



USAID | **IRAQ**
FROM THE AMERICAN PEOPLE

QUARTERLY REPORT

USAID-*Inma* Agribusiness Program

January – March 2010



March 2010

This report was produced for review by the U.S. Agency for International Development (USAID).
It was prepared by a consortium led by The Louis Berger Group, Inc.

March 31, 2010

USAID-*Inma* Agribusiness Program QUARTERLY REPORT January – March 2010



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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. USAID-*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 11th Quarter (Jan-Mar 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).

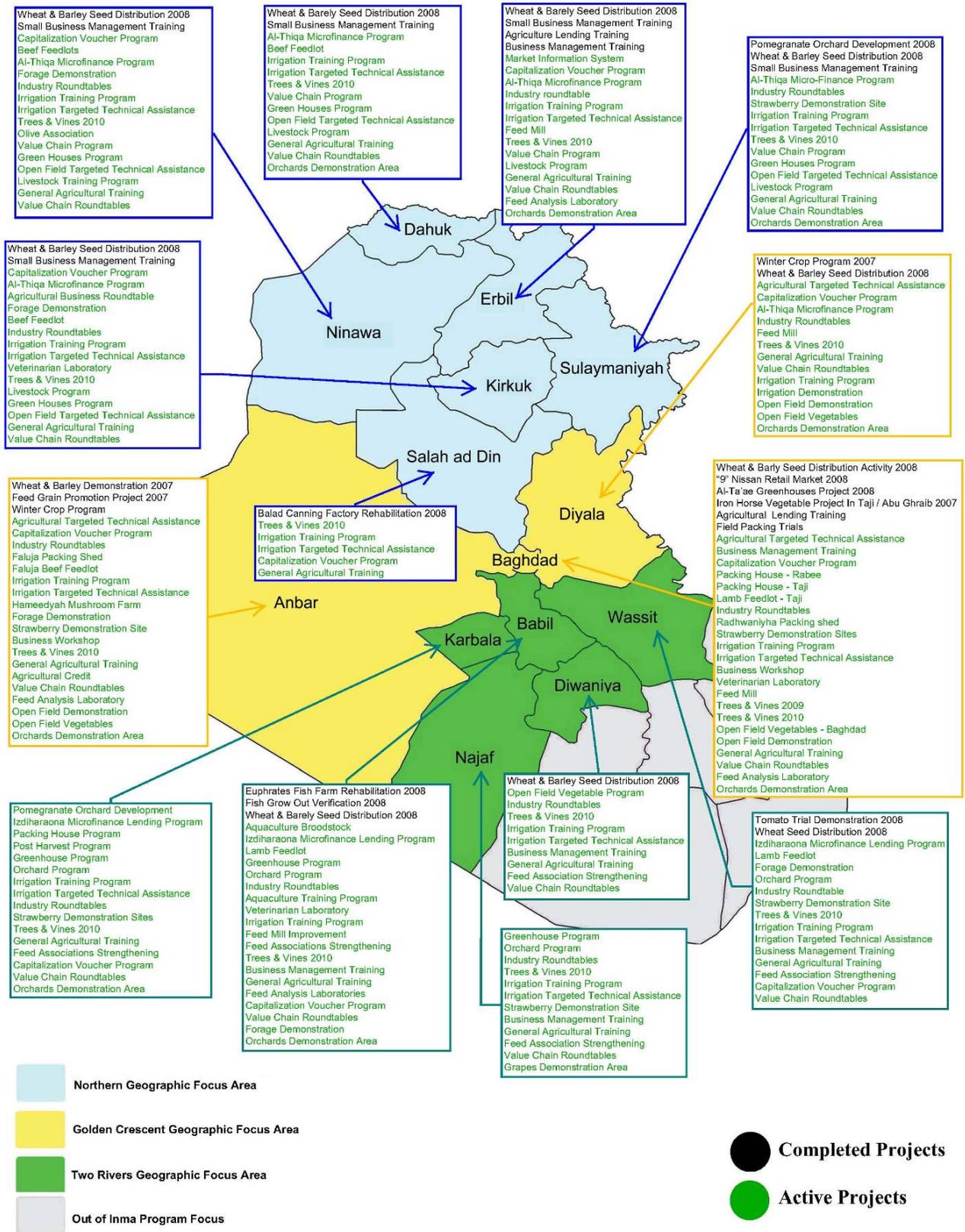
Program Name:	USAID- <i>Inma</i> Agribusiness Program
Program Objective:	The purpose of this contract is to provide agricultural and business development services to USAID beneficiaries in strategic locations in Iraq to promote economic diversification and job generation, with an emphasis on the growth 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, 2010 Two one-year options to extend to September 30, 2012
Program End Date:	April 2012
Program Principals:	Charles Bell, Senior Vice President The Louis Berger Group, Inc.
On-Site Leadership	Ross Wherry, Chief of Party Shehnaz Atcha, Program Manager Tracy Atwood, Deputy Chief of Party - Technical Program

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 three years, May 14, 2007 through August 31, 2010, with two one year options to extend through April 30, 2012.

ACRONYMS

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
FOB	Forward Operating Base
GOI	Government of Iraq
GFA	Geographic Focus Area
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
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
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 AREAS



EXECUTIVE SUMMARY

January 2010 - March 2010

- USAID-*Inma* created 1,463 gross jobs during the past quarter, for a total of 34,700 gross jobs in agriculture and supporting businesses since May 2007.
- Gross sales of \$8.6 million were recorded during the past quarter. Gross sales to date among USAID-*Inma* partners attained \$177 million.
- USAID-*Inma* has since May 2007 mobilized over \$12 million in Iraqi equity investment.

New Industries Mobilize Iraqi Investment

- 10 investors demonstrated that commercial stock production in feedlots is viable. They have been joined by 16 additional producers.
 - 287 livestock producers trained this quarter; 600 more to be trained by June.
- 10 investors are showing that commercial, mechanized alfalfa production is viable, with harvests sold before the alfalfa is cut.
 - Additional producers will be solicited in May to replicate USAID-*Inma* practices.
- 6 training centers focus on getting two crops a year from 2,600 greenhouses.
 - 1,089 greenhouse operators trained this quarter; 925 more to be trained by June.
- 10 investors showed the viability and profitability of strawberry production.
 - Total yield from the spring harvest is estimated at 43,000 kg, valued at \$138,000.

Greater Production for Domestic Fresh Market

- Hungarian-Iraqi fish crossbreeding began March 28 to improve growth rate and disease resistance.
 - 140 farmers trained this quarter, 100 hatchery managers to train in April.
- 6 feed mills entered a program that will lower poultry and fish feed cost by 16%.
 - 22 farm service associations are buying feed, potentially serving 9,900 members.
- 112 farmers received varieties of fruit and grapes that will triple harvests, producing over 12 weeks in 2013 instead of 4 weeks as now. Import challenges were overcome.
 - 680 farmers trained this quarter, 1,475 more by June. Harvest begins in June.
- 5 training centers focus on early production from 4 melon and 8 vegetable producers.
 - 680 farmers trained this quarter, 825 more to be trained by June.
 - 867 farmers trained in irrigation principles; 1,025 more to be trained by June

Iraqi Agriculture Moves Towards Market-Based Production

- 42 enterprises (companies and associations) have filed business plans
 - USAID-*Inma* continues to advise these firms as their plans unfold.
- 32 farm service associations seek to become businesses, ten fewer than planned
 - Farm associations are quite weak in financial and business management.
- Industry leaders in livestock, horticulture, and fish in 11 provinces resolved constraints with government officials.
- \$6 million agribusiness credit programmed; \$4.7 million cumulative disbursements.

USAID-*Inma* Agribusiness Program

QUARTERLY REPORT

January - March 2010

VALUE CHAINS

USAID-*Inma* approaches Iraqi food markets through value chain analysis to address the constraints to profitability as product flows from the farm through markets to the consumer. USAID-*Inma* supports three of the most needed and profitable agricultural value chains in Iraq:

- **Beef and Lamb**
- **Aquaculture and Poultry**
- **Fruits and Vegetables**

These activities increase productivity, lower production and marketing costs, increase the profitability of agricultural enterprises, and generate rural employment.

USAID-*Inma* assists Iraqi enterprises to attain a critical mass of producers and marketers to convincingly demonstrate high-value businesses. Specific USAID-*Inma* activities include field trials, demonstrations, and institutional support to catalyze the adoption of improved production, post-harvest, and marketing practices.

USAID-*Inma*'s Business Development Services unit complements the three value chains through agribusiness financing, market information systems, business consultation services, and training programs.



A. BEEF AND LAMB VALUE CHAIN

In Iraq, rising consumption of red meats parallels rising household incomes, with demand exceeding the supply. Prices for fresh Iraqi meat are rising and frozen imported beef and lamb are beginning to arrive. An USAID-*Inma* presentation in December 2009 of the success of beef and lamb feedlots supported by USAID-*Inma* generated 16 expressions of interest in investment in more feedlots to help meet the domestic demand. In addition to the production, animal health, and nutrition segments of the value chain, USAID-*Inma* has assisted mechanized, large-scale production of alfalfa. This forage is essential to the feedlots as well as to dairy producers. Alfalfa is being cut and baled as hay and is also being converted into pellets for ease of transportation.



I. FEEDLOT PRODUCTION

Market prices for red meat are more than three times that of poultry. According to a World Bank and “Central Organization for Statistics and Information Technology” (COSIT) survey, as household incomes increase, the percentage of money spent on red meat will dramatically increase to exceed other commodities such as cereals, vegetables, fruits, and fish. Strong consumer preference for red meats indicates that consumption of lamb and beef will grow faster than supply. Iraqi producers have a competitive advantage over imports in supplying lamb and beef to the domestic market.

Feeding animals in confinement is a new industry that not only produces better quality meat but also leads to many other intermediate businesses such as the consolidation of feeder calves and forage. To make quality meat more available, USAID-*Inma* supported the creation of seven beef feedlots and three lamb feedlots around Iraq. They will produce 4,200 head of beef and 3,600 head of sheep yearly in confinement. USAID-*Inma* expects that as many as ten additional feedlots will replicate the USAID-*Inma* demonstration.

Feedlot operators buy calves and lambs from livestock markets and herders, and alfalfa hay and barley from many farmers. USAID-*Inma*'s contribute

on is to minimize business risk of learning the new technology as Iraqi stockmen see proof of the benefits of modern production practices.

USAID-*Inma* will also provide assistance in business and association development training to feedlot operators. A contract will be issued to provide training in administrative, business and financial matters during the first six months of feedlot operation. USAID-*Inma* has 15 Iraqi staff to assist the feedlot operators in stock-raising.

1. FEEDLOT PRODUCTION

Seven Beef & Three Lamb Feedlots				
	Stock 1 Jan	Stock 31 Mar	First Sale Date	Sold
Brotherhood, Bartella, Ninawa	163 Cattle	415 Cattle	3/25/10	51
Shavin, Blann, Dahuk	200 Cattle	246 Cattle	4/1/10	
Al-Nahreen, Alqosh, Ninawa	70 Cattle	112 Cattle	4/1/10	
Al-Fallah Assoc., Al-Mohallabya, Ninawa	50 Cattle	50 Cattle	5/1/10	
Dheaa Al Noor Assoc., Taji, Baghdad	100 Lambs	400 Lambs	2/20/10	100
Hawks of Iraq, Hilla, Babil	100 Lambs	491 Lambs	4/15/10	
Dijlat Al-Khair, Sawera, Wasit	50 Lambs	100 Lambs	4/15/10	
Al-Jubori Group, Al Boeter Village, Kirkuk	100 Cattle	100 Cattle	4/11/10	
Al-Naem Assoc., Qoba Village, Ninawa	50 Cattle	72 Cattle	5/1/10	
Nimer Al-Jazera Co., Fallujah, Anbar	50 Cattle	100 Cattle	5/1/10	

Quarterly Progress

From the original 10 feedlot investors, another 16 have expressed interest in investment, confirming USAID-*Inma*'s use of commercial-sized demonstrations as stimulus for rural economic growth. Six of the demonstration feedlots attained economic self-sufficiency in the quarter, able to buy and sell stock, manage herd health, and plan feeding regimes that take advantage of seasonal price advantages. Feedlot operators are re-investing the proceeds of animal sales into their businesses to reach full utilization of their facilities. Two of these operators are planning for expansion. Four more feedlots are expected to become economically viable by June 2010.

