Re-Foresting Baran (RFB)

WATER RETENTION · SOIL REGENERATION · RE-FORESTATION

in 125 sq. km of degraded forest land in Rajasthan/India

A PROGRAM OF THE FLOW PARTNERSHIP UK (TFP) AND PARMARTH SAMAJ SEVI SANSTHAN, INDIA (PSSS)

The Flow Partnership is part of Earthlinks UK a registered charity in England and Wales (1133056) Registered Office: 46, Hunters Moon, Dartington, DEVON TQ96JT

Half of total global forest loss occurred from 8,000BC to 1900AD; **the other half occurred in the last century alone. In just over 100 years the world has lost as much forest as it had in the previous 9,900 years.** Since the end of the last great ice age two billion hectares of forest, an area *twice the size of the United States* has been cleared to grow crops, raise livestock, and used up as fuelwood. Alongside, there has been a reduction of trees in landscapes due to natural causes such as accelerating temperature change, soil erosion and famines.

The loss of trees and other vegetation causes the breakdown of the local water cycle. The change in temperature means that less and less water reaches the soil, eventually drying and degrading it completely. Trees help the land to retain water and topsoil, and without them the soil erodes and washes away, leading to *'climate change, desertification, soil erosion, fewer crops, flooding, increased greenhouse gases in the atmosphere...' (ourworldindata) IUCN/WWF/NASA*

As large amounts of forests are cleared, and the habitats of innumerable species are destroyed, the Indigenous communities who live there, stewarding the forests and finding their livelihoods (food, medicine, building materials, and cultural resources) from them, are vanishing.

> *The long term vision of this Re-foresting Baran project is to rehydrate, restore the soil and reforest hundreds of square kms of degraded forest land in Baran/Rajasthan/India. This program is designed to systematically implement the restoration of the landscape while researching the solutions, practices, principles and impact of bringing a degraded landscape back to life. We will then disseminate these findings globally.*

LOCATION

SHAHBAD/BARAN/RAJASTHAN/INDIA

Project area: 125 sq. km (with potential to be extended)

Baran district with an area of 6992 sq. km is located between latitude 24°25'00" and 25°27'00" east and longitude 76°12'00" and 77°25'00" north. Baran falls under the arid to semi-arid type of climatic zone with very hot, dry summers (48°C) and very cold winters (5°C). The monsoon comes between June and about mid-September with often very scanty and erratic rainfall even then.

ABOUT SHAHBAD

Shahbad itself is a very deprived area. Ground water extraction is high and water levels are declining very fast, leaving very little of it for crops and agriculture. Women have to walk at least 2 to 4 kms to fetch drinking water. 50% of the total population in this area are Sahariya tribals. Dense forest used to cover the land, which has now vanished with extreme soil and land degradation.

Map: Block Shahbad, District Baran, Rajasthan

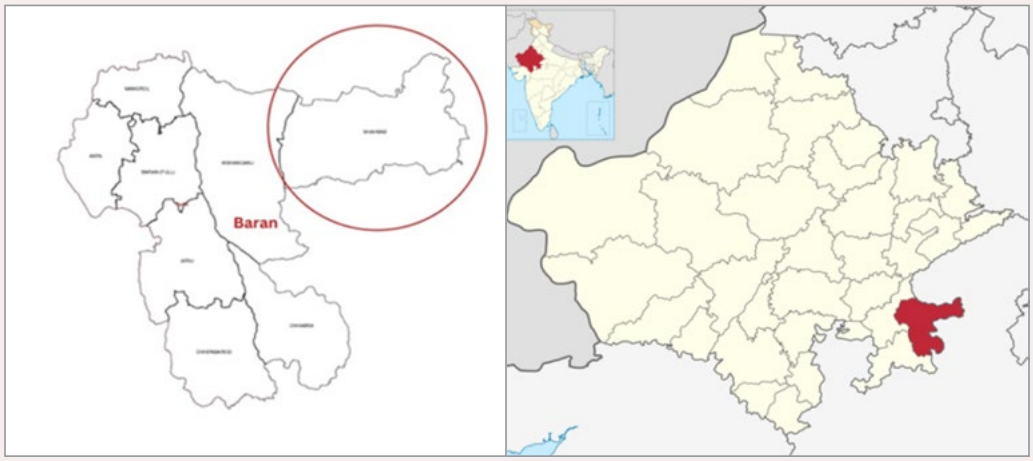


Photo courtesy: Parmarth

BACKGROUND

Baran district was chosen because of the following characteristics:

- Lack of water on land with low rainfall (indicates a severely disrupted local water cycle)
- Proximity to Kuno National Forest Reserve and a shared forest history (It used to be dense forest land which is now in an acute state of ecological degradation)
- Vast areas of decimated forest have shrunk the forest reserve even further
- Displacement of the Sahariya tribals who were the forest guardians has exacerbated their neglect
- Extreme soil erosion which is rapidly increasing
- High vegetation mortality and poor agriculture as there is no water and a broken soil biome
- Landless-ness leading to hunger and extreme poverty resulting in seasonal and perennial migration and other allied issues

