

ANNUAL REPORT

PRASARI, 2020-21

Rajarhat PRASARI is a not-for-profit organization currently working in 7 districts of West Bengal & is an implementer in sustainable development in the state of West Bengal. PRASARI mainly works with poor and ultra-poor farm women through Village level platforms e.g., VLCs/WLCs or FIGs. At present PRASARI is intensively working with 12,630 HHs in six thematic areas namely – agriculture, livestock, Fishery, sustainable livelihood, watershed and springshed development. Importantly, with Springshed or Jharnadhara and Watershed or Usharmukti programmes it touched 67,000 HHs in the state.



Rajarhat PRASARI

662/2 Baishnabghata 2nd Floor, Flat No. 2B Patuli, Bhagajatin Kolkata 700086

FROM THE DESK OF THE EXECUTIVE DIRECTOR

This has been a very difficult year on earth, together we fought the largest ever battle in the globe, with Covid-19. 70% of PRASARIans are Covid warriors and could manage to come back to work with and for the underprivileged households in our operational villages. Despite all these negativities we could maintain our overwhelming growth of connecting over 67000 villagers directly, in West Bengal, through our recurring engagement for support and coaching. We kept supporting other North Eastern States (Meghalaya and Manipur) as knowledge partners to build the capacity of Government and associate functionaries to implement and integrate activities for natural resource husbanduries. It's a pleasure to share the larger PRASARI family with over 40 professional members, spread across the villages of four agro-climatic zones, rolling out the initiatives in the villages with support from over 100 groomed community resource persons and hundreds of women platforms. We are thankful to our philanthropic partners for increasingly supporting us and bearing with the 'undue' innovations and experimentation in our fields, helping position us stronger, every day within and with the community. This has been a meaningful journey towards a higher order of accomplishments.

Saikat Pal Executive Director

ABOUT PRASARI

PRASARI is a livelihoods promotion institution registered under Societies Registration Act. The Organization works with a mandate to fulfill the need for professional services to disadvantaged families in society. PRASARI adapts a double folded approach to ensure the quality services for the poor, namely indirect support services (partnership mode) and direct implementation of the livelihoods programs. Its partnership mode emphasizes on providing support to the organizations in development sector, initiatives on positive contributions towards the (State, local Govt.) policies addressing the needs of the underprivileged section of the society. Under its direct implementation mode, PRASARI is increasingly responding to the emerging challenges of livelihoods through its activities with and for the poor. To reach out to the network of major development stakeholders, PRASARI strongly focuses on working in collaboration with Panchayati Raj Institutions, thus to ensure a cumulative coverage for vulnerable categories across a larger region.

Legal Status:

Rajarhat PRASARI is registered as a society under the West Bengal Societies Registration Act (1961). It has been registered under section 12AA and 80G(5)(vi) of the I.T. Act, 1961. PRASARI is also registered under FCRA-2010.

Mission: Enabling people to ensure quality of living

Vision: Better Earth, Better Life

Our Values:

Inclusion, Innovation, Excellence, Transparency, Integration, Sustainability, Team work, Cost optimization, and Collaboration

LIST OF BOARD MEMBERS

Dr. Dipankar Saha (President) Prof. Ratikanta Ghosh -(Vice President) Mr. Saikat Pal (Secretary) Mr. Gouranga Banerjee (Treasurer) Mr. Shubhendu Goswami (Member) Ms. Poly Adhikari (Member) Ms. Arpita Chowdhury (Member)





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Hill

A. Brief description of the location:

PRASARI, a non-profit organization has been working across four agro-climatic zones (hill, terai, coastal saline and red-lateritic zone) through its field-based teams of professionals in West Bengal and working as the technical resource agency for Govt. of Meghalaya to execute the Community Led Landscape Management Project (CLLMP) for 400 villages. To reach out to the majority of the population under climate stress, PRASARI believes in partnering with the Government and influencing their flagship programme implementations, catering the needs of the marginal households.

Darjeeling Himalayas comprises a couple of districts, mostly known as a popular tourist station in the hills. Tourism is a seasonal activity; therefore, the majority of the population (mostly rural) live on natural resources. A good chunk of the people migrated out in search of work and earning, in other States of the country and Nepal, often for jobs NOT of dignity. The project here focuses on the agriculture belts of Kalimpong and Darjeeling districts.

In the year of 2020-21, we mainly worked directly in 4 blocks of 2 districts, the names are Kalimpong-I, Kalimpong-II, Garubthan under Kalimpong district & Rongli Rongliot block under Darjeeling district.



Administrative Area:

District	Sub divison	Block name		
		Darjeeling Pulbazar		
	Darjeeling (Sadar)	Jorbunglow-Sukhiapokhri		
Darjeeling		Rangli-Rangliot		
	Kurseong	Kurseong		
	Mirik	Mirik		
		Kalimpong-I		
Kalimpong	Kalimnana	Pedong		
Kannipolig	Kannipolig	Lava		
		Garubathan		

 TABLE A-1. ADMINISTRATIVE AREA IN HILLS

B. Different partnerships:

The development and outreach approach, redefined with the first ever 'path breaking' tripartite, in the History of West Bengal, took place in November-2016, when GoWB, PRASARI and BRLF, signed an agreement to capacitate and coach Govt. functionaries to put in 'spring rejuvenation programme' (Jharnadhara (spring-management.info)) in the Himalayas under MGNREGA. The First phase has piloted with 616 springs in four districts towards drinking and agriculture water security for 15000+ households have leveraged an estimated amount of INR.18 Cr. And created the investment potential of the equal amount.

With this success of GOV-NGO partnership in the northern hills, the approach has been out-scaled across six districts in the Western (red and lateritic) part of West Bengal with a shared vision of "today's wage for tomorrow's livelihoods" under another programme named "Usharmukti". PRASARI's direct support to the Government functionaries (in Birbhum district; average 1 CSO for 1 district out of 6) shall reach out 66000 ha. of micro-watershed treatment and creation of assets for livelihoods of 25000+ households. PRASARI's costs are supported by Ford Foundation and BRLF/Arghyam for this location.

PRASARI with development support costs funding from Azim Premji Philanthropic Initiatives is taking up the 'Drinking water issue' from a very different perspective and approach which will consider a single or set of drinking water source, identify the recharge area for the source, map the hydrogeologies relating to those sources and design appropriate climate resilient recharge programme for that set or single ground water outlet. This is envisaged to be covered under MGNREGA Annual Action Plan for upcoming three years (2019-2022). This has a target reach of 8000+ households in the poverty-stricken tea garden workers' area along with in Garubathan block.

PRASARI also has partnered with WRIDD, GoWB to accelerate the creation of irrigation provision in the Northern hills. Field based teams of professionals from PRASARI are working on spring rejuvenation (Hills) to enhance the water use in the command areas. The WRIDD support has been extended to fund an international study by the British Geological Survey and PRASARI, on sustainable ground-water management for the areas.

C. Our Approaches:

We work directly with the households through the community platforms. We partner and collaborate with the Government mainstream Departments and PRIs to reach out to a large mass maintaining the quality of the programmes. The women are facilitated to plan, take up and monitor the livelihood activities through their Water Users' Association (WUA).

We demonstrate some models with active participation of the community and providing technical support and regular handholding. Here these institutes are facilitating to engage with the Government flagship programmes. We engage ourselves with the community to deal with their issues and build relationships with the Government counterparts to take care of the identified points.

D. Theme wise resource analysis and intervening activities:

a) Peoples' Institution

Himalayas in West Bengal suffer from the age-old deprivation from the access and services from the mainstream institutions. The area is much lagging in terms of organized peoples' institutions, as such. There are SHGs, Water Users' Association, farmer producers' organization as the mandate for different project enlistments, leaving a lot of scope to reorganize them to their effectiveness.

- I. Building community institution
- II. Creating Sustainable, independent,
- III. Self-reliable platform



b) Land

In hills, land type depends on water availability after rain falls. It differs with hill shades. Continuously a hamlet/village can fall under the same category of land. Broadly, the distribution is (<u>i</u>) Aul jomi (Far away from water source) (ii) Lake area (near the water resource), in low altitude are some additional types we get to see in Garubathan and (iii) Tanr. Landholding patterns vary across the economic categories and have a direct relationship within the economic status. A sum of almost 10% of the

population has the landholding of 2 to 3 ha. A Majority of 45% households are owning 1 to 2 hectares of the land. A portion of 25% households have the land holding of 0.4 to 0.8 hectares. A significant 15% of households (mostly in the tea garden area) are landless and 5% of the total population have less than 0.5 acres of land holding. The major land use is in the pre-kharif and kharif seasons under rice and maize. Fodder is also grown in patches of the land in the Kalimpong District. Spice is the major cash crop practiced across, in the lower hills spice is a popular intercrop for the betel nuts. Horticulture and vegetables in the winter come across the challenges of sufficient and timely availability of the irrigation water.

- I. Barren land conversion,
- II. Increasing soil moisture
- III. Enhancing productivity & soil fertility

c) Water

There are three major water sources in the hills which get different forms but generally fed by the springs and added up with the surface flow of water.

The categories are:

- (i) Spring (groundwater discharge point)
- (ii) Jhora (surface flow)
- (iii) Lake/ Water bodies.

One village has 3-4 numbers of perennial springs with discharge 3- 14 lpm (litre per minute) and generally surrounded by minimum two Jhoras which are mostly seasonal and have high discharge (can be more than 50 lpm) in the rainy season. Drying up of the nearby springs of the village is leading to the hydrological crisis for the entire hills. The access to water is also quite limited due to the very long distance of the village from good water sources. Rejuvenation of the springs often becomes difficult due to the low level of motivation of the villagers to issue NOCs for construction of the recharge



structures in the recharge areas, other than khashmahal area.

I. Springshed Rejuvenation:

Springs are the main source of water for the rural & urban households in the hilly region of West Bengal. springs have not received their due attention by their own community and facing the threat of drying up along with the develop of hilly people lifestyle. Spring discharge is reported to be declining due to the increased water demand, changing use patterns, ecological land degradation and erratic trends in precipitation. These springs are

known as dhara, mool, kuan in eastern Himalayas.

There is, hence, an urgent need to restore, revive and sustain springs across the 4 districts of Himalayas under west Bengal. Lack of knowledge, understanding and awareness on springs has further compounded the problem while also inducing elements of conflicts and haphazard development. Land-use changes, rapid urban expansion and growing commercial consumption are affecting forests and impacting spring water availability.

The water from the Himalayan Rivers is not readily accessible to the densely populated villages and towns in the mid-hills (900-2000m). These fast-flowing rivers cut deep gorges and flow several hundred meters below, while the glaciers are far above this critical eco-zone of the mid-hills. In mid-hills of the Himalayas, communities depend on rain-fed springs and streams for meeting their water requirements.

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II. Surface flow minor irrigation:

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d) Agriculture practices

Unsured irrigation has resulted in roughly 30% of land under rabi crop coverage in the winter, though kharif and pre-kharif coverages are told to be 100% and 60%, respectively. Spices (e.g. large cardamom and ginger) are the main source of income for the farmers across Kalimpong where yearly farmers income is very low due to insufficient agriculture inputs, poor yield for the improper package of practice and poor linkages with the market. Access to irrigation is also a constrain. Horticulture and vegetables (mostly tomato and mandarin) are other two popular crop needs scientific intervention on pest care and input output market linkages. The medicinal plants are the natives of this area, knowledge for the community and their linkages with the industry are the critical gaps.









- I. SRI techniques in all crops,
 - PoP on Spices
 - Reviving the indigenous variety of hills
 - Enhancing fodder crop production
 - introducing pisci-culture in hills

E. Case Study

i. Exposure visits in benefit of WUA

A hand full of support was always done by DPMU Darjeeling to fulfil the mission of paddy cultivation by natural farming in hills. The WUA got a work order for purchasing the local seeds as well as few farmers tried hybrid seed for paddy cultivation which were provided by ADMIP.





Trainings, demonstration regular visits to WUA helped the farmers to gain confidence in our approach and they practiced in small plots Natural farming. We also suggested them to cultivate with both the process one that is traditionally cultivated by the farmers and the other SRI by natural farming. Training was given to 450 farmers among which 298 responded positively and followed the process of natural farming. Our CWs were instructed to support the farmers in every new step starting from land preparation, fertilizers preparation, making seed bed, transplanting, maintaining distance, weeding, pest management till harvesting and crop cutting data collection.

During Crop cutting we found that the paddy plants in Natural farming process with SRI, the roots were spread which created a good hold in the ground that provided the roots strength to hold the production more and stay



firm. The panicle length was more compared to traditional method, also the grain number was drastically more in Natural farming method plots. We weighed the wet weight of the seeds in a few sample plots of 9 sqft (3'x3') area and found that the production was 55-60% more in the SRI Natural farming method compared to the traditional method. Hybrid paddy production was measured at 5 tons and in local mashino basmati production was 5.78 tons whereas the same in traditional method was obtained around 3 tons. Now the villagers themself spread their success story with others and the process is getting popular among the farmers.



In a one of their monthly meetings of WUA, PRASARI suggested to them that they should display their work on a bigger canvas. WUA members were ready at the same meeting to arrange any kind of programme to reach to the higher extent.

After discussing with Institute development specialist, DPMU Darjeeling, WUA plan an inter district exposure visit. WUA have some corpus fund, the WUA arranged the same. The WUA who are hosting the visit invited 30 nos. of WUA members from Talking & Lamahatta area of Darjeeling District. It is expected that next year the number of paddy farmers will be more and we can ensure more production of organic paddy from kalimpong and Darjeeling district.

ii. Convergence Programme in benefit of WUA

The Sahayog WUA from Rongli Rongliot Block was formed in the year of 2019 with the objective to secure the water demand in their village by rejuvenating their own sources. They are also motivated to do farming with the proper seasonal agriculture planning.



This WUA was nurtured by the PRASARI, on the common interest of WRIDD, GoWB under ADMI project. Before starting the intervention prasari always develops a common community platform where the villagers specially the farmers can sit and discuss their crisis & probable solution also.

Here in this community platform, the members are mostly farmers. They have their own land with an average of .5 - 1 Ha. They cultivated cash crop in half of their land and vegetables in the rest of the land. Their livelihood depends on the selling of vegetables in the near market that incomes come regular basis. From cash crop land they got income once in a year.

