



A Study of the Impact of Participatory Groundwater Management in Chuchrumanr Village Palamu District, Jharkhand

Guide:
Dr. Rajiv Ranjan

Presented By:
Ghane Jalindar Maruti



Introduction About the Organization

Introduction About the Organization

- **Vikas Sahyog Kendra (VSK)**- 2000.
- **Mission:** “Enabling the vulnerable & voiceless communities to assert rights and develop their capacity”
- **Vision :** Creation of a society based on justice & free from “poverty “and ‘exploitation’.

Key focus areas:



Livelihood enhancement through sustainable agriculture (Soil health, agronomic practices, water management etc.)



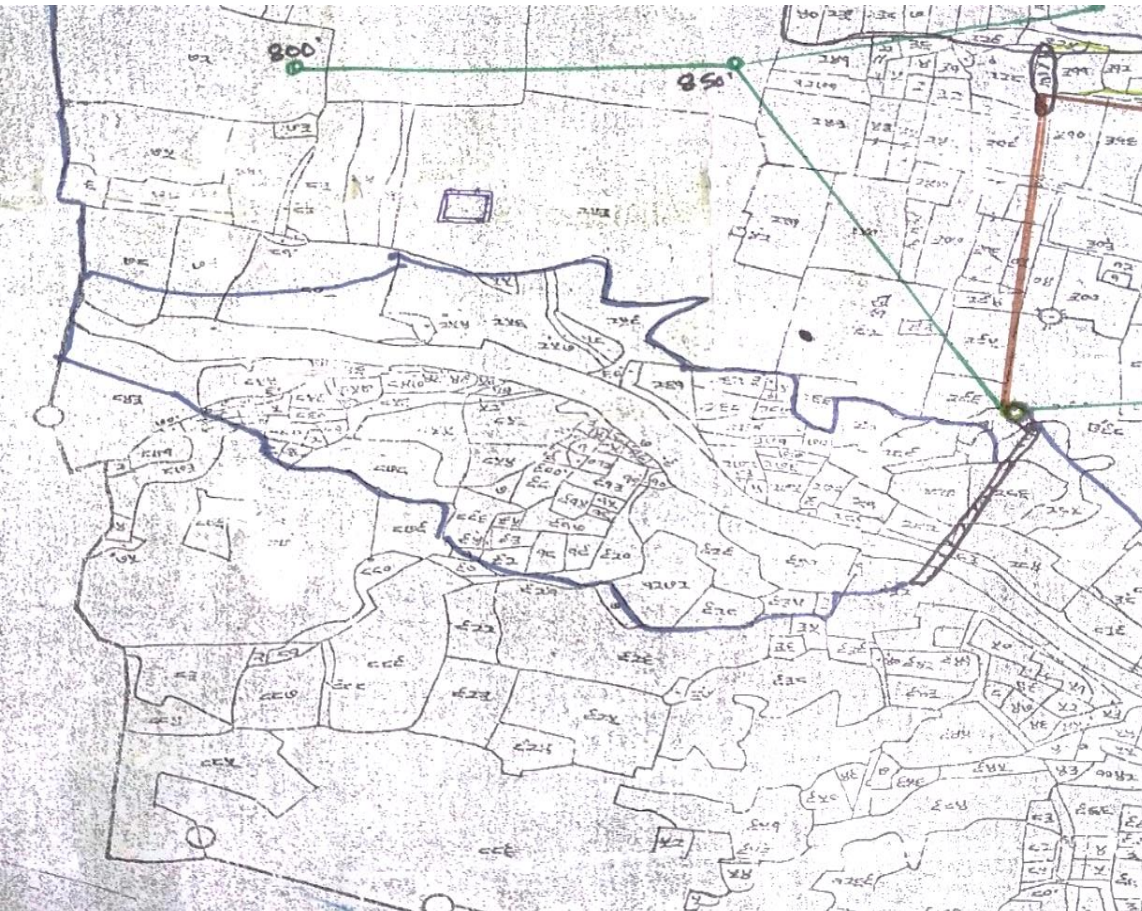
Livelihood enhancement through agriculture allied activities (Fisheries, Livestock)



