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PROJECT REPORT 2022

Submitted to - ARHANT SOCIAL FOUNDATION

Water Conservation And Village Development Project

Village Choru, Jaipur district, Rajasthan

Implemented by

advit foundation
www.advit.org

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PROJECT ACHIEVEMENT

Village Choru of Phagi block, Jaipur district, Rajasthan, was selected as the project location for the construction of two water structures. Following are the interventions and achievements of the project:

- The water initiative ensures water availability for drinking, sanitation, agriculture and livestock. As the water scenario improved in the region, scope the and the need for other development activities emerged.
- **Benefits:**
  - Developed degraded lands.
  - Overall socio economic development of the poor.
  - Mitigating drought conditions.
  - Employment generation and poverty alleviation.
- **Achievements:**
  - Created water storage capacity of more than 10,000 cubic metre.
  - Improved availability of water led to increase in agriculture and livestock output thereby leading to better income.
  - Created a Water User Group in the village who would maintain the water structures with support from the village governance body, the panchayat.

HOLISTIC APPROACH

IMPACT
- Environmental
- Social
- Economical

Watershed approach to livelihood enhancement

Ensure water availability for:
• Drinking
• Recharging wells

Afforestation/ tree plantation:
Efficient cooking methods (to ensure no firewood is cut)

SUSTAINABILITY

Economic Benefit / Empowerment
Paper bag making, tailoring, spice packaging, access to (RE) energy

Sanitation:
Community toilets

Agriculture/ Livestock:
• Increase in soil moisture • Improved cropping pattern • Increased output

SUSTAINABILITY

Climate Proofing
Increase in humidity could alter water cycle, long term lead to temperature drop

Water Scenario (in villages)

- Is the driest part of the district.
- Is suffering from a disproportionately poor availability of water.
- Population growth rate in the villages is high and the supply however, has remained unchanged.
- Primary source is the scanty and uncertain rainfall, confined to just two months of the year.
- The industries present in the area used lot of ground water for their production with no recharging and conservation measures in place.

……Most areas can be categorized as semi arid, which implies that the area is suffering from recurrent water scarcity.

PROJECT BACKGROUND

Arhant Social Foundation as part of social responsibility partnered with Advit Foundation in 2019 to undertake development work in India. More than 15 villages have been benefitted by the interventions supported by the foundation since the last 3 years. Rainwater recharge of about 50,000 cu metres has been done for drinking, sanitation, agriculture and livestock in the villages. Advit Foundation has been the implementation partner for Arhant.

Advit Foundation has been working towards holistic village development and environmental resource conservation since 2004 in more than 50 villages spread over 5 states and has positively impacted more than 10,000 community members. A rapid appraisal and a baseline visit are conducted by Advit Foundation to identify areas where projects can be implemented.

The partnership with Arhant proposes to cover all villages in Phagi block and make them water positive. This intervention looks at setting up two water structures that will benefit at least neighbouring villages impacting a population of about 15,000 village communities.

This project undertakes water neutrality of villages surrounding Choru in Phagi block of Rajasthan to improve the living conditions of rural communities.

