



Iran and ICRISAT

For better management of dryland agriculture



H.E. Mahmoud Safari Farkhud, Consul General of the Islamic Republic of Iran at Hyderabad with the Director General of ICRISAT, Dr William D Dar and Team ICRISAT during his visit on 3 November 2010.

Background

The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political research organization for science-based development. Established in 1972, it is supported by the Consultative Group on International Agricultural Research (CGIAR).

ICRISAT focuses on the semi-arid or dry tropics, home to one-sixth of the world's population, the poorest of the poor. Persistent drought, unpredictable weather, limited and erratic rainfall, and very poor soils have to be met head-on by farmers in the dry tropics. ICRISAT helps farmers meet these challenges by generating cutting-edge technologies with

national partners. ICRISAT gives a humane dimension to agricultural research through its motto *Science with a Human Face*. This is pursued by tailoring its programs to empower smallholder farmers and vulnerable communities in the dry tropics of Asia and Sub-Saharan Africa.

ICRISAT does partnership-based research with national agricultural research systems (NARS), advanced research institutes (ARIs), non-governmental organizations (NGOs), the private sector and other CGIAR Centers. ICRISAT collaborates with the Government of Iran through the Agricultural Research, Extension and Education Organization (AREEO) of the Ministry of Jihad-e-Agriculture.



Mr Mahmoud Safari and Mr Ali A Niroomand locating Iran on the Core Donor board.



A delegation from Iran led by President Abdol Hossein Taheri of Gorgan University of Agriculture Sciences and Natural Resources (GUASNR) with Director General William Dar.

VIP at ICRISAT

His Excellency Mahmoud Safari Farkhud, the Consul General of the Islamic Republic of Iran at Hyderabad visited ICRISAT on 3 November 2010. He met with Director General William D Dar of ICRISAT and Team ICRISAT, and discussed the need for greater collaboration between the scientists of Iran and ICRISAT. The Consul General was also apprised of the various research projects between ICRISAT and Iran.

Collaboration with the Islamic Republic of Iran

On 6 April 1990, a Memorandum of Understanding (MoU) was signed by AREEO and ICRISAT to facilitate collaborative research, exchange of scientists, and postgraduate (MS and PhD) students to do their theses at ICRISAT. Scientific and technical cooperation is an ongoing area of

Dr A Ahoonmanesh, the former Deputy Minister of Agriculture & Head of AREEO, receiving a souvenir from CLL Gowda of ICRISAT.



interest between Iran and ICRISAT, which work together on:

- ▶ Exchange of germplasm and breeding materials;
- ▶ Exchange of scientists;
- ▶ Collaborative research;
- ▶ Capacity building for Iranian scientists; and
- ▶ Organization of workshops and meetings to enhance exchange of information and technologies.

As far as research is concerned, the priorities are chickpea, sorghum, and groundnut, with appropriate natural resource management research in the production areas. Collaboration has also been established with the Gorgan University of Agriculture Sciences and Natural Resources (GUASNR). Other collaborators include: the Seed and Plant Improvement Institute (SPII); the University of Isfahan; and the Agricultural Research Institute, Mashhad.

Visiting Iranian scientist Hosseinali Tesh Shamsabadi, with the ICRISAT Director General William Dar and Principal Scientist SN Nigam.



Exchange of germplasm and breeding material supplied to Iran from 1990 till date				
Crop	Germplasm samples	Breeding Lines	Sets of Trials	Sets of Nurseries
Sorghum	511	986	10	3
Pearl Millet	24	0	0	1
Chickpea	1037	174	6	26
Pigeonpea	185	69	0	5
Groundnut	3	150	5	0
Small Millets	30			

ICRISAT-Iran R&D Projects

Project proposals were developed and discussed between AREEO and ICRISAT scientists for consideration of funding support in the following areas:

- ▶ Capacity building of AREEO scientists in technology generation and dissemination;
- ▶ Control of mycotoxins in cereals and pistachio in Iran: The focus of this project is to enhance the capabilities and the prevention, monitoring and control of aflatoxins in cereals and pistachio with a view to ensure maximum consumer protection and promote international trade.
- ▶ Protecting food legumes from virus diseases in Iran: Under this project work is to be done on identification and characterization of legume viruses; development of effective diagnostic tools; and screening of chickpea, faba bean, and lentil germplasm collections for broad spectrum resistance.
- ▶ Integrated pest management of chickpea: The overall aim is to develop eco-friendly protocols for managing the insect-pests of chickpea.
- ▶ Strengthening of genetic resources and genebank activities in Iran.

Iran's contributions to ICRISAT

The Government of Iran provided grants to ICRISAT from 1996 to 2004 to strengthen collaboration between AREEO and ICRISAT. These grants were utilized to enhance research in sorghum, chickpea, and groundnut; as well as to train Iranian scientists and research scholars at ICRISAT.

Cereals and Legumes Asia Network

Iran joined the Cereals and Legumes Asia Network (CLAN) in 1997, and has participated in all the Steering Committee meetings since then. The first joint Iran-ICRISAT review and planning meeting was held in August 1998 at the Seed and Plant Improvement Institute, Karaj, Iran. Subsequent review and planning meetings were held during 21–24 August 2000 and 22–23 May 2004 to define new areas of research and technology exchange involving Iranian and ICRISAT scientists.

Capacity building

Exchange of scientists: Since 1985, 74 Iranian scientists and administrators have visited or participated in ICRISAT-sponsored workshops and meetings. From ICRISAT, 19 scientists have made visits to Iran for meetings, workshops, training courses, and field visits.

F Waliyar of ICRISAT in a discussion with the scientists of Gorgan University.





Iranian scientists monitoring the international chickpea trial at Kermanshah.

Training of Iranian scientists: ICRISAT scientists have visited and assisted in research planning and training in Iran, especially on sorghum, chickpea, and in biological nitrogen fixation (BNF) and drought tolerance. ICRISAT's capacity building strategy emphasizes a learn-by-doing approach, in which collaborating national program scientists and ICRISAT staff work jointly to plan, execute, and monitor research projects.

Workshops conducted by ICRISAT (1998 to 2004) have had participants from the Islamic Republic of Iran. These have been conducted on several topics, such as efficient soil water use in dry area agriculture, chickpea improvement, and sorghum tissue culture transformation and genetic engineering.

Future plans

Based on the discussions between AREEO and ICRISAT scientists, the following areas of collaborative research and development activities have been identified for further R&D collaboration:

- ▶ Strengthening of Iran's national genebank at Karaj and germplasm exchange of mandate crops;
- ▶ Management of aflatoxin in groundnut, pistachio, and maize;
- ▶ Biological control of legume pests;
- ▶ Developing high yielding chickpea varieties resistant to fusarium wilt and ascochyta blight;
- ▶ Studies on characterization and management of legume viruses.



An Iranian farmer, happy with his healthy groundnut harvest.

About ICRISAT



The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) is a non-profit, non-political organization that does innovative agricultural research and capacity building for sustainable development with a wide array of partners across the globe. ICRISAT's mission is to help empower 600 million poor people to overcome hunger, poverty and a degraded environment in the dry tropics through better agriculture. ICRISAT is supported by the Consultative Group on International Agricultural Research (CGIAR).

ICRISAT-Patancheru
Patancheru 502 324, Andhra Pradesh, India
Tel +91 40 30713071 Fax +91 40 30713074

www.icrisat.org