Baran is a story representative of many places on the planet: loss of forest, soil degradation, desertification and displacement of local communities is now an oft told story globally. **If we can restore Baran, we can regenerate the whole earth.**

The problems in this area began between 1999 and 2002, when all the 24 villages inside Kuno Forest Reserve were shifted from well-drained, fertile, low-lying land to unirrigated and rocky upland farm plots, without adequate compensation. This was because in 1995 the Union Ministry of Environment and Forests (MoEF) had taken up a conservation project to translocate a pride of Asiatic lions from Gujarat's Gir National Park, the only place where they are found, to Kuno. It has been 17 years since, and there is no sign of the lion in Kuno *(Downtoearth:* read more here*)*

The next step in the ecological destruction in the area came with one of the worst famines in this area in 2002-3, when people, animals and trees died in thousands destroying the livelihoods and lives of the people and the Sahariya tribals in particular. The land had passed a tipping point of degradation into a new phase (no water, no trees, severe soil erosion) with widespread hunger and unemployment now normal.

And now the last step to complete the destruction seems to be the conservation project to re-locate the Cheetahs from Namibia to Kuno as a result of which the last few tribals in the forest have had to be re-located from there on to this harsh ecologically dead land.

Photo courtesy: Pratiksha Tripathi

Scientifically, the degradation of the area can be attributed to the drying up of the water cycle. Whatever rain falls in the region no longer stays on the land but flows rapidly away with very little recharge of the underground aquifers, leading to low ground water levels.

Holding water in small water bodies in the landscape helps revive the local water cycle, stop the soil erosion, increase sustainable tree cover, and bring the forest back.

Regeneration of the community as well as the biodiversity of the region are a well-documented impact of bringing back the water, restoring soil fertility, and planting trees. A basic healthy life for the inhabitants of the area can be restored. It would also enable man and beast to coexist in harmony again and for the forest dwellers to take back their role as guardians and stewards of the local water cycle, soil fertility and forests.

> *To regenerate vast areas of degraded landscapes across the planet, we have to bring back the water, restore soil fertility, plant trees, enable biodiversity and restore the capability of communities to live healthy lives in these regions. Real impact is felt only when these five aspects are done simultaneously at a catchment wide scale. Like the five fingers of the hand give the strength to the fist, so also these five aspects of regeneration give the true strength to a healthy landscape capable of supporting all life.*

This restoration of the water, soil, forest, biodiversity and local communities of Baran/Rajasthan/India will serve as a template for holistic regeneration of degraded lands and forests planet-wide.

This project has developed out of multiple community meetings over many months, with the Sahariya tribals and other villagers in Shahbad/Baran/Rajasthan/India.

A preliminary survey of the most impoverished 15 villages was then done in this area for the first restoration work to begin here.

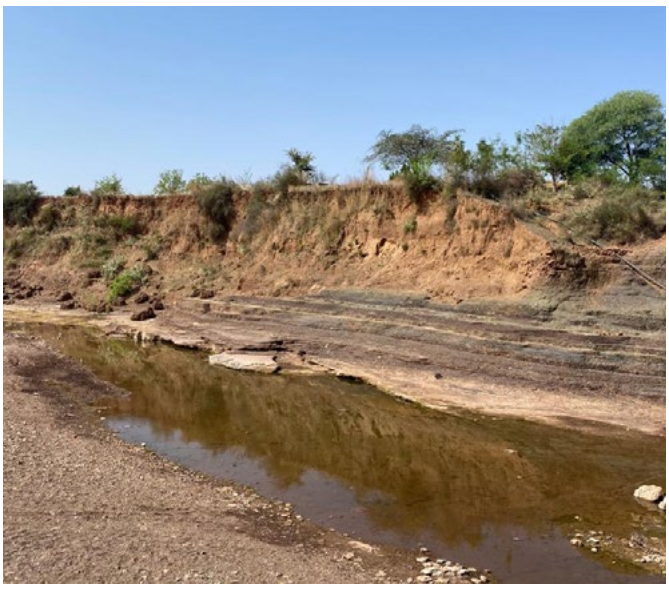
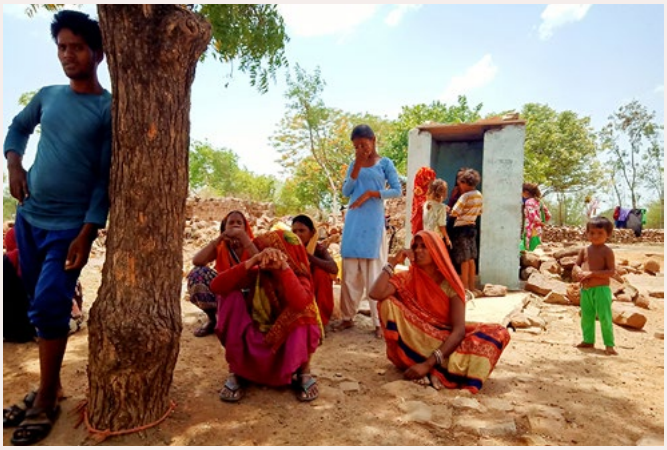


