# DRYLAND SYSTEMS

## Food security and better livelihoods for rural dryland communities

*"The complex challenges facing dry areas cannot be solved with one silver bullet, but will require an integrated approach involving sustainable natural resource management, crop and livestock genetic improvement, as well as socio-economic innovation."*

**Frank Rijsberman, Chief Executive Officer, CGIAR Consortium**

## About the program

The CGIAR Research Program on Dryland Systems is a global agricultural research partnership to realize the potential of dryland communities. The program brings together eight CGIAR Centers, and numerous international, regional, and national partners to engage in integrated agricultural systems research and unique partnership platforms to ensure improved food security, equitable and sustainable natural resource management, and better livelihoods in the world's dry areas.

CGIAR

RESEARCH PROGRAM ON Dryland Systems

Led by: ICARDA

In partnership with: ICRISAT, Bioversity International, CIAT, CIP, World Agroforestry Centre, ILRI, IWMI

## Our vision

A food-secure future, equitable and sustainable natural resource management, and better livelihoods for the world's rural dryland communities.

## Our mission

To improve the lives of 1.6 billion rural people, and to mitigate land and resource degradation in 3 billion hectares covering the world's dry areas through integrated agricultural systems research.

## The challenge

The majority of farmers in arid and semi-arid regions of the developing world grow crops or raise livestock on a small scale. They face daunting challenges – from infertile and degraded land, scarce water, and frequent drought to authorities struggling to support them, poor marketing intelligence, and limited opportunities to try out innovations and new technologies. The result is low agricultural productivity that perpetuates a cycle of deep poverty and food insecurity.

## The opportunities

- Provide policy makers with the research evidence to develop policies that will benefit marginalized farming communities living in the world's dry rural areas
- Help smallholder farmers to acquire skills in natural resource management that enable them to adapt to climate change and have better livelihoods and food security
- Realize the potential of women and youth to improve drylands agricultural livelihoods
- Encourage equitable access to natural resources and better resources management
- Diversify production and add value to agricultural production chains
- Improve crop and livestock productivity and stabilize agricultural production.

## Our systems approach

Our systems approach looks at agricultural livelihood systems in an integrated and 'holistic' way. This approach is important because scarce water resources, land degradation, urbanization, commodity price shocks, and climate change will hit dry areas particularly hard. We work with rural communities to:

- *Reduce vulnerability* in drylands where resources are scarce or lacking, and where agriculture is risky, uncertain, and offers farmers little or no potential for making a profit, by helping farmers minimize losses and equipping them with ways to deal with risks

- *Sustainably intensify agriculture* in drylands that are rich in resources, where conditions for agriculture are more favorable, and where farmers have opportunities to produce more from their land, by providing farmers with practices that will help them to sustainably intensify production.

## How we work with our partners

We bring partners together in 'innovation platforms' to get an understanding of what works best and where, and to explore how to boost productivity, manage natural resources, improve value chains, and adapt to climate change. Our partnerships combine scientific research results with the skills and capacities of national agricultural research systems, advanced research institutes, non-governmental and civil society organizations, the private sector, and other actors to test and develop practical innovative solutions for dryland farming communities.

## The difference we expect to make

By 2025, we expect to see that our research work has contributed to improved food security, increased incomes and opportunities, and a more equitable and sustainable management of land and natural resources for:

- 137 million people living rurally in the West African Sahel and Dry Savannas (WAS&DS)
- 191 million people living rurally in North Africa and West Asia (NAWA)
- 237 million people living rurally in East and Southern Africa (ESA)
- 39 million people living rurally in Central Asia (CA)
- 978 million people living rurally in South Asia (SA).

CGIAR Research Program on Dryland Systems, c/o ICARDA, P.O. Box 950765
Bldg. 15, Khalid Abu Dalbouh St., Abdoun, Amman 11195, Jordan
Tel: +962 6 5903120 | Fax: +962 6 5903133

**drylandsystems.cgiar.org**