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USAID-*Inma* Agribusiness Program
Quarterly Report
October-December, 2010

January, 2011

This publication was produced for review by the United States Agency for International Development. It was prepared by USAID-*Inma* Agribusiness team for a consortium led by The Louis Berger Group, Inc.

USAID-*Inma* Agribusiness Program Quarterly Report October-December, 2010

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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GENERAL INFORMATION

PROGRAM INFORMATION

The USAID-*Inma* Agribusiness Program focuses on developing Iraq's private agribusinesses by facilitating the formation of fully-integrated value chains and improving agricultural quality and production. *Inma*, the Arabic word for 'growth,' connects farmers to markets, increases the competitiveness of Iraqi agribusinesses, and facilitates domestic and foreign agricultural partnerships.

This report covers the 14th Quarter (Oct - Dec 2010) of the USAID-funded USAID-*Inma* Agribusiness Program in Iraq. The report provides an update on the planned activities in the Annual Work Plan and on the outputs in the Performance Monitoring Plan (PMP).

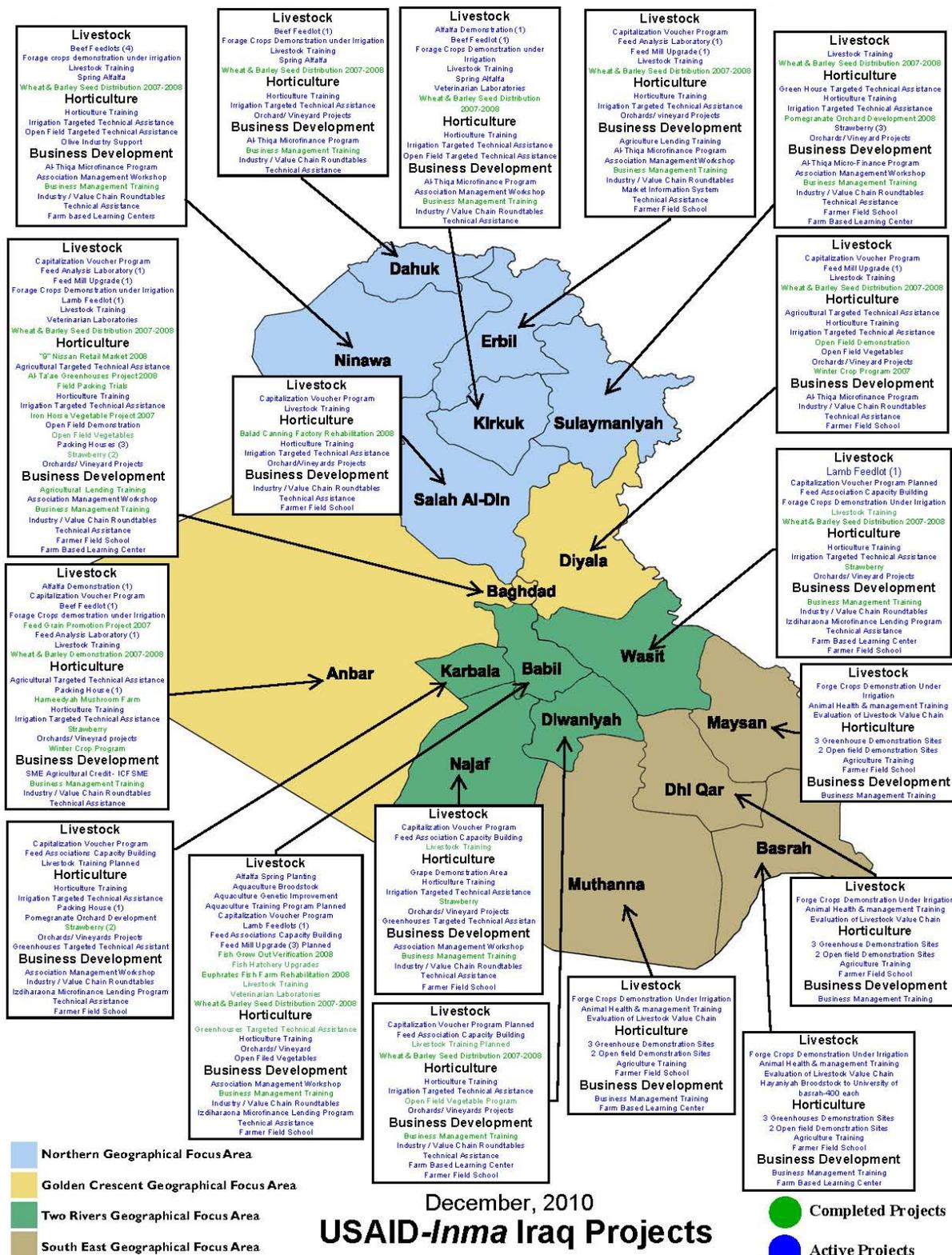
Program Name:	USAID- <i>Inma</i> Agribusiness Program
Program Objective:	The purpose of this contract is to provide agricultural and business development services to USAID beneficiaries in strategic locations in Iraq to promote economic diversification and job generation, with an emphasis on the growth of the agriculture and agribusiness (“agro-food”) sectors in the provincial, regional and sub-regional economies.
Contract No:	267-C-00-07-00500-00
Contract Start Date:	May 14, 2007
Contract End Date:	August 31, 2011
Program Principals:	Charles Bell, Senior Vice President The Louis Berger Group, Inc.
On-Site Leadership:	Gerald Turnbull, Chief of Party Tim Kock, Deputy Chief of Party

The Cost-Plus-Fixed-Fee (CPFF) contract (No. 267-C-00-07-00500-00) for the USAID-*Inma* Program was signed May 14, 2007. The period of performance of the contract is May 14, 2007 through August 31, 2011.

ACRONYMS

BLF	Beef feedlot
COP	Chief of Party
COTR	USAID Contracts Officer Technical Representative
DEC	USAID Development Experience Clearinghouse
EFF	Euphrates Fish Farm
ePRT	Embedded Provincial Reconstruction Team
FADO	Future Agriculture Development Organization
FAR	Federal Acquisition Regulations
FFS	Farm Field Schools
FOB	Forward Operating Base
GOI	Government of Iraq
GFA	Geographic Focus Area
IPM	Integrated Post Management
IRs	Intermediate Results
ITAO	Iraq Transition Assistance Office
LOP	Life of Project
LTTA	Long Term Technical Assistance
M&E	Monitoring and Evaluation
MEFF	Middle East Fish Farm
MFI	Microfinance Institution
MNF-I	Multi-National Force - Iraq
MoA	Memorandum of Agreement
MOA	Ministry of Agriculture
MOE	Ministry of Electricity
MOP	Ministry of Planning
MoU	Memorandum of Understanding
MoWR	Ministry of Water Resources
NGO	Non-Governmental Organization
PDS	Public Distribution System
PMP	Performance Management Plan
PO	Purchase Order
PRT	Provincial Reconstruction Team
RFA	Request for Applications
RFP	Request for Proposals
SME	Small and Medium Enterprises
TA	Technical Assistance
TTA	Targeted Technical Assistance
UK	United Kingdom
US	United States
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USG	United States Government

Map of USAID-Inma Activities by Geographic Focus Area



EXECUTIVE SUMMARY

Agriculture development is a timely and complex process. To achieve sustainability it requires a vision with a strategy and implementation plan which account for cultural, environmental and technical challenges. The past quarter concentrated on the transition plan that incorporates a vision of sustainable agriculture production for Iraq accompanied with a strategy and implementation plan to reach those goals.

The Livestock-Protein team was active last quarter. The feedlots produced 158,847 kg of red meat while the alfalfa demonstration plots produced 283 tons of forage. The fish sector sold \$2.4 million of fresh fish into the Iraqi market. The USAID-*Inma* supported feed mills produced approximately \$3.8 million of poultry, ruminant and fish feed. During the quarter internal investigation of the capitalization program was finalized. It was determined that the program as being implemented was not meeting development and program objects and was terminated and the remaining funds will be utilized to address development objectives of the livestock-protein sector. In addition, one hundred twenty five people were trained on proper meat cutting and processing techniques. The team also trained thirty three people in animal nutrition and proper use of ration software to formulate cost effective feeds. The program working in close association with the Iraqi 4-H clubs provided twenty five dairy heifers to qualified youth.

The Horticulture team was involved with a combination of greenhouse, open field, irrigation, orchard and vineyard activities during the quarter. Training programs trained two hundred forty three in citrus orchard management, twenty five in irrigation techniques and four hundred fifty two in farmer field school and field based learning center methods. Working closely with the Olive growers association in Ninawa, short term consultants assisted the growers in proper growing techniques and proper processing methodologies. Furthermore, the team selected sites for farmer field schools and field based learning centers in the GFAs. This required extensive background information and cooperation with local producers, ministry officials and support from PRTs. The process has gone slower than anticipated. The packing sheds were very active during the quarter. In addition, progress was made in developing selected export opportunities with Basrah dates and other fruits such as pomegranates.

USAID-*Inma* staff worked with the City Center Market grocery store manager to showcase and sell local products brought from various USAID-*Inma* supported activities. The event was scheduled during the Eid holiday when up to 10,000 shoppers a day visited the store, creating an ideal opportunity to market Iraqi grown vegetables, fruits, fresh poultry and fish. This initiative sought to counter imports and encourage purchases of locally produced products. Over 14 commodities were promoted with many of the products being sold out after just a few days.

The Business Development team was active assisting both value chain teams during the quarter. The team made two hundred seventy three visits to one hundred fourteen USAID-*Inma* assisted entities. Three packing sheds, Radwaniyah, Fallujah and Karabala started to grade, sort and package fruit and vegetables. Progress was recorded with the packing houses in demonstrating the economic benefits of storing products at time of harvest when the prices are the lowest and selling several months later when prices were greater. Enterprise record books were developed and provided to program participants. Moreover, the team continued efforts to find a cost effective method of providing market information to associations and producers. In addition, the team has continued to work closely with the associations to further develop them into functional and sustainable groups.

During the quarter the staff undertook a summative and formative assessment using quantitative and qualitative methods to measure the projects growth and performance during the last three and half years. The finding for the USAID-*Inma* Agribusiness Program assessment indicated; USAID-*Inma* has reached the outcome and impact indicators requested by the funding source, businesses and farmers have increased incomes and employed more people throughout Iraq. These are direct outcomes from USAID-*Inma* assistance. As for impact, results indicate that recipients of USAID-*Inma* assistance have adopted new technologies, shared new knowledge with others, improved their community images, spent more money in villages, created sustainable businesses and look forward to the future.

VALUE CHAINS

USAID-*Inma* Agribusiness Program approaches sustainable agriculture systematically through a value chain analysis process to identify and address constraints to profitability and productivity as product moves from production through processing, value adding, packaging, transportation and marketing to the consumer for consumption. USAID-*Inma* supports two critical agricultural value chains in Iraq:

- **Livestock - Protein**
- **Horticulture**

These activities implemented and supported by USAID-*Inma* are designed to increase productivity, improve production and marketing, increase profitability of agricultural enterprises, and generate rural employment.

USAID-*Inma* assists Iraqi enterprises to become profitable and sustainable businesses. Specific USAID-*Inma* activities include field trials, field schools, demonstrations, direct technical assistance and institutional support to increase the adoption of enhanced production, post-harvest, and marketing practices suitable for sustainability in Iraq.

The **Business Development Services** team complements the value chains through agribusiness financing, market information systems, business consultation services, and training programs.



A. LIVESTOCK VALUE CHAIN

I.1 FEEDLOT PRODUCTION

Introduction

During the last quarter the Livestock-Protein team focused on completing applicable business and activity plans for the ten feedlots. These involve extensive one on one consultation with the feedlot managers and working closely with the owners to understand the long range goals of each owner. As expected each feedlot is unique and each has a different goal. The plans are focusing on activities that will allow each yard to become sustainable. The team focused on sustainability and adding value to the cattle and sheep industry. Two short term consultants, a livestock harvesting specialist and a production specialist have assisted in the livestock team during the quarter.

The USAID-*Inma* staff continued to assist Al-Hussainya Company near Baghdad in Diyala Governate to develop an independent feeding operation using the current feedlots as a model. The TA sought by these candidates include facility design, monitoring of project construction, preparing for the purchase of feeder animals and feed ingredients, development of a health plan and bio-security protocols, feed formulation, development of business plans, record keeping and operation management.

During the quarter, the USAID-*Inma* economist finalized an economic analysis of the cattle and sheep feedlots. Key areas of assessment include the supply of feeder stock and the marketing of the finished livestock. The analysis was utilized by the business development group and the livestock-protein sector to further develop activity and business plans to achieve sustainability.

In mid-September the USAID-*Inma* Agribusiness program began cooperating with the USDA Iraqi 4-H program and during the quarter the cooperation benefited future Iraqi farmers. On December 19, 2010, the USAID-*Inma* program delivered 25 dairy heifers to 25 girls. These young women, ranging in ages of 12 – 15, represent the future of dairy producers in Iraq.

These future producers were from families whose fathers were lost during the war. All of the girls are members of the Iraqi 4-H club “Al Salam”, meaning peace in English, which is located in the village of Mahmudia (Baghdad Province). The leaders of the Iraq 4-H program came to the USAID-*Inma* project looking for assistance in the development of this 4-H dairy project, seeing the value and sustainability of working with youth USAID-*Inma* agreed to provide financial and technical assistance to the 4-H program. The cattle (approximate age of cattle was eight months) were veterinarian certified for health and reproductive ability.

The recipients of the dairy heifers were chosen based on their desire, ability to care for the animals and financial need of the families. The Iraq 4-H program is designed to teach young people business management, decision making and life skills through production agriculture and civic responsibility. To date, there are 20 4-H clubs throughout Iraq, representing multiple

project areas and 11 Provinces. The USAID-*Inma* staff will continue to assist the Iraq 4-H program by providing technical knowledge and through other avenues within the USAID-*Inma* Agribusiness program.

USAID-*Inma* is continued to work with USDA to develop a veterinarian diagnostic training program with the proper equipment. The training date is scheduled to occur during the upcoming quarter in Erbil.

a) Activities Overview Table

Table 1.1: Beef and Lamb Value Chain PMP Indicators and Impact to date				
Activity I	Beef and Lamb Feedlots			
SO #	SO	This Quarter¹	To Date	Goal
8.2.3.1(BLF)	Increase in gross sales of local red meat from program-assisted feedlots	\$918,656	\$4,773,376	\$3,300,000
8.2.3.2 (BLF)	Production of red meat by program-assisted commercial feedlots by kilograms per year	158,847	885,453	660,000kg
8.2.4.4(BLF)				
8.2.6.3 (BLF)	Number of jobs created	94	1,604	350

b) Activities Implemented October - December 2010

- Continued to assist feedlot operators with Excel spread sheets to keep accurate records. Supervisors were trained on collection and recording of weekly production data, which includes growth performance, ration formulas, rations costs, daily feed consumption, feed ingredient prices, animal purchases and sales. The data is being utilized to establish a base line for management and to use as a management tool for improvement.
- Provided TA to Al-Hussainya Company in feedlots.
- Continued to collect and analyze data from the feedlots on feedlot, animal and business performance.
- Facilitated communication among various value chain members.
- Provided monthly performance reviews.
- Provided oversight on feed inventory and storage.
- Collected market prices on a monthly basis for feeds and livestock.

¹ The values this quarter are actual values and have not been adjusted with any correction factor.