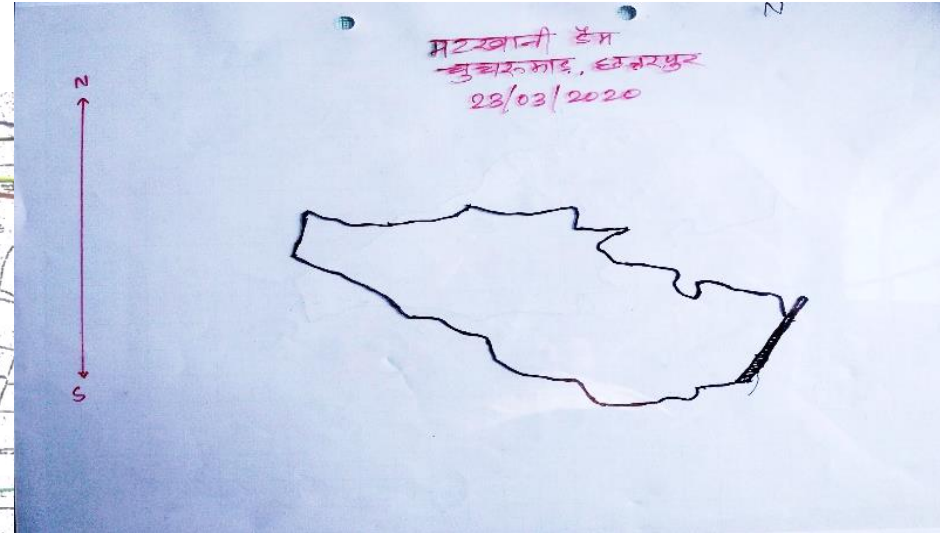
Securing entitlement of various government initiatives through working along with PRIs and CBOs



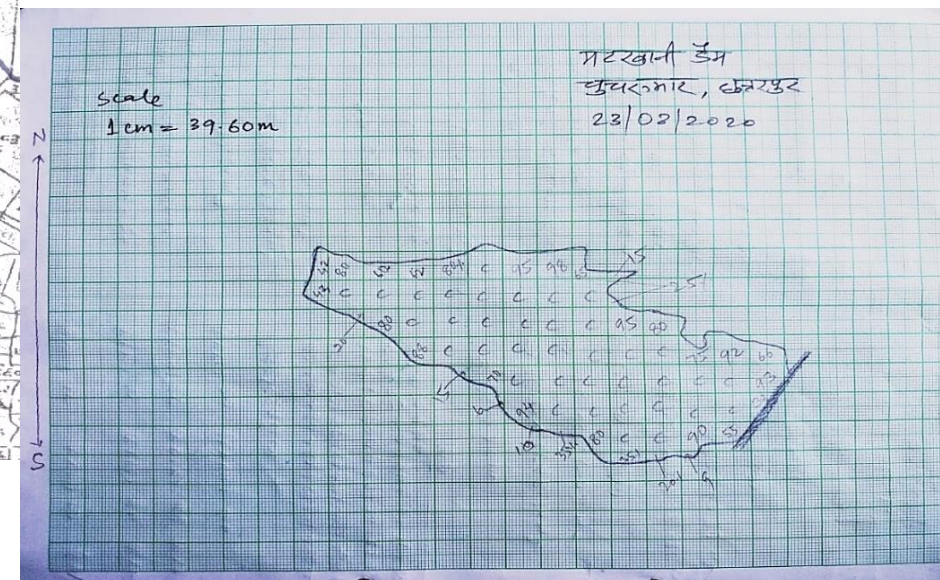
MGNREGA and convergence



Revenue Map Shows the Matkhani Dam



Revenue Map draw into Plastic Sheet Shows the Matkhani Dam



Calculation Total Area of Matkhani Dam in Graph Paper

Above the map showing the total area of Mathkhani Dam. this dam total Catchment aera of 1028.25 Hectares. Including Submergence area in the Mathkhani dam is 9.5 Hectares (22 Acres).

Ground Water Management and methodology

Ground Water Management and methodology

- The current Scenario of Groundwater and Surface Water in the Jharkhand is as follows:
 1. Ground Water Reserve of Jharkhand - 4292 M.C.M.
 2. "Surface Water" - 25876.98 M.C.M;
 3. "Allocation for irrigation required by fields" - 3813.17 M.C.M;
 4. "Industry Requirement" - 4338 M.C.M;
 5. "Urban area requirement of water" - 1616.35 lakh gallons and
 6. "Availability in an urban area" - 734.35 lakh gallons.

Research Question

what is the current scenario of the Groundwater Management and in to promote people's livelihoods in Chuchumanr Village.