Photo courtesy: Mayank Jain Parichha

THE COMMUNITY and THEIR LAND

SAHARIYA TRIBALS

The Sahariya tribal folk are expert woodsmen and forest product gatherers. They gather and sell forest wood, gum, honey, mahua *(the astringent bark extract used for dental-related problems, rheumatism, removing intestinal worms and diabetes)*. Their traditional occupations also include making baskets, mining and quarrying, and breaking stones. They also hunt and fish.



KUNO NATIONAL FOREST RESERVE

Kuno, which is a national forest reserve today, started out as a sanctuary of about 350 sq. km with the Kuno river (which gives the reserve its name) flowing through it. For many centuries, the inhabitants of the Kuno forest were these Sahariya tribals – gentle, peace-loving folk, who looked after the forest in return for getting their livelihoods from it.

Recently Kuno has been in the news for the ambitious Cheetahs from Namibia project. Re-settlement of the cheetahs has of course led to a re-settlement of the few Sahariyas that lived in the forest. **The Sahariyas have been resettled – OUTSIDE the forest. And the Cheetahs, IN.** In Kuno: Cheetahs in, Adivasis out

While the intentions are noble and visionary, the realities of giving up a life in the forest and resettling outside has proved to be challenging for the Sahariyas.

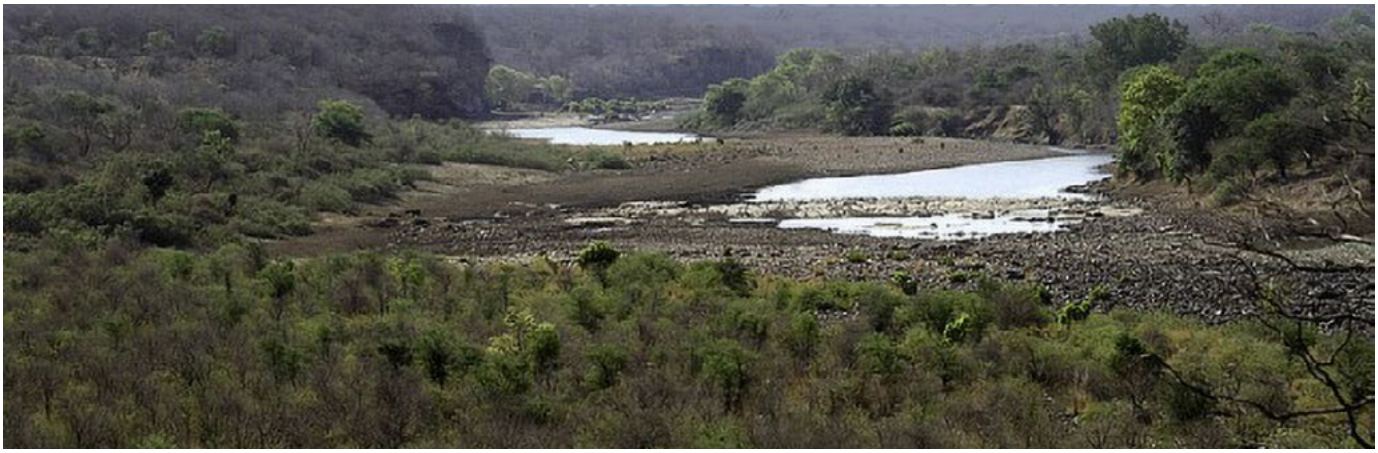


Photo courtesy: Gaur photostream

CONSEQUENCES OF DISPLACEMENT OVER THE YEARS

- The major issues and challenges facing the Sahariyas are land alienation, landlessness, indebtedness, bonded labour, low levels of literacy, social inequalities, migration, political neglect, poor nutrition, poor health and starvation.
- When the Sahariyas were displaced from their home, they no longer had access to their traditional food sources from the forest, which made them dependent on local markets. This forced them to try to earn an income outside the forest. Some Sahariyas, who were able to access land, try to cultivate wheat, pearl millet, maize, gram and lentils but this is largely rain-dependent with merely 2% of the total land area being able to be irrigated due to lack of water. The rest of the Sahariya community was forced to become bonded labour and accept meagre wages for any work they get. Travelling across Baran district, one comes across heart-breaking stories of families who are enslaved to money lenders, unable to break free from them for generations. Some media reports tell of starvation deaths too in Baran district.
- A survey carried out to assess the diet and nutritional status of the local Sahariya tribal population found that in general, the intake of nutrients such as fat, energy, vitamin A, riboflavin, vitamin C and folic acid were way below recommended levels. On clinical examination, the prevalence of Bitot spots in the eyes of preschool children was found to be high (8.3%) indicating a severe vitamin A deficiency in their population.
- A survey carried out to assess the diet and nutritional status of the local Sahariya tribal population found that in general, the intake of nutrients such as fat, energy, vitamin A, riboflavin, vitamin C and folic acid were way below recommended levels. On clinical examination, the prevalence of Bitot spots in the eyes of preschool children was found to be high (8.3%) indicating a severe vitamin A deficiency in their population.