They tap nearby springs and Jhora to feed their agriculture land. In rainy season, they have to concentrate to channelize the water as the rainy day in hills are very low comparatively high quantity rainfall.

Also, they need to invest high amount of money to get water in dry season. This huge investment getting buried for most of the farmer. For this reason, the farmers started changing their livelihood pattern. People from same village started migrate to get work as a labour in the nearby metro cities.

The WUA members discussed about this problem in one of the meetings of them. Members didn't find any easy solution for this crisis of water in their land. At that time the members were get back to their home and ask for support from PRASARI in their next monthly meeting. Then after in next meeting PRASARI helped them do some exercise. After SWAT exercise, people find their strength in this case can be linkage with multi Govt department.



In the very next day, signatories from the WUA visited the local block level office of agriculture, animal husbandry dept. they narrated briefly to them about their crisis sought for support.

In the first meeting, nothing big was happened. Officers only listened about their problem. But after week the Agriculture Development officer of RR block called the president and invite them. After reaching in the office, ADA issued a 900 mt concrete irrigation channel from the nearby sources to their own land. Along with give them a cheque of 10000 for buying quality seed.

Foothills

A. Operational area:



The PRASARI Dooars team working areas fall under four blocks (Mal, Nagrakata, Matiali, Dhupguri) of Jalpaiguri District of West Bengal. The Dooars area can be divided into two main sections, one is tea garden area and another one is non-tea garden whereas the residents are of Tea Garden are permanent migrants from Chhotonagpur plateau (the tribal families), Nepal and Bangladesh. This financial year we are working at 5 Garm Panchayats in Nagrakata, 4 Gram Panchayats in Matiali Block and 2 Gram Panchayats in Mal Block.

B. Our Approach:

We work directly with the households through the community platforms. We partner and collaborate with the Government mainstream Departments and PRIs to reach out to a large mass maintaining the quality of the programmes. The women are facilitated to plan, take up and monitor the livelihoods activities through their WLC (Women livelihoods committees) or Water Users' Association (WUA). We demonstrate some model with active participation of community and providing technical support and regular handholding. Here this institutes are facilitating to engage with the Government flagship programmes. We engage ourselves with the community to deal with their issues and build relationships with the Government counterparts to take care of the identified points.

C. Thematic area:

In Dooars, we are mainly working on two thematic areas e.i., 19

1. Income Security through NRM based livelihoods

2. Village Water Security

i. Income Security:

2020 year is hardship year for the human begins and have affected human life and livelihoods. The COVID 19 pandemic situation raised a difficult challenge to human beings specially the farmer, labour and small business or entrepreneur. Reverse migration and after that jobless situation has created huge income depression in the family. The Nationwide lockdown and pandemic have created a dark situation in front of farmers, who cannot sale their agriculture product regularly, the Labour who are not getting daily job opportunity and small businessman who are not retailing their goods. A tough situation is there over all nation.

However, under this critical scenario Dooars Team continued its work on livelihood support for those with whom team worked in the location. The Dooars Team work with 2023 households through 73 Women Livelihood Committees (WLC) where need-based activity plan of each member of Women Livelihood Committees was done first. The team supported the community to meet up their need through capacity building, technical knowledge dissemination, handholding support, rigorous coaching, Liasoning with respective govt. line departments. The professionals follow the bottom to top approach while preparing the implementation strategy for bringing the ownership and highest involvement with the community.



With the help of Agricultural department, team enhanced the production of staple food through incorporating improved method, organic farming method and Kalo nunia variety of paddy seed among 1774 farmers with a land coverage of 247.24 Ha. Where 487 farmers were practiced NPM method in 69 Ha land. 374 households cultivated vegetables in kharif and rabi season on an average 0.25 acre land each farmer. Crop management and protection training was provided to these farmers by team. With the help of ADA Nagrakata team was successfully promoted Zero treillage Wheat cultivation with 71 farmers

in 23.66 Ha land and it's provided another 4 months food security of the family.

Realize the situation and finance condition of the family team has put their effort on promotion on kitchen garden as it was big probability to the community that kitchen garden would help them to reduce cost of cope with the pandemic situation. Total 1158 families were practiced kitchen garden where 731 families got support from Nagrakata Block Administration under national food security mission program and 427 families got support from ATMA Matiali Block.



Beside this Vertical kitchen garden has been introduced on experiment basis with 16 ultra-poor landless families at Sona Basti in Matiali Block. This initiative becoming popular among landless families as it not only enhances the production without expanding the land size but also helps to protect the crop from excess water in rainy season, soil borne diseases, grazing of animals and works as a constant nutritional source of the family. Incorporation of trellis creeper vegetables added new height of technology using local resource.



Tea garden Community adopted mushroom cultivation by self as an alternative income generating activity as well as consumption in family. Help of Agriculture Department and proper guidance of PRASARI team 280 Tea Garden workers families have been economically benefitted and fulfilled the consumption need of their families by mushroom cultivation. Joint collaboration and action of Animal Resource Development Department and PRASARI Dooars Team provided support to 1854 households on scientific livestock management. The Team provided technical support to1320 households Scientific goat rearing where team support on



vaccination, deworming, shed& feed management, castration etc. similarly 882 households got support on Back yard poultry farming which contribute in their family income. 46 Households were involved in Tank Fishery with the support from Fishery department and self-contribution.

Besides this Prasari facilitated to getting various govt. Social Schemes (like MGNREGA, Swasth Sathi, PMFBY) to 841 households. Through this above mention intervened activities impacted on family income as followed-



The figure-1 shows that 56 % households earned more than INR 10000 to 30000 where 14 % households earned more than INR 30000 and 30 % households got income less than INR 10000 from intervened activities.





Figures 2, 3 & 4 depict that 57.5 Percent households belonging to income range INR 0-30000 majorly depend upon live stocks for corresponding earning/income. This households were mostly tea garden worker group and or landless or very small land holding farmers having less than 0.3-acre land. Following set of activities were practiced among these income range group-

SI. No.	Activity-1	Activity-2	Activity-3
1.	Livestock (Goat/Pig- chick)	Kitchen Garden	Tank Fishery
2.	Livestock (Goat/Pig- chick)	Kitchen Garden	Mushroom
3.	Paddy	Livestock (Goat+ chick)	Kitchen Garden

On the other hand, about 33.36 Percent households got income above INR 30000 those who are landed families and having more than 1.5 acres of cultivable lands. Major inventions to above mentioned groups were following-

SI. No.	Activity-1	Activity-2	Activity-3
1.	Paddy - vegetable	Goat	Chick
2.	Paddy - vegetable	Goat/ Chick	Fishery
3.	Paddy	Livestock (Goa / chick)	Fishery

ii. Village Water Security:

Dooars Team -Block Administration joint collaboration has solved the water crisis issue and brought the happiness in four hamlets through direct water supply at door step @ 24X7 from spring.



It has solved one of the most major problems of the women life, especially those who are working in Tea Garden. In the summer season they wake up at 3 am just only because of fetching water from source, in case of reaching late to the source, she would not get water for her house as the source used to dry-up by the scorching sun light. Success grappled us just because of community participation and ownership in programme, hard work of team and good relationship & collaboration of Block Administration. Apart from direct door step water supply, the Team worked successfully on water source rejuvenation. 9 Springs and 46 well were treated through different rejuvenation activities. In Jhora rejuvenation nearly 16 Ha lands were treated by creation of staggered trench, percolation pit, field bunding and levelling and plantation. In well rejuvenation the rain water has been collected from 20 roof of houses and forced to percolate into aquifer through point recharge pit nearest to well. COVID-19 Pandemic has hampered the existence human race and retarded work pace of all sectors and it's same with our work. Government did not allow to work with and for community in this situation, especially after February 2021 when State election was declared and after that COVID second wave started. Although we are trying to regain our work pace gently with the active support of community and local Administration. During last FY 2020-21 team conducted capacity building training of BFHG, Community and our staffs on different technical aspects. Total 32 trainings were held and 763 community people participated and 132 Nos of PRI representative. The team implemented 3 Gravity flow water supply work (Model-III) at Upper Kurti TG in Nagrakata Block, Dhanu Line at Juranti TG & Moortee Top Line at Metali TG in Matiali Block of Jalpaiguri district, where one Gravity flow water supply work still in progress at Jiti TG due to restriction. In Upper kurti the Champaguri GP accepted our proposal and took part in implementation, they supported community on construction of Water reservoir tanks and labour cost for pipe line trench digging and pipe fitting, where Matiali Block administration provided administrative support to community (WUA) at Moortee Top line when the TG management stopped the work. The community applied

to TG management for safe implementation but they didn't permit, then the members of Moortee WUA visited Matiali BDO with an application for sorting out the issue and the representatives of BDO took visit at site and gave clearance to community after discussion with TG management. Now Moortee Top line village is free from the curse of water scarcity and getting boon of water at door step @ 24X7.



Siltation Tank at source

Pipe Line from Source to Village



fitting by Community

Earth filling on Pipe Line



Pipe

Ensuring access of adequate quality water @ 24 X 7

Ground Water report 2019 – 20 of the Central Ground Water Board shows the depleting of Ground water fluctuation around 2-5 meter in Dooars region and the Dooars community also says same. They also depict it clearly in their meeting. There is lack of awareness on aquifer and its management. One of our intervened model Roof Top Rain Water Harvest is now become promising recharge activity in Dooars region because most of the aquifer recharge area fall in Tea Garden area. Tea Management does not agree to do any others activity in their garden area. So, point

recharge through Roof Top Rain Water Harvest is the only option at Labour Line. GP representatives are also concerned and focusing on ground water management and



acknowledged our demonstrated model after an exposure visit at Looksan 9 No Line. We implemented two demonstrations on Roof Top Rain Water Harvest model at Looksan 9 No line of Looksan TG and at Mangalbaribasti at Matiali. From last October we started collection of well data and discussed with community of each step of implementation. These two villages are facing water problem due to depleting of ground water level. They observed it but were unaware about the sustainable solution. After intervention of the project, the community gained knowledge about aquifer and ground water system better.

In Jalpaiguri district we mobilized amount Rs. 1063374 (in word Rupees Ten Lakhs Fifty-Five Thousand Three hundred and seventy-four only) from MGNREGA and mobilised Rs. 122465 (One Lakhs Twenty thousand four hundred sixty-five) as a community contribution for Village water security. The community contributed their labour to Digg trench, loading and unloading of Pipe, fittings pipe, development of siltation tank, filling the pipe line for water supply and digging percolation tank, setting ring and covering stone at side of ring for Roof top Rain Water Harvest work. Mostly women were taking active participate in this work. Through above mentioned activities we served 3158 households in Dooars.

For dissemination of science and knowledge of ground water at scale, we associated with ARGHYAM and BRLF for making community video on Well rejuvenation. We developed 13

atomized content on Well rejuvenation in this FY period. We are providing training with this video contents and also guiding and mentoring the community person through virtual interactions.



Capacity Building of Staffs



EDIT Content shown to Stakeholders

D. Case study

Change Story of Moortee Top Line

``Dhakor Dhakor Dhakor sound of tube well no more today" the satisfactory words of Didis of Moortee Division Metalli Tea Garden. A change story of Moortee Top Line. The village was setup on 1890s by the British. The people of the chatanagpur platue and Nepal up rooted by the British and settle downed here as Tea Garden labour. The Labour colony Moortee Division Top Line is under Matelli Tea Estate (Nightingale Company) at Matelli hat GP in Matialli Block of Jalpaiguri district. There are 162 households and 743 persons are living. The garden is sick garden, last year the ownership has changed from Laxmi Tea Estate to Nightingale Tea Estate and the services for the labour also changed. Past 8-10 years ago there was pipe line water supply to household connection from garden irrigation water sources but now the supply system was stopped, there was one well and three tube wells for 162 households. Out of three tubes well two were defunct. The well was only source of drinking and domestic water. The didis were faced so many challenges like late attendance in work place or even leave due to late attendance, often meet wild animal attack when they used to go bathing at evening (may be 7:30 PM to 8 PM) in well or river, they had to go to fetch the water from well or tube well after a daylong (7 am to 4 pm) hard work in garden and they had to wait for 30 to 40 minutes for that. Most of the time they had collect water at 3 am even being tired or illness. This was the regular phenomena of Moortee Tea Garden's didis. In 2018 August the only one well collapsed and the crisis of water become headache for family. Then Tea Garden management provided 3000 litters water tank two times per day for 162 families where water demand was nearly 100000 L per day. The water quality was also not good, the Tea Garden management supplied water from their open irrigation water tank where water came from river through pumping. In this situation PRASARI came to know the water crisis of Moortee TG from BDO office when discussed the APPI water program in workshop held at Block Office. PRASARI team visited moortee Top line and discussed with community regarding water problems. Repeated discussion with community and transect walked around village to mapped the water sources of the village, in that time the villagers shown a perineal spring called 2 no section Jhora near the Moortee topline. In past they were used this water source for "Gram Puja", annual village picnic and the labour used water when they collect tea leaf in this section. Then technical team of PRASARI surveyed the pipeline from 2 no section Jhora to Moortee Top Line with the enthusiastic support of community. After survey data interpretation it was shown that the water of 2 no section Jhora may came to moortee topline through gravity flow by gaining head of 6 meters. PRASARI team discuss it among community but most of the community did not belief that the water may came into their village without any machine. Then PRASARI made a training session with community on it and mobilize community to do this project with their support



and



ownership. After technical discussion the community

agree and formed a community institution called Moortee Water Users Association. PRASARI team again detailed discuss on Project and role of each stakeholder. Before starting the work, the WUA went to took permission from Tea Management for structure but the Management denied this proposal. PRASARI team mobilized the community to meet BDO and then the WUA members visited the Matiali Block Development Officer and told their entire story of water problem and submitted an application for getting NOC. On the basis of the application Joint BDO and Other Technical Staffs of Block engineering section visited Moortee Top Line and show the situation and also inspect the 2 no section Jhora project design. Then they meet with Tea Management and then Tea Management approve the work. Then started execution of pipe line work and siltation tank work. The community did their hard work and dig an 800-meters pipeline with their own contribution, no monetary support provided from Project. They constructed siltation tank at 2 no section Jhora with labour contribution where sand, cement, Iron bar and stone were supported from Project. The entire work took time of 3 months for completed and now the Moortee Top Line have 16 taps point and two Water Filtration unit for drinking. The Moortee Top Line Now became an example of other Tea Labour Line for 24X7 hours water supply. The WUA provide a water supply line to the Village USK school where water was major issue of students. They now managing their pipeline, tap uses, jhora area and siltation tank. They created a fund for that for managing these things sustainable way.