- Conducted meetings in the South and Central GFA to discuss livestock contracting and marketing methods.
- Conducted Animal Nutrition Management Trainings for thirty three people.
- Distributed twenty-five dairy heifers to twenty five girls in 4-H in cooperation with USDA.
- Assessed the veterinary diagnostic equipment and held discussions with USDA personnel on how to best utilize the equipment.
- With the assistance of a short term consultant the livestock – protein team conducted Meat Cutting Trainings for one hundred twenty five people.
- Utilized Short Term Assistance (STA) to develop and initiate meat processing training program.
- Utilized STA to develop feedlot activity plans.

c) Challenges Faced

- **Challenge:** There is a lack of past animal performance data needed for proper production modeling.
- **Solution:** Continue to collect data from the feedlots, MoA, university and from alternative sources on animal performance.
- **Challenge:** Lack of understanding of the cattle and sheep industry.
- **Solution:** Continue to evaluate and document the industry.
- **Challenge:** Government policy on livestock slaughter is restrictive.
- **Solution:** Work with associations to develop the members in policy advocacy.
- **Challenge:** Often times the field activity managers of various organizations fail to understand the federal regulations and decision process that the program staff undertake prior to implementation of a project.
- **Solution:** The activity managers should become familiar with the federal regulations and investigate methodologies prior to making decisions about project activity implementation.

d) Activities Planned –January - March, 2011

- Determine the recipients of the laboratory equipment to be granted to veterinary diagnostic laboratory grantees.
- Coordinate for the initiation for the veterinarian diagnostic training; projected to be conducted in February 2011 when the trainer is available.
- Continue to develop marketing plans for the feedlots participating in the USAID-*Inma* feedlot program.
- Continue to implement a procurement plan to supply feeder stock to feedlots participating in the feedlot program.
- Develop and implement a survey to collect information about small cow-calf producer practices and how to link the small producers to the feedlots.
- Develop and implement a survey for sheep operations to determine the best method for linking small producers with the feedlots.
- Continue to develop practical flow charts for the supply chains.
- Implement a small model feeding facility for small to medium livestock producers.

- Continue to provide excel sheets to feedlots to keep accurate records of all production and sales data. Continue to collect production data that includes growth performance, ration formulation, daily feed costs, ingredient prices, animal purchase price and sales activities. Data will be used for economic analysis and planning purposes.
- Collection and analysis of production data for continued adaptation of training activities to existing challenges.
- Facilitate communication among various value chain actors to improve the flow of market information.
- Follow up with the strategic feed materials storages.
- Record monthly market prices.
- Continued technical assistance with Al-Hussainia feeding facility.
- Continue to provide technical training in meat processing and slaughter techniques for Dahuk, Alqush, Bartellah, private butchers and feedlot owners.
- Provide technical assistance in Kirkuk area to the four micro dairy plant facilities provided by PRT.
- Livestock Marketing and Financing roundtables in four GFAs.
- Continue providing poultry processing trainings in the four GFAs.
- Review potential poultry processing alternatives.

I.2 FORAGE PRODUCTION

Introduction

Commercial alfalfa production demonstrations started in 2009. The program recorded success with alfalfa and barley that were planted simultaneously with the latter serving as nurse crop. Grantees in three of the five demonstration sites (920 donums in Kirkuk, Ramadi, and Wasit) have completed several production cycles. Alfalfa producers continued to transport hay to feedlot operations. In addition to the fall seeding demonstration sites, six new producers with 400 donums joined the program in a spring seeding initiative. As expected, the production of forage decreased significantly during the quarter due to the cooler weather.

a) Activities Overview Table

Table I.2: Beef and Lamb Value Chain PMP Indicators and Impact to date				
Activity 2	Forage Industry			
SO #	SO	This Quarter ²	To Date	Goal
8.2.3.4 (FI)	Increase in total gross sales of program-assisted enterprises	\$63,850	\$691,530	\$2,125,000
8.2.4.4(FI)				
8.2.6.3(FI)	Number of jobs created	13	118	350

b) Activities Implemented Oct - Dec, 2010

- Assisted forage producers on use of tensiometers to improve irrigation methodology and estimation of water needs to avoid problems with high salinity.
- Monitored and educated forage producers about best practices for forage harvesting and storage.
- Maintained a monthly database for forage prices.

c) Challenges Faced

- **Challenge:** The cost of hay transportation is consistently high.
- **Solution:** The program will continue to focus on 'Back Hauling' in identified trucks that are already transporting commodities from the north to the south. These trucks are currently returning to the north with empty beds, thus transportation rates for alfalfa

² The values this quarter are actual values and have not been adjusted with any correction factor.

loads are severely discounted because the trip is already being made and any additional income counts as pure profit for the transporters.

- **Challenge:** There are storage space constraints for large volumes of roughage.
- **Solution:** The program has introduced pelleting technology, which saves space through concentrating nutrients of bulkier forage into compact pellets. Pellets are easier and cheaper to transport, however not all feedyards have accepted the technology.
- **Challenge:** Limited availability of baling wire.
- **Solution:** Find local sources for wire and consider alternative processing methods. In addition, evaluate new preservation techniques. Evaluation methodology was delayed due to normal cropping cycles.
- **Challenge:** Time required for continuous training on proper usage and maintenance of equipment.
- **Solution:** The program has trained the grantees in maintenance and is seeking additional sources spare parts.
- **Challenge:** Often times the field activity managers of various organizations fail to understand the federal regulations and decision process that the program staff undertake to prior to implementation of a project.
- **Solution:** The activity managers should become familiar with the federal regulations and investigate methodologies prior to making decisions about project activity implementation.

d) Activities Planned January - March, 2011

- Continue demonstrations on irrigation and fertilization.
- Continue support and instruction on the use of equipment for hay preservation and equipment maintenance.
- Continue TA on best practices for forage preservation.
- Provide training to alfalfa producers on storage techniques and marketing of baled forage.
- Seek alternative forage preservation methods such as silage.
- Monitor monthly market prices and maintain database.
- Monitor clover - forage demonstration sites.
- Assist Uruk association with forage demonstration site management.
- Disposition the forage equipment from Inma to the grantees.
- Assisting selected alfalfa producers with alfalfa seed collection.
- Conduct forage production “Makers & Buyers” roundtables in four GFAs.

I.3 FISH PRODUCTION

Introduction

USAID-*Inma* Agribusiness Program began working in aquaculture on November 2007 by conducting a survey and identifying the constraints in the aquaculture value chain and then systematically addressing those constraints in the value chain. The fish produced from the imported broodstock continue to be sold at area fish markets. These market ready fish range in size from 800 to 1000 grams. The program is focusing on providing marketing assistance to the industry.

a) Activities Overview Table

Table I.3: Aquaculture and Feed Value Chain PMP Indicators and Impact to date				
Activity 3	Fish Production			
SO #	SO	This Quarter³	To Date	Goal
8.2.3.3 (FP)	Increase in total gross sales of local fish by program-assisted fish farms	\$2,415,948	\$40,319,162	\$30,000,000
8.2.6.3 (FP)	Number of jobs created	179	6,703	1,750

b) Activities Implemented Oct - Dec, 2010

- Monitor the sale of imported Hungarian broodstock, fingerlings and palm fish produced continued during the quarter. The fingerlings ranging from 30 to 60 grams and the palm fish which range up to 150 grams were sold to local farmers for grow-out.
- Monitor the sale of fish produced from imported broodstock ranging from 800 to 1000 grams in the market.
- The program provided TA to associations on construction, placement and stocking with palm fish in cages in Tigris River.
- The USAID-*Inma* team provided TA to the US Military in Iskandaria area of Babil Province regarding the use of CERP funds for aquaculture projects.
- Previously planned trainings were cancelled due to the inability of the training organization to provide required insurance coverage.
- Activities with the Government of Iraq have been delayed due to inadequate information concerning the delivery of the fish to Erbil and Basra.

³ The values this quarter are actual values and have not been adjusted with any correction factor.

c) Challenges Faced

- **Challenge:** Limited availability and cost of mechanical aerators restrict stocking of ponds at higher densities.
- **Solution:** Establishment of Aquaculture Farm Service Centers at EFF and MEFF that will include the sale of a variety of mechanical aerators at reasonable prices.
- **Challenge:** Lack of reliable aquaculture extension services covering aquaculture in Iraq to provide technical assistance to fish farmers.
- **Solution:** Establishment of Aquaculture Farm Service Centers at EFF and MEFF training centers will provide technical assistance to fish farmers, in conjunction with the Mussayib Technical College.
- **Challenge:** Often times the field activity managers of various organizations fail to understand the federal regulations and decision process that the program staff undertake to prior to implementation of a project.
- **Solution:** The activity managers should become familiar with the federal regulations and investigate methodologies prior to making decisions about project activity implementation.

d) Activities Planned January – March 2011

- Monitor the fish produced from imported broodstock at area fish markets, which should reach 2 kg.
- Provide assistance to the Government of Iraq (GOI) hatchery in Erbil and the University of Basra, Department of Fisheries to import of 400 adult Hungarian.
- Design an implementation plan to develop Aquaculture Farm Service Centers.
- Develop and implement a contract farming program for aquaculture between large fish farms and small farmers.
- Continue to provide technical assistance as requested.
- Assist producers in marketing efforts.
- Monitoring monthly product and market prices.

I.4 FEED PRODUCTION

Introduction

The USAID-*Inma* Agribusiness Program determined that an important intervention for the Livestock – Protein sector was to address the quality of feed available to Iraqi producers while establishing laboratories to analyze the feed. To address the problem six feed mills were chosen for production improvements with three feed analysis laboratories established. In addition, it was determined that an opportunity existed to capitalize associations by linking the associations with the feed mills in a planned voucher program. However, in September 2010 it was brought to the attention of the team that there were possible problems with the voucher program and that the program may not be achieving the planned goals. In addition, one of the association members participating in the program was arrested for terrorist activities. Given this information the program was immediately suspended while an internal investigation was implemented. During the last quarter the USAID-*Inma* staff finalized the internal assessment of the Capitalization Voucher program. It was determined that the program failed to meet the development objectives and that the best alternative was to terminate the program.

a) Activities Overview Table

Table I.4: Aquaculture and Feed Value Chain PMP Indicators and Impact to date				
Activity 4	Protein Feed Mills			
SO #	SO	This Quarter⁴	To Date	Goal
8.2.3.4 (FM)	Increase in total gross sales of program-assisted enterprises	\$3,881,389	\$12,145,784	\$7,917,000
8.2.6.3 (FM)	Number of jobs created	23	148	255

b) Activities Implemented Oct - Dec, 2010

- Five feed mills have been upgraded and one feed mill (Vano) remains under construction.
- Three Feed Analysis Laboratories were completed and the staff trained on equipment operation.
- The feed analysis laboratories were under review for analytical accuracy.
- Sites were chosen for a feed demonstration program utilizing water buffalo.
- Termination of the voucher capitalization program.

⁴ The values this quarter are actual values and have not been adjusted with any correction factor.

c) Challenges Faced

- **Challenge:** Many of the associations that participated in the Capitalization Voucher Program subsidized members instead of capitalizing the associations.
- **Solution:** The Business Development Team is addressing this challenge. The internal assessment of the voucher program will also address this problem when developing a path forward for the program.
- **Challenge:** The former voucher program is not designed to demonstrate the effects of a high quality feed.
- **Solution:** The program will incorporate proper feed demonstrations with farmer field schools.
- **Challenge:** Often times the field activity managers of various organizations fail to understand the federal regulations and decision process that the program staff undertake to prior to implementation of a project.
- **Solution:** The activity managers should become familiar with the federal regulations and investigate methodologies prior to making decisions about project activity implementation.

d) Activities Planned January – March, 2011

- Completion of the remaining feed mill upgrades.
- Feed collection points established with the three Feed Analysis Laboratories.
- Assist the feed laboratories to properly calibrate the NIR near infra-red reflectance equipment.
- Monitor upgrading program regarding the equipment and the completion of upgrading the feed mills.
- Provide technical assistance on cattle, poultry and aquaculture feed formulation.
- Develop link between feed mills and feed labs to provide the end users with reliable feed analyses.
- Monitor monthly product and market prices.
- Collaborate with the equipment supplier company to provide new software for the MPA analytical equipment. Assist feed laboratory owners to reduce prices for analysis and increase market volume for sustainability.

B. HORTICULTURE VALUE CHAIN

2.1 GREENHOUSE CROPS

Introduction

The USAID-*Inma* Agribusiness Greenhouse program plays a critical role in horticulture productivity and sustainability. The team identified out-of-season production in tunnels and hoop houses as the best opportunity for farmers to improve incomes and profitability in the short-medium term. The greenhouse technical assistance program that was initiated early in 2010 was continued in selected demonstrations sites and expanded into the Southeast provinces. Moreover, the activities are closely linked to the Farmer Field Schools (FFS) and Field Based Learning Centers (FBLC). During the quarter the team focused primarily on site selection, equipment procurement and planning activities.

Farmer Field Schools and Field Based Learning Centers are a critical component to the sustainability of the horticulture activities. The concept was adapted from farmer trainings conducted throughout the world. The FFS and FBLC is a group-based hands-on learning process that has been used by a number of governments, NGOs and international agencies to strengthen agricultural production and introduce new methodologies to others.

The Farmer Field School concept combines methods from agro-ecology, rural community development and experiential education. There are five basic aspects used throughout FFS including; adult education, facilitation, plant/animal life cycles, group study and farmer group development. The FFS concept could be described as a method of empowering farmers to work together to solve their problems. The schools address research, education/extension, marketing and advocacy. The FFS program has shown success throughout Asia, Africa, North America and other parts world.

Research indicates projects using the FFS approach led to a greater understanding of agricultural problems, causes and solutions. It was evident that long-term sustainable agricultural development required more than implementation of new seed varieties and one-shot technical assistance to individual farmers. It was necessary to develop the capacity of farmers to generate, adapt, and extend the knowledge to their farming communities. Farmer field schools enhance farming communities teaching them to address local problems and become less dependent on outside sources of expertise.

Farmer Field Schools enhance the abilities of farmers to fully understand the issues they may face in agricultural production and methods for overcoming them. By providing farmers experiential learning (hands-on) opportunities in the field, farmers gain a greater understanding of alternative solutions to the problems they face.

The Farmer Field School is a group-based hands-on learning process. These activities involve simple experiments, regular field observations and group analysis. The knowledge gained from these activities enables participants to make their own locally-specific decisions about crop and livestock management practices.

The basic features of a Farmer Field School are as follows:

- The Farmer Field School is field based and lasts for a full cropping season.
- The FFS meets about eight times throughout the growing season, following the different phases of production.
- The curriculum used during a Farmer Field School addresses the field being investigated by the participants.
- FFS educational methods are experiential, participatory, and learner centered.
- Each FFS meeting includes possibly three activities: the growing cycle analysis, a “special topic”, and possibly a group dynamics activity (roundtable).
- In every FFS, participants conduct a study comparing seedbed formation, planting, germination, irrigation, fertilization, cultivation, harvesting, and marketing. Some FFS may be held as a demonstration, comparing difference in production technologies.
- An FFS often includes several additional field studies depending on local field problems.
- Between 30 and 50 farmers participate in a FFS. Participants learn together in small groups to maximize participation and understanding.
- FFS could include a Field Day, allowing farmers make presentations about issues they are addressing in their fields and possible corrective actions that could be taken to address the issues.
- The facilitators of FFS’s are local progressive farmers and Inma staff that have gained trust from farming communities.
- Inma FFS will include planning for follow-up activities deemed necessary by participants.

The FFS program is designed to follow the crop life cycle for agricultural production. A seven step program for vegetable production will cover; soil tillage, seed-bed preparation, planting, fertilization, irrigation, weed and pest management (cultivation) and harvesting. It is extremely important to remember a farmer field school is a method for providing farmers an environment for learning, which will enhance their ability to achieve their goals to reduce inputs and increase profits.

The irrigation team participated in the identification and further selection of the Field Base Learning Centers. Moreover, the following activities have been conducted in order to get the areas ready for planting (see the following table).

FBLC location	Irrigation Team Activities					
	Topography	Soil and water sampling	Infiltration test	Advance test	Irrigation systems design	Procurement
Samawa	OK	OK	OK		Partial	Only flumes
Basra	OK	OK	OK		Partial	Only flumes
Wasit	January	OK	January	January	January	Only flumes
Babil	January	OK	January	January	January	Only flumes
Anbar	January	OK	January	January	January	Only flumes
Abu Ghraib	January	January	January	January	January	Only flumes
Ninewa	January	OK	January	January	January	Only flumes
Suleymaniyah	January	OK	January	January	January	Only flumes

a) Activities Overview Table

Table 2.1: Fruit and Vegetable Value Chain PMP Indicators and Impact to date				
Activity I	Greenhouse Crops			
SO #	SO	This Quarter ⁵	To Date	Goal
8.2.2.1(GH)	Increase in Gross Sales of targeted annual vegetables and fruit in program assisted areas	\$24,794	\$62,147	\$4,500,000
8.2.4.4 (GH)				
8.2.6.3 (GH)	Number of jobs created	52	166	4,500

b) Activities Implemented Oct - Dec, 2010

- Greenhouse demonstration sites were selected in each GFA.
- The process for procuring equipment of the sites was initiated.
- The greenhouses were redesigned to include an anti-virus netting to reduce insect movement into the houses.

