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# USAID-TIJARA PROVINCIAL ECONOMIC GROWTH PROGRAM

## ASSESSMENT OF IRAQ'S AGRICULTURAL POLICIES

TECHNICAL BARRIERS TO TRADE (TBT), FOOD  
SECURITY AND SELF-SUFFICIENCY OBJECTIVES



July 2012

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JULY 2012

## AGRICULTURAL POLICY DELIVERABLE REPORT

POLICY OBJECTIVES & PRODUCTION CONSTRAINTS  
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### **DISCLAIMER**

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# ACRONYMS

BSE	<i>Bovine Spongiform Encephalopathy</i> [also “mad cow disease”]
COSQC	Central Organization for Standardization and Quality Control [Ministry of Planning]
DoD	United States Department of Defense
FAO	Food and Agriculture Organization (of the United Nations)
FAS	Foreign Agriculture Service (of USDA)
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GMO	Genetically Modified (GM) Organism
Gol	Government of Iraq
IRG	Iraqi Regional Government (for Kurdistan)
KRG	Kurdistan Regional Government
MIM	Ministry of Industry & Minerals
MoA	Ministry of Agriculture
MoH	Ministry of Health
MoT	Ministry of Trade
OECD	Organisation for Economic Co-operation and Development
Ph. D.	Doctor of Philosophy
PRT	Provincial Reconstruction Teams
PSI	Pre-Shipment Inspection
SOE	State Owned Enterprise
SPS	Sanitary & Phytosanitary
TBT	Technical Barrier(s) to Trade
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WTO	World Trade Organization

# 1. INTRODUCTION

## 1.1 METHOD OF APPROACH

This report is identified as a deliverable in the *USAID/Tijara International Trade/WTO Accession Year 5 Work Plan, Activity Reference 4.2: Conduct an Assessment of Agricultural Policies to Ensure TBT Compliance*. The stated deliverables follow:

### 1.1.1 DELIVERABLES

- Research and prepare a report regarding Iraqi agricultural policies and WTO-consistent alternatives to increase productivity and improve Iraq's food security as proposed with "self-sufficiency" objectives stated by top Iraqi officials.
- Prepare and submit an activity/deliverable report.

The method of approach for this deliverable was to undertake research and data collection including discussions and requests for information from a broad range of sources. After data collection and analysis were completed a report entitled *Assessment of Iraq's Agricultural Policies: "Technical Barriers to Trade (TBT), Food Security and Self-Sufficiency Objectives"* was prepared.

## 1.2 STRUCTURE OF THIS REPORT

Section 1 provides the Introduction, Method of Approach and Structure of this Report.

Section 2 provides includes discussions about Data & Information Gathering and Analysis & Report Writing.

Section 3 provides subsections regarding Background and Outlook & Way Forward. This material includes a summary of the main findings, further discussion of Pre-Shipment Inspection and other Technical Barriers to Trade (TBT) and WTO-consistent alternatives to increase Iraq's agricultural productivity.

Annexes A through F provide supporting documentation regarding Iraq's implementation of Pre-Shipment Inspection (PSI), subsequent impacts on trade flows and the WTO Agreement on PSI that provides guidelines to assure that PSI is implemented in a manner consistent with global trade.

This paper also discusses policy and technology alternatives that would be consistent with moving towards increased self-sufficiency. Many of these alternatives would increase technological applications, but applications would require a policy or structural change to allow for those technologies to become available.

Annex G discusses Iraqi Agriculture and Food Security -- Production Constraints & Policy Alternatives. Policy alternatives are discussed that could increase Iraq's productivity and self-sufficiency of the 20 largest agricultural imports during 2009. A timeline for implementation of these policy alternatives is also discussed. **Note:** *Communications by the author with FAO have confirmed that 2010 import data for the top 20 agricultural products into Iraq will not be available until late September 2012. Once 2010 data become available Annex G will be updated and an amended Deliverable report will be filed.*

## 2. RESEARCH AND WRITING

### 2.1 DATA AND INFORMATION GATHERING

The author conducted ongoing meetings and discussions with Government of Iraq (GoI) Ministry of Agriculture (MoA), and Ministry of Trade (MoT) officials in Baghdad and the Iraqi Regional Government (IRG) in Erbil. Discussions were also conducted with technical production experts at *USAID/Inma* and various officials at the U.S. Embassy including the Agricultural Counselor.

The author would especially like to thank John M. Schnittker, Agriculture Economist/Ministry Advisor and Patrick J. Broyles, USDA Soil & Water Advisor both with United States Department of Agriculture (USDA) – Foreign Agriculture Service (FAS), U.S. Embassy- Baghdad for thought-provoking discussions and thoughtful peer review.

Data were collected from international data sources including FAO Statistics (FAOSTAT) from the Food and Agricultural Organization (FAO) of the United Nations and from Iraqi data sources at the Ministry of Agriculture, Iraq, and KRG Ministry of Agriculture and Water Resources, (Kurdistan Regional Government). During the course of discussions with GoI economists, information about data availability, general economic conditions in Iraq and internal GoI analyses of agricultural policies and proposed trade policy changes were collected.

### 2.2 ANALYSIS AND REPORT WRITING

This activity concluded with data analysis, debriefing activities and production of a detailed report entitled *Assessment of Iraq's Agricultural Policies: "Technical Barriers to Trade, Food Security and Self-Sufficiency Objectives"*

# 3. SITUATION AND OUTLOOK

## 3.1 BACKGROUND

For more than 40 years Iraq has been locked away from the World. As a centrally planned, Socialist, state-run dictatorship intermittently at war with neighboring countries for four decades, Iraq was under United Nations sanctions from 1991 through 2003. As a war-torn economy and still suffering from periodic sectarian violence that was rampant from 2003 through at least 2008, little thought was given to Iraq as a member of the global community – or to trade and investment with Iraq. Domestic philosophies and perceptions among the world's leading investment and trading partners are gradually changing.

Iraq first stated intentions to join the World Trade Organization (WTO) in 2004. With experience at two WTO Working Party meetings in its portfolio, and now nearing submission of an initial Goods Offer; intermittent progress toward Iraq's reintegration into the global system has a strong foundation. *USAID/Tijara* and predecessor program *Izdahar* have provided technical assistance since this transition began.

Iraq's economy remains characterized by heavy dependence on oil exports and is evolving from historical emphasis on economic activity through central planning. As one of the three most oil-rich countries in the world, Iraq has the resources to be a leading oil exporter and production costs for Iraqi oil are relatively competitive by world standards. However, with more than 30 million Iraqi citizens, participation by the private sector, economic growth and expansion in sectors beyond petroleum will be necessary to provide employment and broad-based increased incomes and standards of living for all Iraqis.

The Iraq National Investment Commission has been clear that reconstructing Iraqi agriculture remains a priority at the highest levels of government. A recent Commission report states: *“Agriculture is an essential part of Iraq's economy and one-third of all Iraqis depend on farming for a livelihood. After public services the agriculture sector is the second largest employer in Iraq and [although less than 5 percent] still the second largest contributor to Gross Domestic Product (GDP) after the oil sector. Iraq produces almost all fruit and vegetables, but is highly dependent on imports for many other agricultural commodities. Before 2003, the country was producing almost 70 percent of its basic food needs. This figure has declined to 10 percent, resulting in the food import bill soaring to record levels. There is a pressing need to reverse the agricultural sector's decline.”*

Agricultural reconstruction and gradual improvement have been underway since 2004. *USAID/Inma* and Department of Defense (DoD) Provincial Reconstruction Teams (PRTs) have provided technical assistance to production agriculture beginning in late 2003. These efforts have resulted in modest success, however, huge potential for restructuring, of technological modernization; producer education and increased productivity remain.

Security, governance and return to rule of law were such by 2010 that surveys and agricultural production data started to again become available in Iraq. The FAO (Food and Agriculture Organization of the United Nations) maintained and published an historical database of the top 20 agricultural commodities produced and imported into Iraq. By necessity, these data were often reconstructed from trading partner data. These various sources of data and information were collected and are discussed in this paper as in initial effort to provide information about the Iraqi agricultural production and food system and the WTO-consistency of some policies in place.

This paper also discusses policy and technology alternatives that would be consistent with moving towards increased agricultural self-sufficiency. Many of these alternatives would increase technological applications, but applications would require a policy or structural change to allow for those technologies to become available.

**Technical Barriers to Trade (TBT):** The WTO *Agreement on Technical Barriers to Trade* -- commonly referred to as the *TBT Agreement* --- is an international treaty administered by the World Trade Organization (it was last renegotiated during the Uruguay Round of the General Agreement on Tariffs and Trade -- GATT) with its present form entering into force with the establishment of the WTO at the beginning of 1995.

In a nutshell, TBT provisions exist to ensure that technical regulations, standards, testing, and certification procedures do not create unnecessary obstacles to trade. The agreement prohibits technical requirements that are implemented to limit trade -- but provides for alternative technical requirements that are created for legitimate purposes including food safety, animal health and plant quarantine.

The TBT agreement is closely linked to the Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures, which was signed in the same year and has similar goals.

The following list is an overview of the guidelines and mechanisms that promote the TBT's mission:

- WTO's most-favored-nation rule binds countries' technical requirements.
- The TBT agreement strongly encourages countries to recognize the results of other countries' conformity assessment tests – the tests that determine whether a product conforms to a given standard.
- TBT language promotes the development of international standards and provides governments and inter-governmental bodies with guidance on how to best develop such standards. TBT members are strongly encouraged to adopt international standards as their technical requirements whenever possible.
- All TBT members are required to establish “enquiry points” – offices that provide information about the country's technical regulations, test procedures, and adherence to various international standards.
- A technical assistance program helps developing countries meet international standards and helps them get involved in the establishment of such standards.

**Pre-shipment Inspection (PSI):** Current implementation and management of pre-shipment inspection requirements by Iraq are likely the single most restrictive TBT to agricultural and non-agricultural products from developed countries at this time. PSI was first announced by Iraqi Deputy Minister of Trade, Mrs. Swaiba Mahmood, on April 19, 2011. Representatives from the Ministries of Industry & Minerals (MIM) and MoH, and the Central Organization for Standardization and Quality Control (COSQC) from the Ministry of Planning -- and a number of members of chambers of commerce and the private sector also participated as PSI was announced.

PSI was touted as a program to ensure that Iraqi consumers receive high quality products in accordance with approved specifications. The protection of consumer health and safety, preservation of the environment and accelerated release of the goods through Customs with a certificate of conformity were also listed as potential benefits from PSI. Entry of low-quality products was to be restricted as well as preventing fraud, manipulation, and counterfeiting.

COSQC announced a four-year PSI program to be implemented by two inspection companies -- Peroveritaz Co. from France and SGS Co. from Switzerland. These companies were contracted to implement the PSI program and to pre-screen cargo at points of manufacture or shipping prior to entering Iraq. Both companies had prior issues with corruption, and PSI as implemented, ignores other countries' conformity assessment tests and does not follow standards and guidelines from international standard-setting organizations. (See Annex A: "Two International Companies Start Testing & Examination of Goods Entering the Country, AL Sabah News Paper," page 15)

PSI was originally to be implemented in Iraq on May 1, 2011 and covers a wide range of consumer products beyond agricultural and food products. (See Annex B: "Pre-Import Inspection Tests & Certification Program of Goods into the Republic of Iraq (ICIGI)," pages 16 & 17). Implementation of PSI was twice postponed and finally began July 15, 2011.

It is also relevant that WTO pre-shipment language allows for classification and valuation with respect to collection of tariffs before the goods are shipped. COSQC does not have authority for valuation and revenue collection (those authorities are delegated to the Customs division within the Ministry of Finance) so goods imported into Iraq are still subjected to classification, valuation and tariff collection at Iraqi points of entry.

PSI as implemented by Iraq had a huge negative impact on the import of goods. After the first 15 days of the program the Directorate of Customs announced that tariff revenues had declined by 69 percent and blamed the decline to "changes in import regulations that saw backlogs at the border crossings. The new rules mean that any importer must obtain a certificate of quality control from one of two companies contracted by the government and companies have been unwilling to have goods inspected for PSI during the 15 days since the program was implemented." (See Annex C: "Communications Regarding PSI Implementation," pages 18 & 19)

Unwillingness of exporters to participate in the Iraqi PSI program has continued. U.S. exports of agricultural products to Iraq during January through May 2012 at \$38.6 million declined approximately 90 percent from \$377.42 million exports during the same period in 2011 -- before PSI was implemented July 15, 2011. A stronger U.S. dollar relative to the Iraqi Dinar also increased the price of U.S. goods to Iraqis and may also have contributed to reduced demand for U.S. agricultural exports. Dollar strength is generally attributed to demand for dollars as currency traders from Iran and Syria exchange local currencies for dollars in Iraq. Dollars received from the exchange are then used to purchase goods to import to Iran and Syria and circumvent sanctions imposed by the U.N. (See Annex D: "U.S. Agriculture Exports to Iraq," USDA, Foreign Agriculture Service, pages 19 & 20)

**TBT Other Than PSI:** Other Iraqi policies that are TBT relate to plant genetics and seeds. One way to remove a TBT includes "Using existing emergency powers to facilitate seed registration and reinvigorate seed propagation efforts." This policy would eliminate a TBT and could be implemented in a matter of months. Genetically Modified Organisms (GMOs) are controversial and if Iraq's ban on GMOs were strictly enforced it would be a TBT. Europe and the U.S. disagree on policy regarding GMOs and the extent to which GMO policy is a TBT likely depends whether the question is asked in Europe or the United States.

Another potential TBT depends on whether MoA or MoH prevails regarding regulations for live bovines and meat imports from countries that have had at least one case of *Bovine Spongiform Encephalopathy (BSE)* -- more commonly called "mad cow disease." MoA has drafted regulations consistent with World Organization for Animal Health (OIE) country risk assessments and classification. MoH has proposed that no live animal or meat imports be allowed from any country that has had at least one case of BSE. If it prevails, the MoH position will likely be challenged by many European individual countries, the collective EU, Canada, and the U.S. as a TBT during WTO accession bilateral negotiations.

This report is an initial effort to lift the veil on Iraq's agricultural and food system. With improved transparency and data availability; with increased exposure and participation in the global trading and financial systems; and with increased familiarity with standards and guidelines from international standard-setting organizations, Iraq will become much less a mystery. Legislative and regulatory change consistent with WTO accession would facilitate the process of change.

Political courage and willingness to embrace new ideas and change will be necessary for economic growth in Iraq. If those factors are present domestic and foreign investment, information transfer and technological assistance have the potential to transform Iraq's non-competitive war-torn agriculture into a competitive modern production and marketing system.

### 3.2 OUTLOOK AND WAY FORWARD

The Iraqi National Development Strategy emphasizes the need for an export-oriented economy, with agriculture playing an important role. However, there are major challenges to achieving these goals. In 2010, Iraq had 31.6 million people, with an annual population growth rate of about 2 percent. Iraq's stated policy objective is to achieve food self-sufficiency. From an aggregate calorie perspective, Iraq would have had to increase production by 153 percent in 2010 to achieve the recommended 2,300 calorie/cap/day. Even if production had reached these levels -- from a health and nutrition perspective -- domestic production would not have provided a nutritionally-balanced diet, therefore, domestic food production would not have satisfied local demand.

Oil crops are barely produced in Iraq. Production includes sesame, peanuts, and sunflowers but most are consumed whole. Iraqi vegetable oil production is virtually non-existent because there is not a large enough oil-seed crop to support a processing facility. The Ministry of Industry and Minerals (MIM) owns a number of oil processing facilities, but without competitive support for sunflowers or soybeans, producers will continue to focus on wheat. Wheat production is subsidized more heavily than oil-seed crops. Until subsidies are balanced (either reducing wheat subsidies or increasing subsidies for oil-seeds) Iraq will remain a large importer of vegetable oil.

Rice and sugar were once relatively large crops produced in Iraq. Sugar production in Iraq peaked in 1979 and rice production in 2007. GoI considers both crops too water intensive to continue production -- although new short season rice varieties and conservation practices might improve efficiency for rice. If Iraq continues to depend on imports for vegetable oil, sugar and rice; what then, does food self-sufficiency mean?

Given environmental constraints and a rapidly growing population, it is unreasonable to expect total self-sufficiency on a balanced diet basis. With this in mind, there are two alternative definitions. The first is aggregate calorie (or "total food basket") self-sufficiency, where Iraq produces enough calories, regardless of type, to achieve a net-zero calorie trade balance. For every calorie imported, a calorie would be exported.

The second definition is specialized self-sufficiency in which Iraq produces enough agricultural products to meet local demand. In other words, the policy objective would be to eliminate imports of foodstuffs that can be efficiently produced in Iraq. In this context food security becomes self-sufficiency for certain commodities with imports of other food categories assured through business relationships with reliable suppliers. Responsibility for food imports would shift from Ministry of Trade to private sector food companies over time.

**Value-Added Products:** As disposable incomes increase consumers generally substitute away from basic ingredients to value-added, further prepared products with more services included. For example, the trend is away from purchasing flour and sugar ingredients towards purchases of pre-packaged, pre-sliced, butter-crust, brand name bread.

The shift towards value-added products will very likely be true in Iraq as oil production continues to increase resulting in a parallel increase in consumer disposable incomes. The more that labor-intensive value and service is added, the more value-added jobs are provided throughout the total food chain.

It is also true that as the trend towards value-added products continues, agricultural producers receive a smaller proportion of overall consumer expenditures. Food products purchased by consumers include more value-added labor and services and relatively less agricultural raw commodity. The more value processing takes place in Iraq, the more jobs will be available for Iraqis in the value-added chain, but the farmer's share of the end product will continue to decline.

The trend to value-added consumer products is already visible in the top 20 list of Iraqi imported products. The FAO list of top 20 agricultural imports during 2009 includes seven value-added consumer products -- cigarettes, pastries, prepared food (not specified elsewhere), chocolates, infant food, and non-alcoholic beverages. Cigarettes was the only one of these value-added products on Iraq's FAO list of top 20 agricultural imports 15 years earlier during 1995.

**Policy Alternatives and Timeline:** Given political will, some policy alternatives could be implemented in a matter of months. Some alternatives including improvements in electricity and irrigation systems have already begun and will be completed within two to five years. Other policy alternatives including producer education, implementing crop rotation systems, new tillage methods and bringing new lands into production will require major restructuring and education for the agricultural sector. These are long-term objectives and may require a new generation of more technologically adept farmers to achieve.

It goes without saying but the sooner any of these alternatives are started the sooner they can have an effect. There is general consensus that State-Owned Enterprises (SOEs) are a significant impediment to increased productivity in Iraqi agriculture. Political inertia and bureaucratic resistance to change may be the greatest impediments to increasing agricultural productivity. Reform could be relatively fast with strong leadership and executive decree. Alternatively, these State Companies can be stone walls to new technologies and take a generation to change. **[Also See: USAID/Tijara Deliverable Report: "Report on State Owned Enterprises (SOEs) in Iraq," prepared by Chuck Lambert, April 2011]**

An action plan for change will ultimately be developed by Iraqis working with Iraqis. The Executive working through the Ministries with some Parliamentary influence and oversight will ultimately determine the plan to reform. Consistent with past USAID programs ongoing technical support and policy alternatives will likely be provided by development teams.

**Implement PSI so it is Not a TBT:** The WTO Agreement on Pre-Shipment Inspection ("the Agreement") clearly communicates how PSI is to be implemented. Obligations of members are spelled out in Article 2 of the Agreement. PSI must meet the following conditions to be WTO-consistent and so that it is not a TBT and does not restrain trade: **(See Annex E: "WTO Agreement on Pre-Shipment Inspection," pages 21 through 29 and Annex F: "U.S. Department of Commerce Trade Compliance Center – Making America's Trade Agreements Work for You!" pages 30 through 32)**

- Non-discrimination – uniformly applied to all WTO members and uniformly enforced at all points of entry.
- Governmental Requirements – for quality standards must be clearly spelled out and recognize the results of other countries' conformity assessment tests – the tests that determine whether a product conforms to a given standard.
- Site of Inspections – at point of shipment or manufacture.
- Standards -- promotes the development of international standards and provides governments and inter-governmental bodies with guidance on how to best develop such standards. WTO members are strongly encouraged to adopt international standards as their technical requirements whenever possible.
- Protection of Confidential Business Information
- Avoid conflicts of Interest
- Avoid Undue Delays
- Price Verification – is a function of Customs and not relevant for COSQC in Iraq
- Appeals Procedures.

