



**GEO4SDGS: A CASE STUDY OF RIVER
REJUVENATION BY THE ART OF LIVING**



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Art of Living

Who we are...

- The Art of Living is a non-profit, educational and humanitarian organization founded in 1981 by the world renowned humanitarian and spiritual teacher Gurudev Sri Sri Ravi Shankar.
- Gurudev has inspired a wave of volunteerism and service, resulting in one of the largest volunteer-based organizations in the world, with more than 30,000 teachers and over one million volunteers engaged in [service projects](#) in 180 countries.



Our Inspiration
Gurudev Sri Sri Ravi Shankar

40 Years
of Service



SERVICE & SOCIAL
PROGRAMS

180 Countries where
we make a difference



LEADERSHIP & ETHICS

10,000+ Centers Worldwide
with weekly follow-up sessions



PEACE INITIATIVES



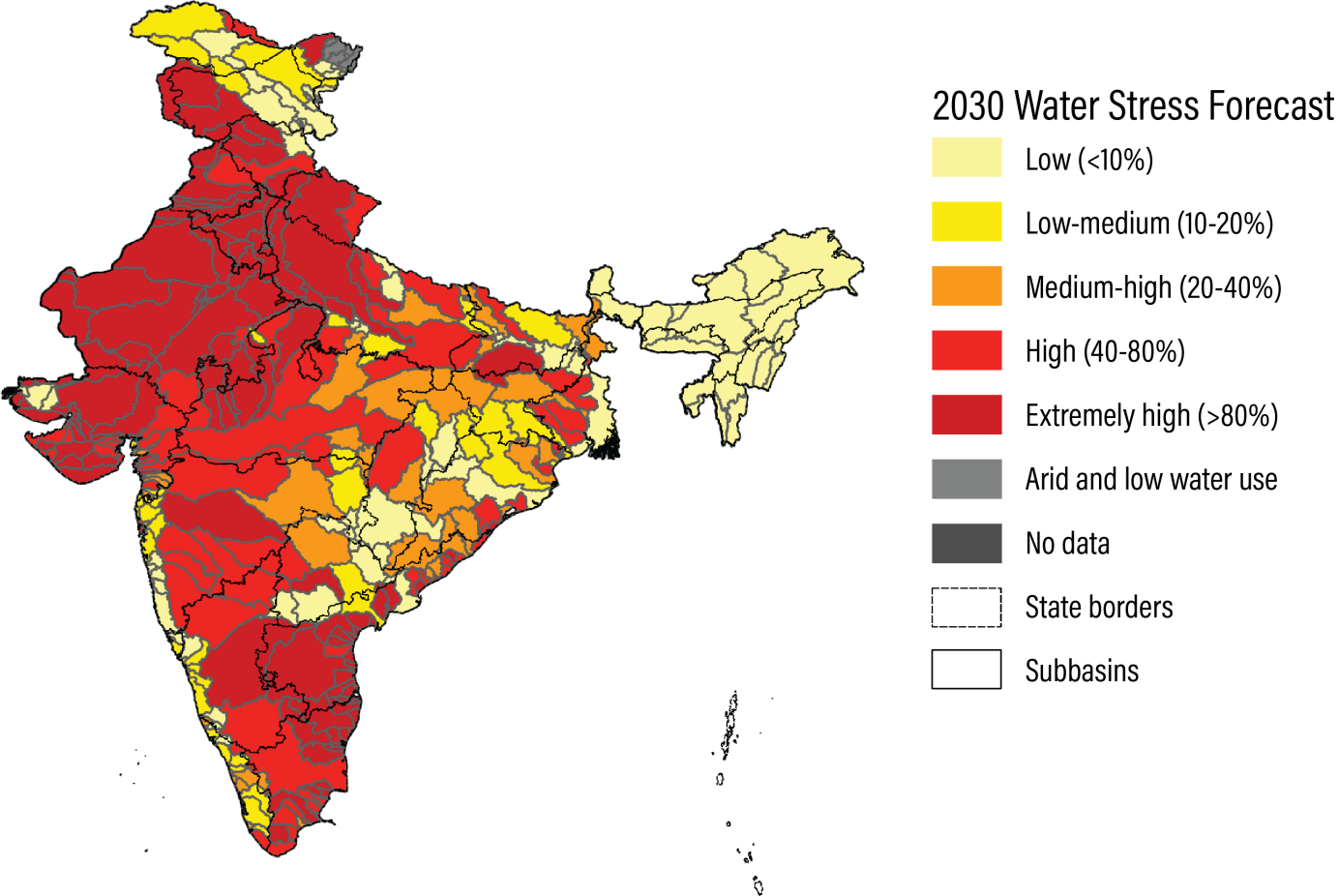
CULTURE & CELEBRATION

500+ Million
lives touched



SPIRITUALITY & HUMAN
VALUES

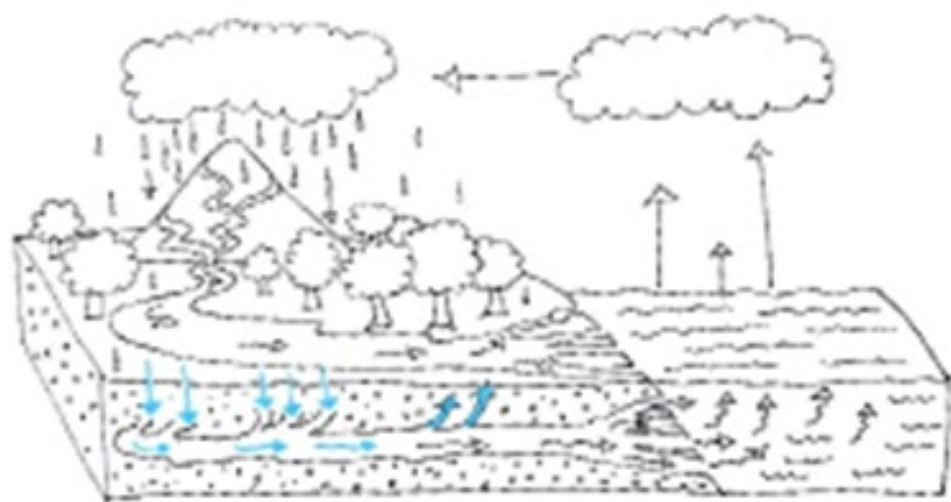
India's projected water stress, 2030



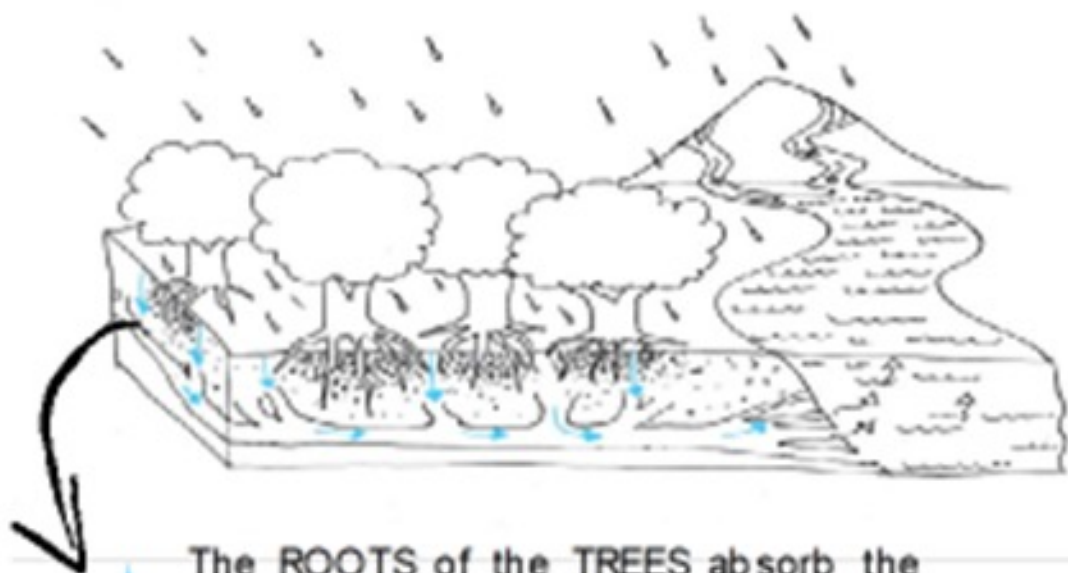
Note: Figure represents water stress forecast for year 2030 under the Business As Usual scenario.

Source: WRI Aqueduct Water Risk Atlas

Background



Many know about the hydrological cycle, but the **RELATIONSHIP** between **GROUNDWATER** & **SURFACE WATER** is often **unnoticed**