Objectives of the study:

The main aim of the study is to examine the perceived impact on the watershed program on the livelihoods of the respondents is mentioned as crucial and important in managing a watershed program.

- To study the demographic profile, socio-economic of the community members.
- To study the participation level of the community in the watershed management process.
- To assess the impact of the watershed and Groundwater Management for the community on their livelihoods.

Methodology:

- **Material and Methods:**

The study based on both primary data and secondary data. The survey method was used for the collection of **primary data** by interviewing the local water user committee (CBO) members, water user groups, farmers, village heads or Sarpanch, youth, women, and farmers.

- **Secondary data** will be collected from various government census, Government organizations, NGOs, Research and Journals, etc.
- **Study Area:** Chuchromanr Village Chhatarpur Block, Palamu District, Jharkhand.
- **Study Design:** This is a qualitative and quantitative study. In this study, there is descriptive research is designed for the collection of the information as well as Case Study methods, In-depth Interview, One to One Interaction.

Watershed Management, Participatory Groundwater Management

➤ Watershed Management

- what is watershed it is basically refers to efficient management a conservation of surface water and as well as groundwater resources. It involves as a prevention of runoff and storage capacity and Recharge of groundwater under the various method for examples: - continuous contour trench, percolations Tanks including stone wall, check, soil Dam, Recharge Wells, etc.
- watershed management involving all conservation, regeneration, efficient use of all natural resources like (land, water, plants and animals) and people or Human beings in a watershed. The success of watershed management and watershed development broadly depending upon community Participation.
- The central government and state government
- IWMP These programmes are being implemented by non-governmental organisation (NGOs) also.
- Haryali is a watershed development project sponsored by the central government which aims at enabling the rural population to conservation water for drinking, irrigation, fisheries and plantation, afforestation

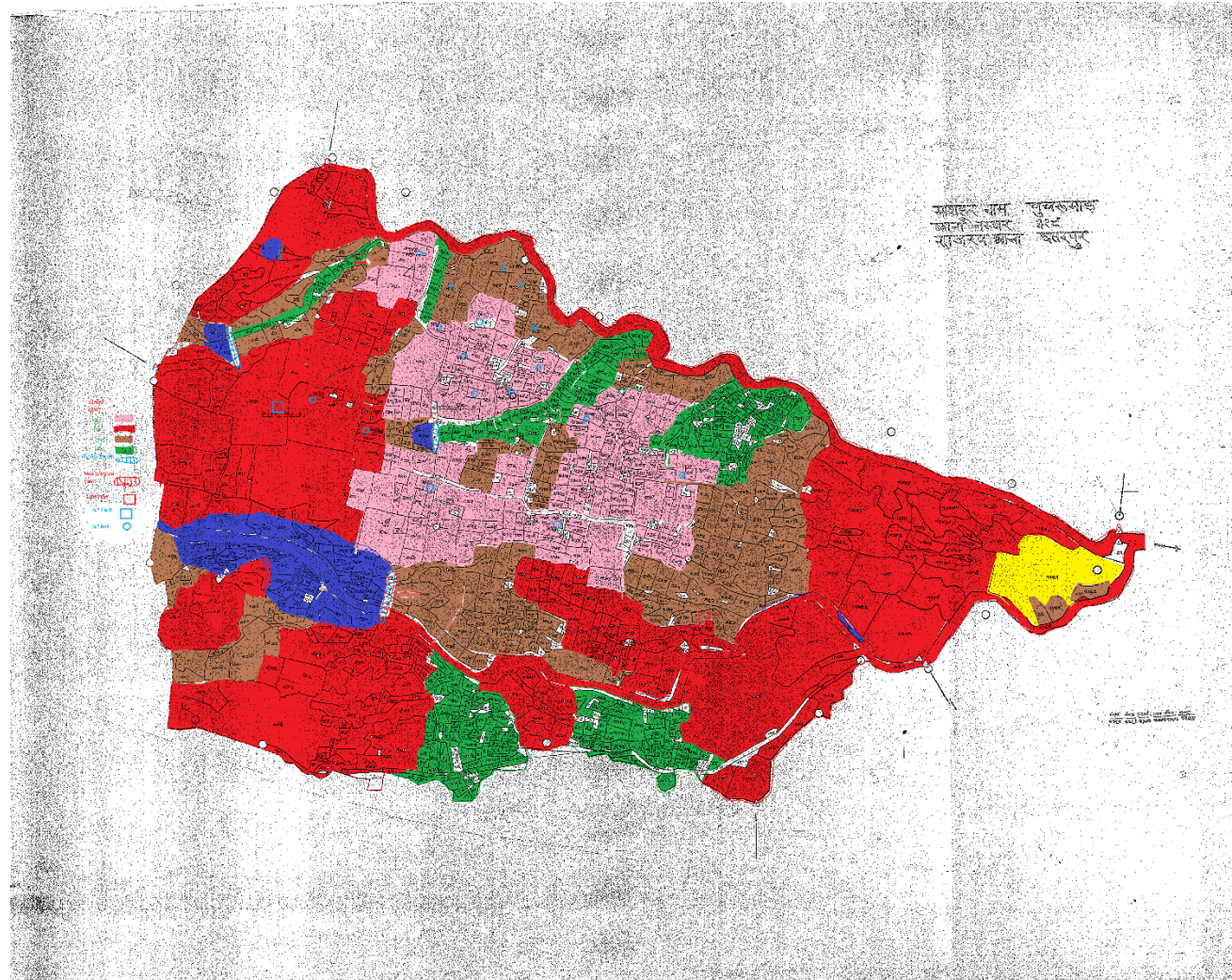
PGWP Participatory Ground Water Management (Chuchrumanr)