REASONS FOR INTERVENTION

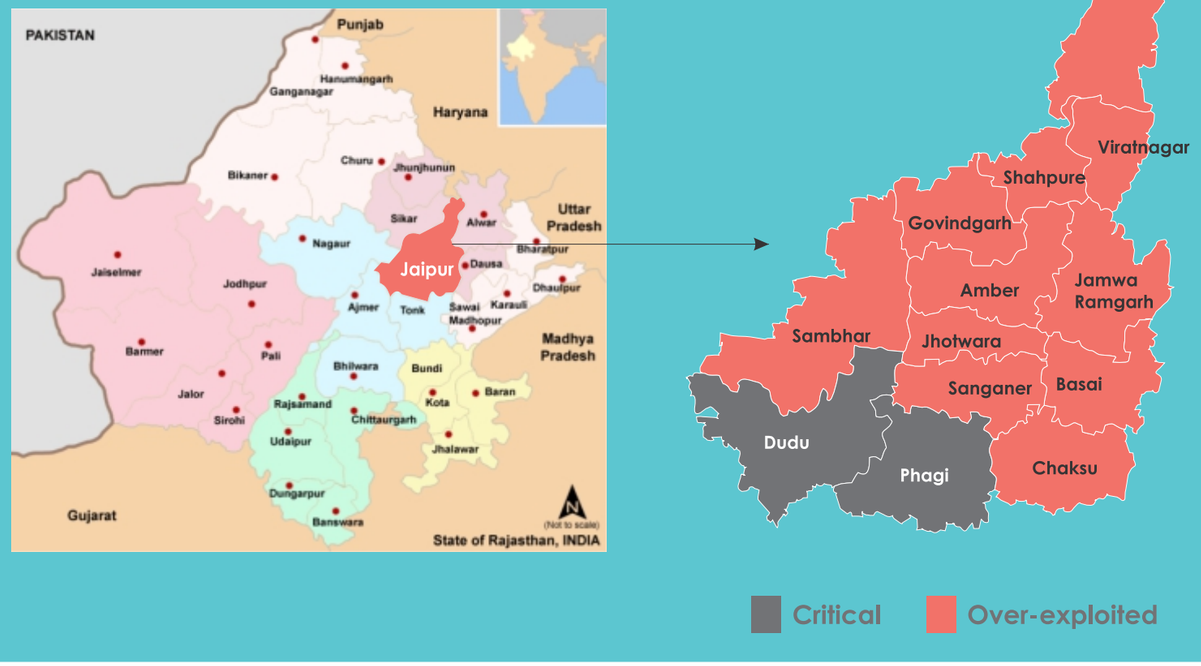
About the Location

The target area of this project is Phagi block, Jaipur District which has been categorized as water critical by the Central Ground Water Board. The ground water is not just inadequate, but the little available water is also highly saline and is high in fluoride leading to health complications. Poor availability of water also affected the agricultural and livestock output thereby directly affecting the livelihood of the people.

The detailed study conducted by Advit Foundation revealed that the entire area including the belt of selected villages is possibly the driest part of the Jaipur district. The area is suffering from a disproportionately poor availability of water, loss of tree cover and very high fluoride content (80%). The situation has worsened over time due to a rapid increase in use-related parameters.

The primary source for groundwater recharge is the scanty and uncertain rainfall, confined to just two months of the year. The area can be categorized as semi-arid, which implies that the area is suffering from recurrent water scarcity. The area receives around 450-500 mm of rainfall annually and is very erratic. However, it was observed that if designed properly and at the right location, rain water harvesting structures could replenish the water table and revive the surrounding wells with clean water.

This initiative was taken up with an objective of enhancing the livelihood of the community at Phagi block by improving the water scenario in the region through rain water harvesting. Availability of water ensures improvement in soil moisture thereby agriculture, water for cattle, wells get recharged thereby making water available for drinking and sanitation purposes; thereby making resources available for daily life.



PROJECT APPROACH

The main objective of the programme has been to :

