

# GREEN RIVER

(Full Water Cycle)

People in charge of regenerating their natural habitat

July 2017



Green River is a community-led project focusing on restoring ecosystems, microclimates and its water cycles, and creating healthy livelihoods in the Western Ghat Mountains, Gundar Basin region, Tamil Nadu, India. This project has the potential to improve the social and economic realities of around 245 million people in this region whose livelihood depends upon monsoon rains.

## *Prologue*

**All over the planet people are confronted with extremely degraded land, not caused by natural events, but rather by their own actions. The resulting climate change and shifting weather patterns only intensify this crisis. Tamil Nadu, South India, ranks at the top of drought stricken regions on the planet. Therefore, the first Green River project is focusing on this region. Ultimately, the vision is to promote and work on regenerating green rivers and landscapes around the world, because the good news is that we humans, on the flipside, can do that too!**

**Green River is well connected to both local and global communities and organizations of regenerative knowledge and practices. These communities share knowledge, experience and resources and provide practical support upon request and come together in this initiative.**

**Green River is an evolutionary process and unique in that it identifies the whole watershed as the optimal landscape for bio-regional regeneration. The holistic, village-global approach gives it realistic opportunities for success.**

# *Why*

Communities in the Gundar Basin region are facing degraded landscapes causing severe droughts, resulting in water scarcity and further depletion of the environment. Current livelihood strategies and ways to acquire water are causing even more destruction to the already degraded land. It's a Catch-22! A different approach is needed.

# *What*

With a new approach based on restoring the ancient water harvesting cascade systems in the landscape, and through applying ancestral knowledge, new technologies and best practices of regeneration, communities bring back the natural flow in the whole watershed. This provides a structure for ecosystem regeneration: the emergence of a 'Green River'! In a 5 - 10 year timeframe we'll see vital and resilient communities in bio-diverse, well-functioning eco-systems providing healthy livelihoods for all living beings.

# *Who*

Around 2,500 families and their communities will be in the lead, assisted by Dhan Foundation who is building with Green River on their long-standing community enabling programs. The Embassy of the Earth is a co-creating partner bringing its long-term experience in building resilient communities to resolve complex issues. Other partners bring specific expertise on ecosystem and agricultural regeneration.





# ***Background Information***

Dhan Foundation has for 10 years worked with and provided services to an estimated 2,500 economically marginal farming families in a 300 km long watershed in the Upper Gundar River region. Cyclical monsoon rainfalls have become more unpredictable and in the last two years the region has experienced their driest period of the past 150 years. Some years ago, Dhan Foundation began restoring deteriorated ancient water tanks, large man-made reservoirs in the landscape that catch and hold the monsoon rain, part of the traditional water management system. But more is needed.

Over the past few years, through careful listening to the community needs and aspirations (see annex) and, by looking at best practices in and outside India, Dhan Foundation and Embassy of the Earth have co-created this holistic new vision for a river-ecosystem called Green River.



## ***Proposed Project Area***

The Gundar Basin has been identified to be the designated area for Green River's first project. Dhan Foundation has substantial experience and financial backing from Unilever Foundation with tank restoration in this region, successfully involving tank- and farmer associations, water managers, regional government agencies, educational institutions and funders. This makes it an ideal area for scaling up efforts and effectively use existing expertise and established trust within the communities involved.