Chuchrumanr village is located in Chhatarpur block in Daltanganj Tehsil, and Palamu district, Jharkhand. And convert a total geographical area of 167 hectares. The village is divided into 23 patches. Daltanganj is the nearest town to Chuchrumanr village which is about 15km away from the village.

- **Introduction of Mini Watershed**
- **Introduction**
- **Name of the State -:** Jharkhand
- **Name: of the District -:** Palamu
- **Name of the Block -:** Chhattarpur
- **Name of the Gram Panchayat-:** Hulsam
- **Name of the Project -:** PGWM- Participatory Groundwater Management
- **Longitude -:** 084.22646°
- **Latitude -:** 24.29046°
- **Elevation -:** 296^m
- **Distance from District -:** 45km. from “Palamu” District Headquarter and 21 Kilometer from “Chhattarpur” Block Headquarter
- **Village -:** Chuchrumanr



Details of the land holding Pattern under the Project



Legend

1. Bari



2. Tar



3. Chour



4. Jah

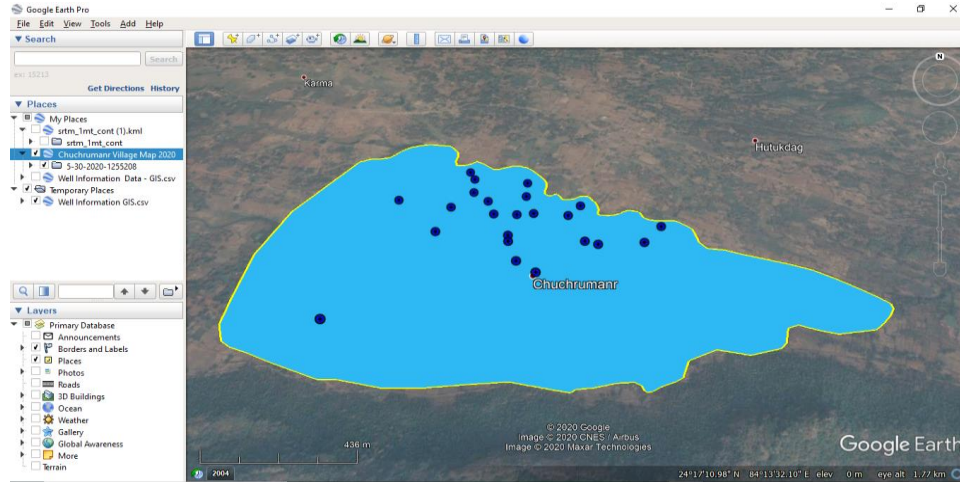


Chuchrumanr Village well Mapping Survey

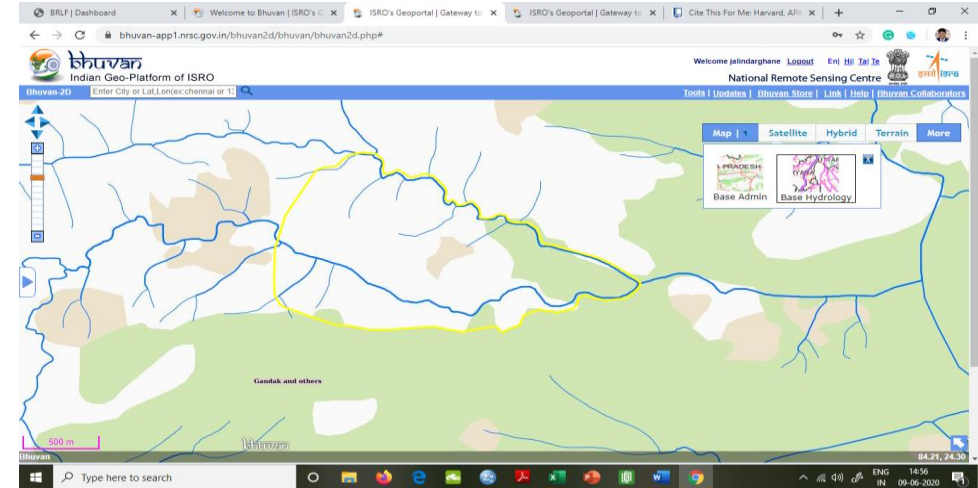


Sr. No.	Name of the well owner	Well No. of the Source	Latitude N	Longitude E	Elev ation (M)	Depth in (M)	Depth in Inch	Water Table in Inch	Water Table in (M)	Diameter (m)	Total Depth (m)	Type of wells	Types of Well (kachha/Pakka)
1	Dhiri Singh	CHU1	24.293207	84.234147	298	7.62	300	72	1.82	3.048	7.62	OW	Pakka
2	Aklu Singh	CHU2	24.291856	84.231943	314	7.97	336	270	6.85	3.048	8.5344	OW	Pakka
3	Harihar Singh	CHU3	24.292394	84.231227	302	7.67	588	306	7.77	2.4384	14.9352	OW	Pakka
4	Basnt Singh	CHU4	24.293359	84.230871	309	7.84	256	148	3.75	3.048	6.5024	OW	Pakka