For such a historically deprived community, it is necessary to take a proactive role in creating overall conditions and opportunities that will facilitate their transition to a healthier life. Regenerating the forest will revive their connection and break the intergenerational cycle of poverty and illiteracy.

If we want to restore forests, then we have to remember **the tribals are as important for the forest as the forest is necessary for the tribals.** The word for tribals in Hindi (the local language of India) is 'Adivasi' which means 'original inhabitants'.

> *"It is often the case across the planet, frontline communities have little say in how their local environment is altered by governments and corporations who often attempt to evict indigenous tribes before the deforestation begins.."*
>
> *Pachamama Alliance*

VISION: RESTORE the WATER, SOIL, TREES

OVERALL VISION

A rehydrated, re-forested, restored Baran in the Kuno Wildlife Sanctuary hinterland, where man and cheetah can live in harmony.

Replication by educating local tribes through Water School India and dissemination of project learning around the world.

The long term vision of this project is to rehydrate, restore the soil and re-forest hundreds of square kms of decimated forest land in the large hinterland of the Kuno forest in Baran District.

And in the process, generate a well-researched and scientifically backed literacy tools and a methodology for community driven restoration in degraded tribal lands and forests across the planet.

The vision is formed by recognising the criticality of restoring the water cycle.

To repair the climate, rejuvenate villages and revitalise a healthy earth, we have to start with a vision of the earth with healthy landscapes that hold water in them. Using low cost, simple, water holding methods that they themselves can build, communities can become water-rich, self-sufficient and climate friendly now and far into the future.

ROUTES TO REALISING THIS VISION

- **Build and create sustainable water solutions, (often traditional structures** such as check dams, stop dams, and nalas) **to hold water** in the landscape in collaboration with the local Sahariya and other communities
- **Address the problem of soil erosion.** In the first phase, restore the soil enough to help it to retain the moisture and nutrients at least up to 1 inch depth.
- **Extensive planting of native trees to start re-foresting** the denuded hinterland. This replanted forest will bring back ample water into the atmosphere and become water and carbon sinks
- **Educate local farmers** in rainwater harvesting techniques, wise use of surface and ground water, artificial recharge methods, water use efficiency measures, improved & sustainable agriculture practices as well as new technologies in agriculture like mulching, drip and sprinkler systems
- **Educate the wider local communities** in vegetable cultivation, millets cultivation, goat rearing etc.
- **Educate the next generation** (schools, anganwadis which are rural child care centres in India) to learn and spread water and sanitation practices
- **Develop 'Water School India'** as an action learning laboratory to communicate and stimulate understanding and take up of these traditional methods of water retention, re-forestation and soil repair locally, across the country and internationally.
- **Educate the global community** (researchers, scientists, governments, environmentalists, communities, universities, educators etc)

VISION 1 - ADDRESSING WATER SCARCITY

by building multiple water bodies across the region to hold the rain water, which will recharge the rivers and aquifers, restoring the water balance of this area

A primary reason for the drying out or flooding of landscapes is water running off when it should be held in the land. Communities are no longer holding water where it falls, with huge impacts of drying out rural lands or flooding lands downstream. This is an increasing crisis worsened in recent years due to climate change, warmer temperatures and delayed monsoons.

VISION 2 - RESTORING SOIL HEALTH

by reducing soil erosion, restoring its fertility, moisture retention and its carbon sequestration ability

Perhaps the most potent reason for drying of lands is the loss of a diverse microbiome in the soil which reduces the infiltration capacity of the soil as well as its capacity to store water, worsening the impact of droughts. **Soil stores two thirds of the fresh water on the planet which is determined by the level of organic matter in the soil.** It is also estimated that there is more carbon stored in soils than the total carbon in both the atmosphere and above-ground vegetation. When soil is eroded, the carbon in soils is lost in the form of greenhouse gasses (GHGs), contributing to climate change. Soil organisms regulate nutrient availability and uptake of nutrients by plants, maintain soil structure, and regulate hydrological processes.

What comes first? **Loss of water or loss of soil's ability to hold water?** While they go hand in hand in appositive feedback loop – it is first the loss of water that over time dries out the soil, reducing its ability to hold water as it dries out completely.