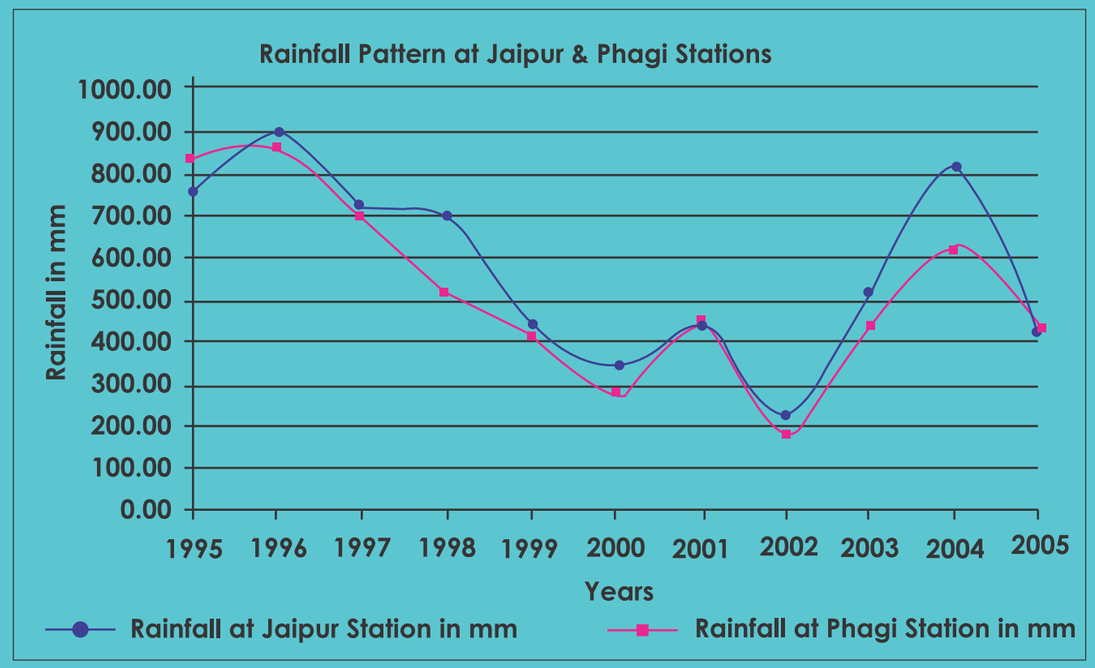
- Identify technologies and management approaches to help achieve sustainable groundwater recharge systems.
- Aggressively promote solutions for sustainable groundwater recharge among the target groups.

A step by step approach has been adopted to assess the situation on ground & develop the design of the project :

- Collection of Data & preparation of maps
  Data need assessment
  Data collection – village/panchayat/block level
  Data analysis
- Resource analysis
- Implementation strategy

Data collection and preparation of maps :

- Detailed Survey designs were developed to collect the village level, factory level and other related information from Government departments, metrological stations, research institutions and NGO's.
- Participatory Resource Appraisal (PRA) exercise was conducted in each project village to ensure the participation of village communities. As a result, detailed PRA maps were developed for each village.
- Individual maps for all the selected villages and topographic maps covering the project area were collected from respective agencies.
- Remote Sensing data and maps were collected from National Remote Sensing Agency (NRSA).
- All the three kinds of maps were superimposed to develop a base map for the project area.
- After detailed analysis of primary and secondary data, the information was plotted on the base map through using GIS techniques to develop the following maps from the project area:
  - Present Land Use Map
  - Current Ground Water Scenario Map, and
  - Watershed Map



RESOURCE ANALYSIS - VILLAGE LEVEL

The Advit field team along with the village panchayat (local governing body) identified the location for intervention. The design of the structures was planned on paper and approved by the panchayat. The size of the structure is as given below with a total water holding capacity of 10,000 cu m.