#### **Eliminate Other Import Requirements that are TBT:**

- Eliminate Seed Restrictions: Emergency powers can be utilized to allow new seed varieties from neighboring countries or seed from Organisation for Economic Co-operation and Development (OECD) accredited programs to meet Iraqi seed registration requirements. Current restrictions on new, more productive genetics are Technical Barriers to Trade (TBT) and will likely be addressed during bilateral WTO accession negotiations, if not before.
- Eliminate Prohibitions on Genetically Modified (GM) Crops: The Iraqi ban on GM Crops as if strictly implemented and enforced would be a TBT. It will likely be challenged by U.S. and other GM producers if not revised before bilateral negotiations. In the short-term accepting hybrid seeds and new crop genetics (as recommended in the above bullet point) will improve productivity and provide producers experience with potential gains from improved plant genetics.
- Implement MoA Draft Regulations Regarding Imports from Countries with BSE: World Organization for Animal Health (OIE) has conducted country risk assessments and classification and provides guidelines for safe trade in products from countries that have had at least one case of BSE. A complete ban on products from any country that has had a case of BSE as proposed by MoH will likely be challenged by the U.S., Canada, European Union and many individual EU member countries.

**Production Policy Alternatives for Immediate Action and Change:** These changes could be implemented in a matter of months to up to two years.

- No Policy Change: Because it is already in place this alternative requires no overt action and is the fastest to achieve.
- Increase Crop Yields and Returns to Inputs on Existing Planted Land: First, focus on increasing production on land that is already in production. Focus on efforts to revise government pricing programs and reform State Owned Companies towards providing balanced inputs, processing and marketing products could be expedited with government will. Elections and forming government coalitions have slowed this timeline and over time these functions will likely gravitate to the private sector.

- *Eliminate Seed Restrictions:* Emergency powers can be utilized to allow new seed varieties from neighboring countries or seed from OECD accredited programs to meet Iraq seed registration requirements. Current restrictions on new, more productive genetics are Technical Barriers to Trade (TBT) and will likely be addressed during bilateral WTO accession negotiations, if not before.
- *Fertilize to Soil Requirements:* In the short-term State Companies could be mandated to conduct soil tests and provide quality blended fertilizers compensate for soil mineral deficiencies. Longer-term these functions will likely move to the private sector.
- *Implement Information Transfer Programs and Continuing Education Programs for Producers:* This is a long-term on-going initiative that can be started in the immediate to short-term.
- *Increase Use of Mechanized Technologies:* Reduced tillage equipment, planters and mechanized harvesters (especially for corn) could increase production and grain quality in the next crop year. In the short-term State Companies could be mandated to provide this equipment to producers and train producers to use -- and technicians to service -- the new equipment lines. Longer-term these functions will likely move to the private sector.
- *Modify the Current Wheat and Barley Price System:* Prices for barley and grades #2 and #3 wheat could be reduced to float at world prices. This change would reduce feed costs for domestic poultry, egg and livestock producers and provide an incentive to produce high quality milling grade wheat. Alternatively, all prices could be floated at world prices with an income supplement, conservation payments or transition payments provided to producers.
- *Simplify and Streamline Import Requirements for Feed Ingredients and Processed Feed:* Reforms to government inspection and testing programs could be implemented by ministerial decree. Streamlining processes to allow ship-loads of grain to enter Um Qsar for distribution by the private sector to livestock producers would greatly reduce costs of small package handling at land-based crossings
- *Implement and Enforce a WTO-Consistent Tariff Schedule to Replace Seasonal Bans:* The Ministry of Finance most recently announced that the tariff schedule would be implemented June 1, 2012. However, implementation has since been postponed indefinitely – once again. Strong administration and enforcement of these tariffs would provide protection for Iraqi poultry, egg and vegetable producers.

**Production Policy Alternatives for Medium-Term Action and Change:** These changes could be implemented in a matter of one year up to five years.

- *Improve Electricity Grid to Provide 24/7 Power Supplies:* Refurbishing and updating the electricity production and delivery infrastructure has started, but will take time. Reliable electricity is essential for managing agricultural costs – irrigation, climate control in poultry houses, milking, refrigeration, feed milling, computer records and market information transmittal among many other functions.
- *Implement Water Conservation Measures:* Refurbishing and updating the irrigation infrastructure has started, but will also take time. Forming irrigation districts and developing a system for pricing water to promote conservation will require political courage and producer education.

- Research Crop Rotation Systems: Research and demonstration projects can be started, but longer-term programs for producer education and implementation will evolve over time.
- Research and Implement No-Till Systems to Increase Production on Marginal Lands: Research and demonstration projects can be started, but longer-term programs for producer education and implementation will require changing producers' mindset.
- Improve Transportation Infrastructure to Outlying Regions: Products from marginal lands can be more efficiently delivered to market with access to well-developed transportation systems. Keeping these lands in production also reduces wind erosion and creeping desertification and that improves air quality for all.
- Improve Information Access and Quality of Life for Rural Residents: Broad-band internet, improved transportation, education, utilities and family support systems help attract residents and maintain communities of rural residents in these areas.
- Promote Production Systems that Produce Quality Crops: Educational programs focusing on planting date and timely harvesting, improved varieties with increased disease resistance and drought tolerance, reduced tillage programs and improved fertilizer programs all contribute here.
- Domestic Rice as a Unique Geographic Product and Importing Milled Rice: A marketing program can be developed and tested in the medium term to determine if the local premium for Anbar rice translates to regional competitiveness against other aromatics like Basamati rice.
- Research Sugar Beets as a Source of Iraqi Sugar: Increased sugar refining and crop rotation programs will be necessary to develop this program in five years or more.
- Research and Implement Crop Rotation Systems: Crop rotation systems including oilseeds – soybeans, sunflowers or rapeseed – sugar beets, or feed grains including corn (maize) and grain sorghum and developing associated processing and feed milling systems will take five years or more to develop.
- Implement and Enforce a National Poultry Disease, Quarantine and Control System: Improving management systems, disease control and reduced death loss will be necessary components – in addition to reduced feed costs – for Iraqi poultry to be regionally competitive.
- Increase Imports of Dried Alfalfa Pellets and Corn for Dairy Feed: Reforms to government inspection and testing programs could be implemented by ministerial decree. Streamlining processes to allow ship-loads of grain to enter Um Qsar for distribution by the private sector would greatly reduce costs of small package handling and land-based crossings. Importing feedstuffs is a faster alternative than developing domestic no-till and crop rotation production systems. However, imports can be transitory to increased domestic production.

**Production Policy Alternatives for Long-Term Action and Change:** These changes will take five years to a generation or longer to implement.

- Expand Irrigation Services: Existing irrigation systems will likely be restored, updated and renovated before new systems are added. However, center pivot systems could be installed on newly tilled land comparable to changes that took place in the Sand-Hills of Nebraska and South Dakota during the 1980s.
- Investment Incentives to Attract Value-Added Processing to Iraq: This could be achieved in the middle-term for some processing like bakeries, oilseed crushing and cotton ginning. Further processing including frozen dinners, dairy processing and further processed products could be longer-term projects.

- *Eliminate Prohibitions on Genetically Modified (GM) Crops:* GM seeds have been modified for drought tolerance, disease and pest resistance and improved product quality. Given the Euro-centric location and influences, acceptance of this technology by Iraq will likely be a long-term endeavor. The Iraqi ban as currently implemented is likely a TBT and will be challenged by U.S. and others during bilateral negotiations. In the short-term accepting hybrid seeds and new crop genetics will improve productivity and provide producers experience with potential gains from improved plant genetics.
- *Increase Production of Domestic Feed Grains and Forage using Crop Rotation:* Expanding a dairy industry or livestock feeding sector would likely accompany a system to provide feed and forage for those operations. Expanding these production systems would require significant time and capital.
- *Conduct a Cost Assessment for Exporting Feedstuffs and Continuing to Import Dried Milk:* A cost assessment won't take this long, however, evolution of a feed grain and forage production system will. Once those production systems are in place market forces (and government policy) will determine whether they are fed domestically to increase production of meat and milk products, or exported to neighboring countries at a premium while imports of powdered milk continue.
- *Implement a System of Land Ownership or Long-Term Lease:* Land reform and ownership are often generational changes. Homesteading programs on non-tilled government-owned lands could be implemented in a shorter timeframe. Still, changes in land titles and legal reform will be elements of this change.
- *Increase Land Planted to Wheat and Other Crops:* Rural infrastructure improvements, land reform and ownership and expanding irrigation systems will all contribute to increased production on marginal lands. These factors will take time and resources to develop and make this a long-term change.

**Conclusion:** Can Iraq Feed All Iraqis? That objective is questionable, but reality is that Iraq agriculture can produce more – and more efficiently – than the current system allows. Increasing domestic production has the potential to contribute to self-sufficiency and less dependence on imports. Reducing and phasing out government State management and State Owned Enterprises deserves close consideration. Most of Iraq's top 20 imports are “strategic crops” or livestock and poultry products that rely on “strategic crops” for feed. They are also commodities where government planning is most involved.

Centrally planned and regulated availability of modern seeds and new technology has been tightly controlled. Development impediments including 1) government policies and subsidies that distort the market and undermine productivity and competition; 2) outdated technology in plant and animal genetics, fertilizers, irrigation and drainage systems, and farm equipment; 3) inadequate and unstable electricity supply; 4) degradation of irrigation-management systems; 5) insufficient credit and private capital; and 6) inadequate market information and networks have no doubt keep Iraqi agriculture at a competitive disadvantage. Vested interests and bureaucratic inertia have been difficult to overcome.

The main complaint about policies to support domestic prices is that they encourage over-production, and thus reduce global prices. It is difficult to see that subsidy programs as managed in Iraq are having this effect. A combination of drought, reduced supplies of irrigation water, worn out and war-depleted infrastructure and inept state managed production keep Iraq competitively disadvantaged in global agricultural markets. Subsidy programs as managed have generated little production response.

Iraq will become more machinery- and technology-dependent and less labor intensive during the next decade. Tractors, seeders, minimum till equipment, and no-till drills will be necessary to increase agricultural productivity. As more sophisticated mechanized equipment becomes available additional training for farmers will be needed on the use of this equipment; and more technicians will be required to service and maintain it.

Programs to increase productivity while conserving natural resources will be necessary to preserve the long-term productivity of the Iraqi agricultural sector. In this context self-sufficiency will become food security in terms of the total "food basket." Extension training for farmers and vocational technical training schools for equipment servicing and maintenance personnel will support the overall initiative.

Iraq will likely continue to import certain food categories with supplies assured through long-term business relationships with countries that have a comparative advantage in producing those commodities. This will allow Iraq to focus on producing commodities where its resources provide a competitive advantage -- and export surpluses to offset import costs.

Whether Iraq will become totally self-sufficient for food is open for debate. This paper offers some WTO-consistent alternatives for consideration that could increase Iraq's agricultural production and efficiency. Ultimately, the outcome will be determined by political will to restructure and reform. Iraq has petroleum oil resources and the ability to rebuild and transition from a worn-out, war-torn infrastructure to a modern efficient agricultural system that conserves natural resources too. Human nature, willingness to change and leadership will be the keys to progress. (See Annex G: "Iraqi Agriculture: Food Security -- Production Constraints & Policy Alternatives," pages 33 through 63.)



## **Annex A: Two International Companies Start Testing & Examination of Goods Entering the Country**

*Source AL Sabah News Paper: <http://www.alsabaah.com/ArticleShow.aspx?ID=6279>*

BAGHDAD - Mustafa Ibrahim

Initially Two International Companies in early May 2011 were to begin implementation of a pre-screening program of cargo entering the country through all outlets supplied by the country of origin. Announced by Deputy of the Ministry of Trade (MoT), Mrs.Swaiba Mahmood, and expanded at a seminar organized by the MoT on Tuesday 19<sup>th</sup> April 2011 with the participation of representatives from the Ministries of Industry and Health, and the Central Agency for Standardization and Quality Control and a number of members of chambers of commerce and the private sector.

The seminar focused on implementation of the program and its objectives and advantages -- which claimed to contribute to the protection of the importer and the consumer alike. The program was supposed to ensure that Iraqi consumers receive high quality products in accordance with approved specifications and the protection of health and safety and preservation of the environment and accelerate the release of the goods attached certificate of conformity of the border and prevent the entry of products, poor as well as prevent the practice of fraud, manipulation, and counterfeiting.

President of the Central Agency for Standardization and Quality Control (COSQC), Engineer, Saad Abdul Wahab, said that the COSQC entered into a contract to continue for the next four years with the company Peroveritaz Co from France and SGS Co from Switzerland, includes implementation of the program of pre-screening of cargo entering the country from the origins of manufacture and before delivery to the border gates.

Mr. Saad noted that the COSQC resorted to the conclusion of this contract due to not having the capabilities at the present time which allows him to cover the examination of all imported materials compared to thousands of trucks that enter daily from 13 land border ports, except for other ports in the ports and airports.

He explained that this program has several advantages and contributes to reducing the incidence of re-export of products bad or damaged in the event of non-compliance to the approved specifications and guarantee that goods and commodities imported from damage and the risks and secure the rights of importers by liability insurance and to facilitate trade with the countries of the world.

He noted that the mechanism of implementing the program includes a request by the importer or exporter to one of these two companies for verification of documents relating to the shipment and physical inspection to ensure their conformity with the specifications and then issue a certificate of conformity are locked to the check in the ports Iraqi border, as well as giving the right of the COSQC the demand from the customs authorities to not enter any shipment only after re-examined by them for the purposes of random testing.

He said that the formula of contract contained on the agenda to determine the pay rates levied by the importer that have been developed in the light of the amount of the value of the shipment is declared and in ascending, and included lists of goods subject to inspection under this program and included the chemical, engineering, textile, construction and food, except for fresh fruits and vegetables.

Annex B:



## REPUBLIC OF IRAQ

### Pre-Import Inspection, Testing & Certification Program of Goods into the Republic of Iraq (ICIGI)

#### NEW REGULATIONS

The Central Organization for Standardization and Quality Control (COSQC) has appointed Bureau Veritas for Verification of Conformity (VoC) of products before shipment to Iraq. The VoC program which is expected to start on May 1, 2011 will cover 89 categories of products.



#### OBJECTIVES

- Consumer and environment Protection
- Conformity assurance
- Faster goods release at Iraqi Customs office with the appropriate Certificate of Conformity

#### PROCESS

*Request for verification*

The Importer/Exporter lodges a request for verification with Bureau Veritas (see contacts overleaf). This request should include :

- Pro forma Invoice / Final invoice / Letter of Credit (with list and designation of goods intended to be exported, name and contact of the importer and exporter).
- Conformity documents that may be available for the goods intended to be exported, such as:
  - Certificates, Test reports / Reports of analysis according to safety standards and/or regulation: Iraqi, ISO, IEC, EN, ECE or Codex Alimentarius standards
- Certificates related to the management of quality/safety systems (ISO 22000, HACCP, ISO/TS 16949, ISO 13485...)
- Information related to the location and provisional date of availability of goods to carry out the physical inspection of goods before shipment.

*Documentary verification*

Bureau Veritas reviews the information provided and checks the adequacy against the conformity requirements. Where necessary, samples are taken and laboratory testing/analysis is carried out.

*Physical inspection*

Depending on the documentary verification, inspection is requested to check that goods match the ones identified during the documentary review and do comply with standards. In case of doubt, Bureau Veritas inspector may take samples for additional assessment.

*Certificate of Conformity*

Bureau Veritas verifies consistency and accuracy of data collected during the verification process. Upon satisfactory result and receipt of the final invoice and transport document (BL, AWB, ...), a secured Certificate of Conformity (CoC) is issued. The original CoC is requested for customs clearance of the goods. When non conformities are detected, a non conformity report is issued.

*Verification at destination*

Verification will be performed at destination concerning the authentication of the certificate, consistency between the CoC and import documents, visual check of the condition of the shipment and goods/packages whenever Customs open a consignment.





## PRODUCTS COVERED UNDER THE VOC PROGRAM

**TOYS:** Children toys - Wax crayons - Water colors - Modeling clay

**ELECTRICAL AND ELECTRONIC PRODUCTS:** Electrical and electronic household appliances - Electrical installation accessories for household purposes (switches, plugs, socket-outlets, adaptor, cord extension set) - Batteries (lead-acid Batteries, dry primary batteries) - Lamps for household purposes (fluorescent lamps, tungsten lamps, energy saving lamps) - Power electric cables (pvc insulated) - Household Luminaires and their components (starter, ballast) - Heating elements and thermostat for household electric storage water heaters. Telephone cables - Evaporative air coolers and their electrical components (motor, water pump)

**VEHICLES, TIRES AND PARTS:** Safety glasses for vehicles - Tires and tubes for different cars, trucks, trailers, buses, bicycles, motorcycles - Vehicles and spare parts

**CONSTRUCTION PRODUCTS:** Cement - Galvanized plates - Aluminum alloys -bars, extruded round tubes and sections for general engineering purposes - Carbon steel bars for the reinforcement of concrete - Structural steel - Welded fabric steel for the reinforcement of concrete - Galvanized Carbon steel and ductile iron pipes and their fittings - Clay building bricks - Water taps and valves (Draw-off taps and stop valves for water services, and mixing valves) - Plastic pipes, fittings, accessories and joints

**FOOD PRODUCTS:** Dairy and dairy products - Fat and oil - Meats/fish/poultry and their products - Beverage, juice, honey, jams and marmalades - Food additives - Canned food product - Dry food products - Water bottled - All other food products (except fresh vegetables and fruits) - Cigarettes, cigars, meassel

**COSMETICS, PERSONAL HYGIENE PRODUCTS AND CLEANING AGENTS:** Cosmetics (all kinds) - Toothpaste, tooth powder ; shaving cream and foam - Household Detergent powder (High foam, for automatic machine) - Household liquid detergent and cleaning pasties - Toilet soap, baby soap, and liquid soap - Air freshener (all kinds) - Baby diapers and elderly diapers - Sanitary napkin - Facial tissues (all kinds including kitchen towels, wet and odorized tissues and toilet tissues) - Toothbrushes - Cloth softener - Cleaners for carpet, floor, oven, glass - Cleaning compound for toilet bowls solid and liquid - Sodium hypochlorite solution - Calcium hypochlorite and chlorinated lime - Razor blades and disposable shaving systems - Pipeline cleaning compound - Alkaline

**HOUSEHOLD HARDWARE:** Safety matches - Plastic and rubber erasers - Pencils - Wooden color pencils - Pencils sharpener - Hoses

**KITCHENWARE:** Paper plates and cups and paper drinking straw - Disposable plastic cups, plates and containers - Plastic drinking straws - Plastic table utensils and cutlery - Aluminum table cutlery - Stainless steel and silver plated table cutlery - Aluminum foil catering containers - Aluminum foil and flexible laminated for wrapping food products and pharmaceutical - Metal containers for food - Metallic cookware, kettles, teapots, and serving utensils (coated and non coated) - Porcelain tableware - Plastic containers for food material

**CHEMICALS:** Oil paints (all kinds) - Automobile paint/putty/polish/clear - Paint thinner - Interior Epoxy paint for drink water trucks - Emulsion paint (acrylic and P.V.A), plastic paint

**TEXTILE AND FOOTWEAR:** Shoes and slippers - Socks - Underwear - Bed sheet (blankets, comforters, sheets) - Wicks

**HOUSEHOLD BURNING FUEL APPLIANCES :** Domestic LPG cooking appliances and water heaters - Paraffin space heating and cooking appliances and water heaters for domestic use

**OTHERS:** All kinds of metallic cans and metallic covers

## MAIN CONTACTS (Additional contacts are available on the Contacts Sheet and on [www.bureauveritas.com/gsit](http://www.bureauveritas.com/gsit))

Africa	+27 116660500	+27 11 666 0510	<a href="mailto:sagren.govender@za.bureauveritas.com">sagren.govender@za.bureauveritas.com</a>
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Europe	+31 10 282 2666	+31 102411017	<a href="mailto:gsit.rtd@nl.bureauveritas.com">gsit.rtd@nl.bureauveritas.com</a>
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Turkey	+90 216 518 4050	+90 216 518 3874	<a href="mailto:sertdar.aksoy@tr.bureauveritas.com">sertdar.aksoy@tr.bureauveritas.com</a>

For additional information, please contact:

 [iraq.conformity@bureauveritas.com](mailto:iraq.conformity@bureauveritas.com)  
 [gsit@bureauveritas.com](mailto:gsit@bureauveritas.com)  
 web site: [www.bureauveritas.com/gsit](http://www.bureauveritas.com/gsit)



**BUREAU**

**Annex C: Communications Regarding PSI Implementation**

**From:** Salmon, David G(Baghdad) [<mailto:SalmonDG@state.gov>]  
**Sent:** Wednesday, July 06, 2011 3:16 PM  
**To:** Charles Lambert  
**Subject:** Iraq Precertification Issue

Hello David,

(2:00 Today)

We have just learned that the Prime Minister's office has declared a grace period until July 15<sup>th</sup> for the implementation of the precertification requirement for all ports in Iraq. Our importer contacts tell us that shipments are being cleared and this is calming down, at least for ten days.

