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The Role of Agriculture in Achieving Strategic Development Objectives in Iraq

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Executive Summary

This paper argues that the agricultural sector can and should become the engine for sustainable development of the Iraqi national economy in a manner that alleviates poverty and achieves household food security.

For a number of reasons, many Iraqi agricultural producers and agribusinesses are not competitive with international producers and agribusinesses. A major contributory factor is the so-called paradox of plenty. A persistently overvalued exchange rate is caused by dependence on crude oil exports for foreign exchange and government revenues. It acts as an implicit tax on national agricultural and industrial production, making it more difficult to compete with imports. Additionally, the heavy influx of U.S. Dollars in funding reconstruction and other donor projects exacerbates the difficulties of applying sound fiscal management that does not impact negatively on the competitiveness of productive sectors.

When combined with other negative factors, this implicit tax permits cheaper and better quality imports to crowd out national agricultural production in the Iraqi marketplace. For years, the agricultural sector has suffered from a cycle of impoverishment characterized by underutilization and inefficient use of factors of production (land, water, labor and capital), that engenders continuing de-capitalization, deterioration of infrastructure and loss of productivity.

Oil dependence combined with anemic or negative growth of productive sectors (generators of employment) lead to increasing levels of poverty and household food insecurity. Poverty and food insecurity in Iraq are high and growing, rapidly exceeding the capacity of the public purse to address through direct protection measures.

The agriculture-based economy currently is severely depressed, yet the adoption of appropriate public sector policy and investment initiatives can and should establish the conditions for competitive private sector agribusiness development through rapid and sustainable expansion of agriculture value chains. These value chains will become the engine of development for the Iraqi economy. In the short and medium term, agribusiness may be the only productive sector with that potential.

Existing agriculture value chains are the most labor-intensive activities of the Iraqi economy. Agricultural production and directly linked upstream and downstream activities currently employ nearly 15% of the active labor force. In contrast, the oil export industry is the most capital intensive economic activity in Iraq and generates an estimated 65% of gross domestic product (GDP). But it employs only 2% of the work force. The non-oil industrial sector (excluding agro-industry) employs only 9%. Earnings from crude oil exports generate 90% of government revenues. These revenues are a vital source of public sector investment capital for infrastructure, utility services and financial resources required to stimulate sustainable development of productive sectors of the economy.

Potential employment impacts of economic growth in the agricultural sector are considerable compared to other productive sectors. To illustrate, at current capital to labor ratios, each percentage point of agricultural GDP growth adds 1.2% to total employment (reducing the unemployment rolls by 2.5% or 55,000). A one percent increase in GDP growth in the industrial sector (excluding agro-industry) generates only 0.35% of total employment (reducing the unemployment rolls by less than 1%, or only 18,200). And agriculture has its greatest impact where the greatest proportion of poor and unemployed are located, i.e., in rural communities.¹

¹ Source: U.S. Department of State, 2010.

Additionally, as compared to other economic activities, agriculture has much greater economic multiplier effects because of longer and more complex value chains. Also, agriculture has more cross-sector linkages, especially with non-farm goods and services suppliers located in rural communities.

Direct government investment in public works does not generate high multipliers in terms of direct employment and cross-sector linkages. However, such investments do provide critical factors of production to all economically productive sectors, including agriculture. Such investments create necessary but not sufficient conditions for sustainable economic development through stimulation of private sector investment in productive sectors.

Agriculture has the potential to become a major contributor to the economic development of Iraq and the social welfare of its citizens. Sustainable agriculture-based economic development in rural communities also contributes to other important social values, e.g., reduces out-migration, performs a socio-economic buffer function, preserves cultural identities, and provides potential for valuable environmental benefits.

The Iraqi Economy and the Paradox of Plenty

Since the 1980's, wars, internal conflicts, international isolation and misguided development policies all have contributed to the stagnation and decline of Iraqi agriculture. Much of the existing agricultural resource base (land, water, labor and capital) is in poor repair, is unproductive and/or is inefficiently utilized. At least since 2003, output has been declining as imports increase to feed growing urban populations.

An over-arching culprit for the inability of Iraqi agriculture to compete with imports is the economic impact of the phenomenon known as the "paradox of plenty."

Current economic conditions in Iraq mirror many of the characteristics typical of less developed countries that are dependent on crude oil exports for foreign exchange earnings and government revenues. During the initial period of oil export infrastructure construction and supporting services development, employment and per capita incomes rapidly increase. Once the oil export industry is operational, income distribution inexorably becomes more skewed as unemployment levels trend upward, and the proportion of the population in poverty increases. Additionally, non-oil productive sectors of the economy remain stagnant or contract, due in large part to over-valuation of real exchange rates (thus making competing imports cheaper) and rapid out-migration of capital and labor from previously productive sectors to the oil sector (and to associated rent-seeking activities). These previously productive sectors can no longer compete, and, in effect, are "crowded out."