VISION 3 - REFORESTATION

by planting 350,000 native trees (over 10 years) across the project area in conjunction with the Kuno national forest reserve increasing its periphery and dense forest area to enable the Sahariya tribals to reclaim their natural home again.

A third factor in drying out of lands is loss of tree cover. Today forests are depleting towards what scientists call a "tipping point", after which they irreversibly dry up because **they are no longer capable of generating their own rain.**

Regeneration of forests has a large potential to store carbon and if done world-wide, it could capture up to 70 billion tons of carbon in plants and soils between now and 2050.

Reducing Emissions from Deforestation and Forest Degradation (REDD+) under UNFCCC is a global endeavour to use the carbon sequestration potential of the forests to manage climate change within accepted limits of tolerance. India has communicated its REDD+ strategy in its Nationally Determined Contribution under the Paris Agreement, that it will capture 2.5 to 3 billion tonnes of carbon dioxide through additional forest and tree cover by 2030. This project falls within the remit of India's REDD+ strategy and vision.

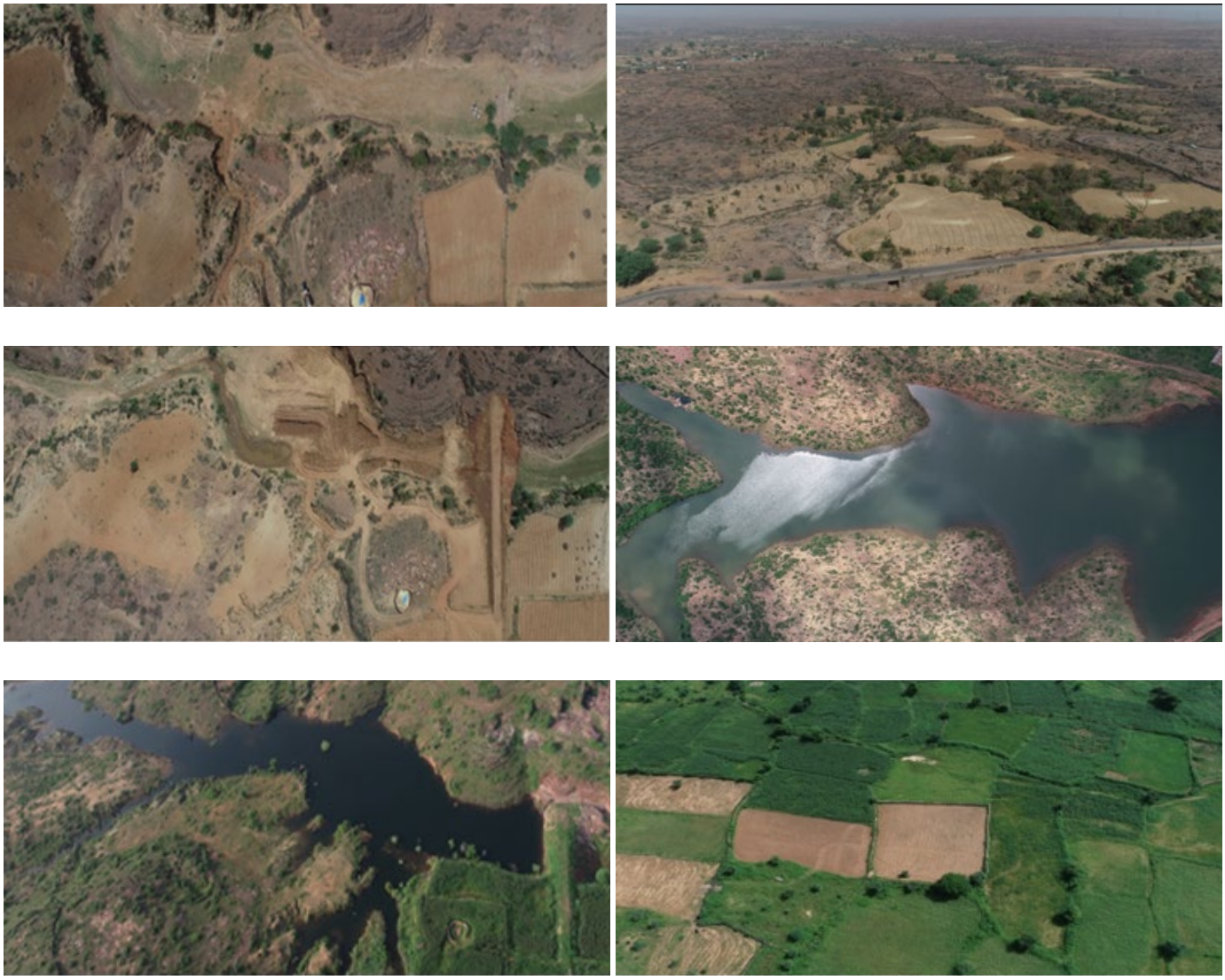
Together, these three visions will restore Baran's water balance, and again prove the link between water, trees, carbon sequestration, cooling of the planet and climate change mitigation.

