



Food and Agriculture Organization
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VAAGDHARA

WORLD SOIL DAY - 2023

A REPORT



VAAGDHARA

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WORLD SOIL DAY - 2023

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1. Introduction

Every year, on December 5th, the global community comes together to celebrate the World Soil Day, emphasizing the crucial link between healthy soil and a healthy life. Despite this annual observance, it remains essential to mark this date in our calendars annually, striving to raise awareness among communities about the profound importance of soil. The evident reason behind this necessity lies in the fact that soil serves as the foundation for natural resources, ecosystems, biodiversity, and ultimately, the destiny of our planet and its inhabitants.

VAAGDHARA, a community-based organization, works with over 100,000 farmers from indigenous communities across more than 1,000 villages in Rajasthan, Madhya Pradesh, and Gujarat States of India. Within this region, the indigenous populace has been joyously and actively celebrating World Soil Day, supported and facilitated by the community institutions, people's organizations and VAAGDHARA. This year, the World Soil Day festivities continued across 1,041 villages, steered by the 28 *Krishi evam Adiwasi Swaraj Sangthan* - the people's organizations., Gram Swaraj Samuh and other community institutions.

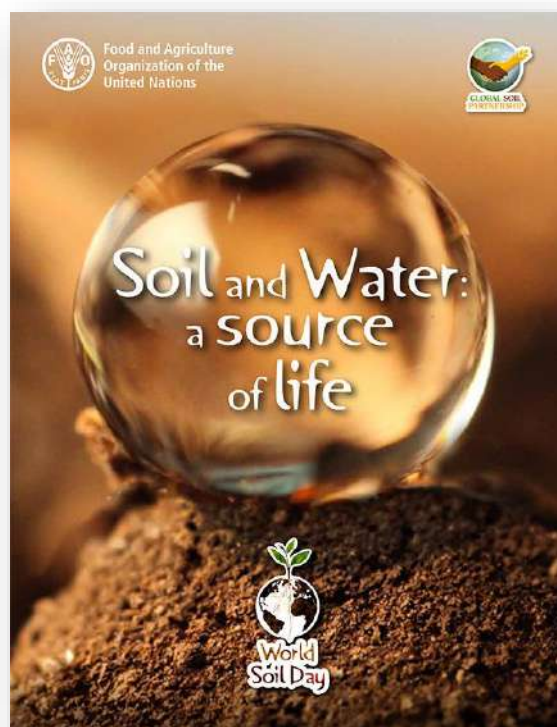
Soil erosion disrupts the natural balance, reducing water infiltration and availability for all forms of life.

2. World Soil Day 2023

“Soil and water, a source of life” stands the theme for the World Soil Day in the year 2023. No one can imagine life on the planet earth without soil and water which share a precious link and a symbiotic relationship which is the foundation of the agricultural systems in India. Over 95 percent of our food originates from these two fundamental resources. Soil and water are vital for nutrient absorption by plants, binds our ecosystems together.

In the context of the climate change and human activity, our soils are being degraded, exerting pressure on our water resources. Erosion disrupts the natural balance, reducing water infiltration and availability for all forms of life.

Sustainable soil management practices, such as minimum tillage, crop rotation, organic matter addition, and cover cropping, improve soil health, reduce erosion and pollution, and enhance water infiltration and storage. These practices also preserve soil biodiversity, improve fertility, and contribute to carbon sequestration, playing a crucial role in the fight against climate



change. World Soil Day 2023 (WSD) and its campaign aimed to raise awareness of the significance and relationship between soil and water in achieving sustainable and resilient agri-food systems.

3. Planning and Preparations

Given the magnitude of the planned events in more than 1000 villages, extensive preparations were done which included:

3.1. Training of Facilitators

The entire activities of the event were divided among the three implementing units viz. Mangarh, Hiran and Mahi. VAAGDHARA's Technical Support Unit (TSU) actively engaged in the monthly review meetings across these units. Additionally, dedicated sessions were conducted to deliberate on World Soil Day initiatives and enhance the capacity of members within these implementing units. Thorough discussions encompassed topics including the soil's influence on biodiversity, environmental and social aspects, as well as improved techniques for soil and water management. These subjects were part of the capacity-building exercises for the team, disseminated among the members of the implementation units. Facilitators, including the Swaraj Facilitators, conducted capacity-building sessions across 1,041 villages within their operational areas to empower community members. The members were tasked with ensuring community participation from each village, collaborating with the community to outline the event and to come with the soils from their respective fields at the event site. Various posters promoting soil conservation were prominently displayed.