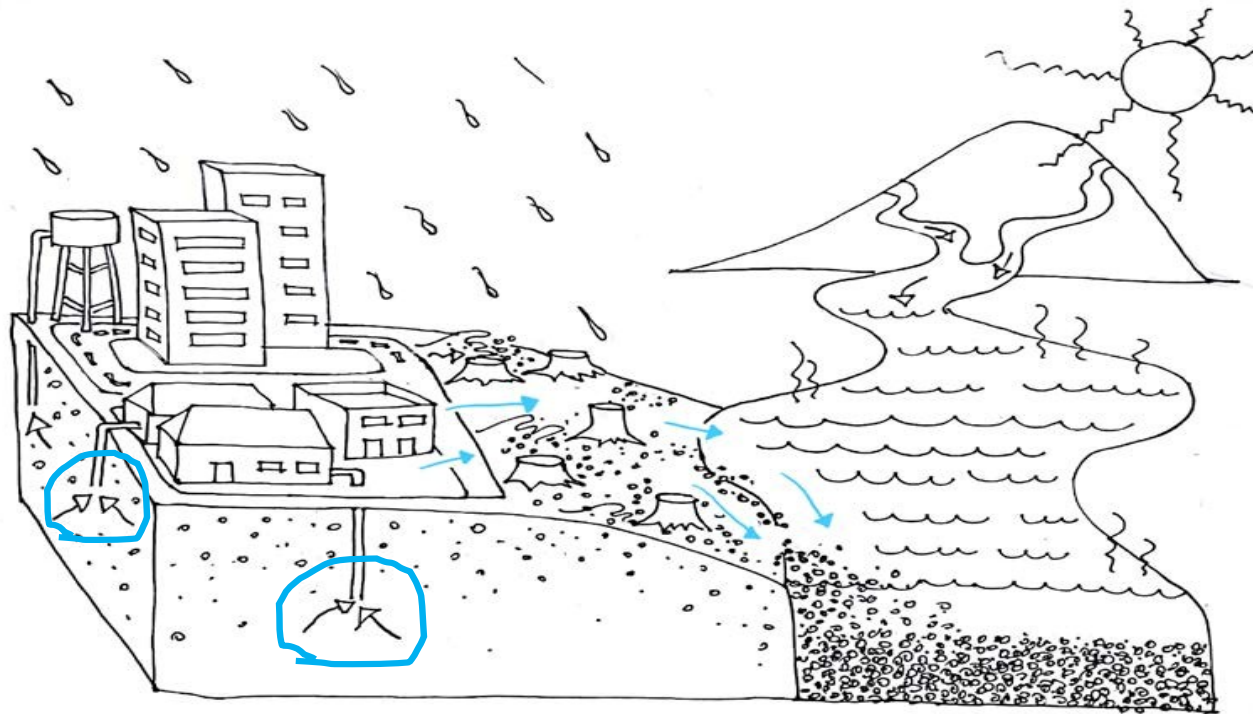


The **ROOTS** of the **TREES** absorb the **water molecules** and recharge the underground water.



NATURAL
HYDROLOGICAL CYCLE

Background (Contd...)



Because of

1. Deforestation
2. Soil Erosion
3. Siltation
4. Overexploitation of underground water
5. Global Warming

DISRUPTED
HYDROLOGICAL CYCLE

Our Approach



- Nature is a fantastic teacher.
- It gives you space to observe it and learn.
- So we decided to copy nature. And it worked.



Scientific methods

Geospatial technology and remote sensing



Inclusive approach

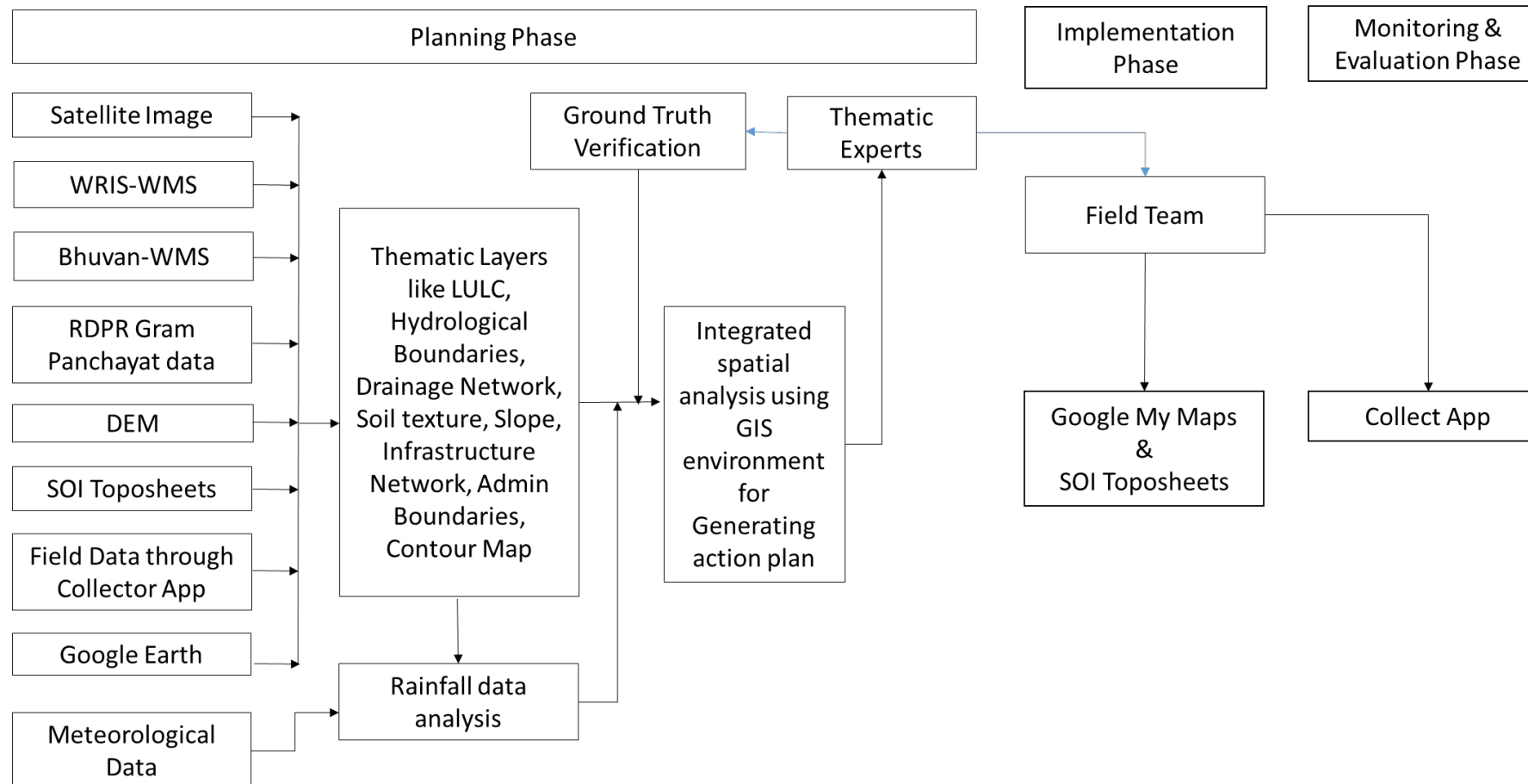
All stakeholders are taken onboard from farmers to scientists