5	Harender Pasvan	CHU5	24.293668	84.23084	311	7.89	192	108	2.74	3.048	4.8768	OW	Pakka
6	Hrigopal Singh	CHU6	24.295264	84.23351	292	7.41	214	105	2.66	4.572	5.4356	OW	Pakka
7	Syamdev Singh	CHU7	24.294725	84.233042	277	7.03	276	141	3.58	3.048	7.0104	OW	Pakka
8	Suresh Pasvan	CHU8	24.294834	84.231729	288	7.31	208	96	2.43	3.048	5.2832	OW	Pakka
9	Parmeshwer Uranv	CHU9	24.294774	84.231094	303	7.69	243	130	3.30	3.048	6.1722	OW	Pakka
10	Sarju Uranv	CHU10	24.295806	84.231396	302	7.67	270	160	4.06	3.048	6.858	OW	Pakka
11	Bhola Uranv	CHU11	24.294809	84.230212	307	7.79	384	183	4.64	3.048	9.7536	OW	Pakka
12	Brijmohan Uranv	CHU12	24.296835	84.229264	301	7.64	180	95	2.41	4.572	4.572	OW	Pakka
13	Chhathu Uranv	CHU13	24297275	84.229036	303	7.69	264	162	4.11	3.048	6.7056	OW	Pakka
14	Mithu Uranv	CHU14	24.296042	84.229319	306	7.77	288	171	4.34	3.048	7.3152	OW	Pakka
15	Prbhu Uranv	CHU15	24.295188	84.228536	308	7.82	264	120	3.04	4.572	6.7056	OW	Pakka
16	Nageshwar Uranv	CHU16	24.289872	84.225015	315	8.00	252	139	3.53	4.572	6.4008	OW	Pakka
17	Dewbansh Singh	CHU17	24.295592	84.226452	305	7.74	235	180	4.57	3.048	5.969	OW	Pakka
18	Madan Singh	CHU18	24.29413	84.236516	291	7.39	216	120	3.04	3.048	5.4864	OW	Pakka
19	Biraju Uranv	CHU19	24.293861	84.228144	324	8.22	268	156	3.96	3.048	6.8072	OW	Pakka
20	Lakhan Uranv	CHU20	24.295527	84.229928	306	7.77	360	259	6.57	3.048	9.144	OW	Pakka
21	Jwala Uranv	CHU21	24.2966	84.2314	306	7.77	228	120	3.04	4.572	5.7912	OW	Pakka
22	Puran Singh	CHU22	24.293362	84.233666	303	7.69	72	48	1.21	1.0668	1.8288	OW	Kachha
23	Shivnath Singh	CHU23	24.293301	84.235831	297	7.54	216	192	4.87	4.572	5.4864	OW	Kachha