Cumulative Livestock Training						
	1 Jan			31 Mar		
	Male	Female	Total	Male	Female	Total
Livestock Production Training for 1,000 Trainees	79	0	79	344	25	369
Targeted Technical Assistance (for Livestock & Forage)	16	0	16	48	5	53

The success of these beef and lamb growers showed a production that convinced 16 additional investors to take steps towards creation of feedlots. Growth rates using the demonstrated management model have led to cattle fattening at the rate of 1.0 kg per day, and lambs at 175 g. per day. These rates are slightly lower than those of developed country feeding operations, but much higher than traditional growth rates in the Middle East. USAID-*Inma* assists these potential operators with environmentally sound engineering plans as well as business and technical training necessary for successful operation. The progress of these additional feedlots will be followed in the next quarter.

Sales of the animals fattened in the feedlots were well received by local butchers. The carcasses were seen as being better quality – more muscle in the high quality cuts, less wastage and fat – with the opportunity to command the highest price in the market. Indeed, three producers have been approached with forward buying agreements to lock in supplies for the high end of the market.

During the quarter, 287 animal producers nationwide received extension classes in animal production. To meet demand for the classes, USAID-*Inma* has programmed training for 600 more producers in the coming quarter. The producers were trained in record keeping, disease control, internal and external parasite control, nutrition and feeding, purchasing and selling animals, and maintaining a stress-free feedlot environment. Farmers are encouraged to look at the full cost of their animal production with an eye to the seasonal market prices likely to prevail when the animals are to be sold.

Challenges in the Value Chain

Foot and mouth disease, a viral infection that prevents animals from gaining weight, remains an enduring challenge to animal production. Vaccines for the disease are helpful, but the virus has many strains and not all are susceptible to vaccination. USAID-*Inma* worked with feedlot operators to aggressively select healthy animals when buying stock for fattening. The seller is required to quarantine the proposed sale animals and pay for their vaccination. The quarantine is continued at the feedlot, and any animals that appear sick must be replaced by the seller.

Security continues to challenge the completion of four beef feedlots in northern Iraq. The feedlot operators must use small trucks to move their building materials, and workers often cannot come to

the site regularly. USAID-*Inma* has amended its business plans for these feedlots to assist them to begin fattening cattle while the feedlot is completed. The feedlot sites were selected in coordination with the PRTs in the anticipation that they would help motivate the local economy as violence and intimidation subside.

Next Quarter

- Complete construction on all ten feedlots.
- Encourage full stocking of feedlots.
- Close out feedlot grants on schedule by 30 June 2010.
- Between April and June, cattle sales are estimated to reach \$9.1 million and lamb sales are estimated to reach \$1.9 million in sales.

2. VETERINARY DIAGNOSTIC LABORATORIES



Quarterly Progress

In support of both Ministry and private veterinary practices, USAID-*Inma* convened a veterinary workshop with both Ministry and private veterinarians in January. The workshop led to a demand for more specialized analytic services to help retail veterinarians confirm their diagnoses and identify less common diseases or conditions. USAID-*Inma* competitively identified three candidates for advanced veterinary laboratory services. These three businesses received analytical equipment that will begin to fill the needs of dairy, pastured herds, and feedlot herds.

The three labs will have capabilities that Iraq's retail veterinarians and ministry laboratories currently do not, including the ability to check for viral diseases and disease strains and perform complete bloodwork and tissue analysis. Without these labs such as these, disease verification is not presently available. The labs will also enable efficient use of pharmaceuticals.

Next Quarter

- Complete delivery of laboratory equipment and training of laboratory staff.
- Execute grants in kind to complete the assistance to the laboratories.

3. FORAGE DEMONSTRATION FIELDS

Increase in meat and dairy production requires increased feed supplies. Forage for ruminant animals is included in the beef and lamb value chain, while the needs for commercially milled feed appears within the fish and poultry value chain. The great benefit to alfalfa hay is that the plant can be cut and dried for storage without loss to its protein or energy content. Cattle can eat three to four times as much dry alfalfa than they can the fresh plant, allowing them to gain weight faster or produce more milk.

Forage Demonstrations					
	Area	Planting Complete	1 st / 2 nd Barley Cutting	1 st / 2 nd Alfalfa Cutting	Status
Al-Maleh Assoc. (Hamed Naser) Wasit	400 donums	Nov 17, 2009	Jan 21 – Mar 15 Mar 29 – Apr 4	Mar 1 – Mar 15 Mar 29 – Apr 4	Barley first cut was sold fresh. Alfalfa & barley second cut was sold fresh and baled.
Farmers Union (Alaa Abdul Hussein) Najaf	240 donums	Dec 5, 2009	Mar 15 – Mar 30	Mar 15 – Mar 2	MOU canceled due to lack of water.
Al-Okhwa Assoc. (Anwer Elyas) Ninawa	400 donums	Dec 3, 2009	Mar 15 – Mar 25	Mar 15 – Mar 25	Cutting barley on 200 donums. Alfalfa & barley second cut sold fresh.
Iraqi Assoc. Ag. Dev. (Eaz Al-Deen Gazi) Kirkuk	120 donums	Dec 2, 2009	Mar 15 – Mar 25	Mar 15 – Mar 25	120 donums projected cut starting Apr 10.
Future of Iraq Assoc. (Abdul Hameed) Anbar	400 donums	Dec 2, 2009	Feb 1 – Feb 28 Mar 30 – Apr 5	Mar 1 – Mar 15 Mar 30 – Apr 5	First cut fed fresh. Second cut sold fresh.
Spring Planted Alfalfa	400 donums, six sites	Babil site planted.	Three other sites to start planting on April 1.		

Alfalfa was sown in five locations (Najaf, Wasit, Anbar, Kirkuk, Ninawa) in November 2009 with a cover crop of barley to help the new alfalfa survive the winter. Seed had been imported from California, together with precision planters from Brillion, Wisconsin, allowing for a uniform stand that crowded out many common Iraqi weeds. (Most Iraqi grains and forages are broadcast rather than drilled in.) One fall-seeded demonstration site, in Najaf, failed due to the operator being unable to provide sufficient irrigation water. USAID-*Inma* had calculated a fall alfalfa seeding rate that was too heavy, since the Brillion seeder could lay such a uniform stand. The alfalfa seed that was saved in November 2009 was planted at six demonstration sites (Anbar, Ninawa, Dahuk, Babil, Wasit. and Kirkuk) in March 2010.

Forage harvest began in February 2010 in south central Iraq, with additional harvest in March in Anbar. Harvest in Ninawa and Kirkuk provinces begins in April due to the later spring and seasonal rains. (Iraq is receiving statistically normal rainfall in early 2010 after seven years of drought.) Cooperating producers used U.S.-made New Holland forage cutter/conditioners to harvest the barley hay. Demand was sufficiently large, and the weather sufficiently damp, that the cut barley was fed wet to local herds. Alfalfa will be harvested by New Holland balers, with wire ties since nylon twine deteriorates in the harsh Iraqi sun.

USAID-*Inma* experts hosted five field days during the barley harvests in November 2009, where 324 farmers learned the importance of proper planting, plant maturity at harvest, and market development. Most of the demonstration plots have sold all of their production on contract, so that the farmer knows in advance his expected costs and revenues. There is no formal market structure in Iraq for baled hay, so USAID-*Inma* will bring a marketing advisor in the next quarter to begin to put a market into place using both USAID-*Inma* demonstrations and other forage producers. One of the demonstration farmers, based on his own knowledge and initiative, delivered a quantity of alfalfa to a nearby feedmill. There, the miller ground the alfalfa, mixed it with wheat bran, and extruded the feed as pellets. Pellets are more dense than hay, and thus easier to transport, and can be moved in bags instead of bales.

Next Quarter

- Continue harvesting of alfalfa hay, monitoring quantity, sales, and pricing.
- Prepare for first harvest of spring planting.
- Execute grants in kind to transfer planting and harvesting equipment to complete the assistance to demonstration locations.
- Alfalfa hay and other products are estimated to bring \$430,000 in sales during the quarter.



B. AQUACULTURE & POULTRY VALUE CHAIN

Fish are a relatively inexpensive source of protein, yet consumption in Iraq is low due to insufficient supply. To revive Iraq's aquaculture industry, USAID-*Inma* began in 2007 to address four critical constraints to fish production and productivity: water aeration; genetic quality of fish stock; appropriate quality fish feed; and pond productivity through farmers training. Efficient use of water is essential in a desert country like Iraq, where emotional reactions by crop farmers who receive no irrigation water could threaten fish ponds, despite the higher economic returns from aquaculture.

In the Iraqi poultry industry, farmers receive the majority of their support from local PRTs. USAID-*Inma* determined in early 2009 that the most useful intervention would be in the availability, quality and cost of feed, since feed is 65% of the cost of poultry production. The same mills that support poultry can also produce feed for fish and for livestock.

I. CROSSBREEDING IMPROVES GROWTH POTENTIAL

At the end of the quarter, a year-long program came to a successful end with the crossbreeding of fast-growth fish imported in May 2009 with heat-resistant Iraqi fish. The resulting 130 million fry will grow into fingerlings and be sold to farmers. The cross is expected to increase the growth rate of Iraqi fish by 35%. Operators of the Euphrates and Middle East Fish hatcheries in Babil province, experts from the Mussayib Technical College, and a Department of Fisheries; the State Institution for Fish Resources Development, and USAID-*Inma* staff oversaw the process.



The hatcheries provided facilities for production of the fish larvae using the pure-blood broodstock that they had grown to maturity. Ponds at both hatchery sites have been prepared for stocking of new offspring in the upcoming week. Three students from the Mussayib Technical College working on their masters program are assisting with the hybridization and documentation. USAID-*Inma* provided technical oversight through Duane Stone, USAID-*Inma* Aquaculture Team Leader; Dr. John Hargreaves, special aquaculture consultant to USAID-*Inma*; and a member of the 2008 Borlaug Institute team that reviewed the Babel aquaculture industry. USAID-*Inma* appreciated the transportation support of the 2-69 US Army Reserve at FOB Kalsu for the three weeks of intensive presence in the field.

The Government of Iraq (GOI) fish hatchery located at Suwayrah picked up 400 broodfish to be maintained at the hatchery. The hatchery has seen substantial improvements in 2010 financed by FAO. Additional allotments of broodfish have been reserved for the GOI hatcheries in Basrah and Erbil. The remainder of the brood stock will be divided among private hatcheries according to their managerial and physical capacity.

2. FISH PRODUCTION EXPANSION

Using the facilities of the two Babel hatcheries and instructors from the Mussayib Institute, USAID-*Inma* continued the practical training of fish farmers. A total of 143 farmers received training in feeding, aeration, disease control, and marketing. The farmers were experienced in traditional methods of raising fish, they saw low growth rates and did not stock their ponds with as many fish as they might have. During the training, farmers learned how to more intensively manage their ponds for greater income and productivity.

USAID-*Inma* staff advised the CERP-funded plan to rehabilitate the 500 ha site of the Al Ithmar Agriculture Company fish farm near Mussayib. If funded in 2010, the project would be a 20% increase in the area of Babel aquaculture and takes advantage of the water overflow from the Mussayib Power Plant. The March 2009 USAID-*Inma* assessment of the future of aquaculture indicated that increased production could be absorbed through 2012 without significant downward pressure on retail fish prices. Iraqis prefer fresh fish to the frozen imports from Burma and Malaysia.

Fish Production Improvement						
	1 Jan 2010			31 March 2010		
	Males	Females	Total	Males	Females	Total
Train 474 Producers	228	48	276	368	51	419



Next Quarter

- Training takes place for 100 managers of private hatcheries as preparation for receiving pureblood broodstock for production of fingerlings.
- Distribution of broodstock to government and private hatcheries.
- Continued technical assistance to fish farmers through extension and round tables.

3. PROTEIN CONCENTRATE FEEDS

Protein-concentrate feed accounts for 65% of the operational cost of production of fish and poultry. USAID-*Inma* seeks to reduce feed cost from \$600/ton to \$500/ton. The reduction is anticipated through achievement of larger orders from the millers to their soybean meal suppliers. Additional savings should accrue from reduction of the number of days needed to grow out boilers. USAID-*Inma* economists estimate this reduction in feed c

ost will result in savings of \$50,000 in operating costs per poultry farm, per growing cycle, assuming a farm of 100,000 birds.

Feed production infrastructure in Iraq has been devastated by the war, sanctions and civil unrest. The industry was maintained by government subsidies; mills were looted of their motors and equipment in 2003. Reconstruction of a modern large-scale milling industry has not occurred because investors view the national situation to be too unstable to support the investment required (several million dollars per facility).

