



**Centre of Excellence on – Sustainable Land
Management (SLM), ICFRE
Sponsored National Training**



**on
Transforming Barren Basaltic Terrain into
Productive Land for Sustainable Crop
Production**

(September 21 – 25, 2026)



Important Dates:

Receipt of applications: Before August 31, 2026

Intimation to selected candidates: August 31, 2026

Confirmation by selected candidates: September 01, 2026



Organized by

ICAR-National Institute of Abiotic Stress Management

Baramati (Pune), Maharashtra, India-413115; Website: niam.res.in

Background

Abiotic stresses, intensified by climate change, threaten natural resources, agricultural productivity, and global food security, with resource-poor degraded lands being among the most vulnerable, suffering the greatest losses in production, crop diversification, and market opportunities. India has nearly 120 million hectares (Mha) of degraded land, including about 26.5 Mha of shallow basaltic rocky terrain with poor soil fertility and limited water availability. To address this challenge, ICAR–National Institute of Abiotic Stress Management (ICAR–NIASM), Baramati, has developed and validated an innovative technology for transforming barren basaltic terrain into productive agricultural land through integrated land, soil, and water management interventions. The transformed landscape now serves as a national model for sustainable management and promoting land degradation neutrality, crop diversification, climate-smart integrated farming, soil and water conservation, carbon sequestration, and improved livelihoods. This training programme is designed to equip extension functionaries, government officials, researchers and policymakers, from Central and State Government organizations /departments, NGOs, progressive farmers, and professionals engaged in environmental and natural resource management with knowledge and practical field skills to plan, implement, and manage land transformation technologies for sustainable crop production under climate-stressed environments.

Course Content

- **Abiotic Stresses, status and restoration potential of degraded land:** Major abiotic stresses, extent, characteristics, constraints, and opportunities for transforming barren basaltic rocky terrain into productive agricultural landscapes
- **Site characterization and planning:** Geo-hydrological survey, watershed planning, land capability assessment, and scientific site layout
- **Engineering interventions for transforming degraded land:** Rock ripping, chaining, blasting, land levelling, terrace development, and farm road construction
- **Soil profile development and fertility restoration:** Spent wash application, green manuring, organic carbon enrichment, spent mushroom substrate (SMS), FYM, and black soil filling techniques
- **Water resource development:** Water harvesting, irrigation and drainage planning, automated irrigation systems, and waste water management
- **Establishment of productive farming systems:** Identification of abiotic stress-resilient field and horticultural crops, climate-smart integrated farming, conservation agriculture, agroforestry, medicinal plants, livestock production systems, and boundary plantations on transformed lands
- **Technology demonstration and economic viability:** Hands-on field demonstrations climate smart technologies developed at ICAR-NIASM, cost economics, livelihood enhancement, crop diversification, commercialization potential, and scaling-up strategies for degraded lands

About ICAR-NIASM

- ICAR-National Institute of Abiotic Stress Management (NIASM) was established in 2009 as Deemed to be University of its kind, focusing on cutting multidisciplinary research in the area of abiotic stresses and providing policy support for their management in agriculture through mitigation and adaptation technologies
- **Mission:** Managing abiotic stresses for sustainable agriculture
- **Mandate:**
 - ✦ Basic and strategic research to manage abiotic stresses in crops, livestock and fisheries
 - ✦ Repository of information on abiotic and biotic stresses
 - ✦ Adaptation and mitigation strategies and policies
 - ✦ Building sustainable agriculture in multi-stressed agro- ecosystems
 - ✦ Serve as Center of Academic Excellence in managing multiple stresses in agriculture

Eligibility

- Group A Officers from Ministries (MoEFCC, MoA&FW, MoRD, Jal Shakti, MoHUA, MAH&D, DoLR etc.) dealing with the policies/ programmes/ schemes/projects related to land resources, SLM/ LDN and UNCCD etc.
- State Departments: Group A Officers from State Forest/ Agriculture/ Horticulture/ Soil Conservation/ Animal Husbandry/ Irrigation/ Watershed Development Departments engaged in the implementation of programmes/ schemes and projects related to theme
- Krishi Vigyan Kendra (KVKs): Subject Matter Specialists (SMS) from SAU/ICAR etc.
- NGOs: Professionals engaged in the implementation of programmes/schemes and projects related to the training theme
- Progressive Farmers: Progressive farmers who have developed traditional knowledge based exemplary land resource management/ farming system
- Environmental Activists: Professionals working on natural resource management/ environmental conservation
- Representatives of NABARD and other funding agencies or any other relevant department

Selection Procedure

- A total of 20-25 participants will be selected for this course based on their qualification, experience, area of work and as per CoE-SLM, ICFRE, Dehradun guidelines
- Final selection will be made on the basis of merit and on a first come, first served basis, upon receipt of the application duly forwarded by the competent authority. Selected candidates will be notified via email within one week after the last date for receiving applications to which they should promptly reply with firm acceptance and travel plan

Boarding and Lodging

- The selected participants will be provided free boarding and lodging in the institute guesthouse. All participants will be reimbursed for the to and fro travel fare for the journey to NIASM, Baramati via the shortest route. The payment will be made as per the entitled class of travel, but restricted to the maximum of AC-II tier train fare (as per actuals). No DA will be paid to participants as per CoE-SLM guidelines.