E. Humanitarian Activities

Responding to rising positive cases of COVID-19, India announced countrywide lockdown from March 25, 2020. Since then, India have been closed all type of work, Service and Business. COVID-19 is triggering a number of inter-related crisis that transcended throughout the wage worker communities, particularly workers working in the Tea Gardens, river stone plucking labour which includes the loss of income/hardship due to closed operations. During Lockdown the tea industry across West Bengal have not paid its workers. With passage of time, availability of food is becoming a major issue. In this such critical situation PRASARI DOOARS Team stand with community with the support of BRLF, APPI, OAK Foundation and THE TRAIDCRAFT EXCHANGE and Local Block Level Administration. Dooars Team provided uncooked ration kit to 4390 vulnerable families in two Blocks of Jalpaiguri district. The Team also assists to 2400 mothers who have below three years Childs to provided Baby food.



চা বাগানে ঝরনার জল াঁছে দেওয়ার কাজ শুরু

নাগরাকাটা, ১৭ নভেম্বর : করি। আপাতত ড্যার্সের মোট চারটি চা শ্রমিক মহল্লায় পাইপে করে আসা ওই পানীয় জলসংকটে জেরবার কৃতি চা বাগানকে ওই নয়া ধাঁচের জলপ্রকল্পের জল সংরক্ষণের জন্য একটি জলাধারও বাগান। এই সমস্যা থেকে মুক্তি পেতে জন্য বেছে নেওয়া হয়েছে। মেটেলি বাগানের আপার ডিভিশনে মঙ্গলবার ব্রকের জুরন্তি বাগানের একই রকমের থেকে শুরু হল ঝরনার জলকে আরেকটি প্রকল্প উদ্বোধনের অপেক্ষায়। পরিস্রুত করে শ্রমিক মহল্লায় পৌঁছে কাজ চলছে নাগরাকাটার জিতি ও দেওয়ার কাজ। ব্লক প্রশাসন ও আজিম মেটেলির মুর্তি চা বাগানের টপ লাইনে। প্রেমজি ফিলানগ্রপিক ইনিসিয়েটিভ সবমিলিয়ে প্রায় একহাজার পরিবারের

নামে একটি সংস্থার যৌথ আর্থিক পানীয় জলের সমস্যা মিটবে।



জলপ্রকল্পের উদ্বোধন করছেন বিডিও সহ অন্যরা। ছবি : শুভজিৎ দত্ত

বরান্দে তৈরি প্রকল্পটির উদ্বোধন করেন ফলে সেখানে ১৫৩টি পরিবার উপকৃত হবে। বিডিও বলেন, 'পরিকল্পনাটি

দু'ভাবে ঝরনার জলকে কাজে নাগরাকাটার বিডিও স্মৃতা সুব্বা। এর লাগানো হচ্ছে। প্রথমত, ঝরনার উৎসমুখে ৬ বাই ৮ ফুটের কাঠামো তৈরি করে তাতে চারকোল, বালি ও নুড়ি নতুন। পানীয় জলের সমস্যা রয়েছে পাথরের মিশ্রণ রাখা হয়েছে। জল ওই অথচ কাছেপিঠে ঝরনার মতো উৎস মিশ্রণের ওপর দিয়ে পরিক্রত হওয়ার আছে এমন স্থানে এটা আশীর্বাদ পর তা ইউপিভিসি পাইপ যোগে পৌঁছে হিসেবে নেমে আসবে বলেই বিশ্বাস যাচ্ছে শ্রমিক মহল্লায়। কুর্তির মন্ডা বস্তির

তৈরি করে দেওয়া হয়েছে। সেখানে তৈরি করে দেওয়া হয়েছে একাধিক স্ট্রান্ডপোস্ট। অন্যদিকে, জলের ধারা বৃদ্ধির জন্য ঝরনার আশপাশে ব্যাপক হারে বৃক্ষরোপণ ও জলের প্রবাহপথে বেশ কিছ চৌকো গৰ্ত বা কাঠামো তৈরি করা হয়েছে। প্রকল্পটির কারিগরি সহায়তা প্রদানকারী প্রসারী নামে একটি সংস্থার উত্তরবঙ্গের টিম লিডার পীয়য জানা বলেন, 'এর ফলে ভুগর্ভস্থ জলস্তর তিন বছরের মধ্যে আরও বৃদ্ধি পাবে। ওই চৌকোগুলিতে বষ্টির জল সংরক্ষিত হয়ে তা মাটির ভিতরে চলে গিয়ে ঝরনাকে পষ্ট করবে।

শুকিয়ে আসা কুয়োর জল বৃদ্ধির জন্য রিচার্জের প্রকল্প তৈরি করা হয়েছে নাগরাকাটার লুকসান চা বাগানের নয় নম্বর লাইন ও মেটেলির মঙ্গলবাড়ি বস্তিতে। আপার কুর্তির গ্রাম পঞ্চায়েত সদস্য ও বিজেপির জেলা কমিটির সাধারণ সম্পাদক মনোজ ভুজেল বলেন, 'শীতের সময়েও এলাকার লোকেরা পানীয় জল পাচ্ছেন এটা আগে ভাবাই যেত না।' প্রকল্পের সঙ্গে জডিত সবাইকে ধন্যবাদ জানান তিনি। এদিনের অনুষ্ঠানে অন্যান্যদের মধ্যে উপস্থিত ছিলেন জয়েন্ট বিডিও ডেনুকা রাই, চাঁপাগুড়ি গ্রাম পঞ্চায়েতের প্রধান ববিতা কছুয়া, লোয়ার কুর্তির পঞ্চায়েত সদস্য বিকাশ ছেত্রী প্রমুখ।

Plateau



PRASARI Birbhum Team is working in Rajnagar, Dubrajpur, Khoyrasole, Suri-I and Illambazar blocks. Total 28 number of Gram Panchayat are coming under team intervention. Total 98 Watersheds are divided in these 5 Blocks. Block Level Maps to follow.

A. Overview:

PRASARI has been working in Birbhum District, at the western part of the state, since 2017. The western part of the state, West Bengal, falls under Central Indian Plateau region, geologically which is one of the oldest parts of the land, covering parts six Districts i.e. - West Midnapore, Jhargram, Purulia, Bankura, Paschim Bardhhaman and Birbhum. The western part of the district is tribal dominated and this district features amongst the poorest districts of India. It is also one of the aspirational districts¹ of government of India. The project geography, western part of the district covering Jharkhand adjacent Blocks like Rajnagar, Dubrajpur, Khoirashol and Suri-I, is marked by undulating rocky terrain, scanty and erratic rainfall & poor average productivity of red lateritic soils. The area also witnesses monsoon dependant farming, little occupational diversification, high lean season unemployment, seasonal distress migration, large scale degradation of natural resource & preponderance of disadvantageous social groups; especially backward Schedule Tribes & Scheduled Casts (representative sample: according to the Census, 2011 16.28% of the total workforce of Rajnagar Block are cultivators and 47.13% are Agricultural Labourers). Vulnerability is amplified due to changing climatic conditions, poor agency of women farmers who face increased burden due to migration of male members of households.

			Targetec	l/Planne	This table shows measurement of land that has							
					already been treated as compared to the							
Name					treatable area and plans that have been made							
Blocks		Total Area				Treatable		Treatment plan prepared	so far. Total HH covered 64028 under total			
	No. of	(Ha.)		No GPs	of	No of HHs	area (Ha.)	in DPR (Ha.)	planned. It has been seen that Rajnagar &			
	141 44 5			013					Dubrajpur have the highest area under			
Dubrajp	3		23314		1	168	205	12095.96	Usharmukti Watershed 31168.06 Ha Total			
ur	3				0	13	48					
Illamba	1		7588		5	875	669	1305	plan had been generated from the DPR.			
zar	1					0	5					
Rajnaga	3		22573.		5	254	204	11597.62				
r	3		31			48	04					
Khoyra	1		11719		6	971	110	4618.94				

¹Aspirational Districts are those districts in India, that are affected by poor socio-economic indicators

sol	6			7	88	
Suri 1	5	3801.7	2	330	366	1550.54
		9		0	0	

B. General issues of the area:

The average rainfall of this region is 1430mm per annum which is pretty less from the other parts of the state. Almost 90% of the rainfall happens in four Monsoon months, i.e. June to September. Because of the topography and degraded vegetative cover most of the rainwater water goes away as surface runoff which has many adverse effects on the natural balance of this region. Due to high surface runoff soil erosion is high which ultimately leads to create low soil fertility and as the water gets little time to get percolated into the soil groundwater table is also decreasing over time.

In case of agriculture only 10-15% land is irrigated (Country's average 38.1% as on 2015; data.worldbank.org). Irrigation wells and check dams constructed under several Government programmes like- MGNREGA, IWMP, WBADMIP etc. In the specific case of SC/ST dominated villages this irrigation coverage is even less. Hardly there is any second crop, some streamside plots are brought under oil seed cultivation.

The area's livestock and bird rearing typically adapts free grazing mode. Indigenous breed of cow, goat and back yard poultry are kept by the households to cope up the crisis. Managing the livestock during migration is a critical issue and concern is, of course the availability of fodder in this dry zone. Major loss is incurred as there is a severe knowledge and service gap in vet care and cattle management. Expenditure in terms of cattle loss is quite distinct in the area.

C. Strategy and coverage:

PRASARI has been working in partnership with Government adapting watershed principles to manage this resource-to-resource interaction for the benefit of the households residing within the hydrogeologic boundary of the watershed. INRM activities has been undertaken across 98 Micro watersheds (MWSs) in the region across five blocks of the region, i.e., Rajnagar, Dubrajpur, Khoyrashole, Suri-1, Illambazar where Rajnagar is the intensive Block. Planning and implementation of several soil and water conservation measures in watershed approach with deep rooted community engagement is the primary focous of the team of professionals which is primarily placed at the intensive Block (Rajnagar). To ensure the community participation this has been strategized to form Women Livelihood Committees (WLCs) at the hamlet level, especially with the tribal communities. These WLCs are the primary platform where resource management planning at the granular level is conducted, even at the household level. This planning is, them consolidated at the watershed level, comprising all the WLCs within the watershed and final watershed level Detail Project Report (DPR) is generated. The entire watershed level INRM plan is then pursued with the Gram Panchayats and Blocks for their inclusion into the Annual Action Plan of the area in the form of Gram Panchayat Development Plan (GPDP). Post inclusion and approval the organization provides direct on-field support to WLCs and Gram panchayats to execute the plans on ground

D. Major initiatives of the last FY: Thematic area wise

i. NRM (Revisiting DPR)

The table shows the distribution of total MWS areas, area to be treated and how it has been planned so far. For Rajnagar almost 90% of the total DPR are revisited. In Birbhum almost 11532.18 ha of total plan had been added to the DPR after revisiting. Total 30985 number of plans had been generated form revisiting process. During the revisiting process most

S 1	S Block o o 1 . ta . 0 1		N T T o o o . ta t o l a			1st phase DPR		2n DF	d phase PR	T o t a l		
N 0		f M W S	a r e o f M S s (H a.)	l T e a t b l e A r e a (H a .)	N of a ct iv iti es	A r e a tr e a t m e n t p l a n (H a.)	N of D P R re vis ite d	N of Ac tiv iti es	A r e a tr e at m e n t p la n (H a.)	T ot al N o. of ac ti vi tie s	Total Area treatme nt plan (Ha.)	
1	D u b r a j p u r	3 3	2 3 3 1 4 0	20 54 8.0	8 8 7 5	76 20. 45	2	52 12	44 75. 5	14 08 8	120 96.0	
2	I l a m b	1 1	7 5 8 8	66 95. 0	1 2 7 3	82 2.1 5	2	74 7	48 2.9	20 21	130 5.0	

thrust was given for midland treatment.

	a z a r										
3	Rajnaga r	33	2 2 5 7 3	20 40 4.0	4 5 8 7	73 06. 50		26 94	42 91. 1	72 82	115 97.6
4	K h o y r a s o l	1 6	1 1 7 1 9	11 08 8.0	3 9 0 8	29 09. 93	2	22 95	17 09. 0	62 04	461 8.9
5	Suri 1	5	3 8 0 1 8	36 60. 0	8 7 5	97 6.8 4	2	51 4	57 3.7	13 90	155 0.5
	TOTAL	9 8	6 8 9 9 6 1	62 39 5.0	1 9 5 1 8	19 63 5.9	34	11 46 2	11 53 2.2	30 98 5	311 68.1


Usharmukti DPR Plan

Sl. No.	Block & GP	Name of Model MWS with UM Code	Total watersh ed area (Ha.)	Treata bl e Area (Ha.)	Area treatmen t plan (Ha.)	N o. f w at er b o di e s	Total finan ce invete d for WHS	% Tre atab l e Upl and Are a Trea ted	Total Area treated (Ha.)	% Area Treat ed over treata ble	Total Financ e investe d (in Lakh)	Mobilisa tion from MGNR EGS(in Lakh)	Mobi lisati on from other sourc es(in Lakh)
1	TANTIP ARA	Gaisara BIRRAJ 029	1 7 8. 0 0	17 4	1 4 7. 9 0	5 2 0	10 7. 9	5 4 %	1 0 6 1	6 0 9 9	1 7 4	14 7.9 0	
2	GANGM URI- JOYPUR	Guruja ndihi BIRR AJ007	1 7 9	1 7 1	1 4 5. 3 5	5 0 0	91 .0	6 2 %	1 1 0 2	6 4 4 2	1 7 1	14 5.3 5	2 5
3	RAJNG	Abadna garBI	1	1	1	4	86	3	7	4	1	10	2

ii. Major initiatives of the last FY: Thematic area wise: NRM (Model Watershed):

	AR	RRAJ02 7	8 2	7 Ç	5 3. 9 4	2 0	.0	5 %	6 0	2 4 7	7 9	2.1 5	6. 8 5
4	CHAND RA PU R	Isabpu r- Chand rapur BIRRAJ 030	1 9 8	1 9 2	1 6 5. 1 2	4 8 0	95 .0	3 1 %	7 0 1	3 6 4 9	1 9 2	10 3.2 0	2 8. 8
5	BHABA NIP U R	Kundir a BIRR AJ017	1 7 6	1 7 0	1 4 6. 2	5 6	98	2 9 %	8 0 0	4 7 0 6	1 7 0	12 3.2 0	2 5. 5
6	DUBRAJ PUR LN PUR	LN Pur BIRDU B015	1 8 5	1 7 8	1 5 3. 0 8	5 5	10 2	6 3 %	1 0 8 0	6 0 6 7	1 7 8	15 1.3 0	2 6. 7
7	DUBRAJ PUR BALLIJ URI	Kamalpu r BIR	1 9 2	1 8 6	1 5 9. 9 6	5 8	10 1. 91	6 6 %	1 0 0 0	5 3 7 6	1 7 7	15 8.1 0	1 8. 9
8	KHOIRA SHOL RUPUSP	Barabo n	3 5	() () ()	3 0	6 2	29 1.	3 1	1 9	5 3	3 5	30 1.7	3 3.