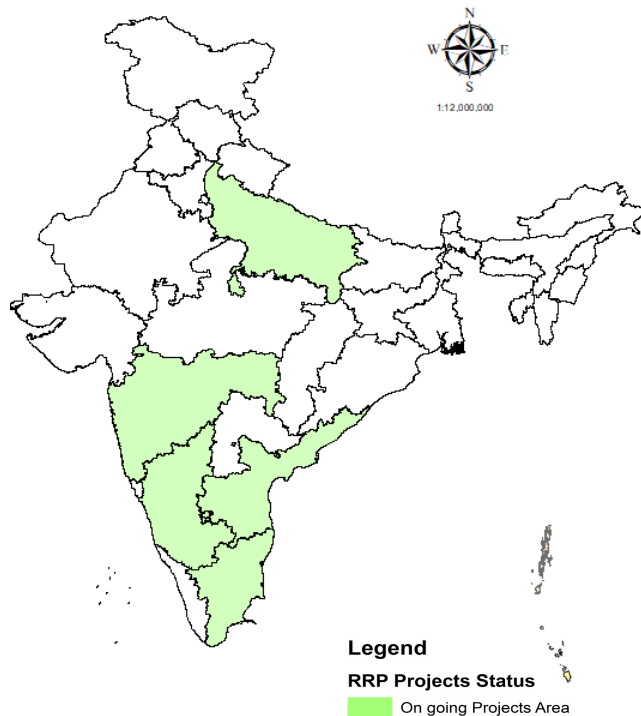
Restoring ecosystem

We're trying to bring back the natural hydrological balance

Our Method



Our footprints



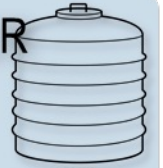
Number of RIVERS being REVIVED **70**



Number of Structures constructed **64K+**



Increased WATER STORAGE **25,00,02,372.136 litres**



PEOPLE Benefitted **34.5Millions**



VILLAGES Benefitted **19K+**



WORK PROGRESS IN **FIVE** STATES

AREA Influenced **59K SqKm**



Consultations & Discussions with **SEVEN** more states

PLANS for setting up TEST BEDS in various geomorphological + agro-climatic zones

Interpreting our activities in SDG's



- Out of 17 Goals, the Art of Living's River Rejuvenation projects is impacting 9 goals.

3: Good Health & Well-being



- Belongingness, Ownership, Responsibility
- Action Oriented
- Self inspired and not externally motivated



112500 – Capacity building,
training programs
Sudarshan Kriya Yoga – SKY
Breathing technique...

5 &10: Gender Equality & Reduced Inequalities



- Women started entrepreneurship for the rejuvenation of Naganadhi in Vellore district of Tamil Nadu.