Smaller mills came into existence to fill the void left by the large mills, but they are not sophisticated enough to produce consistent high quality feeds using national ingredients. Feed produced by these small mills does not meet the component standards necessary for fish and poultry operators to gain maximum productivity. Between farmers, feed mills, and mill ingredient suppliers, commercial relations since 1990 have deteriorated to the point that there is little trust in the quality of product being delivered. Transparency in quality is an essential part of the development of the commercial feed industry.

USAID-*Inma* assists the milling industry through the upgrade or refurbishing of competitively-selected feed mills to a monthly capacity of 1,600 MT. USAID-*Inma* will also institute management training on modern feed production techniques to lower the cost of feed production.

Feed Mill Upgrades		
	1 Jan 2010	31 Mar 2010
Al Furat Fish Farm	Grant signed Dec 16, 2009	Complete upgrade of mill. Two Associations redeemed vouchers for feed.
Middle East Fish Farm	Grant signed Dec 16, 2009	Most equipment installed.
Iraq Grandparents Poultry Farm	Grant signed Dec 15, 2009	Projected equipment delivery in mid-May. Upgrade expected to be complete by mid-June.
Vano Group	Grant signed Dec 9, 2009	Equipment ordered, with projected delivery date of July 30. Upgrade expected to be complete by end of August.
Zem Zem Feed Mill, Babil	Grant signed Feb 20, 2010	Equipment ordered, with a delivery date of May 19. Upgrade expected to be complete by end of May. One Association purchased feed.
Najim Al-Belad Co., Mahmodiya, South Baghdad	Grant signed Feb 20, 2010	Equipment ordered, with a projected delivery date of May 1. Upgrade expected to be complete by end of May. Two Associations purchased feed.

Increased efficiency within the feed production value chain requires that the mills are linked to their supply sources as well as having a sufficient customer base to remain economically viable. USAID-*Inma* economists and feed nutritionists have worked with each of the six mills to identify and price the numerous locally available feed ingredients. Prices and quantities vary throughout the year, allowing an alert miller to mix feeds of adequate nutritional quality using a least-cost calculation. The only ingredient that is unavailable from local production is soybean meal. Meal is an international commodity that varies in price according to supply. Iraqi millers are too small to import their own meal supply, let alone bargain for shiploads of 6,000 tons. Rather, they purchase from one of several large feed grain importers who maintain stocks at the seaports.

Millers combine local and imported ingredients for a variety of fish, poultry and livestock feeds, with the main variable in content and in price being the percentage of crude protein in each formulation. To ensure that the feedmills maintained a minimum cash flow to facilitate soybean meal purchases, USAID-*Inma* reached out to farm service associations as feed retailers. These associations are not strong businesses, yet they represent the interests of thousands of individual farmers. USAID-*Inma* vetted the associations for their ability and willingness to operate as businesses; they were also reviewed by the local PRT. The tie between feed mills and evolving associations is a voucher program that helps ensure a cash flow for six feed mills.

Each association receives a monthly \$10,000 voucher from USAID-*Inma* to be used towards the purchase of 40 tons of feed at a participating mill. The associations put up the remaining funds, approximately 60% of the feed cost. The associations purchase feed from a local mill each month and sell it to their members. Twenty-five farm service associations, representing 9,000 farmers in eight provinces, are participating. The associations are expected to increase their working capital through participation in the retail sale of poultry or fish feed. In many cases the associations purchase additional feed from the mill at the full market price.

Challenges to the Value Chain

Work with the farm service associations has been slowed by the continuing hope on the part of the member farmers that somehow, USAID-*Inma* will replace the 1990s cash subsidy programs from the Iraqi government. Most of the associations are weakly capitalized and managed by persons not trained in finance or marketing. The planned duration of the capitalization voucher program – ten months – fills the general need for working capital augmentation while simultaneously requiring attendance at management training. Associations that fail to attend the training and put it to use risk being dropped from the voucher program.

Next Quarter

- Five of six mills complete their facilities upgrades.
- Feed sales continue to participating associations
- Business management training provided to associations.

4. FEED ANALYTICAL LABORATORIES

Adulteration of agricultural commodities is widespread in Iraq. Buyers must be particularly careful at the time of purchase to ensure that advertised content, e.g. percent crude protein, is truly the percent in the delivered feed. The issue is transparency in transaction. Unavailable laboratory analysis prevents buyers from testing the feed being loaded on their truck at time of purchase, nor can sellers easily demonstrate good faith. To establish the compliance of the transaction, conveniently available sampling is necessary.

Government laboratories are manually operated, with a backlog of samples for analysis forcing the private sector to send feed samples out of country for analysis. The new laboratories will be fully-automated, capable of handling up to 150 samples a day. A properly equipped and managed Feed

Analysis Laboratory is the tool that guarantees quality control to the buyer of the raw materials to produce the feed and the processed feed utilized by the grower. A Feed Analysis Laboratory utilizing modern and automated equipment can give accurate results within minutes of receiving the sample. The laboratory analysis will help purchasers know if their feed has the protein content for which they paid. This analysis laboratory also serves as a quality control for the feed mills in their local production.

USAID-*Inma* competitively selected three companies to receive grants, one for each location in the Northern, Central and Southern Iraq for the operation of the laboratories. All three laboratories will be open to both feed producers and the public for the analysis of feed samples. USAID-*Inma* has procured the necessary feed analysis equipment which will be delivered to the selected companies during the next quarter. Equipment will be accompanied by expert training for the laboratory technicians by the manufacturer’s representative on the new equipment; with five technicians to be trained for each of the three locations.

Feed Analysis Laboratories		
	1 Jan 2010	31 Mar 2010
Al-Tayf Al-Abiad Enterprise, Anbar	MOU signed. Equipment purchased Jan 21.	
Alavet Company, Erbil	MOU signed. Equipment purchased Jan 21.	Equipment delivery expected late May 30. Business plans are under development.
Al-Hashimi Group Company, Baghdad	MOU signed. Equipment purchased Jan 21.	

Next Quarter

- Delivery and installation of equipment to three analysis laboratories, with training for 15 technicians.
- Analysis of feed samples from the USAID-*Inma* feed mill improvement program.
- Expansion of feed analysis to a larger public clientele.

C. HORTICULTURE VALUE CHAIN

The USAID-*Inma* horticulture value chain consists of increasing national production for the fresh market, creating jobs and incomes within Iraq instead of depending overwhelmingly on imported fruits and vegetables. USAID-*Inma*'s assistance to production is increasing the future productivity of the fruit industry, increasing the yield and profitability of the rapidly expanding greenhouse industry, increasing the yield and controlling soil salinity in open field vegetable production, and by strengthening post-harvest links between farmers and consumers. Iraq does not yet have a sufficient quantity of locally produced fruits and vegetables, nor sufficient electricity to support processing plants.

Iraq has been closed for many years to cultivation techniques based on a better understanding of crop science, and new seed varieties have been developed in countries with similar climatic limitations. USAID-*Inma* field agents have introduced new production technology to Iraqi farmers with the courage to adopt them. New agricultural practices take 2-3 crop cycles to win the confidence of farmers. USAID-*Inma* asks the Iraqi farmer to make a twenty year leap in technology that risks both livelihood and the ridicule of his neighbors if the technology does not live up to its promise. The USAID-*Inma* staff has great regard for their Iraqi partners who are accepting the challenge of improving their production through the adoption of new technology.

Iraqi fruit and vegetable production is less than a third of national consumption. Goal one is to achieve volume and earnings parity with imports so that farming jobs are created in Iraq not in neighboring countries. That's happening. Second goal is to allow buyers to see that there are market segments, with first quality Iraqi product being perceived as equal to imported choices. That segmentation is already seen in meats, but not yet in fruits and vegetables. In narrow market windows, Iraqi product – dates, okra -- may be internationally competitive and achieve a true "export" quality designation. Second quality product, which is always sold domestically at relatively low prices, can be consumed in the fresh market or could begin to feed a processed food industry.



USAID-*Inma* expanded its Orchard and Vineyard program in 2010, importing 82,918 fruit trees and 27,898 seedless grape varieties from the United States. A further 10,040 fruit trees and 5,625 grape vines were purchased from Iraqi nurseries. The fruit trees included apricot, plum, peach, and nectarine. When mature, these new fruit varieties will extend the window when fruit is in the market (early versus late production). Orchardmen and vineyard managers usually plant several different varieties so that they have production all summer long. (For plums, different varieties are necessary for pollination.) The 70 tons of trees and vines arrived in January via a Boeing 747 freighter, the largest civilian aircraft to land at Baghdad International Airport in two decades. The trees were divided immediately and shipped to the orchard sites that had been made ready for them. The grape vines remained in quarantine for 9 weeks, but when released, were also distributed without delay and planted. A total of 112 orchards and vineyards received the plants in 11 governorates. First harvests are expected in 2012 for the fruit trees and 2011 for the grapes, with full harvests the following year.

All sites selected were surveyed by USAID-*Inma* engineering staff. Plot layouts were developed and given to each farmer showing the orientation of the field(s) and recommended row direction and spacing. Training was provided through USAID-*Inma* field staff to ensure farmers understood how to lay out and plant an orchard or vineyard. USAID-*Inma* field staff monitored planting to ensure recommendations were followed.

USAID-*Inma* had conducted a similar importation of stone fruits, grapes, and pomegranates in January 2010. These plants went to 45 orchards just north of Baghdad, while the pomegranates went to 10 orchards in Karbala and 80 orchards in Sulaymaniyah. They have been cared for by the farmers under the supervision of the USAID-*Inma* orchard advisor. The fruit trees will provide a small first harvest in 2011, while the grapes will provide a small first harvest in 2010. Full harvests will occur the following year.

The full impact of the tree and vine importation will continue to be felt for a number of years. Each year, the plants will be pruned to shape the trees and improve their size and color of their fruit. The prunings are often used in other orchards to graft into trees so that they too can lengthen their market window. The proof of this concept can be seen in Dahuk Governorate, where in 2005, the USAID project ARDI planted demonstration apple orchards in a valley that was burned out in the 1990s persecutions. Farmers had returned and planted new orchards in the late 1990s, and then took advantage of the demonstration prunings to topwork a portion of their trees. The 2005 plantings are now coming to harvest.

I. Targeted Technical Support for Established Orchards and Vineyards

USAID-*Inma* has selected four established orchards or vineyards in each GFA for Targeted Technical Assistance throughout the year. USAID-*Inma* specialists work with these growers to rehabilitate existing orchards and vineyards and introduce new ideas in orchard management. Twelve drip irrigation systems in the orchard demonstration sites have been installed. Continuous monitoring is being conducted to check the operational condition of the systems and advise farmers accordingly. As an example, in the first quarter of 2010, USAID-*Inma* field staff, under the guidance of USAID-*Inma* expatriate specialists, visited all cooperating growers and conducted training in pruning and integrated pest management.



Trellises for grapevines in Rashdiyah

Trees and Vines		
Activity	1 Jan 2010	31 Mar 2010
2009 Genetic Improvement	Pruning and cleaning of year-old orchards and vineyards	
2010 Genetic Improvement	Trees and vines prepared for shipping from the US	125,333 stems of stone fruit and grape vines imported and planted in 11 provinces.
Assistance to Existing Orchards	Training contract being bid. Twelve technical training centers being identified.	555 farmers trained in a 5 day course. Technical assistance in IPM provided to 416 farmers at 6 training centers.
Olive Industry Support, Ninawa	Olive oil press contract signed.	Oil presses operational in mid-March.



Quarterly Progress

- Commercial demonstration orchards were established in the following governorates: 11 in Sulimaniyah, 19 in Dohuk, 13 in Erbil, 6 vineyards in Salah Al Din, 12 in Madaeen (east Baghdad), 5 in south Baghdad, 3 in Abu Ghraib (west Baghdad), 6 in north Baghdad, 4 in Anbar, and 2 in Diyala; and 1 vineyard in Taji (North Baghdad), and 11 in Babil, 2 in Diwaniya, 2 in Karbala, and 9 in Wasit; and 3 vineyards in Najaf.
- USAID-*Inma* installed five-donum drip irrigation systems on the newly-planted orchards or vineyards to demonstrate water management and water saving benefits of drip irrigation. PRTs in Diwaniya provided two drip irrigation systems to farmers to irrigate 20 donums of apricot trees (provided by USAID-*Inma*) at the two demonstration sites. Eight Babil farms will receive five donums of drip irrigation provided by PRT Babil. Farmers received a recommended irrigation schedule based on the evapo-transpiration rates for the received species in their particular climatic zone and the soil type of their farm.
- USAID-*Inma* is also providing Integrated Orchard Management training for farmers. 680 farmers were trained this quarter and 1475 more are expected to be trained by June.