3.2. Preparation of Campaign Material

A guide was readied by towards organizing the World Soil Day as a celebration at village level. While preparing this guide, ideas and suggestions for the event from all the facilitators and members of the organization were considered. It consisted of the history of the event, its outline; possible activities, collection of various facts and information related to soil, soil Aarti, affidavit etc.



4. Celebration of the World Soil Day

The World Soil Day was celebrated under the leadership of the people's organization in 1041 villages of Rajasthan, Madhya Pradesh and Gujarat. The celebrations began in the morning when the members of our community institutions viz. *Saksham Samuh*, *Gram Swaraj Samuh* and *Bal Swaraj Samuh* of the villages joined hands with the villagers and took part in the 'Prabhat Pheri' - the morning procession. During the procession, slogans related to soil and water conservation were raised and folk songs that carried the awareness messages were sung. The rally passed through the main areas of the village and reached the centre of the village. There, the children, youth and elders gathered with enthusiasm, with soils in their hands.

4.1. Soil and Seeds Rangoli

The community members creatively designed vibrant and eye-catching Rangoli using soil, seeds, flowers, grains, and vegetables brought to the event. At the center of these Rangolis, an earthen pot (Kalash) filled with water, adorned with a coconut—an emblem of prosperity in tribal customs was placed for worship.

4.2. Community Dialogue on Soil and Water

Following the vibrant Rangoli creation, Vaagdhara members organized insightful discussions aimed at educating villagers about the cultural significance of soil and water in tribal communities. Traditional practices and folk songs related to soil were utilized for this purpose. Women associated with the Saksham Samuh passionately addressed issues concerning soil and water conservation due to unsustainable agricultural practices. Following were the key topics of the discussion:

4.2.1. Land Preparation

- *The soil must be loosened when preparing the field. It is important not to plough too deeply and only as required so as not to disturb the soil structure too much.*
- *Bullocks are helpful for minimal ploughing.*
- *Heavy machinery also shouldn't be used as it compacts the soil.*

4.2.2. Irrigation

- *Adopt advanced irrigation methods like drip or sprinkler irrigation.*
- *Dams and Khantis help to control the water flow.*
- *Planting various types of trees and plants at the ridge helps not only to preserve the moisture in the soil but also helps to prevent soil erosion in the event of flooding.*

4.2.3. Crop and Seed Selection

- *Select local crops according to the soil condition (light soil or heavy soil) and use only local seeds.*
- *Choose crops which are suitable for the local environment and available resources.*
- *Crops like cotton or sugarcane require a lot of water and nutrients which makes them less suitable than other crops. Adopt crop rotation, do not plant the same type of crop continuously on one field. Adopt mixed farming in which one crop complements another crop.*

4.2.4. Soil Coverage

- Introduce cover crops like grass or mash on the fields. Plant perennial crops.
- Plant permanent bushes on the ridge like custard apple or henna as they will help to prevent soil erosion and generate additional income.

4.2.5. Pest Management

- Use organic pesticides and organic fertilizers. Do not use poisonous chemical fertilizers and pesticides in the field.
- The crop needs proper nutrient management to grow accordingly.

Gram Swaraj Samuhs and other community institutions successfully raised awareness within the community regarding the diverse dimensions of soil. Various villages contributed to discussions that delved into the following aspects:

- Micronutrient deficiencies afflict over 2 billion people today, highlighting the critical role of healthy soil for sustaining life.
- Out of the 18 essential nutrients crucial for both plant growth and human health, 15 are sourced from soil.
- Different soil types exhibit varied water retention capacities, with sandy soil, for instance, absorbing less water compared to black soil.
- Healthy soil accelerates fruit ripening, subsequently boosting production rates while enhancing fruit quality and taste.
- Preserving soil biodiversity directly contributes to soil fertility.
- Soil plays a pivotal role in climate change mitigation by absorbing carbon from the atmosphere, thereby reducing its impact.
- Sustainable soil management practices enable enhanced carbon absorption and storage within the soil.
- The removal of vegetation cover results in erosion of the topsoil layer, underscoring the importance of vegetation for soil preservation.