6: Clean Water & Sanitation



Boulder Check



Recharge Well



Recharge Borewell



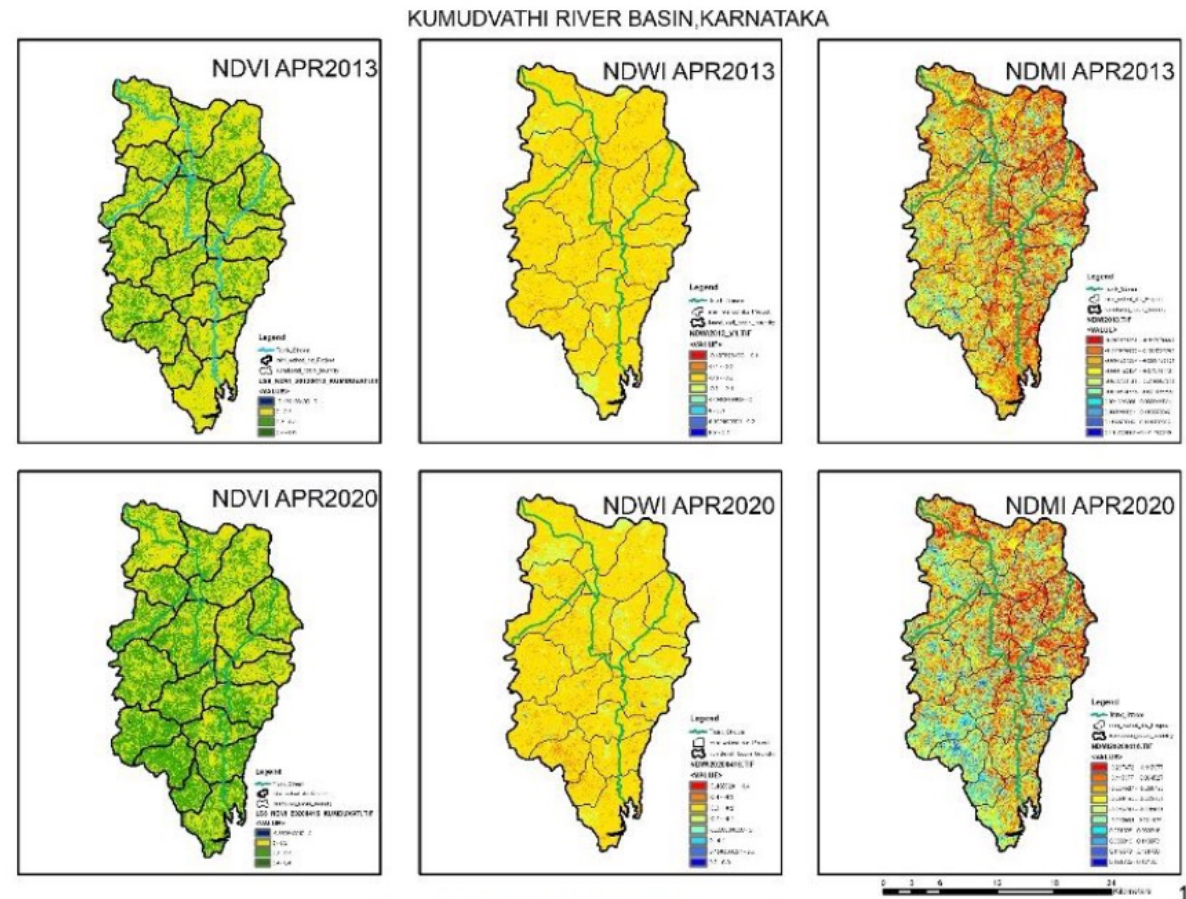
Water Pool

Impact Assessment

(Kumudvathi Project)



1. As per studies in 2018, AUGMENTED RECHARGE OF 1.625%
2. In 2019-2020, average increase OF 2.4 METERS IN THE BORE WELLS
3. Between 2013 to 2020, improvement in NDVI, NDWI & NDMI.



8: Decent Work & Economic Growth



In photo: Vedavathi Project, Chikmanglur, Karnataka. Our Project Leader is making the various stakeholders of a village understand about the River Rejuvenation activity and getting their buy in.

- We have worked with different stakeholders to create more than 22,000 employment opportunities.
- Farmer Income is more than doubled as reported in our impact assessment of water conservation prog (120% growth).
- Average increase in Work availability is 88% as reported in the same water impact report.
- Water literacy in terms of overall better watershed management has been devised to help farmers to do so.
- Communities have been also convinced to do away with Acacia and Eucalyptus plantations.

13: Climate Action



Eco-Restoration Cell at Guttahalli,
Karnataka



14: Life above water

- We have created micro water conservation structures called Water Pools, which not only helps in conserving water but also recharging it in the ground



15: Life below water




- With the aim to provide safe environment for the life below water, we are treating many waterbodies. A few by removing silt and a few more by treating them for nature based solutions like green bridges for removal of hazardous, harmful pollutants.

17: Partnering for Goals



- River Rejuvenation Conference in Dec 2017 & National Symposium on Resilient Riverine Eco System 2023, at the Art of Living Bengaluru Ashram
- Govt. Agencies, Corporates, Self Help Groups, Academic Institutions, Other NGOs, Private Groups, Community Leaders, Farmers, Activists, Multi-disciplinary Experts, etc...



Kumudvathi river used to supply
around 30% of water to Bangalore
city and had dried up, now alive



In photo: Field visit at Kumudvathi
project site to understand the local site
conditions and prepare action plan.



Happiness restored



"I was very tensed about education of my children and marriage of my daughter as there was no income from farming due to non-availability of water. Art of Living's work has reinstilled the hope. Now I don't want to leave the village, I am very happy here."

- Pandurang, Jalna, Maharashtra



Work at the Grass Root Level – Talking to Villagers & Gram level Developmental Officers, 2020 Interiors of Madurai



Geo4RRP...



Scientific Planning

GIS - Integration of Various Thematic Areas namely (Lithology, geomorphology, lineaments, soil...)

Aquifer Characteristics – Infiltration & Storativity – 2D/3D ERT, PUMPING TEST, ...