Size of each structure: 5000 cu m water storage capacity

Digging dimensions: ~ 83 m x 20m x 3m

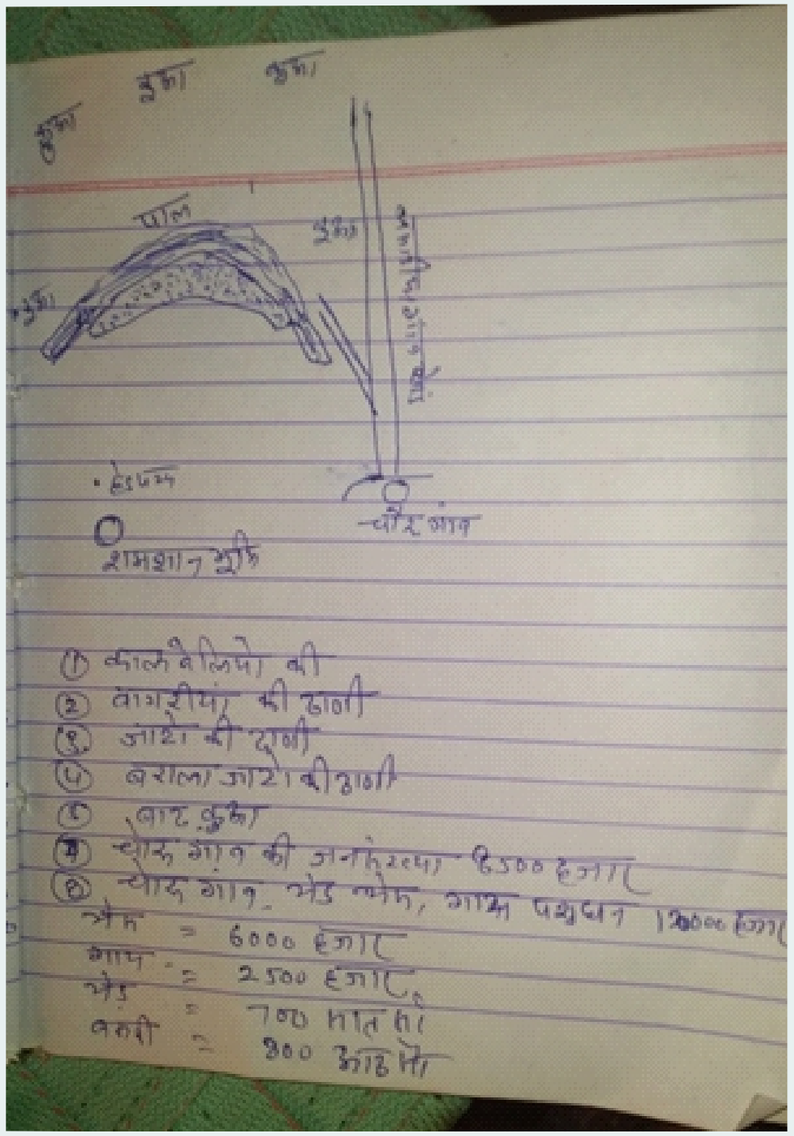
Embankment: width: 3m; length:100m; height:10m

These are earthen water structures called percolation ponds which will allow water to stand in them post rains. This would facilitate recharge of groundwater thereby positively impacting water quantity as well as quantity in the neighbouring wells/ borewells that ensure the supply of safe drinking water. With time it is seen that the soil moisture increases thereby enhancing the overall green cover of the