



www.icarda.cgiar.org

Power of partnership



The Consultative Group  
on International Agricultural  
Research Supports  
the Future Harvest Centers  
www.cgiar.org

FUTURE  
HARVEST

www.futureharvest.org

# ICARDA News

INTERNATIONAL CENTER FOR AGRICULTURAL RESEARCH IN THE DRY AREAS

P.O. Box 5466, Aleppo, Syria

Phone: (963-21) 2213433, 2213477, 2225112, 2225012

Fax: (963-21) 2213490, 2225105

For more information contact: S.Varma@cgiar.org

## Science Consortium Established to Rebuild Afghanistan's Agriculture

*With Group's Help, Country Could See Bulk of Food Needs  
Met within Five Years*

ALEPPO, SYRIA and WASHINGTON, D.C., 14 February 2002 — Scientists from one of the world's leading agricultural research centers announced today the creation of a global consortium of research institutes, relief and development organizations, universities, and aid agencies to undertake a multi-million dollar effort to rebuild Afghanistan's agriculture. War conditions coupled with the region's worst drought have devastated Afghanistan's food-production capabilities and depleted critical seed stocks, leaving the nation heavily dependent upon food aid from international donors. Consortium members say that by harnessing the best of agricultural research, Afghanistan will be able to revive its once-thriving farming sector and move toward food self-sufficiency by 2007.

"Agriculture in Afghanistan is going to need a lot of help," says Adel El-Beltagy, Director General of the International Center for Agricultural Research in the Dry Areas (ICARDA). A Future Harvest Center based in Aleppo, Syria, ICARDA is the lead organization in this new initiative, known as the Future Harvest Consortium to Rebuild Agriculture in Afghanistan. "Our mission is to ensure that agricultural reconstruction efforts are based on the best practices science has to offer," El-Beltagy says.

Agriculture is the largest and most important sector of the economy in Afghanistan, a country of about 22 million people. The Future Harvest Consortium, which has the potential to be the largest-ever seed recovery effort of its kind, will work to replenish the lost genetic resources and renovate damaged irrigation systems to restore critical farming activities, both for near-term requirements and long-term sustainability. The Consortium will provide farmers with seeds to plant for the upcoming spring and fall growing seasons and vaccines to prevent disease in Afghan livestock. The consortium will also focus on the once-prosperous livestock and horticultural (fruits and vegetables) sectors, as well as land and water management. The nation's important crops include wheat, maize (corn), barley, chickpeas, lentils, carrots, potatoes, melons, apples, and pistachios. According to the Food and Agriculture Organization of the United Nations (FAO), there are 65 million hectares of land in Afghanistan. Of this, about 30 millions hectares are rangeland for livestock and 8 million hectares are cultivated.

Scientists, development experts, and representatives of U.S. universities met in January 2002 in Tashkent, Uzbekistan to initiate the consortium and develop plans for the recovery effort. In addition to ICARDA, initial consortium members include FAO, CARE International and other NGOs, the International Maize and Wheat Improvement Center (CIMMYT), the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Future Harvest, U.S. universities, the U.S. Agency for International Development (USAID), and the Canadian-based International Development Research Centre. The consortium expects to add new members in the near future.

## Incorporating Science into Humanitarian Aid Efforts

In order to provide immediate relief, both ICARDA and CIMMYT will supply much-needed seeds for farmers to plant crops for the approaching spring and autumn growing seasons. Approximately 3,500 metric tons of seed will be made available in the spring and about 10,000 metric tons in the autumn.

“There is an urgent need to focus not only on the long-term rebuilding process, but also on the near-term requirements of farmers for basic food consumption and nutrition,” says El-Beltagy.

The consortium seeks to ensure that Afghan farmers receive the appropriate seeds and tools for their specific farming needs, something recovery efforts often overlook when responding to emergency situations. In addition, all aspects of the consortium’s efforts will involve teams of experts with extensive experience working in Central Asia.

“What is unique about the consortium is that members are committed to ensuring that science is placed up front in the recovery effort,” says Avtar Kaul, PhD, senior technical advisor of agriculture and natural resources with CARE. “All too often, well-meaning development agencies have intervened only to find out that what they’re doing is technically inappropriate under local circumstances. We need to make sure that recovery efforts are based on a real understanding of Afghan agriculture so that they meet the real needs of affected communities. Science-led recovery efforts, supported by grass-roots level interventions, will rapidly put the country’s agriculture on the road to recovery.”

The consortium will send teams into Afghanistan to visit farms and villages to gather information and evaluate the current situation in order to develop the best course of action for long-term sustainability. The first team is expected to visit Afghanistan in March, with other teams to follow during the next six months.

The first priority of the consortium will be to focus on seed systems. This includes providing foundation seed, which is used to produce seed that will be planted by farmers, for replenishing the country’s seed stocks that are important for domestic food security and market development. The consortium will not only reintroduce traditional wheat, maize, barley, chickpeas, lentils, and other seeds that have been used by Afghan farmers for centuries, but also introduce seeds that have been improved through breeding to be more productive and disease tolerant, as well as new seed varieties that have been bred to grow in conditions similar to those in Afghanistan, helping to introduce crop diversification.