AUTODESK – Civil Design for Recharge Structures

During Implementation

Site Identification – **My Maps**

Collect App – On ground data collection related Surveys on DEMAND SIDE

IN HOUSE developed **MOBILE APPs for M&E**

Impact Study

IOT based groundwater level probes

Lysimeter – **Soil Moisture Variations**

Evapotranspiration – **Spatial Crop/ Plant Identification**

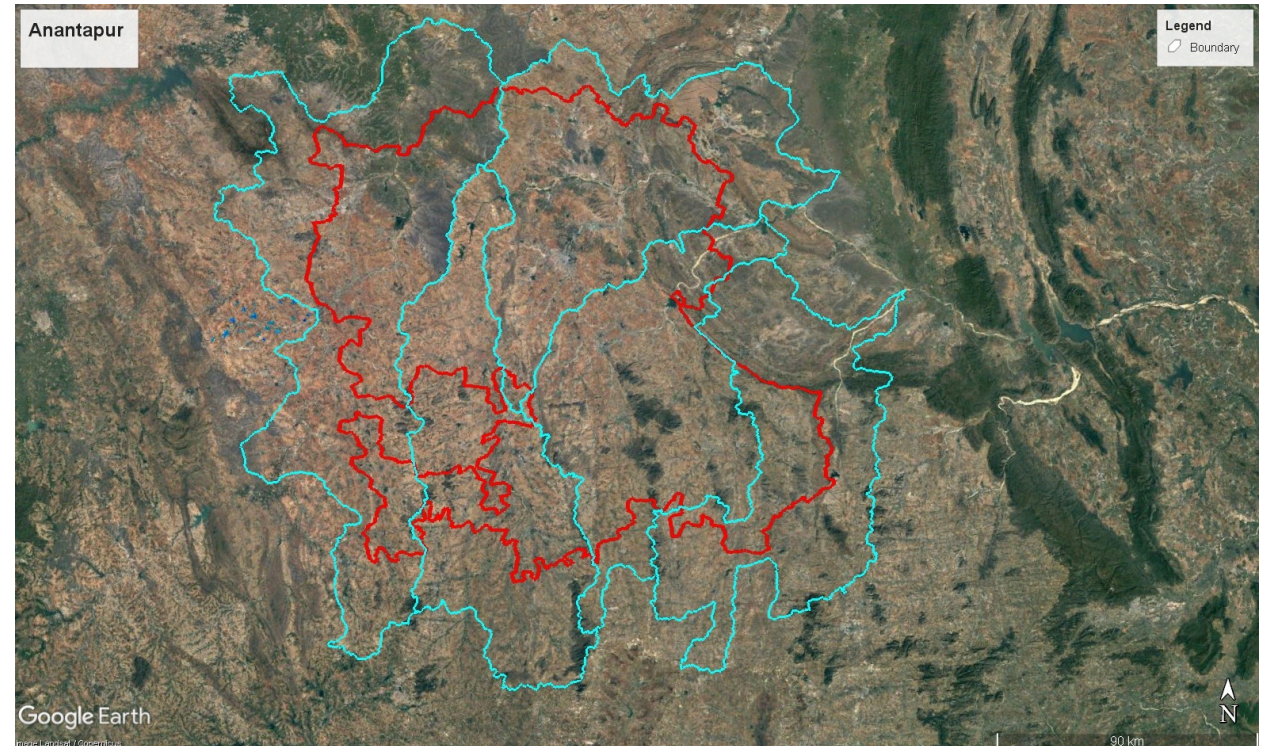
Softwares that we use...