A previously productive agricultural sector was faced during the Iraqi oil boom years with higher costs and reduced competitiveness compared to imports of agricultural goods and services. Thus, the contribution of the agricultural production sub-sector to GDP dropped from an estimated 18% in the early 1980's to 12% in 2010 (partially because of increased prices for oil exports and higher oil production). Abundant oil export revenues permitted the Government of Iraq (GoI) to lavish agriculture with subsidies that encouraged inefficient use of much of the agricultural resource base. Subsequently, the GoI could no longer afford these subsidies, resulting in widespread enterprise failures, production and marketing chain disruptions, and idle factors of production. And this occurred in the face of more competitive (and often subsidized in the originating country) imports through the Ministry of Trade largely for the Public Distribution System (PDS). The PDS provides a largely imported basic foodstuffs basket to nearly every Iraqi household, regardless of economic vulnerability. This monthly foodstuffs basket is intended to provide 2,000 calories/day to each household member.

Over 90% of GoI revenues are from oil exports. In the years 2008-2009, the PDS absorbed 20-28% of total GoI revenues. With the objective to contain its burden to the budget GOI reduced, in 2010, the items included in the basket that are now limited to basic staples such as wheat flour, rice and vegetables oils. This is clear sign of GOI's concern on PDS sustainability in the medium long term run.

Without major investments and policy initiatives that achieve sustainable economic development and employment generation, the future welfare of the Iraqi population is in jeopardy. The proportion of the Iraqi population in poverty and extreme poverty already is at alarming levels, and is increasing. The World Food Programme estimated that in 2009, at least 25% of the population suffered from extreme poverty; according to some estimates, as many as 65% of all households have incomes below the poverty line.

Poverty largely is attributable to the unemployment rate, estimated at 18-30% of the Iraqi work force of approximately nine million (mid-2010 estimate). At the same time, expenditures by the public sector to directly protect these vulnerable populations from household food insecurity through PDS direct food aid are unsustainable. Thus, it is essential to achieve rapid and continuing economic development of productive sectors that generates sufficient employment to reduce poverty to manageable levels.

According to the GoI National Development Strategy (NDS), the nation's highest priority general welfare objectives are poverty alleviation and increased household food security. During 2010, domestic tranquility and participatory governance in Iraq hopefully are gaining and will continue to gain momentum. For these trends to continue and strengthen, Iraq must seize the moment to rapidly and sustainably improve the permanent welfare and well-being of its citizenry, especially the more vulnerable segments of the population.

To achieve these objectives, the GoI continues to apply PDS direct protection measures. Although the broad-scope PDS measures may be justified in the short run as an emergency response to poverty and nutritional vulnerability, it is expensive, inefficient and wasteful. The PDS provides windfall benefits to many non-vulnerable families, promotes rent-seeking attitudes among public employees and private contractors, and facilitates widespread unearned enrichment and corruption. Worse, its heavy reliance on imported commodities impedes development of domestic agriculture.

Rapid and sustainable development of the agricultural sector can and should become the engine of development for the Iraqi economy. It is the foremost sector with that potential in the short to medium term. In the longer run, industrial production and construction can assume an increasingly important role in sustainable growth and employment generation. For the time being, Iraqi public sector investments and policy improvements should focus on assuring that the broader agricultural sector (the entire value chain from input supply to final consumption) fulfills its potential. Such investments and policy improvements also will create spillover conditions to encourage growth in other productive sectors.

Current Limitations of Non-Agricultural Economic Sectors

The oil export sector generated an estimated 65% of GDP in 2008, yet it employed only about 2% of the labor force, and that was largely highly skilled labor. Thus, the direct impact of oil sector growth on unemployment is negligible. Because of its enclave characteristics, the oil export sector is weakly linked to the broader economy, and thus has little economic multiplier effect in terms of increased market demand for output from other productive sectors. Thus, the indirect impact of growth in this sector on unemployment also is not high. On the other hand, oil revenues are a vital source of public sector investment capital for infrastructure and utility services to stimulate sustainable development of other productive sectors of the economy.

As shown in Table A, the non-oil industrial sector (excluding industries processing agricultural raw materials that are a part of the agriculture value chain) is too small to have a significant impact on employment and economic growth in the short to medium term. Other productive economic sectors such as construction and tourism are even smaller, contributing less than 1% each to employment and to GDP. Nevertheless, the GoI also should be focused on creating favorable policy and infrastructure conditions to encourage growth in other productive sectors in the medium to long term.