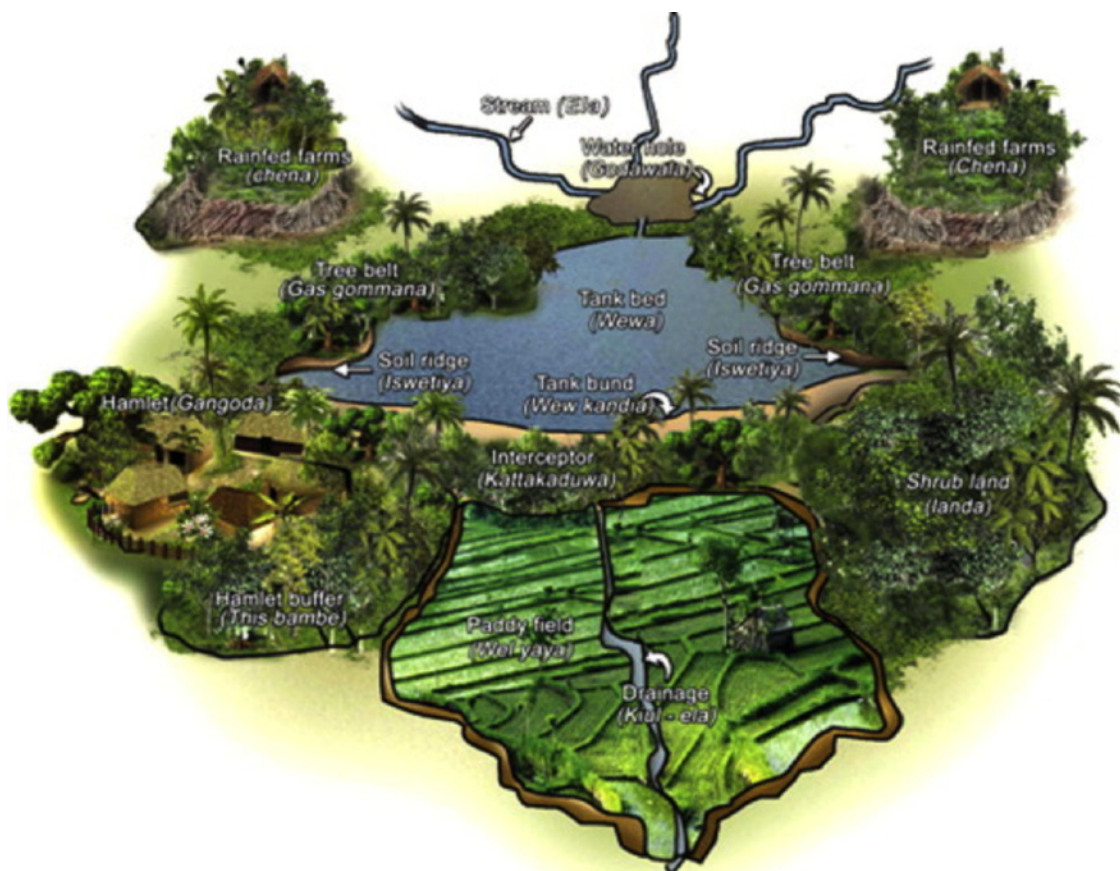
# Methodology

*"[...] the world's smallholder farmers, fisher folk, pastoralists, and forest dwellers are the front-line custodians of bio-diverse landscapes and increasingly so, healers of the land. With them lies the true regenerative power of our societies!"*

– Frank Heckman, Embassy of the Earth

The project deeply depends on a holistic participatory approach. Local communities The methodology is based on a holistic, co-creative approach. Local communities will be provided with all the necessary ‘pieces of the puzzle’ and, through this sharing of knowledge and practices, design their own community-based plans. They will determine their own indicators for success, embedded in the wider healthy river-based ecosystem vision.

The project foresees ecosystem regeneration by reintroducing and restoring the traditional water management system. This is an ‘ecological infrastructure’ to channel monsoon rainfall down the slope of their watershed. Earthen water catchment basins store rainwater, distribute it through smaller ponds and wells to irrigate vegetation and crops, creating a ‘green river’. Additional gullies and ‘cuts’ are made to trace water back to the aquifers and wells around the villages for home-use, long after the monsoon rains have ended.



*The centre of the village is the tank and houses are grouped in hamlets on one or both sides of the embankment on the relatively higher elevation – example from Sri Lanka*



*"[...] rivers depend on forests. And the forests need their plants. Without plants – trees clothed in epiphytes and grasslands at high elevations – monsoon clouds will not release their moisture. Without plants, water will not sink into the land to feed the rivers, sources and aquifers, nor will the local thundershowers form."*

– Suprabha Seshan, Gurukula Botanical Sanctuary.

**Besides harvesting rainwater runoff, reforestation activities will play an important role in restoration of climatic conditions conducive for stimulating rain- fall and to achieve a full water cycle. Experts on ecosystem regeneration and regenerative agriculture will share their knowledge and experiences with the communities. Ecological agricultural regeneration creates benefits for all living beings, bio-diverse landscapes with healthy soils providing good livelihoods. Healthy soils and bio-diverse landscapes are also important carbon sinks and substantially contribute to both climate change mitigation and adaptation.**

**Other stakeholders, including governmental and educational institutions will be closely involved to create a supportive enabling environment, identifying necessary regulations and policies that will benefit the directly involved communities and the wider eco-system.**

**The project will assist in establishing local ownership of the tanks and ponds, in the absence of government financing and management, through the participation in co-financing of each community of approximately 25% of the cost, in addition to the labor they will provide.**

**Teaching, innovation, knowledge, experience and skills will be introduced by faculty and students of the Tata Dhan Academy and others. With the idea to develop a vocational certification program around regenerative practices. Allowing young people and others to enroll into a new profession of land healers.**

**Five young tribal men from the Americas, called the Hopi Raincatchers, trained and accommodated by the Land Healer Foundation, will conduct training camps for their peers (and others) in India on traditional water infiltration techniques and how to retrace and revive**



***Hopi Raincatchers making their 'cuts and water-traps' on the Hopi Reservation, Arizona, USA***



**In this year's August, in the Embassy of the Earth' Summer School, representatives of participating organization and involved communities will be brought together in dialogue sessions to understand the collective 'journey' they are embarking upon and to develop each of their roles in this regeneration effort.**

**In the following, October 2017, Community Search Conference involved community representatives will come together to create their community-based plans with shared knowledge and experiences from various experts.**