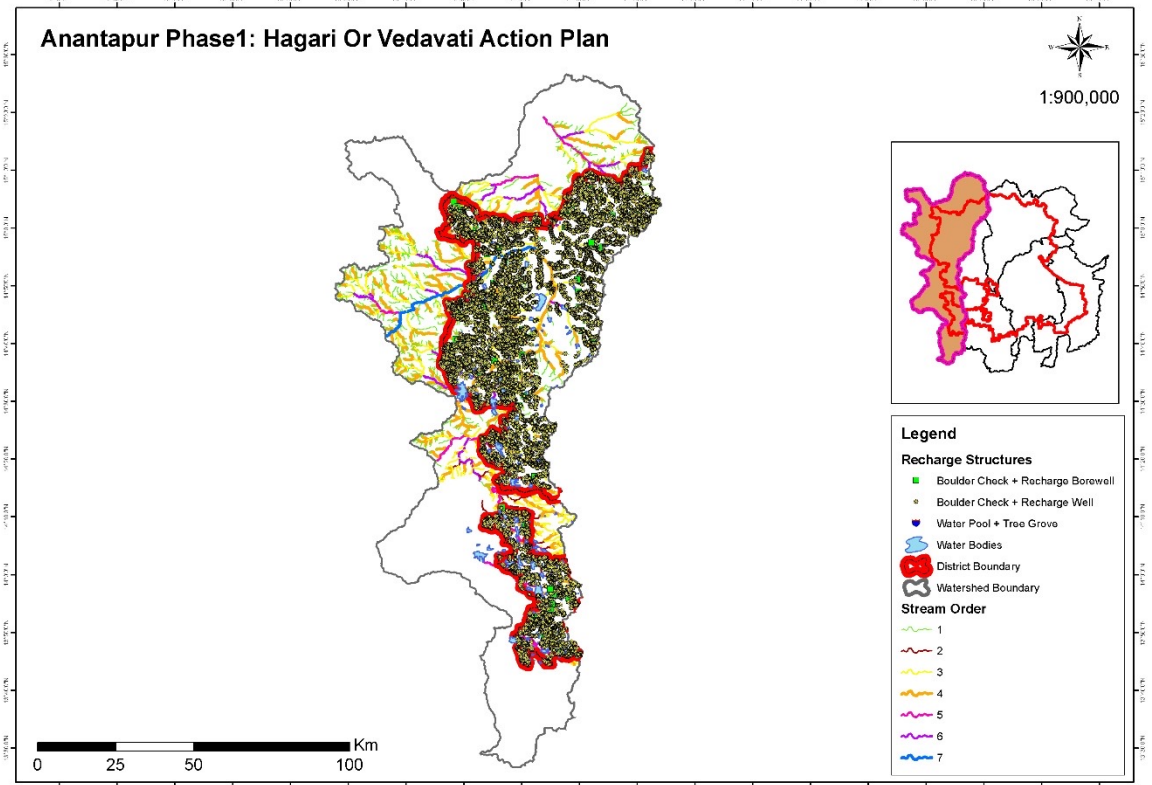
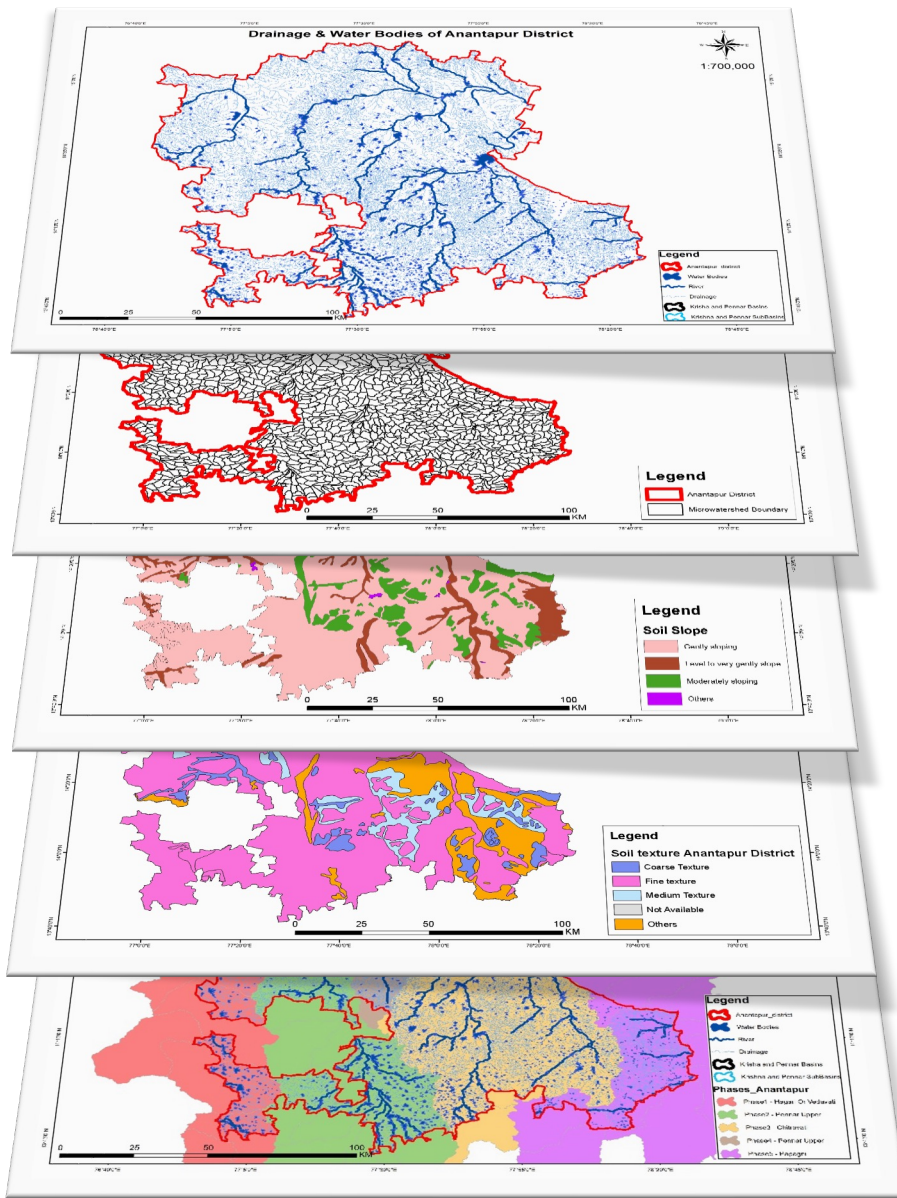


Use of GeoSpatial Technology

Action Plan Preparation

- ✓ Drainage Network
- ✓ Hydrological Boundary
- ✓ Geomorphology & Lithology
- ✓ Land Use Land Cover
- ✓ Soil texture, Soil Slope
- ✓ DEM, Elevation, Contour Maps
- ✓ Administrative Boundary





