty-three (33) farmers. Each of the farmers planted 200-300 bamboo plants in an acre of land. Farmers were provided training on site selection, field preparation, pit digging, pit treatment and application of fungicide. The expected production is about 8-10 tonnes per acre after 5 years.

#### **Innovations with Bamboo**

Not more than 15% of our project areas where tribal communities live are irrigated. With just one cropping season, the income from agriculture remained stagnant over the years. Creation of irrigation to grow a second crop has been an expensive proposition and had no takers. While dug wells in the low lands provide a promising option for irrigation, it has not been adopted largely because of two reasons. One being the lack of skilled labour to dig wells and other being very high cost (> Rs 1 Lakh) for lining the dug wells with brick or stones.

To overcome this problem, we ideated with the concept of creating bamboo based dug wells in Bissamcuttack block (Rayagada district) & Thuamul.Rampur block (Kalahandi district). This is a pilot initiative of Harsha Trust and its scaling will depend on its success, both from a cost and an environmental point of view. One dug well was created (10ft dia x 20ft depth) in the low land using bamboo rings to line the wells. The well was created within three days using excavators and it was lined instantly with pre-fabricated bamboo rings. The technology and funds for bamboo based dug well was provided by Selco Foundation. We have created three such dug wells in Bissamcuttack and Thuamul Rampur block of Rayagada and Kalahandi district respectively.

#### Creating a Bamboo Dug Well



Village level Solar Based Agro Solutions at Kosagumuda

South Odisha is fortunate to have large solar energy potential for most of the days of the year. To ensure clean energy access for economic development we started the activity in S. Keragaon village of Kosagumuda block in Nabarangpur district of Odisha. The village consists of 195 households (all farmers). The objectives of this activity were to provide single solar solutions to villagers for irrigation and agro processing. (*Picture - Millet processing machine at Bissam Cuttack, Rayagada*)



Harsha Trust started by installing a mini solar micro grid of 20 kw capacity to provide energy solutions for River Lift Irrigation, a Sugar Cane Crusher and a Paddy Processing Unit in the village. Presently, two river lift irrigation systems, one sugar cane crusher machine and a single paddy processing unit is running in the said village with the energy generated from a single solar micro grid. 39 households reap the benefits of solar irrigation and have initiated off season vegetable cultivation in 43 acres of land. The solar- powered sugar cane crusher machine cuts labour and drugdgery at the farmers' level besides eliminating the use of extensive and polluting fossil fuels. Now suagar cane farmers are able to produce

jaggery which results in enhanced income for sugar cane growers in the village. Similarly, the rice processing unit has solved their problems of rice milling and has cut expenditure considerably.

The technology for solar energy based equipment here has been supported by Schneider Electric India Foundation; the technical team of Patneswari Agro Producer Company Ltd (PAPCL), one of our Producer Companies, has installed and will provide maintenance and all necessary service to the farmers for the next five years. An online data logger process to monitor the whole project has been set up by Schneider Electric India Foundation.

We have also covered 100 commercial broiler farms under our solar lighting program in the four districts of Koraput, Rayagada, Nabarangpur and Kalahandi.



Sugarcane Crusher at S. Keragaon, Nabarangpur, Odisha

TABLE - VII: Harsha Trust Promoted Solar Powered Equipment in Different Locations

SL.	PARTICULARS	LOCATION	INSTITUTION RESPONSIBLE FOR MANAGEMENT	DONOR	
1	Sugarcane Crusher	S.Keragaon, Kosagumuda, (Nabarangpur district)	Managed by Farmer Producer Company (FPC)	Schneider Electric India Foundation	
2	Rice Huller	Masiapada, Gurmaiguda, (Koraput district); Kanhaguda, S. Keragaon; Jharigaon (Nabarangpur district)	Managed by FPCs & SHGs	SELCO Foundation in Koraput; Schneider Electric India Foundation in Nabarangpur	
3	Dal Processing Mill	Sahada (Rayagada district) Kanhaguda (Nabarangpur district)	Managed by FPCs	SELCO Foundation	
4	Millet Mill	Borigumma (Koraput district) Bissamcuttack (Rayagada district)	Managed by User Group (UG)	SELCO Foundation	
5	Dry Chilli Grinding	Kalyansingpur (Rayagada district)	Managed by PG	SELCO Foundation	
6	Turmeric Grinding	Bissamcuttack, Muniguda (Rayagada district)	Managed by FPCs namely SPCL & MAPCL	SELCO Foundation	
7	Refrigerator	Muniguda (Rayagada district) Golamunda (Kalahandi district)	Managed by FPC & SHG	SELCO Foundation	
8	Power Sprayers charged by Solar energy (5 nos.)  Boipariguda, Kundra, Boriguma, (Koraput district) Kalyansingpur, Bissamcuttack (Rayagada district)		Managed by UGs where 792 beneficiaries will be benefited through battery and manually operated 20 spray machines.	SELCO Foundation	
9	Solar Cold Storage	Bissamcuttack (Rayagada district).	Managed by FPC, Markama Agri Producer Company Ltd	SELCO Foundation	

The Parties Schneider Electric India Foundation and Harsha Trust have agreed to collaborate on a rural development project aimed towards income enhancement of the rural community in Nabarangpur, Rayagada, Kalahandi and Koraput districts of Odisha by installation of solar water pumping systems for agriculture purposes and solar based livelihood and agri-processing solutions. The Project is being executed as per the need of the local communities in the operational areas of Harsha Trust attempting to create a win-win situation for all stakeholders involved. Harsha Trust piloted this project in the year 2018-19.

We have also provided solar powered piped water supply which ensures water connections to ten villages in Bissamcuttack and Muniguda block of Rayagada districts and covers 1004 households. Harsha Trust promoted FPO, Patneswari Agri Producer Company Ltd (PAPCL) is a registered distributer of Luminous & Sunking Solar products for the districts of Koraput, Nabarangpur and Malkangiri. PAPCL also provides all types of clean energy solutions for homes, customized to needs. This is a joint collaboration of Harsha Trust, GrundFos and SELCO Foundation. (*Picture: River lift irrigation*)



TABLE - VIII: Harsha Trust Promoted Solar Powered Lift Irrigation Projects in Different Locations

SL.	NO. OF WATER LIFTING DEVICES INSTALLED	Financial Year 2019-20
1	Nos. of 5-HP pumps installed	16
2	Nos. of 1 in acres-HP pumps installed	19
3	Total beneficiaries covered by 5-HP pumps	206
4	Total beneficiaries covered by 1-HP pumps	65
5	No. of villages covered	31
6	Area under cultivation	190

Harsha Trust has promoted Solar Powered Lift Irrigation Projects in a number of locations. This is in convergence with funds and technical support from Schneider Electric India Foundation, Axis Bank Foundation, HT Parekh Foundation and community contribution.

## Farmer Producer Companies

Harsha Trust has been promoting Farmer Producer Companies (FPCs) as community level institutions that cater to market-led livelihood solutions. These FPCs are registered under different Companies Act. They build on the livelihood planning done with producer members annually at the community level to facilitate and establish market-led livelihood interventions. These Farmer Producer Companies increase the competitiveness of the producer members through proper forward and backward linkages.