Agriculture as the Engine of Development

Based on the data in Table A, the agricultural value chain employs nearly 15% of the total work force. Additionally, it generates almost 35% of GDP when the oil export sector is excluded.

Agriculture is the lead productive sector in current contributions to the national economy and to national employment. It can become the dominant contributor to short and medium term improvements in the socio-economic welfare of all Iraqis. This is because of the much higher cost-effectiveness of agricultural output growth, as compared to investments in other productive sectors: 1) to generate higher levels of direct employment along the entire value chain, and, 2) to exert a strong economic multiplier effect that triggers sustainable economic growth and indirect employment in non-agricultural private sector services and light industry.

Agriculture is positioned to have the greatest positive impact on employment through GDP growth. Under current economic conditions, each percentage point of agricultural GDP growth adds 1.2% to total employment, i.e., reduces the current unemployment level by over 2.5% (by 55,000). In contrast, each percentage point of added industrial production contribution to GDP generates only 0.35% of total national employment, i.e., reduces the current unemployment level by less than 1% (18,200). Of course, dynamic growth is needed in both sectors.

There is considerable variation across agricultural sub-sectors (cereal grains, fruits and vegetables, livestock, etc.), yet the cost effectiveness of employment generation from commercial agriculture is several times as labor intensive per unit of capital invested, as compared to industrial production. Agricultural value chain job creation (both direct and indirect) tends to be more focused within rural communities where the highest proportion of currently unemployed and impoverished are located.

Table A. Estimated Contributions to Employment and Gross Domestic Product (GDP) Percent by Economic Sector, Iraq, 2010²

Economic sector	Employment %	GDP %
Agriculture Primary Production	15	12
Industry (non-oil)	9	2
Retail, wholesale & Other Private Services	30	15
Government Services	44	6
Oil & Oil Products Export Industry	2	65
Totals	100	100

When compared to industrial labor, agricultural labor provides less value-added. However, in general, skills levels are lower for agricultural labor, which makes the unemployed more employable in agriculture than in other sectors. The near-term urgency is to increase employment, whereas increased labor productivity must be a longer term goal. As improved agricultural technology is adopted, agricultural activities will become less labor intensive and more capital intensive. Thus, agricultural labor productivity will increase. In any event, through the medium term, capital investment in agriculture will directly and indirectly generate more employment than will a similar investment in the industrial or other productive sectors.

Economic Multiplier Effects That Accelerate Economic Growth

Foods are consumed several times daily, and many Iraqi consumers purchase some foods daily. In contrast, demand for output from most non-agricultural economic activities is generally more intermittent. The forward linkages along agriculture value chains are more intense than for other production value chains. Additionally, backward linkages of commercial agricultural enterprises to input suppliers are generally more complex and extensive than for non-agricultural enterprises. Output from agriculture generates more employment than a similar output from other sectors, so cross-linkages with non-agricultural goods and services businesses are more intense (especially for those located in rural communities).

The PDS is a direct in-kind income transfer program, financially feasible only because of windfall earnings from the extraction and export of hydrocarbons. Free or nominally priced distribution of basic foods imported by the PDS generates limited direct employment, primarily from wholesale/retail distribution services. This program enhances household food security but has low income and employment multiplier effects. It also dampens demand for foods produced domestically, which in turn dampens demand for agricultural production inputs and output marketing services. Consumers do benefit from this direct subsidy, but domestic producers are negatively impacted. Because of the loss of the agricultural multiplier effect, it is likely that the net total welfare effect of the PDS program over time is negative.

² Source: U.S. Department of State, 2010.

In recent years, household incomes have relied heavily on government salaries. Direct government employment is 50-75% redundant, likely making a net negative contribution to GDP. The increased employment income from redundant public employment generally would increase consumer demand, especially for foods. Since these households already receive the free basic food basket, government salaries are more likely spent on elective consumables, i.e., foods such as imported vegetables and lower cost types of meat, such as frozen chicken, as well as clothing and other consumer goods and services (much of which is imported), thus generating relatively low multiplier effects.

Improved public infrastructure also has a longer run economic multiplier effect, but major public works investments tend to be capital intensive, and contribute only modestly to direct employment creation. Thus, continued major investments in public works will have at best only marginal direct impacts on near-term national unemployment levels. Nevertheless, these investments provide critical inputs to all economic sectors, including agriculture. Adequate and reliable public infrastructure and services are necessary conditions to sustainable economic development. In the absence of a reliable supply of electricity and fuel, as well as properly functioning irrigation systems (among other things), Iraqi agriculture cannot realize its development potential.

In addition to major potential contributions of agriculture to future economic development and social welfare of Iraq (described above), sustainable agriculture-based economic growth in rural communities contributes to other important social values, e.g., regulation of out-migration, socio-economic buffer function, preservation of cultural identity, and environmental benefits.