⁵ The values this quarter are actual values and have not been adjusted with any correction factor.

- A prototype of the greenhouse was installed. The technical staff accepted the structure and approved the continuation of installation in other sites. The material was delivered to all sites. Three greenhouses have been completed in Muthana and on in Sulaymania. Thirty units will be installed during the next quarter.
- Activities were under taken to link the greenhouses with the packing sheds and the market for their produce.
- The team cooperated with the various PRTs to provide training to the recipients of greenhouses. Farmer Field school trainings and ongoing practical problem solving techniques were initiated.
- Farmers received TTA and publications to support new management approaches to greenhouse growing in Iraq. Distribution of the following publications continued:
 - Dodder Control;
 - Orobnache Management;
 - Downy Mildew Management;
 - Plant Nutritional Deficiency;
 - Two-Wheel Tractor Operation and Maintenance Manual (English only; Arabic and Kurdish in translation);
 - Two Wheel Tractor Safety (English only Arabic, Kurdish in translation).

c) Challenges Faced

- **Challenge:** High levels of salinity in soil and water at test sites in Najaf and Karbala have stunted growth in demonstration greenhouse crops. Subsequent water testing by USAID-*Inma* staff confirmed high salinity levels.
- **Solution:** USAID-*Inma* staff found new cooperating partners in Karbala and Najaf whose soil quality is better suited for demonstrations.
- **Challenge:** Wind damaging greenhouses in Bazeyan.
- **Solution:** USAID-*Inma* has reinforced the roll-up side wall design to be wind-damage resistant. This reinforcement can be replicated at other sites to prevent similar damage.
- **Challenge:** Delays in the procurement of equipment.
- **Solution:** Working closely with the procurement section to establish a list of acceptable vendors to provide affordable equipment on a timely basis.
- **Challenge:** Often times the field activity managers of various organizations fail to understand the federal regulations and decision process that the program staff undertake to prior to implementation of a project.
- 2. **Solution:** The activity managers should become familiar with the federal regulations and investigate methodologies prior to making decisions about project activity implementation.

d) Activities Planned January – March, 2011

- Field days, FFS and FBLC to demonstrate greenhouse technologies, seed and management techniques.
- Solarization of greenhouse soils to minimize insect, disease and weed issue in fall crops.
- Preparation for and completion of winter plantings.
- Using the results from the past quarter, transplant nursery sites will be chosen.
- Continue installing demonstration greenhouses.
- Finalize greenhouse and nursery installation.

- Provide training and onsite technical assistance to the greenhouse operators.
- Preparation for farmer field schools.
- TTA:
 - Early planting technique demonstrations;
 - Business development trainings.

2.2 OPEN FIELD CROPS

Introduction

The open field vegetable TA program continued this quarter but was limited due to the growing season. The beneficiaries received TA and advanced practical (hands-on) training in irrigation, planting and equipment maintenance. In addition, assistance was provided with harvesting, post-harvest packaging and sales.

In response to the poor efficiency of existing irrigation infrastructures, USAID-*Inma* has focused on enhancing efficiency through distribution of irrigation calendars to farmers with training on how to use the calendar to reduce water waste and targeted TA focused on broader water management issues. In response to high soil and water salinity levels, USAID-*Inma* has conducted general assessments of crop water needs and salinity tolerance from the FAO CLIMWAT database. Through addressing water management issues and accurately assessing the extent of the salinity issue, producers are positioned to expand yields and improve the quality of products to market. Furthermore, a salinity management protocol in Arabic was distributed to farmers.

The team focused on site selection for potato demonstrations in Falujah and Ninewa. Each site will have a drip irrigation system.

a) Contributions to Strategic Objectives

Table 2.2: Fruit and Vegetable Value Chain PMP Indicators and Impact to date				
Activity 2		Open Field Crops		
SO #	SO	This Quarter⁶	To Date	Goal
8.2.2.1(OFF)	Increase in Gross Sales of targeted annual vegetables and fruit in program assisted areas	\$206,759	\$25,559,759	\$4,500,000
8.2.6.3(OFF)	Number of jobs created	13	8611	447

⁶ The values this quarter are actual values and have not been adjusted with any correction factor.

b) Activities Implemented Oct - Dec, 2010

- Using the FAO CLIMWAT Database for Iraq, the water requirements for key vegetables in Iraq was prepared for demonstrations and trainings.
- Demonstrations and trainings for crop irrigation techniques were conducted.
- Selected potato demonstration site.
- Selected FFS and FBLC sites.
- Initiated the procurement of equipment for the sites.
- With the assistance of a local company a water measurement device for the FFS and FBLC sites was manufactured and is ready for installation.
- Provided technical assistance to the melon demonstration.
- Provided technical assistance to the producers replicating the strawberry production program.
- Provided technical assistance to the mushroom enterprise.

c) Challenges Faced

- **Challenge:** Similar to other industries and producers in other countries Iraqi producers do not readily adopt new and advanced technologies.
- **Solution:** To improve the adoption rate and gain the trust of Iraqi farmers USAID-USAID-*Inma* will implement FFS. The technique has been used throughout the world and is an excellent tool for demonstrating new methods and technologies. In addition, USAID-*Inma* will work very closely with owners of the demonstration farms to reduce the farmer's risk. As seen in other industries a farmer is risk adverse and is very cautious about changing methods or adopting new technologies that are different from methods that they have used in the past. By assisting in the reduction of risk the farmer will allow the new methods to be utilized. When combined with a FFS that covers the entire growing season, the farmers should adopt at a faster rate as compared to limited instruction.
- **Challenge:** Often times the field activity managers of various organizations fail to understand the federal regulations and decision process that the program staff undertake to prior to implementation of a project.
- **Solution:** The activity managers should become familiar with the federal regulations and investigate methodologies prior to making decisions about project activity implementation.

d) Activities Planned January – March, 2011

- Ongoing FFS and FBLC activities will be implemented.
- Installation of water flumes in eight locations.
- Design simple irrigation systems in the above eight locations.
- USAID-*Inma* will continue distribution of vegetable irrigation calendars, and will implement weekly monitoring visits to track irrigation of vegetables and farmer utilization of the irrigation calendars.
- The program will also implement post-harvest TTA and marketing support of various kinds to all sites.
- The program staff will choose sites for new open field demonstrations and begin implementation.
- Link open field producers with markets with emphasis of product being marketed through the packing sheds.
- Provide technical assistance to melon growers and melon demonstration site.

- Provide technical assistance to strawberry producers.
- Provide technical assistance in mushroom production.
- Provide technical assistance to demonstration sites in crop rotation, mechanization and new technologies.
- Review and evaluate the practicality of a potato tissue center.
- Review and evaluate the use of rice in terms of using improved technology for competitive yields.
- Finalization of procurements.

2.3 ORCHARDS and VINES

Introduction

Model/Demonstration Orchard Establishment

Beginning in January 2010 the USAID-*Inma* Program distributed 126,267 stone fruit trees (apricot, plumb peach and nectarine) and grapevines in twelve provinces on one hundred thirteen sites for a total area of six hundred ninety five donums. Eight thousand six-hundred twenty five trees and vines were distributed to the Iraqi Ministry of Agriculture.

The provinces and number of sites provided with trees and vines are listed below:

Province	Number of sites
Sulaymaniyah	13
Dahuk	19
Baghdad	28
Anbar	4
Babil	11
Diyala	3
Diwaniyah	2
Karbala	2
Wasit	9
Najaf	3
Erbil	11
Salah Al-Din	8

Irrigation activities within the orchards and vineyards program are focused on providing TA to farmers in order to improve current on-farm water management practices. To assist farmers, USAID-*Inma* has distributed irrigation calendars, including information about when to irrigate, how much water to apply and irrigation times. These calendars are a powerful tool which will assist producers to expand yields, conserve valuable water resources, and ultimately cut costs while raising incomes. Over the course of the quarter, irrigation specialists and GFA field staff provided oversight to ensure growers provided correct moisture to the newly planted trees and vines.

Model/Demonstration Vineyard Establishment

In January 2010, the USAID-*Inma* Program imported 27,898 grapevines complemented by an additional five thousand six hundred Iraqi produced grapevines. Two thousand four-hundred imported vines were distributed to the MOA. The recipients were eleven farmers who planted ninety donums of vineyards in Salah Al-Din (30 donums), Najaf (40 Donums), and Taji (20 donums). USAID-*Inma* field staff carefully monitored the farmer activities to ensure they were adhering to best practices. Survival rates of USAID-*Inma* supervised plantings were above those expected for commercial orchards, with only small losses of Iraqi purchased vines, while vines imported from the US are in good condition with mortality rates lower than one percent.

USAID-*Inma* is also using these demonstration plots as training centers for neighboring farmers and extension agents. Field staff will continue to monitor the survival rate and advise farmers on technical issues that arise.

Olives

Olive groves in northern Iraq are concentrated in the Bashiqa area of the Ninawa Plain where the trees have been growing for over 500 years. Currently, 450,000 trees of various ages are producing roughly 25-42 kilograms of olives per tree per year. Most of the production in Bashiqa is used for table olives, which are currently processed individually by members of the Al-Zaytoon Olive Association. The Association, with more than 200 members, approached USAID-*Inma* with the objective of establishing an olive oil industry. USAID-*Inma* is supporting the Association with funding and TA to improve the pressing operation and quality of olives produced in the region.

a) Activities Overview Table

Table 2.3: Fruit and Vegetable Value Chain PMP Indicators and Impact to date				
Activity I	Fruit Orchards			
SO #	SO	This Quarter ⁷	To Date	Goal
8.2.1.1(OV)	Increase in Gross Sales of perennial products in program assisted areas	\$616	\$5,576	Limited sales until plant maturation
8.2.6.3(OV)	Number of jobs created	275	1,844	700

b) Activities Implemented Oct - Dec, 2010

- During the last quarter field staff carefully monitored the farmer activities to ensure best practices were employed and that farmers were properly using the drip irrigation.
- Eleven orchard and vineyard demonstration sites were selected for ongoing irrigation demonstration.
- Two hundred forty three participants were trained in Citrus Integrated Orchard Management.
- Twenty five participants were trained in Erbil on irrigation techniques.
- Four hundred fifty two producers participated in the FFS.
- USAID-*Inma* field staff continued to monitor the survival rate of the trees and vines to advise farmers on technical issues.
- Regarding irrigation systems, continuous follow-up in the orchard demonstration areas were implemented to check the operational conditions of the drip irrigation systems. At the same time, in order to adjust the irrigation times provided to the farmers through the Drip Irrigation Time Charts, tensiometers were installed. Tensiometers were located within the wetting pattern of a typical emitter. One tensiometer placed near the emitter at

⁷ The values this quarter are actual values and have not been adjusted with any correction factor.

the maximum rooting depth of the plant will provide information on penetration and when to stop irrigation. A second tensiometer placed near the lateral extent of the wetting pattern, usually 30 to 45 cm from the emitter and in the upper root zone will indicate when to start the irrigation cycle. The frequency of the irrigation cycle and length of irrigation are then adjusted to keep a uniform wetting pattern. Farmers were trained on how to record and use the information. During each visit, the benefited farmer and farmer's neighbors were gathered and TA was provided along with tensiometer installation.

- A short term consultant provided technical assistance to the Olive Growers in Ninewa. The consultant evaluated the harvest, post-harvest and processing practices and used the information to develop an action plan for improvement. In addition, the specialist conducted a taste comparison between the local Iraqi produced olive oil and other brands found in the market place.
- The filtration system for the olive oil processing system was installed and is now operational.
- Provided technical assistance to the Olive Growers.
- Provided technical assistance to the olive processing facility.
- Monitoring monthly visits to each of the eleven vineyards by USAID-*Inma* technical field staff to collect data for monitoring and evaluation
- Supervised vineyard management, and delivered technical advice to growers.
- The program identified a vendor to establish trellising in the demonstration site.
- Provided technical assistance to the demonstrations sites.
- Provided drip irrigation systems to five sites of approximately thirty five donums.

c) Challenges Faced

- **Challenge:** Low saline content water is limited in Al-Anbar and Madeen due to restriction of water to feeder canals. In Madeen, most of the wells have elevated salinity levels.
- **Solution:** In Al-Anbar the program staff will continue with due diligence on upcoming disruptions in water availability. Well-drilling may be an alternative for farmers where water salinity and availability are problems.
In Madeen, farmers were advised to use Euphrates water source when available, or alternatively mix well water with the reduced river-water available and leach salt accumulation later in the year when river water sources rise again.
- **Challenge:** Sites in Babil and Najaf use drainage water as a primary water source which, with a high salinity, is detrimental to plant growth.
- **Solution:** Mix Euphrates river water with the drainage water source, which should reduce salinity to plant-tolerable levels.
- **Challenge:** Vineyards are infested with insects and fungi.
- **Solution:** The USAID-*Inma* program has implemented and will continue to implement TTA in Integrated Pest Management (IPM) and crop protection methodologies.
- **Challenge:** Initial olive oil production runs showed that further refinement of pressed oil is required in order to produce market-acceptable pure oil. Due to unforeseeable delays in getting pressing operations up and running immediately after the harvest, the olives were stored for months before being pressed. Since olives should be pressed immediately after harvest, this made the initial production run of olive oil require further refinement in order to produce a market-acceptably pure oil.
- **Solution:** The Al-Zaytoon Olive Association is processing the stored olives as a training opportunity to be ready for next season. The oil processed was to be distributed back to its members. However, the Association has already signed a sales contract for all

production. During this training process it was observed that additional equipment was required to improve oil quality and improve operational efficiency.

- **Challenge:** Approximately 35-40,000 (8 to 9%) of the existing olive trees are infected with Verticillium Wilt (VW), reducing production of the infected trees by at least 50% and eventually causing premature tree loss. This fungal disease, if left untreated, could eventually spread through entire orchards.
- **Solution:** TTAs is in progress to instruct farmers in strategies to combat the fungus. However, there is not a single approach to VW control.
- **Challenge:** Often times the field activity managers of various organizations fail to understand the federal regulations and decision process that the program staff undertake to prior to implementation of a project.
- **Solution:** The activity managers should become familiar with the federal regulations and investigate methodologies prior to making decisions about project activity implementation.

d) Activities Planned January – March, 2011

- The program staff will continue irrigation oversight visits to the demonstration areas installed by USAID-Inma, and the two areas in Diwanayah implemented jointly with the PRT. USAID-Inma will use tensiometers to determine the optimal irrigation schedule for the sites.
- Additional irrigations sites are being analyzed for the next cropping season.
- The program will implement TTA focused on all aspects of production in the orchards.
- The program will monitor and deploy TTA in late winter - early spring related orchard work, including TTA in pruning, orchard clean-up, and grafting training in the demonstration sites.
- The program will continue to implement the FBLC and FFS activities.
- Provide targeted technical assistance for pruning for ten growers with up to five donums in each GFA.
- Provide targeted technical assistance for collection and storage of Bud Wood from Inma introduced varieties.
- Provide targeted technical assistance for grafting of Bud Wood from USAID-Inma provided varieties to ten farmers in each GFA in order to establish up to two donums for each farmer.
- Provide irrigation systems and assistance for up to forty donums in each GFA, five donums per farmer contingent on farmer agreement to prune and graft as trained by Inma.
- Assist in the replication of pomegranates, stone fruits and grape enterprises.
- Provide citrus production training.
- Provide training in pruning, trellis systems and drip irrigation.
- Assist in the establishment of three vineyard nurseries in Baghdad and Salah Addin.
- Assist in the development of three transplant nurseries (Sulaymania, Baghdad, Wasit).
- Provide technical assistance to the olive growers in Ninawa.
- Provide technical assistance to the olive processing facility.