region which then also affects the ambient air temperature thereby it is envisaged that the water cycle in the coming years could get positively impacted if we continue to make such water structures in a given area.

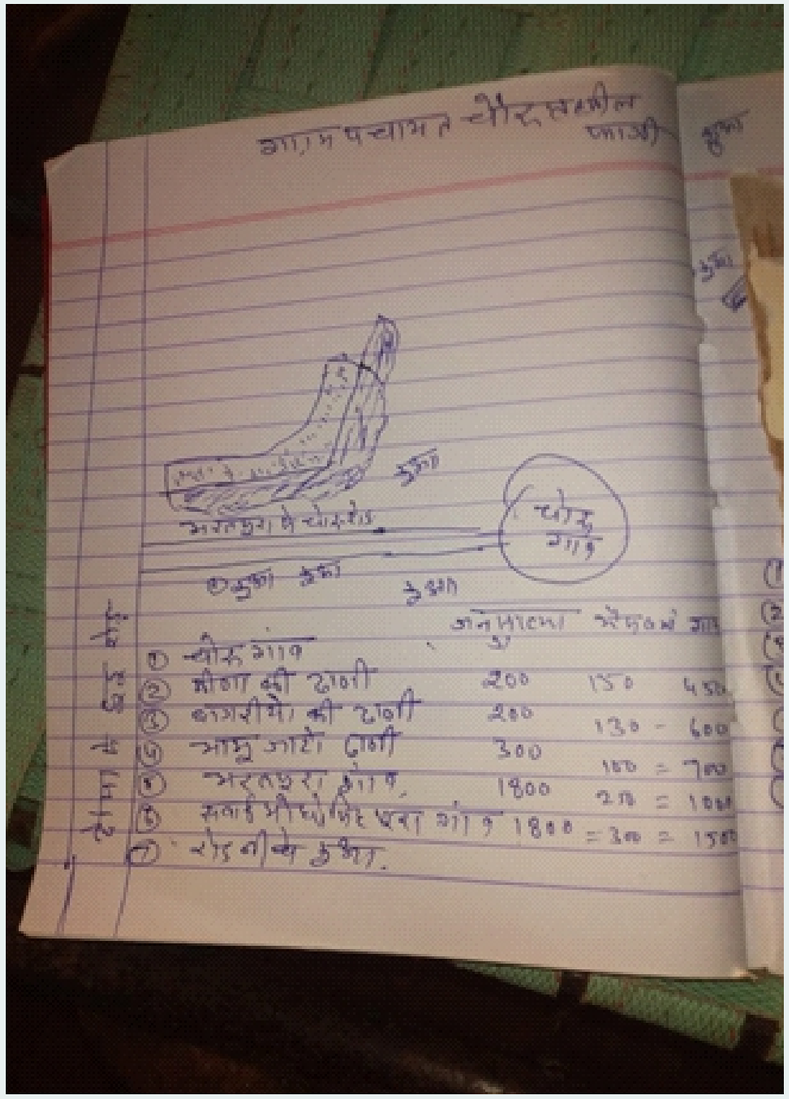
This project is a resource conservation model. Along with water conservation we are also promoting forestation of the area enabling access to water and energy (firewood) for women in the villages for their daily livelihood. This would indirectly ensure that the women will work towards protecting and maintaining these water structures.