◆ Registered FPCs: 7 (in the Jeypore block of Koraput district; Muniguda & Bissamcuttack blocks of Rayagada district; Golamunda block of Kalahandi district, Papadahandi, Kosagumuda & Nabarangpur blocks of Nabarangpur district)

◆ Total Share Holders
 ◆ Paid up Capital collected
 ◆ Turn Over(2018-19)
 ◆ Profit Earned(2018-19)
 ◆ Turn Over Till Dec '19
 ★ Turn Over Till Dec '19

Table - IX: Details of the Farmer Producer Companies

SL.	NAME OF FPCs	DATE OF REGISTRATION	REGISTRATION No.	DISTRICT	TOTAL MEMBERS TILL DEC'19	TOTAL EQUITY MOBILISED (in Rs.)	TYPE OF BUSINESS ACTIVITIES CONDUCTED THROUGH FPCs
1	Swarnajyoti Producer Company Limited (SPCL)	29/12/2014	U014070R2014 PTC018556	Koraput	607	7,28,000	<ul> <li>Manufacturing and Marketing of Day Old Poultry Chicks</li> <li>Vegetable Production</li> <li>Marketing and Input Supply of Agricultural Goods</li> </ul>
2	Danteswari Women Producer Company Limited (DWPCL)	10/5/2016	U011190R2016 PTC02518	Nabarangapur	803	5,80,500	<ul> <li>Maize Trading</li> <li>Paddy Processing and Value Addition of (a) Aromatic Paddy, (b) Brown and Polished Rice, (c) Hand Pound Rice</li> <li>Input Retailing</li> </ul>
3	Sahayaka Women Producer Company Limited (SWPCL)	27/05/2016	U011000R2016 PTC025305	Nabarangapur	733	4,19,000	<ul> <li>Maize &amp; Black Gram Trading</li> <li>Input Retailing</li> <li>Solar Home Inverter Selling</li> <li>Agro Input Supply</li> </ul>
4	Patneswari Agri Producer Company Ltd. (PAPCL)	13/09/2013	U014000R2013 PTC017371	Koraput	620	15,80,500	<ul> <li>Agro Input Supply</li> <li>Production &amp; Marketing of Vegetables</li> <li>Trading in Solar Items</li> <li>NTFP Seasonal Produce Trading</li> <li>Nursery Business</li> </ul>
5	Patarani Producer Company Limited (PPCL)	12.09.2016	U011000R2016 PTC025778	Kalahandi	544	5,04,100	<ul><li>Poultry Farming and Marketing</li><li>Duck Marketing</li><li>Agro Product Marketing</li></ul>
6	Markama Agri Producer Company Limited (MAPCL)	16/03/2015	U011100R2016 PTC025530	Rayagada	513	5,00,000	<ul><li>Agro Input Marketing</li><li>Tamarind &amp; Cashew Trading</li></ul>
7	Samrudha Paribaar Farmer Producer Company Ltd. (SPFPCL)	06/12/2019	U011190R2019 PTC032196	Nabarangpur	600	60,000	<ul> <li>Agro Input supply &amp; Marketing with First Hand Value Addition</li> <li>Providing Services to Livestock</li> </ul>
8	Nari Pragati Producer Company Ltd. (NPPCL)	04/02/2020	U011110R2020 PTC032630	Koraput	1,110	1,11,000	<ul><li>Agro Input Supply</li><li>Livestock Services</li></ul>
Gra	nd Total				5,530	44,83,100	

Source: Harsha Trust



4,420 share holder members directly benefit from the Farmer Producer Companies (FPCs) promoted by Harsha Trust. These Farmers' Producer Companies are owned and managed by the communities and have recruited professionals from various fields like Agriculture, Veterinary, Marketing, etc., (with support from Harsha Trust) in order to provide professional inputs to their operations. Each of these FPCs also makes their own business plans as well as a plan for the working capital required by each FPC. (*Picture: Solar Cold Storage at Rayagada*). The Farmer Producer Companies have also mobilized Rs. 5,07,000 from NABARD.

Table - X: FPC Financial Details

SL.	NAME OF FPCs	BUSINESS TURN OVER IN Financial Year 2018-19 IN Rs. (Lakhs)	NET PROFIT OF FPCs IN Financial Year 2018-19 IN Rs. (Lakhs)	APPROXIMATE BUSINESS TURN OVER TILL DEC 2019 IN Rs. (Lakhs)
1	Swarnajyoti Producer Company Limited (SPCL)	276.12	0.150	91.30
2	Danteswari Women Producer Company Limited (DWPCL)	49.81	0.230	90.00
3	Sahayaka Women Producer Company Limited (SWPCL)	17.78	0.130	98.00
4	Patneswari Agri Producer Company Ltd. (PAPCL)	859.50	14.990	220.00
5	Patarani Producer Company Limited (PPCL)	10.14	0.366	25.00
6	Markama Agri Producer Company Limited (MAPCL)	83.52	0.235	84.00
Gra	nd Total	1,296.87	16.110	608.30

Source: Harsha Trust

Danteswari Producer Company Ltd. established a Retail Outlet at Kosagumuda, Nabarangpur



#### Promotion of Producer Groups (PGs)

We have promoted sixty six (66) Producer Groups covering 6,688 farmers. The objective of producer groups (PGs) is to produce vegetables and other horticulture products through a cluster approach and to take advancgtage of collective purchase and collective marketing. Scales make a difference. Bank accounts are in operation with 58 PGs in local banks and various management commitees have been formed at PG levels to ensure smooth transaction of business. The annual budget for each PG has been developed and shared with the Odisha Livelihoods Mission, (OLM) GoO for fund disbursement. (Picture: Chilli and Brinjal in Agri-Production Clusters; Aggregation and Production Clusters in Bissam Cuttack Block.) The groups have mobilised Rs. 26,13,000 RF support from Govt; and Rs. 58,74,000 from OLM/Mission Shakti.

#### Major Highlights of PGs

- 1,362 acres of vegetable cluster developed with 5,691 farmers.
- Brinjal, Chilli and Cowpea cultivation has been done in 600 acres. (average 200 acres each vegetable).
- 775.5 acres of horticulture plantation developed with 747 farmers.
- 1,697 farmers have access to farm mechanization like Power Weeder, Battery Sprayer, Seed Sower, and Seed Trans-planter.
- Assesment of PGs done by Odisha Livelihoods
   Mission for release of Capacity Building Fund to
   individual producer groups.



## Soil & Moisture Conservation

Harsha Trust is working in 27 villages of 14 Gram Panchayats in Hinjlicut Block of Ganjam district of Odisha on Natural Resource Management Based Interventions. Soil & Moisture conservation holds special significance here as the area is dry, and ground water is depleting.

#### What are Our Major Interventions?

- a. Farm Ponds,
- b. Percolation Tanks and
- c. Plantation.

#### Situation of Natural Resources

Due to large scale soil erosion the land in the area is full of clay, pebbles and sand. The soil has hardly any water retention capacity. The soil turns dry, sans rain for a few days. Irrigation is limited. Therefore agriculture is mainly rain-fed. Thus our major initiatives have been digging/excavating farm ponds and percolation tanks in the area to provide water for irrigation and recharge water levels with the support of ITC Ltd.



Percolation tank at Venkatraipalli village; Water holding capacity is 3500,000 lts. Command Area-4 hectares

#### How Many did We Excavate?

Table - XI: Financial Year 2019-20 (Till December 2019)

NO. OF WATER HARVESTING STRUCTURES	COMMAND AREA (HA)	CATCHMENT AREA (HA)	STORAGE (Cu.M)
63	110.24	110.24	18,573.30
2	7.50	9.00	6,921.83

Source: Harsha Trust



Soil and Moisture Conservation (Farm Pond) at Sikharpur, Ganjam.

#### The Fallow Land and the Shallow Pond Pay with Industry!

**The Situation:** Hinjlicut Block of Ganjam district shows a gap of 0.0204 HM between Ground Water use and resource available. To improve the situation, an action was initiated in the Sikharpur village is in Hinjlicut block of Ganjam district. In this village, Surjanarayan owns 5 acres of land. Most of his land is not irrigated. But today Surjanarayan sits on an oasis. It is expected that the improved water availability will help

As a result of lack of irrigation, the crops show a sizeable decline in production in the Rabi and Summer season in Ganjam district.

