



# SUSTAINABLE ENVIRONMENT AND LIVELIHOODS





NSE Foundation initiated its projects in aspirational districts in 2018 and one of the selected districts was Karauli in Rajasthan ranked by Niti Ayog. Various programmes in the focus areas of Primary Education, Water & Sanitation, Elder Care and Environment Sustainability were commenced for holistic development of the district.

Among the projects, a project titled – “Sustainable Environment and Livelihoods through Soil & Water Conservation and Improving Soil Health” with Self-Reliant Initiatives through Joint Action (SRIJAN) was implemented for sustainable livelihood interventions with rural families in 76 villages of two marginal blocks, i.e., Mandrail and Sapotra.

As this region suffers from soil erosion and fertility loss, the upper ridge areas grappled with low soil depth, lesser fertility, and higher dependency on surface water. Scanty monthly rainfall was another challenge in the area.

The project worked towards conservation and recharging of water resources by capturing surplus runoff within the river sub-basin and micro- watershed, thus reducing water and soil losses. Simultaneously, the programme team worked on improving water productivity, land productivity and de-risking the present farm-based livelihoods, and, most importantly, change the community's behaviour to effective water governance and management.

The efforts of the project have led to construction of 115 water harvesting structures with potential of 1.6493 billion litres, 2480.73 acres of land converted from unproductive land to cultivatable land, 2921 farmers have been demonstrated for natural farming practices.

I am glad that this coffee table book has been created to give a glimpse of the project and the communities that it has reached.

*Renua Mohan-*

CEO, NSE Foundation





It is with immense joy and gratitude that I present this coffee table book, which highlights the remarkable work of SRIJAN and its impact on the lives of the people in Karauli district, Rajasthan. SRIJAN, a public charitable trust, has been tirelessly working for the past 23 years to improve the lives of rural families in 17 backward districts across four states in India.

The name SRIJAN, which means 'an act of creation' in Sanskrit, reflects the organization's vision to promote self-reliance and joint action in poverty alleviation models. This approach has been critical in creating sustainable change in the communities we serve, and this coffee table book beautifully captures the spirit of SRIJAN and its positive impact on the lives of rural families in Karauli district.

We celebrate the hard work, dedication, and commitment of the SRIJAN team and the achievements of the communities we serve.

The support of NSE Foundation has been instrumental in accelerating change in Karauli district. The construction and renovation of 115 water harvesting structures have led to a water recharge potential of 1.6493 billion litres, ensuring water security to the local communities. Soil and moisture conservation initiatives have successfully treated 12617 acres of land and converted 2480.73 acres from unproductive to cultivable through pond silt application. This integrated approach has benefited 20,885 beneficiaries in the last three years.

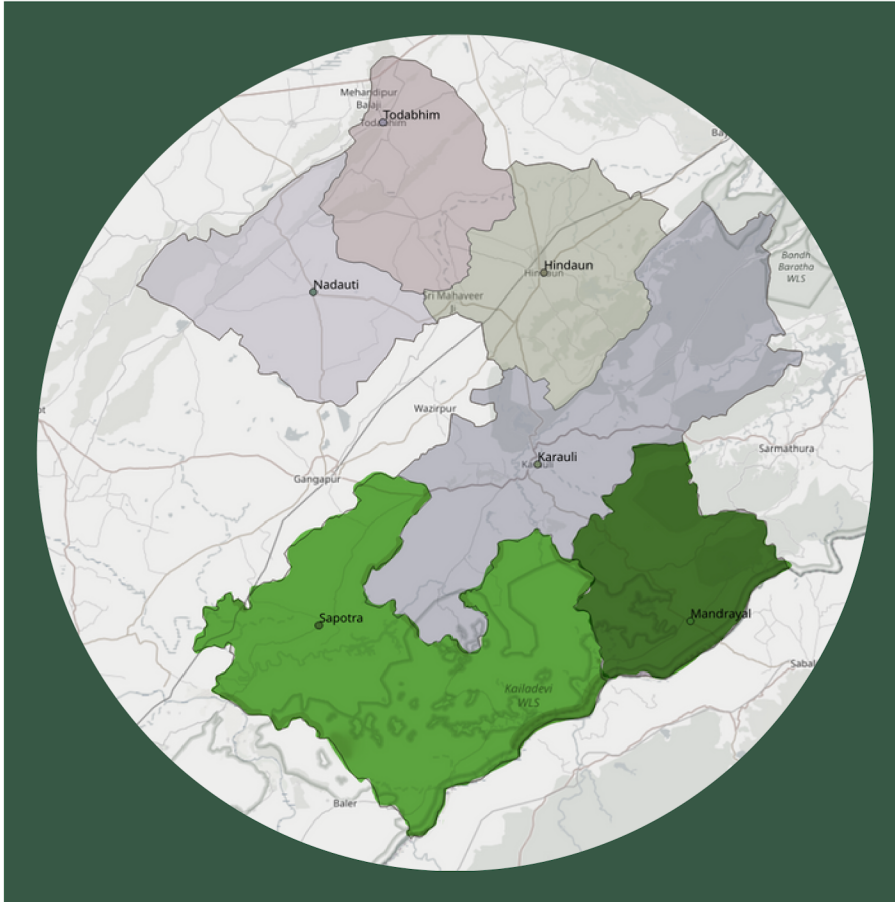
This coffee table book stands as a testament to our dedication to sustainable development and collaboration with stakeholders. It is a celebration of the positive changes that can be achieved through our approach.