The location for the water structures is village Choru. The proposed design is hand-drawn outlining the beneficiary community as well in the below-given images.

SITE 1 PROPOSED DESIGN



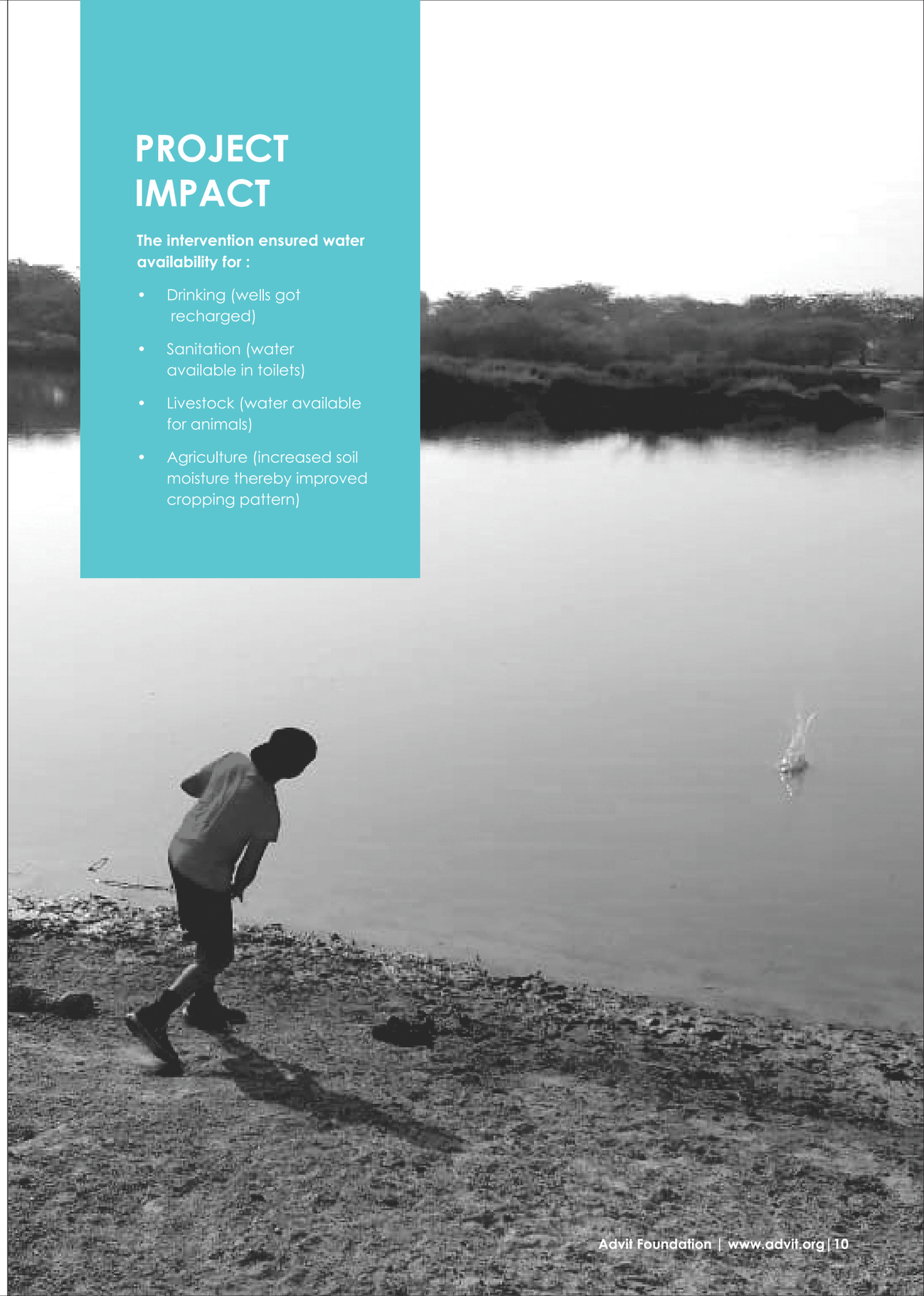
SITE 2 PROPOSED DESIGN



PROJECT IMPACT

The intervention ensured water availability for :

- Drinking (wells got recharged)
- Sanitation (water available in toilets)
- Livestock (water available for animals)
- Agriculture (increased soil moisture thereby improved cropping pattern)



SOCIAL IMPACT

- The water table of the region has improved. There is water for more than 8 months in the villages.
- Thereby the women have to walk lesser to get water.
- There is water for the cattle all through the year now.
- The soil moisture has increased. So the cropping pattern has become twice a year and thereby the income has been enhanced.
- The structures made ensure water is available for agriculture, drinking, sanitation & livestock.

ENVIORNMENTAL IMPACT

- Each structure recharges about 1 km radius land area i.e. about 10 wells.
- Total of more than10,000 cubic metre of water storage capacity has been created through these structures.
- Each structure supports at least 4 nearby villages for water.
- Population in each village is more than 500 therefore, more than 1,000 people are being benefited by each structure.
- There is increase in soil moisture. Thereby there is increase in cropping cycles in a year that was earlier 1 in a year.
- At least 20,000 livestock benefitted with water availability.

Site 1 - Beneficiaries will be as below :

Population that will benefit : ~ 9,500
Livestock benefitted : ~12,000

S.No.	Beneficiary names	Population benefitting	Livestock benefitting	Number of adjoining wells (that could get recharged)
1.	Kal ke liyo ki dhani	~200		
2.	Bagario ki dhani	~200		
3.	Joro ki dhani	~200		
4.	Barala joro ki dhani	~200		
5.	Choru village	8,500	1200	6

Site 2 - Beneficiaries will be as below :

Population that will benefit : 3,000 plus the community in Choru village
Livestock benefitted : ~ 900

S.No.	Beneficiary names	Population benefitting	Livestock benefitting	Number of adjoining wells (that could get recharged)
1.	Choru village	Given above		
2.	Meena ki dhani	200		
3.	Bagario ki dhani	200		
4.	Bhamu jota ki dhani	300		
5.	Bharatpura village	1800	1200	4
6.	Sawai madho singh pura village	1800		

Both the above water structures would directly impact a population of about 15,000. Since at least 2 to 4 more surrounding villages will also benefit from the available water, thereby indirectly more than 15,000 individuals would be benefitted once the water fills in the structures. The total water storage capacity that will be created through these structures would be 10,000 cum.