Table - XII: Hinjlicut Block - Area Wise Crop Details (in Hectares)

CROP TYPE	KHARIF			RABI			SUMMER		
OHO! TITE	IRRIGATED	RAIN FED	TOTAL	IRRIGATED	RAIN FED	TOTAL	IRRIGATED	RAIN FED	TOTAL
Cereals	8,531	1,019	9,550	2	0	2	0	0	0
Coarse Cereals	619	1,552	2,171	75	0	75	50	0	50
Pulses	73	518	591	57	7,135	7,192	174	1,166	1,340
Oilseed	224	0	224	574	0	574	126	712	838
Vegetables	1,644	1,410	3,054	671	289	960	674	0	674
Spices	43	144	187	190	20	210	0	0	0
TOTAL	11,134	4,643	15,777	1,569	7,444	9,013	1,024	1,878	2,902

Source: DoA, Agriculture Statistic of State, Agristat: 2015

Surjanarayan Nayak never thought that his one acre of fallow land would be converted to the most fertile patch, of his total five acres. Due to non consolidation of land his ownership is in different patches. Surjanarayan was often tempted to sell this fallow patch, as there was no possibility of irrigation there.. Land in the area currently sells at Rs 25 lakhs per acre and many of the farmers find it far more lucrative to sell their farms for real estate purposes. He almost let go.

**How did things change?** In 2017- 18 he met the field extension workers of Harsha Trust. He was convinced that instead of selling his land he could actually benefit much more by making it productive. He started his endeavour by renovating his farm pond. He dug the pond two feet more. He was told that the greater depth would help him retain water even in summers.

His next step was plantation, and vermin-compost pits close to his farm pond. He used the compost he generated on his land; keen to extend the plantation he was given (G9 varieties of banana plant). Now nothing could stop Surjanarayan anymore. Thanks to the digging of the farm pond, his old dilapidated well had also been recharged and the water level had substantially risen. He wanted it all. He got himself solar panels (which do not need batteries) in convergence with OREDA (Odisha Renewable Energy Development Agency) and used the clean energy to run his motor to draw water from both his farm pond and his well. His bananas had enough water. He started vegetable cultivation, and has started growing potatoes and radish. His solar energy powered motor which has recharged his dug well also, was received in convergence from the Block under MGNREGS.





**Recharged Well** 

There is no stopping him now. Two months back, Surjanarayan decided to diversify into animal husbandry. It was a new venture, but after the myriad opportunities and new successes that had opened up, he knew this was very much possible. He got himself funds for a poultry shed from the government under convergence from the MGNREGS scheme (Block and Veterinary Department) and bought two hundred birds (chicks). The total cost of setting up his poultry unit was Rs 60,000, with Rs 21,000 being the farmer's contribution. He finally made his fallow land and shallow pond pay, with his industry.

Suryanarayan's Poultry in convergence with Block and Veterinary Department under MGNREGS

## Livestock and Animal Husbandry

Livestock management is one of our core areas of work. This is because, for many landless families, with the exception of agri- labour, which is seasonal, livestock management is one of the most important sources of livelihood. We look at our livestock program as the most viable alternative for the landless. Our work with livestock farmers is supported by Axis Bank Foundation (ABF) & NABARD. Our village institutions supported by the SHGs and other professionals like the PRPs, (Para Resource Persons) CSPs (Community Service Providers) and CRPs (Community Resource Persons) provide support to landless families in livestock management. The table below gives the list of families into animal husbandry and the number of animals and animal sheds provided.

Table - XIII: Households into Animal Husbandry

GOAT			POULTRY	CONSTRUCTION OF SHED	
HH ANIMAL POPULATION		нн	HH ANIMAL POPULATION		POULTRY
12,997	52,903	29,059	1,73,658	1,822	1,809

Source: Harsha Trust

#### Grampriya Poultry Farming at Muniguda Block

Ten farmers started Grampriya poultry farming where each farmer reared about 300 birds. Grampriya is a modified breed of poultry bird (dual purpose variety) which lays about 150-180 eggs per year as compared to desi (indigenous varieties) poultry birds who lay about 40-50 eggs in a year. Each one of the farmers constructed a poultry shed of 300 sq.ft. in their backyards and reared the female birds for one and a half years and the male birds for three months. After three months they sold 150 male birds which fetched them Rs.9,975. The egg production from the female birds started in September 2019. The eggs are being marketed as free range chicken eggs and contact has also been made with traders form Hyderabad and Vishakhapatnam.



One of our major achievements in the field of livestock management has been our creation of a cadre of livestock workers at the village/panchayat level. We have popularised the concept of Prani Mitra and have in all our intervention areas worked in the saturation mode. We have vaccinated goats and poultry, as well as dewormed them and have made the activity popular for it to be sustainable. Today the village level workers are able to earn a living by providing services at the village level. The main services provided are deworming of animals and animal vaccination. 51,553 goats were vaccinated against Goat PPR and 1, 41,998 poultry birds were vaccinated against Ranikhet disease. We have also introduced improved technology for preparation of goat feed at the village level by SHGs members.

#### Promotion of A Livestock Entrepreneur

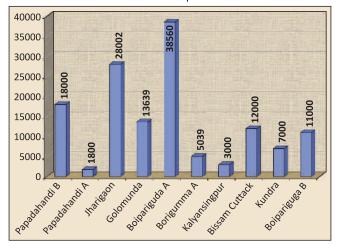
A Livestock Entrepreneur, Sibaram Pradhan was trained at Boriguma block in Koraput district to provide services on poultry and goat farming to farmers. He provides services like vaccination and deworming of poultry and goat to 34 farmers. He has also estabilished his own poultry unit with part investment from him, and desi (indigenous varieties) birds have been provided under this project. Mortality of Goat reduced from 35% to 10% after vaccination. Mortality of Poultry birds reduced from 45% to 15% after vaccination.

Table - XIV: Profit Earned in a Quarter

SOURCE OF INCOME	NOs	UNIT	RATE (in Rs.)	AMOUNT (in Rs.)			
Goat Vaccination	304	Goat	6.5	1,976			
Poultry Vaccination	2,480	Birds	4	9,920			
Total Income	Total Income						
HEADS OF EXPENDITURE	Nos	UNIT	RATE (in Rs.)	AMOUNT (in Rs.)			
Goat Vaccination	304	Goat	4.5	1,368			
Poultry Vaccination	2,480	Birds	2	4,960			
Total Expenditure	6,328						
Net Profit	5,568						

Source: Harsha Trust

**Graph V:** Average Increase in Income from Live Stock in INR per Annum



#### Capacity Building of Milk Mantra Dairy Farmers in Puri, Cuttack and Jagatsinghpur Districts of Odisha

We work towards capacity building of Milk Mantra (A Private Dairy Company) dairy farmers in Puri, Cuttack and Jagatsinghpur districts of Odisha. In this effort we are supported by DFID, UK. The objective of this association is to enhance the knowledge and skill of 5,000 dairy farmers within a year. In order to achieve these objectives we have designed different training modules and materials centered around improved dairy farming management.



