

## ANNEX 2 – AGRICULTURAL RECONSTRUCTION AND DEVELOPMENT PROGRAM FOR IRAQ (ARDI)

ARDI—Fact Sheet, Activities, and Possible Future Activities

### ARDI FACT SHEET

#### Context

- Agriculture is the second largest contributor to GDP and employs about 25% of the labor force.
- Grain yields are less than half that of neighboring countries, due to variable rainfall in the north, increasing soil salinity in the south, and years of poor planning.
- Iraq will need to import at least \$3B per year in basic foodstuffs over the next decade if domestic production does not increase.

#### What ARDI Does

- **Employment Generation:** Job opportunities lead insurgents from arms to farms. ARDI currently provides employment to 29,000 rural residents per day - counterweight to rural-urban migration.
- **Mechanization:** Tractors increase land usage and provide for larger harvests, which results in increased incomes for farmers and tractor owners. We invest to make Iraq's tractor fleet operable and provide sufficient incentive to agribusinesses to invest private equity in a country-wide infrastructure for agricultural machinery.
- **Grain Production:** Improved & cleaned seeds lead to increased yields and larger harvests, resulting in increased income for farmers and a reduced dependence on imported wheat saving the GOI hundreds of millions in foreign exchange. We demonstrate significant yield increases to thousands of farmers and provide improved seed and seed cleaning services to tens of thousands.
- **Date Palm Production:** Increased access to commercially viable offshoots results in quicker, greater returns on investments. We revitalize the Iraqi date palm sector by working with the MOA to increase offshoot availability and the private sector to rehabilitate existing orchards.
- **Animal Health:** Healthier animals mean wealthier breeders. We rehabilitate MOA veterinary clinics, establish private sector veterinary services, implement large scale vaccination campaigns and train tens of thousands of animal breeders on improved animal handling and care.
- **Irrigation Infrastructure:** Access to irrigation and drainage systems increases land usage, provides for larger harvests and conserves soil and water, all of which results in increased incomes for farmers – especially in southern Iraq. We rehabilitate infrastructure to improve 250,000 hectares of land affecting millions of people, generating thousands of temporary jobs.
- **High-Value Crops:** Fruit and vegetable production requires less land, provides greater returns on investment than cereal crops and reduces dependence on imports from Syria and Iran. We promote high-value crop production by introducing new technologies and providing improved seeds which greatly enhance production.
- **Capacity Development:** Good decisions and a proper regulatory framework are the basis for a sound, market-driven agricultural economy in Iraq. Good decisions and a sound regulatory environment are based on good information and quality analysis. We train Iraqi public officials and private sector entrepreneurs in programs of strategy development, decision-making, and statistical surveys.

### **Where ARDI Works**

- **Infrastructure:** ARDI has 5 offices to deliver our nationwide services. We maintain a full time presence Basrah, Semawah, Baghdad, Suleimaniyah & Erbil.

## **Agriculture Reconstruction and Development Program for Iraq Activities and Future Assistance**

### ***Wheat Production:***

Activities and successes:

- Distributed 169 seed cleaners to upgrade wheat seed stock, making over 30,000 tons of cleaned and treated wheat seed available for planting in 2006-2007 season, benefiting over 46,000 wheat-producing farm families around the country;
- Multiplied high quality wheat seed in the 2005 -2006 season, producing over 4,000 tons of seed that is being cleaned, treated with fungicide, and available for planting in the 2006-2007 season.

Future assistance:

- Improve availability of high quality inputs and services (e.g. certified seeds and seed cleaning services) through the establishment of private sector input supply agribusinesses.

### ***Livestock Production:***

Activities and successes:

- Rehabilitated 66 veterinary clinics in 17 governorates, serving 129,700 livestock breeders who own 4.9 million animals;
- Vaccinated over 570,000 sheep against brucellosis in Missan, Thi-Qar, Qadissiya, Basrah, and Muthanna, reducing incidence of abortion and increasing flock sizes;
- Introduced inexpensive hormone treatment for buffalo in central and southern Iraq to increase income from calf and milk production by enabling calving during the hot season;
- Provided Zoonotic Disease Awareness workshops to train over 80,000 people (principally women) in rural areas how to recognize and prevent the spread of diseases such as avian influenza, brucellosis, mange and tuberculosis;
- Established private sector veterinary clinics (ten in Dahuk and ten in Tameem), owned and operated by previously unemployed veterinarians. Establishment of 20 additional private sector clinics in Basrah and Diyala is underway.