GLIMPSES OF SITE 1 PRE CONSTRUCTION

GLIMPSES OF SITE 1 COMPLETE CONSTRUCTION

GLIMPSES OF SITE 1 POST RAIN

GLIMPSES OF SITE 2 PRE CONSTRUCTION

GLIMPSES OF SITE 2 COMPLETE CONSTRUCTION

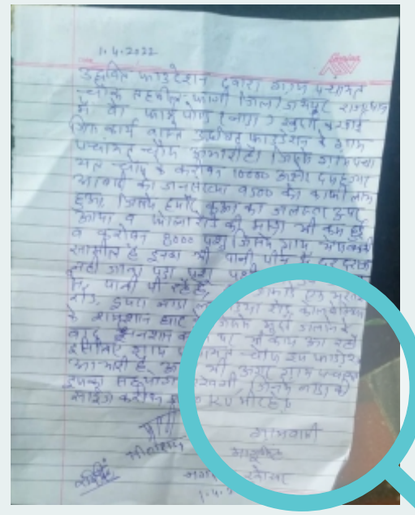
GLIMPSES OF SITE 2 POST RAINS

ANNEXURE I

LETTER OF ACKNOWLEDGEMENT

उदवित फाउंडेशन द्वारा ग्राम पंचायत चौंक तहसील फागी, जिला जयपुर, राजस्थान में वे फार्म पोंडा (नाडा) की खुदाई कराई जिस कार्य वास्ते उदवित फाउंडेशन के ग्राम पंचायत चोरू आभारी है। जिसमें ग्राम पंचायत चोरू के करीब 10,000 (दस हजार) आबादी को जनसंख्या 9500 को काफी लाभ हुआ, जिसमें हमारे कुआ का जलस्तर ऊपर आया व फ्लोराइड की मात्रा भी कम हुई व तकरीबन 8000 जिसमें गाय, भैंस, बकरी शामिल है इनका भी पानी पीने में दूर-दराज नहीं जाना पड़ा। पशु-पक्षी भी अब आराम से पानी पी रहे हैं, एक मुख्य रोड, दूसरा नाडा लापडिया रोड कोल के लियो के श्मशान घाट के जिसमें मुर्दा जलाने के बाद स्नान करने पर भी कार्य आ रहा है, इसलिए ग्राम पंचायत चौप इस फाउंडेशन का आभारी है, आगे भी अगर ग्राम पंचायत इसका सहयोग रखेगी जिनमें नाडा की साइज करीब 5000 मीटर है।

ग्रामवासी
मागू सिंह
जगदीश खोखर



ANNEXURE II

ADVIT FOUNDATION – BRIEF PROFILE

Advit Foundation (www.advit.org) is a not-for-profit development organization, working on Conservation of Environmental Resources and Livelihood Enhancement. Advit Foundation has sought to conserve the environment and empower communities through its Water Centric Design for Life approach where people can manage behaviour and ecosystems to live sustainably.

Our environmental resources are not infinite. Therefore, at Advit Foundation, our endeavour is to explore endless possibilities and solutions for their conservation. Our initiatives focus on water conservation and access to clean energy, overall socio-economic development of the poor, skill up-gradation and entrepreneurship training, and holistic village development. This is achieved by unleashing traditional knowledge, identifying new technology, and setting up improved communication tools to undertake environmental awareness and conservation initiatives.

Advit set up the Solar Information Centre at The National Institute of Solar Energy Gwal Pahari under Ministry of New and Renewable Energy, GoI. We are a training partner with the Skill Council for Green Jobs and NSDC, GoI for Solar Electronics and were a solar training centre with HARTRON. Advit was the state nodal partner managing the Rajiv Gandhi Renewable Energy Park in Gurgaon for Haryana Government from 2009 - 2015.

Advit team closely works on skill up-gradation for climate change adaptation with communities as well as farm-based livelihood organisations. Advit has set up a rural skill training centre, Aarohan, in village Pachala in Phagi block in Jaipur District of Rajasthan where more than 100 women are trained every month. In a country like India where poverty, lack of nutrients, post-harvest losses, and gender inequality still prevail in the agricultural sector, it is important to address the issues with a promising approach and technology to create an economically aligned community. Advit operates through the following programme areas.

CONSERVATION

The water conservation initiative ensures water availability for drinking, sanitation, agriculture and livestock. As the water scenario improves in the region, the scope and the need for other development activities emerge. The success indicators measured are developed degraded lands, overall socio-economic development of the poor, mitigating drought conditions, employment generation and poverty alleviation.

EMPOWERMENT

The programme is a strategic intervention to address some of the key issues in India's renewable energy development plans which stress upon promotion of the use of renewable energy/ clean energy and the development of associated service delivery mechanisms in the country. The program will enable a strong, diverse, and well-trained solar workforce. This program ensures that solar instructors are well connected to solar employers, and vocational and engineering students are trained to help increase solar adoption and improve solar installation.

