International Training on

# Designing and Delivering Resilient Seed Systems for Sustainable Food Security in Drylands

**Date: 23 March - 03 April 2026**

Organized by

**ICRISAT Center of Excellence for South-South Cooperation in Agriculture (ISSCA)**

Under the Aegis of

**Indian Technical and Economic Cooperation (ITEC) program of Government of India**

## About the course

Dryland regions contribute significantly to global food and nutritional security, yet they remain highly vulnerable to climate variability, resource degradation, and weak agricultural input delivery systems. Among these, seed systems represent the most critical leverage point for enhancing productivity, resilience, and sustainability. This two-week intensive course, developed by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), is designed to strengthen capacities to design, operationalize, and scale resilient, inclusive, and market-responsive seed systems tailored to dryland environments.

The course aims to: Build a systems-level understanding of seed systems in dryland agriculture; Strengthen capacities to design climate-resilient and demand-driven seed delivery models; Promote inclusive approaches with a focus on women, youth, and farmer institutions; Integrate digital innovations, markets, and policy perspectives into seed systems; Support participants in developing actionable, context-specific seed system strategies.

## Who should apply?

Government officials working in agriculture and seed sector development; Researchers and scientists in crop improvement and seed systems; Extension professionals and development practitioners; NGOs, Farmers' Organizations, Cooperatives; Private and community-based seed entrepreneurs; Professionals from international development agencies.

www.icrisat.org

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## Course Topics

### Week 1: Foundations and System Design

**Module 1: Dryland Agriculture and Food Security**
- Understanding dryland agro-ecologies, climate risks, and the central role of seed systems in building resilience.

**Module 2: Seed Systems Concepts and Frameworks**
- Formal, informal, intermediary, and integrated seed systems; strengths and limitations in drylands.

**Module 3: Crop and Variety Portfolios for Drylands**
- ICRISAT mandate crops, trait prioritization, varietal replacement, and the role of landraces.

**Module 4: Climate-Resilient Breeding and Seed Readiness**
- Demand-led breeding, product profiling, seed multiplication planning, and accelerated deployment.

**Module 5: Seed Quality Assurance and Regulatory Systems**
- Certification, quality-declared seed, community-based QA models, and regulatory challenges.

### Week 2: Delivery, Inclusion, Markets and Scaling

**Module 6: Inclusive Seed Delivery Models**
- Community-based seed systems, FPOs, women-led seed enterprises, and youth engagement.

**Module 7: Markets and Demand Creation for Seed**
- Farmer demand assessment, seed–grain–market linkages, aggregation, branding, and PPPs.

**Module 8: Digital Innovations in Seed Systems**
- Digital monitoring, seed forecasting, GIS-based planning, and data-driven decision-making.

**Module 9: Policy, Institutions and Investment**
- Seed policies, financing mechanisms, risk mitigation, and alignment with climate and food security agendas.

**Module 10: Designing Resilient Seed System Strategies**
- Seed system diagnostics, Theory of Change development, scaling pathways, and sustainability planning.

## Guidelines to Apply for the Course

- Create a login to apply for the course and furnish all the requisite information. Submit the application online and download the submitted application form.
- Take a printout of the submitted application form, get appropriate signatures at all the signature placeholders throughout the application form including the English proficiency certificate, medical report, candidate undertaking form and the Employer nomination form.
- Scan the complete application document and submit the physical copies of the application form including the undertaking form and the employer nomination form to the Indian High commission in your country and e-mail the scanned copy of the executed application form to vishwambhar.duche@icrisat.org with copy to babu.potta@icrisat.org.

Please note that we have very limited seats for the course and the eligible applications will be shortlisted by the Ministry of External Affairs, Government of India on First Come First Serve basis. Therefore, if you are interested, we recommend that you submit your application immediately without any delay.

In case you face any technical difficulties in applying for the course, such as portal issues, login issues or any website related errors, please screenshot the errors and email to help@itecgoi.in with copy to vishwambhar.duche@icrisat.org and babu.potta@icrisat.org.

## Contact


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**Approach and methodology of training:** Experiential learning and field visits

**Number of participants:** 35

**Application**: The fully sponsored program is exclusive to non-Indian international participants only.

ITEC: Indian Technical and Economic Cooperation

Note: The potential candidate after filling the form online, may need to submit copy of the filled application to Indian Embassy/consulate in their country for funding approval.

**Deadline to apply for the course:**
**16 March 2026**