UR	BIRKH A036	9	5	5. 3	0	7	%	0 2	5 6	5	5	2 5
TOTAL		1649.0	1431. 0	1376.9	4 2 3 0	97 3. 5		8 4 0 5	59%	1422.0	1233.0	1 8 9

TABLE II-1. NRM _WATESHED MODEL

Birbhum Team is working with 8 selected model watersheds in 3 number of blocks under Birbhum District. Total area is 1649 ha. under these 8 model watersheds. Total 1431 ha. option had been generated. Presently treatment percentage is 59%. Total 840.5 ha treatment had been executed by the MGNREGA & convergence department. Total 423 number of WHS had been executed in this 8-model watershed. Fishery had been taken as livelihood intervention in model watersheds with the convergence of fishery department. Total 1422 lakh. fund had been leveraged to execute the model watershed activity.



NRM Progress		Ac	hievement of I	NRM			
I	ndicators	Dubraj pur	Illamba zar	Rajna gar	Khoyr asol	Su ri 1	TOTAL
	Total HH covered through asset creation	12371.0 0	5996.00	4114. 00	1400.0 0	116 5.00	2504 .0
	Upland	501.74	277.50	909.0 8	50.36	102	1841.12
Total Area	Medium	374.31	99.94	571.4	416.16	23. 49	1485.31
treate d in Ha. Up to Marc	Medium low land/lo w land	726.66	309.19	178.0 8	75.73	51. 69	1341.35
h 2021	Drainag e line treatme nt (in meter)	481108. 97	75637.3 7	689.0 0	21584. 00	823 4.24	5872 3.5
Total erosio	Area where Soil n checked (Ha)	462.19	277.50	874.3 2	50.36	102 .44	1766.82
Forest area broug ht under	As PIA in MGNR EGS	17.57	0.24	5.58	0.00	6.47	29.87
treat ment (Ha):	From Own source	0.00	0.00	0.00	0.00	0.00	0.00
A Po Veget	dditional ermanent ation created (Ha.)	452.70	222.34	527.0 4	48.15	43. 89	1294.13
	Additional Run- off arrested (Ham.)	1166.31	101.53	651.4 5	157.39	38. 75	2115.44
Tota wate WHS	al volume of r restored in (Ham./year)	465.01	45.55	306.1 8	56.56	4.00	877.29
Per capita harvest pot meter)	additional water tential created (cubic	154.15	25.78	56.8 9	35.99	26. 10	59.78
Assu crop total a	ured Kharif o cultivation urea enhanced (Ha)	4650.08	455.46	3061. 78	565.59	40. 01	8772.93
Assured Rabi crop cultivation total area enhanced (Ha)		1550.03	151.82	1020. 59	188.53	13. 34	2924.31
Assu crop total a	res Summer o cultivation orea enhanced (Ha)	310.01	30.36	204.1 2	37.71	2.67	584.86

E. Major developments/achievements: Thematic area wise

BL OC	Particulars	2021-2022
K	Total Schemes Implemented (Nos)	188
	Total Expenditure Done in Rs. (MGNREGA)	429.57496
DUBRAJP UR	Total Persondays Generated (PD)	151436
	Total Expenditure done in Rs. (Convergence)	0
	Total Schemes Implemented (Nos)	13
ΠΙΑΜΒΑ	Total Expenditure Done in Rs. (MGNREGA)	35.573
ZAR	Total Persondays Generated (PD)	10502
	Total Expenditure done in Rs. (Convergence)	0
	Total Schemes Implemented (Nos)	22
KHOVRAS	Total Expenditure Done in Rs. (MGNREGA)	56.24
OL NAS	Total Persondays Generated (PD)	27417
	Total Expenditure done in Rs. (Convergence)	0
	Total Schemes Implemented (Nos)	123
RAINAGA	Total Expenditure Done in Rs. (MGNREGA)	205.88073
R	Total Persondays Generated (PD)	72943
	Total Expenditure done in Rs. (Convergence)	4
	Total Schemes Implemented (Nos)	16
SU	Total Expenditure Done in Rs. (MGNREGA)	35.05544
RI	Total Persondays Generated (PD)	28997
1	Total Expenditure done in Rs. (Convergence)	0
	Total Schemes Implemented (Nos)	362
ТО	Total Expenditure Done in Rs. (MGNREGA)	762.32413
TĂ	Total Persondays Generated (PD)	291295
L	Total Expenditure done in Rs. (Convergence)	4

F. Fund Leverage

 TABLE F-1.3 TOTAL FUND LEVERAGE

G. Efforts Taken During Covid-19 Pandemic:

With the unprecedented scenario of a pandemic in the world, the social sector in general had to be quickly responsive. Having worked with the most vulnerable sections of the society, the PRASARI team could not back off when it came to an unforeseen situation such as the pandemic and related lockdown, curfew etc.

The team actively engaged with the lock Development Officers as well the block police stations to first chalk out how can these families be supported as well as for making the service delivery process smoother in terms of permission issues. Having developed a thought-out plan, the team took the following initiatives

1. Food Kit distribution to vulnerable families:

After doing a basic survey by engaging the field workers, the team planned that in total 1600 families and 200 malnourished kids are completely out of food during lockdown. So, the immediate necessity was to support them with basic food kit consisting of rice, oil, potato etc. Tribal families were given priority in this relief drive.

2. Ensuring Wage Employment During Lockdown:

The team found that while the relief drive had to support the families immediately, it can never be a sustainable ad self-dependent response to the pandemic. The team communicated with the block and GP officials remotely to get the pending schemes approved from them. Scheme's approval, enrolment of new schemes etc. was done remotely via online meetings. Rajnagar block alone had 148 schemes generated during the pandemic and 66600 PD was generated at the same time giving at least a surviving income to the families during lockdown.

3. Awareness Generation Programmes:

Before lockdown as well as after it when field movement was a challenge, the PRASARI team visited all their working villages to talk about the pandemic and what should one do if s/he feels like infected with the disease, also providing them with hospital, volunteer doctors contacts who can help.

H. Case Study-1 NRM approch making an impact on Shade Bashki's Life

Gurujandihi is a village of Rajnagar block under the Gangmuri-Jaypur GP. One of the many faces here is a 35 years old woman – Shade Baski, who leads the community platform that exists in the village. Before the onset of Usharmukti, Gurujandihi could be identified as a village surrounded by dry unyielding landscapes. When the PRASARI team started treating the lands based on 'ridge to valley' approach, they have done 18 plantations to retain the water, and 22 number of WHS. Shade di took an important role in leading the whole drive of land treatment in their village. As she observed that some of the ponds that have been cut out are retaining good amount of water, she thought of two things: a) how this extra water can be used for the betterment of their lives and b) whether any new livelihood opportunities can be carved. Meanwhile addressing one of the team members she proposed: "A bhai danga jomi gulan jodi jol dhore tahoile toh amder baid gulan aaro beshi dhorbe, amader chash jomir kache hapa karle toh beshi labh". She and her family own 4 bigha of land where so far, they only cultivated one time paddy in a year giving a total maximum income of RS. 5000. Shade di, with her own understanding cracked the very idea of watershed treatment that if Upland treatment has been done in the village, then it must have an impact on the water level of the subsequent Medium Uplands as well. She approached the PRASARI team with the proposition of excavating her 2500 Sft. land for a water harvesting structure. Shade di's technical correctness of the proposition of the WHS plan took the team by surprise. Her pond was dug in the month of May, 2020. Rightly as she pointed, the quantity of water that started getting collected in her pond was significant. In this year she like many other villagers has been able to cultivate Mustard after paddy on a land of 3 bigha, as well as she started Fish farming in her pond. She alone has sold 500 kg of Mustard in the last season when 40 kg Fish was also sold from her pond giving the family a total additional income of 21200 rupees. It has been able to create a connected effect on the family – her daughters have been able to take tuitions like other non-adivasi children in the adjacent village. As Shade di herself has been able to believe in the motive of Usharmukti, presently she is an important driver in water management in their village.





I. Case Study 2: Hope and a Mango Orchard

Kalpahari is a village situated in Rajnagar block, Gangmuri-Jaypur GP surrounded by dry vested up- lands. Before the start of Usharmukti, the villagers were restricted to one time Paddy cultivation. As the programme went on, the PRASARI team looked into the legal opportunities of giving partial ownership of these vested lands to the landless communities in the area. Concerned persons were engaged in effective conversation and eventually after a lot of continuous efforts from the team and the communities, for a total of 32 acres land shared ownership of government and community could be made, the agreement being valid for 40 years. As the ownership agreement worked in favour, simultaneous plan based on the suggestions made from the community was to form a Mango orchard in that whole patch of land. As suggestions came in from the government functionaries as well, Mango- Moringa combination was planned for implementation. Job card holders from among the villages worked to prepare the orchard of total number of 4800 Mango and number of Moringa saplings with creating 30x40 model in that whole path for water supply to the saplings. The produce from this garden is to be shared in 60:40 ratio between the concerned Panchayat and 80 number of beneficiaries households in the future. The current survival rate of the saplings is 98%, and is expected to be fruit giving in the next 2 years. The team's calculation established that it could give an additional 32000 income in total annually to the beneficiaries. Also, for the maintenance of the saplings, it has been decided by the government and the community demand that payment would be made to the community members who take care of the orchard including its watering, weeding, fertilizing etc.



The Alternate Course of Female Supervisor

Before the team had intervent Chhatina was generally having two impressions: irregular payment and male supervisory. Both the villages have unity platforms formed by the professionals who later engaged with the people at these platforms to inform them about the provision of female supervisors under MGNREGA. As the team identified leadership from among the communities, the members of the committees also took up a democratic process of selecting which didi can be a supervisor. Engaging these female supervisors does not only help in transparency of MGNREGA work but better accountability is reached as the supervisor and the other didis have a common platform to voice their concerns before, during or after any work. Asansuli currently has Rupni di as their supervisor, Chhatina has Chhobi di and Babli di. The villagers over time have gradually regained their faith on MGNREGA with the appointment of the supervisors.



Coastal

A. Background of Sundarbans:

The Indian Sundarbans, located on the southern coastal edge of West Bengal, are the most dynamic landform on the planet, exhibiting a balance between the water and the land. Throughout the Sundarbans, a diverse range of plants and animals work together to preserve the ecotone. With many creeks and channels, this UNESCO World Heritage Site was created as a result of the sedimentation of the Ganga, Bhamhaputra, and Meghna rivers. The hydrology of the delta region is influenced by the continuous tectonic activity in the area. The enormous geographical and temporal variability in hydrological regimes (both freshwater inflows and tides), topography and texture of the substratum, salinity, and their interactions are all important factors to consider. As a result of human intervention, the mangrove ecosystem is extremely heterogeneous in nature, and the fragile ecosystem is severely threatened by overexploitation of both timber and fauna, as well as conversion of cleared land to agriculture and aquaculture. The mangrove ecosystem is extremely heterogeneous in nature.

Indian Sundarbans are a dynamic ecosystem because they are home to a diverse range of unique and endangered flora and animals. Because of the presence of the Royal Bengal tiger in the mangrove forest, it has been designated as a hotspot. The ecotone of the Sundarbans is mostly made up of many kinds of creatures, including the estuarine crocodile, fiddler crab, mangrove crab, and telescopic shell, among others. In addition to this, there are certain mangrove dwellers that are only found in the delta region. Both freshwater and marine water species may be found in abundance in the densely populated region of the Sundarbans. A diverse gene pool of macro and micro biotic communities may be found in the Sundarbans, thanks to the intense dynamics of the region's physicochemical characteristics. Known as mangroves, these endangered blooming salt resistant plants may be found in somewhat protected areas such as backwaters, coastal lagoons, and estuaries, among other places. In most cases, they are flooded as a result of the tide impact. There are many parallels in the basic design and adaptability of the Sundarbans' vegetation, such as breathing roots, knee roots, stilt roots, pneumatophores, salt excretory glands, and viviparous germination, among other things. The climate of the Sundarbans is characterised by very high temperatures and humidity (>80 percent), as well as yearly rainfall ranging from 1500 to 2000 millimetres. This UNESCO World Heritage Site is often affected by natural disasters such as cyclones, sea thrusts, and storms that occur as a result of a deep depression in the Gulf of Bengal. When it comes to freshwater flows, the Sundarbans are dominated by those from the rivers Ganga, Bamhaputra, and Meghna, all of which have very significant seasonal variations in their discharge. The height of the tides varies from 2m to 5.4m, and as a result, the salinity gradient is very significant. Because of the submersion of land with saline water caused by the breaching of embankments as a consequence of climatic disturbance, soil erosion is magnified to a larger degree. The coastal soils of India are of many kinds and have been deteriorated as a result of salt buildup, drainage congestion, doughtiness, soil acidity, and other factors, the majority of which have been caused by soil and water salinity and drainage obstruction. Out of 10.78 million hectares of land in India's coastal agro-ecosystem, 3.1 million hectares are salt-affected due to drainage congestion. Agriculture is the primary source of livelihood in the Sundarbans, with fishing, crab collecting, honey gathering, and wood fuel being the most common. The Sundarbans have a highly fragmented landholding distribution, which is reflected in the natural environment. In the majority of instances, it is discovered that more than 85 percent of the total households are either marginal or landless in nature. Furthermore, considering the enormous population strain on land and the lack of other livelihood options, there is a pressing need to address this issue. In the Sundarbans, the monocropping pattern of paddy farming technique is the most prominent characteristic of the cropping pattern. In the Sundarbans, salinity build-up is a frequent occurrence due to the buildup of salt from the soil's surface area due to the accumulation of salt. During the dry season, the capillary movement of brackish water from the groundwater table raises the salt percentage of the water table. The salinity of soil and ground water, as well as the depth of the ground water table, are seasonal in nature and change with the seasons. Soil salinities that have formed as a result of brackish ground water are at their highest during the dry season and at their lowest during the rainy season. The performance of the monsoon season has a significant impact on the success of agriculture in coastal and island ecosystems. Aside from the erratic rainfall pattern, poor and inefficient water management practises, as well as shorter ponding times, result in the loss of approximately 70% of harvested rainwater, the majority of which is lost as surface runoff to the rivers, reducing the per capita availability of fresh water for the people of the Sundarbans region. The natural resources of the Sundarbans provide sustenance and a means of life for about 74 percent of the population. Their livelihood is entirely reliant on the gathering and sale of non-timber products from the Sundarbans environment, such as honey, fish, and crab. Apart from harvesting, selling, and consuming the goods, they also utilise them for their personal use. Furthermore, nearly every family raises livestock, such as chickens, goats, and other animals, and harvests a variety of vegetables from their own farm garden.