Challenges to the Value Chain

Iraqi soils and ground water are not uniform in their salt content. In some cases, poor farming practices have led to high salt levels in the surface soil and poor internal drainage. On occasion, wells have been drilled into salty aquifers. Salt levels are scientifically determined by the electrical conductivity of the soil or water, but farmers were unwilling to accept the test results if it meant that they could not become recipients of the trees or vines. Similar problems occurred with the choice of strawberry demonstration plots. In one case, the district administrator accused USAID-*Inma* staff of corruption. In most cases, farmer disappointment was deflected in advance by making it clear that selection of the sites for the new orchards was in part dependent on the sweetness of the soil.

Importation of plant material into Iraq is impeded by arbitrary interpretation of international phytosanitary certificates and by the custom of legislating common regulations into law. Iraq does not participate in the international scientific conventions that govern the validity of international certificates. Recognition of a certificate to the whim of the agriculture inspector at the border entry, becoming a source of petty corruption. More difficult is the practice of making a routine regulation into a law, where once enacted, it is too politically minor a thing to be revisited. In the case of grape vines imported in January 2010, the vines were impounded at customs when the USDA phytosanitary certificate was alleged to be invalid due to flying insects in the open customs barn. The ministerial permission for the grapes to enter Iraq was granted in April 2009; full Iraqi sovereignty was restored in June 2009; an agricultural regulation concerning grape importation and phytophthora root and crown rot in 1966 had been enacted into law. The grapes were excluded under the 1966 law. Over a 9 week period, USAID-*Inma* applied for and received from the Prime Minister's office a waiver of the 1966 law based on the USDA plant health certificate. A committee of Ministry of Agriculture experts then inspected the vines and determined that they were not infected with the fungus and the plants were released. Despite the duration of the quarantine, over 95% of the grape vines remained viable and have sprouted after planting.

Next Quarter

- Harvest and post-harvest handling of plum, apricot, grape from mature orchards that have been receiving technical assistance in yield improvement.
- Linkages established between growers and retail markets for direct to retail harvesting
- Orchard management training provided to 1,320 farmers.

2. GREENHOUSE AND OPEN FIELD PRODUCTION

USAID-*Inma* provided technical assistance and training to 120 persons who operate 660 greenhouses in six clusters (Sulimaniya, Halabja, Najaf, Karbala, Radhwaniya, and Rashadiya so that commercial farmers can demonstrate how to control vegetable growth and quality. The assistance and training includes the basics of greenhouse operation, disease prevention, planting, irrigation, and environmental control, application of fertilizer and pest control, and understanding of the variety requirement for optimal greenhouse production. Recommendations for disease control were made in accordance with PERSUAP. The greenhouse program began in November 2009 for the 2010 crop, with planting to commence in January and continue until April. Production areas will be focused in Wasit, Diwaniyah, Babil, Karbala, Anbar, Baghdad, Kirkuk and the Kurdish north.

Farmers participating in demonstrations of bio-fumigation using mustard plan to utilize this technique in all of their greenhouses in next planting cycle, a total of 33 ha. Other farmers are planning to utilize the same technique for open field production.

During the quarter, five technical publications were drafted and extended to farmers: Tomato management guidelines, Cucumber management guidelines, Mustard bio fumigation, Tomato Yellow Leaf curl virus (TYLCV); Late blight in Eggplant, and Nutritional deficiencies.

At the request of PRT Baghdad, USAID-*Inma* participated in the April 15-22 flower show. The booth consisted of a greenhouse frame covered with shade cloth to demonstrate the reduction of ultraviolet light (which damages plants more than heat) as well as the installation of overhead sprinklers that help reduce internal temperature and maintain humidity in the greenhouse.

During the quarter, numerous PRTs requested validation and improvement of their plans for greenhouse distribution using CERP funding. USAID-*Inma* began to recommend the installation of multi-span greenhouses wherever there is a commercial farmer, since one greenhouse for one farmer, although popular, has been shown to be uneconomical for commercial production.

Iraqi farmers have not managed their farms against soil-borne parasites (primarily nematodes) and diseases, resulting in yields that are as little as 25% of what they could be. The cost of labor, seed, water, and fertilizer are the same as for a full yield. The low yield pinches the financial margins for what ought to be quite profitable crops. Rather than introduce chemical soil fumigants into a country with few safety controls, USAID-*Inma* has demonstrated bio-fumigation using mustard to begin to clean the soil and to increase its water-holding capacity. In 5 demonstration greenhouse units, farmers planted and later plowed down mustard in preparation for planting of their intended cash crop. Other farmers in the demonstration clusters are monitoring the effect of the mustard before incorporating it into their cropping pattern.



Quarterly Progress

Technical Assistance						
	1 Jan 2010			31 Mar 2010		
Greenhouse Production (34 growers in 6 clusters 660 greenhouses total)	Analyzing greenhouse survey. Planning cover crops between planting cycles.			Anti virus nets being installed. Demonstration greenhouses being planted after plowdown of mustard biofumigant.		
Open Field Vegetable Production (65 hectares in 5 clusters)				Falluja & Diyala sites planted. Diwaniya site leveled, planted		
Trainees	Male	Female	Total	Male	Female	Total
Cumulative Horticulture	200	16	216	392	24	416
Cumulative Irrigation				701	50	751

Vegetable production in greenhouses for the lucrative out-of-season price window (November to April) appears to offer the best profitability and return on investment for farmers. USAID-*Inma* used this approach in its technical assistance and training to clusters of farmers whose goal is to increase production of tomatoes, cucumbers and eggplants utilizing tunnels in winter, when prices and profitability are higher. In the open field, the program has pursued a strategy of crop diversification to avoid excessive concentration on traditional summer vegetables such as tomato, cucumber and eggplant that together account for more than 50% of horticultural consumption in Iraq.

The promising indications obtained with greenhouses and niche crops such as strawberry and melon encourages the program to pursue a strategy focused on selective activities in an attempt to move from extensive to intensive agriculture prioritizing areas of intervention, where farmers appear more receptive to new agricultural practices.

Strawberries and Melons

Progressive farmers are always open to ideas that may give them a competitive advantage in the marketplace. Iraq, with its mild winter climate, can use the late winter and early spring seasons to produce and sell crops that command high off-season prices in Europe and the Gulf Emirates. Yet before these crops can be exported, the means of growing and packing them must be perfected using the still-underserved Iraqi domestic market. USAID-*Inma* is demonstrating two examples of potential profitable market opportunities during the first and second quarters of 2010.

Strawberries

In mid-July 2009, USAID authorized initiation of a strawberry industry. Ten demonstration sites totaling 9.5 donams were identified in October 2009 in Najaf, Karbala, Wasit, Ambar, Baghdad, and Sulimaniyah. Site preparation included soil testing for salt, deep tillage to break the impermeable hardpan that underlies many Iraqi fields, and intensive training in the fussy habits of the new crop. USAID-*Inma* supplied technical assistance, plants, plastic mulch, harvest aids, drip irrigation, and a startup supply of post-harvest packaging such as picking trays, ventilated clam-packs and corrugated paper trays. The farmers supplied the land, all other production inputs, and labor. This resulted in the farmers putting in more than 50% of the investment required for plantings.



Harvest in Wasit, where the strawberries were grown under low tunnels, started by mid-January, and shortly afterwards in Karbala and Rabia district of Baghdad. Harvest is expected to continue through May. Harvest in Najaf started in mid-March and in Ramadi and Sulimaniya in April, lasting through May. Farmers packed their harvest in the field and sold it the same day direct to retailers. The total harvest is estimated at 58,000 kg of fruit, with individual yields depending on the participating farmer.

A meeting of plant importers, interested farmers, and the Ministry of Agriculture in early April began preparation for the September 2010 crop, which is expected to be up to 100 donums, or 10 times larger than the 2009 planting.

Muskmelons

To serve farmers who are far from large urban markets, USAID-*Inma* went to Diwaniya to seek cooperating farmers for a crop that can travel well. Four growers volunteered for a demonstration

of how to increase melon production. Using muskmelon, USAID-*Inma* has worked with the farmers to show that simple, affordable surface irrigation techniques can deliver more water with greater precision than traditional canal irrigation. The new system, lay-flat gated hose, requires minimal capital investment and has a low operating cost. The fields were deep-tilled and then leveled to enhance the percolation and spread of the irrigation water.



The farmers planted yellow and white muskmelon directly into the fields. Using careful irrigation quantities and timing supplied by USAID-*Inma*, the plants began to flower in early April, signaling a mid-May harvest. Farmers are negotiating a forward contract to a nearby packing house to move the fruits to market. The total harvest is estimated to be 200,000 kg.

Open field vegetable demonstrations have been established in Anbar, Diyala, Kirkuk, and Ninewa provinces for summer harvest. Near Fallujah in Anbar, a farmer is using improved techniques on 10 donums of cucumber. In Diyala, a farmer is showing more efficient ways to grow green pepper, table tomato, cucumber, eggplant and okra. Near the Kutpry village in Kirkuk, eight farmers are participating in a demonstration of table tomato, green pepper, and cucumber. Ten farmers in five Ninawa districts are demonstrating cucumber, table tomato, and eggplant.

Challenges to the Value Chain

Iraqi soil and water are unforgiving about salinity management. Initial soil preparation required calcium sulfate (gypsum) rather than the usual calcium carbonate to counteract the sodium chloride salts that build up in the soil. Fertilization mixtures must be altered from ordinary mixes to add more potassium as a means of neutralizing soil salt. Deep tillage was found to increase the percolation of irrigation water in the fields, permitting the irrigation water to reach deeply to plant roots and then to continue downwards carrying the soil salts with it. Excessive irrigation brings soil salts to the surface where they are tilled into the topsoil. Sodium chloride impedes the formation of sugars in the fruit or vegetable, so farmers who neglect salinity management find their product to be visually attractive but without flavor.

A variety of non-technical impediments have slowed the construction of three packing sheds in this quarter. The sheds were to be constructed in 120 days each. The Karbala packing shed operator lost 8 days of construction time due to pilgrimages that closed local highways, then 3 days during the election period, and 5 days to heavy rains in March. The Radwaniya packing shed construction was delayed 6 days for pilgrimages, 9 days due to rain, and 3 days due to a resurgence of a terrorist cell in the adjoining district. In Anbar, the packing shed was delayed 57 days when the operator attempted to relocate to the satisfaction of his family elders and by 6 days due to heavy rains in March.

Next Quarter

- Strawberry harvest completed in May in south and central and in June in Sulimaniya. Agronomic and economic analyses undertaken for next year's recommendations.
- Melon harvest completed in Diwaniya. Agronomic and economic analyses undertaken for next year's recommendations.
- Mixed vegetable harvests completed on demonstration plots in Anbar and Diyala. Agronomic and economic analyses undertaken for next year's recommendations.
- Training continues for 411 farmers in basic greenhouse production, 500 farmers in advanced greenhouse production, and 570 farmers in open field production.

3. POST-HARVEST MARKET TECHNOLOGY

Produce markets are segmented by price and quality, and generally there is a market at some price for all segments based on supply and demand. To be profitable, the producer must target a market segment and produce for its quality demands and timing. USAID-*Inma* advisors cannot overvalue western preferences in the evaluation of local market demands. The Iraqi market may not be willing to pay for the same quality pack that other countries demand as the norm. Overall quality is produced in the field through choice of variety, cultural practices and proper care. Fruit normally needs to be thinned to promote greater size. Trees and vines have to be pruned and trained to maximize the interception of sunlight to improve both yield and quality.

Quality must be preserved through proper harvesting techniques, as well as post harvest handling and care. Decisions related to packing and grading should result in the combination of packs which best meet the demands of the market, while maximizing the return to the grower. USAID-*Inma* studies indicate that up half of all vegetables and fruits are lost after harvest to crushing, bruising, rot, and filth. In the hot months of summer, losses in the market can reach 80%. Farm gate buyers discount their price to farmers based on the anticipated post-harvest losses.

USAID-*Inma* works with five packing houses that will serve consolidators and farmers as a central sales point for the produce they are marketing. Two facilities in Baghdad (Taji and Adhamiyah) are already operating with construction financed in part by USAID-*Inma*. Three packing house grantees were selected during last quarter and are under construction. Three other packers have associated with USAID-*Inma* in return for technical assistance in broadening the range of products that they can pack.