2.4 POST-PRODUCTION AND PACKING HOUSES

Introduction

Significant progress was made last quarter with the five packinghouses being supported by USAID-*Inma*. The Radwaniyah, Fallujah and Karbala packing houses became operational and started to grade, sort and package fruit and vegetables. The variety of products packed included onion, eggplant, peppers, cucumber, tomato, carrots, squash, apples, lemons, mandarins, and strawberries. While most of the throughput was immediately sold, several of the packing houses utilized the cold storage facilities to store packaged dates to avoid marketing at low prices and take advantage of higher prices during the off-season.

Taji packing house, the first packing house to come on-line was able to conclude the year by exceeding \$2 million in sales. Other packing houses report good prices being received for production and interestingly one reported gross margins in excess of 60 percent.

a) Activities Overview Table

Table 2.4: Fruit and Vegetable Value Chain PMP Indicators and Impact to date				
Activity 4	Packing Houses			
SO #	SO	This Quarter ⁸	To Date	Goal
8.2.2.1(PH)	Increase in Gross Sales of targeted annual vegetables and fruit in program assisted areas	\$1,085,202	\$18,963,300	\$33,840
8.2.6.3 (PH)	Number of jobs created	179	770	250

b) Activities Implemented Oct - Dec, 2010

- USAID-*Inma* continued to develop selected export opportunities. Samples of Basrah dates, placed in new packaging developed for the initiative with the Duty Free Stores were taken to UAE and the UK. Contact was made with Mirak Group, the largest distributor in UAE serving major supermarket such as Waitrose. Other samples were given to Whole Foods UK and selected importers.

⁸ The values this quarter are actual values and have not been adjusted with any correction factor.

c) Challenges Faced

- **Challenge:** Inter-tribe rivalries hindered efficient supply chains to packing houses.
- **Solution:** The USAID-*Inma* program focused on developing tribe-neutral intermediary relationships to maintain connectivity in the supply chains.
- **Challenge:** Existing recipient record keeping and financial recording are sometimes incomplete.
- **Solution:** USAID-*Inma* field and business development staff continue to work with the packing house management teams to ensure simplified, effective financial and book-keeping methods are being followed.
- **Challenge:** Often times the field activity managers of various organizations fail to understand the federal regulations and decision process that the program staff undertake to prior to implementation of a project.
- **Solution:** The activity managers should become familiar with the federal regulations and investigate methodologies prior to making decisions about project activity implementation.
- **Challenge:** The surrounding farmers (producers) do not understand the business purpose of the packing facility.
- **Solution:** The USAID-*Inma* program is developing an plan to link local producers within a certain radius of the packing houses.

d) Activities Planned January – March, 2011

- Targeted technical assistance to the packing houses.
- Ongoing and new training of packing house staff.
- Ongoing potato supply survey to assist packing house management.
- Continue to develop linkages between farmers, packing houses and the market.
- Continue to incorporate private pack houses into the project training and TTA program.
- Conduct trainings in HACCP and Global Gap design and audit.
- Investigate consolidation and service center activities in horticulture clusters. Market opportunities will be better accessible through such centers.
- STTA assistance to growers and packing sheds with the intraregional trade of fruits and vegetables between key Iraqi areas.

C. BUSINESS DEVELOPMENT SERVICES

3.1 MARKET DATA PUBLICATION

Introduction

The last quarter marked a change in strategy with regard to market information. Previously, USAID-*Inma* had provided support for the collection and dissemination of market information with the requirement that the company become self-sustaining. While the information collected met USAID-*Inma* requirements, the company failed to establish a market demand for the information.

The shift in strategy is to support the limited collection of vital market information while also working with industry and producer associations to develop a capacity to process, enhance and utilize such information.

a) Contribution to Strategic Objectives

Table X: Fruit and Vegetable Value Chain PMP Indicators and Impact to date				
Activity I	Market Data Publication			
SO #	SO	This Quarter ⁹	To Date	Goal
8.2.4.1	Market Information System providing daily wholesale pricing of major agricultural commodities in 18 wholesale markets across Iraq.	18	18	18 markets

b) Activities Implemented Oct - Dec, 2010

Market Research

USAID-*Inma* actively recruited companies engaged in the collection of market information. An RFP was issued for the collection of Horticulture and Livestock related products in key markets in each of the four GFA areas.

⁹ The values this quarter are actual values and have not been adjusted with any correction factor.

Association Identification

Based on discussions held last quarter with several agricultural associations, USAID-*Inma* issued an RFA seeking Industry and Producer Associations interested in developing and providing market information for the association members. More specifically, the selected associations would receive a small grant to assist in developing the internal capacity to collect and disseminate market information relevant to their membership. The information would include pricing, volume and demand data for the various industries.

An anticipated outcome is to have the Associations assign a person to be a Marketing Information Specialist. This person would synthesize price information supplied by USAID-*Inma* with market information gathered from the members and distribute to the membership (web, meetings, newsletters, etc).

c) Challenges Faced

- **Challenge:** The potential market for agricultural information is underdeveloped as farmers and other firms rarely utilize internal information, let alone external market information to make business decisions. There is also a cultural legacy where information is usually gathered through family and social networks without a fee. Basic price data has limited appeal as it would require instantaneous distribution for it to have the most value. The data requires some value-added analysis to become a useful product.
- **Solution:** USAID-*Inma* will search for alternative methods to generate demand for market information so that private companies can find a willing market for products and services. Thus, USAID-*Inma* will reach out to Industry Associations to assess the type of information that is valuable to members increase and their role in both the collection and dissemination of basic and value-added information.

d) Activities Planned January - March, 2011

- Procure market information in four key markets. Procurement will be broken into two parts - Horticulture and Livestock - Protein production, to hopefully develop the capacity of additional firms.
- Finalize grants to associations willing to partner with USAID-*Inma* to build capacity to provide market information to members.
- Through firm-level assistance and management training continue to emphasize the importance of utilizing information (internal and market) in making business decisions.

3.2 BUSINESS ASSISTANCE

Introduction

During the quarter USAID-*Inma* continued efforts to strengthen the management capacity of agribusinesses in Iraq. The BDS team focused on continuing direct firm-level assistance focusing on business planning and building market linkages. In addition to supporting the development of private enterprises, USAID-*Inma* provided assistance to agribusiness associations interested in developing commercial activities to benefit members. Furthermore, USAID-*Inma* launched a new round of association management training workshops focused on addressing the sustainability of agricultural associations. Seven two-day workshops were held throughout Iraq covering management practices and business planning techniques. The workshops trained over seventy associations representing over 30,000 members.

Workshop Location	Date	Number of Associations represented	Total Number of members
Baghdad	November 3-4	12	6,400
Babil	November 13-14	8	8,900
Najaf	November 29-30	18	7,100
Kirkuk	December 6-7	5	355
Ninawa	December 12-13	8	1,200
Erbil	December 22-23	8	5,800
Wasit	December 27-28	17	7,500

a) Contribution to Strategic Objectives

Table 3.2: Fruit and Vegetable Value Chain PMP Indicators and Impact to date

Activity 2				
Business Assistance				
SO #	SO	This Quarter ¹⁰	To Date	Goal
8.2.4.2 (BA)	Percentage of program-assisted businesses benefiting from cluster formation		3626 businesses participated	PMP assumes 5% received benefits
8.2.4.3 (BA)	Firms and associations trained to understand markets and farming profitability		157	PMP assumes 5% received benefits

¹⁰ The values this quarter are actual values and have not been adjusted with any correction factor.

b) Activities Implemented Oct - Dec, 2010

- Firm Level – Direct Assistance.
 - Business Plans
 - 1 completed, 22 in process.
 - Continued Firm Level Consultations with Firms and Associations.
 - Two hundred three site visits to fifty three companies.
 - Forty site visits to forty associations.
 - Twenty nine site visits to nineteen growers.
 - One site visit to two SDBC's
- BDS continued to provide direct firm-level assistance to all USAID-*Inma* supported firms.
- The focus last quarter was on assisting firms in revising business plans to account for operational realities and building market linkages.
- Most *Inma* supported companies had completed business plans at the start-up stage over a year ago. Since that time, operational and market conditions have changed, requiring firms to adjust strategies. During the last quarter *Inma* BDS staff has been working with feedlots, feed mills and packing houses to review the current business status and then develop reasonable strategic plans for the future. This has resulted in companies understanding for the first time such things as return on investment. For example, the team was able to assist the feedlots operators in developing balance sheets for the first time. Assisted with net profit information, the feedlots can now calculate returns on investment.
- In October 2010 the USAID-*Inma* Agribusiness Program began an initiative to increase markets for Iraqi agriculture commodities. The first step was to create a link with the Kurdish region of Iraq. The Kurdish region has recently seen an economic boom and large retail grocery stores and modern shopping centers are now opening. One example is the City Center Market located at the Majidi Mall in Erbil.
- USAID-*Inma* staff worked with the City Center Market Grocery store manager to showcase and sell local products brought from various USAID-*Inma* supported activities. The event was scheduled during the Eid holiday when up to 10,000 shoppers a day visited the store, creating an ideal opportunity to market Iraqi grown vegetables, fruits, fresh poultry and fish. This initiative sought to counter imports and encourage purchase of locally products. Over 14 commodities were promoted with many of the products being sold out after just a few days.
- With the success of the initiative in Erbil, City Center Market, USAID-*Inma* undertook additional research on the market and infrastructure to identify other opportunities. This research conducted about the markets in the North and Central GFA regions lead to the conclusion that the retail market is rapidly changing and Iraqi producers need to be more aware of the requirements of the retail market. For instance, most Iraqi produced products cannot meet the packaging requirements favored by buyers. This lead *Inma* to plan to bring buyers and producers together to discuss the changing marketing environment at two upcoming *Inma* Agribusiness Forums on the Future of Marketing in Erbil in January 2011 and Babil in February 2011.
- Continuing to build market linkages, USAID-*Inma* identified another potential opportunity to showcase Iraqi agricultural products. Approximately 7-8 million people (80 percent nationals) travel through Iraqi airports each year, yet there is little if any presence of local products sold through this channel. In October, *Inma* staff met with the ASK Group, owners of the Duty Free outlets in Baghdad, Basra and Sulaymaniyah airports, border stations, the International Zone and in two military bases. The meeting explored the possibility of selling various USAID-*Inma* supported products in ASK outlets. ASK's Duty

Free business has an annual turnover of \$20 million with continuous annual growth. This niche market could promote Iraqi products abroad and could increase the value of Iraqi produce. In response to the level of support and interest received by the company, Inma started discussions with potential Iraqi suppliers including olive oil, honey and special Anbar variety of aromatic rice from Najaf regarding commercial terms and packaging. Inma is planning to market test a showcase of Iraqi products next quarter.

- USAID-*Inma* trained 40 extension trainers from the MoAWR in marketing principles.
- Inma provided training to SBDC trainers in Agribusiness Management. More specifically, Inma BDS staff provided two days of training to trainers from the Small Business Development Centers in Diwaniyah and Karbala in agribusiness management. The focus of the training was to educate the trainers on how to provide instruction in financial and business management to farmers and other agribusinesses. In addition to discussing specific curriculum, insight was provided as to the agribusiness approach to business and operational issues.

c) Challenges Faced

- **Challenge:** State intervention into the economy has left the agribusiness sector facing a large gap in knowledge concerning operations and management of a private enterprise. Experience must be regained in learning how to respond to the market and competition while being cognizant of cost and profitability.
- **Solution:** The development of viable private agribusinesses in Iraq will require the introduction of modern production technologies, adoption and utilization of sound management and business practices. Thus, USAID-*Inma* has been assisting firms and associations in management and operations. Assistance is provided in the three core Business Management areas of financial management, operational management and business planning. This assistance gives companies the competence to manage financial resources, develop the procedures, policies and systems to effectively run a business, and the ability to control unit costs, predict cash flows and evaluate market opportunities. The objective of this assistance is to help agribusinesses manage the day-to-day aspects of business operations, respond to competitive conditions and prepare for future growth. USAID-*Inma* has also been supporting firm-level development through industry roundtable meetings. These meetings provide an opportunity for companies involved in the same value-chain to gather regularly in order to discuss on an informal basis the issues, trends and opportunities in their sector and to seek advice on business issues that are confronted during the day-to-day operation of their businesses. These roundtable meetings foster the development of business linkages and new business opportunities between Iraqi agribusinesses and lay a foundation to formulate and prioritize issues of the sector. This collaboration can be the basis for improved public-private dialogue.
- **Challenge:** Upgrade the capacity of existing agricultural associations to handle commercial activities. Many agricultural associations in Iraq were created as benefit organizations to receive grants or donations. Many are organized along family or tribal lines. Also most are not engaged in continuous activities. Very few have record keeping systems in place and, except for one, do not have any long range plans.
- **Solution:** USAID-*Inma* will continue its Association Management Workshops. In most locations, a second round will be given to reinforce the material and provide an opportunity to assist the associations in applying the concepts to their operations. The emphasis will be on the development of a business - strategic plan and addressing organization issues that

could affect its implementation. USIAD-*Inma* will support associations with on-site technical assistance.

- **Challenge:** Lack of transparent and open linkages between producers, wholesalers and retailers
- **Solution:** Continue to map out the value chains and identify the key markets players.

d) Activities Planned January – March, 2011

- Firm Level – Direct Assistance
 - Complete business plan revisions
 - Continued management consultations with firms and associations
 - Emphasis on building market linkages
- Firm Level – On-site Technical Assistance to support firms and associations
 - North – 30 days
 - Central and South – 60 days
- Management Seminars – Total 27
 - North – 7
 - Central – 7
 - South – 9
 - South East - 4
- Roundtables – Total 30
- Association Management Workshops – 11 two-day workshops
- Two market forums, Babil and Erbil.
- Farm record books developed, printed and handed out at management seminars, FFS and greenhouse TTA.
- Continue to work with packing houses on market linkages, including strengthening the relationships developed with the City Center Market to develop long-term supply agreements and market test with a Baghdad supermarket for value-added packaged fruits and vegetables.
- Developing supply linkages to the feedlots, including contracting for calves and feed and feed-out animals to the Blann retail meat shop.
- Roll-out market test of Iraqi agricultural products in Duty Free Shops.

3.3 AGRICULTURAL LENDING

Introduction

A critical factor that negatively impacts the overall development of agribusiness in Iraq is the inability of a majority of Iraqi agribusiness to access capital. Currently, farmers must rely on cash from savings and or family members and supplier credit for capital needs. With limited financial resources available, farmers are unlikely to invest in more efficient production technologies, deviate from current production cycles or innovate with different crop types. Thus, the growth and diversification of agriculture in Iraq is hindered through a lack of capital or the inability to access capital.

Access to capital is constrained for a variety of reasons including the inability of agribusinesses to identify capital sources, the lack of appropriate records required to complete loan applications, insufficient collateral, lack of capital targeted to the agricultural sector and the inexperience of financial institutions in agricultural lending. Previously USAID-*Inma* has addressed several of these deficiencies by providing \$5 million in loan capital to Micro-Finance Institutions (MFIs) and Private Commercial Banks to target Small to Medium Enterprises (SMEs). USAID-*Inma* will continue to assist agribusiness in accessing capital, concentrating on developing supplier credit mechanisms and working with financial institutions to create new products.

a) Contribution to Strategic Objectives

Table 3.3: Fruit and Vegetable Value Chain PMP Indicators and Impact to date				
Activity 3	Microloans			
SO #	SO	This Quarter ¹¹	To Date	Goal
8.2.6.2	Number and value of loans provided by micro-finance institutions receiving USAID- <i>Inma</i> grant assistance to recipients	0	\$4,690,000	\$5,000,000
8.2.6.3	Number of Jobs created through USAID- <i>Inma</i> grant supported private bank loans to agribusiness	0	3,228 farmers	3,400

b) Activities Implemented Oct - Dec, 2010

- Continue with grant close-outs.
- Monitoring performance of previous assistance

In general, the performance of the MFIs is acceptable. For example, Al-Thiqa reported a repayment rate of 99 percent and those in default are still paying but paying slowly. Some defaults are caused by weather conditions such as a loan in the Turgella area for wheat, or by bad financial management, such as a loan in Dohuk where the borrower took on too many obligations.