B. Operational area:



C. Gram Panchayet wise House-hold coverage:

Since 2007, PRASARI has been working in the southern fringe of West Bengal, The Sundarbans. Believing on the essential needs of quality coaching upon the disadvantages of rural livelihood of Sundarbans, PRASARI has been focusing on economically and environmentally challenged areas of North and South 24 Parganas district. In North 24 Parganas district Sandeshkhali-II Community Development Block, Hingalganj Community Development Block and in South 24 District Gosaba Community Development Block are the main intervention area. In the following table panchayet wise household coverage is given below:

	Coverage and Outreach											
S. No	Name of the district	Name of the Block	No . of GP	No. of Villa ge	No. of SH Gs	No. of WLC/WU A	Cumulat ive HHs coverage up to March 2020	BY P	Ag ric ult ure	Ho rti cul tur e		
											Goat /Sheep/ Pig	Improve d Horticult ure crops
1	North 24 Parganas	Sandashkh ali-II	4	18	0	29	4884	24 88	37 54	10 22	1110	415
2	North 24 Parganas	Hingalgan j	4	20	0	8	708	87	17 0	89	NA	105
3	South 24 Parganas	Gosaba	10	40	72	0	1850	98 7	16 33	64 2	578	287

TABLE C-1.4 COVERAGE AND OUTBREAK

D. Stakeholder Engagement of Sundarbans Team



PRASARI appreciates that different Government departments and their relative schemes supports vulnerable groups of people for securing livelihood activities. This in turn provide an opportunity to gather different stakeholders in an open platform. District level nodal departments like MGNREGA cell provide technical support to PRASARI for respective Block and Panchayet level execution. In addition to this, those nodal agencies also provide training and capacity building efforts to project staffs.

In addition to this, for Panchayet level execution the Block office provide technical and communication-based support to PRASARI. Block Development Officer, Technical Assistant, Assistant Program manager, play a crucial role in this scenario. Furthermore, the Block office also helps PRASARI by creating an open platform where different line departments come together and provide technical support on model execution and consultation and support for training and capacity building.

Since from the very beginning of the stage PRASARI believes in participatory approach with PRI system. To identify the vulnerable group of a particular panchayet PRASARI Sundarban Team first meet and share the objectives of any particular activities. In return the PRI system helps in execution of the activities with community and provide full support on execution of different types of activities.

E. Household intervention activities and thematic relationships:



F. Implementation in the field

PRASARI has been working in Sundarbans depending upon the core critical issues such as, soil salinity, water logging, low cropping intensity, nutrition, surface, and ground water security. Since from the early of the last year PRASARI has been taking the initiation of area specific signature activities for promotion of Integrated Natural Resource Management (INRM) in collaboration with Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA, 2005) and other Govt. line departments under Both North and South 24



Parganas Districts. In Sundarbans context INRM not only emphasizes on promotion and sustenance of mangrove ecosystem but also promotes livelihood activities with PD generation. To combat against saline water intrusion through the breach of river bund, different types of Mangrove plant species are to be implanted on the river bund with Jute-Geo Textiles. Together with this, specific activities are taken in special consideration to ensure sustainable livelihood of rural community. Indeed, PRASARI has taken an approach of area wise NRM based planning with the participation of rural community. Different types of scientific models and defined structures such as, Nutrition Garden, sack cultivation, chick shed, cattle shed, goat shed, compost pit etc. are taken in consideration for the promotion of livelihood aspects and in turn this will provide a secured income to the rural community. Furthermore, to combat against water stagnation and salinity, catchment management approaches are also taken in consideration. Different types of land-shaping models such as Ridge and Furrow technique, 5square model, farm ponds are implanted in ridge to valley approach to reduce salinity and water-logging problem faced by community.

With development of natural resources in integrated way, PRASARI is also working on managing surface and ground water in Sundarbans. In the crisis of sweet water rural community of coastal saline agroecosystem is draining ground water purposively for livelihood purpose. In turn this is also tackling widespread livestock development, aquaculture, horticulture, sack cultivation and many interventions in agriculture as well as horticulture crops. The strategy is to execute consecutive use of surface water by reexcavation of canals and ponds for improvement of agriculture and aquaculture and to restore ground water level. The planning is to engage economically and socially disadvantage groups of people amongst on farm and off farming communities in the influence area of Gosaba, Sandeshkhali-II and Hingalganj Block. With the collaboration with MGNREGA Cell, Panchayat and Rural Development Department, Water Resources Investigation & Development Department (WRIDD) PRASARI takes the initiation to develop and rehabilitate minor irrigation system of rural community.



Water Security to Income Security Execution Plan

G. Natural Resource Management:

i. Income Security through Agro-biodiversity:

Provide ecosystem service to the local resident of Sundarbans by maintaining in-situ conservation sustains the dynamics and functions of natural systems. Visioning the sustainability of rural community, PRASARI has been facilitating ecotone-based support services to enhance livelihood aspects of vulnerable local groups of people and therefore, contributes to poverty reduction and sustainability of the natural resource-based livelihood. In Sundarbans context the livelihood of rural people is fully dependent on natural resources. To specifically cater the natural resource-based livelihood of rural community PRASARI has been focusing on three major thematic areas such as income security, water security & promotion of agro-biodiversity in order to increase household dietary diversity score (HDDS) which in turn will positively impact the nutrition security. In order to facilitate sustainable natural resource-based activity area specific planning is the most crucial point of intervention where through MGNREGA 119 Five Square models were created in 20-21FY in SDK II alone and 126 Five Square models were created in 20-21FY.

ii. Water security:

Monocropping farming system in agriculture is quite common scenario in North and South 24 Parganas district. Together with this waterlogging during monsoon and salinity during lean period make a high degree of hindrance in farming activities of rural livelihood. On the other hand, high consumption of ground water for purposive use in agriculture is impacting on the depletion of water availability for other livelihood activities. As a consequence, the farmers are often taking migration to other state as a main source of income in lean period. In addition to this, with time the agriculture production is going low. To overcome these constrains, rural community and PRASARI find out a common interest on establishing different integrated diverse farming activities over conventional method of practices.



The activities that are considered for promotion of sustainable natural resource management are:

- 1. High ridge and deep furrow model
- 2. 5 square model
- 3. Re-excavation of canals
- 4. Pond excavation

5 square model:

Agriculture is the primary mode of livelihood activity in Sundarbans. Paddy is the main cultivable crop included in on-field agriactivities. However, in the monsoon most of the field suffers in waterlogging and in lean period (winter and summer season) soil salinity build up. Increase in soil salinity and shallow ground water level in turn reduce the chances of second crop. As a consequence, the livelihood of rural community faces drags down direction. In this situation PRASARI has taken an initiation to overcome the highlighted issues like salinity and water logging problem and low income with the participation Gram Panchayets and its associated communities. In collaboration with Gram Panchayets and MGNREGA activity about 41 no. of 5 square models have been executed under supervision of PRASARI. This land shaping technique is very much useful coastal saline prone soils (2-6dS/m) as it minimizes salinity build up and increase the cropping intensity 200% and increased carbon sequestration by 0.43 MgC/ha/yr.



High Ridge and Farrow Model:

PRASARI has taken an initiation to combat against soil salinity and waterlogging related hindrance in the agricultural practices in Sundarbans. Considering this PRASARI is taking a charge of treating agriculture patch with ridge and furrow models in ridge and valley approach. In addition to this, this model is very much beneficial for rural livelihood as this land shaping technique provide secured agriculture and aquaculture with high income. However, before that PRASARI Sundarbans team has visited Mokamberia, Basanti Block, South 24 Parganas to take an overview on this model and also to acquire knowledge on feasibility of this model on economic, social and environmental aspects. In addition to this, Team PRASARI has also executed this model in Krishimela, 2019, at Sandeshkhali-II Block.

Fixed cost for Ridge and Furrow

Srl No	Description	Farmer's contribution	PRASARI's contribution	Row Total in INR
1	Earthwork	0	60000	60000
2	Dressing	11900	0	11900
3	Machan/ Multi-tier structure for vegetable cultivation	10000	30000	40000
	Column Total in INR	21900	90000	111900

Recurring Cost for Ridge and Furrow Model

Srl No	Description	Farmer's contribution	PRASARI's contribution	From Govt. Convergence	Total
1	Seed for vegetables	500	2280	0	2780
2	Manure, Vermicompost, micro- nutrient (Zn, B, Mo) & mulching	1500	4250	2750	8500
3	Plantation	1500	750	0	2250
4	Sprayer, Bio-pesticide & Botanical pesticide	1100	400	2500	4000
5	Weeding and management	1800	1580	0	3380
	Sub-total				20910
6	Pond Preparation	1500	500	0	2000
7	Fish fingerling	1800	3200	0	5000
8	Feed	1550	1317	1250	4117
9	Water purification	1250	1000	0	2250
10	Harvesting	1600	0	0	1600
	Sub-total				14967
	Column Total in INR	14100	15267	6500	35867

Treatment of common Water Harvesting structure:

Providing water security at the implementation area PRASARI Sundarbans team has identified 43 canals from Sandeshkhali-II and Hingalganj Block. Collaboration with Water Resource Investigation and Development Department (WRI&DD), West Bengal PRASARI has taken an initiation to re-excavate that water harvesting structure to provide water security to the villages to ensure livelihhood prospect. Among those 43 identified canals 4 canals are selected after first phase of selection. Those 4 selected canals will



ensure 143.6 Ha land for agriculture activities. These water harvesting structures will also retain 173898 cu.m water. This amount of water will not only be used for agricultural activities but also provide support for non-farming activities like livestock rearing, daily water uses etc. About 338 HH will be benefited by 4WHS. Furthermore, PRASARI Sundarbans Team also worked with excavation of 1 bigha pond. Till now the team has identified 188 ponds under MGNREGA work.

Process of WHS identification:

- 1. Sharing meeting and orientation meeting at State Nodal Department
- 2. Sharing meeting and workshop at District Project Management Unit (DPMU, Barasat).
- 3. Block level sharing meeting at SDK-II and Hingalganj.
- 4. Panchayet level sharing meeting and workshop with PRI representatives.
- 5. Community level sharing workshop and identification of Water Harvesting Structures.
- 6. Participatory Rural appraisal mapping of identified WHS and its associated area.
- 7. selection of identified schemes by district.
- 8. Formation of community- based platform.
- 9. Visioning and orientation of surface water security and associated activities.

H. Community Platform:

Background of the community platform:

When we start to talk about the sustainable development of rural people who are belongs from vulnerable and backward people and living in remote area and somehow deprive from different opportunity & facility

provided by government & other allied activity, The question has come in mind how we can get in touch with the people of in this situation. If we see the administration & public department who are playing their role well for the community development but somehow the person who staying remote area & from backward are unable to participate actively. Therefore, overall development disturbed somehow. So, it is found that who are working for those people need to take them in a common platform where they can participate actively, and they also get that confidence to raise their voice for better life & livelihood and consequently can be seen the holistic development of the whole area. Focusing on that PRASARI has taken the initiative to create a platform for the people and by the people from backward & vulnerable family which called community platform. Through this platform PRASARI Liasioning the platform to the government department and other allied activity. And also provide them different kind of training and workshop time to time for their life & livelihood.

Description	Total No of schemes	Total estimated expenditure (Rs. In Lakh)	Total PD generated in Gosaba
Community schemes NRM related	647	14157672.21	505570
Individual schemes NRM related	1214	972.1399225	69010
Total	1861	14158644.35	574580

Details of MGNREGA schemes in SDK II

MGNREGA Scheme Details for Gosaba Block

Description	Total No of schemes	Total estimated expenditure (Rs. In Lakh)	Total PD generated in Gosaba
Community schemes NRM related	884	18818674.68	731400
Individual schemes NRM related	1482	1254.486315	100410
Total	2366	18819929.16	831810

Objective of the Community Based Platform:

- i. To understand the situation of the community in participatory way.
- ii. Need base assessment establishment in participatory way
- iii. Planning on NRM based activities
- iv. Enhancing incremental income through group visioning
- v. Create a business model through the use of individual as well community assets created under MGNREGA or other government programmes
- vi. Betterment of life & livelihood

Process of selection of community-based Platform:

To form a community platform PRASARI has followed some steps, that are first

a. Meeting With GP: We met local GP for selection of area and that meeting was focused that we want to work for the poor, ultra-poor & marginal family who lives in remote area and belongs from backward class.

b. Field Visit & Open Meeting and Validation: After selection the area we visited that place for open meeting which called PRA (Participatory Rural Appraisal) where community select the HH based on their live & livelihood and resources and ranking them. Then that information validated by community.

c. HH Planning: After the validation of the information shared by the community HH the selection had done respectively.