Table - XV: Capacity Building of Milk Mantra Dairy Farmers in Puri, Cuttack and Jagatsinghpur Districts of Odisha

ACTIVITIES	TOTAL (APRIL 2019 - 29 <sup>™</sup> FEB, 2020)		
Districts In Odisha	03		
Blocks	19		
Villages	129		
No. of Days of Training	132		
No. of Farmers Trained	5,251 (module 1), 809 (module 2)		
No. of Health Camps	80		
No. of Farmers who Attended the Health Camps	3,783		
No. of Farmers who Received Phone Messages	1,226		
No. of Animals Treated	12,568		
No. of Short Videos Produced on Best Practices	10		
No. of Para-Vets Trained	13		
Model Village Developed	01		
Milk Cans Distributed	124		
Hydroponic Fodder Units Developed	05		

Source: Harsha Trust

#### Model Village



Hydroponic Units: Hydroponics is green fodder produced by growing seeds without soil, in just water. In comparison to conventional methods of growing fodder, hydroponic fodder requires lesser space and produces highly nutritious fodder in comparison to soil farming. Green fodder along with the concentrate complements the milk quality and also increases the fat % in milk. (Picture: Hydroponic Unit installation at Salepur Cuttack)





Farmers with Hydroponic Green Fodder Units at Salepur, Cuttack

Table - XVI: Details of Yield

	AVERAGE MILK YIELD (LITRES/DAY)		FAT (%)			SOLID NOT FAT (SNF %)			
FARMER'S NAME	BEFORE Feeding	AFTER Feeding	INCREASE IN MILK YIELD	BEFORE Feeding	AFTER FEEDING	INCREASE IN FAT %	BEFORE Feeding	AFTER Feeding	INCREASE IN SNF
Suresh Ch. Sahoo	1.90	3.70	1.80	3.14	4.340	1.200	6.13	8.28	2.15
Soumendra Swain	3.90	4.42	0.52	4.07	4.200	0.130	7.63	7.85	0.22
Kabita Mala	4.23	5.04	0.81	3.65	4.064	0.414	7.70	7.80	0.10
Premalata Jena	6.20	6.64	0.44	4.79	5.200	0.410	7.80	8.01	0.21

Source: Data provided by dairy farmers

## Nutri Gardens and Dietary Diversity



The Lancet Series on Maternal and Child Nutrition 2013 classifies fourteen high impact nutrition interventions under the categories of "Nutrition specific" and "Nutrition sensitive". In the context of Odisha, the (CRF) Common Result Framework, a globally accepted methodology as an effective planning and monitoring tool that helps government led health programs to achieve success as a result of high value engagement of different sectors, builds further on this classification to create a roadmap for a multisectoral nutrition strategy. The CRF provides strategic direction for Phase 1 of the intervention (2017-2020) with clear deliverables and timelines.

The priorities and focus areas listed in the CRF have emerged from a Situation Analysis and Desk Review (Odisha). An analysis of 16 government programmes on health, nutrition, food security and agriculture, provided valuable findings:

- 1. Limited change in women's nutrition status between NFHS-3 (2005-06) and AHS CAB 2014, 41.4% to 30.3% (women with low BMI).
- 2. Low dietary diversity among women and children, 25.8% (RSoC 2013-14).
- 3. High levels of anaemia among adolescent girls (78.4% for 10-17 years) Source: AHS CAB 2014 & women of reproductive age (77.7% for 18-59 years) Source: AHS CAB 2014.
- 4. High prevalence of open defecation at 78% and low access to toilet facilities (RSoC 2013-14).
- 5. Low female literacy rate at 64% (Census 2011).
- 6. Low adult sex ratio at 978 (Census 2011).

#### The desk review of successful initiatives from Odisha and similar settings revealed:

- 1. Stunting among children <5 reduced from 45% (NFHS-3, 2005-06) to 34.1% (NFHS 4, 2015-16).
- 2. Compared to national averages in 2013-14, increase in uptake of ICDS and health services.
- 3. Drop in IMR from 65 (NFHS -3, 2005-06) to 40 (NFHS 4, 2015-16).

It is in response to such a scenario, we initiated our response on nutrition with women and children in collaboration with the Odisha Livelihoods Mission (OLM) and Azim Premji Philanthropic Initiatives:

Our programme focuses on increasing the consumption of nutritious food at the household level. Lactating mothers, pregnant women, children below 5 years of age and adolescent girls are our principal stakeholders. The promotion of nutri-gardens, backyard poultry and goat rearing are being undertaken for supplementing nutrition in consumption. The seasonal crop selection is followed in the nutri-gardens.

We run the program in the following districts of Odisha, and use different models based on their appropriateness:

Table - XVII: Details of Nutri Gardens Adopted

NAME OF THE DISTRICT	NO. OF HOUSEHOLDS WHO Adopted Nutri Gardens	NO. OF RECTANGULAR GARDENS (HHS)	NO. OF BIG CIRCLE Gardens (HHS)	LANDLESS MODEL (HHS)
Malkangiri	3,210	2,913	52	245
Nabarangpur	740	561	8	171
Kandhamal	750	732	14	4
Ganjam	2,835	2,401	37	397
Sundergarh	3,828	2,617	286	925
Nuapada	2,047	1,356	4	687
TOTAL	13,410	10,580	401	2,429

Source: Harsha Trust

The major objective of this program is to ensure that a family ensures dietary diversity in its consumption. The nutrition garden supplements the intake of carbohydrates, proteins, dietary fibers etc. There is also provision for fruit trees around the garden to include Vitamins and Minerals in the diet. The major vegetables grown in this model are Pumpkin, Cucumber, Bottle Gourd, Ridge Gourd, Basella alba, Bitter Gourd, Snake Gourd, Brinjal, Tomato, Chilli, Ladies finger (Okra), Amaranth (Saag), Spinach (Palang), Coriander (Dhania), Ipomoea (Kalama), Bean, Cluster Bean, Cowpea, Carrot and Radish. These seed kits are provided to individual households to grow in a standard 0.2 acre nutrition garden. They are provided for all the three seasons, Kharif, Summer and Rabi in differing quantities. On an average every family grows about six to seven vegetables and there is about ten to fifteen kgs of vegetables in the homestead gardens, which adds to the diversity in the plate. (*Picture: The two models of Nutri Garden - Rectangular Garden and Big Circle Garden*).





A Pictorial Demonstration of Making a Nutri-Garden at Mathili block, Malkangiri District



As per the norms of Mission Samrudhi the "Mo Upakari Bagicha" is a project under Azim Premji Philanthropic Initiatives implemented by OLM (Odisha Livelihoods Mission). PLA-LANN (Participatory Learning and Action - Linking Agriculture and Natural resource for Nutrition) meetings are conducted by CRPs every month intending to increase the dietary diversity of the partner community so that malnourishment is checked. Harsha Trust as a resource partner in this project does the following:

- 1. Developing Training Modules on Nutri-Gardens.
- 2. Training & Capacity Building of OLM cadres and officials.
- 3. Demonstration of different Nutri-Garden Models.
- 4. Assisting Block Mission Management Units for Program Planning & Implementation.

#### Dipali says... "Mo Bagicha Satare Mora Bahut Upakara Karuchi" (The benefits of my garden are immense).

Dipali Gadeli, living in the village of Koudiguda in the Markapalli, Block of Malkangiri joined as a Women's Self Help Group member in May 2019. The SHG then joined the Grama Devi CLF (Cluster Level Forum).

She has a family of four. As a part of the intervention, the SHG (of which she is a part of) received different types of services from the GPLF (Gram Panchayat Level Federation).

Dipali Gadeli realized the urgency of improving the family's nutritional status, post her regular attendance in the PLA-LANN meeting. Thus she decided to prepare a 'Mo Upakari Bagicha' (My beneficial garden) in her homestead land. The Krushi Mitra of that village helped her with the layout a 'large circle' Mo Upakari Bagicha Model. Though they had their doubts and hesitations during the layout stage, as they had never seen a garden structure of this kind, but they soon overcame them. Post preparation of bed she received thirteen (13) types of vegetable seeds in her kit in the Kharif season and seventeen (17) types in the Rabi season from the Markapalli Gram Panchayat Level Federation, which was provided by OLM Malkangiri. Post organic seed treatment, the seeds were sown.



In the Kharif season she harvested 2kgs of vegetables from her 'Mo Upakari Bagicha' every day, which was enough for her family and she even shared vegetables with her neighbours. Then she renovated the garden for the Rabi season and grew vegetables again; her family has organic vegetables from their own garden now in their diet, irrespective of season.

## Self Help Groups and Institution Building Women Farmers Working Towards Economic Self Sufficiency

Our major focus while working with SHGs is on strengthening livelihoods by building the capacities of our SHG leaders and members on agro based activities; to promote savings, help in financial inclusion; diversify livelihoods, build forums and federations of SHGs and finally address issues of women's subordination and intra household distribution of resources. The table below shows the total number of SHGs, their members; Cluster level Forums (CLF) and their members we work with.