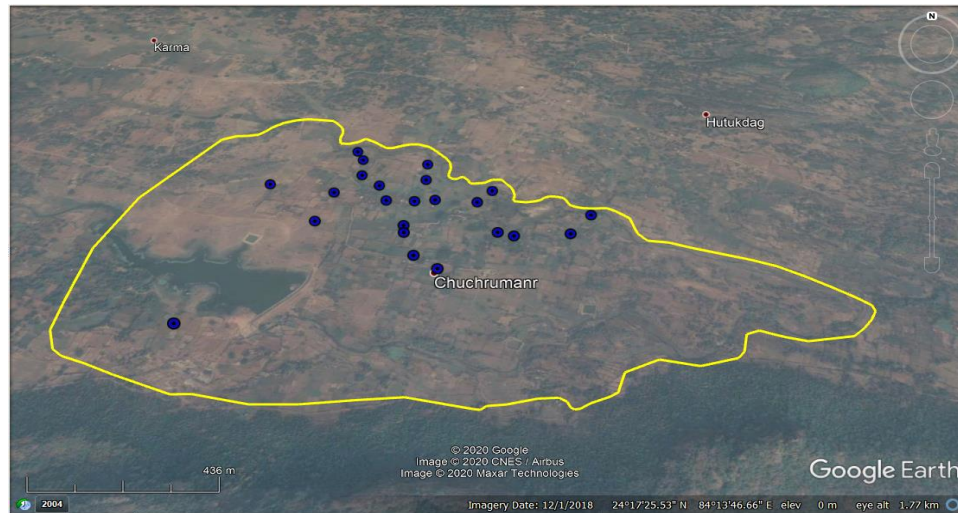
Chuchrumanr Village Polygon Map and Well



Chuchrumanr Village Polygon Map and Well



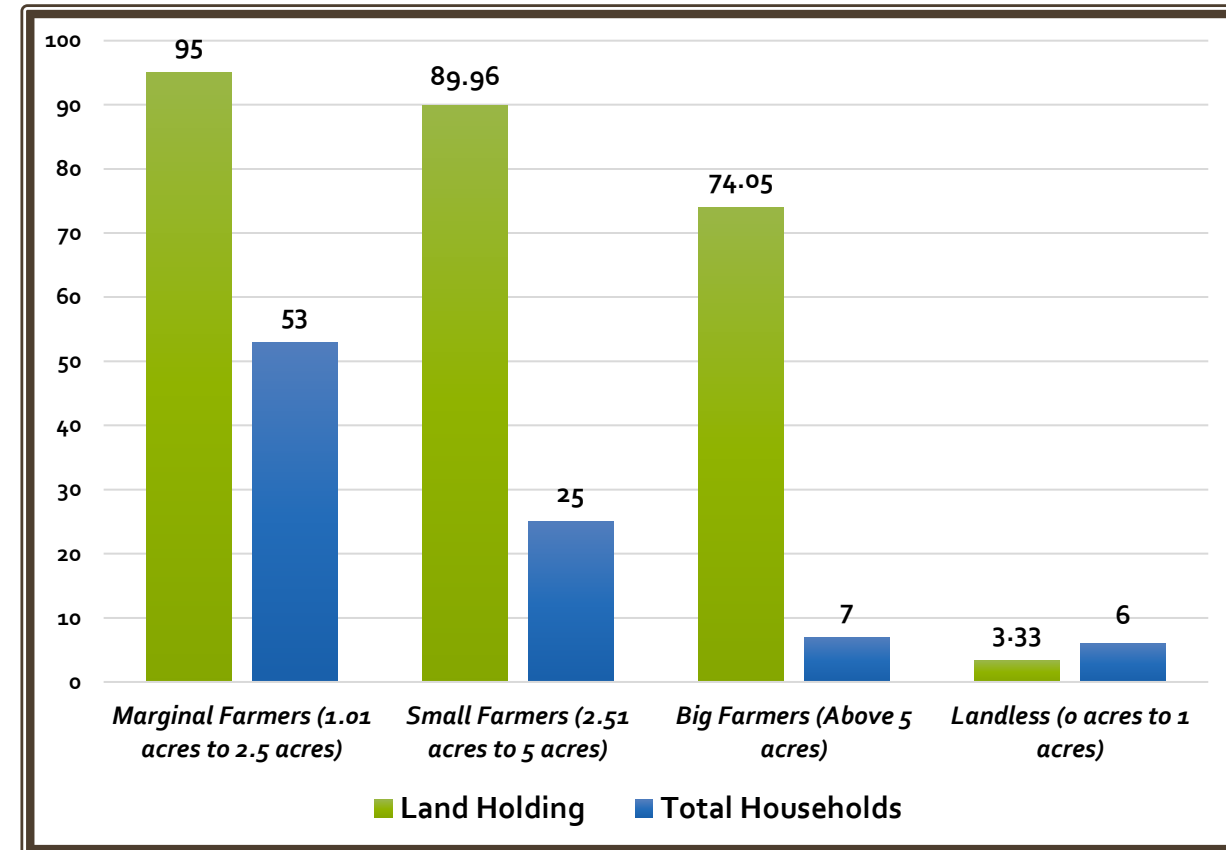
3.8.3 Drainage Map of Chuchrumanr Village



