ICARDA

Science for Better Livelihoods in Dry Areas

Decentralization of ICARDA's Research and Capacity Development

Strategy

Managing agricultural research and capacity development for increased efficiency and effectiveness to address the global challenges facing dry areas

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This summary presents the key elements of ICARDA's strategy for decentralization of its research and capacity development and the associated investment plan. The strategy builds on and strengthens our existing organization, and provides for growth in the Center. It further strengthens our partnerships with a view to creating a network of alliances dedicated to producing international public good research, enabling ICARDA to emerge from the current situation as a far stronger and more effective Center, with the capacity to respond to regional and global challenges in the dry areas.

Rationale and benefits

The current situation in ICARDA's host country Syria has provided an opportunity for ICARDA to re-assess and modify its structure and organization. Staff has been relocated to Jordan, Lebanon, Morocco, Ethiopia, Egypt, Tunisia, and Turkey and the Center has established temporary headquarters in Lebanon, under its headquarters host country agreement of 1977. This initial relocation of ICARDA's research staff was based largely on expediency and the location of ICARDA's existing outreach offices, partnerships and projects. The Center has now developed a strategy for more rationalized decentralization of its operations for the medium and long terms.

The rationale for adopting a more decentralized system is:

- Enhanced relevance, effectiveness and impact
- Better targeting of diverse environments
- Better alignment with target areas in the CGIAR Research Programs (CRPs) in which ICARDA is involved, including the CRP on Dryland Systems which ICARDA leads and which targets five regions globally: West African Sahel and Dry Savannas, East and Southern Africa, North Africa and West Asia, Central Asia, and South Asia;
- Building on the respective comparative advantages of ICARDA and its partners to strengthen existing partnerships and build on complementarities with partners to address challenges facing dry areas;
- Filling gaps in capacity by building on expertise available with partners in national programs and advanced research institutions and new opportunities for partnerships;
- Better targeting of investment in the research portfolio, to fund growth of CRPs and to achieve ICARDA's goals in dry areas;

This decentralization of ICARDA's global program of dryland research will build on and strengthen existing collaboration and partnerships (box).

Building on existing collaboration and partnerships: Examples

- ***Rust diseases of wheat:*** Continue the establishment of a regional center for cereal rusts research in Izmir Turkey, a partnership with Turkey's General Directorate of Agricultural Research and Policies, Ministry of Food, Agriculture and Livestock.
- ***Heat tolerance in wheat and other crops:*** Ongoing collaboration with Sudan going back three decades, in screening global germplasm in a high temperature environment to identify heat tolerant germplasm.
- ***High input (irrigated) systems:*** Cooperative agreement with Egypt on wheat improvement at the Agricultural Research Center's high-input irrigated site, which allows wheat to express some of its highest yield potentials in the world.
- ***Food Legumes:*** Building on the partnership with the Indian Council for Agricultural (ICAR) in food legume improvement for low altitude countries, and with Morocco, India, Ethiopia and ICRISAT to improve the production of legumes in both Morocco and in India, with the largest global demand for food legumes, as well as increase the potential for Morocco and Ethiopia to export food legumes to India.
- ***Water benchmark research sites:*** *Rainfed System Benchmark Site:* Morocco (Tedla Site, on farmers' fields); *Marginal Land Benchmark Site:* Jordan (Mohareb watershed site); *Irrigated Benchmark Site*: Egypt (farmers' fields in old land of the Nile Valley, in salt-affected areas in the Delta; in the desert reclaimed lands in the Nuberia).

Integrated research platforms

ICARDA's research and capacity development is being decentralized to **integrated research "Platforms"** that address identified research priorities in each region, but serve dry areas globally through collaboration and partnerships with national programs, advanced research institutions and other partners in the development and dissemination of international public goods.