Table - XVIII: Details of SHGs and CLFs

SL.	NAME OF LOCATION	No. of SHGs	SHG MEMBERS	No. of CLFs	SHG Members Under CLF
1	Papadahandi	1060	11,067	100	778
2	Nabarangpur	504	5,557	54	381
3	Kosagumuda	287	3,036	19	95
4	Jharigaon	322	3,540	3	22
5	Golamunda	411	4,419	28	204
6	Boipariguda	674	6,915	71	648
7	Borigumma	1,157	12,293	99	874
8	Kalyansingpur	252	2,995	16	199
9	Muniguda	819	8,246	104	819
10	Bissam Cuttack	500	5,000	50	300
11	Kundra	231	2,501	15	94
12	Bandhugaon	131	1,422	11	75
13	Thuamul Rampur	278	3,067	9	278
TOT	AL	6,626	70,058	579	4,767

Source: Harsha Trust

## Our SHGs Have Played Important Roles Around:

- a. Organising health camps with the support of the ICDS.
- Collection of service charges from members for providing livestock vaccinations.
- c. Making organic compost (See adjacent picture)
- d. Selection of entrepreneurs at the cluster level for providing essential backward and forward linkages to farmers.
- e. Raising collective vegetable nurseries.
- f. Supporting large scale implementation of SUDHA Paddy and Millet cultivation.
- g. Creating community assets.





SHG Members being trained on Women's Leadership Training

**Selling Gunny Bags:** Four self help groups (SHGs) at Golamunda (Kalahandi) started a business of gunny bag trading. The demand for gunny bags is very high in the block as the paddy and cotton growers both use them for storing their products. These SHGs received a revolving fund of Rs.10,000/- each and started a gunny bags trading business. Each SHG made a profit of Rs.30,000/- from this activity.

A Custom Hiring Center Promoted by SHGs Members: One SHG has started the business of renting agricultural equipment to farmers on a daily basis. Agro-equipment like Power Weeders, Battery Sprayers have been acquired by the SHG and the profits go to the common kitty.

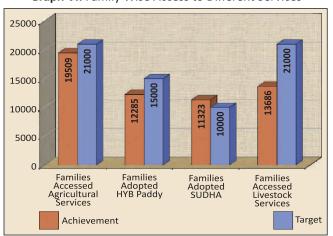
#### **Institution Building**

Harsha Trust also works in building self sustaining SHG federations in four Blocks of Koraput and Nabarangpur districts of Odisha since 2017. This project is being supported by Ernst & Young Foundation. Learning from our strategy we have applied the key lessons learnt on our institution building work in other projects in different locations.

Some of the critical problems that have impacted the rural communities for several decades are huge gaps between the community and the market, and lack of formal and informal institutions which lead to sustainable economic and social change. Unavailability of quality agro inputs like seeds, fertilizers, pesticides, agricultural implements at the time of requirement, affects crop productivity. So it demands continual engagement to articulate existing gaps and establish sustainable systems and mechanisms so that small and marginal adivasi families can broaden the scope of their agricultural practices and also adopt commercial agriculture.

In this project we aim at building three self-sustained block level women federations comprising 1,500 women SHGs impacting 15,000 rural women from marginalized communities (Adivasi, Dalit and Socially and

Graph VI: Family Wise Access to Different Services



Economically Backward Communities). These block level institutions work on agency enhancement, responsive governance and improving livelihoods; and also take up issues of inequity, discrimination and violence within and outside homes.

The major focus of our intervention is to enhance incomes by initiating livelihood interventions & self sustainability of cadres who shall provide the services (Community Service Providers) with their services being paid for by the community. The adjacent graph and following table explain the status currently.

Table - XIX: Cadre Payment Details

CADRE DETAILS	TARGET	ACHIEVEMENT
Cadre Payment by Village Organizations (No.)	226	114
Cadre Payment Amount (in Rs.)	2,82,500	1,42,500
Cadre Payment (%)	100	50

Source: Harsha Trust

Self sustainable cadres who will provide a basket of services at the community level which will mainly include:

- 1. Provision of agro inputs (quality at correct price);
- 2. Livestock management (vaccination & deworming);
- 3. SHG book keeping; and
- 4. Financial inclusion.

These services it was envisaged at the beginning of the project cycle if provided efficiently, be remunerated by the community, at least the cost of services provided by the cadre. Let us see where we stand Cluster Level Forum wise:

Table - XX: Cadre Payment Status by March, 2020 by Cluster Level Forums

TEAM	100% (CLF/CADRE)	50% (CLF/CADRE)	25% (CLF/CADRE)	0 (CLF/CADRE)	TOTAL (CLF/CADRE)
BORIGUMA	16/8	29/18	34/15	14/3	93/44
BOIPARIGUDA	6/2	23/8	13/5	0	42/15
NABARANGPUR	15/9	24/15	9/2	6/0	54/26
PAPADAHANDI	13/7	12/4	31/12	28/7	84/30
TOTAL	50/26	88/45	87/34	48/10	273/115

Source: Harsha Trust

For services provided by our Community Service Providers in the above mentioned locations, 26 of them receive 100% of their remuneration from the community, as against 10 of them still having to be paid for 100% from the project cost. Our Cluster Level Forums have mobilised a savings/capital of Rs. 9,56,570 and Rs. 50,00,000 as credit from banks. They have further received support of Rs. 1 crore from OLM/Mission Shakti.

# Education New Ideas beyond Classes and Curriculum

Harsha Trust in partnership with Klorofeel Foundation is working towards improving the quality of education for the under-privileged school students. In the last two and half years, we have strived to improve the learning levels of primary school children from the tribal communities in Bissamcuttack block of Rayagada district at their place and pace. Learning outside class rooms and beyond school hours are facilitated by specially trained local youth, called Saathis, through dedicated Learning Centers, located within the geographical boundary of each village. The details of these learning centres are given below:



Table - XXI: Details of Learning Centres

SL. NO.	KLOROFEEL LEARNING CENTRE	NO. OF STUDENTS	NO. OF SAATHIS
1	Badagotiguda	29	2
2	Bondeiguda	12	1
3	Borikhal	17	1
4	Gadaba	30	2
5	Chanchalamundi	27	2
6	Gandhinagar	26	1
7	Ghospadi	19	1
8	Jhigidi - 1	21	2
9	Jhigidi - 2	32	2
10	Panaspadar	11	1
11	Mondapai	26	2
12	Kankubadi	27	2
13	Nirgundi	23	2
14	Ratatikri	27	2
15	Urlajodi	18	1
16	Sanagotiguda	26	1
17	Jambuguda	22	2
TOTAL		393	27

Source: Klorofeel Foundation

Since November 2019, we have also started intervention in eight government schools in the Kujanga block of Jagatsinghpur district. Through Saathis, we are trying to add value to the existing teaching-learning practices and make the classrooms rich in teaching-learning materials.



In order to improve the learning outcomes of the children, we have been taking up the following activities in the Learning Centers, located at the village level.

- Activity Based Learning at the Centers;
- Saathi Development Interventions;
- Mother's Committee Formation; and
- Measuring Progress.



# Convergence

We continue to work in collaboration with the multiple arms of governance, right from the panchayat to the state and national level policy institutions. We believe that in mobilising entitlements which are the rights of citizens, we play our role in ensuring good and clean governance. Our convergence also includes providing supportive resource roles in government and non government programs. We act as resource persons in the Azim Premji Philanthropic Initiative/OLM Nutrition program to share our expertise on agriculture as a medium to good nutrition. We also converge with companies like Schneider Electricals and SELCO in transporting innovative technologies for better lives for the poor.