All the above well is Available water
603093.0836 liters

Socio-Economic Status

Sr. No.	Types	Total HHs.	No. of BPL HHs.	Land Holding (Hat.)					
				Rainfed			Irrigated		
				ST	SC	Other	ST	SC	Other
1.	Marginal Farmers (1.01 acres to 2.5 acres)	53	53	51.2	0	0	43.8	0	0
2.	Small Farmers (2.51 acres to 5 acres)	25	25	51.15	0	0	38.81	0	0
3.	Big Farmers (Above 5 acres)	07	07	34.3	0	0	39.75	0	0
4.	Landless (0 acres to 1 acres)	06	06	1.78	0	0	1.55	0	0
	Total	91	91	138	0	0	123.91		0

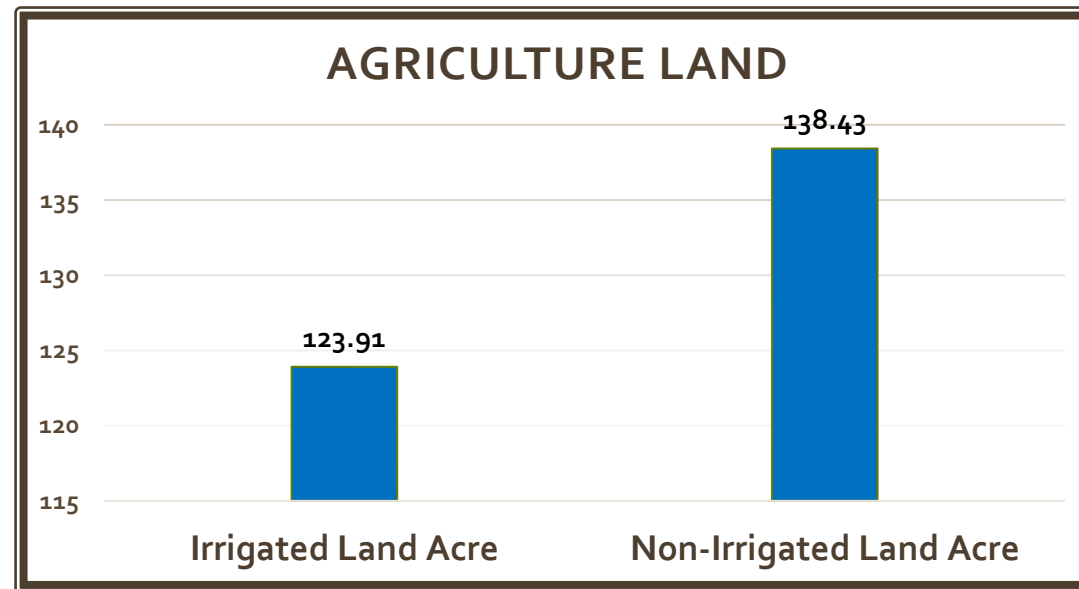


Livestock Details

Sr. No.	Feature	No. Quantity	Water Requirement in liter
1	Milk Animals		
	Cows	28	41
	Buffaloes	5	65
	Goat	63	7
2	Draught Animals		
	OX	124	38
	He Buffalo	0	0
3	Others		
	Poultry (Hens)	160	.250
	Piggery	20	4.5
5	Fodder Availability		
	Green	Scarce	
	Dry	Scarce	

Agriculture

- Agriculture covers about 89.8% area of the village. Out of 149.9 Ha of the net sown area, Not even 1% of the agriculture land is irrigated; More than 99.9% of the land is un-irrigated. The major crops that are cultivated are Maize (*Zea mays*), Paddy (*Oryza sativa*), Mustard (*Brassica*), Chickpea, Horse- gram (*Macrotyloma uniflorum*), Pigeonpea (*Cajanus cajan*) and vegetables.