Packing Houses		
	1 Jan 2010	31 Mar 2010
Al-Rabee, Al-Waqt Al-Jadeed, Baghdad	Packing cucumbers and eggplant. 50 jobs created more than 260 tons processed.	Packing strawberries. Goal of selling to retail with 40% markup
Sheik Sabah Packing Facility, Al-Amel Al-Wa'id, Baghdad	Preparing to pack cucumbers, eggplant and red onion. 10 jobs created. 20 tons processed in December before closure due to security issues.	Packing 121 tons of eggplant, pepper, onion & tomato. Bulk pack for wholesale.
Mabain Al Nahreen Org. for Ag. Dev., Razwanayah (South Baghdad)	Steel work completed.	Construction is at 42%. Expected to be operational by end of May, 2010.
Al-Jazera Western Co. for General Trading, Ltd., Fallujah, Anbar	Redesign completed. Planning for panel installation.	Construction is at 5%. Expected to be operational by end of May, 2010. Warning letter sent .
Dejlat Alkhair for General Contracting and Trading Ltd., Karbala	New site purchased. Erection of metal work in progress.	Construction is at 34%. Expected to be operational by end of May, 2010.

USAID-*Inma* is in contact with a number of supermarkets and food retailers in Iraq and is working toward product export of selected products such as table dates. It is essential, therefore, that the GFA staff understands the principals of these subjects and in particular, traceability.

Targeted Technical Assistance (TTA)						
	1 Jan 2010			31 Mar 2010		
Marketing Production TTA (Train 60 GFA staff and 600 others such as packing house staff, retailers and farmers)	Analyzing greenhouse survey. Planning cover crops between planting cycles. 80 kg. of date samples from eight Iraqi companies sent to UK.			Anti virus nets being installed. Demonstration greenhouses being planted after plowdown of mustard biofumigant.		
Open Field Vegetable Production (65 hectares in 5 clusters)				Falluja & Diyala sites planted. Diwaniya site leveled, planted		
	Male	Female	Total	Male	Female	Total
Training	200	16	216	392	24	416

Product Quality and Food Safety

This quarter, USAID-*Inma* hosted two well-attended produce marketing conferences in Baghdad (February 11) and Erbil (March 30), emphasizing quality and food safety. The “Market Demand-Driven Horticultural Production Conference”, done in both cities, emphasized the market driven production initiated by project activities. In Erbil, over 200 producers and officials attended, while in Baghdad, the conference attracted more than 120 attendees, with additional attendees turned away due to security constraints. Speakers covered diverse crops such as greenhouse vegetables, soft fruit, and tree fruits helping the audience to know more about their potential markets through the USAID-*Inma*-supported Anka market intelligence service. USAID-*Inma* provided information and offered assistance to the participants related to food safety, Traceability and HACCP (Hazard Analysis and Critical Control Points). A complete marketing training manual will be rolled out to trainers in the next quarter.

The second event, ‘Dates Marketing Conference’ on February 22, garnered tremendous interest from Iraq’s public and private sector. The conference examined the date industry of Iraq and the possibilities of restoring, at least in part, some export business to this largest of the producers in the Iraqi agricultural sector. The conference included market demand, export opportunities and the need to ensure food safety through HACCP and traceability for both domestic and export sales. Several of USAID-*Inma*’s Iraqi staff will be trained and certified in HACCP inspection to help food processors ensure a clean and healthy product for the public.

Weather and Crop Production

The major weather factors in Iraq are day length, wind, local rain, and winter snow in Turkey. Day length affects both air and soil temperature and ultraviolet light levels. Crops are designated as cool season, like potato, or warm season, like tomato. Hours of sunlight determine productivity in some crops, for instance onion, where the day length determines when the plant produces a bulb. Crops like alfalfa need a minimum soil temperature to sprout, while fruit trees often require a certain number of cold days before they can set fruit. Iraq sees killing frosts as far south as Baghdad. A hot summer wind desiccates plants and coats the leaves with dust, reducing photosynthesis and sugar content of a fruit.

Rain in Iraq is always welcome, but sometimes prevents farmers from getting into the fields for tillage or harvesting. Both the Tigris and the Euphrates, the sources of irrigation water, are primarily fed by melting snowpack from the mountains in Eastern Turkey. The timing and quantity of water delivery influence germination and growth. Too much water causes tomatoes to split and watermelons to break apart inside. Too little water causes small, tasteless fruits.

D. BUSINESS DEVELOPMENT SERVICES

USAID-*Inma*'s Business Development program complements the horticulture, livestock and aquaculture programs.



I. FIRM-LEVEL DEVELOPMENT

USAID-*Inma* supports firm-level development through direct assistance with USAID-*Inma* staff, training in business management, association development assistance, and through Industry Roundtable meetings.

USAID-*Inma* offers assistance in financial management, operational management and business planning. This assistance gives companies the competence to manage their financial resources and 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 running a business, respond to competitive conditions and prepare for future growth. Many of the USAID-*Inma* Portfolio Companies are owned and operated by recently formed associations. Other associations will participate in the Feed Mill Program. USAID-*Inma* assists these associations to operate as viable businesses. USAID-*Inma* will provide assistance to these associations through workshops and direct technical assistance in legal compliance and registration, membership management and retention, and Board of Director development and strategic planning to ensure long-term sustainability

Business roundtables help formulate and prioritize issues of the sector. This collaboration can be the basis for improved public-private dialogue as the industry begins to identify the issues that are critical to the industry and also to collectively speak as one voice about the priorities and policies that are necessary to foster a sound agricultural sector. The roundtable value comes from the discussion and interaction of the participants. After a foundation is laid with the initial roundtable meetings, participants will take ownership of the roundtables and continue them without USAID-*Inma* assistance.

2. Whole Enterprise Budgeting Not Yet Appreciated

Sustainable rural economic development will be enhanced when the traditional Iraqi agribusiness emphasis on productivity and yields has been replaced by a more comprehensive market-oriented approach to business. Systematic production cost control and identification of the most lucrative price “windows” in the market will allow farmers to invest their funds and labor more profitably.

On the demand side, USAID-*Inma* has analyzed the prices of agricultural products over the last four years in all the main market centers in Iraq (www.anka-iraq.com) to identify seasonal price patterns for fruits and vegetables. The statistical model developed is a probability function of the most likely price to occur in the market. It provides farmers with a powerful tool to make production decisions taking advantage of price opportunities in the market. USAID-*Inma* advisors encourage farmers to manage their enterprise using a target market date, rather than a planting date.

On the supply side, the introduction of systematic profitability analysis by crop is contributing to a new critical vision of production costs among farmers. Achievable yields are now being presented as a function of different production costs in a model based on a realistic cost/ benefit analysis. The control on costs is pursued not only through targeted technical assistance aiming at maximizing efficiency, but also increasing transparency in the market with regards to inputs suppliers.

Many farmers do not yet trust the use of explicit business techniques for the farm, but are beginning to accept them as they lay aside the command and control history of the sector. Program-assisted round tables and technical papers have contributed to the dissemination of data and price lists of agricultural suppliers in the country, raising the level of competition in the industry and the information sharing among farmers. This new emphasis on profitability has driven USAID-*Inma* to recommend focused marketing and planting activities with higher chances of business success.

USAID-*Inma* uses both its own directly hired staff and a group of contracted business advisors to reach out to agribusinesses that are open to more rigorous management measures. Advisors sit with the business leadership to develop a business plan. The plan introduces accounting, purchasing, and sales concepts to be shaped and placed in the firm’s context. Return visits use the business plan as a roadmap, ensuring that data are being collected to support the decisions outlined in the plan. Where possible, the next layer of sophistication is laid into the plan. After each session, the progress of the enterprise is recorded on a scorecard so that progress can be tracked.

Challenge in the Value Chain

Most Iraqi businessmen and large farmers do not have training in business management, finance or accounting. Because most agribusinesses depend on internal capital, they are risk-averse. The condition is exacerbated by the traditional hierarchy where the father or eldest brother holds final authority over the businesses managed by the family or clan. Further, university-level business schools are only beginning to flourish. In this highly conservative setting, USAID-*Inma* experts present new ideas as simply as possible and in easily comprehended steps, often to younger members of the management teams. Repeated contacts with the businessman verify that the extended practices are indeed useful and profitable. However, progress is slow. The Iraqi business scene is more intuitive than in the quantified economies of more developed countries, so in Iraq, a mix of modern and traditional management will emerge.

Next Quarter

- Provide technical assistance to 23 farm service associations and approximately 30 businesses.
- Using previously developed operation and marketing plans, coordinate them with sales and management of variable costs.

3. MARKET INFORMATION

Anka, a private Iraqi market intelligence company and recipient of an USAID-*Inma* grant, collects daily and weekly market prices of fruits and vegetables, animal products and farm inputs at wholesale markets in all provinces in Iraq and Dubai. Daily and weekly price reports are disseminated on same-day basis to subscribers via email, website, mobile phone text messages, radio broadcasts and newspaper articles. Anka also publishes weekly market analysis reports for Baghdad and 17 other regional centers that highlight major developments in the markets for domestic and imported food products. Quarterly summaries of seasonal price trends for major products help to identify peaks and valleys of annual marketing cycles. Another benefit of market information program is the promotion of standardized grades for farm products in Iraq.

Anka has primarily focused its technical strength of database management rather than on revenue generation. USAID-*Inma* has been working with Anka to develop revenue generated through commercial sales of its products and services. This quarter, Anka hired a Sales Manager that is developing a sustainable revenue model.

Quarterly Progress

- Regular collection and publication of market quantities and price data
- A sales manager specifically looks at revenue generation.

Next Quarter

- The Anka grant will move into closeout. The four years of data will be archived in severable accessible locations.

3. AGRICULTURAL LENDING

The majority of Iraqi agribusiness have limited access to debt capital. Currently, farmers must rely on equity capital and supplier credit. With limited financial resources available, farmers are reluctant to invest in more efficient production technologies, deviate from current production cycles or innovate with different crop types unless there is a high probability of success.

Access to capital is hindered by the lack of appropriate records required to complete loan applications, unreasonably high collateral requirements, uncertain return on investment and the inexperience of financial institutions in lending to agriculture. USAID-*Inma* is addressing several of these deficiencies by providing loan capital to Micro-Finance Institutions (MFIs) and Private Commercial Banks.

Through two MFIs (Al-Thiqa and Izdiharona), \$5 million of USAID-*Inma* funds will reach farmers and small agri-businesses in the Governorates of Ninawa, Dahuk, Erbil, Kirkuk, Sulaymaniyah, Diyala, Babil, Karbala, and Wasit. The purpose of the loans varied to cover agricultural supplies, water pumps, calves, sheep, feed, diesel generators, and various other agricultural and agribusiness supplies, services, and equipment.

USAID-*Inma* granted \$1 million to the Iraqi Center for Financing Small and Medium Enterprises for disbursement in Anbar province. The proposition was that a first tranche of funds would be divided evenly between North Bank and Bank of Baghdad. The second tranche would be disbursed by ICF according to the agility of the bank in lending.

As of March 31, 2010, lending has been accomplished as follows:

SUMMARY TABLE by Province

MFI	Province	LOANS	VALUE
Izdiharona	Karbala	191	622,650
	Babil	264	816,800
	Wasit	12	34,800
	sub-total	467	1,474,250
Al-Thiqa	Ninawa	442	1,290,000
	Dahuk	100	454,100
	Erbil	55	201,300
	Sulaymaniyah	32	131,800
	Diyala	320	847,100
	Kirkuk	134	376,800
	sub-total	1,083	3,301,100
	TOTALS	1,550	4,775,350
ICF SME (North Bank and Bank of Baghdad)	Anbar	18	390,810

Quarterly Progress

- During this quarter, Izdiharona completed its lending program for Karbala, Babil and Wasit for \$1 million. In addition, the Regional Government of Kurdistan initiated an agricultural finance program that offered funds at rates lower than MFI rates, which reduced the loan origination rates for Al-Thiqa in the Kurdistan region. The majority of Al Thiqa’s lending is now in Ninewa, Kirkuk, and Diyala
- The first tranche of \$500,000 was disbursed to ICF-SME on January 18, 2010. North Bank disbursed its share of the funds in 2.5 weeks with six loans totaling \$250,00, while Bank of Baghdad took 6.5 weeks to disburse 12 loans totaling 140,800 for 56% of its allotment.