Strategy of community platform execution & Promotion:

In HH planning we visited individual HH for the resource & gap identifications and planned with the family that how they can overcome the situation and get assured income from the resource which they have. How that help them for their better life & livelihood.

After HH Planning create community platform by the community which called WLC (Women Livelihood Committee) and in this committee based on resource and activity interest creates further Sub group that are i) Agriculture, ii) Livestock & iii) Fishery. After that to continue the platform for further PRASARI provided them technical support for their capacity building through different training and community level workshops on enhancing production of agriculture, Fishery & livestock. Nurturing by different need-based training, skill development and capacity Building programme arranged for the community.

Sustainability of Community Platform:

Community platforms need to be carried forward with a business model focusing on most promising or successful interventions in the community. As of now two main activities were chosen by the team i.e., BYP FPO with 800 women leaders from the community and Fisheries FPO with 1200 fish farmers in SDK II and Gosaba Blocks.

Activities:

Keep in mind the above objectives we PRASARI worked on. April 2020 to March 2021 below activities had done by PRASARI

Theme wise activity for community	Activity	Number of Trainin g	Actual Progress during the reportin g period	Household s Covered
	Sustainable livelihood promotion through BYP	63	3475	3475
Animal Resource Developmen t	Sustainable livelihood promotion through Goatery	37	1688	1688
·	Vetcare of livestock	12	3475	3475
Aquaculture	Sustainable livelihood promotion through Fresh Water Fishery	53	2525	2525
Agriculture	Sustainable livelihood promotion through Vegetable Promotion	53	1592	1530
Nutrition	Farm level integration through resource recycling and Landless gardening	11	716	716
Community	Importance and Formation of Community Platforms	12	12	757
Platform	Management of Community Platform	15	15	814
	Total	256	13498	14980

TABLE H-1.6 THEMATIC AREA WISE TOTAL COVERAGE

Above activities completion challenges:

Since march 2020 pandemic situation going on and also faced Amphan cyclone which impacted a lot in their life & livelihood so community platform faced few challenges that are:

- i) Not able to arrange meeting due to lock down
- ii) Faced financial crisis due to narrow scope in work
- iii) Faced financial loss in their agriculture, livestock & fishery and Damaged of house.
- iv) Suffering from health-related issues

I. Livelihood:

Food security, vulnerability reduction and livelihood activities among the people of the community towards a guaranteed income are one of the major opportunities. There are a number of activities conducted by the community in general to improve the quality of life. To start implementing such activities, an important step is HH planning. Thus, selected families are helped to make their livelihood plan based on their available resources and their activities are gradually identified. Accordingly, these families are provided with detailed technical training on each of the identified livelihood activities and adequate handholding assistance for the implementation of the issues filed. For this the families become much equipped to start their planned activities and meet their needs by improving their standard of living. Thus, there are many livelihood activities like goat rearing, poultry rearing, vegetable farming, SRI and fish farming which help these families to ensure their income.

Income enhan	cement financial year 2020-2	1	
Block Name	Income range (Additional	No. of HHs	Major Interventions
	Annual Income increased vs baseline income)	(without Overlap)	
Sandeshkhal i	0 – 15000	825	Khariff Paddy, Land Less Garden, Poultry
	15001 -25000	790	Khariff Paddy, Poultray, Goat & Vegetable
	25001-50000	916	Rabi Paddy, Veg Cultivation, Fishery, Goat & Poultry
	50001- 100000	373	Rabi Paddy, Goatary, Fishery, Veg Cultivation
	100001- Above	9	Rabi Paddy, Goatary, Fishery, Veg Cultivation
	TOTAL	2913	

 TABLE I-1.7 INCOME ENHANCEMENT FINANCIAL YEAR 20-21

The process of implementation:

- Vegetable: Orientation for homestead vegetable cultivation, selection of vegetable varieties, soil type, seed treatment, preparation of fertilizers with nutrients, fertilizer, pest management and water management.
- SRI: Seed cleaning, seed treatment, bed preparation, Seed sowing, Land preparation with planting of seedlings, Weed management, fertilizer and pest management.
- Landless Garden: Seed treatment, Soil treatment, Organic Fertilizer Making, Sack Filling, Organic Pest Management and Water Management.
- Nutrition Garden: Variety crop selection for nutrition, seed treatment, soil treatment, organic fertilizer preparation, sack filling, organic pest management and water management.
- Fishery: Pond management, fingerling selection, feed management, Disease management, Trainings and market linkage.
- Goat Rearing: Goat Breed Selection, Standard Goat Identification, Proper Management, Goat Breeding Process, Vet Care as Preventive Measures, Feed Preparation, goat shed and Market linkage.

Chick Rearing and BYP: Selection of chick breeds, identification of ideal chick, hatchery, vet care, chick shed, feed preparation and market linkage.

Related Capacity Building Exercises



FIGURE 12. ACHIEVEMENTS SDK-II_CB

Vegetable Cultivation:

Due to the growing economic situation and growing interest in organic and sustainable livelihoods, PRASARI helps families in the Sundarbans coastal region to start growing vegetables in a scientific way. In the beginning, vegetable cultivation was discussed in detail with the farmers in the community meeting. What kind of vegetables will be planted according to the season and soil quality is decided in a community meeting with the farmers. Capacity building of farmers is done by imparting various types of trainings on vegetable cultivation in community meetings, viz. Seed treatment, Fertilizer Management, Pest Management, Water Management etc. Those who do not have homestead-land are cultivated in sacks through separate training. Timely inspections and monitoring are done by the PRASARI team. This year, farmers in the Sundarbans have been badly affected by the AMPHAN Super Cyclone and the Amphan Cyclone, salt water from the river flooded the area and washed away agricultural land.



System of Root Intensification (SRI) in paddy & oil seed:

System of Root Intensification (SRI) is a method of cultivation by planting seedlings at equal distances and usually by weeding with special equipment. It is a method of cultivation which reduces water consumption, increases yield, reduces seed cost, reduces production cost and increases income. Farmers' capacity is enhanced through training in community meetings on seed treatment, fertilizer management, use of weeder, pest management, water management, etc.

Particulars	SDK-II	Gosaba	Total
No. of HH practicing SRI in Paddy	1257	410	1667
Area under SRI (in Ha) in Paddy	162	67	229
No. of HH practicing Line transplantation in Oil Seed	604	420	1024
Area under Line transplantation (in Ha)	80	64	144
Total	2103	961	3064

TABLE I-2.1 HOUSEHOLD COVERAGE SDK-II, GOSABA

Promotion of Backyard Poultry:

The BYP program mainly focuses on increasing chick production, hatching systems, business promotion and marketing. Increasing chicken production is one of the major focuses of PRASARI in promoting BYP. There are two types of hatching systems for that particular program - one is the personal and scientific hatching system and the other is the central hatching system. Scientific hatching methods have been introduced in BYP with a number of trainings and workshops with the community such as Visioning, Vet Care, Food Management, Market Studies etc. For the development of scientific hatching methods, multiple meetings have been held with each Common Interest Group (CIG). A total of 4 CIGs have been formed under which a total of 421 practitioners. Increasing chick production is one of the major focuses of PRASARI in promoting BYP.

All rearers have their won set up for scientific hatching which is self-managed or organized. Following a market study and business development plan previously prepared at Backyard Poultry, the rearers are now able to make a profit of 55% to 60% from each chick.

Rearers have started selling poultry at the nearby wholesale market. Also, advanced technical training between rearers and vaccinators is being organized and regulated with technical supporters and conducted on a routine basis. The PRASARI team has also started working in collective mode. Each CIG group of 40 to 50 farmers collect chickens together and sells them directly to peddlers from the village.



Challenges Faced during Planning and Implementation of BYP:

- Some of the challenges of central hatching are maintaining power supply in the coastal Sunderbans, which affects production.
- It is challenging to transform the conventional hatching method into a scientific method.

- Lack of transportation
- Market linkage



Goat Rearing:

Goat is a versatile animal and plays an important role in the economy and nutrition of small and marginal farmers in the Sundarbans coastal region. To promote goat rearing programs, PRASARI mainly focuses on selection of good breeds, proper management of breeding process, vet care, food preparation, marketing, etc. Various training related to goat rearing is given to the goat rearers through community meetings. With the help of PRASARI, goat rearers have now started rearing goats in a scientific manner. Goat rearers regularly vaccinated their goats. A special goal in goatery is to increase the production of goats and make more income by selling them. PRASARI has already started working on this process with goat rearers.

Fishery:

The Sundarbans is a coastal area, where fish farming is an important source of human income. Although not everyone in the Sundarbans has agricultural land, but each of them has a pond in their house. They already have some practice about fish farming, so there are opportunities for maximum fish production in Sundarbans. A special goal of PRASARI is to increase the production and increase the income of fish farmers by cultivating them properly in a scientific manner.

Objectives of Fishery:

- > Ensuring income from promotion of scientific fishery in the area
- Scaling up the model in Dwipanjali (government programme for the Sundarbans region)
- Promoting scientific fishery (both brackish and fresh water)
- Market Linkage

Team PRASARI has already started to train fish farmers on various topics through community meetings; viz. Capacity Building, Pond preparation & Seed selection, Stocking Density Management, Water & Pond Management, Fish Feed Preparation, Feeding Management, Diseases Management etc.



FIGURE 16 INTERVENTION WITH IMC

Capacity Building:

Increasing the capacity about farming of fish farmers was the most important. The Fisheries Interest Group (FIG) has been created as a community platform. PRASARI has designed capacity building programs from pond management to harvesting. These group meetings are organized in such a way that the farmers get group based advice from the field fisheries experts. In addition, the members of the group held meeting regularly to build their own capacity. If they face any problem, they immediately share everything about the problem with experts of PRASARI and immediately fishery experts of PRASARI try to solve it.

Pond preparation:

Pond preparation is an important part of fish farming. Experts of PRASARI usually pay more attention to this important issue:

- A. The embankment around the pond should be kept in good condition
- B. Large trees cannot be placed around the pond
- C. Large weeds cannot be kept on the banks of the pond etc.

Water & Pond Management:

In case of fish farming, water and pond management must be maintained at all times. PRASARI trained fish farmers in a scientific way on how to keep pond water good. Fish farmers are trained on how much lime is applied in the pond, depending on pH. With the help of PRASARI, fish farmers regularly measure the pH, EC, TDS etc. unit of the pond and provide the necessary materials to the pond. This is how farmers are doing pond management.

Liming Schedule according to the pH of the water:

pH level	Water type	Lime: kg/katha
4.0 – 4.9	Highly acidic	6.75
5.0 - 6.4	Moderately acidic	8.75
6.5 – 7.4	Near neutral	3.35
7.5 – 8.4	Neutral	1.35
8.5 - 9.5	Highly alkaline	Nil

 TABLE I-3 LIMING SCHEDULE VS PH LEVEL

Fish Feed Preparation:

PRASARI has trained members of the local community to make fish feed in a scientific way. At the moment they are making fish feed in the community. The community spends around Rs 30 per kg to make fish feed.

Disease Management:

Disease management is an important part of fish farming. If it is not maintained properly, production of fish will not increase at all. Fish farmers in the community are made aware of disease management from the beginning by PRASARI. Experts of PRASARI trained fish farmers on how to control the disease. PRASARI's experts were constantly monitoring the project area, especially for disease control, so that everything was under control.

Harvesting and Supply to the market:

Harvesting of fish is one of the major parts of the fishery. **Traditionally** fish farmers were harvest their fish. After harvest the pond, the fish farmers used to supply it to the market together. This is how FIG groups are being run in the community and fish farmers are earning their income on time as a result of farming together.

J. Action Research:

Background of intervention:

Since from the very beginning of 2020, Pandemic COVID-19 affected rural community in all over India. More than 40% of the total population are engaged in migration who lost their jobs and returned in their home due to out-break of Pandemic situation. The harvest has been impeded due to the lockdown for various reasons. Lack of labour, lack of family labour, lack of machines, practicing physical distance, and fear of police have emerged as the major hurdles in the harvest of agricultural and allied crops across the village. In addition to this, Amphan super cyclone has a land fall in the midst of pandemic situation in Sundarbans. According to report about 28% of Sunadrbans were affected by this super cyclone. Due to Amphan Cyclon a huge area inundated with salt water, in maximum cases mass amount of tree has fallen into the pond. Mortality occurred in high quantity. Therefore, farmers are feeble to netting and harvest. As a result, a huge loss occurred in their freshwater and brackish water aquaculture as well as crops in the field.

After those critical situations we team PRASARI decided for a field visit to understand the actual need of community. Through the field visit, household visit, & community meetings the impact of Amphan to this place became clear to us. From our experience and understanding we found out that only activity which can withstand the gigantic impact of a super cyclone in Indian Sunderbans is freshwater and brackish water fishery to support majority of the population which as adjacent pond to their homestead. Considering the overall scenario in collaboration with Rajib Gandhi Foundation (RGF), PRASARI, Sundarbans Team has taken an initiative to conduct a pilot project on post cyclone fishery intervention with Women Livelihood Committee (WLC).

Process of execution:



Outcome:



Return on Investment in IMC and Brackish Water Fishery





FIGURE 18 RETURN INVESTMENT IMC & BRACKISH WATER

K. Convergence:

Integrated Natural Resource Management and water security related activities are implemented by PRASARI in both North and South 24 Parganas which addresses the secured livelihood aspect of community. In the last few successive year some pilot activities have been promoted with the participation with community and upscaling has been done by convergence with different government programs. Agricultural kit supports like fertilizers, pesticides is supported by the Department of Agriculture. In different time the personnel of respective department also take a visit in the operational area of PRASARI and provide different types of technical support in agricultural activities. Apart from that the respective panchayet helps PRASARI on field level execution of different types of on farm and off- farming activities. Furthermore, Panchayets also helps by upscaling the models and activities by MGNREGA.

Similarly, PRASARI has a strong relationship with Animal Husbandry department. In collaboration with this department PRASARI has achieved remarkable steps in training program, medication, vaccination program on chick rearing, goat rearing etc. In this financial year, the community has faced both Pandemic COVID_19 situation and Amphan Super Cyclone. The synergic effect of both the calamities impacted on the livelihood of the community. In the situation the Line departments provide immense support on mass awareness against Pandemic COVID-19. Block health department has helped in sanitization program initiated by PRASARI. In the presence of Block Development Officer and Block Medical Officer lime and bleach distribution was done on crowded places of Sandeshkhali-II Block. In addition to this, the out break of Cyclone Amphan has destroyed agriculture, fishery and livestock activities. After Amphan, Lime and bleach distribution in saline water intruded pond was done in the guidance of Fishery department.