The Center is developing four major Platforms including the headquarters:

- **Headquarters (West Asia):**
  ICARDA headquarters will remain at its principal research station at Tel Hadya in Aleppo, Syria, together with ICARDA's sub-station in Lebanon and Sanliurfa station in Turkey.

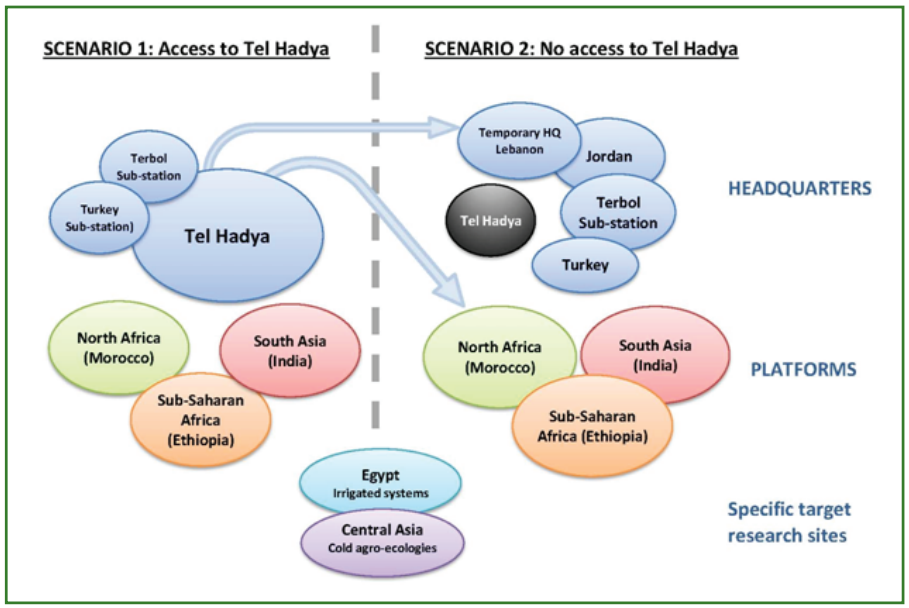
  In the current situation, with no access to Tel Hadya, there is greater reliance on and expansion of facilities and activities in Lebanon sub-station, Turkey and Jordan. Syria and Jordan also host a CRP Dryland Systems Action Site

- **North Africa, with a Platform in Morocco,**
  building on the existing partnership with INRA (Institut National de la Recherche Agronomique), and focused on the intensification and diversification of rainfed cereal-based production systems. Morocco also hosts a CRP Dryland Systems Action Site.

Seeing the benefits of conservation agriculture – ICARDA researchers, farmers, and Iraqi extension colleagues.

- **Sub-Saharan Africa, with a Platform in Ethiopia,**
  building on the partnership with ILRI in the CRP on Livestock and Fish and ongoing collaboration with the Ethiopian Agricultural Research Institute (EARI). Ethiopia also hosts a CRP Dryland Systems Action Site.

- **South Asia, with a Platform in India,** building on the existing partnership with ICAR (Indian Center for Agricultural Research), and focused especially on food legumes systems. India also hosts two CRP Dryland Systems Action Sites.