The youth engaged in the program shared the following intriguing insights about soil with the community:

- A mere teaspoon of soil harbours more microorganisms than the total human population on Earth.
- Earthworms significantly contribute to soil fertility by consuming approximately 15 tons per acre annually.
- Proper soil management is crucial as it determines the soil's ability to retain carbon.
- Soil composition typically comprises 45% minerals, 30% air, 20% water, and up to 5% organic matter.
- Farmers can transition their soil into organic soil within a span of three years through appropriate practices.
- Soil acts as a natural water purifier, maintaining the cleanliness of groundwater.
- Globally, one-third of the soil faces degradation due to inadequate soil management practices.



Photos: A Soil and Seeds Rangoli

4.3. Worshipping Mother Earth

The indigenous community have remained the custodian of the nature and has been revering the nature, trees, plants, animals, forests, and rivers as invaluable gifts bestowed upon them by nature. As part of the World Soil Day celebrations, the community meetings were concluded with worship of the Mother Earth, which is a practice in the community. Each farmer brought a handful of soil from his/her field and mixed it with that of others making it a common village soil and worshiped it and seeds with devotion. The community has a common belief that soil or land is their mother as it gives them shelter, food, and clothes. So, after worshipping soil they pledged to protect it, improve its health in order to enhance production. After the prayer and the worship, each farmer took back a handful of soil to spread it in their land as a holy blessing of mother earth. Women, Men, and even children everyone participated in the celebration with joy and festivity. Symbolic tree saplings were also planted in select villages to mark this occasion. More than 1 lakhs farmers in 1041 villages pledged to save, conserve and enhance the nutrition of soil by reiterating various conservation practices and behaviours.



Photo: Community members worshipping soil

4.4. Preparing the 'Agrah Patra'

In the subsequent phase of the program, the community members assessed the condition of soil and water in their village, drafted a memorandum – the 'Agrah Patra' seeking support from both the community and the government to achieve self-sufficiency and sovereignty of soil and water. The requests articulated in the letter are summarized as follows:

S. No.	Points of discussion	Request to community	Request to Government
1	Plantations and conservation	Plant multipurpose trees on the ridges of the fields and in space available around the houses.	Develop and preserve the forests and the community pastures.
2	Developing of Ridges	Develop ridges in the fields especially in the sloping fields .	Facilitation of developing of ridges under the MGNREGA

3	Soil and water storage		Develop a system to prevent the flowing of water out of the land – like construction of wall and dams around the fields. Efforts for storage of water of the village in the village and that of house in the house. This would also check soil erosion.
4	Ban on Mining	Community should resist the mining activities and should come up against the administration if need arises	Imposition of a total ban on mining and provisioning of severe penalty for breach of law.
5	Enhancement and improvement in the agricultural system	Useful and prudent agricultural systems should replace the outdated ones.	Provide financial assistance to encourage farmers for promoting soil conservation farming systems.
6	Irrigation	Adopt drip irrigation of sprinkler system.	Extend the drip and sprinkler irrigation system facilities and include marginal farmers in the government and increasing government grants.
7	Ban on poisonous chemicals	Stop using toxic chemicals and pesticides in various food crops.	Impose a ban the use of poisonous chemicals to promote bio-diversity.
8	Promotion of traditional agriculture systems	Adopt only local indigenous seeds, organic fertilizers and pesticides in the fields.	Establishment of a seed bank at the district level. Establish seed banks at the district level. Ensure availability of organic fertilizers and pesticides. Creation of markets for organic products, at block level with easy accessibility for farmers
9	Environment conservation	Farmers should take measures to conserve the environment	Farmers adopting local farming methods should be given financial assistance.

5. Media Coverage

▪ Newspaper

World Soil Day was celebrated with enthusiasm in all of the 1041 villages in Rajasthan, Madhya Pradesh and Gujarat. The information about the celebrations was shared with various media groups. All the key dailies like Rajasthan, Madhya Pradesh and Gujarat have prominently published the events of World Soil Day. These newspapers also include the country's largest Hindi-speaking newspaper group Dainik Bhaskar, Rajasthan Patrika, Sandesh, Navjyot, Gujarat Sandesh, Dahod Live, Jan Jagran Sandesh, Dainik Bhaskar of Madhya Pradesh and Rajasthan Patrika.