If water is assured, the other critical steps for life follow.
If water is available from local sources, first of all,
food and nutrition security is enabled.
Villages can then focus on agricultural development and
become self-sustaining, economically viable units,
creating rural livelihoods locally.

GLOBAL WATER LITERACY:

The aim is to enable the local tribes to become self-sufficient in water. **When they have water then all the other steps can follow, including participating and collaborating in regeneration and restoration and long term sustainable care.**

This whole Re-Foresting Baran project (water soil and trees) will be underpinned by a program of literacy and scientific research as a global route map and marker for all forest hinterland revival across the planet.



Before and after of TFP project in Karauli, Rajasthan, India/2019; Photo Courtesy:TFP

PROJECT PHASES

The project design has a preparatory phase and two implementation phases. In all the phases Community Action, Research and Literacy are interlinked

PREPARATORY PHASE (0):
DETAILED SURVEY AND RESTORATION PLAN

1) Restore 2 critical water bodies in the project area;

2) Start the planting of 1,000 trees around these water bodies to halt soil erosion and retain the water;

3) Consolidate research partnerships and detailing of globally pertinent research questions;

4) Development of curriculum for restoration literacy and inviting of trainers to eventually disseminate and teach this work;

5) Simultaneously, conduct a detailed survey and mapping of the entire proposed project area, marking out the boundaries, seeking relevant permissions, getting collaborations with appropriate local and global partners, detailed project implementation plan, desired impacts of the project, its global applicability. The in-depth survey will also create a clear action plan with budgets and timelines detailing: the structures to be built (where, how many, their capacity); which appropriate soil erosion mitigation and biome restoration measures will be started; and how many and which trees to be planted and where **(6-8 months)**.

Note: To decide whether we should even go ahead with this location for the larger project, a preliminary survey of the first 15 villages has been completed and information regarding their water requirements has been sourced in collaboration with the local Sahariya tribals and the communities in the area.

The detailed survey in Phase 0 will enable in-depth meetings with identified international partners and define research questions to uncover answers to the most locally relevant and globally applicable research that needs to be done through this project.

IMPLEMENTATION PHASE (1):

1) COMMUNITY ACTION

- Water Retention – Building and repairing identified water sources and water bodies in the 15 villages where the preliminary survey was done (details in table below).
- Soil Regeneration – Stopping erosion and restoring the fertility of the local soils, increasing both the diversity of the microbiome of the soil and its water retention capacity
- Reforestation – Planting and reforesting the area with indigenous trees that are native to the area.
  - All of these will be done in total consultation with the Sahariya tribals, and local and international water, soil and tree scientists/researchers.

32 water structures in 15 villages with storage 611,615 cubic meters will be created and 3000 trees planted.

2) RESEARCH

Water retention methods and their impacts:

- A program of learning and exchange between International hydrologists, local Indian community water leaders and local Bundelkhandi hydrologists to understand both community wisdom and scientific principles and their connection
- The applicability of these water retention methods to other regions across the world where communities can build low cost uncomplicated methods themselves to regenerate their landscapes – with the advantage of being backed by scientific research

Soil erosion control

- Generating a local healthy microbiome alongside regenerating healthy tropical native tree cover
- Documenting the soil biodiversity of the Bundelkhand tropical forest
- Monitoring the level of carbon sequestration created through the regeneration; what is its role in impacting the mitigation of global climate change
- Understanding which factors to introduce into the soil microbiome that influence regeneration speed, efficiency and quality

Re-foresting Tropical Trees

- Mapping and understanding the entire extent of the deforested area that can be regenerated,
- Deforestation research and analysis of satellite data
- Looking at the land surface temp of the area for the last 20 years, understanding the temperature trend (as the forest cover has decreased in the project area and the KUNO buffer zone) and analysing the future trends for cooling the region based on the progress of this project
- What role do local communities play in influencing carbon dynamics across the globe?
- Analysing Satellite data sets on the characteristics of the area (before and after)
- How can the solutions of reforesting and recovering landscape make nature the economic choice for people worldwide

(further research questions will be added as partners join the project)

3) WATER LITERACY

Setting up and starting the first local learning sessions at the Water School India (WSI) with research and field work being done in and around the 15 villages of the project:

- The Water School India (WSI) will begin skill training sessions with local hydrologists, soil scientists and community water leaders(WSI section)
- The field work of the curriculum at WSI will be done in Shahabad area, working alongside the local villagers creating the water bodies, restoring the soil and planting trees
- International visiting hydrologists teaching at the WSI: water holding in the context of land and climate in other parts of the world to manage floods and droughts
- International visiting soil scientists will bring out the most efficient way of regenerating the tropical forest biome
- Tree experts will enable a practical program of understanding the native trees that can be planted, their unique contribution to regenerating the area and its connection to the global climate

A note on the Water School India (WSI)

The physical premises of the Water School India are in Khajuraho, Chhatarpur, Madhya Pradesh (in the Bundelkhand region with proximity to Shahbad and good local and International transport links). Work has begun on a simple basic building to hold the learning sessions. India has become the most populous country in the world and since 50% of its youth are below 25, skill development is very important. India is also the country which exploits groundwater the most. With so much underground water being extracted and exploited, nothing significant will happen by only saving water on a small scale. People and especially young people, have to be taught and engaged in restoration of the water cycle, soil and forests from now itself. A curriculum of water management and learning programs at the WSI where they will be able to interact and learn from local and international community experts and scientists, preparing them for the world to come is being designed.