¹¹ The values this quarter are actual values and have not been adjusted with any correction factor.

Repayment has benefited the MFI in generating new loans and reaching new places and cities in Mosul, Hamdianya, Bashiqa, Bartilla and Shikan. Loan capital available to the MFI is reported to have increased by \$500,000 as a result of funds generated by repayment. Demand for loans also increased as a result of lowering the interest rate on agricultural loans from 16% to 12%.

Loans made through the Banks as part of the ICF-SME grant have performed quite differently. The two participating banks are reporting a repayment rate of 75 percent and 84 percent, respectively. As result of the low repayment rate a meeting was held between some of the borrowers and the banks, ICF-SME and Inma. Based upon discussions during the meeting there was nothing concrete observed that would explain the lower repayment rates; however it could be a function of banks inability to properly vet borrowers and a common practice to not repay loans (which has been the experience with loans made by the state Agricultural Bank). During the meeting the farmers complained about not being properly supported and facing competition. While understandable, those conditions do not provide an adequate justification for non-payment. Since the meeting, the banks have reported an increase in the repayment rate. The repayment rate will continue to be monitored. Also, USAID-*Inma* management trainings will offer tools for participants to determine cash flow and capital requirements so that in the future, agribusinesses can better calculate financial obligations of the businesses. The number of loans, grant contribution and total loan amount of ICF is given below.

ICF Loan Status

	Number of loans	ICF-SME Grant Contribution	Total Loans
Bank of Baghdad	43	\$432,398	\$485,544
North Bank	19	\$580,455	\$1,007,653
Total	62	\$1,012,853	\$1,493,197

C) Activities Planned January – March, 2011

- Investigate and develop methods to provide or increase supplier credit for producers. USAID-*Inma* will support the development of Farm Service Centers. These centers will be a critical link for farmers to purchase quality inputs and receive technical assistance. To help facilitate the development of such centers it will be critical to be able to extend credit to farmers for input purchases. This will encourage farmers to purchase quality inputs and receive technical assistance concerning proper use. USAID-*Inma* learned through the Voucher Program, that associations are not receiving repeat orders for feed. Farmers have gone directly to the feed mill to purchase feed since the mill will extend credit. However, since individual producers purchase small quantities the producers then end up purchasing lower quality feed due to the price. If orders could be placed through an association, the association would be able to buy feed at a bulk rate, thus making high quality feed more affordable. USAID-*Inma* will reach out to Iraqi Banks with the assistance of Tijara to discuss developing credit products and mechanisms for supplier credit through these Farm Service Centers.
- Provide additional agricultural lending training.

The USAID-*Inma* Agribusiness Lending Training Program was implemented in 2009 to improve the capacity of Iraqi Financial Institutions (microfinance institutions and commercial banks) to lend to farmers and agribusinesses. The objective of the training was to increase the number of financial institutions making loans to agribusinesses and increase the overall number of loans to the agricultural sector. The focus of the training was assisting financial institutions in developing appropriate agricultural credit products and to access and make loans to the sector. This training will be repeated to train additional loan officers and those participating in Supplier Credit Programs.

- Work on improving credit products available to agribusinesses. Several Roundtables are planned to bring agribusiness together with bank officials to discuss lending needs and requirements in the hope that alternative credit products can be made available – such as special products available to agricultural supply companies and livestock operations. Train bank personnel in agricultural lending and agricultural loan evaluation.

D. ADMINISTRATIVE - OPERATIONAL

Introduction

To accomplish the multiple tasks assigned to each of the value chains and deliver the expected results to the people of Iraq a functional operational and administrative program must be in place. As an ongoing effort to improve performance and efficiency changes are required and new and refined processes must be in place to meet all federal and corporate regulations.

During the quarter several activities and changes were implemented to assist the value chain teams accomplish their activities while meeting the contractual obligations to USAID.

a) Activities implemented Oct – Dec, 2010

- A short term consultant was utilized to assist and evaluate the M&E function. The Consultant worked closely with the team members to further refine the monitoring and evaluation tools. A new one page data collection form was developed. Further recommendations for improved data organization were recommended.
- A Summative and Formative assessment using quantitative and qualitative methods was implemented to measure the project growth and performance during the last three and half years of programming. The finding for the USAID-*Inma* Agribusiness Program assessment indicated; USAID-*Inma* has reached the outcome and impact indicators requested by the funding source, businesses and farmers have increased their incomes and employed more people throughout Iraq. These are direct outcomes from USAID-*Inma* assistance. As for impact, results have indicated that recipients of USAID-*Inma* aid have adopted new technologies, shared new knowledge with others, increased their community images, spent more money in their villages, created sustainable businesses and look forward to the future. It seems as though the USAID-*Inma* Agribusiness Program has provided hope to the rural people of Iraq. According to the people, farmers are staying on their lands and looking towards the future. These are very important positive indicators of sustainable development.
- The Performance Monitoring Plan was updated according to recommendations from various reviews and submitted.
- The Data Quality Self Assessment document was updated and submitted.
- The following publications were submitted for publication,
Canola in Iraq – November 2010.
Viability of USAID-*Inma* Demonstration Feedlots in Iraq - November 2010.
Economics of High-Tunnel Vegetable Production - November 2010.
Assessment of Olive Growing and Processing, Practices for Oil in Northern Iraq – December, 2010.
Agricultural Policy Dialogue Series – December, 2010.
Role of Agriculture in Achieving Strategic Development Objectives in Iraq
Policy related constraints to Agricultural Sector Growth in Iraq
Macro-Economic distortion and competitiveness in Iraqi Agriculture
- A new financial manager, Michael Greene was named.
- A new Deputy Chief of Party (programs), Tim Kock was identified.
- Travel policy procedures and expense reporting were refined to better implement cost controls.

- A review of the staffing and job descriptions was implemented with the goal of standardizing position responsibilities across the program.
- A staffing review was implemented and changes will be implemented to develop Iraqi staff in key leadership roles.
- All staff were required to attend Business Ethics training.
- Multiple reviews were undertaken to review current expenditures and develop strategies to improve cost efficiencies.

b) Challenges Faced

- **Challenge:** The program has collected data since implementation and has not developed a systematic method of data storage.
- **Solution:** A data management specialist is required to assist in the development of a data management system.
- **Challenge:** There are on-going challenges with field travel. The GOI has changing requirements for vehicle registration and requirements for security companies. The ever changing environment restricts expatriate travel and ability to offer proper oversight.
- **Solution:** Two different approaches may be required. First the national staff will need to be further trained to implement and monitor the program. Second an ongoing dialogue between the donor community and GOI is required. A close review of the travel requirements and equipment is needed. Changes may need to reflect the need to accomplish contractual obligations.
- **Challenge:** Lack of qualified vendors for agricultural equipment
- **Solution:** Procurement and Programs will coordinate activities to develop a list of qualify vendors for agricultural equipment and program.
- **Challenge:** Often times the field activity managers of various organizations fail to understand the federal regulations and decision process that the program staff undertake to prior to implementation of a project.
- **Solution:** The activity managers should become familiar with the federal regulations and investigate methodologies prior to making decisions about project activity implementation.

c) Activities Planned January – March 2011

- A STC for a data management specialist will be implemented.
- Continual refinement of travel policy will be implemented.
- Continual refinement of the staffing policy will be implemented.
- Close coordination between the procurement department and programs will continue.
- Quarterly environmental report will be completed.
- Finalize and publish the following documents:
 - Livestock-Protein Value Chain, Interim Activity Report
 - Iraqi Price Support Policy for Dates
 - Cost of the Restrictive Policy on the Introduction of New Seeds Varieties in Iraq
 - Meat Processing Potential in Iraq
 - The Olive Oil Potential in Iraq
 - Demand Structure for Beef in Iraq
 - Agriculture Policy Dialogue Series:
 - Iraqi Public Investment Priorities to Accelerate Growth of Agriculture
 - Market and Welfare Impacts of foodstuff Import Tariffs in Iraq

- [Iraq Input Productivity Gap and Agricultural Competitiveness](#)
- [Irrigation Efficiency and Agricultural Competitiveness in Iraq](#)
- [Agricultural Finance and Investment in Iraq](#)
- [Strengthening Agricultural Input Supply Services in Iraq](#)
- [Unemployment Threatens Democracy in Iraq](#)
- [Proposed Modification of the Public Distribution System to Facilitate Emergency Short-Term Employment Generation and Skills Training](#)
- [Proposed Feasibility Study on Establishment of Private Sector Agricultural Policy Reform Institute](#)

E. Environmental Issues

Introduction

During the past quarter, (October 1, 2010-Dec. 31, 2010) the USAID-*Inma* Environmental Team performed several screening assessments to ensure that all USAID-*Inma* projects fall within the nine categories of project types eligible for funding under USAID-*Inma* and that the implementation of those projects did not result in significant environmental impacts. The screening analyses were conducted in conformance with procedures developed for the USAID-*Inma* Program Environmental Assessment (EA), using the methodology and forms presented in the Environmental Management System (EMS). These procedures were approved by USAID in September 2009.

The site-specific environmental impact screening form, which scores the magnitude of impacts individually and cumulatively for all affected resource areas ensures that the proposed activity complies with thresholds and requirements as specified by the USAID-*Inma* EA and the 1990 Iraqi Environmental Law was used as an evaluation guide. The site-specific environmental impact screening form quantitatively describes the impacts of the proposed project during both the construction and operational period and indicates whether a particular project could pose significant risk to the surrounding environment.

In addition to performing the environmental screening analyses, the USAID-*Inma* Environmental team visited a total of twenty two USAID-*Inma* project sites to assess the overall environmental conditions and evaluate whether Best Management Practices (BMPs) prescribed in the USAID-*Inma* Program EA and detailed in the accompanying Environmental Management System (EMS) are properly implemented.

a) Activities implemented Oct – Dec, 2010

The projects reviewed were as follows:

1. Fallujah Feedlot;
2. Hilla Feedlot;
3. Bartilla Feedlot;
4. Gubba Feedlot;
5. Kirkuk Feedlot;
6. Mohalabia Feedlot;
7. Fallujah Packing shed;
8. Al-Rebee Packing shed;
9. Altaji Packing shed;
10. Razwanayah Packing Shed;
11. Karblaa packing Shed;

12. VANO (existing) Feed Mill;
13. VANO (New site) Feed Mill (upgrading production line);
14. Mahmud Omar Taha Orchard;
15. Ali Saleh Aziz Orchard;
16. Rizgar Qader hamma Orchard;
17. Abdul-Rahman Sulaiman Orchard;
18. Azad Qader Saeed Orchard;
19. Gayathaden Abdulghafor Orchard;
20. Harbi Haji Ahmad Orchard;
21. Patros Sliwa Jajo Orchard;
22. Salar Othman Hassan Orchard.

The monitoring assessments provide information on issues identified at each site and, where applicable, discuss recommended mitigation measures to address impacts that were observed and to ensure that environmental requirements prescribed in the grant approval and further detailed in the EA and EMS are properly implemented. The annex contains the site specific environmental compliance report and the site specific environmental impact assessments.

F. Gender Mainstreaming Activities

Introduction

The USAID-Inma Agribusiness Program recognizes the contribution of women to agriculture and continuously seeks methods to include women in agricultural activities. Field activities seek to include women at all levels and will accommodate activities exclusive for women. During the past quarter women throughout Iraq participated in technical trainings for both the horticulture and livestock-protein sector and attended cross cutting activities with the business development group.

In mid-September the USAID-Inma Agribusiness program began cooperating with the USDA Iraqi 4-H program and during the quarter the cooperation benefited future Iraqi farmers. On December 19, 2010, the USAID-Inma program delivered 25 dairy heifers to 25 girls. These young women, ranging in ages of 12 – 15, represent the future of dairy producers in Iraq.

The program continued to work closely with the women farmers in Najaf to provide training in greenhouse vegetable production, citrus orchard training and participate in farmer field schools. Efforts continued to develop data collection tools which allow disaggregation on the basis of gender.

a) Activities implemented Oct – Dec, 2010

- Distributed twenty-five dairy heifers to twenty-five girls in 4-H in cooperation with USDA.
- Trained twenty-seven women in Integrated Orchard Management.
- Trained twenty-eight women in the Farmer Field Schools.
- Trained nine women in association management.

- Continued to work closely with women producers in Najaf to develop sustainable businesses.

b) Challenges Faced

- **Challenge:** The program has collected data since implementation and has not developed a systematic method to record gender disaggregation in the data.
- **Solution:** The collection system now allows for collection of gender data.
- **Challenge:** It is difficult to identify women participates in agricultural programs.
- **Solution:** Work closely with communities to identify women participants.

c) Activities Planned January – March 2011

- Continue to include women in Livestock and Forage trainings
- Continue to include women in targeted assistance in livestock and forage.
- Continue to include women training in horticulture activities.
- Continue to include women in targeted horticulture activities.
- Continue to include women in business development activities.
- Continue to include women in business development targeted activities.
- Monitor and assist the twenty five female 4-H members with the dairy production program.

APPENDICES

APPENDIX A: COMPLETED ACTIVITIES

No	Activity	Type	GFA	Province	No of Trainees			Date	Days	Month
					Male	Female	Total			
1	FFS Melon	Training	Two Rivers	Wasit	25		25	11/ Oct/2010	1	Oct
2	Association Workshop	Workshop	Golden crescent	Baghdad	12		12	03/Nov/2010	2	November
3	Association Workshop	Workshop	Two Rivers	Babil	14	1	15	13/Nov/2010	2	November
4	Orchards Citrus	Training	North	Salah Alden	25		25	20/Nov/2010	5	November
5	Orchards Citrus	Training	Two Rivers	Babil	30		30	20/Nov/2010	5	November
6	Orchards Citrus	Training	Golden crescent	Baghdad	20		20	20/Nov/2010	5	November
7	TOT Marketing	Training	North	Sulaimanya	19	1	20	22/Nov/2010	3	November
8	Farmers Field schools (FFS Orchard)	Training	Golden crescent	Baghdad	25		25	25/Nov/2010	1	November
9	Farmers Field schools (FFS Orchard)	Training	Golden crescent	Dayala	25		25	27/Nov/2010	1	November
10	Farmers Field schools (FFS Orchard)	Training	Two Rivers	Wasit	25		25	27/Nov/2010	1	November
11	Farmers Field schools (FFS Orchard)	Training	Two Rivers	Babil	25		25	27/Nov/2010	1	November
12	Farmers Field schools (FFS Orchard)	Training	Two Rivers	Dewanya	22		22	27/Nov/2010	1	November
13	Farmers Field schools (FFS G.H)	Training	Two Rivers	Najaf		28	28	27/Nov/2010	1	November
14	Orchards Citrus	Training	North	Salah Alden	25		25	27/Nov/2010	5	November
15	Orchards Citrus	Training	Two Rivers	Babil	25		25	27/Nov/2010	5	November
16	Orchards Citrus	Training	Golden crescent	Baghdad	23		23	28/Nov/2010	5	November
17	Vineyard FFS	Training	North	Salah Alden	21		21	28/Nov/2010	1	November
18	Association Workshop	Workshop	Two Rivers	Najaf	26	1	27	29/Nov/2010	2	November
19	Orchards FFS	Training	Two Rivers	Karbala	25		25	30/Nov/2010	1	November
20	Farmers Field schools (FFS G.H)	Training	North	Kirkuk	25		25	01/Dec/2010	1	December
21	Orchards Citrus	Training	North	Salah Aldeen	25		25	04/Dec/2010	5	December
22	Orchards Citrus	Training	Two Rivers	Diwaniya	31		31	04/Dec/2010	5	December