“Right now the seed situation in Afghanistan is critical,” says El-Beltagy. “We believe the majority of the country’s seed was lost when farmers planted the 2001 crop. When the rains failed for a third year in a row, it put an end to their ability to stay on the land. Restoring the nation’s seed supply is crucial because it forms the foundation for all farming activities. We urgently need to multiply seed supply to replenish these depleted seed stocks and meet the needs of the farmers—both men and women—displaced by war and drought. Our highest priority will be to revitalize wheat, which makes up 80 percent of the nation’s grain production.”

The consortium’s goal is to create the critical mass of seed needed for Afghan farmers to be able to produce enough of their own seed to achieve food security and eliminate the need for food aid. The goal for replenishment is 125,000 tons of seed, which experts expect to reach in three years. FAO and international aid organizations have already begun this process of producing seed in Afghanistan.

“What we plan to do,” says John Dodds, PhD, a Washington-based representative of ICARDA, “is provide the necessary scientific support needed to produce quality seed of adapted varieties inside Afghanistan.” Dodds notes that if the focus is kept on seed production, then food aid programs can gradually phase out their operations over the next few years. It will be essential to phase out food aid while farming activities increase so that markets are not distorted by aid supplies, according to Dodds.

Abdul Rahman Manan, former director of Afghanistan’s national agricultural research service now working on Afghan issues with FAO in Pakistan, says Afghanistan’s agriculture is experiencing an unprecedented challenge from the aftermath of the war and three years of extreme drought. “It is not just a matter of repatriating traditional food crops or providing fertilizers and other agricultural inputs,” Manan says. “The country’s entire agricultural production system has been disrupted. But with the consortium’s collective scientific expertise and available resources, we can bring significant progress to Afghanistan more quickly.”

## Agriculture in Afghanistan: Combining Tradition with Scientific Development

Manan says that Afghanistan once had a strong agricultural research and extension service and was agriculturally self-sufficient until the Soviet Union invaded in 1978. "Agriculture is at the heart of our culture and our history," he says. "Over the centuries, Afghan farmers domesticated 18 important food and horticultural crops, including wheat, peas, carrots, melons, apples, and pistachios." Afghanistan used to have its own seed and agricultural credit system and a reputation in neighboring countries for superior fruit. In 1992, Afghanistan's national agricultural genebank—a facility used to safely store seeds and other plant material—was destroyed during the civil war. Many believed that much of Afghanistan's agricultural heritage might have been lost. However, samples of many, if not most, of the seeds and other plant genetic resources were collected in the early 1970s by scientists in Afghanistan and are safeguarded in genebanks maintained at ICARDA, ICRISAT, CIMMYT, and other Future Harvest Centers. All of these plant materials will be available for repatriation to Afghanistan.

Because restoring seed supply is so critical and provides the foundation for other rebuilding efforts, about 75 percent of the consortium's resources will be targeted in 2002 to seed initiatives. The consortium will focus remaining resources on improving livestock numbers and health, restoring soil and water management, and reintroducing the country's native fruit and vegetable crops.

Scientists estimate that almost half of the nation's livestock—mainly goats and sheep—have been lost. Historically, livestock provided 40 percent of all export earnings. The consortium will look to revitalize this once-thriving livestock sector. But an immediate goal, El Beltagy says, is to help farmers keep their remaining animals alive to regain the desired animal population and provide milk and other basic animal products for immediate domestic consumption and trade by Afghan families. In addition, the consortium will supply vaccines for cattle, sheep, and goats to prevent diseases such as rinderpest, anthrax, and sheep pox.

Another priority will be land and water management in areas of the country most affected by the drought, particularly the northern and western provinces. Consortium irrigation experts agree that much of the country's irrigation infrastructure will need reconstruction.

In addition, the new Afghan government is committed to eradicating poppy cultivation that keeps the illegal drug trade thriving. But, says Dodds, it will have a hard time achieving that goal unless it can provide alternatives to help farmers earn cash. In addition to its notoriety in poppy farming, Afghanistan is widely known for its fruits, nuts, and vegetables, many of which have been replaced by poppies.

"Afghanistan will need to move quickly to provide farmers sound alternatives to displace poppies. Fast-growing fruits and vegetables, like carrots and melons, are a good way to do that because they can be grown quickly and command a higher return than most other food crops," says Dodds.

"If Afghanistan is going to get back on its feet, and if we are going to diminish dependency on food aid programs, development programs are going to have to make sure that they provide Afghan farmers with appropriate technology and policies," says El-Beltagy. "That means putting science at the head of the line."

The Future Harvest Consortium to Rebuild Agriculture in Afghanistan has received US\$12 million dollars in funding from the United States Agency for International Development (USAID). Other donors have also expressed an interest in the consortium, which hopes to obtain additional funds for the program's efforts.

**ICARDA's** ([www.icarda.org](http://www.icarda.org)) mission is to improve the welfare of people and alleviate poverty through research and training in dry areas of the developing world by increasing production, productivity, and nutritional quality of food, while preserving and enhancing the natural resource base. ICARDA is a Future Harvest Center.

**Future Harvest** ([www.futureharvest.org](http://www.futureharvest.org)) is a global nonprofit organization that builds awareness and support for food and environmental research for a world with less poverty, a healthier human family, well-nourished children, and a better environment. Future Harvest is an initiative of 16 food and environmental research centers that receive funding from the Consultative Group on International Agricultural Research (CGIAR).

USAID is the government agency providing U.S. economic and humanitarian assistance worldwide for more than 40 years ([www.USAID.gov](http://www.USAID.gov)).