This is ICRISAT

Who are we?

We are the International Crops Research Institute for the Semi-Arid Tropics. ICRISAT is a non-profit, apolitical, international organization devoted to science-based agricultural development. We’re one of the 16 Future Harvest Centers of the Consultative Group on International Agricultural Research (CGIAR). We have a staff of about 900 and an annual budget of US $22 million.

Where are we?

ICRISAT’s work is focused mainly on the region of the world known collectively as the semi-arid tropics (SAT).

The 16 Future Harvest Centers of the CGIAR

Our Logo

A legume seed

A cereal head

A drop of water

These three elements represent the crops we study and the water-scarce conditions where they are grown.

Future Harvest™

An organization that builds awareness and support for a world with less poverty, a healthier human family, and a better environment. Future Harvest supports research and promotes partnerships that benefit rural farmers and families in Africa, Latin America and Asia.
What is the SAT like?

- Unpredictable weather
- Limited and erratic rainfall
- Nutrient-poor soils
- Home to one sixth of the world’s population
- Home of the world’s poorest people
What do we do?

ICRISAT has been entrusted with the conservation and management of the seeds of five crops crucial to the diets of the poor: sorghum, millet, groundnut, chickpea and pigeonpea. Our genebank conserves the seeds of over 113,500 lines of these crops and breeds them for higher productivity and resistance to pests, diseases and other stresses.

How do we do it?

ICRISAT’s research is conducted within six global themes (GTs).

GT1. Harnessing biotechnology for the poor
- Using biotechnology to enhance livelihoods and incomes of poor farmers
- Improving the nutritional value of crops
- Augmenting plant breeding for drought tolerance and resistance to pests and diseases
- Developing diagnostic tools for detecting viral infections and toxic contaminants of crops

GT2. Crop management and utilization for food security and health
- Promoting genetic diversification for stable yields of acceptable quality
- Developing cost-effective and eco-friendly integrated pest management (IPM) technologies
- Exploring strategies for alternative uses of crops
GT3. Water, soil and agro-biodiversity management for ecosystem health

- Developing diverse income-generating options for managing water, soil and agro-biodiversity
- Seeking practical solutions for managing water and nutrients
- Influencing institutional and policy reforms for water usage

GT4. Sustainable seed supply systems for productivity

- Evaluating constraints to sustainable seed supply
- Designing seed interventions to ensure food security and to promote commercially viable crops
- Investigating policies and institutions supporting seed delivery

GT5. Enhancing crop-livestock productivity and systems diversification

- Improving feed components for ruminants and poultry in crop-livestock systems
- Assessing and disseminating gender-sensitive options for diversification like cash crops, trees, legumes and vegetables

GT6. SAT futures and development pathways

- Strategically assessing market trends, input supply and access constraints
- Understanding the dynamics and determinants of poverty
- Exploring how agricultural research can improve investment opportunities

Impact assessment is done systematically in concert with the six themes.
ICRISAT’s Crops

ICRISAT’s crops include two cereals – sorghum and pearl millet – and three legumes – chickpea, pigeonpea and groundnut. Through natural selection and countless generations of cultivation by farmers, these crops have become adapted to the semi-arid tropics.

Pearl millet – probably the world’s hardiest crop, it is the food staple in the driest parts of the semi-arid tropics.

Pigeonpea – a staple food for South Asians for millennia, it has become an important legume in Africa and Latin America.
**Groundnut** – also known as peanut, grows in a range of climates and conditions. It is consumed as food and edible oil, and used as fodder.

**Chickpea** – a traditional source of protein for people in Asia and North Africa, its importance is increasing in the Americas and sub-Saharan Africa.

**Sorghum** – cultivated throughout the semi-arid tropics, sorghum is a major source of food, fodder and industrial use.
Our Vision

To improve the well-being of the poor who live in the semi-arid tropics through agricultural research for impact.

Our Mission

To help the poor of the semi-arid tropics through Science with a Human Face and partnership-based research and to increase agricultural productivity and food security, reduce poverty, and protect the environment.
Our Strategy

To enhance impact by improving the well-being of the poor through partnerships between and among researchers, extension workers, farmers and traders.

Our Achievements

- ICRISAT’s plant breeding work has led to the release of over 400 improved crop varieties by national authorities across Asia and Africa. The benefits to these poor economies have totaled to over 200 million dollars.

- We created the world’s first ever hybrid variety of a food legume crop (pigeonpea) and developed the new cytoplasmic male-sterility system.

- Intensive research has resulted in the development of crop varieties resistant to diseases and pests, and tolerant of drought and heat.
ICRISAT’s genebank, one of the largest in the CGIAR system, houses a collection of about 113,500 varieties and wild relatives of the staple food crops of the world’s poorest people. Research to find new, useful genes is ongoing.

Technologies like the ‘broadbed and furrow’, developed with our national program partners, have been adopted by tens of thousands of farmers in East Africa and India. This technique reduces soil erosion and doubles productivity on heavy clay soils.

We have found ways to reduce costly and dangerous overuse of pesticides through integrated pest management (IPM).

A district-level database of farming systems for policy and land-use planning across India has been developed.

We have strengthened national research programs through training, apprenticeships, establishment of research networks, and exchange of information.
ICRISAT fosters alliances between researchers and institutions to do what it can, to bring about the noblest of objectives – the eradication of poverty and hunger.

We see no reason that the semi-arid tropics of Asia and sub-Saharan Africa cannot be transformed from a region typified by social instability and environmental degradation into one as vibrant and self-sufficient as the breadbaskets of North America or Australia. Together with donors/development investors and international/regional partners, ICRISAT can fulfill its vision of Science with a Human Face for the millions of underprivileged and needy people of the semi-arid tropics.