Next Quarter

- The Izdeharona grant will be closed out.
- The al Thiqa grant will fully disburse and be closed out.
- The grant to ICF-SME will be fully disbursed with documentation returned on the loans. The grant will be closed out.

APPENDIX A: COMPLETED ACTIVITIES									
No.	Activity Type	GFA	Place/Province	Period/Days	From	To	Month	Budget	
1	Business Management, Financial Management	Training	Central	Baghdad	3	3	5	Jan	\$2,000
2	Aquaculture Training, MEFF	Training	Two Rivers	Babil	5	3	7	Jan	\$2,000
3	Livestock Production Training	Training	Two Rivers	South	2	6	7	Jan	\$2,000
4	Business Management Workshop	Training	North	Erbil	4	9	12	Jan	\$2,000
5	Livestock Production Training	Training	North	North	2	13	14	Jan	\$2,000
6	Livestock Production Training, Golden Crescent	Training	Central	Center	2	13	14	Jan	\$2,000
7	Basic Green House Production Training	Training	Two Rivers	Karbala	5	16	20	Jan	\$2,000
8	Basic Green House Production Training	Training	Central	Rashediyha	5	16	20	Jan	\$2,000
9	Basic Green House Production Training	Training	North	Ninawa	5	16	20	Jan	\$2,000
10	Basic Open Field Vegetable Production	Training	Central	Radhwaniyha	5	16	20	Jan	\$2,000
11	Basic Open Field Vegetable Production	Training	Two Rivers	Babil	5	16	20	Jan	\$2,000
12	Business Management, Financial Management	Training	Two Rivers	Babil	3	16	18	Jan	\$2,000
13	Aquaculture Training, EFF	Training	Two Rivers	Babil	5	17	21	Jan	\$2,000
14	Irrigation Principles and Application Training	Training	Central	Abu Ghraib	5	17	21	Jan	\$2,000
15	Association Training	Training	Central	Baghdad	2	19	20	Jan	\$2,000
16	Roundtable Business Management	Training	Two Rivers	Babil	1	24		Jan	\$3,600
17	Business Management Workshop	Training	Central	Baghdad	4	23	26	Jan	\$2,000
18	Basic Green House Production Training	Training	North	Kirkuk	5	23	27	Jan	\$2,000
19	Basic Green House Production Training	Training	Central	Mahmodhiyha	5	23	27	Jan	\$2,000
20	Basic Open Field Vegetable Production	Training	Central	Rashediya	5	23	27	Jan	\$2,000
21	Basic Open Field Vegetable Production	Training	Central	Falluja	5	23	27	Jan	\$2,000
22	Irrigation Principles and Application Training	Training	Central	Ramadi	5	24	28	Jan	\$2,000
23	Irrigation Principles and Application Training	Training	Two Rivers	Babil	5	24	28	Jan	\$2,000

24	Livestock Production Training	Training	North	North	2	27	28	Jan	\$2,000
25	Livestock Production Training	Training	Central	Diyala	2	27	28	Jan	\$2,000
26	Livestock Production Training	Training	Two Rivers	South	2	27	28	Jan	\$2,000
27	Association Training	Training	Two Rivers	Babil	2	27	28	Jan	\$2,000
28	Roundtable Horticulture - Greenhouses	Round Table	North	Sulaimaniya	1	27		Jan	\$3,600
29	Veterinary Grantees Laboratory Workshop	Training	Central	Baghdad	1	27		Jan	\$2,000
30	Roundtable Horticulture - Field Day	Round Table			1	30		Jan	\$3,600
31	Basic Green House Production Training	Training	Central	Al Taji	5	30	3	Jan-Feb	\$2,000
32	Basic Green House Production Training	Training	Central	Radhwaniyha	5	30	3	Jan-Feb	\$2,000
33	Basic Green House Production Training	Training	Central	Ramadi	5	30	3	Jan-Feb	\$2,000
34	Basic Open Field Vegetable Production	Training	North	Ninawa	5	30	3	Jan-Feb	\$2,000
35	Basic Open Field Vegetable Production	Training	Central	Madaen	5	30	3	Jan-Feb	\$2,000
36	Livestock Production Training	Training	North	North	2	3	4	Feb	\$2,000
37	Basic Green House Production Training	Training	Central	Falluja	5	6	10	Feb	\$2,000
38	Basic Green House Production Training	Training	North	Sulaimaniya	5	6	10	Feb	\$2,000
39	Basic Open Field Vegetable Production	Training	Central	Abu Ghraib	5	6	10	Feb	\$2,000
40	Basic Open Field Vegetable Production	Training	Central	Taji	5	6	10	Feb	\$2,000
41	Orchard and Vineyards training	Training	Central	Taji	5	6	10	Feb	\$2,000
42	Orchard and Vineyards training	Training	Central	Rashediyha	5	6	10	Feb	\$2,000
43	Orchard and Vineyards training	Training	North	Ninawa	5	6	10	Feb	\$2,000
44	Irrigation Principles and Application Training	Training	North	Sulaimaniya	5	7	11	Feb	\$2,000
45	Aquaculture Training, MEFF	Training	Two Rivers	Babil	5	7	11	Feb	\$2,000
46	Roundtable Poultry	Round Table	North	Erbil	1	8		Feb	\$3,600
47	Roundtable - Strawberry Field Day	Round Table	Central	Baghdad	1	9		Feb	\$3,600
48	Market Demand Driven Production Horticulture Conference	Conference	Central	Baghdad	1	11		Feb	\$3,600

49	Roundtable Business Management/Field Production	Round Table	North	Ninawa	1	11		Feb	\$3,600
50	Association Training	Training	North	Erbil	2	13	14	Feb	\$2,000
51	Roundtable Aquaculture	Round Table	Two Rivers	Wasit	1	13		Feb	\$3,600
52	Basic Green House Production Training	Training	Central	Abu Ghraib	5	13	17	Feb	\$2,000
53	Basic Green House Production Training	Training	Central	Diyala	5	13	17	Feb	\$2,000
54	Basic Green House Production Training	Training	North	Erbil	5	13	17	Feb	\$2,000
55	Basic Green House Production Training	Training	Two Rivers	Najaf	5	14	18	Feb	\$2,000
56	Basic Green House Production Training	Training	Two Rivers	Wasit	5	14	18	Feb	\$2,000
57	Basic Green House Production Training	Training	Two Rivers	Babil	5	14	18	Feb	\$2,000
58	Basic Open Field Vegetable Production	Training	Central	Ramadi	5	13	17	Feb	\$2,000
59	Basic Open Field Vegetable Production	Training	North	Erbil	5	13	17	Feb	\$2,000
60	Orchard and Vineyards training	Training	Central	Madaen	5	13	17	Feb	\$2,000
61	Orchard and Vineyards training	Training	Central	Falluja	5	13	17	Feb	\$2,000
62	Orchard and Vineyards training	Training	North	Erbil	5	13	17	Feb	\$2,000
63	Orchard and Vineyards training	Training	North	Kirkuk	5	13	17	Feb	\$2,000
64	Basic Open Field Vegetable Production	Training	Two Rivers	Wasit	5	14	18	Feb	\$2,000
65	Basic Open Field Vegetable Production	Training	Two Rivers	Diwaniya	5	17	18	Feb	\$2,000
66	Aquaculture Training, EFF	Training	Two Rivers	Babil	5	14	18	Feb	\$2,000
67	Irrigation Principles and Application Training	Training	Central	Rashdiya	5	14	18	Feb	\$2,000
68	Irrigation Principles and Application Training	Training	Central	Mohamoodiya	5	14	18	Feb	\$2,000
69	Irrigation Principles and Application Training	Training	Two Rivers	Karbala	5	14	18	Feb	\$2,000
70	Irrigation Principles and Application Training	Training	Two Rivers	Babil	5	14	18	Feb	\$2,000
71	Roundtable Horticulture	Round Table	Central	Diyala	1	14		Feb	\$3,600
72	Association Training	Training	North	Ninawa	2	15	16	Feb	\$2,000

73	Roundtable Horticulture Greenhouses/Orchards/Vineyards	Round Table	Central	Baghdad	1	17		Feb	\$3,600
74	Livestock Production Training	Training	Central	Diwaniya	2	17	18	Feb	\$2,000
75	Association Training	Training	North	Kirkuk	2	17	18	Feb	\$2,000
76	Roundtable Aquaculture	Round Table	North	Babil	1	20		Feb	\$3,600
77	Basic Green House Production Training	Training	Central	Rashediyha	5	20	24	Feb	\$2,000
78	Basic Green House Production Training	Training	Central	Mahmodiyha	5	21	25	Feb	\$2,000
79	Basic Green House Production Training	Training	North	Ninawa	5	20	24	Feb	\$2,000
80	Basic Green House Production Training	Training	Two Rivers	Babil	5	20	24	Feb	\$2,000
81	Basic Open Field Vegetable Production	Training	Central	Diyala	5	20	24	Feb	\$2,000
82	Basic Open Field Vegetable Production	Training	North	Kirkuk	5	20	24	Feb	\$2,000
83	Basic Open Field Vegetable Production	Training	Two Rivers	Karbala	5	20	24	Feb	\$2,000
84	Basic Open Field Vegetable Production	Training	Central	Madaan	5	20	24	Feb	\$2,000
85	Orchards and Vineyards Training	Training	Central	Radhwanyha	5	20	24	Feb	\$2,000
86	Orchards and Vineyards Training	Training	North	Salah Aldin	5	21	25	Feb	\$2,000
87	Orchards and Vineyards Training	Training	North	Dahuk	5	20	24	Feb	\$2,000
88	Orchards and Vineyards Training	Training	North	Sulaymaniyah	5	20	24	Feb	\$2,000
89	Orchards and Vineyards Training	Training	Two Rivers	Wasit	5	21	25	Feb	\$2,000
90	Orchard and Vineyards Training	Training	Two Rivers	Najaf	5	20	25	Feb	\$2,000
91	Orchard and Vineyards Training	Training	Two Rivers	Karbala	5	20	24	Feb	\$2,000
92	Irrigation Principles and Application Training	Training	Central	Madaen	5	21	25	Feb	\$2,000
93	Irrigation Principles and Application Training	Training	Two Rivers	Wasit	5	21	25	Feb	\$2,000
94	Irrigation Principles and Application Training	Training	North	Ninawa	5	21	25	Feb	\$2,000
95	Irrigation Principles and Application Training	Training	North	Sulaimaniyah	5	21	25	Feb	\$2,000
96	Roundtable Horticulture Greenhouses	Round Table	Two Rivers	Karbala	5	21		Feb	\$3,600
97	Dates Marketing Conference	Training	Two Rivers	Baghdad	5	22		Feb	\$2,000

98	Business Management Workshop	Training	Two Rivers	Babil	4	22	25	Feb	\$2,000
99	Association Training	Training	Two Rivers	Karbala	2	23	24	Feb	\$2,000
100	Roundtable Opportunities for Tourism	Round Table	Two Rivers	Karbala	1	25		Feb	\$3,600
101	Irrigation Principles and Application Training	Training	Central	Taji	5	27	3	Feb-Mar	\$2,000
102	Irrigation Principles and Application Training	Training	Two Rivers	Karbala	5	27	3	Feb-Mar	\$2,000
103	Irrigation Principles and Application Training	Training	Two Rivers	Najaf	5	27	3	Feb-Mar	\$2,000
104	Irrigation Principles and Application Training	Training	North	Erbil	5	27	3	Feb-Mar	\$2,000
105	Basic Green House Production Training	Training	Central	Taji	5	27	3	Feb-Mar	\$2,000
106	Basic Green House Production Training	Training	Central	Ramadi	5	27	3	Feb-Mar	\$2,000
107	Basic Green House Production Training	Training	North	Kirkuk	5	27	3	Feb-Mar	\$2,000
108	Basic Green House Production Training	Training	North	Dahuk	5	27	3	Feb-Mar	\$2,000
109	Basic Open Field Vegetable Production	Training	Central	Falluja	5	27	3	Feb-Mar	\$2,000
110	Basic Open Field Vegetable Production	Training	North	Ninawa	5	27	3	Feb-Mar	\$2,000
111	Basic Open Field Vegetable Production	Training	Two Rivers	Najaf	5	27	3	Feb-Mar	\$2,000
112	Orchards and Vines Training	Training	North	Kirkuk	5	27	3	Feb-Mar	\$2,000
113	Orchards and Vines Training	Training	North	Erbil	5	27	3	Feb-Mar	\$2,000
114	Orchards and Vines Training	Training	Two Rivers	Babil	5	27	3	Feb-Mar	\$2,000
115	Orchards and Vines Training	Training	Two Rivers	Diwaniyah	5	27	3	Feb-Mar	\$2,000