(Noon Today)

Here is what we know at noon in Baghdad. The Iraqi precertification requirement, administered by the Central Organization for Standardization and Quality Control (COSQC) of the Ministry of Planning, took effect on May 1 and is now being enforced for all applicable shipments arriving at Iraqi border points. The exception is the Kurdish region in the north bordering Turkey, which is autonomous and has not yet decided whether/when to implement this regulation. There is no grace period for product shipped prior to July 15. This means that all shipments arriving at the border as of July 15 must have the SGS issued precertification certificate to gain entry into Iraq.

However, how this is playing out at various border points point differs. Again, transshipments through Turkey into the Kurdish region in northern Iraq are entering smoothly without the SGS issued precertification. For transshipments through Jordan and Kuwait, we understand that the SGS offices in those countries is supposed to be taking samples and issuing precertification certificates for shipments currently stuck at the borders in those countries. For shipments stuck at the Umm Qasr seaport in southern Iraq (the only direct import point into Iraq), COSQC is requiring a precertification certificate issued by SGS in the United States. Our understanding is that SGS is working to prepare and forward the certificates, so that shipments currently or soon to be stuck there can enter the country. This includes the 16-container Simmons shipment that has caused so much concern over the past 24 hours. We will have to follow this to see how it progresses but it is supposed to take one or two days we are told.

Looking ahead, for the time being, SGS in the United States will need to issue these certificates for all shipments to Iraq. We will have to see how they handle the zero Salmonella requirement and other requirements in the new regulation that U.S. exporters cannot meet. Once the dust settles a little, we can begin working directly with COSQC to see what can be done to revise/relax the precertification requirement to make it less burdensome to U.S. exporters.

.....  
August 13, 2011

**67 Percent Drop in Customs Revenue Blamed on Tighter Regulations**

The Directorate General of Customs said Thursday that its monthly revenue decreased from IQD 32 billion last June to IQD 10 billion for the same period this year.

The 69 per cent drop is put down to the changes in import regulations that saw backlogs at the border crossings. The new rules mean that any importer must obtain a certificate of quality control from one of two companies contracted by the government.

The Director General of Customs, Major General Nawfal Salim said, "The revenues of border customs decreased because of the reluctance of traders and importers to bring in their goods during the last 15 days since the regulations were imposed."

The Finance Ministry decided on Monday to stop the introduction of a new customs law that would have increased tariffs until early next year due to high prices of goods.

**Annex D: United States Department of Agriculture**  
Foreign Agricultural Service

January - December  
Cumulative To Date Values in Thousands of dollars

Destination	Commodity	2007	2008	2009	2010	2011	Jan - May 2011	Jan - May 2012	% Change (Value)
Partner	Product	Value	Value	Value	Value	Value	Value	Value	
Iraq	Wheat	413,770	772,189	0	114,620	529,820	315,397	0	--
Iraq	Poultry Meat	72,702	76,643	86,683	65,236	106,628	42,247	37,279	-12
Iraq	Rice	87,389	26,893	65,245	104,865	17,626	17,626	0	--
Iraq	Planting Seeds	296	434	465	456	800	337	413	22
Iraq	Red Meats, FR/CH/FR	152	205	124	1,002	612	612	0	--
Iraq	Other Consumer Oriented	115	11	74	354	492	35	7	-79
Iraq	Snack Foods	79	18	3	21	428	371	3	-99
Iraq	Other Value-Added Wood Prod	151	1,340	832	98	344	57	88	55
Iraq	Other Bulk Commodities	0	0	200	114	308	287	0	--
Iraq	Tree Nuts	0	27	835	377	288	288	0	--
Iraq	Dairy Products	0	69	3	248	117	0	0	--
Iraq	Panel Products (Incl Plywood)	0	0	12	0	85	22	0	--
Iraq	Processed Fruit & Vegetables	30	0	61	38	74	50	0	--
Iraq	Breakfast Cereals	0	0	0	49	38	35	0	--
Iraq	Other Intermediate Products	27	0	297	109	29	25	52	107
Iraq	Feeds & Fodders	0	0	67	62	23	16	0	--
Iraq	Red Meats, Prep/Pres	150	0	28	40	21	11	0	--
Iraq	Pet Foods	6	9	12	0	17	3	6	69
Iraq	Soybeans	0	0	0	0	0	0	8	--
Iraq	Pulses	0	2,335	0	0	0	0	0	--
Iraq	Peanuts	0	0	0	34	0	0	0	--
Iraq	Wheat Flour	0	7,595	0	0	0	0	0	--
Iraq	Soybean Meal	0	0	0	8	0	0	0	--
Iraq	Vegetable Oils (Ex Soybean)	0	5,097	0	3	0	0	0	--
Iraq	Hides & Skins	0	163	0	0	0	0	0	--
Iraq	Animal Fats	0	0	3	0	0	0	0	--

The USAID Tijara Provincial Economic Growth Program

Iraq	Sugar, Sweeteners, Bev Bases	0	0	0	0	0	0	64	--
Iraq	Eggs & Products	126	53	0	162	0	0	85	--
Iraq	Fresh Vegetables	1,216	550	0	0	0	0	597	--
Iraq	Fruit & Vegetable Juices	4	0	0	0	0	0	0	--
Iraq	Wine and Beer	0	0	0	3	0	0	0	--
Iraq	Nursery Products	0	5	0	0	0	0	0	--
Iraq	Logs and Chips	0	0	92	131	0	0	0	--
Iraq		52	0	30	70	0	0	12	--
<b>Total</b>		576,265	893,635	155,067	288,098	657,750	<b>377,419</b>	<b>38,613</b>	<b>-90</b>

**Notes:**

1. Data Source: Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics
2. Product Group : BICO-HS10

## Annex E: WTO Agreement on Pre-shipment Inspection

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### AGREEMENT ON PRESHIPMENT INSPECTION

*Members,*

*Noting* that Ministers on 20 September 1986 agreed that the Uruguay Round of Multilateral Trade Negotiations shall aim to "bring about further liberalization and expansion of world trade", "strengthen the role of GATT" and "increase the responsiveness of the GATT system to the evolving international economic environment";

*Noting* that a number of developing country Members have recourse to preshipment inspection;

*Recognizing* the need of developing countries to do so for as long and in so far as it is necessary to verify the quality, quantity or price of imported goods;

*Mindful* that such programmes must be carried out without giving rise to unnecessary delays or unequal treatment;

*Noting* that this inspection is by definition carried out on the territory of exporter Members;

*Recognizing* the need to establish an agreed international framework of rights and obligations of both user Members and exporter Members;

*Recognizing* that the principles and obligations of GATT 1994 apply to those activities of preshipment inspection entities that are mandated by governments that are Members of the WTO;

*Recognizing* that it is desirable to provide transparency of the operation of preshipment inspection entities and of laws and regulations relating to preshipment inspection;

*Desiring* to provide for the speedy, effective and equitable resolution of disputes between exporters and preshipment inspection entities arising under this Agreement;

Hereby *agree* as follows:

#### *Article 1*

##### *Coverage - Definitions*

1. This Agreement shall apply to all preshipment inspection activities carried out on the territory of Members, whether such activities are contracted or mandated by the government, or any government body, of a Member.
2. The term "user Member" means a Member of which the government or any government body contracts for or mandates the use of preshipment inspection activities.
3. Preshipment inspection activities are all activities relating to the verification of the quality, the quantity, the price, including currency exchange rate and financial terms, and/or the customs classification of goods to be exported to the territory of the user Member.

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4. The term "preshipment inspection entity" is any entity contracted or mandated by a Member to carry out preshipment inspection activities.<sup>1</sup>

## *Article 2*

### *Obligations of User Members*

#### *Non-discrimination*

1. User Members shall ensure that preshipment inspection activities are carried out in a non-discriminatory manner, and that the procedures and criteria employed in the conduct of these activities are objective and are applied on an equal basis to all exporters affected by such activities. They shall ensure uniform performance of inspection by all the inspectors of the preshipment inspection entities contracted or mandated by them.

#### *Governmental Requirements*

2. User Members shall ensure that in the course of preshipment inspection activities relating to their laws, regulations and requirements, the provisions of paragraph 4 of Article III of GATT 1994 are respected to the extent that these are relevant.

#### *Site of Inspection*

3. User Members shall ensure that all preshipment inspection activities, including the issuance of a Clean Report of Findings or a note of non-issuance, are performed in the customs territory from which the goods are exported or, if the inspection cannot be carried out in that customs territory given the complex nature of the products involved, or if both parties agree, in the customs territory in which the goods are manufactured.

#### *Standards*

4. User Members shall ensure that quantity and quality inspections are performed in accordance with the standards defined by the seller and the buyer in the purchase agreement and that, in the absence of such standards, relevant international standards<sup>2</sup> apply.

#### *Transparency*

5. User Members shall ensure that preshipment inspection activities are conducted in a transparent manner.

6. User Members shall ensure that, when initially contacted by exporters, preshipment inspection entities provide to the exporters a list of all the information which is necessary for the exporters to comply with inspection requirements. The preshipment inspection entities shall provide the actual information when so requested by exporters. This information shall include a reference to the laws and regulations of user Members relating to preshipment inspection activities, and shall also include the procedures and criteria used for inspection and for price and currency exchange-rate verification

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<sup>1</sup>It is understood that this provision does not obligate Members to allow government entities of other Members to conduct preshipment inspection activities on their territory.

<sup>2</sup>An international standard is a standard adopted by a governmental or non-governmental body whose membership is open to all Members, one of whose recognized activities is in the field of standardization.

purposes, the exporters' rights vis-à-vis the inspection entities, and the appeals procedures set up under paragraph 21. Additional procedural requirements or changes in existing procedures shall not be applied to a shipment unless the exporter concerned is informed of these changes at the time the inspection date is arranged. However, in emergency situations of the types addressed by Articles XX and XXI of GATT 1994, such additional requirements or changes may be applied to a shipment before the exporter has been informed. This assistance shall not, however, relieve exporters from their obligations in respect of compliance with the import regulations of the user Members.

7. User Members shall ensure that the information referred to in paragraph 6 is made available to exporters in a convenient manner, and that the preshipment inspection offices maintained by preshipment inspection entities serve as information points where this information is available.

8. User Members shall publish promptly all applicable laws and regulations relating to preshipment inspection activities in such a manner as to enable other governments and traders to become acquainted with them.

*Protection of Confidential Business Information*

9. User Members shall ensure that preshipment inspection entities treat all information received in the course of the preshipment inspection as business confidential to the extent that such information is not already published, generally available to third parties, or otherwise in the public domain. User Members shall ensure that preshipment inspection entities maintain procedures to this end.

10. User Members shall provide information to Members on request on the measures they are taking to give effect to paragraph 9. The provisions of this paragraph shall not require any Member to disclose confidential information the disclosure of which would jeopardize the effectiveness of the preshipment inspection programmes or would prejudice the legitimate commercial interest of particular enterprises, public or private.

11. User Members shall ensure that preshipment inspection entities do not divulge confidential business information to any third party, except that preshipment inspection entities may share this information with the government entities that have contracted or mandated them. User Members shall ensure that confidential business information which they receive from preshipment inspection entities contracted or mandated by them is adequately safeguarded. Preshipment inspection entities shall share confidential business information with the governments contracting or mandating them only to the extent that such information is customarily required for letters of credit or other forms of payment or for customs, import licensing or exchange control purposes.

12. User Members shall ensure that preshipment inspection entities do not request exporters to provide information regarding:

- (a) manufacturing data related to patented, licensed or undisclosed processes, or to processes for which a patent is pending;
- (b) unpublished technical data other than data necessary to demonstrate compliance with technical regulations or standards;
- (c) internal pricing, including manufacturing costs;
- (d) profit levels;

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- (e) the terms of contracts between exporters and their suppliers unless it is not otherwise possible for the entity to conduct the inspection in question. In such cases, the entity shall only request the information necessary for this purpose.

13. The information referred to in paragraph 12, which preshipment inspection entities shall not otherwise request, may be released voluntarily by the exporter to illustrate a specific case.

#### *Conflicts of Interest*

14. User Members shall ensure that preshipment inspection entities, bearing in mind also the provisions on protection of confidential business information in paragraphs 9 through 13, maintain procedures to avoid conflicts of interest:

- (a) between preshipment inspection entities and any related entities of the preshipment inspection entities in question, including any entities in which the latter have a financial or commercial interest or any entities which have a financial interest in the preshipment inspection entities in question, and whose shipments the preshipment inspection entities are to inspect;
- (b) between preshipment inspection entities and any other entities, including other entities subject to preshipment inspection, with the exception of the government entities contracting or mandating the inspections;
- (c) with divisions of preshipment inspection entities engaged in activities other than those required to carry out the inspection process.

#### *Delays*

15. User Members shall ensure that preshipment inspection entities avoid unreasonable delays in inspection of shipments. User Members shall ensure that, once a preshipment inspection entity and an exporter agree on an inspection date, the preshipment inspection entity conducts the inspection on that date unless it is rescheduled on a mutually agreed basis between the exporter and the preshipment inspection entity, or the preshipment inspection entity is prevented from doing so by the exporter or by *force majeure*.<sup>3</sup>

16. User Members shall ensure that, following receipt of the final documents and completion of the inspection, preshipment inspection entities, within five working days, either issue a Clean Report of Findings or provide a detailed written explanation specifying the reasons for non-issuance. User Members shall ensure that, in the latter case, preshipment inspection entities give exporters the opportunity to present their views in writing and, if exporters so request, arrange for re-inspection at the earliest mutually convenient date.

17. User Members shall ensure that, whenever so requested by the exporters, preshipment inspection entities undertake, prior to the date of physical inspection, a preliminary verification of price and, where applicable, of currency exchange rate, on the basis of the contract between exporter and importer, the *pro forma* invoice and, where applicable, the application for import authorization. User Members shall ensure that a price or currency exchange rate that has been accepted by a preshipment inspection entity on the basis of such preliminary verification is not withdrawn, providing the goods conform to the import documentation and/or import licence. They shall ensure that, after a preliminary verification has taken

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<sup>3</sup>It is understood that, for the purposes of this Agreement, "*force majeure*" shall mean "irresistible compulsion or coercion, unforeseeable course of events excusing from fulfilment of contract".

place, preshipment inspection entities immediately inform exporters in writing either of their acceptance or of their detailed reasons for non-acceptance of the price and/or currency exchange rate.

18. User Members shall ensure that, in order to avoid delays in payment, preshipment inspection entities send to exporters or to designated representatives of the exporters a Clean Report of Findings as expeditiously as possible.

19. User Members shall ensure that, in the event of a clerical error in the Clean Report of Findings, preshipment inspection entities correct the error and forward the corrected information to the appropriate parties as expeditiously as possible.

*Price Verification*

20. User Members shall ensure that, in order to prevent over- and under-invoicing and fraud, preshipment inspection entities conduct price verification<sup>4</sup> according to the following guidelines:

- (a) preshipment inspection entities shall only reject a contract price agreed between an exporter and an importer if they can demonstrate that their findings of an unsatisfactory price are based on a verification process which is in conformity with the criteria set out in subparagraphs (b) through (e);
- (b) the preshipment inspection entity shall base its price comparison for the verification of the export price on the price(s) of identical or similar goods offered for export from the same country of exportation at or about the same time, under competitive and comparable conditions of sale, in conformity with customary commercial practices and net of any applicable standard discounts. Such comparison shall be based on the following:
  - (i) only prices providing a valid basis of comparison shall be used, taking into account the relevant economic factors pertaining to the country of importation and a country or countries used for price comparison;
  - (ii) the preshipment inspection entity shall not rely upon the price of goods offered for export to different countries of importation to arbitrarily impose the lowest price upon the shipment;
  - (iii) the preshipment inspection entity shall take into account the specific elements listed in subparagraph (c);
  - (iv) at any stage in the process described above, the preshipment inspection entity shall provide the exporter with an opportunity to explain the price;
- (c) when conducting price verification, preshipment inspection entities shall make appropriate allowances for the terms of the sales contract and generally applicable adjusting factors pertaining to the transaction; these factors shall include but not be limited to the commercial level and quantity of the sale, delivery periods and conditions, price escalation clauses, quality specifications, special design features, special shipping or packing specifications, order size, spot sales, seasonal influences, licence or other intellectual property fees, and services rendered as part of the contract if these are not

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<sup>4</sup>The obligations of user Members with respect to the services of preshipment inspection entities in connection with customs valuation shall be the obligations which they have accepted in GATT 1994 and the other Multilateral Trade Agreements included in Annex 1A of the WTO Agreement.

customarily invoiced separately; they shall also include certain elements relating to the exporter's price, such as the contractual relationship between the exporter and importer;

- (d) the verification of transportation charges shall relate only to the agreed price of the mode of transport in the country of exportation as indicated in the sales contract;
- (e) the following shall not be used for price verification purposes:
  - (i) the selling price in the country of importation of goods produced in such country;
  - (ii) the price of goods for export from a country other than the country of exportation;
  - (iii) the cost of production;
  - (iv) arbitrary or fictitious prices or values.

#### *Appeals Procedures*

21. User Members shall ensure that preshipment inspection entities establish procedures to receive, consider and render decisions concerning grievances raised by exporters, and that information concerning such procedures is made available to exporters in accordance with the provisions of paragraphs 6 and 7. User Members shall ensure that the procedures are developed and maintained in accordance with the following guidelines:

- (a) preshipment inspection entities shall designate one or more officials who shall be available during normal business hours in each city or port in which they maintain a preshipment inspection administrative office to receive, consider and render decisions on exporters' appeals or grievances;
- (b) exporters shall provide in writing to the designated official(s) the facts concerning the specific transaction in question, the nature of the grievance and a suggested solution;
- (c) the designated official(s) shall afford sympathetic consideration to exporters' grievances and shall render a decision as soon as possible after receipt of the documentation referred to in subparagraph (b).

#### *Derogation*

22. By derogation to the provisions of Article 2, user Members shall provide that, with the exception of part shipments, shipments whose value is less than a minimum value applicable to such shipments as defined by the user Member shall not be inspected, except in exceptional circumstances. This minimum value shall form part of the information furnished to exporters under the provisions of paragraph 6.

*Article 3*

*Obligations of Exporter Members*

*Non-discrimination*

1. Exporter Members shall ensure that their laws and regulations relating to preshipment inspection activities are applied in a non-discriminatory manner.

*Transparency*

2. Exporter Members shall publish promptly all applicable laws and regulations relating to preshipment inspection activities in such a manner as to enable other governments and traders to become acquainted with them.

*Technical Assistance*

3. Exporter Members shall offer to provide to user Members, if requested, technical assistance directed towards the achievement of the objectives of this Agreement on mutually agreed terms.<sup>5</sup>

*Article 4*

*Independent Review Procedures*

Members shall encourage preshipment inspection entities and exporters mutually to resolve their disputes. However, two working days after submission of the grievance in accordance with the provisions of paragraph 21 of Article 2, either party may refer the dispute to independent review. Members shall take such reasonable measures as may be available to them to ensure that the following procedures are established and maintained to this end:

- (a) these procedures shall be administered by an independent entity constituted jointly by an organization representing preshipment inspection entities and an organization representing exporters for the purposes of this Agreement;
- (b) the independent entity referred to in subparagraph (a) shall establish a list of experts as follows:
  - (i) a section of members nominated by an organization representing preshipment inspection entities;
  - (ii) a section of members nominated by an organization representing exporters;
  - (iii) a section of independent trade experts, nominated by the independent entity referred to in subparagraph (a).

The geographical distribution of the experts on this list shall be such as to enable any disputes raised under these procedures to be dealt with expeditiously. This list shall be drawn up within two months of the entry into force of the WTO Agreement and shall be updated annually. The list shall be publicly available. It shall be notified to the Secretariat and circulated to all Members;

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<sup>5</sup>It is understood that such technical assistance may be given on a bilateral, plurilateral or multilateral basis.

- (c) an exporter or preshipment inspection entity wishing to raise a dispute shall contact the independent entity referred to in subparagraph (a) and request the formation of a panel. The independent entity shall be responsible for establishing a panel. This panel shall consist of three members. The members of the panel shall be chosen so as to avoid unnecessary costs and delays. The first member shall be chosen from section (i) of the above list by the preshipment inspection entity concerned, provided that this member is not affiliated to that entity. The second member shall be chosen from section (ii) of the above list by the exporter concerned, provided that this member is not affiliated to that exporter. The third member shall be chosen from section (iii) of the above list by the independent entity referred to in subparagraph (a). No objections shall be made to any independent trade expert drawn from section (iii) of the above list;
- (d) the independent trade expert drawn from section (iii) of the above list shall serve as the chairman of the panel. The independent trade expert shall take the necessary decisions to ensure an expeditious settlement of the dispute by the panel, for instance, whether the facts of the case require the panelists to meet and, if so, where such a meeting shall take place, taking into account the site of the inspection in question;
- (e) if the parties to the dispute so agree, one independent trade expert could be selected from section (iii) of the above list by the independent entity referred to in subparagraph (a) to review the dispute in question. This expert shall take the necessary decisions to ensure an expeditious settlement of the dispute, for instance taking into account the site of the inspection in question;
- (f) the object of the review shall be to establish whether, in the course of the inspection in dispute, the parties to the dispute have complied with the provisions of this Agreement. The procedures shall be expeditious and provide the opportunity for both parties to present their views in person or in writing;
- (g) decisions by a three-member panel shall be taken by majority vote. The decision on the dispute shall be rendered within eight working days of the request for independent review and be communicated to the parties to the dispute. This time-limit could be extended upon agreement by the parties to the dispute. The panel or independent trade expert shall apportion the costs, based on the merits of the case;
- (h) the decision of the panel shall be binding upon the preshipment inspection entity and the exporter which are parties to the dispute.

