IRAQ HAS THE POTENTIAL TO ACCELERATE AGRICULTURAL DEVELOPMENT

Iraq is an oil-rich, lower-middle-income country with an estimated national poverty rate of 19.8 percent in 2012. Ongoing conflict, weak governance, and high dependence on oil and public sector employment continue to pose significant challenges to Iraq’s socioeconomic development (World Bank 2014).

Iraq was once one of the “breadbaskets” of the Middle East. But today its crop yield gaps are significant (FAO 2012). Even so, Iraq has great potential for growth in its agricultural sector. Recognizing this potential, the 2013–2017 Iraqi National Development Plan (NDP) identifies agriculture as a key sector and aims to (1) diversify the economy; (2) make income generation and poverty reduction a central goal for national development; and (3) specifically empower women in order to boost their contributions to the labor market and society.

Globally, agriculture has been an important driver of economic development and poverty reduction. However, the magnitude of its impact depends on the kind and size of agricultural growth and on country-specific economic structure, markets, and household characteristics. In Iraq, agriculture contributes about 10 percent of GDP. Within agriculture, the cereals subsector makes the largest contribution to GDP, followed by “fruits and vegetables” and “livestock.” Agriculture is more labor intensive than other sectors, and while the labor market and agricultural sector are dominated by males, the highest share of female labor is active in agriculture and service industries. Agricultural and processed food imports make up about 27 percent of Iraq’s total imports, whereas agricultural and food exports are negligible and concentrated in the vegetable sector. The high share of food imports and small share of food exports suggest—given competitive pricing and quality—the possibility of replacing food imports and increasing exports by accelerating domestic agricultural production. Rural households spend a higher share of their income on food than urban households and the share of income spent on food generally decreases as the richer households become.

THE AGRICULTURAL TARGETS OF THE NATIONAL DEVELOPMENT PLAN ARE AMBITIOUS

Two of Iraq’s chief crops are wheat and barley. Together they account for almost half of Iraq’s total cultivated area. Fruits and vegetables combined make up about 15 percent of total land cultivated, leaving about one-third of cultivated land to other crops. Table 1 shows the expected yields for several cereals, fruits and vegetables, and other crops as described in the Iraq NDP 2013–2017 (Iraq, Ministry of Planning 2013). For example, the plan projects the wheat harvest of 2,232 kg per hectare (558 kilograms per dunam) for 2013 will increase to 3,060 kg per hectare (765 kilograms per dunam) in 2017. This translates into an implicit annual growth rate of 8.2 percent between 2013 and 2017.
TABLE 1  Projected yields and growth rates, 2013–2017

<table>
<thead>
<tr>
<th>Plan</th>
<th>Crop yields (kg/dunam)</th>
<th>Implied annual growth rate (%)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
<td>2017</td>
</tr>
<tr>
<td>Wheat</td>
<td>558</td>
<td>765</td>
</tr>
<tr>
<td>Rice</td>
<td>800</td>
<td>1,195</td>
</tr>
<tr>
<td>Barley</td>
<td>243</td>
<td>281</td>
</tr>
<tr>
<td>Maize</td>
<td>1,011</td>
<td>1,502</td>
</tr>
<tr>
<td>Tomato</td>
<td>4,500</td>
<td>7,804</td>
</tr>
<tr>
<td>Potato</td>
<td>4,596</td>
<td>8,013</td>
</tr>
<tr>
<td>Onion</td>
<td>77</td>
<td>89</td>
</tr>
</tbody>
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Note: dunam = 1/4 of a hectare; kg = kilogram.

BENEFITS OF AGRICULTURAL GROWTH

Achieving the yield targets will positively affect the Iraqi economy as a whole. Achieving all the agricultural goals would add an estimated 0.7 percentage points to total GDP each year between 2013 and 2017. Given that domestic agricultural production competes with imports, growth in agricultural output would allow for a reduction in Iraq’s imports, with the rate of import growth dropping by 1.0 percentage points annually.

The food processing sector is one of the main beneficiaries of agricultural growth. An increased supply of agricultural inputs at lower prices leads to an estimated 3.3-percentage-point annual growth rate for the food processing sector. Consequently, the agricultural productivity enhancements not only allow for diversification of the economy by increasing the share of agriculture in national production, they also promote diversification by increasing the share of nontradable services and food processing. Agricultural GDP is projected to grow by another 4.9 percentage points annually between 2013 and 2017 compared to a scenario with no productivity increases (Figure 1). For example, wheat-led growth alone would add an average of 1.5 percentage points to agricultural growth annually. Achieving the yield targets in fruits and vegetables would add an estimated 1.8 percentage points to annual agricultural growth, followed by livestock and industrial and other crops (0.7 and 0.1 percentage points, respectively).