We are proud of the achievements of the communities, and we hope that this book will inspire and encourage others to support our mission and help create a positive change in the lives of the most vulnerable in our society.

Once again, we extend our profound gratitude to NSE Foundation for their support and partnership in our journey towards a better tomorrow.

*Prasanna Khemariya-*

CEO, SRIJAN



## About Karauli

Karauli in eastern Rajasthan, ranked as an aspirational district by Niti Ayog, has been selected by NSE Foundation for sustainable livelihood interventions. SRIJAN undertook the project, benefitting rural families in 76 villages across Mandrayal and Sapotara blocks.

# Project Summary

Karauli region is categorized under hilly terrain with no lofty peaks and rugged ravines. The ravines area suffers soil erosion and fertility losses due to the nearby Chambal River.

The upper ridge areas were grappled with low soil depth, lesser fertility, and higher dependency on surface water. The monthly rainfall coefficient varies between 50 to 69% between June to September, based on decadal rainfall analysis.

The consumption of synthetic fertilizers rose to 158.70% in a decade, negatively impacting soil & consumer health. Even the percentage of area under micro-irrigation and share of high-value crops to the total sown area were deficient, i.e., 1.71% and 1.98%, respectively, as in 2018.

**All these factors contributed to an increase in marginality coefficient to farmers and, subsequently, impacted the environment with farmers' non-sustainable practices.**



**Analyzing the problem statement SRIJAN developed a roadmap for NSE Foundation to work in these villages with a project titled – “Sustainable Environment and Livelihoods through Soil & Water Conservation And Improving Soil Health.”**

**the SRIJAN team focussed on implementing activities favorable for both stakeholders, farmers and the environment.**

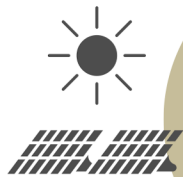
**The defined objectives of the projects were:**

- To improve the land quality and augment water through the demonstration of community-driven soil and water conservation methods
- To demonstrate methods of regeneration and climate-smart agriculture practices having the potential to improve land quality, and it's productivity
- To demonstrate water conservation technology and improve water productivity
- To demonstrate methods of de-risking agriculture through diversification of production system
- To enhance community capacity for effective management and conservation of resources for sustainable environment and livelihoods.

**Given the challenges, a well-developed management plan catering to supply and demand was needed. The supply side management has been addressed through conservation and recharges by capturing surplus runoff within the river sub-basin and micro- watershed, reducing water and soil losses.**

**At the same time, the demand-side management interventions are done on a technological front to improve water productivity, land productivity and de-risking the present farm-based livelihoods, and, most importantly, change the community's behaviour to effective water governance and management.**