*Article 5*

*Notification*

Members shall submit to the Secretariat copies of the laws and regulations by which they put this Agreement into force, as well as copies of any other laws and regulations relating to preshipment inspection, when the WTO Agreement enters into force with respect to the Member concerned. No changes in the laws and regulations relating to preshipment inspection shall be enforced before such changes have been officially published. They shall be notified to the Secretariat immediately after their publication. The Secretariat shall inform the Members of the availability of this information.

*Article 6*

*Review*

At the end of the second year from the date of entry into force of the WTO Agreement and every three years thereafter, the Ministerial Conference shall review the provisions, implementation and operation of this Agreement, taking into account the objectives thereof and experience gained in its operation. As a result of such review, the Ministerial Conference may amend the provisions of the Agreement.

*Article 7*

*Consultation*

Members shall consult with other Members upon request with respect to any matter affecting the operation of this Agreement. In such cases, the provisions of Article XXII of GATT 1994, as elaborated and applied by the Dispute Settlement Understanding, are applicable to this Agreement.

*Article 8*

*Dispute Settlement*

Any disputes among Members regarding the operation of this Agreement shall be subject to the provisions of Article XXIII of GATT 1994, as elaborated and applied by the Dispute Settlement Understanding.

*Article 9*

*Final Provisions*

1. Members shall take the necessary measures for the implementation of the present Agreement.
2. Members shall ensure that their laws and regulations shall not be contrary to the provisions of this Agreement.

**Annex F: U.S. Department of Commerce Trade Compliance Center**  
Trade Compliance Center - Making America's Trade Agreements Work for You!



[Click here for the Trade Agreement](#)

WTO AGREEMENT ON PRESHIPMENT INSPECTION

[What is this Agreement and what does it do?](#)

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**What is this Agreement and what does it do?**

The Agreement on Preshipment Inspection of the World Trade Organization (WTO) provides that the preshipment inspection process should not give rise to unnecessary delays or unequal treatment. It establishes an agreed set of transparent procedures, including deadlines, for these inspections and creates an independent, impartial review body to resolve disputes between importers and preshipment inspection companies.

Preshipment inspections are used by many developing countries to inspect prospective imports before they are shipped from the exporting country. The private companies that carry out the inspections verify that the price, exchange rate, financial terms, quantity, quality and customs classification of the transaction are consistent with what was ordered.

The process is used by countries primarily because the customs services of these countries are not large enough to perform the full range of customs functions. Preshipment inspections can facilitate trade, but in some cases they have led to problems for exporters, including delays in shipments, disagreements over the quantity and quality of the goods that were ordered, and failure to protect confidential business and proprietary information. The WTO Agreement is designed to address such problems.

All [WTO members](#) are parties to this Agreement.

The Agreement entered into force on January 1, 1995. It has no expiration date.

**Who benefits from this Agreement?**

Any American company exporting to a WTO member country that requires preshipment inspections can benefit from this Agreement.

**How can this Agreement help my company?**

Generally, when you receive an order from a buyer in a country that requires preshipment inspections (PSI), you will be notified that you must contact a specified PSI company to arrange for the inspection. When you contact that company, ask if it is aware of the PSI Agreement and if it will follow its provisions. Under the PSI Agreement, the company must provide you with a specific list of what it will be seeking in the inspection and what criteria it will follow. You and the company should also agree on an inspection date.

Problems that can arise

Chances are that your relationship with the PSI company will be a satisfactory one. Many exporters, however, have encountered difficulties arising from the use of PSI companies. These have included: delays on the part of PSI companies in undertaking and completing inspections, thus slowing down the entire exporting process;

delays by PSI companies in issuing the required Report of Findings, without which the customs authorities in the importing country will not authorize the goods to be unloaded;

arbitrary adjustments in the price of a shipment;

arbitrary disqualification of a shipment, frequently without an explanation of why the shipment does not comply with the country's customs regulations; and

demands by PSI companies for unneeded confidential and proprietary business information.

When such problems arise, the WTO Agreement spells out the rights of exporters and provides a means of redressing abuses.

How the Agreement can help

The Agreement seeks to improve the preshipment inspection process by laying out fair and understandable procedures and time schedules, and by making the governments of importing countries responsible for the actions of the PSI companies that they use.

The Agreement requires inspections to be carried out on the date agreed upon by the exporter and the PSI company. It states that the exporter must receive from the PSI company -- within 5 working days of the inspection -- either a Clean Report of Findings (which indicates approval of the shipment) or a detailed explanation, in writing, of why such a Report could not be issued. The Agreement requires that price verification must follow prescribed guidelines. PSI companies are not to request certain business proprietary information and must ensure that any confidential business information

is not released.

The WTO Agreement further protects American and other exporters by requiring all PSI companies:

to apply criteria and procedures used in preshipment inspections to all exporters in an equal, nondiscriminatory manner;

to provide exporters with a list of all the information necessary for them to comply with inspection requirements;

to give exporters information on the procedures and criteria used in their inspection and valuation procedures;

to follow the specific price-verification criteria laid out in the Agreement;

to treat all information received from exporters as confidential unless the information is already available to the general public;

not to divulge any confidential business information except to the government contracting for the PSI services, and then only if that information is customarily required for customs, import licensing, exchange control or payment forms; and

not to request from exporters information related to patented, licensed, or undisclosed processes, or information on manufacturing costs, internal pricing and profit levels;

to request the terms of the contract only if the preshipment inspection cannot be properly conducted without that information.

#### **How do I use the Dispute Settlement Provisions of this Agreement?**

If you have a problem or a disagreement with a preshipment inspection, the first thing to do is to contact the PSI company and attempt to work out the problem directly. The Agreement requires the PSI company to appoint an appeals official to handle all exporters' complaints. When dealing with a PSI company's appeals official, you should refer to the guidelines contained in the Agreement and make sure that he or she is also familiar with the Agreement's requirements.

The WTO Agreement established a review body -- the Independent Entity (IE) - to hear exporters' complaints. The Director of the Independent Entity is a professional staff member of the World Trade Organization.

Exporters may request an IE review of their case two days after submitting a written appeal to the PSI company. If you want to request an IE review, you must submit a completed Standard Application form to the IE, in care of the WTO Secretariat, no later than 90 days after a PSI company either issues a Clean Report of Findings or notifies you of its refusal to issue a Report. Copies of the Standard Application form are available via email from the Trade Compliance Center at the U.S. Department of Commerce.

Copies of all documents that you consider to be relevant to the dispute should either accompany the application or be submitted immediately thereafter. You may also make an oral presentation to the panel. Preparation and timeliness in the review process are crucial, however, as the IE panel must make a decision within eight working days of the review's request.

You should be aware that to date no complaint has ever been brought to the Independent Entity. As a result, no body of precedent yet exists for this dispute settlement process. Reasons for the lack of formal complaints, according to exporters, include: fear of retaliation by the PSI company or the country which uses it; the lack of any assurance that a decision rendered by the IE in a particular case would be binding on the PSI company in the future; and the high cost of filing a complaint.

Since the operation of the Independent Entity is not financed by the WTO, exporters must submit a deposit in the amount of 17,500 Swiss francs (approximately \$12,500), which must accompany the Standard Application. All unused funds submitted to pay for panel costs will be returned.

The Agreement does not address the awarding of damages or compensation to an exporter who files a complaint with the IE. The IE panel could recommend damages, but since no cases have been filed, there is no certainty about the outcome of such a finding. The IE does have authority to apportion the cost of the review, so that most, or even all, of the expenses involved are assumed by the person or entity acting in non-compliance with the Agreement.

Before filing a formal complaint with the Independent Entity, you may wish to [email](#) the Trade Compliance Center at the U.S. Department of Commerce to discuss the matter further and determine whether alternative options exist in your case.

#### **Can the U.S. Government help me if I have a problem?**

Yes. If you have a problem with a preshipment inspection, contact the Trade Compliance Center's [hotline](#) at the U.S. Department of Commerce. After discussing your problem with you and explaining your rights under the Agreement, the Center can -- with your concurrence -- contact the PSI company to discuss your concerns. If appropriate, we can also raise the particular facts of your situation with the government of the other country involved. Under the WTO Agreement, governments of importing countries are responsible for ensuring that the PSI companies working for them comply with the provisions of the Agreement.

#### **How can I get more information?**

The [complete text](#) of the WTO Agreement on Preshipment Inspection is available from the Trade Compliance Center's web site.

If you have questions about this Agreement or how to use it, you can [e-mail](#) the Trade Compliance Center which will forward your message to the Commerce Department's Designated Monitoring Officer for the Agreement. You can also contact the Designated Monitoring Officer at the following address:

Designated Monitoring Officer

WTO Preshipment Inspection Agreement

Trade Compliance Center  
International Trade Administration  
U.S. Department of Commerce  
14th Street & Constitution Avenue, N.W.  
Washington, D.C. 20230  
Tel: (202) 482-8212  
Fax: (202) 482-6097

You can also obtain further information on the WTO Preshipment Inspection Agreement by entering "preshipment inspection" in search engine of the [World Trade Organization's web page](#). This site also contains general information about the World Trade Organization and its international trade agreements.

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*The TCC offers these agreements electronically as a public service for general reference. Every effort has been made to ensure that the text presented is complete and accurate. However, copies needed for legal purposes should be obtained from official archives maintained by the appropriate agency.*

## **Annex G: Iraqi Agriculture and Food Security -- Production Constraints & Policy Alternatives**

The Iraqi Constitution aims to shift the economy from the centrally-planned Soviet model to more market orientation with private sector ownership. Constitution Article 25 calls for the State [Iraq] to "...guarantee the reform of the Iraqi economy...and [encourage the] development of the private sector." If successful, this shift toward a federal-democratic model of government and privatization of state-led systems will have profound effect on the way food is produced, sold, and consumed in Iraq.

As the agricultural sector shifts towards private enterprise, however slowly and to whatever extent, the Iraqi people will likely benefit from a new diversity of foods with greater choice in their food consumption, the possibility of improved diets, and greater productivity of Iraqi farms. However, risks accompany these benefits. Among these are a susceptibility to volatile food prices on the world market, possible loss of jobs in rural areas and potential increased incidence of chronic diet-related disease such as diabetes and obesity.

To ensure food security for the Iraqi people, regulation of the food system will remain a critical function of the Iraqi government to maximize benefits to the Iraqi people while minimizing risks. Regulation requires a clear vision of desirable outcomes, and a thorough understanding of what is being regulated.

As written in the 2011-2014 National Development Strategy, the Iraqi government fully recognizes the promise of agriculture in the future development of the country,

"...with regard to contributing to the economic diversity and ensuring the country's food security. It also has an important role in generating employment opportunities that will contribute to reducing poverty, stabilizing productive labor in rural areas, and reducing migration to urban areas."

[Source: Government of Iraq, National Development Strategy 2010-2014.]

Iraq's macro food policy objective is to move towards overall food self-sufficiency, while ministerial policies and programs are often contrary to that goal.

**Iraq's Agricultural Policies:** For the past 60 years, particularly during the 1990s under UN sanctions, agricultural production and food distribution was controlled by the government. Iraqi farmers were told what to plant, when to plant it, and when to harvest. Depending on the crop, farmers were guaranteed a price by the government -- sometimes well above world market prices. Government then distributed food to the people through state-run distribution centers and the Public Distribution System (PDS) food ration program. Today, farmers have planting flexibility, but are constrained by lack of marketing alternatives, availability of inputs and technical information because State-Owned Enterprises impede change to the system.

Obstacles to agricultural development, most of which existed prior to the removal of the Saddam regime in 2003, still remain despite some modest attempts at reform. Development impediments include: 1) government policies and subsidies that distort the market and undermine productivity and competition; 2) outdated technology in plant and animal genetics, fertilizers, irrigation and drainage systems, and farm equipment; 3) inadequate and unstable electricity supply; 4) degradation of irrigation-management systems; 5) insufficient credit and private capital; and 6) inadequate market information and marketing networks. Vested interests and bureaucratic inertia have been difficult to overcome.

In addition, the policy to destroy the "Marsh Arab" culture by draining the southern marshes and introducing irrigated farming to the region destroyed a natural food-producing area, while concentration of salts and minerals in the soil due to the draining left the much of the land unsuitable for agriculture.

Centrally planned and regulated availability of modern seeds and new technology has been tightly controlled by the Iraqi Seed and Grains Company, "Mesopotamia" and other State Companies. Mesopotamia is a State Company with responsibilities to purchase and process corn, and then resells shelled corn to poultry producers at a subsidized price. It also contracts with private growers to produce certified seed wheat that is purchased and then resold to wheat producers. Another company Iraqi Seed Company, also contracts with wheat producers to grow seed wheat. This company is a shareholder company – hence it has a stronger connection to the private sector.

Seed policy and control rest with the Ministry of Agriculture's National Seed Council and State Board for Seed Testing and Certification. Currently, there are 40 to 50 registered wheat varieties and at least a dozen registered high yielding corn varieties [USDA/FAS.] This suggests that deficiencies in marketing channels, seed multiplication programs and credit availability contribute to the short supply of quality seed available to farmers rather than the number of varieties approved. Under the current system if a producer wants to import a new variety and have it registered for commercial production there will be delays releasing the technology because of a highly inefficient seed registration process.

Restrictions on input technologies and ongoing modifications to the agricultural subsidy program keep Iraqi agriculture at a competitive disadvantage in global agriculture. [Source: USAID Deliverable Report, *Ongoing Assessment of Iraqi Agricultural Subsidies: Iraq's Reintegration into the Global Community*, Chuck Lambert, Ph.D., November 2011.]

Pricing Strategic Agricultural Crops: Strategic crops are defined as grain -- wheat, barley, paddy rice, and yellow and white corn; and oil and industrial crops -- cotton, sunflower and sugar beets.

Prior to 2003 these crops were priced through calculating the costs of production plus a recommended positive "profit" margin. The price suggested by the Ministry of Agriculture was then sent to the Economic Affairs committee (formerly) of the Cabinet, where a specialized committee, headed by the Director General of Agricultural Planning in the Planning Commission (currently the Ministry of Planning) with representatives from the ministries of Agriculture, Trade, and Industry & Minerals studied the proposed prices and presented a final recommendation to the Economic Affairs Committee to be approved and announced through media outlets.

The GoI committed to receive the crop at the announced price if the farmer was willing to sell at that price. The price suggested by the Ministry of Agriculture observed the cost items for crop production on one donum of land which included:

- Costs of production inputs per donum (+10 percent as a reserve)
- Costs of mechanical operations (+10 percent as a reserve)
- Workers' wages (including family members)
- Fees for land, irrigation and administrative procedures

Setting prices for strategic commodities through the formula explained above was a price support for the final product and protected the product from declining prices in competition with imported products.

The subsidized price also provided incentive to smuggle commodities from neighboring countries to be delivered to the government at a higher-than-market price. In addition, there was support for costs of production inputs, especially imported inputs or inputs that included imported raw materials. Often these subsidized inputs from the government were illegally smuggled to neighboring countries and sold on the black market rather than being used to increase domestic crop production.

**Pricing Non-Strategic Agricultural Crops:** Non-strategic agricultural crops suffer relatively less government intervention and are more subject to market forces than strategic agricultural products. It is relevant that Iraq is more self-sufficient in non-strategic crops where producers are better able to make production and marketing decisions in response to market signals. Subsidizing non-strategic agricultural crops including vegetables and poultry is primarily through restricting competition from imports with seasonal bans and supporting lower costs for production inputs.

**Reasons for Iraqi Subsidies:** Following are primary political reasons for agricultural subsidies in Iraq:

- Encouraging domestic producers to continue production by subsidizing the price of the final product.
- Reducing the costs of production by subsidizing the costs of inputs, and as a result reducing final prices as a means to support the consumer. These subsidies were especially important during extraordinary circumstances including UN Sanctions after 1991.
- Supporting prices of commodities to the end consumer, as is the case in supporting prices for agricultural goods included in the PDS Ration Card.
- Reducing prices of exported goods through reducing prices of the final product for export i.e., providing competitive prices to markets outside Iraq.

**Iraqi Agricultural Subsidies and the Free Market Economy:** An argument can be made that current agricultural production subsidies in Iraq are important for sustaining domestic production as the economy transitions from a war-torn, heavily subsidized, centrally planned agricultural sector prior to 2003. Iraq's future policies will focus on increasing production through raising the productivity of land and water units and allowing for application of new technologies. These efforts will require increasing producer consciousness about the value of critical resources -- mainly land and water.

The main reason behind the current status of water wasting and soil degradation is that the producer pays no attention to these two resources which are considered to be cost-free. Wasting water is a rational decision made by farmers – they do not have an assured supply, so when water is available they take as much as they can get. There are costs associated with conserving water, leveling fields and more efficient distribution. If a farmer does not have additional land to irrigate, he as an individual will choose not to conserve. This provides the market justification for water rights and quotas.

Past subsidy policies along with other factors have resulted in the following distortions in Iraq's production agriculture:

- Lack of attention to production factors and requirements

- Leakage of production inputs and technology to local markets and smuggling outside the country,
- Declining productivity due to producers' dependence on artificially high subsidized prices – with constraints on credit and new technology productivity does not respond
- Low quality because the subsidized price was paid regardless of the quality of the product delivered to GoI and the lack of real competition against comparable imported products
- An expanding gap in achieving food security from local production as domestic productivity declined and imports increased
- The GoI treasury is burdened with the huge amounts of funds required for the subsidy. If MoT purchases 1.8 MMT during 2011 the total cost will be \$1.1 billion – and the subsidy component will be \$360 million. [Source: GoI Ministry of Agriculture, Prof. Abdul Hussein Noori Al-Hakeem, Economist, June 2010]

**Importance of Agriculture Reaffirmed:** The importance of reconstructing Iraqi agriculture continues to be reaffirmed at the highest levels of government. A recent report from the Iraqi National Investment Commission states: *“Agriculture is an essential part of Iraq’s economy and one-third of all Iraqis depend on farming for a livelihood. After public services the agriculture sector is the second largest employer in Iraq and the second largest contributor to Gross Domestic Product (GDP) after the oil sector. Iraq produces almost all its fruit and vegetables. Before 2003, the country was producing almost 70 percent of its basic food needs. This figure has declined to 10 percent, resulting in the import bill soaring to \$12 billion annually. There is a pressing need to reverse the agricultural sector’s decline.”* [Source: The New Iraq: 2012 Discovering Business, Iraq National Investment Commission with UK Trade and Investment Commission, November 2011, page 104.]

Prime Minister Nuri al-Maliki also voiced commitment to increase agricultural production and livestock when addressing the House of Representatives: *“Agricultural production and livestock are important sectors of the Iraqi economy which declined significantly during the past decades. Decline has been due to lack of water and increased salinity of agricultural land, desertification and neglect. The government will take measures to support the agricultural sector, to increase agricultural and livestock production and to contribute to the diversification of the economy. Appropriate measures will include rationalizing water use, encouraging scientific research and the adoption of international experience and continuing the agricultural initiative which has already achieved tangible results.”* [Source: Text of the Government’s Program for the Years 2011-2014, Prime Minister Nuri al-Maliki to the House of Representatives, July 18, 2011.]

**Top 20 Iraqi Agricultural Imports, 2009:** The Food and Agriculture Organization (FAO) publishes annual data for the 20 largest agricultural commodities produced and the 20 largest agricultural imports, by quantity and by value for all countries. Most recent import data are available for 2009. Policy recommendations have longer-term implications not influenced by conditions in one year so it is important to analyze production and imports over a period of time. [Source: Food and Agriculture Organization of the United Nations, FAOSTAT, March 2012, <http://faostat.fao.org/site/342/default.aspx>]

As shown in Table.1 aggregate value of the total 20 largest agricultural imports was slightly more than \$3.82 billion during 2009.