116	Orchards and Vines Training	Training	Central	Diyala	5	27	3	Feb-Mar	\$2,000
117	Aquaculture Training, MEFF	Training	Central	Babil	5	28	4	Feb-Mar	\$2,000
118	Basic Green House Production Training	Training	Central	Taji	5	13	17	Mar	\$2,000
119	Basic Green House Production Training	Training	Central	Falluja	5	13	17	Mar	\$2,000
120	Basic Green House Production Training	Training	North	Sulaimaniyah	5	13	17	Mar	\$2,000
121	Basic Green House Production Training	Training	North	Salah Al Deen	5	13	17	Mar	\$2,000
122	Basic Green House Production Training	Training	Two Rivers	Wasit	5	13	17	Mar	\$2,000
123	Basic Open Field Vegetable Production Training	Training	Central	Mamoudiya	5	13	17	Mar	\$2,000
124	Basic Open Field Vegetable Production Training	Training	Central	Ramadi	5	13	17	Mar	\$2,000
125	Orchards and Vines Training	Training	North	Kirkuk	5	13	17	Mar	\$2,000
126	Orchards and Vines Training	Training	Central	Madaen	5	13	17	Mar	\$2,000
127	Orchards and Vines Training	Training	Central	Rashediyha	5	13	17	Mar	\$2,000
128	Orchards and Vines Training	Training	Central	Abu Ghraib	5	13	17	Mar	\$2,000
129	Orchards and Vines Training	Training	Two Rivers	Babil	5	13	17	Mar	\$2,000
130	Irrigation Principles and Application Training	Training	Central	Diyala	5	14	18	Mar	\$2,000
131	Irrigation Principles and Application Training	Training	Two Rivers	Babil	5	14	18	Mar	\$2,000
132	Irrigation Principles and Application Training	Training	North	Ninawa	5	14	18	Mar	\$2,000
133	Irrigation Principles and Application Training	Training	North	Kirkuk	5	14	18	Mar	\$2,000
134	Aquaculture Training, EFF	Training	Two Rivers	Babil	5	14	18	Mar	\$2,000
135	Roundtable Red Meat	Round Table	North	Ninawa	1	15		Mar	\$3,600
136	Roundtable Forage Field Day	Round Table	Central	Anbar	1	15		Mar	\$3,600
137	Roundtable Aquaculture	Round Table	Central	Baghdad	1	17		Mar	\$3,600
138	Roundtable Strawberries Business Management	Round Table	Two Rivers	Wasit	1	18		Mar	\$3,600
139	Roundtable Feed Production	Round Table	North	Erbil	1	18		Mar	\$3,600
140	Basic Green House production Training	Training	Central	Mahmoodiya	5	20	24	Mar	\$2,000

141	Basic Open Field Vegetable Production	Training	Two Rivers	Wasit	5	20	24	Mar	\$2,000
142	Basic Open Field Vegetable Production	Training	Two Rivers	Diwaniya	5	20	24	Mar	\$2,000
143	Orchards and Vines Training	Training	Two Rivers	Karbala	5	20	24	Mar	\$2,000
144	Orchards and Vines Training	Training	Two Rivers	Wasit	5	20	24	Mar	\$2,000
145	Orchards and Vines Training	Training	Two Rivers	Najaf	5	20	24	Mar	\$2,000
146	Orchards and Vines Training	Training	Central	Taji	5	20	24	Mar	\$2,000
147	Orchards and Vines Training	Training	Central	Madaan	5	20	24	Mar	\$2,000
148	Orchards and Vines Training	Training	North	Ninawa	5	20	24	Mar	\$2,000
149	Aquaculture Training, MEFF	Training	Two Rivers	Babil	5	21	25	Mar	\$2,000
150	Irrigation Principles and Application Training	Training	Central	Taji	5	21	25	Mar	\$2,000
151	Irrigation Principles and Application Training	Training	Two Rivers	Diwaniyah	5	21	25	Mar	\$2,000
152	Irrigation Principles and Application Training	Training	Two Rivers	Wasit	5	21	25	Mar	\$2,000
153	Irrigation Principles and Application Training	Training	North	Sulaimaniyah	5	21	25	Mar	\$2,000
154	Roundtable Red Meat Baghdad	Round Table	Central	Taji	1	21		Mar	\$3,600
155	Roundtable Red Meat Anbar	Round Table	Central	Ramadi	1	22		Mar	\$3,600
156	Association Management Training	Training	Central	Baghdad	2	23	24	Mar	\$2,000
157	Small Ruminant Production Management	Training	North	Kirkuk	2	24	25	Mar	\$2,000
158	Small Ruminant Production Management Training	Training	Two Rivers	Najaf	2	24	25	Mar	\$2,000
159	Roundtable Feed Production	Round Table	Central	Baghdad	1	25		Mar	\$3,600
160	Roundtable Red Meat	Round Table	Two Rivers	Najaf	1	27		Mar	\$3,600
161	Basic Green House Production Training	Training	Central	Rashediya	5	27	31	Mar	\$2,000
162	Basic Green House Production Training	Training	Central	Mada'an	5	27	31	Mar	\$2,000
163	Basic Green House Production Training	Training	North	Kirkuk	5	27	31	Mar	\$2,000
164	Basic Green House Production Training	Training	North	Salah Al Deen	5	27	31	Mar	\$2,000

165	Basic Green House Production Training	Training	Central	Taji	5	27	31	Mar	\$2,000
166	Basic Green House Production Training	Training	North	Ninawa	5	27	31	Mar	\$2,000
167	Basic Green House Production Training	Training	North	Erbil	5	27	31	Mar	\$2,000
168	Basic Green House Production Training	Training	Two Rivers	Babil	5	27	31	Mar	\$2,000
169	Basic Green House Production Training	Training	Two Rivers	Najaf	5	27	31	Mar	\$2,000
170	Basic Open Field Vegetable Production	Training	Central	Falluja	5	27	31	Mar	\$2,000
171	Basic Open Field Vegetable Production	Training	Central	Erbil	5	27	31	Mar	\$2,000
172	Basic Open Field Vegetable Production	Training	Central	Salah Al Deen	5	27	31	Mar	\$2,000
173	Orchards and Vines Training	Training	Central	Mahmoudya	5	27	31	Mar	\$2,000
174	Orchards and Vines Training	Training	Central	Abu Ghraib	5	27	31	Mar	\$2,000
175	Orchards and Vines Training	Training	Central	Radhwaniya	5	27	31	Mar	\$2,000
176	Orchards and Vines Training	Training	Central	Diwaniya	5	27	31	Mar	\$2,000
177	Orchards and Vines Training	Training	Central	Babil	5	27	31	Mar	\$2,000
178	Aquaculture Training, MEFF	Training	Two Rivers	Babil	5	28	1	Mar-Apr	\$2,000
179	Irrigation Principles and Application Training	Training	Two Rivers	Diwaniya	5	28	1	Mar-Apr	\$2,000
180	Irrigation Principles and Application Training	Training	Central	Ramadi	5	28	1	Mar-Apr	\$2,000
181	Irrigation Principles and Application Training	Training	Central	Rashediya	5	28	1	Mar-Apr	\$2,000
182	Irrigation Principles and Application Training	Training	North	Dahuk	5	28	1	Mar-Apr	\$2,000
183	Roundtable Red Meat	Round Table	North	Ninawa	1	29		Mar-Apr	\$3,600
184	Roundtable Forage Field Day	Round Table	North	Ninawa	1	30		Mar-Apr	\$3,600
185	Roundtable Forage Field Day	Round Table	Central	Anbar	1	30		Mar-Apr	\$3,600
186	Roundtable Forage Field Day	Round Table	Two Rivers	Wasit	1	31		Mar-Apr	\$3,600
187	Small Ruminant Production Management	Training	North	Ninawa	2	31	1	Mar-	\$2,000

	Training							Apr	
188	Small Ruminant Production Management Training	Training	Central	Diyala	2	31	1	Mar-Apr	\$2,000

APPENDIX B: CONTRACTS

Activity Title	Activity Period		Budget	Comment/Status as of April 30, 2009
	Start	End		
Negotiation and Strategic Science Organization ((INI)- Business Development	7/18/09	6/30/10	\$325,320	Award being implemented
Business Development - Business Management workshop South and Central (2)	11/12/09	2/28/10	\$72,240	Closeout in Process
Business Development - 2-Day Association Management Workshop	12/2/09	5/31/10	\$94,080	Award being implemented
Business Development - Conferences (4)	10/31/09	3/31/10	\$80,175	Closeout in Process
Fruits & Vegetables - Basic Open Field Production Training	1/5/10	5/31/10	\$425,265	Award being implemented
Fruits & Vegetables - Basic Orchard/Vineyard Management Training	1/20/10	5/31/10	\$706,500	Award being implemented
Fruits & Vegetables -Basics of Greenhouse Production Training	12/15/09	4/30/10	\$553,686	Closeout in Process
Fruits & Vegetables - Greenhouse Demonstration Seeds and Equipment	12/1/09	5/31/10	\$85,000	Award being implemented
Fruits & Vegetables - fencing and Trellising equipment	10/8/09	1/31/10	\$90,000	Closeout in Process
Fruits & Vegetables - Irrigation Principles and Applications Training	12/10/09	4/30/10	\$403,620	Closeout in Process
Fish and Poultry - Feed Lab Equipments (3)	3/10/09	5/31/10	\$350,050	Award being implemented
Fruits & Vegetables - Olive Oil Equipment	12/4/09	1/31/10	\$189,000	Closeout in Process
Fruits & Vegetables - Olive oil Supporting Equipment	12/3/09	3/15/10	\$95,325	Closeout in Process
Fruits & Vegetables - Trees and Vines US Purchase/ Dave Wilson Nursery	6/11/09	1/11/10	\$276,562	Closeout in Process
Fruits & Vegetables - Trees and Vines US Purchase/ Dwarto Nursery	6/11/09	1/11/10	\$288,290	Closeout in Process
Fruits & Vegetables - Air Transportation for Trees and Vines	1/5/10	1/31/10	\$748,744	Closeout in Process
Beef & Lamb - Vet. Lab Equipments	11/25/09	3/1/10	\$305,992	Closeout in Process

Beef & Lamb - Feed & Forage equipments	9/7/09	1/7/10	\$500,000	Closeout in Process
Business Development – Business Management Technical Assistance North	10/29/09	4/30/10	\$99,000	Closeout in Process
Beef & Lamb - Basics of Animal Production and Management Training	11/19/09	1/31/10	\$69,012	Closeout in Process
Beef & Lamb - Small Ruminants Production Management Training	3/3/10	4/30/10	\$63,000	Award being implemented
Business Management Workshop/North	11/12/09	2/28/10	\$51,543	Closeout in Process
Training on Vet Lab. Equipment	4/10/10	5/15/10	\$16,500	Award being implemented
Diwaniya Milon Project	1/27/10	2/7/10	\$3,575.	Closeout in Process
Purchase Ordre to provide Seeds	3/2/10	4/30/10	\$87,00	Closeout in Process
Land Leveling in Diwaniya	2/7/10	2/22/10	\$20,500	Closeout in Process
Diwaniya Irrigation	2/25/10	3/25/10	\$49,998	Closeout in Process
Orchard Irrigation	2/25/10	3/25/10	\$8,800	Closeout in Process