## ***Green River Deliverables***

- Restored water management system based on a functional Tank Cascading System (TCS)**
- A regenerated, functional river ecosystem contributing to the well-being of the local communities involved**
- Enhanced community resilience for climate change mitigation and adaptation**
- Improved economical situation based on natural capital, small business ownership, local markets and cooperative networks**
- Vocational Earth regeneration certification program – multi disciplined**
- Creation of a local field campus for learning and contributing in the replication of similar initiatives worldwide**
- Co-creation of new initiatives with other communities around the world**

# Initiators

DHAN FOUNDATION, Embassy of the Earth

## DHAN FOUNDATION



A professional development organization with a long track record of enabling the poor to uplift themselves in large parts of India, deeply motivated by Gandhi's be the change you want to see in the world. DHAN has deep roots in values, such as Grassroots action, Collaboration, Enabling, Innovation, Excellence, and Self-Regulation. DHAN believes that these values are its core strength needed to realize its mission and vision. DHAN has the capacity, network, trust and good working relationship with the involved communities to make Green River successful.

[dhan.org](http://dhan.org)

## Embassy of the Earth



A Dutch foundation working to create resilient communities to resolve complex issues on the basis of respect for the natural laws. Frank Heckman, founder of Embassy of the Earth: 'Without losing focus on the issues at hand, the greatest impact comes through unleashing the power and spirit of the social community. About creating an environment in which responsible people are prepared to go beyond self-interest to serve the common purpose. A community of people that can dream possible futures, create new realities and actively adapt to new challenges'.

Both the DHAN FOUNDATION and the Embassy of the Earth are closely connected to important international networks, partners of Green River (see next), creating excellent opportunities for the Green River to flow beyond India.

[embassyoftheearth.org](http://embassyoftheearth.org)

# Green River - Community Voices

## **Tata Dhan Academy, Rainfed Farming Working Conference, July 2014**

‘I went to work in the city to make ends meet, after the well dried up and we had to sell off our life stock’ the farmer spoke. She continued: ‘Water levels have never dropped this much, not even in my Grandfather’s time – who is born on this land.’ Other stories followed about how farmers were coping with the increasing draughts and Climate Change. One of the women went on to sing a song, a rain-song, her clear voice was rising to the evening skies. Two other women sang for and about the water. Not much later the phone rang. A voice from her village, nearly 1000 miles away, told her: ‘It’s raining!’

## **Tamil Nadu, August 2016**

In the village of Kosavapatty we sit with group leader Savariyayi. Daughters, son, grandmother, grandchildren and later her husband are all present. Across her house, on the square, many little school children are waiting for the bus. Soon the subject ‘water’ comes into focus and with it the frustration. Her husband joins the conversation immediately. ‘We are now drilling at a 1000 feet, and the resources aren’t really there. We used to drill between 300–700 feet. And the water quality isn’t that good either.’ ‘The use of fertilizers and other chemicals have damaged the top-soil.’ ‘It’s really hard to make ends meet.’

## **Kalvarayan hill region of the Eastern Ghats – April 2017**

The villagers immediately start to talk about a dam constructed in 1991 despite protests of their 7 tank associations. This dam redirects water from their tanks to 5,000 acres of other people’s land. The check dam was built to regulate floods, not to interfere with the agrarian irrigation, however, despite a verdict of a judge that enough water would flow to fill their tanks, this happened only the first three years and not thereafter. This group established their own peoples’ association called: Rain, Tree, Soil. Their forest degraded and there was very little rain in the last 5 years. The groundwater level went down to 1,500 feet deep. To keep the soil fertilized they use chemical fertilizers and pesticides, but this leads to water pollution, soil pollution and air pollution. There are a few organic farmers. People took sand out of the river and now there are only rocks in the river which is why the river does not let sink in the water anymore as the water now runs much faster. There is not much awareness about the water cycles. They are now more aware of these things, realize they are themselves responsible for it and their vision now is that if they grow trees their problems will be gone. A very vocal group of youth volunteers works to remove invasive species from the land and to regrow they use seed balls with native seeds.

## **Upper Gundar River region – Sedapatti, April 2017**

The entire watershed to which this village belongs stretches out about 300 kilometers. We make a walk towards the last spring that still works, but halfway we meet a local farmer who tells us that the day before the spring had stopped running. One of the women of the group tells us that in her childhood the forest was still so dense that they did not come here. But since then many trees were cut for firewood and for selling. About 50 years ago this group settled here. There were many children and the families did not have enough land to survive. The government provided the settlements. They are landless people and work as laborers on the land owned by farmers who live elsewhere or in construction work in other villages. Some of the land here is still common land, which anyone is allowed to use. The groundwater level went down in the last 10 years and they understand that the grazing of their cattle deteriorates the land. The group realizes the severity of the water problems and the deterioration of the land, but does not have a vision on how to change the situation, as they are too busy surviving..



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