**Table 1: Iraq's Top 20 Agricultural Imports: 2009**

Commodity	1000 \$US
wheat	796,660
rice milled	414,556
refined sugar	337,500
wheat flour	320,575
margarine	230,179
hydrogenated oil	192,284
chicken	190,000
sunflower oil	180,000
cigarettes	177,995
dried whole milk	176,961
eggs	144,426
pastry	123,244
prepared food (nes)	97,094
chocolate	91,810
soybean oil	82,000
tomatoes	63,965
tomato paste	62,260
infant food	55,203
palm oil	42,968
non-alcoholic bev	41,896
<b>Total imports</b>	<b>3,821,576</b>

<http://faostat.fao.org/site/342/default.aspx>

**CHANGES REQUIRED FOR OBTAINING POTENTIAL PRODUCTION:**

The following seven categories will be discussed further regarding technological applications and policy changes necessary to provide those technologies to increase domestic production and reduce imported supplies:

Wheat and Wheat Flour -- imports totaled \$1.117 billion or 29.2 percent of 2009 imports

Sugar and Rice -- imports totaled \$752.1 million or 19.7 percent of 2009 imports

Vegetable Oils -- imports totaled \$727.4 million or 19.0 percent of 2009 imports

Processed Products -- imports totaled \$587.24 million or 15.4 percent of 2009 imports

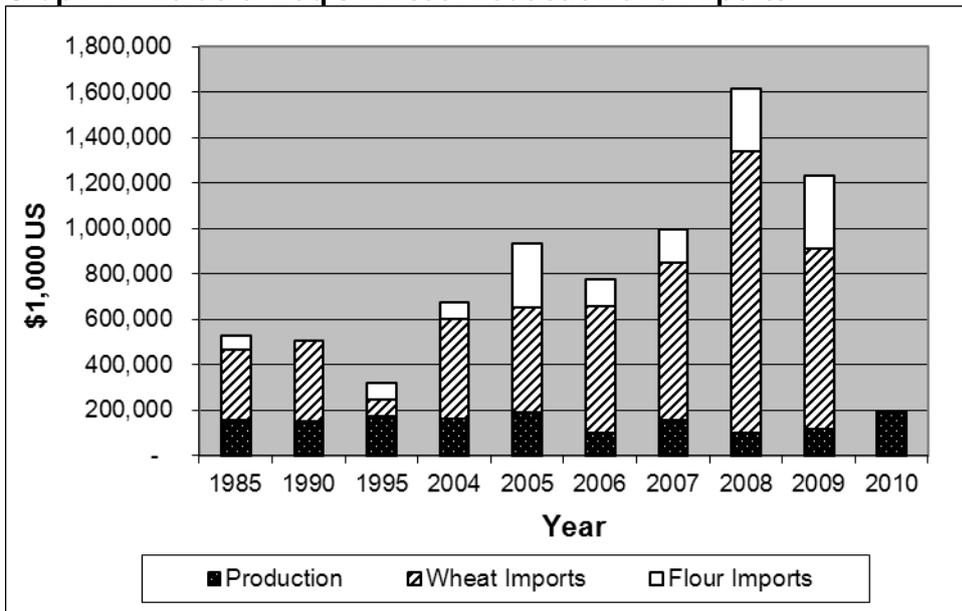
Chicken and Eggs -- imports totaled \$334.43 million or 8.8 percent of 2009 imports

Dried Whole Milk -- imports totaled \$176.96 million or 4.6 percent of 2009 imports

Tomatoes and Paste -- imports totaled \$126.23 million or 3.3 percent of 2009 imports

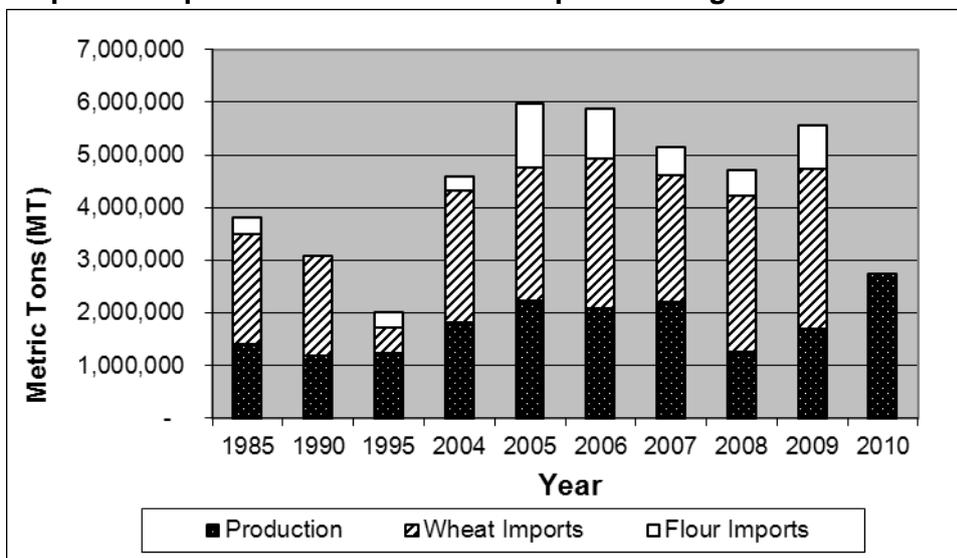
**Wheat and Flour:** Wheat is one of the strategic crops in Iraq and is subject to government purchase prices and a high degree of intervention as discussed above. Wheat was produced and imported during years shown during the 1985 through 2009 period. **FAOSTAT production data are available, but import data are not yet reported for 2010.**

**Graph 1: Value of Iraq's Wheat Production and Imports**



[Source: <http://faostat.fao.org/site/342/default.aspx>]

**Graph 2: Iraq Wheat Production and Import Tonnage**



[Source: <http://faostat.fao.org/site/342/default.aspx>]

Comparing graphs 1 and 2 shows that the value of imported wheat and flour is relatively larger than the tonnage of imports when compared to the value and tonnage of domestic production. This is consistent with a relatively large portion of domestic wheat being lower-value feed wheat and higher value imports of milling-grade wheat and flour. This value difference is due to the relatively low-quality of Iraq wheat production and the Iraqi pricing system as shown in Table 3.

The Agricultural Committee within the MoT announced that official procurement prices for 2010/11 wheat and barley crops would be reduced by 25 percent and 38 percent respectively from the prior year. The procurement price for #1 grade wheat was 650,000 Iraqi Dinar/MT (US\$551/MT) but still approximately \$196/MT or 55 percent higher than the world price when adjusted for ocean and inland transportation as shown in Table 2.

**Table 2: Iraq Wheat Prices & International Wheat Prices: 2003-2011**

	Iraqi Price Dinar/MT	Iraqi Price* \$/MT	FOB US Gulf** \$/MT	Ocean Freight** \$/MT	Landed Price \$/MT	Inland Transportation \$/MT	Adjusted Reference \$/MT	Difference \$/MT
<b>2003-04</b>	300,000	100	155	200	355	60	415	-315
<b>2004-05</b>	350,000	250	150	200	350	60	410	-160
<b>2005-06</b>	400,000	225	165	200	365	60	425	-200
<b>2006-07</b>	450,000	345	200	175	375	60	435	-90
<b>2007-08</b>	650,000	540	333	150	483	60	543	-3
<b>2008-09</b>	750,000	630	264	100	364	60	424	206
<b>2009-10</b>	850,000	725	205	95	300	50	350	375
<b>2010-11</b>	650,000	555	284	85	369	50	419	136
<b>2011-12</b>	720,000	620	293	80	373	50	423	197

\* Official Price Delivered to Silo

\*\* Nominal Prices

It is estimated that less than 25 percent of the crop is purchased at #1 grade prices with the rest of the purchased amount being at #2 grade price. Price for #3 grade wheat was the same as the price for barley in 2010/11, (and recently announced unchanged for 2011/12) indicating it is marketed through the private sector as animal feed. The subsidized price for Iraqi feed grain is still above world livestock feed prices -- and this places Iraqi poultry and eggs producers at a competitive disadvantage.

**Table 3: Iraq Wheat Prices by Grade and Barley Price: 2007-2011**

Grade	2007/08 Dinar/MT	2008/09 Dinar/MT	2009/10 Dinar/MT	2010/11 Dinar/MT	2011/12 Dinar/MT	2012/13 Dinar/MT
<b>#1</b>	650,000	750,000	850,000	650,000	720,000	720,000
<b>#2</b>	550,000	650,000	650,000	550,000	620,000	quality
<b>#3</b>	450,000	550,000	550,000	450,000	520,000	
<b>Barley</b>			725,000	450,000	520,000	

\*\* Quality discounts for test weight, foreign matter and weed seed

Wheat production during 2008 and 2009 was severely reduced by drought conditions and government procurement prices were increased to help maintain producer incomes. The percentage of the wheat crop purchased was also increased to supplement producer revenues. Since grain quality also declines during drought years a larger percentage of 2008-2010 purchases were at the #2 grade price.

The amount purchased by the government pricing system is milled into flour for human consumption with bran and other miller's by-products being used for animal feed. The amount not purchased by the government pricing system is generally considered to go directly into animal feed. [Source: White paper by John M. Schnittker, Agriculture Economist/Ministry Advisor, United States Department of Agriculture (USDA) – Foreign Agriculture Service (FAS), U.S. Embassy- Baghdad, Iraq, November 2011.]

**Table 4: Iraq Wheat Production and % Purchased at Government Price**

	Domestic Production (MT)	Quantity Purchased (MT)	% Total Purchased (%)
2004-05	1,832,000	450,000	25
2005-06	2,228,000	360,000	16
2006-07	2,086,000	1,000,000	48
2007-08	2,203,000	850,000	39
2008-09	1,255,000	650,000	52
2009-10	1,700,000	750,000	44
2010-11	3,200,000	1,870,000	58
2011-12		1,730,000	

Actual 2010 purchases were 1.87 MMT or 58 percent of production (based upon a 3.2 MMT production figure). The lower procurement price and outcry from farmers and their political allies resulted in a higher percentage of the crop purchased. Data for 2004 thru 2006 are from WTO supporting documents and the other years are from MoA and USDA/FAS. Government purchases during 2011 were 1.73MMT. This will be a higher percentage of total wheat production than in 2010 because the 2011 crop was smaller.

Iraq recorded record high wheat production and yields in 2010. However, relative to neighboring countries, and countries in the region with similar climates, wheat yields in Iraq remained relatively low. Egypt and Saudi Arabia had the highest wheat yields among the comparator countries with 1,616 kg/donum and 1,302 kg/donum respectively. Both nations rely exclusively on irrigation for production and can be used as a benchmark for potential yields for arid-climate production under irrigation. Saudi Arabia's yields are a result of a systematic expansion and improvement of irrigation systems that began in the 1970s as the Saudis endeavored to achieve food self-sufficiency in many crops, including wheat.

**Table 5: Comparison of Wheat Production in Iraq with Select Countries and Regions**

	Area Cultivated (donums)	Production (Tons)	Yield (kg/donum)
Iraq 2010	8,016,779	3,685,993	460
---Average 2000-2009 ---			
Egypt	4,570,412	7,376,029	1,613
Saudi Arabia	1,725,940	2,242,867	1,302
United States	81,563,200	57,045,240	697
Syria	6,780,412	4,155,893	609
North Africa	26,976,248	15,389,794	566
Turkey	35,361,212	19,665,780	557
West Asia	54,387,367	30,254,943	557
Iran	24,872,072	12,430,393	494
Israel	303,776	146,746	480
Jordan	84,085	24,280	282
<b>Iraq</b>	6,261,260	1,750,960	276

[Source: FAOSTAT for 2000-2009 averages; Ministry of Agriculture, Iraq, 2010; and Ministry of Agriculture and Water Resources, Kurdistan, 2010.]

Syria strongly parallels Iraqi wheat crop growing conditions and is a good benchmark for what might be achievable in the short- and medium-term on a country-wide scale in Iraq. Like Iraq, wheat is Syria's staple food commodity and is planted on more than half of the cultivated acres. Wheat is grown during the winter season on both irrigated and rain-fed land. Rain-fed harvests range from 125 kg/donum in seasons with poor rainfall to 425 kg/donum with high rainfall. Irrigated yields are more stable, ranging from 750 kg/donum to 1,000 kg/donum. If these irrigated yields had been achieved on Iraqi irrigated lands during 2010 production would have more than doubled to between 4.6 and 5.7 million tons

Outdated equipment, poor farming practices, non-availability of high-producing seeds and other factors affecting productivity continue to constrain Iraq's productivity in wheat production even under normal weather conditions. Centrally planned and regulated availability of information and new technology, lack of marketing alternatives, lack of credit availability and control of water leaves farmers with few options to improve productivity or explore alternative crops.

Restrictions on input technologies and ongoing modifications to the agricultural subsidy program keep Iraqi agriculture at a competitive disadvantage in global agriculture. Ironically, but predictably, Iraq is more self-sufficient in non-strategic crops including tomatoes and eggplant where producers have more decision-making freedom than self-sufficiency for "strategic crops" including wheat where government intervenes heavily in supply of production inputs and marketing decisions.

**OECD Seed Certification:** The Organisation for Economic Co-operation and Development (OECD) system for the *Varietal Certification of Seed Moving in International Trade* promotes the use of agricultural seed of consistently high quality. Certified seeds are produced - and officially controlled - according to common harmonized procedures.

Since 1958, the OECD Seed system has been open to OECD countries as well as other U.N. Members -- 58 countries participate. OECD certification is applied to varieties that satisfy distinction, uniformity and stability conditions, have an agronomic value, and are published in official lists. The annual List of varieties eligible for OECD Certification includes about 43 000 varieties from 200 species.

The system ensures varietal identity and purity of the seed through transparent and documented requirements and controls are implemented throughout the cropping, seed processing and labeling operations. This results in generation control (Pre-basic, Basic and Certified seed), with isolation distances, purity standards, field inspections, lot sampling, post-control plots, compulsory official laboratory analysis for each certified seed lot.

OECD accredits seed certification systems within member countries to provide official recognition of "**quality-guaranteed**" seed. This facilitates international trade and removes technical barriers to trade. Iraq requires a long and expensive process to register new seed varieties that are Technical Barriers to Trade (TBT) and does **not** accept OECD certification in lieu of the registration process. Countries in the region with higher average yields -- Egypt, Iran, Israel, and Turkey -- do accept OECD certification in lieu of domestic registration. [Source: OECD Certification, 2010, <http://www.oecd.org/dataoecd/30/11/41977674.pdf> and [www.oecd.org/tad/seed](http://www.oecd.org/tad/seed)]

**Policy Alternatives for Wheat:** Imports of wheat and flour accounted for nearly \$1.12 billion or 29.2 percent of the value of Iraq's top 20 imports in 2009. In order to achieve self-sufficiency in wheat production by 2015, Iraq would have to produce approximately 6.7 million tons of wheat to fully satisfy demand at 2010 consumption levels—an 81 percent increase in overall production or an annual increase of 12.6 percent. A number of policy alternatives are available at the ministerial level that would increase wheat production to varying degrees.

**1. No Policy Change --** Because it requires no overt action and is easiest to achieve, policy alternatives analyses generally start here. Political heads of state may espouse change, but ministerial leadership must exhibit a true will to reform, or no real change will take place. This has been the case in Iraq since Saddam was disposed. Centrally planned and regulated availability of alternative marketing channels, new information and modern technology remains tightly controlled by the State Company for Agricultural Supplies.

Input technologies and equipment remain procured and distributed by State owned companies and subsidized fertilizer and water are treated as “free” goods to producers by the State. There are no incentives to conserve water resulting in waterlogged soils, poor drainage and salinity. Fertilizers are used without regard to soil nutrients or sold on the black market and not used at all. There is little soil testing for nutrients with a high likelihood that optimal returns are not gained from fertilizer that is applied.

Historically, the food system in Iraq had been understood exclusively by the State -- and information was power. In order to reap the benefits of privatization, this state-led understanding must continue in real-time, but information must be relayed to the people on the ground. Informed choice is a pillar of private markets, and above all, it requires an informed public for success.

The power of the State in Iraq has traditionally been derived from its ability to gather and retain knowledge for itself -- this mindset must change to provide information access to the Iraqi public for change to take place. Without true reform of State-Owned Companies in agriculture and fundamental changes in the way information is shared, Iraq will likely continue to produce more crude oil and purchase more food.

**2. Increase Crop Yields and Returns to Inputs on Existing Planted Land --** Even with Irrigation Iraq ranks near the bottom among other countries of the region for wheat production/donum. In addition, subsidized prices above world levels during the last four years have not significantly generated a production response. Drought during 2008 and 2009 may have been a contributing factor, but yields on irrigated soils should not have been reduced by drought. This then points to other factors limiting production response to higher prices.

**2.1. Eliminate Seed Restrictions –** Follow examples of Egypt, Iran, Israel, and Turkey, eliminate TBT and allow OECD certified seeds to be imported directly without a waiting period or an expensive registration process. Evaluate production systems in Syria and other neighboring countries to identify hybrid seed varieties that are fungus (rust) and disease resistant and that produce under comparable growing conditions to those found in Iraq. *Use existing emergency powers to facilitate seed registration and reinvigorate seed propagation efforts. Mesopotamia has a plan to do this and has a long list of potential wheat varieties for Iraq. However seed registration authorities would not approve the purchases of certified seed, registered, or even germplasm for their own seed development.* [Source: John Schnittker, USDA/FAS, US Embassy.]

**2.11 Eliminate Prohibitions on Genetically Modified (GM) Crops** – To date, GM technologies have not been transferred to wheat but many hybrid wheat varieties are available. GM seeds for other crops have been engineered to increase drought tolerance, to resist diseases and insects and to produce efficiently with a minimum of soil tillage that evaporates moisture from the soil. Crop rotation systems using GM sunflowers or flax in rotation have increased production output and efficiencies while reducing soil erosion and improving crop residues, soil mulch and fertility. The U.S. and Europe disagree as to whether GMO prohibitions are TBT.

**2.2. Fertilize to Soil Requirements** – Repeal the policy of providing urea and nitrogen fertilizer to farmers at subsidized prices. Iraq would be better served by developing a program for soil testing and applying high-quality blended fertilizer according to needs of the crop to be planted and soil nutrient deficiencies.

*Urea is generally good quality and farmers pay approximately \$200/MT to the State Company for Agricultural Supplies (SCAS). Supplies are limited and availability of subsidized fertilizers doesn't come close to meeting demand. NPK (Nitrogen, Phosphorus and Potassium blend) is 10-18-0, and priced at \$135/MT. This fertilizer is very low quality and SCAS doesn't even want to buy it from MIM. [Source: John Schnittker, USDA/FAS.US Embassy, Baghdad.]*

**2.3. Implement Water Conservation Measures** – Invest in refurbishing the irrigation infrastructure as a public utility to reduce the poor efficiency of the irrigation system “with losses estimated at about 60 percent.” Invest in the electrical infrastructure as a public to increase reliability of power for irrigation and eliminate the need expensive alternative generator sources. Form irrigation districts to restrict water usage, or implement a tax for water over-use that contributes to drainage problems and increased salinity. *Develop a working delivery system for water allocation including quotas and maintenance fees plus a cost sharing program for leveling and drainage.* [Source: John Schnittker, USDA/FAS, US Embassy, Baghdad.] Promote education programs regarding optimal uses of inputs and reduce incentives to treat inputs as “free” goods.

**2.4. Implement a System of Land Ownership or Long-Term (30 or 50 year) Lease** – Land is currently distributed by the State to farmers with few legal protections. Producers have no assurance they will have continued use, and by the nature of this system there are few incentives to maintain land fertility or preserve the long-term productivity of land and water resources. Long-term leases or ownership provide an economic incentive to properly fertilize, provide drainage and reduce salinity trends.

*A type of “Homestead Act” as was used to settle the American West could be implemented to settle huge tracts of arable land that is currently not being farmed.* [Source: Patrick J. Broyles, USDA/FAS Soil & Water Advisor, US Embassy, Baghdad.]

**2.5. Research Crop Rotation Systems** – Focusing on self-sufficiency for individual commodities rather than “food basket” self-sufficiency detracts from overall efficiency in the food production chain. Eventually it will likely be most efficient for Iraq to produce surpluses and export some commodities where it has a true comparative advantage; while importing other commodities where production efficiency is less.

Crop rotation using wheat and soybeans or wheat and sunflower, grain sorghum or cotton on irrigated or higher natural rainfall acreage will likely produce more total output than a singular focus on wheat produced year after year. Crop rotation helps break cycles of crop-specific diseases and insects, and in the case of legumes like soybeans, add nitrogen and other nutrients to the soil. *Since Gol does not provide information and support alternative crops the primary focus remains on wheat and other cereal grain crops.*

### **2.6. Implement a System of Free Continuing Education and Information**

#### **(“Extension”) to Producers and Eliminate State Procurement of Equipment –**

Farmers with information about resource conservation, production technology, latest production systems and access to farming equipment that fits their individual farm will be much more efficient in allocating resources and optimizing production to maximize net income. Allowing global farm implement dealers to become competitive with State Company for Agricultural Supplies and demonstrate and market equipment directly to farmers will increase efficiency compared to a State purchasing company that provides to “one size fits all.” Assure credit availability for purchasing new technology.