Particulars	SDK-II Block	Hingalganj Block	Gosaba Block	Total
Grass-root Govt. Extension personnel's Master Trainer training	40	60	70	170
Community level Master Trainer training	71	130	142	343
Microplanning meeting	181	126	205	512
DPR	216 (8GP X 11GS each X 3 Hamlet in each Samsad=256)	144 (9 GPs X 10GS each X 3 Hamlet=270)	344 (14GPs X 10GS eachX3Hamlet in each Samsad=420)	704
Direct on-field micro- planning facilitation	90	30	120	240

Particulars of Training
From April, 2020 PRASARI started initiatives in the battle against COVID-19 pandemic in Sundarbans region. This voluntary response is funded and supported by the Azim Premji Philanthropic Initiatives (APPI). Based on the need analysis our organization has decided to distribute food items, baby foods and sanitary kits. In addition to this, our organization also took part to raise the awareness against COVID-19. In Sasndeshkhali-II (SDK II) Block, there are eight Gram Panchayets from which five Gram Panchayets such as Durgamandap, Jeliyakhali, Korakati, Monipur and Khulna were selected by the SDK-II Block Development Officer (BDO) to provide relief kits to the needy and vulnerable families. Matching all these criterions, approximately 2700 households were selected for relief support by Block Development Office of SDK-II Block and executed by PRASARI's Sundarbans team.

Theme wise Convergence	Activity	Convergence unit planned with community	Actual Convergence unit
Animal Resource	Planning for convergence in BYP	5275	3650
Development	Convergence for chickshed	215	188
	Vet care support	6075	3475
Aquaculture	Planning for convergence in Fishery	2650	1235
	Procurement of good quality fish fingerling as per unit size (less than 5katha)	1975	1870
Agriculture Linked Nutrition	Planning for convergence in promotion of Sustainable Agriculture	2630	1810
	Planning for convergence in promotion of Nutrition Garden	1920	1756
	Sustainable livelihood promotion through Vegetable Promotion	2310	1419
	Convergence for critical inputs in nutrition garden	1720	819
Common	Sub-minor canal	29	8
Property Resources	Community Water Harvesting Structure	47	27
	Total	24846	16257

Theme wise Convergence Details

TABLE K-1.8 CONVERGENCE DETAILS

L. Overall Impact at a glance

Build effective local governance systems and ensure an enhanced deliverance of Government Programmes & Schemes



M. Relief Support:

From April, 2020 PRASARI started initiatives in the battle against **COVID-19** pandemic in Sundarbans region. However, in this report we' tried to capture the efforts of Sundarbans team based at North 24 Parganas. This voluntary response is funded and supported by the **Azim Premji Philanthropic Initiatives (APPI)**. Based on the need analysis our organization has decided to distribute **food items, baby foods and sanitary kits**. In addition to this, our organization also took part to raise the awareness against **COVID-19**. In Sasndeshkhali-II (SDK II) Block, there are eight Gram Panchayets from which five Gram Panchayets such as Durgamandap, Jeliyakhali, Korakati, Monipur and Khulna were selected by the SDK-II Block Development Officer (BDO) to provide relief kits to the needy and vulnerable families. Matching all these criterions, approximately 2700 households were selected for relief support by Block Development Office of SDK-II Block and executed by PRASARI's Sundarbans team.

Process Followed:

PRASARI as per the guideline of the Health Department and as per The Pandemic Act, 2005 chosen to work with the local administration in executing this relief work from the scratch. The detail process is given in the flow chart –

District	Block	Gram Panchayat	Distributio n date	Food and sanitizer items	No of HH Covere d in Phase I	No of HH targete d by Phase II	No of Baby targeted by Phase II	Supported by
North 24 Pargana s		Jeliyakhali	19-04-2020	Potatoes - 2 kg, Onions -	500	500	200	
		Korakati	22-04-2020	1 kg, Pulse - 1	700	700	200	
	Monipur	28-04-2020	kg, Soybean - 500 gr,	500	500	200	Azim Premji Philanthropic	
	-11	Durgamanda p	25-04-2020	Mustere d oil -	500	500	200	(APPI).
		Khulna	29-04-2020	Soaps- 2 pc and Masks - 4 pc	500	500	200	
Total			2700	2700	1000			

TABLE M-1.9 APPI SUPPORT



Future aspiration:

The pandemic of Corona -19 had a great impact on Sundarbans' livelihood. Apart from Covid-19, during this period Sundarbans also faced cyclone named Amphan on 20th May 2020 with heavy rainfall. Storm's impact was devastating for the millions who live in Sundarbans. Mud homes were swept away, embankments were destroyed, agricultural lands were affected by saline water and ponds were affected either by saline water or by orchards. Due to this situation, most of the communities are facing unsecured income; health infrastructure is fully or partially affected and has faced problems regarding market linkage.

This period of time is divided into two section Covid- 19 situation and Amphan along with Covid-19 situation. For the challenges faced during this period, it is categorized into three main sectors i.e. challenges faced by PRASARIans, challenges faced by the community and challenges faced by the Government.

- Challenges faced by PRASARIans (COVID-19): In the time of Pandemic situation, we the PRASARIans are facing some huge challenges, Viz.
 - 1. Communication with the community
 - 2. Lack of Transportation.
 - 3. Lack of technical support to the community e.g., vet care, fish feed preparation etc.
 - 4. WLC (Women Livelihood Committee) meetings became irregular
 - 5. Different kinds of innovations were halted as various instruments or its parts were unavailable in the market

COVID-19 Situation:

Challenges faced by the community: -

Impact of Covid-19 situation or lockdown situation has a great impact on communities' daily life. They have faced different kinds of problem in different sectors like Agriculture, Livestock, Fishery, and Health. As their incomes were partially suppressed due to lockdown it became uncertainty on their food security. Daily wage earners and migrant people also faced bad situation during this lockdown period. Their work was totally stop and this situation created a big question mark on their food security and income.

• Agriculture: - Arrangement of different kinds of agriculture input like fertilizer, pesticide was very difficult. In other word we can say that inputs were unavailable in local market during lockdown situation. Due to transportation problem, farmers have faced marketing problem for their products. As a result, excess amount of product in local market decreases rate demand of that product became low. Ultra-poor or poor farmers were unable to get work due to shortage of cash-flow. Farmers those have 2-3 ha land facing shortage of labour problem during this pandemic situation. They were unable to harvest their agricultural product in time. As a result, production was not ensured due to over maturity of the product. Example- Before lockdown a farmer sold lady's fingers @ Rs. 30 per kg but during Covid-19 situation selling price of it is Rs. 10 per kg. The price gap between previous situation and current situation was Rs. 20. The same situation was found in other agriculture products.

- **Fishery:** Fishery inputs like fish seedlings and fish feed were unavailable during this pandemic situation. Due to transportation gap, market linkage became a great problem among fish farmers. As per production, demand was low as a result selling price drastically reduces. Not only reduction of selling price, input price increased due to unavailability of feed and seedlings. Example: Price of Bagdah in previous situation was Rs. 600-800 per kg but in lockdown situation it became Rs. 200-300 per kg, a huge price gap between previous and recent situation. The same situation was found in other fish.
- Livestock: Due to unavailability of medicine they were unable to maintain schedule-wise vet care therefore, production gradually decrease. Mortality became high. Marketing problem was also a huge problem in livestock sector like agriculture and fishery sector. Example; Selling price of country chick Rs. 200 per kg in normal condition but in lockdown situation selling price was Rs. 100 per kg. The price gap was Rs. 100.
- **Health:** Community had faced a great trouble due to breakdown of health sector in this pandemic situation. Village health centers were shut down therefore, thousands of people depend on rural hospital. But rural hospital did not provide adequate facility due to lack of staffs. Especially pregnant woman, new born child and emergency patient had faced massive problem for their treatment due to lack of transportation and health service. They were unable to visit sub-divisional hospital or city hospital due to money problem and transportation problem. They have to depend on the private doctors. So, the expense in health becomes high.

Dual Disaster and livelihoods

Amphan hit the Sundarbans delta on 20th May, 2021, with severe rainfall, massive storm surge and sustained winds of 170 km per hour and gusts of up to 190 km per hour. It passed directly through the Sundarbans, devastating it. Impact of storms was devastating for the millions who live in the Sundarbans. Mud homes were swept away, riverbanks were destroyed and agricultural lands were inundated with saline water that made them unfit for cultivation along with orchards and fishery ponds were destroyed. Many agricultural lands, houses, ponds, roads, etc. were washed away by the storm.

- Effect of Amphan Cyclones on people' livelihood: Riverbank failure created a massive fear on community. Electricity was totally damaged for the next 15-20 days. Electric poles and trees uprooted and fell down on roads, fields and ponds. On road communication and mobile communication were totally interrupted. 90-100% mud houses were fully destroyed and brick houses with asbestos roof were partially damaged. As the maximum sources of drinking water were affected by saline water, there was a major issue on arrangement of drinking water for the community.
- Effect of Amphan on agriculture: Agricultural lands adjacent to riverbank were submerged by saline water that made the land unsuitable for crop production. Harvested paddy, lying in field for drying ruined by heavy rains accompanied by high velocity wind. Other standing crops and homestead vegetables were fully destroyed. About 90% orchards and trees were also affected by this severe storm.
- Effect of Amphan on fishery: About 90% fishery ponds of Sundarbans delta were affected by this cyclone. Generally, ponds were affected either by saline water or by tree leaves and branches blown away by cyclone. Amphan triggered heavy tidal waves from coastal river causing riverbank failure and salt water inundated ponds and other water bodies. Tree leaves and branches landed on ponds had

adverse effect on fish production. It deteriorated the pond water. People involved in fish production could not clear water bodies of rotten fish because cyclone derailed their lives, made obnoxious smell of rotten fish from water bodies.

Effect of Amphan Cyclone on livestock: - Apart from agriculture and fishery sector, livestock sector faced a massive impact due to this super cyclone. Chick and goat sheds were completely destroyed. Mortality rate was near about 70-75% in case of chick and duck whereas mortality rate for goat was near about 40%

Overcome from Covid-19 situation:

The PRASARIans took following steps for community to overcome this pandemic situation.

- PRASARI took initiative to arrange relief distribution at different Gram Panchayat by maintaining social distance and Government's other guidelines to prevent Covid-19. Through this distribution process we distributed uncooked materials, sanitizing kit and baby food among community.
- Community meeting was held to provide technical support for ensuring income to community.
- As input support, various vegetable seeds and seedlings were distributed among community to link with market.
- Community based business planning was introduced among community to overcome this pandemic situation.
- Vet care facility which was interrupted at initial stage of lockdown again started to support our community members.
- We had tried to breeze the community among various departments to get maximum support from Government.

Overcome from Amphan Cyclone's after-effect:

PRASARI took following steps to overcome this disaster-

- Within a few days of the storm, the PRASARIans were visited the affected areas of Sandeshkhali-II, Gosaba and Hingalganj blocks and marked the area by drawing the area through Google Earth.
- Based on survey immediately after Amphan and YAAS cyclones, arranged by Prasari at affected areas of different Gram Panchayat awareness camp was oriented for pond water management.
- Lime and bleaching were distributed among fishery farmers to treat their affected pond.
- Fishery awareness camp was organized regarding selection of combination of fish to get maximum profit.
- Agriculture awareness camp was organized at saline affected areas regarding salinity reduction techniques like washout of stagnant water as well as first 2-3 rain water from agricultural land to reduce salinity.

- At saline affected areas, saline tolerant varieties of paddy were introduced among community.
- Short duration varieties of agricultural crop were introduced so that moisture remains in land otherwise crop will further be affected by salinity due to evaporation of moisture.
- Organic manure was introduced among community to nourish soil without any chemical fertilizer.

The learning while dealing with the pandemic:

As the pandemic is unfolding, it reveals vulnerabilities of human and showcases the importance of good leadership and well-functioning, universal social and healthcare system. While the current focus is on responding to the pandemic and on coping with its immediate effects, we have learned different prospects of our Government, technology, health, market systems and resource-based utilization.

- **Technology-** This pandemic situation helps us to understand that technology use can be a potential alternative for communication with community instead of being physically present in front of community. Virtual platform can widely be used in different fields ranging from education to provide training in different sectors like agriculture, fishery and more on. By using e-platform contactless movement helps to solve both primary and secondary problems faced by the community.
- **Health-** "Mother Nature is striking back, and humans are caught on their back feet". Indeed, the pandemic should above all be a wakeup call that our wellbeing is closely tied with the health of our society. Destruction of animal habitat can be a potential high risk for generating infectious disease. In this current crisis the health sector must organize awareness programs related to disease prevention and healthy well-being and should provide support to our society specially focusing on the ultra-poor communities where actual health service is neglected.
- **Market-** This pandemic situation helps to learn that the markets cannot succeed in failing societies. Health of the natural environment nurtures the healthy society and market. From this situation, we come across that production in case of agriculture, fishery, livestock is constant however, the market price goes down due to blockage of the marketing in this pandemic which results unsecured income status of the community.
- Local resource utilization- There is an urgent call on maximum utilization of natural resources in our locality specially for those who are migrants, daily wage earners and those who do not have any land, pond or other income generating assets. This in-turn can make a possible way secured income generation for the migrants. On the other hand, there is an urgency of proper knowledge on different types of technology and skills which in-turn generates income in the community.

N. Future Plans:

With the spread of COVID-19 in India, massive consequences to livelihoods and health are feared. Given the precarious livelihoods of semi to ultra-poor families, agriculture, fishery, livestock, food security, and secured income responses are urgently required. Introduction of COVID-19 Pandemic GDP of this nation goes downward day by day. In addition to this, the economic condition will remain unstable for long time. Therefore, financial support is urgently required in order to mitigate short term as well as long term challenges. Prasari needs some financial support in the following segments to achieve the anticipated plans for next 3 years.