Table - XXII: Funds Mobilised Through Institutions

LOCATION	TYPE OF Institute	SAVING/CAPITAL (in Rs.)	RF FROM GOVT (in Rs.)	CREDIT FROM BANK (in Rs.)	SUPPORT FROM OLM/ MISSION SHAKTI (in Rs.)	CRPs (Persons)
Papadahandi	SHG	3,33,97,581	49,92,497	78,61,817	2,65,000	37
Nabarangpur	SHG	1,90,86,319	2,32,000	81,00,000	0	24
Kosagumuda	SHG	30,24,988	6,15,000	15,95,000	0	21
Jharigaon	SHG	23,90,820	8,85,000	0	0	23
Golamunda	SHG	48,44,975	4,05,000	15,10,000	0	08
Boipariguda	SHG	49,38,785	16,20,000	19,30,000	30,00,000	33
Borigumma	SHG	20,12,792	57,35,000	4,50,00,000	2,00,90,002	64
Kalyansingpur	SHG	3,88,280	0	11,46,500	3,55,000	08
Muniguda	SHG	11,88,770	0	13,10,000	12,50,000	10
Bissam Cuttack	SHG	50,00,000	500,000	40,00,000	30,00,000	16
Kundra	SHG	18,64,135	0	14,03,000	0	14
Bandhugaon	SHG	9,22,770	1,50,000	5,00,000	4,00,000	06
Thuamul Rampur	SHG	11,72,480	0	22,13,000	0	14
Total		8,02,32,695	1,51,34,497	7,65,69,317	2,83,60,002	278

MGNREGS has been one of the major schemes that we have encouraged people to use and helped the partner community to mobilise work for personal and community centered development activities and also provide for in the lean months.

TABLE - XXIV: Details of MGNREGS Mobilisation

TYPE OF ACTIVITIES	GOVT. DEPARTMENT/ SCHEME	Person Day/No./Acre	APPROX VALUE (in Rs.)	NUMBER OF FARMERS BENEFITED
Unskilled Labour Work	MGNREGS	94,182 Person days	1,71,41,124	7,467
Dug Well	MGNREGS	45 No.	18,00,000	50
Fruit Orchards	MGNREGS	775.5 Acres	23,26,500	747
Pond Renovation	MGNREGS	1 No.	2,00,000	10
Digging of Large Ponds	MGNREGS	2 No.	19,20,000	26
Horticulture Development	MGNREGS	115 Acres	3,50,000	120
TOTAL			2,37,37,624	8,420

Source: Harsha Trust

Table - XXV: Some of the Farm Equipment that We Have Been Able to Mobilise

TYPE OF EQUIPMENT	S	OURCE OF FUND (in R	NO	FAMILIES	
TYPE OF EQUIPMENT	GOVT	HARSHA TRUST	COMMUNITY	NO.	BENEFITTED
Battery Sprayer	77,820	0	22,680	79	232
Power Weeder	2,40,000	4,35,000	0	16	337
Paddy Cutter	0	98,000	0	2	56
Power Tiller	2,99,000	0	4,73,553	4	72
Pump Set	83,075	0	52,176	7	37
Spray Machine	0	72,500	15,000	80	80
Paddy Weeder	1,19,400	0	26,000	104	337
Tractor	8,00,954	0	9,00,000	3	80
Power Sprayer	4,290	16,800	4,310	19	246
Solar Sprayer	0	1,00,000	37,000	8	60
Ragi (Finger Millet) Weeder	0	18,000	0	6	30
Napsack Sprayer	0	36,950	0	50	100
Transplanter	2,64,784	0	0	1	20
Rotavator	2,26,000	0	0	2	10
TOTAL	21,15,323	7,77,250	15,30,719	381	1,697

### Our Finances

#### HARSHA TRUST 217/B, Bayababa Matha Lane Unit - IX Flats, Bhubaneswar- 751 022

#### BALANCE SHEET AS AT 31ST MARCH 2020

PARTICULARS		As a 31.03.2			at 3.2019
	Sch.	Amount (Rs.)	Amount (Rs.)	Amount (Rs.)	Amount (Rs.)
SOURCES OF FUNDS:					
CAPITAL FUND ACCOUNT	" A "		4,07,99,473.47		3,85,81,930.6
REVOLVING FUND	"B"		1,76,56,527.00		1,75,05,502.00
RESTRICTED FUND	" C "		4,36,40,152.39		6,83,92,349.86
TOTAL			10,20,96,152.86		12,44,79,782.50
APPLICATION OF FUNDS : FIXED ASSETS Gross Block Less: Depreciation	" D"	3,08,55,409.00		2,89,64,686.00	
Net Block			3,08,55,409.00		2,89,64,686.00
INVESTMENTS	"E"		20,98,638.00		17,62,551.00
CURRENT ASSETS, LOANS & ADVANCES : CURRENT ASSETS :					
Cash and Bank Balances	"F"	5,16,04,507.03		7,02,48,139.15	
Loans & Advances	" G "	1,94,72,991.92		2,07,79,795.59	
Grant Receivable	"H"	1,81,87,696.01		1,05,74,675.59	
LESS : CURRENT LIABILITIES		8,92,65,194.96		10,16,02,610.33	
& PROVISIONS :	n.l.n	2,01,23,089.10		78,50,064.83	
NET CURRENT ASSETS:			6,91,42,105.86		9,37,52,545.50
TOTAL			10,20,96,152.86		12,44,79,782.50

Accounting Policies and Notes on Accounts "N"

Note: - Schedules A to M and N referred to above form an integral part of the Balance Sheet.

Trustee

Place: Bhubaneswar

Date :17th Nov' 2020

As per our report of even date

For SPP ASSOCIATES

Chartered Accountants

BPHOIT

Partner
M. No:060051

Place :Bhubaneswar Date :17th Nov' 2020

UDIN-20060051AAAAAF2791

FOR HARSHA TRUST

Place :Bhubaneswar Date :17th Nov' 2020

Haribandhu Panda

Managing Trustee

Harribandhy buda Walley

Executive Director Place :Bhubaneswar Date :17th Nov' 2020

Kallul Bora

#### HARSHA TRUST

#### 217/B, Bayababa Matha Lane

Unit - IX Flats, Bhubaneswar- 751 022

#### INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDING 31ST MARCH 2020

PARTICULARS	Schedules	For the Yea	r Ending
PARTICULARS	Schedules	31.03.2020	31.03.2019
INCOME:			
CONTRIBUTION & GRANT RECEIVED	" J "	20,72,31,686.29	16,39,98,356.40
OTHER RECEIPTS	" K "	31,38,746.31	23,93,329.95
TOTAL EXPENDITURE :		21,03,70,432.60	16,63,91,686.35
PROJECT EXECUTION EXPENDITURE	"L"	20,72,31,686.29	16,39,98,356.40
ADMINISTRATIVE EXPENDITURE TOTAL	" M "	22,89,502.49 20,95,21,188.78	24,67,551.14 16,64,65,907.54
EXCESS OF INCOME OVER EXPENDITURE	,	8,49,243.82	(74,221.19)
TOTAL		21,03,70,432.60	16,63,91,686.35
AMOUNT TRANSFERRED TO B/S		8,49,243.82	(74,221.19)

**Accounting Policies and Notes on Accounts** 

"N"

Note:- Schedules J to M and N referred to above form an integral part of the Balance Sheet.