- 3. Increase Land Area Planted to Wheat and Other Crops –** Iraqi government studies indicate that more than 40 percent of previously productive land has been lost to encroaching desert since the 1970s. [Source: *The New Iraq: 2012 Discovering Business*, Iraq National Investment Commission with UK Trade and Investment Commission, November 2011.]

On average during 2010, Iraq produced 10.6 trillion calories of food on 14.3 donums of land. Given the total arable land in Iraq (41.7 million donums) less the marginal pasture lands (16 million donums), there are 25.7 million donums of land that could be used for agricultural production. Meeting total calculated calorie demand for 2010 in Iraq would require the cultivation of 36.1 million donums of the current crop and livestock mix -- well above the historic high cultivation of 21.3 million donums.

Yields are likely to decrease on average, as crop production expands to new land, assuming that the best lands are already being cultivated. Therefore lower cost production systems will be necessary to generate positive returns from lower yields. Alternatively, new lands will be irrigated with center pivot irrigation so yields, but also costs will increase.

#### **3.1. Research and Implement No-Till Systems to Increase Production on Marginal**

**Lands –** Summer-fallow wheat (planted every other year) or wheat-sorghum-fallow systems have been used effectively in other countries to produce efficiently on marginal lands in relatively low rainfall areas. These systems allow for limited rainfall to accumulate in the subsoil while being protected from evaporation and wind erosion by crop residue that remains undisturbed. Sunflowers, millet and other drought resistant crops have also been grown successfully in other arid climates. Seasonal rain patterns (no rain from late-April until November) and the reality that wheat straw has a high residual value as animal forage will also need to be taken into account.

Crop rotation using wheat and sorghum, sunflowers or rapeseed on lower rainfall acreage will likely produce more total output than a singular focus on continuous wheat crops produced year after year. Crop rotation helps break cycles of crop-specific diseases and insects, and residue mulch adds nutrients to the soil. Crop

residue and growing crops protect the soil and reduce wind erosion that leads to desertification of previously productive lands.

*Adjusting agricultural pricing policies to reflect actual market values could help induce crop rotations. Reduced tillage using a conventional drill for planting would be a first big step to no-till farming since most of the seed is now broadcast and then harrowed.* [Source: John Schnittker, USDA/FAS, US Embassy.]

**3.11 Eliminate Prohibitions on Genetically Modified (GM) Crops** – To date, GM technologies have not been transferred to wheat but many hybrid wheat varieties are available. GM seeds for other crops have been engineered to increase drought tolerance, to resist diseases and insects and to produce efficiently with a minimum of soil tillage that evaporates moisture from the soil. Crop rotation systems using GM sunflowers or flax in rotation have increased production output and efficiencies while reducing soil erosion and improving crop residues, soil mulch and fertility.

**3.2. Expand Irrigation Services** – Invest to expand the irrigation infrastructure as a public utility to increase crop production in outlying areas and stem or reverse desertification. Invest in electrical infrastructure as a public to increase reliability of power for irrigation and eliminate the need expensive alternative generator sources. MoA has recently implemented pilot projects to combat desertification in various parts of Iraq by planting date palm groves and irrigating small plots of land. Consider expansion of these projects to include small amounts of timely irrigation for wheat or other crops on lands surrounding these man-made oases.

**3.3. Improve Transportation Infrastructure to Outlying Regions** – Products from marginal lands can be more efficiently delivered to market with access to well-developed transportation systems. Bread baskets in the Western United States and Canada have been effectively connected to more densely populated east-coast urban areas through a system of interstate highways and rail transportation systems. With 70 percent of all Iraqis living in cities, reducing transportation costs for agricultural products produced in outlying rural areas will reduce costs of food to consumers as well as improving financial returns to marginal lands. Keeping these lands in production also reduces wind erosion and creeping desertification that improves air quality for all Iraqis.

**3.4. Improve Information Access and Quality of Life for Rural Residents --** Improving quality of life in outlying marginal areas will also contribute to willingness of producers to live and produce there. Access to latest information about production technologies and production systems can be provided through broadband internet and video conferencing systems. Public utilities, education and family support systems also attract residents and maintain communities of farmers in those areas.

**4. Improve Quality Mix of Currently Produced Wheat** – An earlier section of this chapter reviewed the Iraqi wheat pricing scheme. It is estimated that less than 25 percent of the crop is purchased at #1 grade prices with the rest of the amount purchased for flour production for human consumption is at #2 grade price. Price for #3 grade wheat is now the same as the price for barley so low quality wheat will be marketed through the private sector as animal feed. The subsidized price for barley and low quality wheat is still above world livestock feed prices and this places Iraqi poultry and egg producers at a competitive disadvantage.

There are lower per unit costs for producing poultry and livestock feed than feeding low-quality wheat. Irrigated corn (maize) or sorghum, or these crops in rotation produce animal feed efficiently in many countries around the world. If the average quality for wheat currently produced in Iraq increased, a larger portion of the crop could be milled for human consumption resulting in smaller imports of milling wheat.

**4.1 Modify or Eliminate Current Wheat and Barley Price System** – Currently all Iraqi wheat and barley production is guaranteed a government price higher than the comparable world average price. Even low grade wheat and barley are priced equivalent to world prices for higher quality milling wheat. Eliminating the pricing system would place Iraqi farmers on a competitive basis with other producers around the world.

*MoT should offer a price that reflects import substitution cost or offer a non-recourse loan at 75 percent of some reference price. Non-recourse loans would provide much needed production credit and a separate [Green Box] income transfer payment could be considered. [Source: John Schnittker, USDA/FAS, US Embassy, Baghdad.]*

If it remains Iraqi policy to subsidize farmers while war recovery transitions and infrastructure development improves, the pricing system could be modified to stimulate self-sufficiency for milling quality wheat. A market oriented pricing system more consistent with self-sufficiency would price barley and grades 2 and 3 wheat at world prices for equivalent feed grains (based on relative nutrient content for corn, sorghum and barley). MoT has previously announced policy that only #1 wheat will be purchased at the subsidized price. However, political pressures generally have prevailed and the policy has not been enforced.

If barley and low grade feed wheat are priced at world levels, Iraqi poultry and livestock producers would then have access to domestic feed grains priced equivalent to what producers in other countries pay. The price for #1 milling grade wheat could remain at current levels, or even increased. A wider price differential would provide farmers an incentive to upgrade the quality mix by producing more #1 and less #2 and #3 grades.

On the downside, a wider differential would also provide incentive for producers to “game the system” and import grade #1 wheat from neighboring countries to deliver at the subsidized price. *Alternatively, MoT could pay the equivalent of the world milling wheat price adjusted for inland transportation to eliminate the smuggling problem, then, offer an income transfer payment or a decoupled “transition payment” to bring producers’ incomes back to par with the current program.*

**4.2 Promote Production Systems that Produce Quality Wheat** – Low quality wheat is produced when the plant is stressed. Drought, frost, inadequate nutrients, disease and fungus all contribute to lower wheat quality. Producer education about factors contributing to wheat quality coupled with a price incentive program to produce milling quality wheat will increase domestic self-sufficiency of high quality wheat. Eliminating seed restrictions, fertilizing to soil requirements, crop rotations and no-till systems will not only increase wheat yields but also upgrade the quality mix. *Educational programs to focus on planting date and getting wheat harvested on time could be offered to producers. Much of the current quality issue has to do with wheat grown under extreme stress and harvested in extreme heat. [Source: John Schnittker, USDA/FAS, US Embassy, Baghdad.]*

**Policy Alternatives for Sugar and Rice** -- Imports of sugar and rice accounted for \$752.1 million or 19.7 percent of the value of Iraq's top 20 imports in 2009. Strategic crops include paddy rice and sugar beets and remain heavily managed under programs that began during the Saddam regime and mostly continue today. Rice and sugar were once relatively large crops produced in Iraq. Sugar production in Iraq (both sugar beets and sugar cane) peaked in 1979 and rice production peaked in 2007. Today, sugar production is negligible and rice production has declined by 60 percent.

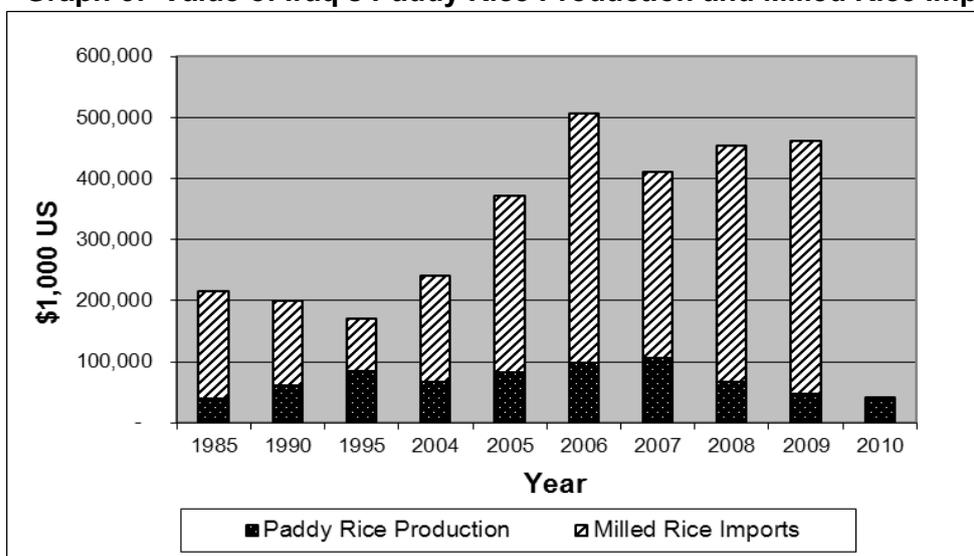
- 1. No Policy Change** -- Because it requires no overt action and is easiest to achieve, policy alternatives generally start here. However, political inertia is not the only reason for the status quo to prevail. Some crops are simply not suited to the resources and climate available in Iraq (and conversely some climates are just not suited to the production of some crops.) Sugar and rice are considered too water intensive by the government to continue to produce, and -- when coupled with Iraq's soil type, poor drainage and increasing soil salinity -- most sugar and rice will likely continue to be imported from reliable suppliers.

*A rice research farm in Najaf Province is doing work with local farmers to change the growing season for rice production from summer to the autumn. This significantly reduces water needs for rice production. [Source: Patrick J. Broyles, USDA/FAS Soil & Water Advisor, US Embassy, Baghdad.]* In addition, two policy alternatives might be explored.

- 2. Domestic Rice as a Unique Geographic Product and Import Commodity Milled Rice** -- Domestic "fragrant" long grained paddy rice could be marketed as having unique geographical and traditional significance in regional markets. Marketed in this way paddy rice could be viewed differently -- as a national treasure -- by the Iraqi government with limited niche market production approved. Commodity milled rice would continue to be imported for the broader consumer market in Iraq. (See Graph 3.3.)

*Local Anbar rice has great domestic appeal and commands a high price within Iraq. It remains to be seen if this local premium can translate into competitiveness against aromatics like Basmati in regional markets based on price. [Source: John Schnittker, USDA/FAS US Embassy, Baghdad.]*

**Graph 3: Value of Iraq's Paddy Rice Production and Milled Rice Imports**



[Source: <http://faostat.fao.org/site/342/default.aspx>]

- 3. Sugar Beets as a Source of Iraqi Sugar** – Sugar beets can be grown on irrigated land or in higher-rainfall areas and are much less water-intensive than sugar cane production. Research and cost analysis might be considered to determine efficiencies of sugar beet production in some crop rotation systems. Eliminating seed import restrictions, providing producer education programs and increasing sugar refining capacity would be considerations for this policy alternative.

**Policy Alternatives for Vegetable Oils** -- Imports of vegetable oils accounted for \$727.4 million or 19.0 percent of the value of Iraq's top 20 imports in 2009. There is marginal production of oil crops in Iraq, including sesame (Tahini), peanuts, and sunflowers (confectionary), though they are primarily consumed whole. For purposes of discussion, the following FAOSTAT vegetable oil import categories, ranking and 2009 import value were aggregated.

- Margarine – rank #4, value \$230.18 million
- Hydrogenated Oil -- rank #6, value \$192.28 million
- Sunflower Oil -- rank #8, value \$180.0 million
- Soybean Oil -- rank #15, value \$82.0 million
- Palm Oil -- rank #19, value \$42.97 million

Although different vegetable oils contain different proportions of fatty acids, they can generally be substituted for one another in most food preparation processes. Reasons that vegetable oils are not produced in Iraq deserve further investigation. Lack of further processing or “crushing” capacity is currently a primary reason. However, adequate soybean, sunflower or flax/rapeseed (Canola) production to support further processing could theoretically be produced given Iraq's soil and irrigation resources. Strategic crops encompass oil and industrial crops – including cotton, sunflowers, soybeans and flax/rapeseed – and they remain without marketing alternatives or technical support.

- 1. No Policy Change** – Agricultural production and processing have been determined by government planners and the path of least resistance would be to make no change. Alternatively, central planners could conduct more research and study to determine if production constraints to vegetable oil production are environmental or political.
- 2. Research and Implement Crop Rotation Systems** – Focusing on self-sufficiency for individual commodities rather than “food basket” self-sufficiency detracts from overall efficiency in the food production chain. Private investors might see potential to develop an integrated or contractual supplier network adequate to produce supplies for vegetable oil processing. If this were the case, value-added jobs in vegetable oil processing would be available in Iraq. Crop rotation systems using soybeans, sunflowers or rapeseed will likely produce more total output than a singular focus on wheat produced year after year. Crop rotation helps break cycles of crop-specific diseases and insects, and in the case of legumes, like soybeans, add nitrogen and other nutrients to the soil.
  - 2.1. Eliminate Prohibitions on Genetically Modified (GM) Crops** – Corn, soybean, sunflower and rapeseed (Canola) GM seeds have been engineered to resist diseases and insects and to produce effectively with a minimum of soil tillage that evaporates moisture from the soil. Crop rotation systems using GM corn and soybeans in rotation have increased production output and efficiencies while reducing soil erosion and improving crop residues, soil mulch and fertility.

**Policy Alternatives for Processed Products** -- Imports of processed products accounted for \$587.24 million or 15.4 percent of the value of Iraq's top 20 imports in 2009. For purposes of discussion, the following FAOSTAT processed product import categories; ranking and 2009 import value were aggregated.

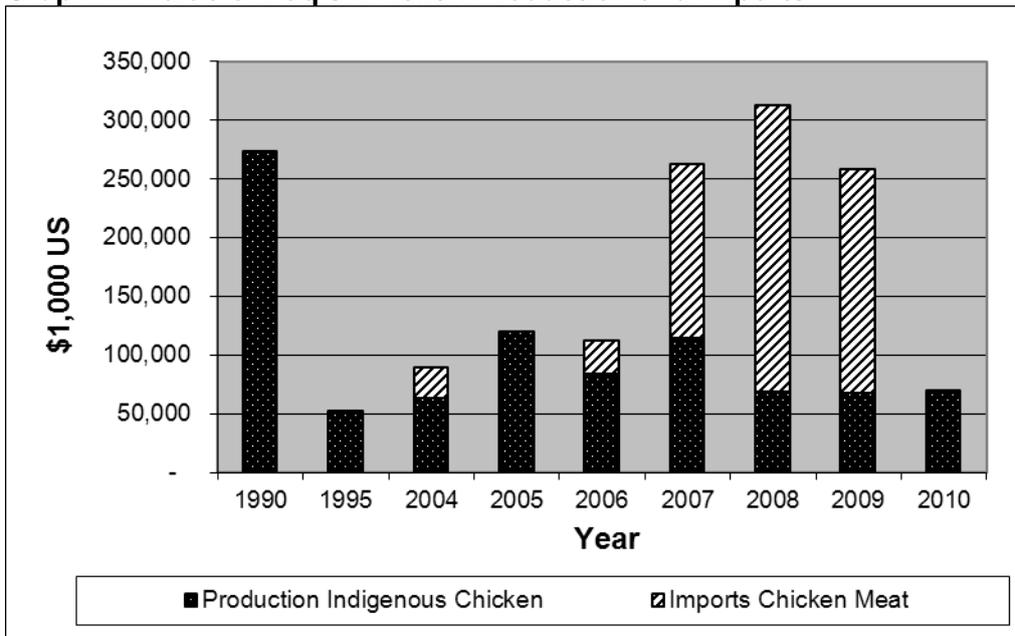
- Cigarettes – rank #9, value \$178.0 million
- Pastries -- rank #12, value \$123.24 million
- Prepared Food (nes) -- rank #13, value \$97.09 million
- Chocolates -- rank #14, value \$91.81 million
- Infant Food -- rank #18, value \$55.20 million
- Non-alcoholic Beverages -- -- rank #20, value \$49.90 million

- 1. No Policy Change** – The shift towards value-added products will very likely be true in Iraq as oil production continues to increase leading to a parallel increase in consumer disposable incomes. The more labor-intensive value and service is added, the more value-added jobs are provided throughout the total food chain. It is generally agreed that self-sufficiency in Iraq will be defined as producing adequate or surplus agricultural products where a comparative advantage is held and importing other products. Pastries and non-alcoholic beverages (sodas) could be two value-added categories that could be manufactured in Iraq.
- 2. Consider Investment Incentives to Attract Value-Added Processing to Iraq** – Increasing incentives for baking, soft drink and fruit juice manufacturers to develop processing in plants would increase jobs for Iraqis in these value-added industries. Providing free land or long term leases (as has been the case in Kurdistan Region), low interest loans or other incentives could promote international companies – Fontana, Shasta, Coca-Cola, Pepsi, MinuteMaid – or small and medium sized bakeries to locate in Iraq. Some of the manufacturing ingredients, sugar for example, would likely continue to be imported, but the value-added jobs would be located in Iraq.

**Policy Alternatives for Chicken and Eggs** -- Imports of chicken and eggs accounted for \$334.43 million or 15.4 percent of the value of Iraq's top 20 imports in 2009. Production of chicken is 220,000 MT, and imports are 320,000 MT, mostly frozen -- 207,000 MT of frozen chicken is imported directly from Brazil and enters mostly from Um Qasr. Albunya distributors reported that some Brazilian chicken reaches Iraq indirectly through the entry point of Ar Ar on the Saudi Arabian border. An additional 84,000 MT of chicken were imported from the US during 2010, with negligible quantities coming from Turkey and France.

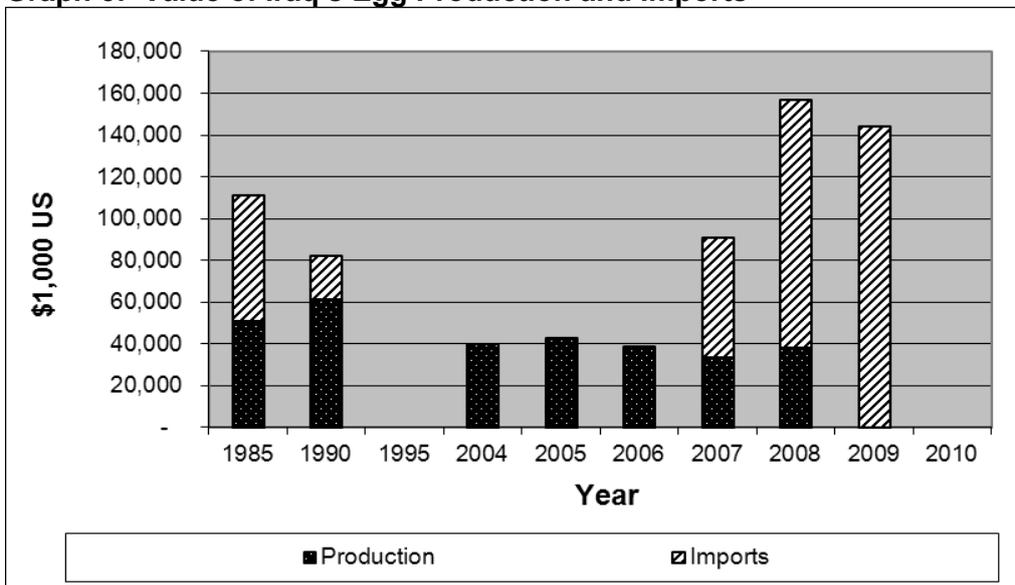
Iraq was self-sufficient in chicken production prior to UN sanctions that began in 1991. However, production declined and imports have increased, particularly after Saddam was disposed in 2003. **FAOSTAT production data are available, but import data are not yet reported for 2010.** *It is also important to remember that these data are for the FAOSTAT top 20 commodities produced and imported for any given year. For example, no reported imports of chicken in 1995 or 2005 may mean only that chicken imports were not in the top 20 imports that year – not that there were no imports at all. The same is true for production – Iraq very likely produced eggs in 1995, 2009 or 2010, but eggs weren't among the top 20 value of products produced in Iraq during those years.*

**Graph 4: Value of Iraq's Chicken Production and Imports**



[Source: <http://faostat.fao.org/site/342/default.aspx>]

**Graph 5: Value of Iraq's Egg Production and Imports**



[Source: <http://faostat.fao.org/site/342/default.aspx>]

- 1. No Policy Change** – Reduced supplies of feed, elimination of feed subsidies for the poultry industry and reliance on low-quality wheat as a primary feed-stuff have all contributed to reduced chicken and egg production since UN sanctions were imposed during 1991. Iraqi poultry production in 2011 is expected to decline six per cent from the 2010 production level. Growth in the poultry sector was curtailed during the last half of 2010 by high feed prices and disease problems, both of which have carried over into 2011. Continuing current policies will likely result in continued competitive disadvantage for Iraqi chicken and egg producers and a continued trend of increased imports similar to recent years.