WSI will teach the work of water conservation practically with rural, traditional wisdom and give it strong, global scientific support and backing.

IMPLEMENTATION PHASE (2):

The project area will be extended to the entire 220 villages in the area over 10 years. Additional adjacent areas will be added as the project progresses and more resources are made available to rehydrate, restore and reforest. WSI will become established and more widely accessible to local and international communities.

LEAD ORGANISATIONS and COLLABORATIONS

THE FLOW PARTNERSHIP/UK *(Registered NGO in the UK)*

The Flow Partnership is a UK-based charity (founded in 2011 in collaboration with Rajendra Singh, Stockholm Water Prize winner 2015), working with community-led, traditional water management methods in partnership with local experts and communities.

- Enables community driven recharge of billions of cubic meters of water across the planet, making local communities water secure and self-reliant
- Creates ever increasing networks of on-the-ground community level practitioners who are learning, sharing, adapting and implementing each other's methods of water retention in the landscape
- Enables diverse local communities and farmers across the planet to hold as much water in the ground as possible, as soon as possible so they have fresh water in their regions, become more self-reliant and resilient, and also make a positive impact in reducing global heating

Main strategy:

a) Water Literacy: Setting up of Water Schools (online and location specific) to enable a community driven learning and exchange of water management and addressing of local water issues.
b) Action: Implementation of local water holding features to recharge landscapes and communities.

The current response to climate change is too dependent on trying to control carbon emissions through engineering and technology. The aim of TFP is to help communities return their small water cycle to full health, which restores the climate, landscape, vegetation, thereby also acting as a climate change mitigation strategy.

TFP currently have a presence in 9 countries in Africa, the UK, Europe and India. They have also completed a project in Southern America in Colombia and made presentations in the Brazilian parliament in Sao Paolo

PARMARTH SAMAJ SEVI SANSTHAN *(Registered NGO in India)*

PSSS started its journey in 1995, working in five villages with the motive to strengthen the capacities of rural communities and teach them self-reliance through empowerment. Now the outreach has spread to more than 300 villages across 8 districts of UP & MP. These programs reach out to some of the poorest and most marginalized communities in India restoring their lives and their environments.

PSSS believes that the solution to the country's acute water crisis lies in public participation and in implementing technological interventions through which traditional, low-cost, efficient water structures can be rejuvenated and can easily be adapted and scaled for use by the masses. They have done this through initiating various innovative models such as preparation of water security plans at the village level, construction of check-dams through volunteer labour, knowledge-sharing with the community, and building volunteer women's work groups such as the 'Jal-Saheli'

and 'Pani Panchayat'.The 'Jal Saheli' & 'Pani Panchayat' models developed by Parmarth are very effective, unique and visionary

- PANI PANCHAYAT (Water Committee): These are village level, community-based water committees working towards protection, conservation & management of water resources as well as providing leadership for collective assertion to access due entitlements / rights for water, as well as strengthening of local self-governance under the strong leadership of women & marginalized groups.
- JAL SAHELIS (Friends of Water): Composed of some of the poorest and most marginalised women in Indian villages, they are a growing group of women responsible for carrying forward the women and water security agenda and providing leadership towards collective assertion for rights / entitlements and raising water issues at the village level. They mobilize their community to participate in village water development (Read Mongabay article 2021) in improved and sustainable agricultural practices, promotion of efficient water use, water and soil management, establishment of water-livelihood linkages, watershed management, policy advocacy, networking and alliance building.

Jal Sahelis at a Pani Panchayat, March 2023; Photo Courtesy: Pascale D'Erm

Jal Sahelis give solutions to all kinds of problems related with water to the people of their village. This includes water harvesting, water conservation, deepening of wells, rehabilitating water structures, building small dams, improving hand pumps, getting community participation with the government, meeting administrative officials and submitting memorandums. Through the Pani Panchayat, these Jal Sahelis have provided a total of 10.121 billion litres of water to 2256 hectares of agricultural land. And a total of 3.288 billion litres of water was saved through smart changes in the cropping patterns and agriculture. Due to these efforts of Jal Sahelis, additional agricultural production of 1194.60 tones and employment of 8867 labourers was also generated.