As per our report of even date

For SPP ASSOCIATES

**Chartered Accountants** 

FRN-322862E

CA. B.P Mohapatra, F

Partner M. No:060051 Place : Bhubaneswar Date :17th Nov' 2020

UDIN-20060051AAAAAF2791

For HARSHA TRUST

Trustee

Place:Bhubaneswar

Date: 17th Nov' 2020

Haribandhu Panda Managing Trustee

Place:Bhubaneswar Date: 17th Nov' 2020 Kallul Bora **Executive Director** Place:Bhubaneswar

Date :17th Nov' 2020

# Our Partners in Change

Table - XXVI: List of Our Partners

GOVT.	OF INDIA - DEPARTMENT/MINISTRY/AGENCY/AUTONOMOUS BODY				
	GOVT. OF INDIA - DEPARTMENT/MINISTRY/AGENCY/AUTONOMOUS BODY		PROGRAMME/BILATERAL/MULTILATERAL AGENCIES		
1. N	Ministry of Rural Development (MoRD)	21.	Department for International Development (DFID), UK		
2. N	National Bank for Agriculture & Rural Development (NABARD)				
STATE	GOVT. AGENCIES/DEPARTMENTS - ODISHA				
3.	Department of Agriculture & Farmer's Empowerment				
4.	Department of Sports & Youth Services				
5.	Department of ST&SC Development, Minorities & Backward Classes Welfare				
6.	District Rural Development Agency (DRDA)				
7. I	Integrated Tribal Development Agency (ITDA)				
8. 0	Odisha Livelihoods Mission (OLM)				
INDIA	N CORPORATES	FOREIGN CORPORATES			
9. <i>A</i>	Axis Bank Foundation (ABF)	22.	Syngenta Foundation		
10. A	Azim Premji Philanthropic Initiatives	23.	Schneider Electric India Foundation		
11. E	Ernst & Young Foundation (EYF)				
12. H	HT Parekh Foundation (HTPF)				
13. I	TC Ltd				
14. F	Paradeep Phosphates Ltd (PPL)				
15. F	PI Foundation, INDIA				
16.	SELCO India Foundation				
17. L	Utkal Alumina International Ltd (UAIL)				
NGO/T	RUST				
18. I	International Rice Research Institute (IRRI)				
19. k	Klorofeel Foundation				
20. I	CRISAT				

### Our Team

Harha Trust is an equal opportunities employer, where we strive to give each of our employees the environment and the abilities required to nurture an individual to perform and succeed. We believe in affirmative action and strive to include men and women from the weaker sections in our team. We are also aware of the lack of opportunities for women in employment and thus women employees are given preference in our selection process. We have a total number of 135 employees, of which 25 are women and 110 men. The organization is one of the few in the country where we follow a principle of rotational leadership.

Table - XXVII: Staff Break Up by Qualification

SOCIAL SCIENCES INCLUDING MSW	MANAGEMENT EDUCATION	TECHNICAL QUALIFICATIONS INCLUDING AGRICULTURE SCIENCES AND ENGINEERING	COMMERCE	COST ACCOUNTANCY	VETERINARY SCIENCES
71	20	29	12	01	02



Harsha Trust Team at Retreat 2019, Hyderabad

# Staff Capacity Building

We conduct training on different aspects of livelihood, which mainly centre on agriculture and allied activities. This year we have emphasized on solar based technology as it is a new innovation that we are introducing in our development area. Training on Institution Building and SHG management is another area of focus, along with individual capacity building programs like leadership development programs etc. A list of the trainings organized this year is as follows:

Table - XXVIII: List of Trainings

OI.	NAME OF TRAINING	DEDOGNALL TRAINER
SL.	NAME OF TRAINING	PERSONNEL TRAINED
1	Accounting System & Processes	Team Leaders & Professionals of Finance & Accounts
2	Workshop on Institution Building	Team leaders, Senior Executives & New Staff
3	Institutional Building and Agriculture Production Cluster	Team leaders & New Staff
4	Training cum Workshop on Agriculture	Executives
5	Livestock Training	Executives
6	Project Orientation on Women Centric Livelihood Cluster development	Team Leaders & Executives
7	Training cum Workshop on SUDHA Paddy	Team Leaders & Executives
8	Training cum Workshop on Livelihood Planning for Kharif crops	Coordinators, Team Leader & Executives
9	Workshop on Business Plan Preparation	CEOs of FPCs & Executives
10	In House Field Demo cum Technical Training on Solar River Lift Installation and Management	Team Leaders & Executives
11	Orientation on Monitoring & Planning Tool	Coordinators, Team Leaders & Executives
12	Training on Nutri Garden	CSPs
13	Leadership Mapping	Team Leaders & Coordinators
14	Leadership Workshop	All Coordinators & Trustees
15	Workshop on Business Plan for FPC Members	Team Leaders & Executives of FPCs
16	Exposure visit to Mulkanoor Cooperative promoted by WASSAN	CEOs of FPCs, Coordinators & Team Leaders of FPCs
17	Solar Lift Irrigation	Team Leaders & Executives
18	PMS Orientation Programme	Team Leaders
19	Loan Model Solar Based Irrigation	Team Leaders & Executives
20	Orientation on Dashboard Monitoring	New Staff (DAs & Executives)
21	Workshop on Sustainability of Interventions of Harsha Trust	Team Leaders & Executives
22	Annual Planning	Team Leaders & Executives
23	Annual Review and Retreat	All Staff

#### Our Board



#### Mr. Kalyan Kumar Banerjee, Chairperson

Mr. Kalyan Kumar Banerjee graduated in Electrical Engineering from IIT Delhi and has a Masters in Computer Science from IIT Kanpur. He is the co-founder of Klorofeel Foundation and Klorofeel Education Association, two organizations focused on delivering joyful, effective, meaningful education in under-served areas. Earlier, he was among the ten co-founders of Mindtree, a global IT leader. He supports education and socially focused enterprises like Reap Benefit, Walnut, Forum for Rural Weavers, Rise High Public School, Heraizen, iAccept. He strives to nurture people through the process of peer learning, making sense of diverse signals, systems thinking, self discovery, and finding personal purpose.



#### Prof. Haribandhu Panda, Managing Trustee

Prof. Haribandhu Panda has more than 35 years of national and international experience in academics and industry. Prof. Panda worked in organizations like Human Development Foundation, Bhubaneswar, Institute of Rural Management (IRMA), Anand; South East Asia Technology Co., Ltd., Bangkok; National Thermal Power Corporation Ltd (NTPC), Delhi; and Asian Institute of Technology (AIT), Bangkok. His last assignment was as the Vice Chancellor of Centurion University of Technology & Management (CUTM), Odisha. His interests are in the areas of technology-led, market linked, sustainable livelihood security; and high-quality education for the underprivileged.



#### Dr. Annapurna Devi Pandey, Trustee

Dr. Annapurna Devi Pandey is a faculty in the Department of Cultural Anthropology at the University of California, Santa Cruz. Dr. Pandey holds a Ph.D. in Sociology from Jawaharlal Nehru University, and was a Post-Doctoral fellow in Social Anthropology at Cambridge. She is the author of numerous essays on Indian Women's activism, agency, entrepreneurship and empowerment in India and the Indian Diasporas. Currently she is a senior Fulbright U.S. Scholar working in Odisha. She was President of the Orissa Society of the Americas (2011-2013), the oldest socio-cultural organization of diasporic Odias in North America.



#### Ms. Nisha Jamwal, Trustee

Columnist, author, brand consultant, designer, Nisha Jamvwal's work in branding, luxury, social causes, interiors, architecture & design blend seamlessly, converting her passion for the creative and visual arts into her work where all synergize. She authors six columns as well as television shows on design. Nisha is also a crafts crusader and works to save our traditional heritage. She has authored two books on traditional Indian craft & is also working with activist Abha Singh to make India Accessible.



#### Dr. Nivedita Narain, Trustee

Dr. Nivedita Narain has a Ph.D in Management Studies from the Indian Institute of Technology Delhi; a Master's in Professional Studies in International Development Policy from Cornell University in the USA; a Post-Graduate Diploma in Rural Management from the Institute of Rural Management (IRMA), Anand. Nivedita has led NGO PRADAN's Human Resources Development Unit, and Research and Resource Centre and has also led PRADAN's initiative to institutionalize development practices in the higher education sector, in collaboration with Ambedkar University, Delhi.