## 2. Simplify and Streamline Import Requirements for Feed Ingredients and Processed Feed -

- The lack of availability and high prices for animal feed continues to hinder Iraq's agricultural economy and results in reduced agricultural employment and higher meat prices. Significant demand exists for corn, soybeans, and other feeds, but is stifled by governance and transportation barriers. However, bulk private sector imports of feed are poised to grow rapidly if import regulations are liberalized. [Source: USDA/Foreign Agriculture Service, Global Agricultural Information Network (GAIN) Report, *Administrative and Transport Barriers Hobble Feed Sector*, John Schnittker and Paul Spencer, December 4, 2009.]

Imports of feed for the poultry sector remain constrained by cumbersome import requirements and seasonal import bans. Importers report that they are very reluctant to ship feed products to Iraq from neighboring countries, due to the potential for costly border delays and corruption issues. End users have also seen sharply higher import procurement costs during the last 12 months as international prices increased sharply during mid-summer 2010.

Imported feed costs within Iraq remain well above what might be expected -- assuming efficient market transactions -- as traders/importers deal in relatively small quantities and rarely use bulk shipment. Corn, soybean meal, and formulated pelleted feed are generally shipped to Iraq in 50 kilogram bags. It is likely that US corn sold bulk to customers in Syria is being repackaged in bags and resold to Iraq. [Source: USDA Foreign Agricultural Service, *The Meat Site*, <http://www.themeatsite.com/articles/1458/iraq-poultry-and-products-report-2011>, November 2011.]

The following government policies and market mechanisms work in concert to drive up Iraqi feed prices and place chicken and egg producers – and other livestock producers -- at a competitive disadvantage:

- Import licenses are required and the process to obtain a license is time consuming and costly. Import licenses may be issued for large quantities (e.g., 20,000MT) and are valid for 3-4 month periods. The licenses are typically used to import numerous smaller truck-sized shipments into Iraq.
- The centralized nature of the inspection process functions as a constraint to feed imports into Iraq. It also creates multiple opportunities for corruption. The current process requires an excessive 5-6 days minimum to facilitate each shipment.
- Imports of grains are banned 5-6 months of the year over concerns that “cheap” imports will be sold to the Ministry of Trade at the high support price.
- Trans-loading requirements at the border (transferring cargo from one truck to another) is burdensome and costly.
- Feed import lot sizes are typically small, from a single load of soy meal (25MT) to a few thousand metric tons. The lack of scale is a primary source of inefficiency.
- Most imported grain travels overland, via trucks from ports located in Jordan, Syria and Turkey where import regulations are less cumbersome and restrictive when compared to Iraq. This system is costly as compared to bulk shipload deliveries to Um Qasr and bulk rail transportation to producers that appear to be viable alternatives in Iraq. Numerous distributors and middlemen participate in these transactions adding significantly to the final cost of Iraqi feed.

To promote poultry and livestock production using imported feed, the government of Iraq could encourage the following:

- Feed import testing at ports of entry rather than having samples sent to Baghdad for testing.
- Vessel-sized shipments of feed grains through Iraq's Arabian Gulf seaports. Container shipments of feed and feed ingredients direct to Iraqi Poultry producers via Arabian Gulf ports as a method of eliminating land border crossings and middlemen.
- Eliminate all seasonal bans on imported feed. [Source: USDA/Foreign Agriculture Service, Global Agricultural Information Network (GAIN) Report, *Administrative and Transport Barriers Hobble Feed Sector*, John Schnittker and Paul Spencer, December 4, 2009.]

The Ministry of Agriculture announced in the spring of 2010 that a poultry initiative was under consideration. The proposal/plan would entail the purchase of corn and soybean meal by the Ministry of Agriculture. The Ministry would then resell the imported feed products at subsidized prices, approximately 25 per cent under their procurement and handling cost. This initiative has been in the formative stage for over a year, and internal debates within the Ministry of Agriculture over which "State Company" will be responsible to import and administer the program have apparently been largely resolved. This initiative has the potential to impact corn and soybean meal imports substantially, as the funding level is reportedly \$45 million dollars. The program has been designed to function as a revolving fund, with an annual supplemental requirement to compensate for the 25 per cent subsidy.

Ministry officials report that with the poultry initiative they will purchase 100,000 metric tons of poultry feed annually, with the initial purchase to be 25,000 metric tons of corn. This is to be followed by a second purchase that will include soybean meal. There is a downside to this initiative, since private feed sector imports could be squeezed out, as importers would be unable to compete with subsidized imports of feed ingredients. It may also be the case that the easing of feed import requirements and testing regimes could be further postponed by the entry of MoA as a feed supplier

- 3. Increase Production of Domestic Feed Grains by Crop Rotation and Provide Mechanized Harvesting** -- Domestic feed availability declined during 2011, as lower domestic feed wheat supplies and lower barley production limited supplies. While 2011 corn production will likely be above production during 2010, it will not make up the shortfall of the other grains. Corn production in 2011 is forecast at 200,000 metric tons.

*Quality problems are pervasive in domestic corn; corn is harvested and shucked by hand, and then sold/delivered to Mesopotamia State Company for Seeds, part of the Iraqi Ministry of Agriculture, where it is shelled. Lack of shelling, storage, and drying capacity leads to mold/fungi development and potential aflatoxin (toxic fungus) issues. Larger, integrated poultry operations have indicated that past experience with Iraqi corn was problematic, and that they no longer use it despite its clear price advantage over imported corn. Modern harvesting, drying and storage systems would reduce these impediments to domestic corn use. [Source: John Schnittker, USDA/FAS, US Embassy, Baghdad.]*

Protein meal continues to be a major constraint, as Iraq produces only produce very limited quantities of oilseed crops. Sunflower and sesame production is strictly for confectionary and food uses, cotton production has rebounded in recent years; however Iraq has limited operational cottonseed processing facilities. New State Owned gins operate in Kut and Kirkuk and existing private gins operate in Kirkuk. Cottonseed is utilized whole, for domestic livestock feeding, and is also exported. [Source: USDA Foreign Agricultural Service, *The Meat Site*, <http://www.themeatsite.com/articles/1458/iraq-poultry-and-products-report-2011>, November 2011.]

Crop rotation using soybeans and wheat or wheat and cotton, sunflower and grain sorghum on irrigated or higher natural rainfall acreage will likely produce more total output than a singular focus on wheat produced year after year. Crop rotation helps break cycles of crop-specific diseases and insects, and in the case of legumes like soybeans, add nitrogen and other nutrients to the soil. Soybeans are crushed (value-added processing) to produce soybean oil for human consumption and soybean meal that is a high-protein ingredient in poultry and other animal feed.

- 3.1. Eliminate Prohibitions on Genetically Modified (GM) Crops** – Corn and soybean GM seeds have been engineered to resist diseases and insects and to produce effectively with a minimum of soil tillage that evaporates moisture from the soil. Crop rotation systems using GM corn and soybeans in rotation have increased production output and efficiencies while reducing soil erosion and improving crop residues, soil mulch and fertility.

Senior Ministry of Agriculture officials have indicated that they will not import US corn, due to restrictions on imports of genetically modified organisms. It remains unclear if this restriction would also apply to products, such as US soybean meal. Realistically, MoA needs to understand better that lower cost imported feed products, along with better producer practices, are the avenue for growing the domestic poultry industry. Increased output produced at more competitive prices will create both additional economic activity and jobs in the still struggling agricultural sector.

[Source: USDA Foreign Agricultural Service, *The Meat Site*, <http://www.themeatsite.com/articles/1458/iraq-poultry-and-products-report-2011>, November 2011.]

- 4. Implement and Enforce a National Poultry Disease Surveillance, Quarantine and Control System** -- Iraq domestic poultry production in 2011 is expected to decline from 2010 levels, as reduced feed availability, poultry disease issues, and lower financial returns have reduced domestic production. Poultry growers across central and southern areas have reported very high mortality rates and weak to negative returns since the fall 2010 production cycle. Highly pathogenic H5N1 influenza in poultry is endemic in neighboring countries and likely impacts poultry production in Iraq. Exotic New Castle Disease and disease problems associated with confinement production systems may be a short-term issue as Iraqi producers improve management for intensive poultry operations.

Only modest expansion of domestic poultry and egg production is anticipated during 2012. Disease problems that have been particularly severe across central and southern areas of Iraq continue to affect domestic production negatively. Bio-security and bio-safety protocols are not strictly adhered to by most producers, making it difficult to separate disease problems from poor overall care and management by poultry producers. In addition, reliable electricity supplies will be needed to maintain temperature control in poultry houses during the summer.

- 5. Implement a WTO-Consistent Tariff Schedule to Replace Seasonal Bans** – WTO accession and implementation of the proposed tariff schedule will increase tariffs in Iraq (and increase protection for agricultural producers.) Under the proposed legislation, tariffs on poultry and eggs would increase from a current applied rate of “free” to tariff rates of 10 percent. The tariff legislation has now been indefinitely suspended leaving Iraq’s agricultural producers without protection.

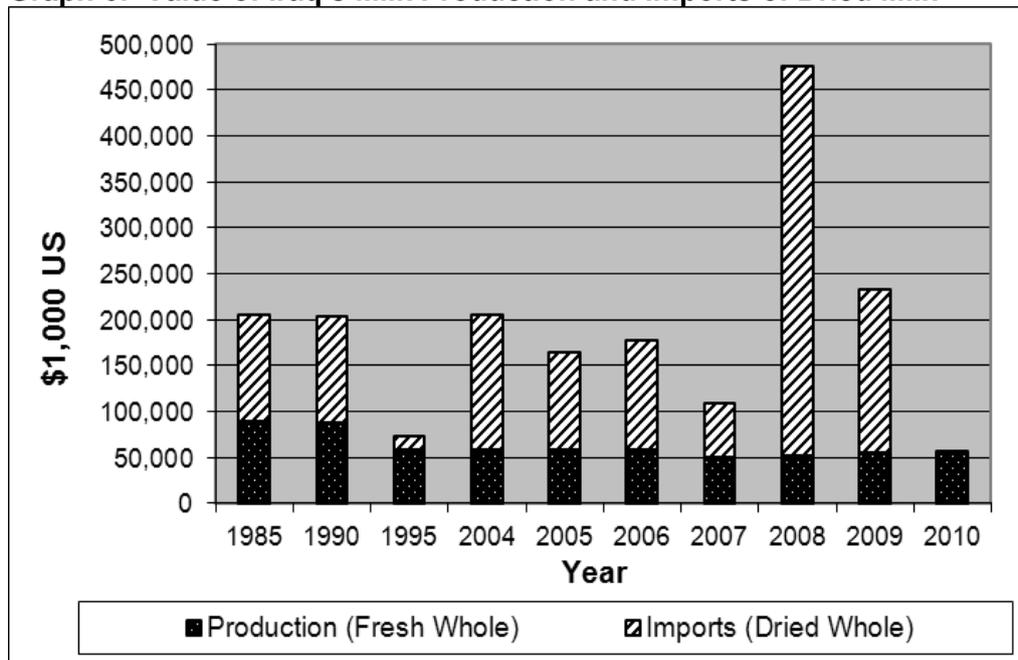
There has not been sufficient critical infrastructure at points of entry or in Gol Baghdad to implement, administer and enforce a tariff schedule beyond the “free” or five percent flat-rate as it was re-implemented through Order Number 38 by the Coalition Provisional Authority (CPA.) Implementation of the proposed tariff schedule would provide predictability and transparency for Iraqi producers.

Analysis shows that 10 percent seasonal tariffs proposed for chicken and eggs will reduce imports of both commodities and provide nearly \$15.3 million tariff revenue to the Treasurer of Iraq. [Source: USAID Deliverable Report, *Impacts from Changing Iraq’s Agricultural Tariffs*, Chuck Lambert, Ph.D., December 2010.]

Implementing increased tariffs on poultry and eggs -- combined with reducing costs and improving efficiencies for importing poultry feed by 25 percent -- could increase Iraq’s competitive position for poultry and eggs by a total of 35 percent. Poultry diseases and management systems must first address high death losses first; but once that is accomplished Iraqi poultry would become very competitive in the domestic market and likely in regional export markets as well.

**Policy Alternatives for Milk & Cheese Production** -- Imports of Dried Whole Cow’s Milk accounted for \$176.96 million or 4.6 percent of the value of Iraq’s top 20 imports in 2009. Iraq produces about 700,000 MT of whole milk per year. Iraq imported about 93,000 MT total of dry milk in 2008. This breaks down as 83,000 MT of whole dried milk, 8,000 MT of dry skimmed milk, 1,000 MT of skim milk from cows, and 1,000 MT of whole evaporated milk (FAOSTAT Database). Imported dried milk converts to a reconstituted equivalent of 930,000 MT of liquid milk imported, or 57 percent of total consumption. About 80 percent of dried milk imports come from New Zealand (Fonterra News, 2010). (Chapter 1, page 7.) **FAOSTAT production data are available, but import data are not yet reported for 2010.**

**Graph 6: Value of Iraq’s Milk Production and Imports of Dried Milk**



[Source: <http://faostat.fao.org/site/342/default.aspx>]

- 1. No Policy Change** – Increased milk production would require increased production of irrigated corn and alfalfa and improvements in dairy cow genetics to improve tolerance to heat. Sun shades and cooling systems increase dependence on predictable electricity and water supplies. Alfalfa is a deep-rooted legume that can thrive in areas with shallow water tables. This helps reduce the need for pumping irrigation water that subsequently evaporates and leaves salinity as a residue. Without a willingness of government State Owned Companies to reduce restrictions that inhibit increased supplies of imported or domestic corn discussed earlier, and alfalfa, current milk production trends will remain in place. Domestic fresh milk production will remain relatively constant and imports of dried milk will supply the rest of consumer demand.
- 2. Increase Production of Domestic Feed Grains by Crop Rotation and Provide Mechanized Harvesting** – See full discussion in sections 3 and 3.1 on pages 52 and 53 and in earlier sections of this paper.

Domestic feed availability declined during 2011, as lower domestic feed wheat supplies and lower barley production limited supplies. While 2011 corn production will likely be above production during 2010, it will not make up the shortfall of the other grains. Corn production in 2011 is forecast at 200,000 metric tons. Quality problems are pervasive in domestic corn; corn is harvested and shucked by hand, and then sold/delivered to Mesopotamia State Company for Seeds, part of the Iraqi Ministry of Agriculture, where it is shelled. *USAID/Inma* has provided technical assistance to demonstrate the value of alfalfa production to producers in some areas of Iraq. Continue to expand this technological assistance and work with MoA to develop producer education and extension programs.

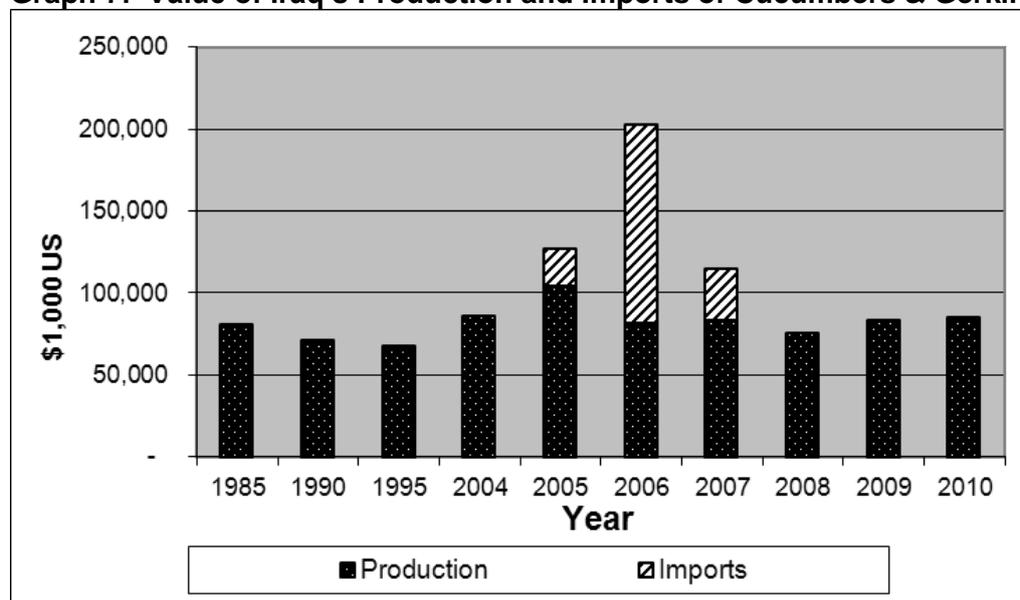
- 3. Increase Imports of Dried Alfalfa Pellets and Corn for Dairy Feed** – Japan and Saudi Arabia have sustained viable dairy industries, but at a cost, by importing most feed inputs. These countries rely on imported alfalfa from the Western US and imports of corn and other feed grains purchased on the global market. To follow this model MoA would need to simplify import requirements for feed grains and other ingredients as discussed in section 2, pages 60-61 above. It would also need to be recognized as a matter of policy that increased self-sufficiency in milk production is taking precedence over efficiencies and cost.
- 4. Conduct a Cost Assessment for Exporting Feedstuffs and Continuing to Import Dried Milk** – Dried whole milk is often produced as a means to store surplus fluid milk production in other dairy regions of the world. Iraq could consider costs and benefits for increasing production of high-quality corn and alfalfa for export at a premium price to other countries in the region. Revenues from these exports could more than offset continued costs for importing relatively low-cost whole dried milk. This alternative is consistent with the concept that Iraq should consider focusing on self-sufficiency in terms of the total “food basket” rather than self-sufficiency for individual commodities.

**Policy Alternatives for Tomatoes and Paste (and Vegetables as a Whole)** -- The most commonly consumed vegetables in Iraq are tomato, cucumber, onion, eggplant, squash, okra, lettuce and pepper. Iraq imports a total of 1 million MT of vegetables annually, or about 25 percent of total vegetables consumed. A survey by Anka Company for Agriculture Development found that about 70 percent of total fruit and vegetable imports are from Iran and Syria.

Vegetable production in Iraq was about 3.2 million MT in 2008, with tomatoes accounting for about 1.5 million MT. Iraq has expanded out of season production of tomatoes, cucumbers, eggplant and squash in plastic houses considerably over the last 3 years. (Chapter 1, page 5) Iraq has implemented bans on imports of fruits and vegetables during the peak harvest season in recent years. Although the bans are poorly enforced they provide some protection for domestic producers. **FAOSTAT production data are available, but import data are not yet reported for 2010.**

Domestic self-sufficiency for vegetables has increased thanks to a combination of seasonal bans and higher competitiveness driven mainly by a lengthening of production season supported by investment and subsidies -- free greenhouses (through U.S. programs) and soft loans from Gol. [Source: Communications with Franco Scotti, Competitiveness Manager, USAID/Inma, Baghdad, November 2011]

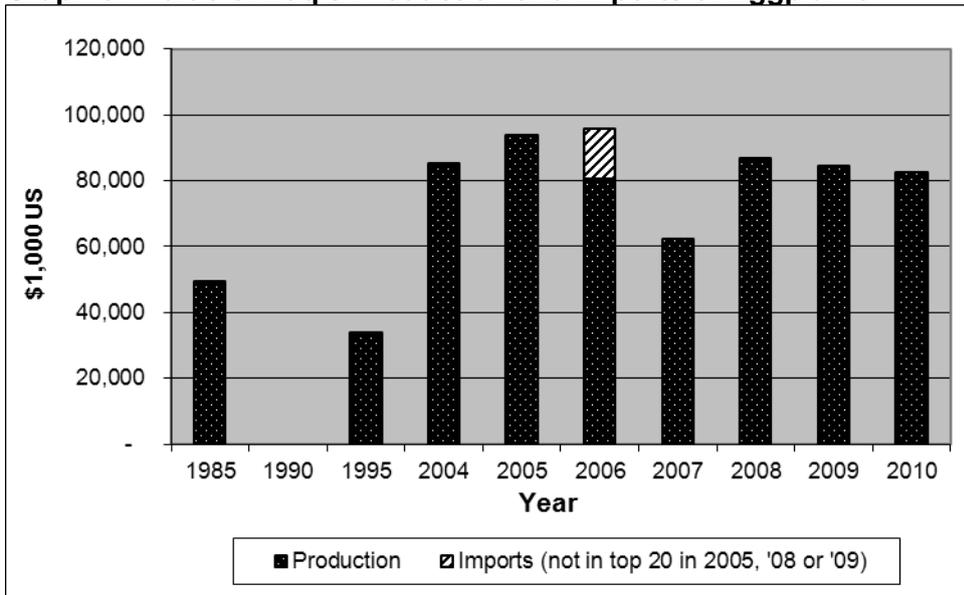
**Graph 7: Value of Iraq's Production and Imports of Cucumbers & Gerkins**



[Source: <http://faostat.fao.org/site/342/default.aspx>]

Iraq has been relatively self-sufficient in the production of cucumbers & gerkins and domestic production appears to be competitive with imports. Growing demand and reduced imports will help provide incentive for domestic producers to expand production by extending the growing season, using greenhouses, improving genetics and increasing irrigation, fertilizer and other production-enhancing technologies. Over time the supply of domestically-produced cucumbers & gerkins will continue to increase relative to the supply of imports.