The 'Jal Saheli' and 'Pani Panchayat' models of Parmarth Samaj Sevi Sansthan are the most successful community models of water revival in India, even receiving an award from the President of India in 2023. Their work and methods can be successfully replicated worldwide in a culturally sensitive format.

PROPOSED FIRST TIER OF INTERNATIONAL COLLABORATIONS FOR THE PROJECT:

Studying and understanding the global relevance of increased forest periphery to cool the climate is an integral part of this project. Alongside the local community wisdom exchange and usage, an international research station will function with a program of understanding soil moisture and temperature interpretation from satellite data. Trials of different local methods of holding water will be done with scientists and hydrologists bringing their expertise from universities across the world – learning and teaching locally as well as internationally.

To assess viability, initial conversations and interest from the following organisations has been established:

For Water and Hydrology

- James Hutton Institute/Scotland
- People and Water/Slovakia

For Soil Science, Carbon Sequestration and Tree Restoration

- Crowther Lab/ETH Zurich, Switzerland
- FUNGA/ Texas, USA
- Forest Research Institute/Dehradun, India

For Temperature Dynamics and Satellite Data Analysis

- University of Leicester/UK
- IIT Kanpur/India

For WSI

- Rani Laxmi Bai Central Agricultural University/ Bundelkhand, India
- James Hutton Institute
- ARUP
- Newcastle University

KEY ADVISORS TO THE PROJECT:

- Rajendra Singh – Stockholm Water Prize Winner 2015
- Michal Kravcik – Goldman Environmental Prize Winner 1999
- Paul Quinn – Institute of Civil Engineers UK Prize Winner 2014

Photo Courtesy: Pascale D'Erm

BUDGETS

Preparatory Phase (0)

Duration: 6-8 months **Start Date:** September 2023

Budget:

Working with local communities to build 2 water bodies:	£15,000
Planting of 1,000 native trees	£5,000
Detailed survey and preparatory work across the region creating a detailed 10 year project plan	£35,000
TOTAL	**£55,000**

The field work will be done by PSSS staff and consultant scientists and hydrologists. Overall direction and responsibility for the phase will be help by TFP.

Implementation Phase (1)

Duration: 12-18 months **Start date:** April 2024

Budget estimate:

A targeted and precise budget for this phase will be calculated after the detailed survey in Phase 0 has been completed. The detailed survey will pinpoint exact locations for water holding structures, size, capacity, what they will cost etc.

Water Holding Structures	£240,000
Tree Planting	£70,000
Soil Repair	£30,000
WSI	£100,000
Research Stations	£50,000
TOTAL Estimated (with 20% variation)	**£490,000-£588,000**

- **COMMUNITY ACTION:** Building water retention structures in the 15 villages in the project area, soil erosion control measures and regeneration measures, planting of native tree cover with carbon sequestration measuring and offsets
- **WATER LITERACY:** Setting up and starting the first local learning modules at the WSI with hand-son learning doing field work in the 15 identified villages where the project will be implemented
- **RESEARCH:** International collaboration and research stations being set up
- **FINANCE:** A first hand carbon-offsetting program will be trialled with each tree that will be planted and nurtured to maturity.

IMPLEMENTATION PHASE (2)

Duration: 9 years **Approximate start date:** April to October 2025

Budget: will be determined from the detailed survey.

The project area will be increased to include implementation in all the 220 villages of Shahbad block of Baran district. Further details to follow from the detailed survey.

IMPACTS EXPECTED

The project will implement, research and educate a practical approach to the restoration of the water, the landscape, the forest and the tribals' lives and livelihoods. A local, regenerative nature-focussed economy, in harmony with its environs and the climate.

COMMUNITY ACTION

- Revival of a healthy local water cycle leading to Water Security
- Renewed soil health and Increasing bio-diversity
- Social and cultural resettlement of a vanishing tribe`
- Increasing the forest area of an existing reserve
- Increase in Livelihoods of the tribals and local population
- Decrease in Migration
- Increase in Health and well-being of the local population and their lands
- Carbon sequestration
- Climate Balance

RESEARCH

- Evidencing the impact of bringing a semi-arid land back to the full potential of life
- Before and after assessment across a range of soil, forest and water metrics
- Testing whether global models of small scale solutions can apply to the large scale problem of global warming and climate change

WATER LITERACY

- Communicating the skills of large-scale reforestation through a water education dissemination hub ;
- Linking up this project with similar landscapes around the world suffering from deforestation, soil degradation and desertification, to stimulate a cascade of similar solutions;
- Using the water school online forum to engage the learning directly to other practitioners and farmers.

CLICK HERE TO SUPPORT THIS PROJECT

Contact

MINNI JAIN
Director Operations, The Flow Partnership
E: minni@earthlinksall.com
theflowpartnership.org
Tel & WhatsApp: +44 7910 201155

The Flow Partnership is part of Earthlinks UK a registered charity in England and Wales (1133056) Registered Office: 46, Hunters Moon, Dartington, DEVON TQ96JT