



Gift A Life
To The Water Starved
Families in India



Indo-Global
Social Service Society

Project Summary

Country	India
State	Odisha
District	Kalahandi
Block	Karlamunda
Villages	11 villages (Bijapati, Jogipala, Karnikhunti, Siletpada, Terchapala, Sisakhola, Agadhpur, Batikupa, Padgudipadar, Jamunapur, Kernapala)
Reaching out to	1000 Families
Project Interventions	<ul style="list-style-type: none">- Building Water Harvesting Structures- Renovating Ponds and Wells- Plantation- Formation of Water Management Groups- Livestock Distribution
Project Brief	<p>Erratic rainfall, long dry spell, severe water-crisis has made life full of distress and despair for 1000 poor families in Kalahandi. Hunger, malnutrition, crop failure is forcing people to migrate. The project will help to revive defunct traditional water harvesting structures & build new ones ensuring year round availability of water for drinking, household use, irrigation. It will lead to good health, more income, good yield to farmers, ground water recharge & hope for a good LIFE for kids.</p>
Proposed and	Indo-Global Social Service Society

Problem

Odisha has been witnessing drought very frequently in the past decades. Kalahandifall under the western part of Odisha popularly known as Tatlagarh (Hot Zone) due to its high temperature ranging from 42-48 degrees and long dry spells during day time. The rain fall patterns have changed with too little or too much rain in limited intervals.

This slow onset disaster has cumulatively built up and the rain deficit has created severe water crisis. Because of the rising temperatures surface water sources have dried up. Ground water level is falling rapidly because of the over use of tube wells.



ried Water Bodies in Villages

Rain Fed Agriculture is the primary livelihood for most part in these villages supplemented by the collection of Natural Timber Forest Produce(NTFP) and wage labour. Crop damage and loss, inability to preserve seeds, compensation inadequate and slow in coming has led to extreme distress in the area. High diurnal temperatures have also affected availability of NTFP. Substantial number of farmers have been induced to take up cash crops (mainly cotton) increasing their indebtedness. Loss of their crop has also sharply impacted their market dependency. Families have been forced to sell their livestock and migrate elsewhere in search of sustenance. This has most hit the poor families whose subsistence and livelihood dependent on water.

Every village has at least one traditional water body. Since time immemorial, the traditional water bodies have conserved rainwater to meet the water needs of the people, to recharge the groundwater and to provide irrigation to the crops. The traditional water conservation mechanism has been declining rapidly over the years due to the compulsions of the developing society like the changing land usage and modern agricultural practices. However indiscriminate use of water, lack of

maintenance has in most cases has caused the water to dry up and led to its disuse. Slowly over time, the community has even forgotten its existence. Community has on their own efforts tried to renovate defunct well and



tube well for temporary use. The handful of families having resources tries to save their crops by irrigating their land from nearby water sources if water is available. But these are at best temporary coping mechanism. There is very low level of knowledge on drought mitigation in these villages. And recently these multiple issues including extreme weather have cumulatively resulted in extreme water distress in the area.

The distress is causing mass migration, crop failures, death of livestock, malnutrition and ensuing loss of livelihood.

The women folk have to bear the burden of collecting water from a distant place for their domestic as well as drinking purpose. Able person especially the young migrate to other states in search of livelihood as opportunities for alternative employment is practically nil. Untimely rain increases



disease and insects which is another cause of crop failure. Domestic and other animals face severe problem for drinking. Death and loss of livestock in drought situation causes economic shock to poor family as the livestock are used for agricultural purposes and have direct impact

on crop production. As women mostly take the responsibility of carrying water so it has a direct impact on their health when they have to carry water from a long distance place. The children are not able to continue their education as either they have to migrate with family or help the family in arranging water.

Proposed Interventions

Construction of new Water Harvesting Structures

New water harvesting structures would be built to effectively catch and store rainwater.

Sl.No.	Particular	Unit	Nos.	Unit cost (INR)	Total Amount (INR)
1	Catchment Area length- 60' Breadth- 60' Total = 60' X 60' = 3600'				
2	Mandays for earth work of WHS Length- 60' Breadth- 60' Depth- 10' Total = 60' X 60' X 10' = 36000' = 1019.40 cubic meter	cubic meter	1019.40=1020	86.00	87720
3	Grass pitching at pond yard	Grass pitching	1	10000.00	10000.00
4	Sign board	IEC	1	1000.00	1000.00
5	Feasibility assessment and engineer estimation	study & estimation	1	0.00	0.00
Total					98720.00

Renovation of Existing Water Harvesting Structures

The renovation and deepening would be undertaken to increase the storage capacities which would post monsoon increase availability of clean drinking water for households in these villages.