23	Orchards Citrus	Training	North	Baghdad	30		30	04/Dec/2010	5	December
24	Farmers Field schools (FFS G.H)	Training	Two Rivers	Najaf	20		20	05/Dec/2010	1	December
25	Farmers Field schools (FFS Orchard)	Training	North	Dahuk	8		8	05/Dec/2010	1	December
26	Association Workshop	Workshop	North	Kirkuk	5	3	8	06/Dec/2010	2	December
27	Farmers Field schools (FFS G.H)	Training	North	Sulaimanya	25		25	07/Dec/2010	1	December
28	Orchards Citrus	Training	North	Salah Aldeen	25		25	11/Dec/2010	5	December
29	Orchards Citrus	Training	Two Rivers	Diwaniya	26		26	11/Dec/2010	5	December
30	Orchards Citrus	Training	Central	Diyala		26	26	11/Dec/2010	5	December
31	Farmers Field schools (FFS G.H)	Training	Two Rivers	Najaf	20		20	12/Dec/2010	1	December
32	Farmers Field schools (FFS Orchard)	Training	North	Sulaimanya	33		33	12/Dec/2010	1	December
33	Vineyard FFS	Training	North	Salah Aldeen	25		25	12/Dec/2010	1	December
34	Association Workshop	Workshop	North	Ninawa	17	4	21	12/Dec/2010	2	December
35	Orchards Citrus	Training	North	Salah Aldeen	25		25	18/Dec/2010	5	December
36	Orchards Citrus	Training	Two Rivers	TBD	22		22	18/Dec/2010	5	December
37	Orchards Citrus	Training	Central	Anbar	25		25	18/Dec/2010	5	December
38	Association Workshop	Workshop	North	Erbil	8		8	22/Dec/2010	2	December
39	Orchards Citrus	Training	North	Salah Aldeen	25		25	25/Dec/2010	5	December
40	Orchards Citrus	Training	Two Rivers	Babil	23		23	25/Dec/2010	5	December
41	Orchards Citrus	Training	Central	Diyala	27	1	28	25/Dec/2010	5	December
42	Farmers Field schools (FFS G.H)	Training	Two Rivers	Karbala	25		25	25/Dec/2010	1	December
43	Association Worksop	Workshop	Two Rivers	Wasit	17		17	27/Dec/2010	2	December
Total Budget										

APPENDIX B: SUBCONTRACTS AND PURCHASE ORDERS

Activity Title	Activity Period	
	Start	End
Fruits & Vegetables -Basics of Greenhouse Production Training	12/15/09	4/30/10
Fruits & Vegetables - Irrigation Principles and Applications Training	12/10/09	4/30/10
Beef & Lamb - Small Ruminants Production Management Training	3/3/10	4/30/10
Fruits & Vegetables - Purchase Order to provide Seeds	3/2/10	4/30/10
Business Development – Business Management Technical Assistance North	10/29/09	4/30/10
Beef & Lamb -Training on Vet Lab. Equipment	4/10/10	5/15/10
Fruits & Vegetables - Chinese Two Wheel Tractor	3/25/10	5/25/10
Fish and Poultry - Feed Lab Equipments	3/10/09	5/31/10
Fruits & Vegetables - Basic Open Field Production Training	1/5/10	5/31/10
Fruits & Vegetables - Basic Orchard/Vineyard Management Training	1/20/10	5/31/10
Business Development - Association Management Workshop	12/2/09	6/3/10
Fruits & Vegetables – Soil Labs	4/10/10	6/10/10
Beef & Lamb - Basic Animal Health Management	4/24/10	6/30/10
Beef & Lamb - Ruminants Animal Nutrition	5/22/10	7/31/10
Business Development - Round Table Meetings Service	7/16/09	8/31/10
Business Development - Business Management Technical Assistance Services – Central/South	5/20/10	8/31/10
Fruits & Vegetables - Irrigation Principles and Applications Training-Round Two	6/1/10	8/31/10
Fruits & Vegetables - Basics of Greenhouse Production Training-Round Two	5/10/10	8/31/10
Fruits & Vegetables - Advanced Greenhouse Production Training	5/2/10	8/31/10
Fish & Poultry - Fingerlings fish for offspring from Hungarian Carp Brood Stock	4/29/10	8/31/10
Fish & Poultry - Adult Hungarian Carp Brood Stock	4/29/10	8/31/10
Business Development-Closeout Financial Audit	8/7/10	10/31/10
Fruits & Vegetables-Greenhouse Supplies and Drip Irrigation	9/12/10	11/30/10
Business Development-Association Management Workshops (BD)	9/20/10	2/28/11
Business Development-Basic Orchard/Vineyard Management Training	9/8/10	3/31/ 11
Business Development-Roundtable Meetings (BD)	8/21/10	5/31/11
Beef & Lamb -Vet lab Equipment and training (additional)	8/7/10	11/6/10

Beef & Lamb - Purchase of live fingerlings offspring of Hungarian Broodstock (Two Packages)	8/19/10	2/19/11
Beef & Lamb - Basic Aquaculture Training Program (Two Packages)	10/6/10	4/30/11

APPENDIX C: GRANTS (Projects Awarded)

Grant #	Name of Grantee	Project Title	Project Location	Project Period	
				Start	End
09-2008-FD800-G-1	Balad Canning Factory	Balad Canning Factory Revitalization Project	Salah Ad Din, Balad	17-Apr-08	31-Mar-09
09-2008-FD800-G-2	Hameedyah Mushroom Farm	Hameedyah Mushroom Farm Project	Ramadi, Anbar	17-Apr-08	1-Sep-09
09-2008-FD800-G-3	9 Nissan Market Agriculture Association (NINMA)	New Baghdad Market Revitalization Project	Baghdad	20-May-08	20-May-09
10-2008-FD800-G-4	ANKA Company for Agriculture Development	Monitoring Wholesale Prices of Agricultural Products and Inputs in Iraq	Iraq (Erbil)	1-Oct-08	31-Jul-10
10-2008-FD800-G-5	Women Empowerment Organization (WEO)	Voucher For Small Business Management	North of Iraq	15-Nov-08	15-Feb-10
10-2008-FD800-G-6	Al-Waqt Al Jadeed	Fresh Fruit & Vegetable Packing Sheds	Baghdad	1-Dec-08	30-Jun-09
10-2008-FD800-G-7	Al-Thiqa Organization	Micro-Finance	Iraq	1-Feb-09	30-Jun-10
01-2009-FD800-G-8	Al-Amal Al-Waeed Co.	Fresh Fruit & Vegetable Packing Sheds	Baghdad	15-Jan-09	30-Oct-09
01-2009-FD800-G-9	Izdiharona	Micro-Finance	Iraq	1-Feb-09	31-Jan-10
03-2009-FD-800-G-13	Shavin Co.	Feedlot Program	Dahuk	1-May-09	30-April-11
03-2009-FD-800-G-14	Farmer Association	Feedlot Program	Ninawa	1-May-09	30-April-11
03-2009-FD-800-G-15	Brotherhood Association	Feedlot Program	Ninawa	1-May-09	30-April-11
03-2009-FD-800-G-16	Al Nahreen Association	Feedlot Program	Ninawa	1-May-09	30-April-11
04-2009-FD800-G-17	Middle East Company	Aquaculture Training program	Babil	27-May-09	31-Aug-10
04-2009-FD800-G-18	Al Furat Fish Farm	Aquaculture Training program	Babil	27-May-09	31-Aug-10
04-2009-FD-800-G-19	Dejlat Alkair for General Trading & Contracting Co., Ltd	Feedlot Program	Wasit	14-Jun-09	30-April-11
04-2009-FD-800-G-20	Hawks of Iraq for General Contracting, Co.	Feedlot Program	Babil	14-Jun-09	30-April-11
04-2009-FD-800-G-21	Dheaa Al-Noor Association for Development	Feedlot Program	Baghdad	14-Jun-09	30-April-11
06-2009-FD800-G-22	Al Juburi Group	Feedlot Program	Kirkuk	8-Aug-09	30-April-11
06-2009-FD800-G-23	Nimar Al Jazeera Co.	Feedlot Program	Anbar	8-Aug-09	30-April-11
06-2009-FD800-G-24	Al Naiim Organization	Feedlot Program	Ninawa	8-Aug-09	30-April-11

07-2009-FD800-G-25	Mabain Al Nahreen	Packing shed Program	Baghdad	18-Aug-09	31-Jul-10
07-2009-FD800-G-26	Western Al Jazeera	Packing shed Program	Anbar	18-Aug-09	31-Jul-10
07-2009-FD800-G-27	Dejlat Al Kair	Packing shed Program	Karbala	18-Aug-09	31-Jul-10
08-2009-FD800-G-28	Iraq Grandparents	Feed Mill	Dyiala	19-Nov-09	30-April-11
08-2009-FD800-G-29	Al Furat Fish Farm	Feed Mill	South Babil	19-Nov-09	30-April-11
08-2009-FD800-G-30	Middle East Co.	Feed Mill	South Baghdad	19-Nov-09	30-April-11
08-2009-FD800-G-31	VANO Group	Feed Mill	Erbil	19-Nov-09	30-April-11
10-2009-FD800-G-32	ICF	Micro-Finance	Anbar	15-Dec-09	15-May-10
10-2009-FD800-G-33	Al Zaytoon Association	Olive oil	Ninawa	16-Nov-09	30-Mar-10
11-2009-FD800-G-34	Najim Al Belad	Poultry Feed mill	South Baghdad	1-Feb-10	30-April-11
11-2009-FD800-G-35	Dur Al Furat	Poultry Feed mill	North Babil	1-Feb-10	30-April-11

APPENDIX D: PERSONNEL

Expatriate Staff as of December 31, 2010

HQ

Employee Name	Title		Location	Contract
Charles Bell	Senior Technical Advisor	USA	HQ	LBG
Stephanie Mattes	Contract Administrator	USA	HQ	LBG
Shehnaz Atcha	Program Manager	USA	HQ	LBG
Deborah Birch	Project Communications Director	USA	HQ	LBG
Heather Risley	Communications Coordinator	USA	HQ	LBG

Baghdad

1.	Gerald Turnbull	Chief of Party	USA	Baghdad	LBG
2.	Martin Connaughton	Greenhouse Specialist	USA	Baghdad	ARD
3.	Graham Dale	Agricultural Processing Specialist	UK	Baghdad	LBG
4.	Michael Green	Financial Director	USA	Baghdad	LBG
5.	Ludwig Schatz	Training Specialist / Advisor	Germany	Baghdad	LBG
6.	Timothy Kock	Technical Specialist-Horticulture/Training	USA	Baghdad	LBG
7.	Al Williams	Horticulture Team Leader	USA	Baghdad	Agland
8.	Juan Sevilla	Water & Irrigation Specialist	Peru	Baghdad	LBG
9.	Kara Dixon	Procurement manager	USA	Baghdad	LBG
10.	Nerys Irving-Jones	Reporting Specialist	British	Baghdad	LBG
11.	Franco Scotti	Economist	Italy	Baghdad	LBG
12.	Craig Carlson	Senior Business Development Specialist – Team Leader	USA	Baghdad	ARD
13.	Daniel Dunn	Agriculture Economist	USA	Baghdad	TAMU
14.	Timothy Kock	Technical Specialist-Horticulture/Training	USA	Baghdad	LBG
15.	Nerys Irving-Jones	Reporting Specialist	British	Baghdad	LBG
16.	Alexander Dahan	Technical Specialist-Horticulture	British	Baghdad	LBG

Short-Term Consultant

LBG	HQ	USA	Program Manager	Shehnaz Atcha (22-October , 9 November)
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APPENDIX E: EXPATRIATE PERSONNEL – Mobilization, Demobilization

Mobilization - The following staff arrived in the October – December quarter:

- Shehnaz Atcha - Program Manager (October 22) HQ
- Ronnie Stratton - Livestock Harvesting Specialist (October 27) Short term
- Gary Briers - M&E Technical Specialist (November 7) Short term
- Justen Smith - Livestock Technical Specialist (November 11) Short term
- Rajesh Sail - Deputy Procurement Manager (November 23) Short term
- Paul Vossen - Olive Specialist (December 10) Short term
- Mickey Foley - Mushroom Specialist (December 28) Short term

Demobilization - The following staff demobilized in the October – December quarter:

- Constant Kabwasa - Finance Manager (October 1st)
- Siham Salman - Contracts Operation Specialist (October 28)
- Duane Stone - Aquaculture Team Leader (October 29)
- Shehnaz Atcha - Program Manager (November 9) HQ
- Paul Vossen - Olive Specialist (December 18) Short term
- Gary Briers - M&E Technical Specialist (November 26) Short term
- Tracy Atwood - Deputy Chief of Party (December 19)

Mobilization for the following quarter - The following staff are expected to arrive in the January - March

- Jeanne Lee Bartholomew - Reporting Specialist (January 3rd) Short term

Inma is recruiting for the following positions:

- None

APPENDIX F: QUARTERLY GROSS SALES AND JOBS

The two program indicators for can be found in the following table. Sales are provided in \$US millions. The information in the table is actual data and has not been adjusted with any correction factor.

Program Total	Year IV QI	Year III	Year II	Year I	Program Target	Indicator
\$107.8	\$7.6	\$100.2	\$53.2	\$14.4	\$300	Gross Sales
20,332	645	19687	15,000	2,700	40,000	Employment

APPENDIX G: PERFORMANCE MONITORING & EVALUATION

The USAID-*Inma* primary indicators, gross sales and jobs created are found in Appendix K.

During the quarter a summative and formative report was completed by the program staff. With the assistance of a short term consultant a survey instrument was developed, pilot tested in the Livestock-Protein sector and refined. The assessment using quantitative and qualitative methods was implemented to measure the project growth during the last three and half years of programming. The finding for the USAID-*Inma* Agribusiness Program assessment indicated that the program has reached the outcome and impact indicators requested by the funding source while businesses and farmers have increased incomes and employed more people throughout Iraq. These are direct outcomes from USAID-*Inma* assistance. Concerning impact, results indicate that recipients of USAID-*Inma* aid have adopted new technologies, shared new knowledge with others, increased community images, spent more money in the villages, created sustainable businesses and look forward to the future. The findings indicate that the USAID-*Inma* Agribusiness Program has provided hope to the rural people of Iraq. According to the people, farmers are staying on their lands and are looking towards the future. These are very important positive indicators of sustainable development.

During this quarter the program continued the development of a project informational database that would contain critical program information. The program is functional and program staff is continuing to add data. It is envisioned that a new database may be a possible solution for housing the critical M&E data. Although the program has a certain usefulness it will need to be further integrated into the total management system. The impact and program data will need to be interlinked, accessible and user friendly.

During the quarter the Performance Monitoring Plan was completed. The document represents the third revised Performance Monitoring Plan for the *Inma* Agribusiness Program, USAID Contract No. 267-C-00-07-00500-00. The *Inma* program is an integral part of the United States Government's National Economic Development (NED) Program with the overall goal to: *Expand Private Sector Economic Opportunities*. The NED Program's approach is to stimulate economic growth to provide greater opportunities for the people of Iraq to engage in normal economic and social behavior, creating a climate for peace and stability.

The revision represents major changes from the previous versions. The current document tries to capture the true operational conditions within the country and provide a realistic approach to the calculations for jobs and sales creation. In addition, the values are separated into actual and corrected values. Actual values are actual values taken from sales records and records of producers. The actual values are then corrected with either a correction factor set forth by Dr. John Mellor stating that each dollar of sales at the farm gate results in 2.5 more sales for the supply chain and creates two jobs. In comparison, the FAO correction factor is 1.6.

The revision focuses on strategy and how to accurately measure program activities and the effects on the people of Iraq. The indicators represent a mix of outcome and impact indicators designed to demonstrate the progress of the program. Moreover, the impact targets were changed to more accurately reflect true adoption rates. The previous indicators were unrealistic. The new indicators more adequately reflect actual adoption rates in developing countries.

The document integrates the implementation strategy with the indicators and provides a background for the various program activities. The program which focuses on a “farm to fork” approach to agriculture assumes that individuals given the opportunity to work collectively as associations engage in normal economic and social behavior. Many activities that were discussed in the previous versions were eliminated. More specifically, focus on the date industry had to be changed due to interventions by the Government of Iraq. In addition, the expectations of the perennial horticultural activities are not too aggressive for the program. As mentioned, the date program did not develop as expected and the pomegranate program did not develop as expected. In addition, an advance educational program has to be dropped due to difficulties with obtaining US visas for Iraqi citizens.