Household Incomes

This increase in agricultural growth will raise household incomes. The benefits for households come from two main sources. First, rapid agricultural growth leads to a fall in relative agricultural prices, thus raising real household incomes. The magnitude of this price change depends on the increase in production resulting from yield increases and domestic consumers’ and international markets’ demand for the additional produce. In the case of Iraq and the combined agricultural yield projections, the relative price decline for most vegetables (potatoes and tomatoes) would be around 25 percent compared to the base. Food items that are more easily traded on international markets, such as industrial crops, would experience a much smaller decline in prices (between a drop of 1.5 and 8.0 percent). The decline in cereal prices lies somewhere in between, with an estimated decrease in prices for wheat of 11.6 and 1.4 percent for barley. Second, agricultural growth leads to an increase in wages and land rents. All types of labor benefit from agricultural growth. Among male labor the lower skilled labor categories benefit more, whereas among female labor the higher skilled labor categories benefit more. Household incomes from land increase among most crop-led yield scenarios, thus benefiting mainly rural households owning land.

Pro-Poor and Good for Female-Headed Households

As a result of these income and expenditure effects, household incomes are estimated to increase by an average of 3.3 percent annually between 2013 and 2017. Both rural and urban populations benefit from agricultural growth in Iraq (Figure 2). Rural male- and female-headed households, as well as the poorest male-headed households (quintile 1) in rural and urban areas tend to benefit more from falling food prices as they spend a higher share of their income on food. The poorest male-headed households also depend most on income from lower-skilled labor among men (for which wages go up the most in response to agricultural growth). Female-headed households benefit from receiving a relatively large share of income from unskilled male labor and skilled...
female labor, for which wages go up under agriculture-led growth.

Agricultural growth in Iraq is pro-poor and good for female-headed households in urban areas. Average annual incomes for the poorest male-headed households in urban and rural areas are estimated to rise by 4.5 percent and 3.1 percent, respectively. The benefits of agricultural growth generally decline the richer male-headed households become in both rural and urban areas, largely because of the income and expenditure effects described above. Female-headed households also will likely make gains from agricultural growth, particularly in urban areas. Incomes are estimated to rise by an average of 3.4 percent and 2.8 percent for urban and rural female-headed households, respectively.

DECISIVE ACTION IS NEEDED

While agricultural growth is good for economic growth, for household incomes, and for women-headed households, the results of this study, together with the literature and expert opinion, suggest the following policy actions should be taken to ensure that such positive outcomes materialize:

1. **Achieve yield targets for wheat and vegetables and fruits.** Increasing agricultural productivity in these sectors should be a priority, because they are most likely to enhance growth and incomes. To achieve sustainable yield improvements, the NDP and a group of experts with the Harmonized Support for Agriculture Development project (HSAD) identified several urgently needed actions. They involve improved agricultural technology and management, including improved soil-water and nutrient management practices, new agricultural technology for harvesting and post-harvesting, and improved seed varieties. They also include improved water harvesting, irrigation efficiency, and expanded implementation of modern irrigation projects—with particular emphasis on modern drip and spray irrigation systems that rely on solar power. These steps would be part of an overall effort to optimally exploit water resources and address issues of water scarcity (ICARDA 2014).

2. **Efficiently market additional agricultural products domestically to compete with imports.** To support farmers and traders in this process, improving infrastructure and market information systems will be important to enhance market access and to provide actors along the supply chain with useful information about prices and marketing opportunities. Trade facilitation is another type of policy that supports a rapid increase in agricultural production. This category includes measures to reduce the transaction costs related to international trade. Conditions that raise transaction costs include excessive documentation requirements, the need for authorizations from multiple agencies, unclear or subjective criteria for the application...
of duties, and delays and uncertainties related to customs clearance (Minot et al. 2010).

Some of these recommendations also appear in the NDP and are key recommendations of the HSAD project. It is time to implement them.

REFERENCES


ABOUT THIS POLICY NOTE
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This publication has not been subjected to the International Food Policy Research Institute’s standard peer review procedure. Any opinions stated herein are those of the author(s) and are not necessarily representative of or endorsed by the International Food Policy Research Institute. Nor do the opinions expressed herein necessarily reflect the views of the United States Agency for International Development or the Harmonized Support for Agriculture Development project implementing partners.

ABOUT THE AUTHORS
Azhr Al-Haboby (A.AlHabobi@cgiar.org) is project manager of the Harmonized Support for Agriculture Development (HSAD) project at the International Center for Agricultural Research in the Dry Areas (ICARDA). Clemens Breisinger (c.breisinger@cgiar.org) is a senior research fellow at the International Food Policy Research Institute (IFPRI), Washington, DC. Dario Debowicz (dariodebowicz@gmail.com) is a research associate at the Brooks World Poverty Institute of the University of Manchester. Dr. Abdul Hussein El-Hakim (abudelhakim@yahoo.com) is expert in the Planning & Follow Up Department of the Ministry of Agriculture, Iraq, and agricultural policy consultant for the HSAD project. Jenna Ferguson (j.ferguson@cgiar.org) is a senior research analyst at IFPRI. Roberto Telleria (r.telleria@cgiar.org) is an agricultural policy specialist at ICARDA. Teunis van Rheenen (t.vanrheenen@cgiar.org) is a senior research fellow at IFPRI.

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