Problem Topology and Solution of the Watershed as well as Groundwater Management

Sr. No.	Problem Area	Problem Analysis	Proposed Interventions to Overcome Problem
1	Soil Conservation (Slope, Erosion, Soil Losses, Low Rainfall, Low Productivity)	Low Rainfall, Low Productivity, Erosion	Farm Bounding, Plantation, Nala Bunds, SRI Technique in Paddy
2	Water Conservation /Water Harvesting Structures	Low Surface water storage Systems	Pond Renovation, New Pond Construction, Dobha Renovation and Construction, Check Dam etc.
3	Agriculture Productivity	All Crops are Low Productivity with the village	SRI Techniques in Paddy, use NPM methods in vegetable (Kitchen Garden)
4	Livestock Product (Eggs, Milk Yield, Meat Yield)	Not for Selling Purpose only personal uses, No marketing any Product	Improved Practices of Desi Poultry and Goatry
5	Exiting Livelihood activities for Asset less	Piggery, Goatry, Desi Poultry etc.	Improved new Desi Poultry and Goatry
6	Community Based Organisation (CBO)	No one Community Based Organization	Established New SHGs groups, LIG (Lift Irrigation Group), Capacity Building Livelihood Activities
7	Capacity Building (Participation Training Awareness of watershed Specially Groundwater Management)	There is no Advanced Knowledge for Livelihood activity, Accounting Systems and Plantation techniques	All Training will be providing under the Project Implementation Time/Phase

Conclusion and Recommendation

Conclusion

This is the descriptive, qualitative and Quantitative study of the Participatory Ground water management Under the Watershed Development programme this indicates towards the various factors like livestock, Livelihoods, MGNREGA, Drinking water Facilities, Irrigation system, Irrigation Facilities or sources, governance, and adjoining community.

- **Drinking Water Facilities:** These are the basic services of every people and need of the animal, birds as well as living being needed.
- **Livelihood & Livestock:** In Chuchumanr village most of the livelihood depends on Agriculture Activities, cattle, Goatry, piggery, and Poultry. But know the but the current scenario of the agriculture is very low productivity and no one modern techniques use in Paddy and irrigation system for example sprinkler, drip irrigation or PVC pipe
- **Livelihood:** This is the major perspective which is the change the mind set or thinking of the villagers and various communities in Chuchumanr village. Under the MGNREGA act it is the most effective Scheme to provide min 100 day worked in the unskilled labours in the villages. This is the major source of livelihood in rural areas.

Recommendation

- Chuchrumanr village main livelihood is an agriculture and its allied activities so, in agriculture not done without water (Surface water and Groundwater).
- It should be increase milch animal for gain more income. animal husbandry to raising livestock in the village.
- Providing essential services to the household like small and large animal vaccination and Insurance.
- Community should be established solar water system
- It should be provided training programme to water harvesting structure, soil conservation, and new technologies in agriculture.

Participated in Covid-19 a relief programme Paki Block and Manika Block in Laterhar District Working area of the Vikas Sahyog Kendra Organization.



Project Title:	Humanitarian Assistance to the people affected by COVID19/Lock down in North, East, North East and West Region
Partner Name:	Vikas Sahyog Kendra
Funding Partner:	Misereor
Project Location:	State- Jharkhand City-Panki, Daltonganj

Operational Area -: The operational area is spread in Panki block of Palamu district of Jharkhand. In this block, this program was implemented in 5 Panchayats covering 17 villages. The list of villages is provided in the table given below:

Sr. No.	Name of Panchayat	Name of village
1	Ratnpur	Ratanpur
2		Salamdiri
3		Bihra
4		Irgu
5	Sakadipa	Hoiyo
6		Chanwar
7	Madan	Madan
8		Surjawan
9		Navagard
10	Karar	Karar
11		Purosotampur
12	Tal	Auka
13		Khajuri
14		Jobla
15		Matli
16		Abun
17		Bihra



Thank You