# SRIJAN's Implementation Strategy



Improved  
Technology -  
Efficient Irrigation  
and Solar Power

De-risking  
agriculture through  
diversification



**Village  
Development  
committee**

Soil & Water  
Conservation



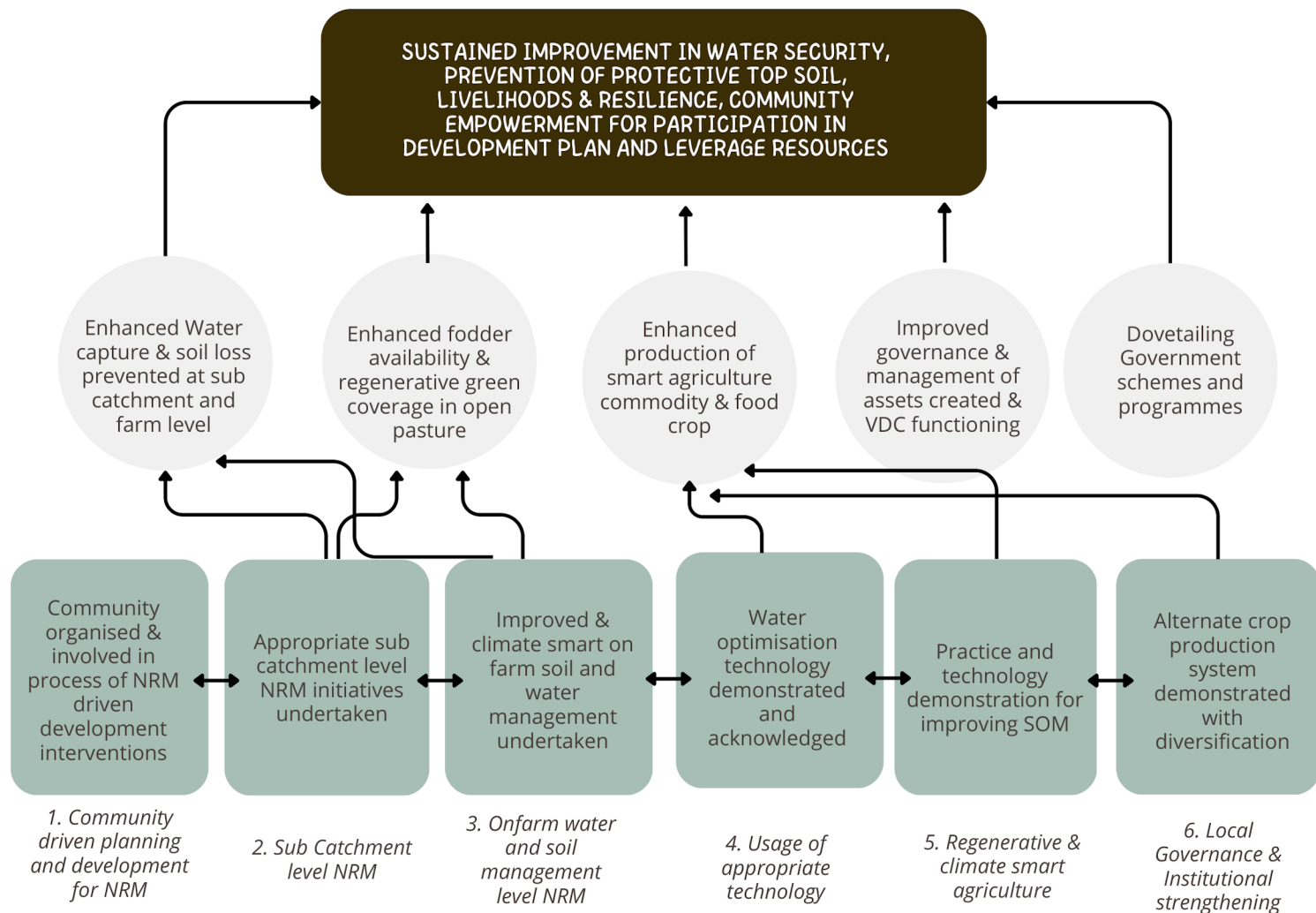
Pasture  
Development  
and Livestock



Improve Soil  
Health







Hence, soil and water conservation and management have become imperative to address environmental sustainability and the welfare of people. Efforts have been made to develop an effective partnership between different stakeholders like the government has been essential to ensure the long-term strategic development of the region's sustainability.

The critical outcomes through implementation of the project started from the 1st August 2019, and lasted till 31st July 2022 in three years, as the SRIJAN team reached out to 3419 beneficiaries directly and 17466 beneficiaries indirectly.

COMMUNITY  
INSTITUTIONS





TOTAL 74 VILLAGE  
DEVELOPMENT  
COMMITTEES (VDCS)  
ARE FORMED IN 76  
VILLAGES WITH TOTAL  
MEMBERSHIP OF 4028  
MEMBERS



Community Meetings and Celebration of World Water Day in Mandrayal Block of the Karauli District



The village development committee's (VDC'S) have been strengthened in soil, water, and environment-related issues, raising their awareness on a government scheme, and training them to submit their demand to the line department directly or through gram panchayat as deemed fit.





**WATER  
HARVESTING  
STRUCTURES**





An aerial photograph of a large, calm reservoir. In the foreground, a small, rocky island with a simple wooden structure sits in the water. The shoreline is lush green with scattered trees and some small buildings. The water is a light greenish-blue, reflecting the sky. A dark blue text box is overlaid on the right side of the image.