In addition, the Data Quality Self Assessment document was revised. The USAID-*Inma* Program received word on April 18, 2008 from the Director, Economic Growth and Agriculture Office, USAID/Iraq that Data Quality Self-Assessments (DQAs) were required on all USAID-*Inma* Performance Monitoring Plan (PMP) indicators. A template for the DQA was provided with a completion date of June 30, 2008. In addition, the Economic Growth and Agriculture Office in August 2010 required that the DQA should be updated to capture changes in the program and be in agreement with the contract extension and PMP submitted in 2010. This document presents the updated DQA sheets for each of the Performance Monitoring Plan indicators submitted in December 2010.

The document discusses each of the nineteen PMP indicators as required. Each indicator contains practical discussions as related to management, validity, reliability, timeliness, precision, integrity and burden. In general, the indicators provide sufficient information as related to the USAID-*Inma* program performance. The greatest challenge to the measurements is the ability for the expatriate USAID-*Inma* staff to work closely in the field to adequately train national staff and various subcontractors. Another challenge is accurately providing estimated sales data in remote locations. Since Iraq is still in the elementary development stages, producers do not always have evidence of weights harvested and sold. In addition, the producers and businesses of Iraq are just learning the benefits of keeping accurate records. Regardless of the challenges faced by the USAID-*Inma* staff a reasonable solution was found for collecting data and providing USAID with respectable information.

ANNEX H: SITE SPECIFIC ENVIRONMENTAL COMPLIANCE

Compliance Checks for Feedlots

Compliance Checks	Feedlot						
	Blan	Fallujah	Hilla	Bartilla	Gubba	Kirkuk	Mohalabia
Outside of sensitive environments	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Less than 700 head of cattle	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Less than 10,000 head of sheep	Yes	Yes	Yes	Yes	Yes	Yes	Yes
At least 2 kilometers outside of	Yes	Yes	Yes	Yes	Yes	Yes	Yes
At least 3 kilometers outside of population centers in the direction of	Yes	Yes	Yes	Yes	Yes	Yes	Yes
At least 100 meters from nearest water body	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Compliance Checks for Fruit and Vegetable Packing Sheds

Compliance Checks	Fruit and Vegetable				
	Fallujah	Alrabee	Altaji	Karbala	Radzwaniyah
Outside of sensitive environments	Yes	Yes	Yes	Yes	Yes

Compliance Checks for Feed Grain Mills

Compliance Checks	Feed Grain Mills	
	VANO (existing)	VANO (New-Under construction)
Outside of sensitive environments	Yes	Yes
At least 1 kilometer from population centers in the direction of prevailing winds	Yes	Yes

Compliance Checks for Orchards and Vineyards

N o.	Orchards and Vineyards	Province	Compliance Checks
			Outside of sensitive environments
1.	Mahmud Omar Taha-Shaqlawa	Erbil	Yes
2.	Ali Saleh Aziz-Shaqlawa	Erbil	Yes
3.	Rizgar Qader Hamma	Sulaymania	Yes
4.	Abdul Rahman Sulaiman	Dahuk	Yes
5.	Azad Qader Saeed	Dahuk	Yes
6.	Gayathaden Abdulghafur	Dahuk	Yes
7.	Harbi Haji Ahmed	Dahuk	Yes
8.	Patros Sliwa Jajo	Dahuk	Yes
9.	Salar Othman Hassan	Dahuk	Yes

Site Specific Environmental Impact Assessments

The Impact Assessments and Programmatic Environmental Assessment methodologies are based on a modified version of Conesa-Fernandez-Vitora [2003]. To improve the process only Intensity and Extension factors were calculated for each project site. The Environmental Assessment Team has deemed this as sufficient information for determining any differences in the significance of environmental impacts because it is believed that the factors of Manifestation, Persistence, Reversibility, Synergy, Accumulation, Effect, Periodicity and Recuperability are intrinsic characteristics of the previously analyzed impacts and therefore will not change from site to site.

Project Title: Blan feedlot
Date Visited: 9/05/2010
Assessor Name(s): Ammar Jassim
Location: Duhok province
Type of Project: Beef Feedlot
Project Status: On-going
Impacts:

Construction Related Impacts		Nature (+/-)	Intensity					Extension					N/A	
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Infrastructure Demolition, Construction, and Rehabilitation	Debris and waste generation	-												✓
	Noise	-												✓
	Dust and particulates	-												✓
	Vehicular emissions	-												✓
	Fuel emissions (eg generators)	-												✓
	Pavement removal/installation	-												✓
	Septic tanks	-												✓
	Site cleanup (emissions, spills, etc.)	-												✓
	Oil and chemicals spills	-												✓
	Contaminated soils/debris removal	-												✓
	Drainage pattern modification	-												✓
	Soil removal	-												✓
	Construction camp/logistic area	-												✓
	Construction dumpsite	-												✓
	Increased water use	-												✓
Social and Cultural	Landscape modification	-												✓
	Interference with daily activities	-												✓
	Disturbance of cultural sites	-												✓
Environmental	Modification of water quality	-												✓
	Modification of soil quality	-												✓
Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A	
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		

Process	Maintenance and cleaning	-	√					√				
	Chemical storage and handling	-	√				√					
Inputs	Water use	-	√				√					
	Energy/fuel use	-		√			√			√		
Outputs	Solid Waste	-	√				√					
	Wastewater	-	√					√				
	Animal waste	-	√					√				
	Human Waste	-	√				√					
	Fuel emissions (e.g. generators)	-	√					√				
	Vehicular emissions	-	√					√				
	Odors	-	√					√				
	Noise	-	√					√				
	Dust and particulate material	-	√							√		
Social and Cultural	Health risks (e.g. accidents)	-										√
	Daily activity interference (e.g. work)	-										√
	Cultural changes	-										√
Environmental	Water quality	-										√
	Attraction of pests	-	√					√				
	Soil quality	-										√

Project Title: Fallujah feedlot
Date Visited: 21/12/2010
Assessor Name(s): Zainab Al- Saadi
Location: Anbar province
Type of Project: Beef/ Calves Feedlot
Project Status: complete
Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-	√						√				
	Chemical storage and handling	-	√					√					
Inputs	Water use	-	√					√					
	Energy/fuel use	-		√				√			√		
Outputs	Solid Waste	-	√					√					
	Wastewater	-	√						√				
	Animal waste	-	√						√				
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-	√						√				
	Odors	-	√						√				
	Noise	-	√						√				
	Dust and particulate material	-	√								√		
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√						√				
	Soil quality	-											√

Project Title: Hilla feedlot
Date Visited: 29/12/2010
Assessor Name(s): Zainab Al- Saadi
Location: Babil province
Type of Project: Beef/ Lamb Feedlot
Project Status: complete
Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-	√						√				
	Chemical storage and handling	-	√					√					
Inputs	Water use	-	√					√					
	Energy/fuel use	-		√				√			√		
Outputs	Solid Waste	-	√					√					
	Wastewater	-	√						√				
	Animal waste	-	√						√				
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-	√						√				
	Odors	-	√						√				
	Noise	-	√						√				
	Dust and particulate material	-	√								√		
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√						√				
	Soil quality	-											√

Project Title: Bartilla feedlot
Date Visited: 29/12/2010
Assessor Name(s): Ammar Jassim
Location: Ninavah province
Type of Project: Beef Feedlot
Project Status: complete
Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-	√						√				
	Chemical storage and handling	-	√					√					
Inputs	Water use	-	√					√					
	Energy/fuel use	-	√					√					
Outputs	Solid Waste	-	√					√					
	Wastewater	-	√						√				
	Animal waste	-	√						√				
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-	√						√				
	Odors	-	√						√				
	Noise	-	√						√				
	Dust and particulate material	-	√						√				
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√						√				
	Soil quality	-											√

Project Title: Gubba feedlot
Date Visited: 30/12/2010
Assessor Name(s): Ammar Jassim
Location: Ninawah province
Type of Project: Beef Feedlot
Project Status: complete
Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-	√						√				
	Chemical storage and handling	-	√					√					
Inputs	Water use	-	√					√					
	Energy/fuel use	-	√					√					
Outputs	Solid Waste	-	√					√					
	Wastewater	-	√						√				
	Animal waste	-	√						√				
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-	√						√				
	Odors	-	√						√				
	Noise	-	√						√				
	Dust and particulate material	-	√						√				
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√						√				
	Soil quality	-											√

Project Title: Kirkuk feedlot
Date Visited: 29/12/2010
Assessor Name(s): Ammar Jassim
Location: Kirkuk province
Type of Project: Beef Feedlot
Project Status: complete
Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-	√					√					
	Chemical storage and handling	-	√					√					
Inputs	Water use	-	√					√					
	Energy/fuel use	-	√					√					
Outputs	Solid Waste	-	√					√					
	Wastewater	-	√						√				
	Animal waste	-	√						√				
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-	√						√				
	Odors	-	√						√				
	Noise	-	√						√				
	Dust and particulate material	-	√						√				
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√						√				
	Soil quality	-											√

Project Title: Mohalabia feedlot

Date Visited: 30/12/2010

Assessor Name(s): Ammar Jassim

Location: Ninawah province

Type of Project: Beef Feedlot

Project Status: complete

Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-	√					√					
	Chemical storage and handling	-	√					√					
Inputs	Water use	-	√					√					
	Energy/fuel use	-	√					√					
Outputs	Solid Waste	-	√					√					
	Wastewater	-	√						√				
	Animal waste	-	√						√				
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-	√						√				
	Odors	-	√						√				
	Noise	-	√						√				
	Dust and particulate material	-	√						√				
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√						√				
	Soil quality	-											√

Project Title: Falluja Packing shed

Date Visited: 12/12/2010

Assessor Name(s): Zainab Al- saadi

Location: Anbar

Type of Project: Fruit/Vegetable Packing

Project Status: Completed

Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-	√						√				
	Chemical storage and handling	-											√
Inputs	Water use	-	√								√		
	Energy/fuel use	-	√						√				
Outputs	Solid Waste	-	√						√				
	Wastewater	-											√
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-											√
	Odors	-											√
	Noise	-	√								√		
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√					√					
	Soil quality	-											√

Project Title: Al-Rabee Packing shed

Date Visited: 12/12/2010

Assessor Name(s): Zainab Al- saadi

Location: Baghdad

Type of Project: Fruit/Vegetable Packing

Project Status: Completed

Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-	√						√				
	Chemical storage and handling	-											√
Inputs	Water use	-	√								√		
	Energy/fuel use	-	√						√				
Outputs	Solid Waste	-	√						√				
	Wastewater	-											√
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-											√
	Odors	-											√
	Noise	-	√								√		
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√					√					
	Soil quality	-											√

Project Title: Al-Taji Packing shed

Date Visited: 12/15/2010

Assessor Name(s): Zainab Al- saadi

Location: Baghdad

Type of Project: Fruit/Vegetable Packing

Project Status: Completed

Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-		√					√				
	Chemical storage and handling	-											√
Inputs	Water use	-	√								√		
	Energy/fuel use	-	√						√				
Outputs	Solid Waste	-	√						√				
	Wastewater	-											√
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-											√
	Odors	-											√
	Noise	-	√								√		
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√					√					
	Soil quality	-											√

Project Title: Karbala Packing shed

Date Visited: 12/23/2010

Assessor Name(s): Zainab Al- Sady

Location: Karbala province

Type of Project: Fruit/Vegetable Packing

Project Status: completed

Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-		√					√				
	Chemical storage and handling	-											√
Inputs	Water use	-	√								√		
	Energy/fuel use	-	√						√				
Outputs	Solid Waste	-	√						√				
	Wastewater	-											√
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-											√
	Odors	-											√
	Noise	-	√									√	
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√					√					
	Soil quality	-											√

Project Title: Razwaniyah Packing shed

Date Visited: 12/14/2010

Assessor Name(s): Zainab Al- saadi

Location: Baghdad

Type of Project: Fruit/Vegetable Packing

Project Status: completed

Impacts:

Operation Related Impacts		Nature (+/-)	Intensity					Extension					N/A
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-		√					√				
	Chemical storage and handling	-											√
Inputs	Water use	-	√								√		
	Energy/fuel use	-	√						√				
Outputs	Solid Waste	-	√						√				
	Wastewater	-											√
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√						√				
	Vehicular emissions	-											√
	Odors	-											√
	Noise	-	√								√		
Social and Cultural	Health risks (e.g. accidents)	-											√
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-	√					√					
	Soil quality	-											√

Project Title: VANO (existing) feed mill

Date Visited: 12/28/2010

Assessor Name(s): Ammar Jassim

Location: Erbil province

Type of Project: Feed Mills

Project Status: On-going

Impacts:

Construction Related Impacts		Nature (+/-)	Intensity					Extension					N/A	
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Infrastructure Demolition, Construction, and Rehabilitation	Debris and waste generation	-												
	Noise	-												
	Dust and particulates	-												
	Vehicular emissions	-												
	Fuel emissions (eg generators)	-												
	Pavement removal/installation	-												
	Silo construction	-												
	Septic tanks	-												
	Site cleanup (emissions, spills, etc.)	-												
	Oil and chemicals spills	-												
	Contaminated soils/debris removal	-												
	Drainage pattern modification	-												
	Soil removal	-												
	Construction camp/logistic area	-												
	Construction dumpsite	-												
Increased water use	-													
Social and Cultural	Landscape modification	-												
	Interference with daily activities	-												
	Disturbance of cultural sites	-												
Environmental	Modification of water quality	-												
	Modification of soil quality	-												
Operation Related		ure	Intensity					Extension					N/A	

Impacts			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-		√				√					
	Chemical storage and handling	-											√
Inputs	Water use	-											√
	Energy/fuel use	-		√				√					
Outputs	Solid Waste	-											√
	Wastewater	-											√
	Human Waste	-	√					√					
	Fuel emissions (e.g. generators)	-	√					√					
	Vehicular emissions	-	√						√				
	Odors	-		√					√				
	Noise	-			√				√				
	Dust and particulate material	-				√				√			
Social and Cultural	Health risks (e.g. accidents)	-		√				√					
	Daily activity interference (e.g. work)	-											√
	Cultural changes	-											√
Environmental	Water quality	-											√
	Attraction of pests	-			√						√		
	Soil quality	-											√

Project Title: VANO New (under construction) Feed mill

Date Visited: 12/28/2010

Assessor Name(s): Ammar Jassim

Location: Erbil province

Type of Project: Feed Mills

Project Status: On-going

Impacts:

Construction Related Impacts		Nature (+/-)	Intensity					Extension					N/A	
			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Infrastructure Demolition, Construction, and Rehabilitation	Debris and waste generation	-		√					√					
	Noise	-		√				√						
	Dust and particulates	-	√					√						
	Vehicular emissions	-		√				√						
	Fuel emissions (eg generators)	-		√				√						
	Pavement removal/installation	-												√
	Silo construction	-			√			√						
	Septic tanks	-		√				√						
	Site cleanup (emissions, spills, etc.)	-		√				√						
	Oil and chemicals spills	-	√					√						
	Contaminated soils/debris removal	-	√					√						
	Drainage pattern modification	-												√
	Soil removal	-												√
	Construction camp/logistic area	-	√					√						
	Construction dumpsite	-	√					√						
Increased water use	-												√	
Social and Cultural	Landscape modification	-		√				√						
	Interference with daily activities	-	√					√						
	Disturbance of cultural sites	-	√					√						
Environmental	Modification of water quality	-												√
	Modification of soil quality	-												√
Operation Related		ur e	Intensity					Extension					N/A	

Impacts			Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical	
Process	Maintenance and cleaning	-											✓
	Chemical storage and handling	-											✓
Inputs	Water use	-											✓
	Energy/fuel use	-											✓
Outputs	Solid Waste	-											✓
	Wastewater	-											✓
	Human Waste	-											✓
	Fuel emissions (e.g. generators)	-											✓
	Vehicular emissions	-											✓
	Odors	-											✓
	Noise	-											✓
Social and Cultural	Dust and particulate material	-											✓
	Health risks (e.g. accidents)	-											✓
	Daily activity interference (e.g. work)	-											✓
Environmental	Cultural changes	-											✓
	Water quality	-											✓
	Attraction of pests	-											✓
	Soil quality	-											✓