Future assistance:

- Increase availability of improved feed, supplements and hormone treatments for livestock through establishment of private sector agribusinesses;
- Expand Zoonotic Disease Awareness workshops to reach additional rural populations with information on preventing the spread of diseases, particularly avian influenza;
- Establishment of private sector veterinary clinics proposed in Salah al-Din and Sulaymaniyah, and program can be expanded throughout Iraq.

### ***Date Palm Production:***

Activities and successes:

- Increased the area of 21 date palm mother orchards to preserve the over 600 varieties of date palms in Iraq from genetic deterioration, and to propagate up to 240,000 commercially viable offshoots per year to increase availability to date producers;
- Replenished the orchards of 120 date producers in Muthanna, Basrah and the Basrah Marshlands with 4,800 date palm offshoots of commercially valuable varieties to increase date production and incomes.

Future assistance:

- Replenish additional orchards in the southern part of Iraq;
- Begin an initiative to improve processing and marketing of high value dates. The initiative will target countries first in the Gulf, followed by Europe and North America.

### ***Irrigation Infrastructure:***

Activities and successes:

- Rehabilitation of irrigation infrastructure (cleaning tertiary canals and repairing structures such as culverts, drains and pumps) to improve irrigation is ongoing. Over 773,500 acres of land have benefited to date, enabling 132,700 families to intensify and expand agricultural production and generating thousands of temporary jobs.

Future assistance:

- Continue to rehabilitate irrigation infrastructure, with an emphasis on drainage in the south and south central regions.
- Extensive capacity building in the Ministries of Water Resources and Agriculture to improve off-farm water management and to upgrade water delivery systems. The objective of the program will be to improve efficiency and conserve water in the Tigris and Euphrates watershed.

### ***Agricultural Machinery:***

Activities and successes:

- Rehabilitation of agricultural machinery to increase land usage and provide for larger harvests is ongoing. Repair of at least 5,000 tractors is underway, and 170 Iraqi mechanics have received training in machine repair and maintenance, expanding the repair network in Iraq and providing sufficient incentive to agribusinesses to invest private equity in a country-wide infrastructure for agricultural machinery.

### ***Honey Production:***

Activities and successes:

- Enabled 290 new beekeepers to begin honey production through grants of equipment and training;
- Assisted in the establishment of regional beekeeping associations and provided business management training to increase capacity of 14 associations (Ninewa, Erbil, Sulaymaniyah, Tameem, Dahuk, Baghdad, Diyala, Diwaniya, Kerbala, Najaf, Babylon, Wassit, Ramadi and Basrah). Associations provide training and other assistance to producers to improve honey production.

Future assistance:

- Conduct a national-scale integrated program to introduce improved processing and marketing as well as continue to introduce technical advances to honey producers, especially to vulnerable populations and women. One program objective will be to export processed honey to target markets in the Gulf and beyond.

***Capacity Building:***

Activities and successes:

- Established a wholesale prices monitoring and information system for vegetables, fruits, meat, and dry goods in 18 major agricultural markets nationwide, increasing the availability of market information to producers, consumers and traders;
- Trained 24 people in the Ministries of Agriculture, Transport, and Water Resources for the National Program in Agro-ecological Zone Mapping, which will enable planners to maximize returns from all production inputs, resulting in production cost savings;
- Trained over 170 Ministry of Agriculture extension staff in participatory extension methods to improve extension services to agricultural producers. Extension staff are working with farmer field groups to introduce improved cultivation techniques and assist farmers in increasing agricultural production;
- Established a national pesticide dealer association for Iraq to improve the pesticide sub-sector through self-regulation, including a code of conduct for its membership and a certification scheme for pesticides dealers. Trained 119 private sector pesticide dealers in proper pesticide handling, enabling them to provide quality advice to farmers to help them safely and effectively control pests to protect their crops and reduce losses due to pest damage.

Future assistance:

- Conduct a nation-wide survey on agricultural statistics using area-frame sampling. This will be done in conjunction with the Ministries of Agriculture in Baghdad and KRG.
- Begin Phase II of the Water Strategy Plan which includes data validation and intensive training and capacity building of professionals in MOWR and MOA. This is the beginning of the Master Plan for investments in the water resources sector.