• Plans regarding reverse migrants: There are about 3-4 million seasonal migrants from West Bengal works in India. During this Pandemic most of the migrants went back to their native place however, they have already faced a serious problem for daily or monthly basis income. They are unable to find

out alternative income generating source. They should be given both cash transfer and food security. Based on the community-based situation analysis they can be proposed to go for modern rearing techniques. They can be promoted for chick rearing, goat rearing techniques in large scale. Therefore, they can have a secured income in a range of INR 70000- 100000 per annum in next 3 years. There is also another alternative plan for those migrants who have only 2-3 katha land. They can be promoted for, kitchen garden or nutrition garden, sac cultivation, off season vegetable cultivation such as, tomato, capsicum, chili etc.

- Plans regarding Agriculture: COVID-19 is disrupting some activities in agriculture and supply chain. The harvesting activities are interrupted by the non-availability of migrant labour. The supply chain is also disrupted by transportation issues. Prices have declined for cereals, pulses, vegetables and other crops. However, the consumers are to pay more than normal market price. Therefore, Prasari will take some effective measures or plans to keep the security of agriculture for marginal and ultra-poor farmers. In order to this, those farmers category can be introduced with new technologies viz. modern land shaping techniques (Five square model, High ridge deep furrow technique, Low ridge low furrow technique), intercrop culture (more than one crop in a single unit field) method, organic farming techniques, cash crop cultivation (sunflower, soybean etc.). All these plans will be executed through different groups such as, Women Livelihood Committee (WLC), Self Help Group (SHG) and more on. In addition to this, the farmers will also be provided proper training through e-platform. App based audio-visual training will also be provided to the farmers regarding new agri-technologies.
- Plans regarding Fishery: The outbreak of COVID-19 and the resultant total lockdown has generally affected the livelihoods of fishing communities. Quick and effective intervention is very much required to minimize the disruptive effect of livelihoods especially on market chain, storage and food system. However, fishery can be a cash generating unit for poor and vulnerable families in the rural areas. In Sundarbans Delta, having a small pond ranging from 1-10 katha in a single household is a common scenario. And about 90-95% of the households cultivate fish for their daily uses. However, production of fish is not up-to the mark because of little knowledge on technological aspect. In addition to this, market linkage is also a bound factor in Sundarbans Delta. Therefore, Prasari wants to use these factors as a cash generating unit. Our organization wants to introduce aquaculture blower, bio-flop as a technology driven fish culture for the marginal and ultra-poor families. In addition to this, the community will also be introduced with hatchery system for quality seed production. Farmer's producer organization will also be deployed in the community to ensure income from a single pond for each household.

OUR PARTNERS

Sl	Name of the Partner	Thematic Areas	Programme
1.	Azim Premji Foundation	Water Security	Safe and sustainable domestic water security for the villagers in Dooars, and Gorubathan, West Bengal & Humanitarian Relief
2.	State MGNREGA Cell, Panchayat & Rural Development Department	Water Security and Livelihood	Across all operational districts
3.	Arghyam & BRLF	Water Security	Efficiency through Digital Tool
4.	Office of the Assistant Director of Agriculture	Income security	Agriculture support services
5.	OAK Foundation and THE TRAIDCRAFT EXCHANGE	Food Security	Humanitarian Relief
6	Bharat Rural Livelihood Foundation & ACWADAM	Income & Water Security	Promoting sustainable livelihoods and wellbeing of households living in four blocks of Jalpaiguri district and one block of North 24 Parganas – West Bengal & Humanitarian Relief
7	Welthungerhilfe & BMZ	Ensuring convergence & income security	Promoting sustainable livelihoods and wellbeing of households living in nineteen blocks of Sundarbans Development Board – West Bengal & Humanitarian Relief
8	Office of the Assistant Director of Agriculture	Income Security	Promoting sustainable livelihoods and wellbeing of households in four blocks of Jalpaiguri and two blocks of South 24 Parganas and North 24 Parganas
9	Animal Resource Development Department – Matiali & Nagrakata Block	Income Security	Promoting sustainable livelihoods and well-being of households living in four blocks of Jalpaiguri district and one Block of North 24 Parganas – West Bengal
10	India-UK Water Centre, Indian Institute of Tropical Meteorology, National Institute of Hydrology & British Geological Survey	Participatory Ground Water Management	Participatory assessment of water sources, aquifers & identification of appropriate recharge techniques
11.	Water Resource Investigation Development Department & State Water Investigation Directorate	Water Security & Income Security	In Darjeeling District of GTA (Gorkhaland Territorial Administration) & North 24 Parganas District of SDB (Sundarbans Development Board)

Audit Report

M/S. HIMADRI PRADHAN &CO.

Chartered Accountants

Contact: Office 03216-246588 / Mob: 9836086862, 9330863692 E-mail:himadripradhan@hotmail.com/himadrica@rediffmail.com/mshimadrico@gmail.com

Ref. No		D	ate
Rajari	hat PRASARI		
62/2, Baishnabghata, 2nd Floor, Flat	No. 2B, Patuli, Bagi	hajatin, Kolkata - 700086	
Balance sheet	as on 31st March 2	021	
Particulars	Schedule	Amount (Rs.)	Amount (Rs.)
Assets			
Current Assets			
Cash in Hand			
Cash at Bank with in hand	1	91,72,145	
Other current assets	2	3,060	
Advance	8	1.48,205	
Total current Asset			\$3,23,410
Long term assets	1 1		
Not fixed assets	3	10,20,569	
Deposit	4	1.01,450	
Total long term assets			11,22,019
Total Asset	A		1,04,45,428
Liabilities			
General fund		00494004754	
Balance as per last A/C		14,10,842	
Add:- Surplus		68.19.576	82,30,418
Current liabilities			
Loan from individual	5	1,32,318	
Other current liabilities	6	3.53,217	
Total Current liabilities			4,85,535
Long term liabilities			
Indian Grameen Serviecs		1,29,474	
Total Long term liabilities		M02Bob.C	1,29,474
Restricted Advance grant			
Restricted Advance grant (FORD Foundation)		15,00,000	
Total Restricted Advance grant (IHCAP)		1,00,000	
Total Restricted Advance grant			16,00,000
	Contraction Martin		1.04.45.428

Date: 26/11/2021

Place : Kolkata

M/S Himadri Pradhan & Co

ICAI M/N - 062158 FRN - 325449E



Head Office: Vill & P. O.: Ghoshpur (Itkhola), Via : Maslandapur, Dist : 24 Pgs (N) City Office : 8/1 K.C.C. Mitra Street, Belgharia, Kol – 700 056

M/S. HIMADRI PRADHAN &CO.

Chartered Accountants

Contact: Office 03216-246588 / Mob: 9836086862, 9330863692 E-mail:himadripradhan@hotmail.com/himadrica@rediffmail.com/ mshimadrico@gmail.com

Noi. No	Relethet PRASARI		
62/2, Baishnabghata, 2nd Floor	, Flat No. 28, Patuli, Baghaj	atin, Kolkata - 700088	
Particulars	Schedule	Amount (Rs.)	Amount (Rs.)
ALC: INC.			
ncome from Grant			
Grant received from Ford foundation			34,95,9
Grant sponished from Traidcraft			35,16,11
Send received from Bally Capital Ecundation			3.00.0
aren received nom Anyy Genand Pouroesen			11.56.7
arant received from Welthungerhilfe	1 1		1,000,00
Srant received from Axim Premji Philanthropic Initiatives APPI 1		77 77 790	
Grant received from APPI (Top up)	1 1	22,13,100	
Grant received from APPI (Relief Covid 19)		40,00,000	
Grant received from APPI (Relief - Amphan)		18,91,744	81,04,8
Grant received from Bharat Rural Livelihood Foundation:			
Grant received from Bharat Rural Livelihood Foundation (Relief phase I+II)		9,35,419	
Crant received from BRI E (FDIT)		23,22,993	
Spent received from 021 E () well-profil	1 1	2284630	
Start received from CPLF (UNIT)		4.85.000	60.29.0
State received intern linkur (Civil)	1 1		9 37 2
Receive from Consultancy MBMA			24.7
Received from BYERS		-	21,71
Received from TRAIDCRAFT SERVICE			2,36,8
Received from IUKWC			3,20,40
Received from WRIDD			52,79,83
Received Donation	-		55,70
Refund from Programme			2,41,50
	1 1		
Problem of Advances would (BDI F Evelboard)	1 1	3.00.000	
Reserced Advance grant (DRLP INNIHOOD)		44.00.000	47.00.00
Restricted Advance grant (APP1)	1 1		
Bank Interest			3,14,44
Total Income			3,47,10,38
Expenses			
Contract Environment			7,95,45
Herser all Experises		-	1005000
ORD Foundation:		47 68 703	
Programme Expenses		17,00,703	27.60.00
Administrative Expenses		9.92.204	27,00,00
fraidcraft :		10 million and	1000
Programme Expenses		35, 16, 110	35,16,11
tally Gandhi Foundation :			
bostanna Feransa		3,00,200	3,00,20
Togramme Expenses			
Jharat Poural Cryenhood Poundation:			
rogramme Expenses			
Veithungerhilfe:	1 1	0.07.000	
ngramme Expenses		6,17,900	
Idministrative Expenses	1 1	74,079	6,92,0
zim Premji Philanthropic Initiatives:			
(Ten un)		1,81,335	
(DD) (Dated Could 10)	1 1	39,99,999	
DD Delef American	1 1	18,30,960	
A-A-J Ósenins - Muthumh	1 1	37 09 195	97.21.49
Auu (Anmer Lipleci)		- CLARKER .	
Iharat Rural Livelihood Foundation (BRLF):		0.05.440	
RLF (Relief phase I+II)	1 1	9,30,419	
RLF (EDIT)		13,75,873	
RLF (Livelhood)		26,05,140	2010-02
RLF (UM)		4,60,400	53,76,83
Expenses of WRIDD	1 1		40,52,11
and the second second second second second	1 1		28214
and transfer to BRLP(Spring to Livelinood project)			2,74,98,91
I dat Expenses			72.11.43
Net operating surplus (Before Depreciation)			3.01.00
			2,91,00
ess : Depreciation			1

Head Office: Vill & P. O.: Ghoshpur (Itkhola), Via : Maslandapur, Dist 24 Pgs (N) City Office : 8/1 K.C.C. Mitra Street, Belgharia, Kol – 700 056

C.O. Kikata

M/S. HIMADRI PRADHAN &CO.

Chartered Accountants

Contact: Office 03216-246588 / Mob: 9836086862, 9330863692 E-mail:himadripradhan@hotmail.com/himadrica@rediffmail.com/mshimadrico@gmail.com

Ref. No	ninthat PRASADI	L	Jale		
Rajartial Processo 62/7, Baishnabghata, 2nd Floor, Flat No. 28, Patuli, Baghajatin, Kolkata – 700086 Descript Research Account for the Year ended 31st March 2021					
Receptor dynam Ac	Schedule	Amount (Rs.)	Amount (Rs.)		
Particulars					
Generation Opening cash and Bank balance			75,36,793		
Sund supplied from Early foundation			34,95,911		
Grant received from Traidcraft			35,16,110		
Grant received from Raily Gandhi Foundation		_	3,00,000		
Grant received from Malifurgerhilfe	1 1		11,56,78		
Grant received from Arim Premii Philanthropic Initiatives APPI :					
Grant received from APPI (Ton un)		22,13,100			
Grant received from APPI (Relief Covid 19)	1 1	40,00,000			
Grant received from APPI (Relief - Amphan)	- L - L	18,91,744	81,04,84		
Grant received from Physical Rural Livelihood Foundation:	1 1				
Grant received from Bharat Byral Livelihood Foundation (Relief phase I+II)	- E	9,35,419			
Grant received from 801 E (EDIT)		23,22,993			
Grant received from DRLE (Lonithon)		2284630			
Grant received from BRLE (UM)	1 1	4.86,000	60,29,04		
Gran Hooved Intel Grac (GM)	1 1		9,37,20		
Descrive non DVEDS			21,77		
Received from TRAIDCRAFT SERVICE			2,35,604		
Received from INVAC			3,20,42		
Received from IURI/PD	1 1		52,79,838		
Received from WHOD	1 1		55,70		
Received Lionalism	1 1		2,41,50		
	1 1		61,00		
Recovery of Stan Loan	1 1		10,000		
Recovery of Unitiel Advance	1 1		3,14,424		
Bank Interest			3,76,18,148		
Total					
Fayment	7		9,30,49		
General Expenses		1001003978/			
PORD Foundation:	1 1	20,23,840	20.00		
Administrative Expension		9,92,204	20,10,04		
Telderall :	1 1		75 45 45		
Province Exception	1 1		35,10,11		
Programme Experiment	1 1		3 00 00		
Rapy Gandhi Polanoshon .			3,00,20		
Programme Coperation	· I · · · I				
Brianat Runa Experience	1 1				
Programma capacitari					
Programme Experime		6,67,136	7.41.85		
Administrative Excentee	1 1	74.9/2			
Avin Premi Philanthropic Initiatives:		1.01.010			
ADDI (Top un)	1 1	1,81,335			
APPI (Relief Covid 19)	1 1	39,99,999			
ADDI (Reint - Amohan)	1 1	18,30,960	97 93 29		
ADDI (Muter Project)	1 1	37.69.169			
Rharat Rural Livelihood Foundation(BRLF):		0.95 410			
BRLF (Relief phase I+II)		9,35,419			
BRI F (EDIT)		10,07,023			
BRI F (Livelbood)		20,00,140	58 08 78		
RELE (IM)	1 1	4.00.00	40.52.11		
Expenses of WRIDO	1 1		100-201		
Fund return to BRLF(from Spring shed project)			2,82,14		
Qub Total		an and the	2,84,46,00		
Closing balance cash at bank			ALT PLACE 176 18 14		
			ALL ALLAND ALLAND		

Head Office: Vill & P. O.: Ghoshpur (Itkhola), Via : Maslandapur, Dist 24 Pgs (N) City Office : 8/1 K.C.C. Mitra Street, Belgharia, Kol – 700 056

H.O. Stor



ANNUAL REPORT

PRASARI, 2020-21



Rajarhat PRASARI 662/2 Baishnabghata 2nd Floor, Flat No. 2B Patuli, Bhagajatin Kolkata 700086