Project Title: Mahmud Omar Taha Orchard Orchard

Date Visited: 8/2/2010

Assessor Name(s): Ammar Jassim

Location: Erbil province

Type of Project: Orchards and Vineyards

Project Status: on-going

Impacts:

Adverse Impacts	Nature (+/-)	Intensity					Extension					N/A	
		Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Vehicular emissions (pre-operation)	-												√
Solid Waste (operation)	-	√						√					
Soil Quality (operation)	-												√

Project Title: Ali Saleh Aziz Orchard

Date Visited: 12/26/2010

Assessor Name(s): Ammar Jassim

Location: Erbil province

Type of Project: Orchards and Vineyards

Project Status: on-going

Impacts:

Adverse Impacts	Nature (+/-)	Intensity					Extension					N/A	
		Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Vehicular emissions (pre-operation)	-												√
Solid Waste (operation)	-	√						√					
Soil Quality (operation)	-												√

Project Title: Rizgar Qader hamma Orchard (Pomegranate)

Date Visited: 8/2/2010

Assessor Name(s): Ammar Jassim

Location: Sulaymania province

Type of Project: Orchards and Vineyards

Project Status: on-going

Impacts:

Adverse Impacts	Nature (+/-)	Intensity					Extension					N/A	
		Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Vehicular emissions (pre-operation)	-												√
Solid Waste (operation)	-	√						√					
Soil Quality (operation)	-												√

Project Title: Abdul-Rahman Sulaiman Orchard

Date Visited: 12/29/2010

Assessor Name(s): Ammar Jassim

Location: Dahuk province

Type of Project: Orchards and Vineyards

Project Status: on-going

Impacts:

Adverse Impacts	Nature (+/-)	Intensity					Extension					N/A	
		Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Vehicular emissions (pre-operation)	-												√
Solid Waste (operation)	-	√						√					
Soil Quality (operation)	-												√

Project Title: Azad Qader Saeed Orchard

Date Visited: 12/29/2010

Assessor Name(s): Ammar Jassim

Location: Dahuk province

Type of Project: Orchards and Vineyards

Project Status: on-going

Impacts:

Adverse Impacts	Nature (+/-)	Intensity					Extension					N/A	
		Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Vehicular emissions (pre-operation)	-												√
Solid Waste (operation)	-	√						√					
Soil Quality (operation)	-												√

Project Title: Gayathaden Abdulghafor Orchard

Date Visited: 8/3/2010

Assessor Name(s): Ammar Jassim

Location: Dahuk province

Type of Project: Orchards and Vineyards

Project Status: on-going

Impacts:

Adverse Impacts	Nature (+/-)	Intensity					Extension					N/A	
		Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Vehicular emissions (pre-operation)	-												√
Solid Waste (operation)	-	√						√					
Soil Quality (operation)	-												√

Project Title: Harbi Haji Ahmad Orchard

Date Visited: 12/29/2010

Assessor Name(s): Ammar Jassim

Location: Dahuk province

Type of Project: Orchards and Vineyards

Project Status: on-going

Impacts:

Adverse Impacts	Nature (+/-)	Intensity					Extension					N/A	
		Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Vehicular emissions (pre-operation)	-												√
Solid Waste (operation)	-	√						√					
Soil Quality (operation)	-												√

Project Title: Patros Sliwa Jajo Orchard

Date Visited: 8/10/2010

Assessor Name(s): Ammar Jassim

Location: Dahuk province

Type of Project: Orchards and Vineyards

Project Status: on-going

Impacts:

Adverse Impacts	Nature (+/-)	Intensity					Extension					N/A	
		Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Vehicular emissions (pre-operation)	-												√
Solid Waste (operation)	-	√						√					
Soil Quality (operation)	-												√

Project Title: Salar Othman Hassan Orchard

Date Visited: 12/29/2010

Assessor Name(s): Ammar Jassim

Location: Babil province

Type of Project: Orchards and Vineyards

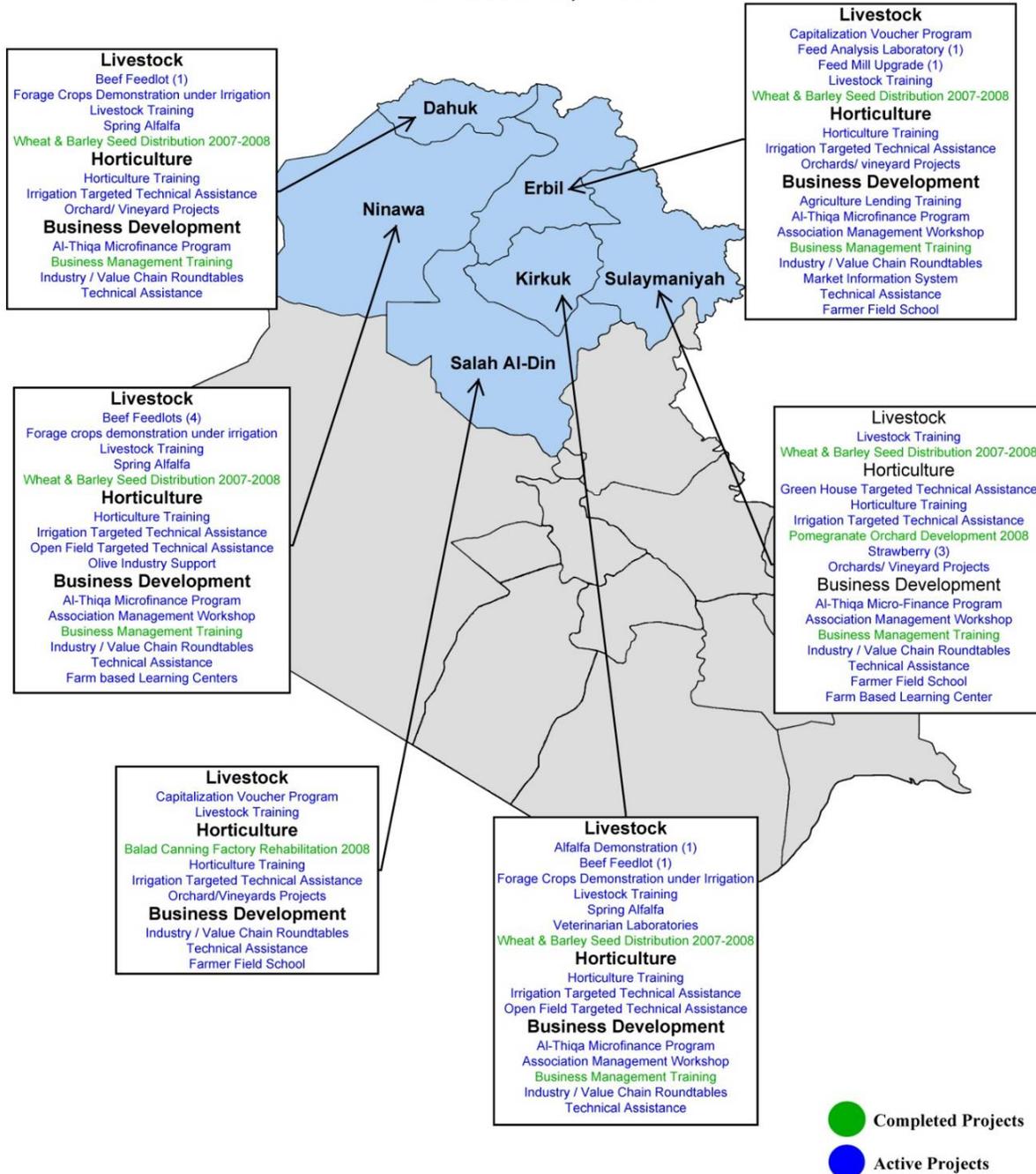
Project Status: on-going

Impacts:

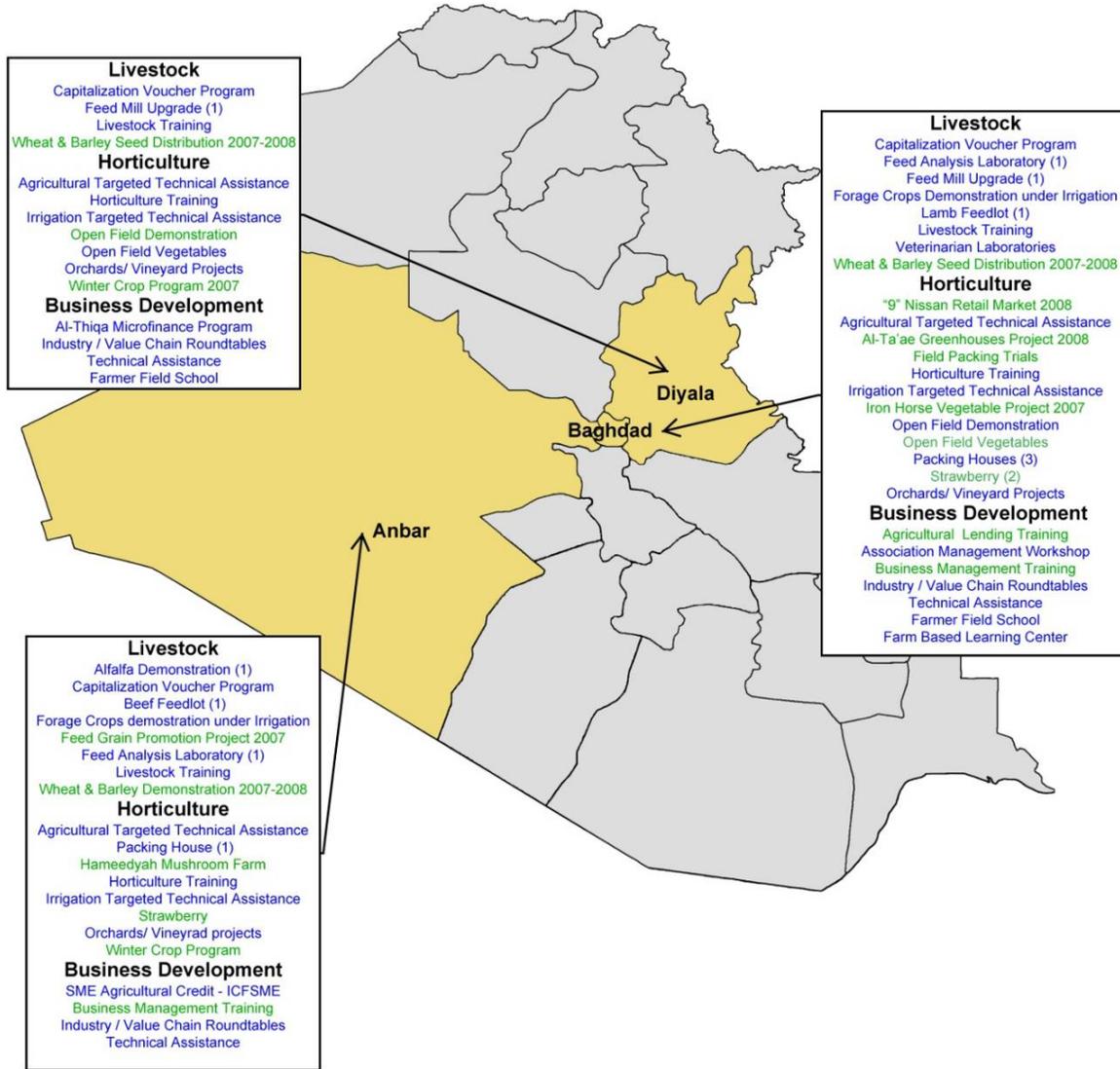
Adverse Impacts	Nature (+/-)	Intensity					Extension					N/A	
		Low	Medium	High	Very High	Total	Punctual	Partial	Extended	Total	Critical		
Vehicular emissions (pre-operation)	-												✓
Solid Waste (operation)	-												✓
Soil Quality (operation)	-												✓

APPENDIX I: Maps

USAID-Inma Iraq Projects Northern Geographical Focus Area (GFA) December, 2010



USAID-Inma Iraq Projects Golden Crescent Geographical Focus Area (GFA) December, 2010

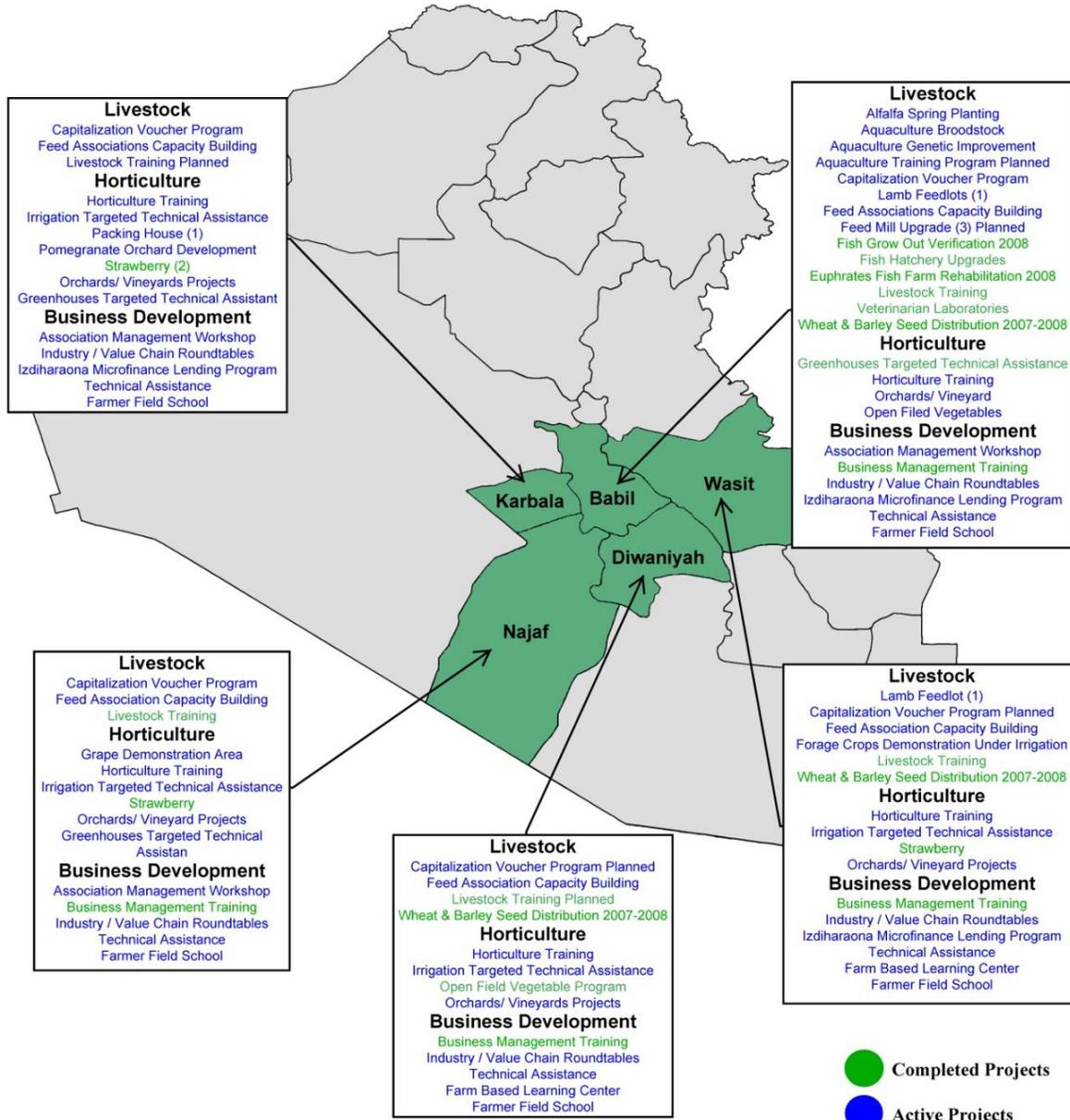


- Completed Projects
- Active Projects

USAID-Inma Iraq Projects

Two Rivers Geographical Focus Area (GFA)

December, 2010



USAID-*Inma* Iraq Projects

South East Geographical Focus Area (GFA)

December, 2010