How to Apply? Registration and Application

- **Filling the Application Form:** Interested participants should submit the duly filled Google form for registration and application. Google form is given below in the QR code and link.



Google form link: <https://forms.gle/t1MPawsjeDbRsrp3A>

Location, Weather Conditions and How to Reach

Baramati has a pleasant climate and is well connected by road, rail, and air. The town is accessible by rail through Pune railway station and Daund Junction, with Daund Jn being the nearest major railway junction, about 45 km away. It is also well connected through the Daund Chord Line. Pune is the nearest city with railway, bus stand, and airport connectivity, and Baramati is located about 105 km from Pune, Maharashtra. During the training programme scheduled from 21st September to 25th September 2026, the temperature is expected to be around 26–32°C during the day and 18–22°C at night. For directions to the ICAR-NIASM campus, please refer to the institute website: <https://niam.res.in/contact-us>.



Training Programme on

“Transforming Barren Basaltic Terrain into Productive Land for Sustainable Crop Production”

September 21-25, 2026

at

ICAR-National Institute of Abiotic Stress Management, Baramati (Pune), Maharashtra, India-413115

Sponsored by

Centre of Excellence on Sustainable Land Management, ICFRE, Dehradun, Uttarakhand, India

APPLICATION FORM

Name:			
Gender:			
Date of Birth:			
Participant Category:	Group A Officer from Ministries		☐
(Please tick appropriately)	Group A Officer from State Departments		☐
	Krishi Vigyan Kendra (KVKs)		☐
	NGO		☐
	Progressive Farmer		☐
	Environmental Activist		☐
	Representatives of NABARD, etc		☐
	Any other relevant department		☐
Designation:			
Mobile No.:			
Email ID:			
Education:			
Institute/Organization:			
Address:			

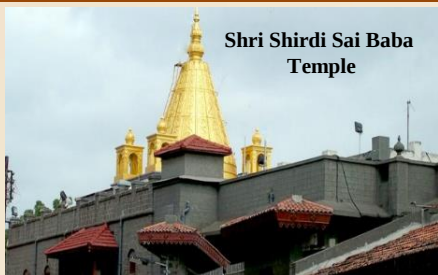
Signature of Applicant:

Forwarding from Head/Controlling Authority of the Organization:

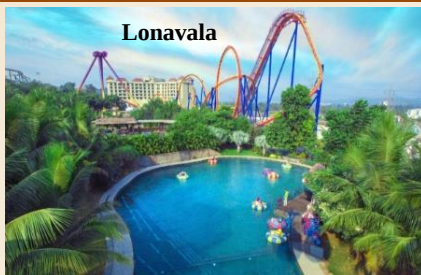
Link for Application Form:

https://drive.google.com/file/d/1oHjS3WIZnV2ZSceKWfy27N7eacE2hBEX/view?usp=drive_link

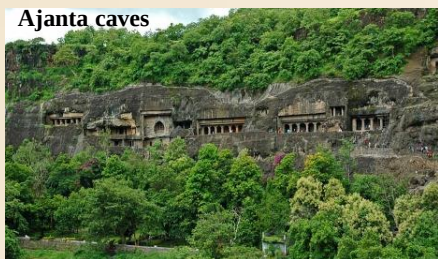
Weekend Excursions



Shri Shirdi Sai Baba Temple



Lonavala



Ajanta caves



Ellora caves



Mahabaleshwar Hill Station



Panch Jyotirlinga

For a refreshing break on weekends and a taste of Maharashtra's diverse offerings, several exciting weekend excursions are easily accessible from Baramati. Mahabaleshwar (Approx. 3-4 hours drive); Lonavala and Khandala (Approx. 2-3 hours drive); Bhimashankar (Approx. 4-5 hours drive); Ajanta-Ellora caves and Grishneshwar Jyotirlinga (Approx. 5-6 hours drive) and Shirdi Sai Baba Temple (Approx. 4 hours drive). These destinations offer a blend of natural beauty, historical significance, spiritual solace, and cultural immersion, providing a memorable and enriching experience for all trainees.





Patron

Dr. K. Sammi Reddy

Director

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