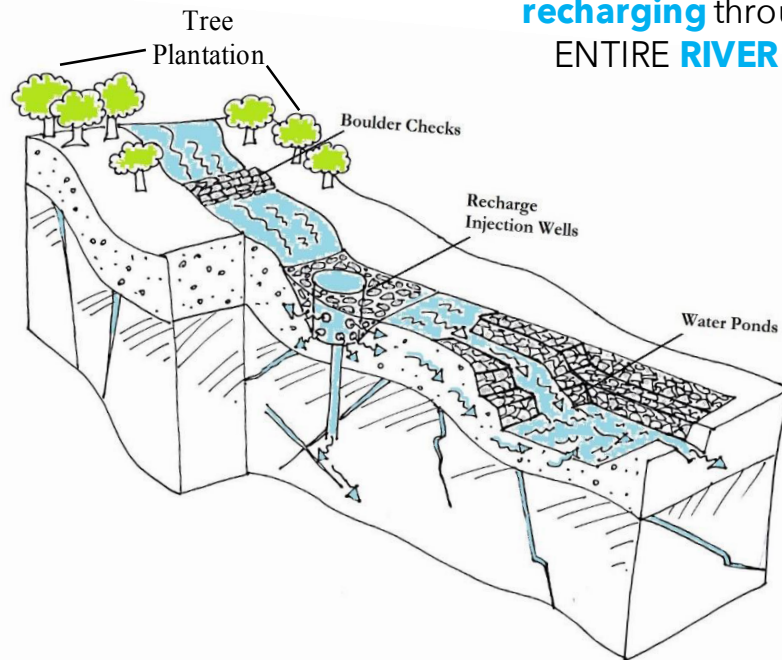
Thematic layers are stacked one over the other in ArcGIS for studying multiple themes together and arriving at the action plan

AoL Solution in Hard Rock Terrain

through Managed Aquifer Recharge



We **emulate NATURE** by >>
recharging throughout
ENTIRE **RIVER BASIN**



TREE PLANTATION

reduces soil erosion and
recharges ground water

01

BOULDER CHECK DAM

slows down speed of water,
reduces soil erosion.

02

RECHARGE & INJECTION WELLS

recharges groundwater
(Shallow and Deep Aquifer)

03

WATER POOLS

revives lakes and larger
water bodies

04

- Improving Groundwater table by Managed Aquifer Recharge across entire **RIVER BASIN**
- Slow down the runoff and Optimum recharge across river basin

Awards & Recognition



FEATURED IN THE 2019 EDITION OF LIMCA BOOK OF RECORDS AS "**MOST EXTENSIVE RIVER REJUVENATION WORK BY AN NGO**"



AWARD BY ITV NETWORK FOR ART OF LIVING'S EXTENSIVE WORK IN REVIVING 42 RIVERS IN INDIA

INDIA GEOSPATIAL APPLICATION EXCELLENCE AWARD IN 2019 FOR EXTENSIVELY USING REMOTE SENSING AND GIS TECHNIQUES FOR RIVER REJUVENATION ACTIVITY. GEOSPATIAL APPLICATION EXCELLENCE AWARD FOR USING GEOSPATIAL TECHNOLOGY IN RIVER REJUVENATION PROJECT



EXEMPLARS 2021-22 AWARD BY ROTARY CLUB OF BANGALORE FOR **ENVIRONMENT CONSERVATION PROJECTS**



HAL - IAHV'S KEY PARTNER @ KUMUDVATHI

AWARDS & RECOGNITION FOR HAL;



BEST CSR PROJECT IN 3RD CORPORATE SOCIAL RESPONSIBILITY SUMMIT BY NHRD



BEST ENVIRONMENT FRIENDLY PROJECT BY ABP NEWS



"BLUE ECONOMY PROJECTS IN INDIA" AND RECEIVED SKOCH "ORDER OF MERIT"



JOINT WINNER OF ROTARY KARNATAKA CSR AWARDS 2019



GOLD AWARD BY APEX INDIA CSR EXCELLENCE AWARDS 2018



ONLINE SUSTAINABILITY AWARD BY ECONAUR UNDER WATER HARVESTING CATEGORY

Ministry of Jal Shakti, Department of Water Resources, RD & GR • Follow
11h · 🌐

A strategic mission was initiated under 'The Naganadi River Rejuvenation Project' to revive River Naganadi which dried up due to over exploitation of groundwater. The project was funded by MGNREGA and technical support was provided by the Art of Living organization.

NAGANADI RIVER
Vellore, Tamil Nadu

Over-exploitation led to drying up of the river.

Naganadi River Rejuvenation Project took initiatives under MNREGA for its revival. The slogan used was 'One Village, One Water'.

Ministry of Jal Shakti 🇮🇳 #Amrit...
@MoJSDoWRRDGR

Led by @SriSri, the @ArtofLiving Foundation has, over the years, successfully rejuvenated 48 rivers flowing across 5 states, viz. Maharashtra, Karnataka, UP, AP & Tamil Nadu, benefitting 34.5 million people in 12,077+ villages.

6,56,944 Trees Planted	41,000+ Recharge Structures Built	After Vedavati River
34.5 million Population Benefited Across 5 States	12,077+ Villages Benefited	After Naganadi River
1,12,500+ Employment Generated through MGNREGA	2500 Trillion Its. Increased Water Storage Capacity	After Terna River

Narendra Modi and 9 others

12:43 PM · Mar 28, 2022 · Twitter Web App



Water is the basis of the life force...

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