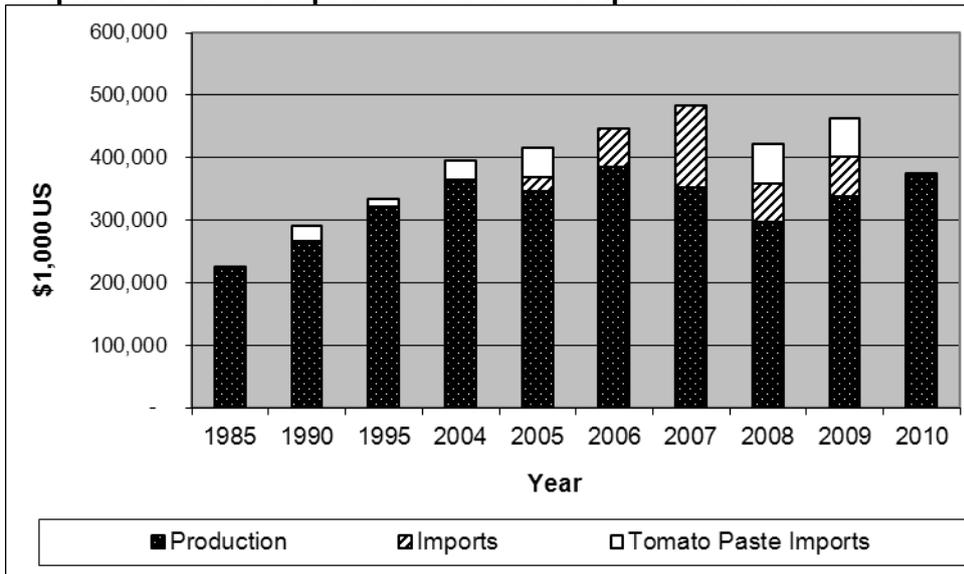
**Graph 8: Value of Iraq's Production and Imports of Eggplants**



[Source: <http://faostat.fao.org/site/342/default.aspx>]

Iraq has generally been self-sufficient in the production of eggplants and domestic production appears to continue to displace imports. Iraq appears to increase competitiveness relative to the price for imported eggplants under current production systems and technologies.

**Graph 9: Value of Iraq's Production and Imports of Tomatoes & Paste**



[Source: <http://faostat.fao.org/site/342/default.aspx>]

Imports of tomatoes and tomato paste accounted for \$126.23 million or 3.3 percent of the value of Iraq's top 20 imports in 2009. Other than processed agricultural products, tomatoes and paste are the only non-strategic commodities among the top 20 imports into Iraq. The rest of Iraq's top 20 imports are either strategic commodities, or chicken, eggs and milk that rely on strategic commodities as major feed inputs.

Tomatoes were produced and imported during each of the years shown from 1990-2009. Tomato paste was imported during most of those years. Domestic tomato paste could be produced however seasonal surplus tomato production is not a variety that is processed into paste. In addition China is a highly competitive processor and exporter of tomato paste and Iraqi processing may not be competitive. Iraq is relatively self-sufficient in tomato production and production of table tomatoes appears to remain competitive with imports under current production systems and technologies. [Source: Communications with Martin Connaughton, Horticultural Specialist, USAID/Inma, Baghdad, November 2011]

- 1. No Policy Change** – Iraq is relative self-sufficient and competitive with other countries in the region under the current vegetable production system. These commodities have generally been less restricted than “strategic crops” in technology applications – and Provincial Reconstruction Teams (PRTs) and USAID/Inma have provided greenhouses and technical assistance to improve management skills. Consequently, domestic productivity has increased relative to imports. Two policy alternatives might be explored.
- 2. Implement a WTO-Consistent Tariff Schedule to Replace Seasonal Bans** -- Iraq has implemented seasonal bans on imports of fruits and vegetables during the peak harvest season in recent years. Although the bans are poorly enforced they provide some protection for domestic producers. Seasonal bans are not consistent with WTO accepted practices and the Government of Iraq, consistent with USAID/Tijara recommendations, has proposed seasonal tariff increases as WTO-consistent alternatives.

WTO accession and implementation of the proposed tariff schedule will **increase** tariffs in Iraq (and increase protection for agricultural producers.) Under the proposed legislation, tariffs on most food products would increase from a current applied rate of “free” to tariff rates of 20 to 30 percent – during at least in some seasons of the year.

To date, there has not been adequate Iraqi legislative and regulatory action to implement an alternative tariff schedule. The original enabling legislation was approved to be implemented January 1, 2011 -- then, implementation was postponed until March 15. The tariff legislation has now been indefinitely suspended leaving Iraq’s agricultural producers without protection. There has not been sufficient critical infrastructure at points of entry or in Gol Baghdad to implement, administer and enforce a tariff schedule beyond the “free” or five percent flat-rate as it was re-implemented through Order Number 38 by the CPA. Implementation of the proposed tariff schedule would provide predictability and transparency for Iraqi producers.

Analysis shows that 30 percent seasonal tariffs proposed for cucumbers & gerkins, eggplants and tomatoes will effectively stop imports during the period when tariffs are in effect. Seasonal tariffs will provide predictability but be as effective as seasonal bans – and they are WTO-consistent too. The proposed 20 percent tariff on tomato paste will reduce imports of tomato paste from China and provide nearly \$8 million tariff revenue to the Treasurer of Iraq. [Source: USAID Deliverable Report, *Impacts from Changing Iraq’s Agricultural Tariffs*, Chuck Lambert, Ph.D., December 2010.]

- 3. Eliminate Seed Restrictions** – Allow OECD certified seeds and commercial seed company brand name seeds to be imported directly into Iraq without a waiting period or an expensive registration process. Iraqi producers will need access to modern genetics and technologies to increase productivity and remain competitive with imported products. USAID and USDA are working with Gol counterparts to explore ways to improve seed supplies available to Iraqi producers.

## POTENTIAL ACTION PLAN

Many of these alternatives will increase technological applications, but applications would require a policy or structural change to allow for those technologies to become available. Given political will, some alternatives could be implemented in a matter of months. Some alternatives including improvements in electricity and irrigation systems have already begun and will be completed within two to five years. Other policy alternatives including producer education, implementing crop rotation systems, new tillage methods and bringing new lands into production will require major restructuring and education for the agricultural sector and will take five years to a generation to achieve. This section will group alternatives for the various commodities into a potential action plan with timelines to achieve.

It goes without saying but the sooner any of these alternatives are started the sooner they can have an effect. There is general consensus that State Owned Companies are a big impediment to productivity in Iraqi agriculture and until bureaucratic bungling and intervention is eliminated movement towards Iraq's stated objectives of agricultural self-sufficiency are doomed. Political inertia and bureaucratic resistance to change may be the greatest impediments to change. Reform could be relatively fast with strong leadership and executive decree. Alternatively, these State Companies can be stonewalls to change and take a generation to change.

An action plan for change will ultimately be developed by Iraqis working with Iraqis. The Executive working through the Ministries with some Parliamentary influence and oversight will ultimately determine the plan to reform. Consistent with past USAID programs ongoing technical support and policy alternatives will be provided by development teams.

**Alternatives for Immediate Action and Change:** These changes could be implemented in a matter of months to up to two years.

- No Policy Change: Because it is already in place this alternative requires no overt action and is the fastest to achieve.
- Increase Crop Yields and Returns to Inputs on Existing Planted Land: first focus on increasing production on land that is already in production. Efforts to revise government pricing programs and remove State Owned Companies from providing inputs, processing and marketing products could be expedited with government will. Elections and forming government coalitions will likely slow this timeline.
- Eliminate Seed Restrictions: Emergency powers can be utilized to allow new seed varieties from neighboring countries or seed from OECD accredited programs to meet Iraq seed registration requirements. These restrictions are TBT and will be addressed during bilateral WTO accession negotiations if not before.
- Fertilize to Soil Requirements: In the short-term State Companies could be mandated to conduct soil tests and provide quality blended fertilizers to soil mineral deficiencies. Longer-term these functions could be transferred to the private sector.
- Implement Information Transfer Programs and Continuing Education Programs for Producers: This is a long-term on-going initiative that can be started in the immediate to short-term.
- Increase Use of Mechanized Technologies: Reduced tillage equipment, planters and mechanized harvesters (especially for corn) could increase production and grain quality in the next crop year. In the short-term State Companies could be mandated to provide this equipment to producers and train producers to use -- and technicians to service. Longer-term these functions could be transferred to the private sector.

- Modify the Current Wheat and Barley Price System: Prices for barley and grades #2 and #3 wheat could be reduced to float at world prices. This change would reduce feed costs for domestic poultry, egg and livestock producers and provide an incentive to produce high quality milling grade wheat. Alternatively, all prices could be floated at world prices with income supplement, conservation practices or transition payments provided to producers.
- Simplify and Streamline Import Requirements for Feed Ingredients and Processed Feed: Reforms to government inspection and testing programs could be implemented by ministerial decree. Streamlining processes to allow ship-loads of grain to enter Um Qsar for distribution by the private sector would greatly reduce costs of small packaged handling and land-based crossings
- Implement and Enforce a WTO-consistent tariff Schedule to Replace Seasonal Bans: The Ministry of Finance previously announced that the tariff schedule would be implemented June 1, 2012. However, implementation has since been postponed indefinitely. Strong administration and enforcement of these tariffs will provide protection for Iraqi poultry, egg and vegetable producers.

**Alternatives for Medium-Term Action and Change:** These changes could be implemented in a matter of one year up to five years.

- Improve Electricity Grid to Provide 24/7 Power Supplies: Refurbishing and updating the electricity production and delivery infrastructure has started, but will take time. Reliable electricity is essential for managing agricultural costs – irrigation, climate control in poultry houses, milking, refrigeration, feed milling, computer records and marketing and many other functions.
- Implement Water Conservation Measures: Refurbishing and updating the irrigation infrastructure has started, but will take time. Forming irrigation districts and developing a system for pricing water to promote conservation will take time and producer education.
- Research Crop Rotation Systems: Research and demonstration projects can be started, but longer-term programs for producer education and implementation will take time.
- Research and Implement No-Till Systems to Increase Production on Marginal Lands: Research and demonstration projects can be started, but longer-term programs for producer education and implementation will take time.
- Improve Transportation Infrastructure to Outlying Regions: Products from marginal lands can be more efficiently delivered to market with access to well-developed transportation systems. Keeping these lands in production also reduces wind erosion and creeping desertification that improves air quality for all.
- Improve Information Access and Quality of Life for Rural Residents: Broad-band internet, improved transportation, education, utilities and family support systems help attract residents and maintain communities of rural residents in these areas.
- Promote Production Systems that Produce Quality Crops: Educational programs focusing on planting date and timely harvesting, improved varieties with increased disease resistance and drought tolerance, reduced tillage programs and improved fertilizer programs all contribute here.

- Domestic Rice as a Unique Geographic Product and Importing Milled Rice: A marketing program can be developed and tested in the medium term to determine if the local premium for Anbar rice translates to regional competitiveness against other aromatics like Basamati rice.
- Research Sugar Beets as a Source of Iraqi Sugar: Increased sugar refining and crop rotation programs will be necessary to develop this program in five years or more.
- Research and Implement Crop Rotation Systems: Crop rotation systems including oilseeds – soybeans, sunflowers or rapeseed – sugar beets, or feed grains including corn (maize) and grain sorghum and developing associated processing and feed milling systems will take five years or more to develop.
- Implement and Enforce a National Poultry Disease, Quarantine and Control System: Improving management systems, disease control and reduced death loss will be necessary components – in addition to reduced feed costs – for Iraqi poultry to be regionally competitive.
- Increase Imports of Dried Alfalfa Pellets and Corn for Dairy Feed: Reforms to government inspection and testing programs (see recommendations on page 70) could be implemented by ministerial decree. Streamlining processes to allow ship-loads of grain to enter Um Qsar for distribution by the private sector would greatly reduce costs of small packaged handling and land-based crossings. Importing feedstuffs is a faster alternative than developing domestic no-till and crop rotation production systems. However, imports can be transitory to increased domestic production.

**Alternatives for Long-Term Action and Change:** These changes will take five years to a generation or longer to implement.

- Expand Irrigation Services: Existing irrigation systems will likely be restored, updated and renovated before new systems are added. However, center pivot systems could be installed on newly tilled land comparable to changes that took place in the Sand-Hills of Nebraska and South Dakota during the 1980s.
- Investment Incentives to Attract Value-Added Processing to Iraq: This could be achieved in the middle-term for some processing like bakeries, oilseed crushing and cotton ginning. Further processing including frozen dinners, dairy processing and further processed products could be longer-term projects.
- Eliminate Prohibitions on Genetically Modified (GM) Crops: GM seeds have been modified for drought tolerance, disease and pest resistance and improved product quality. Given the Euro-centric location and influences acceptance of this technology by Iraq will likely be a long-term endeavor. In the short-term accepting hybrid seeds and new crop genetics will improve productivity and provide producers experience with potential gains from improved plant genetics.
- Increase Production of Domestic Feed Grains and Forage using Crop Rotation: Expanding a dairy industry or livestock feeding sector would likely accompany a system to provide feed and forage for those operations. Expanding these production systems would require significant time and capital.

- Conduct a Cost Assessment for Exporting Feedstuffs and Continuing to Import Dried Milk: A cost assessment won't take this long, however, evolution of a feed grain and forage production system will. Once those production systems are in place market forces (and government policy) will determine whether they are fed domestically to increase production of milk and milk products, or exported at a premium while imports continue.
- Implement a System of Land Ownership or Long-Term Lease: Land reform and ownership are often generational changes. Homesteading programs on non-tilled government-owned lands could be implemented in a shorter timeframe. Still, changes in land titles and Legal reform will be elements of this change.
- Increase Land Planted to Wheat and Other Crops: Rural infrastructure improvements, land reform and ownership and expanding irrigation systems will need to precede increased production on marginal lands. These factors will make this a long-term change.

## Conclusion

Can Iraq Feed All Iraqis? That question is debatable, but reality is that Iraq agriculture can produce more – and more efficiently – than the current system allows. Increasing domestic production has the potential to contribute to self-sufficiency and less dependence on imports. Reducing and phasing out government State management and State Owned Enterprises deserves close consideration. Most of Iraq's top 20 imports are “strategic crops” or livestock and poultry products that rely on “strategic crops” for feed.

Centrally planned and regulated availability of modern seeds and new technology has been tightly controlled. Development impediments including 1) government policies and subsidies that distort the market and undermine productivity and competition; 2) outdated technology in plant and animal genetics, fertilizers, irrigation and drainage systems, and farm equipment; 3) inadequate and unstable electricity supply; 4) degradation of irrigation-management systems; 5) insufficient credit and private capital; and 6) inadequate market information and networks no doubt keep Iraqi agriculture at a competitive disadvantage in global agriculture. Vested interests and bureaucratic inertia have been difficult to overcome.

The main complaint about policies to support domestic prices is that they encourage over-production, and thus reduce global prices. According to theory, lower prices displace imports or lead to export subsidies -- and can result in low-priced dumping of surplus product on world markets. It is difficult to see that subsidy programs as managed in Iraq are having this effect. A combination of drought, reduced supplies of irrigation water, worn out and war-depleted infrastructure and inept state managed production keep Iraq competitively disadvantaged in global agricultural markets. Subsidy programs as managed have generated little production response.

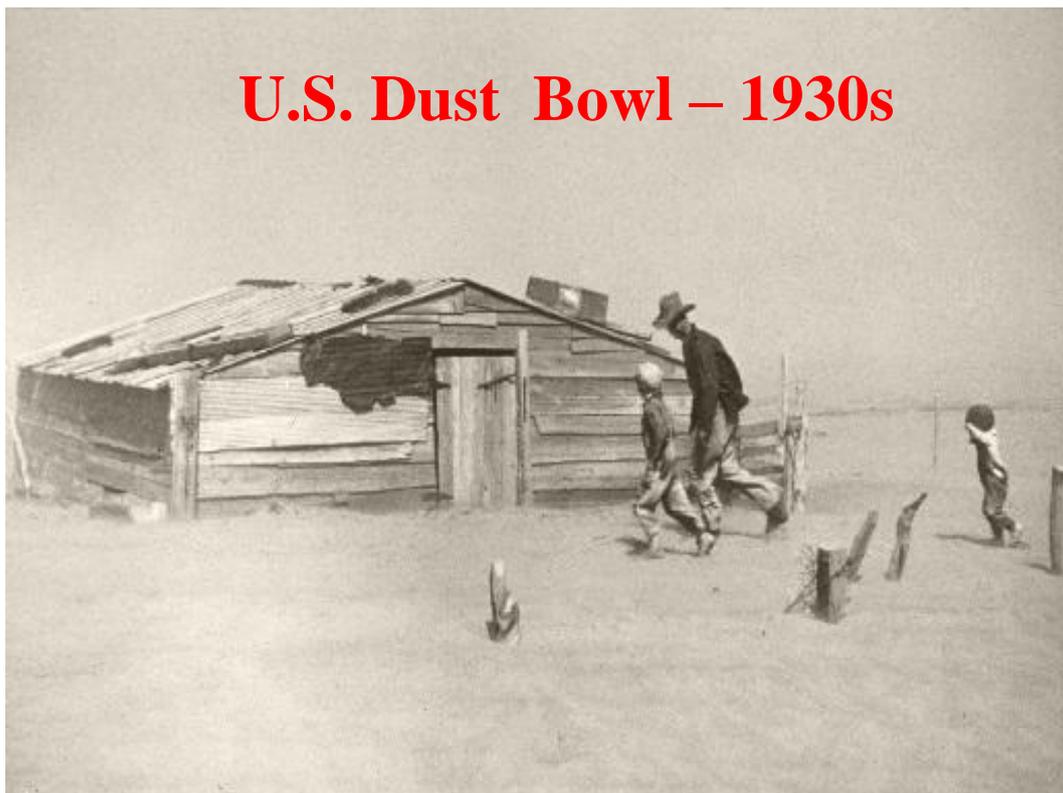
Iraq will become more machinery- and technology-dependent and less labor intensive. Tractors, seeders, minimum till equipment, and no-till drills will be necessary to increase agricultural productivity. As more sophisticated mechanized equipment becomes available additional training for farmers will be needed on the use of this equipment and more technicians will be required to service and maintain it.

Programs to increase productivity while conserving natural resources will be necessary to preserve the long-term productivity of the Iraqi agricultural sector. In this context self-sufficiency will become food security in terms of the total “food basket.” Extension training for farmers and vocational technical training schools for equipment servicing and maintenance will support the overall initiative.

There are several other very real blessings, but also many challenges, in the Iraqi agricultural sector -- water, energy, soil salinity, desertification, urbanization, pollution, and cost. The fine-textured soils found throughout the region retain salt very well -- and when coupled with a relatively flat landscape which does not provide natural drainage, and a shallow water table -- make conservation and resource management critical for sustaining long-term self-sufficiency. Improving the drainage of irrigated areas in the region would potentially improve agricultural yields while retaining productivity.

Iraq will likely continue to import certain food categories with supplies assured through long-term business relationships with countries that have a comparative advantage in producing those commodities. This will allow Iraq to focus on producing commodities where its resources provide a competitive advantage -- and export surpluses to offset import costs.

Whether Iraq will become totally self-sufficient for food is open for debate. This paper offers some alternatives for consideration that could increase production and efficiency. As shown in the photo below these alternatives were generated by learning from others' errors in the past. Ultimately, the outcome will be determined by political will to restructure and reform. Iraq has petroleum oil resources and the ability to rebuild and transition from a worn-out, war-torn infrastructure to a modern efficient agricultural system that conserves natural resources too. Human nature, willingness to change and leadership will be the keys to progress.



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