Community Radio

Various soil and water conservation programs were designed and broadcast through Vaagad Community Radio of VAAGDHARA on this day. The programmes were listened by more than 2,50,000 individuals.

Articles

Articles on World Soil Day were also published in Vaatein Patrika – the community newsletter, published every month by Vaagdhara. The articles were read by more than 5000 readers.

Social Media

News pieces, photographs and videos related to the World Soil Day event were disseminated through VAAGDHARA social media channels like Facebook, Instagram etc. These posts were mirrored by the organization's blog.

The collage consists of several news articles and photographs. The top row features three articles: 'गांव में मृदा दिवस को एक त्यौहार के रूप में मनाया' (Soil Day celebrated as a festival in the village), 'विषय मृदा दिवस पर किए विविध कार्यक्रम' (Various programs held on the occasion of World Soil Day), and 'मिट्टी के तहत जीवन का रहस्य' (The mystery of life under the soil). The middle row includes 'मृदा दिवस पर मिट्टी पूजन एवं रैलियों के माध्यम से किया' (Soil Day celebrated through soil worship and rallies) and 'हृदयस्पर्शी स्वास्थ्य एवं उज्जवल भविष्य के लिए मृदा को बनाए रखना... मैं मिट्टी' (Protecting soil for a heart-touching health and bright future... I am soil). The bottom row features 'पुरा तालुकामें वाघाढारा संस्था द्वारा मृदा दिवस कार्यक्रम' (Soil Day program by Vaagadhaara organization in the entire taluka) and 'बांसवाड़ा जिला के बेहतरीन स्वास्थ्य एवं उज्जवल भविष्य के लिए मृदा रक्षकों के लोगों ने खेत से मिट्टी लेकर' (People who take soil from the fields for a better health and bright future in Banswara district). The photographs show community members engaged in various activities like soil testing, tree planting, and group discussions.

Photo: A Glimpse of Media Coverage

6. Conclusion

The World Soil Day celebrations marked a significant milestone with awareness programs conducted across 1041 villages by 311 Gram Panchayats, led by 26 Agriculture and Tribal Swaraj organizations spanning Rajasthan, Madhya Pradesh, and Gujarat. These initiatives aimed to enlighten local communities on the indispensable connection between soil and water, pivotal for fostering sustainable and resilient agricultural and food systems. Through community engagement, crucial insights were disseminated on key aspects:

- **Soil-Water Relationship:** Highlighting the inseparable link between soil and water, fundamental for sustaining life and fostering ecosystems critical for agriculture.
- **Soil Erosion Concerns:** Addressing the mounting risks posed by soil erosion, pollution, and deforestation, underscoring the urgent need for heightened awareness and concerted action.
- **Biodiversity Protection:** Advocating for the safeguarding of soil ecosystems to preserve both above-ground and below-ground biodiversity.
- **Climate Change Mitigation:** Recognizing soil as a potent weapon against climate change, endorsing sustainable practices like agroforestry and organic farming to sequester carbon and enhance climate resilience. Embracing a deeper connection with the soil and implementing sustainable measures holds promise for nurturing a healthier and more robust planet for present and future generations.

7. Community Voices

“For soil conservation I have adopted the circular economy method. With diversified farming I practice animal husbandry, multiple cropping and prepare organic fertilizers and pesticides myself, throughout the year.”

- **Ramila Maida- Anandpuri, Banswara.**

“I prepare fertilizers on my own and use it in my fields. Mulching is done with grass and leaves to protect the soil. The quality of the soil has improved with the use of self-prepared compost and adding biomass.

- **Sita Kailash, Bajna village, Ratlam district, MP**

I am a young farmer. I used to migrate due to lack of irrigation facilities but now I have learned ‘Sachchi Kheti’ (True Farming). Now I plant fruit trees and grass on the ridge and grow vegetables and coarse grains using drip irrigation methods.

Deenabhai Bhoora, Village Patisera, Dist. Dahod, Gujarat





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