LIVELIHOOD ENHANCEMENT

New skills are introduced and existing ones are upgraded among the community. Advit team closely works on skill up-gradation for climate change adaptation with communities as well as farm-based livelihood organisations. In a country like India where poverty, lack of nutrients, post-harvest losses, and gender inequality still prevails in the agricultural sector, it is important to address the issues with a promising approach and technology to create an economically aligned community. Advit's rural skill upgradation centre, Aarohan, is located in village Pachala in Phagi block of Jaipur district in Rajasthan.

ENVIRONMENT AWARENESS

The initiative undertakes environment awareness, action, and health and safety programmes among school children, community members, and industrial shop floor workers. The efforts are to guide how the ecological systems function, and particularly, how human beings can manage behavior and ecosystems to live sustainably. The programme also designs and undertakes planning and impact assessment of development projects.

A FEW GLIMPSES OF THE ORGANIZATION'S WORK

- Design and construction of micro watersheds/ water conservation models. Have undertaken more than 20 water conservation structures in more than 30 villages in Phagi, Mandore, Rothwara, Dudu blocks in Rajasthan and Amravati (Maharashtra), Medak (Telengana), Kolar (Karnataka).
- Undertaking Solar Electrical Training with certification from NSDC and Green Council for Skill Jobs. Trained more than 5000 candidates since 2013.
- Set-up Aarohan – A rural self-employment training centre, at village Pachala in Phagi, Rajasthan in 2016.
- Electrified more than 2500 households in the rural parts of Rajasthan and Haryana using solar home lighting systems.
- Undertaking Safe Chemical Handling training for apparel, metal, leather, and accessories workers all over India.
- Implemented Occupational health and safety training for 25 Carpet weaving industries in Panipat, Haryana.
- Initiated an environmental education and school up-gradation programme - Prakriti Eco-School programme in Gurgaon.
- Undertaken solar electrification of forest guard cabins at Pench and Bandhavgarh forest reserves in Madhya Pradesh.
- Undertook revival of handloom clusters in Kerala post Floods in 2018.
- Distributed of 100 energy-efficient cooking stoves in Phagi, Rajasthan.
- Facilitated set up of community toilets in 5 villages in Phagi, Rajasthan.
- Facilitated set up of largescale drinking water system in Behror, Haryana.
- Facilitate industries to comply with environmental standards - Undertake energy efficiency training, audits, and other resource conservation methods for various industrial processes.
- Implemented rooftop rainwater harvesting for buildings. Designed and constructed 3 large recharge models for institutions in Gurgaon.
- Prepared guide book on Energy efficiency and Carbon responsibility for apparel industries – Knowledge book. Supported by GIZ.
- Implemented a Village Development Programme for NABARD at village Meoka, Haryana.

AWARDS

- Advit Foundation is empaneled with TISS CSR Hub.
- Advit Foundation is empaneled with NGO darpan and the National CSR Hub of the Indian Institute of Corporate Affairs, MCA.
- Empaneled with Skill Council for Green Jobs.
- Empaneled with National Water Mission, Department of Water Resources, Ministry of Jal Shakti, GoI.
- Awarded the first CII beyond the Fence Project award for an industry in Rajasthan in 2009.
- Awarded the Impact Award for Skill Development at the Impact Conclave by Sambodhi in partnership with Bill and Melinda Gates Foundation, SIDBI, YES Bank in 2016.
- Managing Partner – Haryana Renewable Energy Development Agency (HAREDA) from 2009-2015.
- Managing Partner – Centre of Excellence on Solar Electronics at National Institute of Solar Energy, MNRE, Govt. of India.
- Training Partner – Green Skill Sector Council and NSDC, GoI for Solar Electronics.
- Training Partner – HARTRON (Haryana State Electronics Development Corporation Ltd.) for Solar.
- Training Partner – TISS Mumbai B.Voc on Solar Electrical.

CONSERVING ENVIRONMENT & EMPOWERING LIVES

18+
years

200
wells recharged

5,00,000+
lives transformed

Touching lives

4 lac+
cubic meter water storage capacity created

25,000+
industrial workers trained

2500+
household electrified on solar