Sl.No.	Particular	Unit	Nos.	Unit cost	Total Amount
1	Catchment Area length- 60' Breadth- 60' Total = 60' X 60' = 3600'				
2	Mandays for earth work of WHS Length- 60' Breadth- 60' Depth- 10' Total = 60' X 60' X 10' = 36000' = 1019.40 cubic meter	cubic meter	600	86.00	51600
3	Grass pitching at pond yard	Grass pitching	1	10000.00	10000.00
4	Sign board	IEC	1	1000.00	1000.00
5	Feasibility assessment and engineer estimation	study & estimation	1	0.00	0.00
Total					62600.00

Construction of Tube Well Soak Pit

It has been seen that there is a high level of water wastage while fetching water from tube well. It is also depleting ground water. The water

stagnates around the surface making the area very unhygienic conditions. Construction of soak pits in the tube well yard would help conserve the water and recharge ground water. The soak pits would help to recharge ground water levels. Families can initiate vegetable cultivation in the tube well yard as the moisture retention of the land will improve. Communities will also have drinking water for their livestock.

Sl.No.	Material Details	Nos.	Unit Cost (Rs.)	Total (Rs.)
1	Cement ring	3	500.00	1500.00
2	Transportation charges	1	500.00	500.00
3	Mason	1	500.00	500.00
4	Sand	1	200.00	200.00
5	Chips	1	500.00	500.00
6	Bolders	1	300.00	300.00
7	GI wires	5	60.00	300.00
8	bricks	80	5.00	400.00
9	Labour charge	2	200.00	400.00
10	Others MISC	1	400.00	400.00
Total				5000.00

Construction of Earthen Check Dam

Check dam would be built to check the water flow, so that rain water can be either stored or it seeps under the ground. It would also prevent soil erosion.

Sl.No.	Material Details	Unit	Nos.	Unit Cost (Rs.)	Total (Rs.)
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1	Earth work Digging	Cubic meter	200	86.00	17200.00
2	Earth bunding near nala to check water flow	meter	100	30	3000.00
2	Stone	tractor	1	1000.00	1000.00
2	Stone bunding	Meter	100	100.00	10000.00
Total					31200.00

Formation and Training of Community Group

The community groups will be formed to manage and maintain these structures, They will also be trained about the judicious use of water so that they can lead and guide the communities and sustain the interventions.



Dried Well

Proposed Impact

Water Availability

Constructed and renovated water harvesting structures would help in capturing adequate amount of rain water and hence would increase water availability for a long duration period. It would facilitate access of water for drinking and household by storing rain water for a longer period of time. They would also benefit the domestic animals.

Impact on Soil Moisture

Due to construction and renovation of water harvesting structures and soak pit in tube well yard in the project villages would have increased soil moisture. Ground water would also get recharged.

Increased Earnings (farm and non-farm) and Reduced Migration

With the increased water availability the farmers would cultivate double crop (kharif and winter). Few farmers may also undertake pisciculture and duck rearing. Increased water availability would help farmers to irrigate more land for cultivation.

Landless families would be able to cultivate pond yard farming such as arhar, mango, drumstick and other vegetables. There is the potential to develop vegetable garden by few landless families in the land near to the soak pit. These would augment their earnings and reduce migration.

Decrease in Women's Drudgery and school dropout

The availability of water would reduce the day to day drudgery of women shifting the focus to maintain their health and other productive activities.

Increased income would also ensure that children are able to continue their education.

Sustainable Impact on Community

Although this would be a onetime support with small allocations, the impact on the community is sustainable. Apart from improving their access to water for an extended period, the community's direct involvement and experience would impact community's awareness and knowledge. The support would dispel the myth that water access requires large funds and that it is the responsibility of the government. To an extent, the communities would internalize the need for more such renovations and would initiate local actions for water conservation and management of such structures. The community groups would take forward this process.

The communities own experience would raise their awareness on the need for judicious water usage which includes cropping and livestock planning.

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