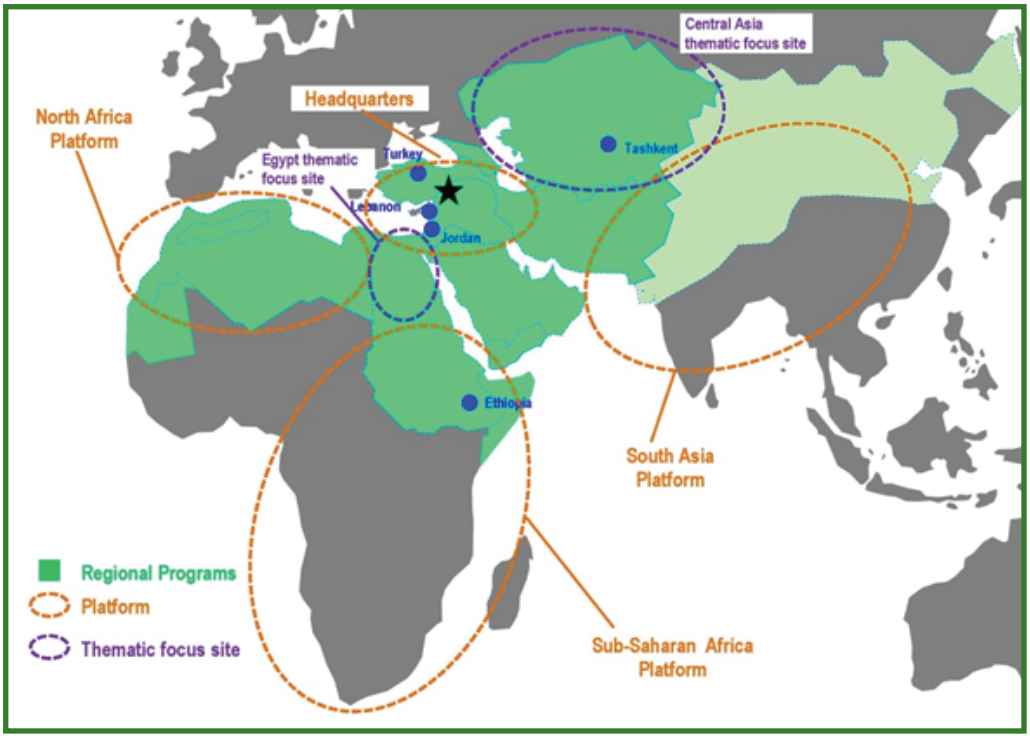
In addition, four further locations have been identified with a specific thematic research focus (Thematic Research Locations):

- **Egypt for High Input Agriculture Research Location,** while geographically in North Africa, has a unique environment and represents irrigated agricultural production systems, which are a very important element of dryland systems. Egypt will provide a platform with a targeted focus on high input irrigated agricultural systems, building on collaborative research on irrigated wheat improvement at Sids research station and on irrigation systems management at the existing benchmark site in Egypt (see box).

- **Turkey, Central Asia and Iran for Winter Wheat and Winter Barley Research Location** since they represent a separate and distinct environment, the extensive high altitude and highland agro-ecologies with severe winters particularly suitable for breeding winter wheat and winter barley. Central Asia and Iran are also target regions within CRP Dryland Systems. Collaboration will build on the CGIAR Program for Central Asia and the Caucasus in Tashkent in Uzbekistan.

- **Turkey/ICARDA Cereals Rusts Research Center in Izmir:** Expertise on wheat rusts is provided by the new Turkey/ICARDA Regional Cereal Rust Research Center at the Aegean Agricultural Research Institute of the Directorate of Agricultural Research of the Ministry of Food, Agriculture and Livestock. The Turkish Government has already approved receiving rust diseased samples from Central & West Asia and North Africa. The Center will also work barley rust diseases.

- **Sudan Heat Tolerance Research Location:** This location is distinct for high temperature and short season (about 110 days) for breeding heat tolerance early season varieties for wheat and food legumes crops. We will be building on on-going collaboration with the Agricultural Research Corporation (ARC) in Wad Medani in the Sudan.



Regional Platforms and Thematic Research Locations

These Platforms and Thematic Research Locations are not conceived as stand-alone ICARDA research programs but are global programs that build on the collaboration between the Center and its partners in these locations and beyond. The Platforms build on ICARDA's existing Regional Programs, and aim to strengthen partnerships with national systems. The location of Platforms is shown above against the background of ICARDA's current Regional Programs.

These Platforms and Thematic Research Locations align well with the targeted regions in the CGIAR Research Program (CRP) on Dryland Systems, which ICARDA leads, and in the other CRPs in which ICARDA is a partner.