**1.6493 BILLION LITRES OF  
WATER HARVESTING  
POTENTIAL CREATED  
THROUGH CONSTRUCTION  
& RENOVATION OF 115  
WATER HARVESTING  
STRUCTURES INCLUDING  
EARTHEN DAMS &  
MASONRY CHECK DAMS**



**87.1 ACRES OF  
ADDITIONAL LAND  
BROUGHT UNDER SOLAR  
BASED IRRIGATION  
SYSTEM AND 339.76  
ACRES THROUGH  
MICRO-IRRIGATION.**

*Solar Irrigation Pump Installed with  
Renovated Earthen Dam*



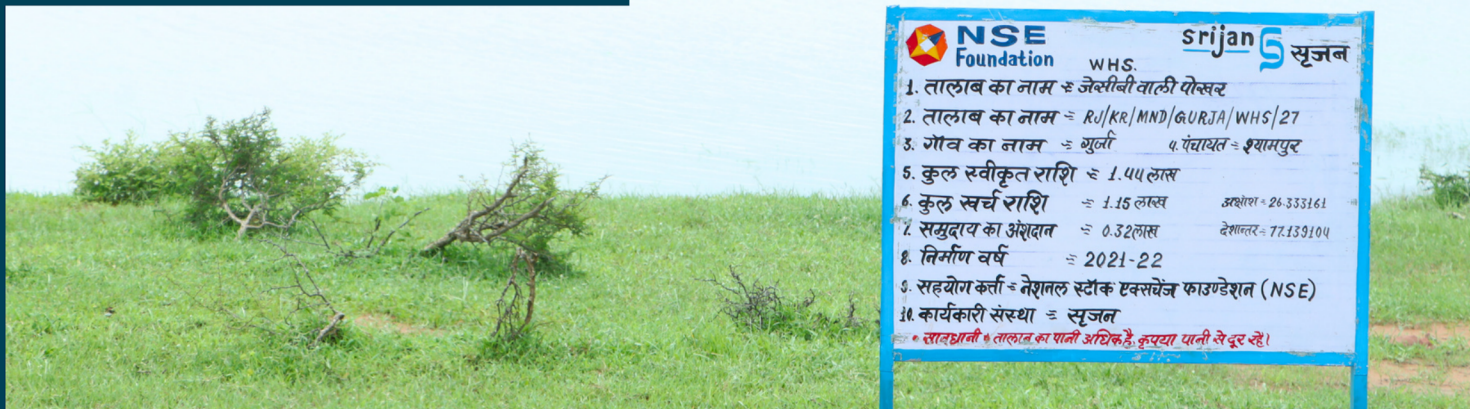


*Water Chestnuts Cultivation in Renovated Earthen Dam in Sapotara Block of the Karauli District*





Display Boards for Transparency, Outlets & Pitching in earthen dams and Impacts on Wells in downstream through Water Harvesting Structures Constructed







*Increased Water Levels for Drinking Water Sources and Community Members Expressing their Happiness for the Interventions*







**FIELD  
BUNDS**

**12617 ACRES OF LAND  
TREATED THROUGH SOIL  
& MOISTURE  
CONSERVATION  
INITIATIVES**

*Moisture & Topsoil Retention at Farm Level  
through Farm Bundings*









**2480.73 ACRES OF LAND  
CONVERTED FROM  
UNPRODUCTIVE LAND TO  
CULTIVABLE LAND  
THROUGH POND SILT  
APPLICATION AND  
CONSTRUCTION OF  
EARTHEN STRUCTURES  
AT RAVINES**

**RAVINE  
STABILITY**







*Construction of Earthen Bunds for Soil & Moisture Retention in Ravines Area*





*Pond Silt Application in Non-Arable Land  
and Earthen Bunds in Ravines Area*







SOIL  
HEALTH





A photograph of a vast field of yellow mustard flowers in full bloom. The flowers are densely packed, with their bright yellow petals contrasting against the green leaves and stems. In the background, a line of trees and a clear blue sky are visible. A dark brown rectangular box is overlaid on the right side of the image, containing white text.

**2921 FARMERS HAVE  
BEEN DEMONSTRATED  
WITH NATURAL FARMING  
PRACTICES LED TO  
IMPROVED SOIL HEALTH  
THROUGH PROMOTION OF  
USE OF ORGANIC  
EXTRACTS & FERTILISERS**





*Manufacturing of Organic Extracts and Farmyard Manure Treatment for Improving Soil Health*





482.41 ACRES OF LAND  
COVERED UNDER CROP  
DIVERSIFICATION  
INCLUDING ORGANIC  
VEGETABLE  
CULTIVATION AND  
HORTICULTURE  
PLANTATION

CROP  
DIVERSIFICATION







*Interaction of Government Officials with Team and Farmers at an Event "Amrood Mahatsav" in Mandrayal Block of the Karauli District*





*Intercropping of Papaya, Guava Orchards Establishment and Organic Vegetable Cultivation for Crop Diversification*





SRIJAN is a public charitable trust registered in National Capital Territory of Delhi



NSE Foundation  
Exchange Plaza, C-1, Block-G,  
Bandra Kurla Complex,  
Bandra (E), Mumbai- 400051



4, Community Shopping Centre,  
1st Floor, Anupam Apartments,  
Mehrauli Badarpur Road,  
Saidullajab, New Delhi – 110068