#### Dr. D. V. Ramana, Trustee

Dr. Ramana is a Director of Business Management School, IMT, Hyderabad. Formerly with Xavier Institute of Management, Bhubaneswar (XIMB) and Price Waterhouse Coopers (PwC) Ltd, he brings with him three decades of rich teaching and consulting experience. He is an expert in Strategic Management, Business Analysis, Finance and Regulatory Accounting domains while decoding best practices in Team Management and Group Dynamics. He has been associated with various Regulatory Boards and State Advisory Committees.



#### Mr. Rajesh Mahapatra, Trustee

Mr. Rajesh Mahapatra has been at various points over the last 25 years, a business journalist, political analyst, public policy expert, newsroom leader and editor. His journey has taken him from Chitrakonda in remote Odisha to New Delhi and several others parts of the world. Mahapatra studied economics at Delhi University and JNU. In his early years of journalism, he covered India's economic transformation for international publications such as the Associated Press and Bridge News, before an extended stint at Hindustan Times, where he drove organisational change and digital innovation. He is now a columnist and commentator seeking to contribute and shape public policy debates in Odisha.

# Print Media Coverage

# ରାଜ୍ୟରେ ପଥମ ବାଉଁଶ ତିଆରି ନନ୍ଦକୃଅ

ନୂତନ ଜ୍ଞାନକୌଶଳକୁ ନେଇ ଚର୍ଚ୍ଚାରେ ସିଦ୍ଧିପଙ୍ଗା ଗାଁ

ଦିଷମକଟକ,୨୩୮୬(ଆପୁ): ବର୍ଷା ଜଳକୁ ସଂରକ୍ଷଣ କରିବା ଏବଂ ତାଞ୍ଜ ନାମରେ ଜଳକ୍ ବ୍ୟବହାର କରିବା ଲାସି ଚାଞ୍ଚାମାନେ ନାହିଁ ନଥିବ ଅସ୍ୱବିଧା ରୋଗୁଥିଲେ । ଚାଞାଙ୍କ ଖର୍ଥକୁ ଅୱିରେ ରଖି ନତନ ଜ୍ଞାନକୌଶକ ପ୍ରୟୋଗ କରି ଏବେ ନିର୍ମାଣ କରାଯାଇଛି ବାଇଁଶରେ ଡିଆରି ନଦକୁଷ । ଏଇଛି ଅଭିନଦ ଉପାୟରେ ନକକୃଅ ନିର୍ମାଶକରି ରାୟଗଡା ଜିଲା ବିଷମନଟଳ ବଳ ସିହିପଙ୍ଗା ଗାମତାସୀ ଏବେ ଚଳୀରେ ରହିଛଥି । ସଳମୂଲ୍ୟରେ ନହକୃଥି ତିଆରିକରି ରାଜ୍ୟରେ ପ୍ରଥମ ହେବା ଗୌରଦ ହାସଲ କରିଛନ୍ତି ଏହି ଗାମବାସୀ ।

ସିହିପଙ୍ଗ ଗ୍ରାମବାସୀ କହିଛନ୍ତି ସେ, ଗାଁରେ ୫୦ରୁ ଅଧିକ ପରିବାର ରହୁଛଞି । ଲୋକସଂଖ୍ୟା ୩୦୦ । ଗାଁର ଅଧିକାଶ ପରିଚାର ଚାଷ କାମ କରି ଜାବିକା ନିର୍ବାହ କରୁଛନ୍ତି । ଗାଁ ନିକଟରେ ପାଶିର କୌଣସି ପୁଦିଧା ନଥିବାରୁ ସମସେ ବର୍ଷା ଜଳ ଲପରେ ନିର୍ଭର କରଛନ୍ତି । ବର୍ଷା ହେଲେ ତାଷ କାମ ଆରୟକୁ ପ୍ରାମବାସୀ ଅପେଥା ବସିଥାନ୍ତି । ବର୍ଷା ପାଣିକୁ ସଞ୍ଚମ ପାଇଁ ପୂର୍ବରୁ ବହୁ ଟଙ୍ଗ ଖର୍ଚ କରି ସିନେକ



ଏବଂ ନବଦୃଷ ନିର୍ମାଣ କରୁଥିଲେ । ମୋଟର ପମ ବସାର ଟିଲକୁ ପାଣି ମତାର ଚାଷ କପୁଥିଲେ । ରେଟିଏ ସିମେଶ ତଥ ନିର୍ମାଣ ପାଇଁ ଚାଷାଙ୍କ ୭୦ର ୮୦ହଜାର ଟଳା ଖର୍ଚ୍ଚ କରିବାକୁ ପଦୃଥିଲା । ସହ

ଚାଷ୍ଟାମାନେ ବିଜାରେ ପରିଥିଲେ । ଚାଷ୍ଟାଙ୍କ ସମସ୍ୟାଳ ରଳ କରି ପରଞ୍ଜିବା ପରେ ହର୍ଷଟ୍ରଞ୍ଜ ବ୍ଲେକ୍ଲସେବା ସଂସା ଚରଫର ଏହାର ପରୀକ୍ଷା ନିରୀଶା କରାପଲଥିବା । ଓଡ଼ିଶାରେ ପ୍ରଥମଥର ପାଇଁ କୃତନ









ଅର୍ଥନ ତଥ ବାମାହିକ ଦିଲାଶ ପାଇଁ କାର୍ଯ୍ୟରତ ସ୍କେଲ୍ଲାସେନୀ ସଂଗଠନ ବର୍ତ୍ତିଙ୍କ ବ୍ଲାରା ନୂଆଦିଲ୍ଲୀଗ୍ରିତ ଅକାରଷ୍ଟୀର ଧାନ ଗଟେଷଣ ପ୍ରତିଷାନର ସହାରଜନ୍ତମେ ମକୁହି ଏବଂ ବଳାସହନଶାକ ଅଧିକ ଅମଳକ୍ଷମ ଧାନବାଷକ୍ ପ୍ରୋବାହିତ କରାଯାଉଛି ।

ଏଟଂ କନ୍ୟା ପରିପ୍ଲିତିର ମୁହାଦିଲା ପାଇଁ ଉଦେଶଣ ପ୍ରତିଷ୍ଟାର ବୈଷୟିକ ପର୍ଯ୍ୟର୍ଷ ଅଧାରରେ ତିଆରଅର୍-୪୨, ଦିଆରଅର୍-୪୪, ଜୀଣ-୨ ଏବଂ ସହରାଗୀ ନିମେର ଅଧିକ ଅମଳଷମ ଧାନତାଷ ଗତ ୨ବର୍ଷ ଧରି ପ୍ରରୀଷମୁଳକ ଭାବେ କରାଯଇଛି । ପରେ ଜଳତ ଖଣିଫ ଉତ୍କରେ ୩ଟି ତ୍ୱର ୩୮ଟି ଗ୍ରାମର ପ୍ରାର ୭୭୫ ପରିକାର ି ଧାନତାଙ୍କକୁ ପ୍ରୋସର୍ଥିତ କରାଯାଇଥି । ପରାଜର ମଧ୍ୟରେ ୧ ୫ଟନ୍ତରୁ ଅଧିକ ଧାନବିହତ ଜାନୁସରେ ଅନିସାନିତ କର୍ଷଯାତ, ସୁକୃତ୍ୟି ଅବଳୟର କରିବା ସହ ୧ ୨ ୯ ୦ ଏକର ଜଣିରେ

ବାରିକ, ତୁବନାଥ ପଣ୍ଟା, ପ୍ରଦୀପ ପୋରୀ, ଉଦ୍ଧର ସହ, ଚିତ୍ରଣା ସହ, ନିର୍ଣିମା ଉଡ଼େଇ, ଚିତ୍ର ଗୋରା ପଳତ ମହାକୃତ, ହରିଶହର ଟେଲିଟିଆ, ମନୀଷ କୁରିଆ, ଲଣ୍ଡୀନାରାଣ ରାଖ, ପ୍ରିଲଣ, ହୁଲିଣ,







### Registered Office Plot no -217/B Unit IX Flats

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