APPENDIX C: GRANTS

Grant #	Name of the Grantee	Project Title	Project Location	Project Period		Project Budget	Cost Share	Current Status
				Start	End			
Projects Awarded								
09-2008-FD800-G-1	Balad Canning Factory	Balad Canning Factory Revitalization Project	Salah Ad Din, Balad	17-Apr-08	31-Mar-09	5,057,631	-	close out is in process
09-2008-FD800-G-2	Hameedyah Mushroom Farm	Hameedyah Mushroom Farm Project	Ramadi, Anbar	17-Apr-08	1-Sep-09	623,287	-	close out is in process
09-2008-FD800-G-3	9 Nissan Market Agriculture Association (NINMA)	New Baghdad Market Revitalization Project	Baghdad	20-May-08	20-May-09	291,534	-	close out is completed
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	884,201	-	Implementation is in process
10-2008-FD800-G-5	Women Empowerment Organization (WEO)	Voucher For Small Business Management	North of Iraq	15-Nov-08	15-Feb-10	96,520	-	close out is completed
10-2008-FD800-G-6	Al-Waqat Al Jadeed	Fresh Fruit & Vegetable Packing Sheds	Baghdad	1-Dec-08	30-Jun-09	459,048	-	close out is completed
10-2008-FD800-G-7	Al-Thiqa Organization	Micro-Finace	Iraq	1-Feb-09	31-May-10	4,068,912	-	Implementation is in process
01-2009-FD800-G-8	Al-Amal Al-Waeed Co.	Fresh Fruit & Vegetable Packing Sheds	Baghdad	15-Jan-09	30-Oct-09	459,300	-	close out is in process
01-2009-FD800-G-9	Izdiharona	Micro-Finace	Iraq	1-Feb-09	31-Jan-10	1,271,742	-	close out is in process
03-2009-FD-800-G-13	Shavin Co.	Feedlot Program	Dahuk	1-May-09	31-Aug-10	643,517	294,164	Implementation is in process
03-2009-FD-800-G-14	Farmer Association	Feedlot Program	Ninawa	1-May-09	31-Aug-10	615,279	212,080	Implementation is in process
03-2009-FD-800-G-15	Brotherhood Association	Feedlot Program	Ninawa	1-May-09	31-Aug-10	615,279	201,488	Implementation is in process
03-2009-FD-800-G-16	Al Nahreen Association	Feedlot Program	Ninawa	1-May-09	31-Aug-10	615,279	203,088	Implementation is in process
04-2009-FD800-G-17	Middle East Company	Aquaculture Training program	Babil	27-May-09	31-May-10	174,892	-	Implementation is in process
04-2009-FD800-G-18	Al Furat Fish Farm	Aquaculture Training program	Babil	27-May-09	31-May-10	174,892	-	Implementation is in process
04-2009-FD-800-G-19	Dejlat Alkair for General Trading & Contracting Co., Ltd	Feedlot Program	Wasit	14-Jun-09	31-Aug-10	368,455	183,392	Implementation is in process
04-2009-FD-800-G-20	Hawks of Iraq for General Contracting, Co.	Feedlot Program	Babil	14-Jun-09	31-Aug-10	378,665	271,720	Implementation is in process
04-2009-FD-800-G-21	Dheea Al-Noor Association for Development	Feedlot Program	Baghdad	14-Jun-09	31-Aug-10	368,455	183,392	Implementation is in process
06-2009-FD800-G-22	Al Juburi Group	Feedlot Program	Kirkuk	8-Aug-09	31-Aug-10	681,859	238,579	Implementation is in process
06-2009-FD800-G-23	Nimar Al Jazeera Co.	Feedlot Program	Anbar	8-Aug-09	31-Aug-10	681,859	229,079	Implementation is in process
06-2009-FD800-G-24	Al Naiim Organization	Feedlot Program	Ninawa	8-Aug-09	31-Aug-10	681,859	250,979	Implementation is in process
07-2009-FD800-G-25	Mabain Al Nahreen	Packing shed Program	Baghdad	18-Aug-09	15-May-10	514,641	46,615	Implementation is in process
07-2009-FD800-G-26	Western Al Jazeera	Packing shed Program	Anbar	18-Aug-09	10-May-10	514,641	66,115	Implementation is in process
07-2009-FD800-G-27	Dejlat Al Kair	Packing shed Program	Karbala	18-Aug-09	15-May-10	514,641	58,815	Implementation is in process
08-2009-FD800-G-28	Iraq Grandparents	Feed Mill	Dyiala	19-Nov-09	31-Aug-10	1,349,590	1,035,831	Implementation is in process
08-2009-FD800-G-29	Al Furat Fish Farm	Feed Mill	South Babil	19-Nov-09	31-Aug-10	1,349,590	607,108	Implementation is in process
08-2009-FD800-G-30	Middle East Co.	Feed Mill	South Baghdad	19-Nov-09	31-Aug-10	1,349,590	761,250	Implementation is in process
08-2009-FD800-G-31	VANO Group	Feed Mill	Erbil	19-Nov-09	31-Aug-10	1,349,290	1,116,919	Implementation is in process
10-2009-FD800-G-32	ICF	Micro-Finace	Anbar	15-Dec-09	15-May-10	1,050,000	-	Implementation is in process
10-2009-FD800-G-33	Al Zaytoon Association	Olive oil	Ninawa	16-Nov-09	30-Mar-10	95,000	-	close out is in process
11-2009-FD800-G-34	Najim Al Belad	Poultry Feed mill	South Baghdad	1-Feb-10	31-Aug-10	1,352,540	-	Implementation is in process
11-2009-FD800-G-35	Dur Al Furat	Poultry Feed mill	North Babil	1-Feb-10	31-Aug-10	1,351,040	-	Implementation is in process
						30,003,028	5,960,614	

APPENDIX D: PERSONNEL

As of March 31, 2010, *Inma* expatriate staff number 22, with four short-term expatriate consultants.

EXPATRIATE PERSONNEL

Mobilization - The following staff arrived in the Jan-Mar quarter:

- Osagie Christopher Aimiuwu – Poultry and feed Specialist (14 Jan)
- Peter Park – Contract Administrator (20 Feb)
- John Hargreaves - Agriculture Economist (22 Mar)
- Daniel Dunn - Agriculture Economist (31 Mar)

Demobilization - The following staff demobilized in the Jan-Mar quarter:

- Shimon Khamo - Business Development Specialist (9 Feb)
- David Quarles - Forage & Marketing Specialist (3 Jan)
- Edgar Ariza Nino – Economist (1 Feb)
- Osagie Christopher Aimiuwu – Poultry and feed Specialist (18 Mar)
- John Bellow – Horticulture Specialist (3 Mar)
- Debbie Maxwell GFA Regional Manager / Northern Region (14 Mar)
- Patty Buckles GFA Regional Manager / Two Rivers (Southern Region) (15 Mar)

Mobilization for the following quarter - The following staff are expected to arrive in the Apr-Jun quarter:

- Robert Nottleman – Technical Specialist (3 Apr)

***Inma* is recruiting for the following positions:**

- N/A

Expatriate Staff as of March 31, 2010

Employee Name	Title	Nationality Data	Location	Contract
Charles Bell	Senior Technical Advisor	USA	HQ	LBG
Cecilia Basso	Human Resources Advisor	USA	HQ	LBG
Stephanie Mattes	Contract Administrator	USA	HQ	LBG
Shehnaz Atcha	Program Manager	Canada	HQ	LBG
Deborah Birch	Project Communications Director	USA	HQ	LBG
Heather Risley	Communications Coordinator	USA	HQ	LBG
Dan White	Proposal / Project Coordinator	USA	HQ	LBG

1.	Ross Wherry	Chief of Party	USA	Baghdad	LBG
2.	Tracy Atwood	Deputy Chief of Party / Technical	USA	Baghdad	LBG
3.	Cynthia Bowes	Operation Manager	USA	Baghdad	LBG
4.	Martin Connaughton	Greenhouse Specialist	USA	Baghdad	LBG
5.	Susan Rupprecht	Procurement Manager	USA	Baghdad	LBG
6.	Osama Abdelaal	Grant Senior Officer	Egypt (Green Card)	Baghdad	LBG
7.	Graham Dale	Agricultural Processing Specialist	UK	Baghdad	LBG
8.	Constant Kabwasa	Financial Director	Republic of Congo DCR	Baghdad	LBG
9.	Jorge Pagador	Orchard Specialist	Peru	Baghdad	LBG
10.	Sheik Jalloh	Logistics Manager	Sierra Leone (Green Card)	Baghdad	LBG
11.	Ludwig Schatz	Training Specialist / Advisor	Germany	Baghdad	LBG
12.	Jenna Bisenius	Public Affairs Manager	USA	Baghdad	LBG
13.	Al Williams	Horticulture Team Leader	USA	Baghdad	LBG
14.	Juan Sevilla	Water & Irrigation Specialist	Peru	Baghdad	LBG
15.	Duane Stone	Aquaculture, Poultry & Feed Production Leader	USA	Baghdad	LBG
16.	Siham Salman Al Malaki	Senior Contract Specialist	Iraq (Green Card)	Baghdad	LBG
17.	Tony Laos	Beef & Lamb Value Chain Team Leader	USA	Baghdad	TAMU
18.	Souleyman Kebe	Livestock Specialist	USA	Baghdad	LBG
19.	Franco Scotti	Economist	Italy	Baghdad	LBG
20.	Craig Carlson	Senior Business Development Specialist – Team Leader	USA	Baghdad	LBG
21.	Jeff Bonner	GFA Regional Manager / Golden Crescent (Central Region)	USA	Baghdad	LBG
22.	Kathleen Webb	Monitoring & Evaluation Manager	Kenya	Baghdad	LBG
23.	Peter Park	Contract Administrator	USA	Baghdad	LBG

Short-Term Consultants

Alex Dahan (2 Feb – 1 Apr)	Horticulture Marketing Specialist	UK	Baghdad	LBG
Daniel Dunn (31 Mar - Present)	Agriculture Economist	USA	Baghdad	LBG
John Hargreaves (22 Mar – 20 Apr)	Agriculture Economist	USA	Baghdad	LBG

APPENDIX E: PERFORMANCE MONITORING

The following Performance Monitoring report presents results for the quarter January 1 - March 31, 2010 (Quarter 2, FY3). The results are based on the monitoring mechanism¹ as stated in the Inma Performance Monitoring Plan 2007-2010 (PMP). This mechanism is inclusive of three steps: i. The development of monitoring instruments: The M & E department has developed, and tested 62 tools, questionnaires and checklists to report on the performance of Inma; ii. Administration of these instruments by Iraqi staff, and; iii. Analysis and presentation of the data by the Monitoring and Evaluation staff.

In this quarter, the M & E department developed an additional set of modified tools² for administration by staff³ on a monthly basis. In the first two months of the quarter the M & E Department also participated in an audit by the Office of the Inspector General (USAID). The M & E Department was required to develop new databases on the Inma work plan performance for 2008-2009 and 2009-2010 across several parameters. These included: activity projections, positioning of the activities within the S.O.8. I.R, contract requirements, and Strategic cities, to name a few. The M& E Department also produced summary reports and spreadsheets in this quarter related to gross sales and jobs⁴ from October 1st 2007, and a template summary of the four minimum base target period achievements under the F.5 section of the contract with USAID⁵.

At the same time the M & E Department produced summary statistical results of achievement (based on the two project indicators⁶) for Inma from October 1, 2007-December 31, 2010. Using Dr. John Mellor's economic formula, 'Gross' sales refer to actual sales by project assisted enterprises multiplied by 2.5, as each new dollar in agriculture is expected to generate \$2.50 in additional rural incomes, creating a cumulative economic effect. Each actual job is also expected to generate two additional or 'gross' jobs, so actual jobs are doubled to reflect gross jobs.

The M & E Department analysis of Indicator files and project files to December 31, 2009 showed significant progress of the project with sales worth \$169,312,505 created, 4,430 full time jobs and 31,534 part time/seasonal jobs. These results reflected an achievement level of sales at 56.4% and full jobs at 22%. Part time jobs had surpassed the expected 20,000 point at 31,534 jobs.

By the end of this quarter (FY 3, Q 2), progress continued with respect of gross sales and jobs. Gross sales of \$8,588,430, 1020 full time jobs and 416 part time jobs (total 1436 jobs) were achieved from January 1 - March 31, 2010. The gross sales now total \$177,900,935.00 or 59.3% of the F5 \$300,000,000.00 expected by EOP. This is a 2.9% rise. Gross full time jobs stood at 22% in the previous quarter, and are now **5,450 full time jobs**, or 27.2% of the expected 20,000 full time jobs, a 5.2% rise. Gross part time jobs have risen to 31,950 jobs with the additional 416 jobs. (Combined gross full and part time jobs of this quarter are 1,436⁷ jobs-Inma has created **37,400 full and part time jobs since October 1, 2007.**)

In terms of training, the Strategic Objectives require an achievement level of 7,995 persons, trained in various subject matter related to the value chains. By December 31, 2009, Inma had trained 3,181

¹ PMP, p.4

² Simple 1-2 page tools have been developed for interventions such as feedlots, feed mills, fish farms forage sites, etc.

⁴ By December 31, 2009, Inma supported enterprises generated \$169,312,505.00 gross sales and 35,964 new jobs.

⁵ 1) **Under F.5 section of the contract there were 4 minimum base period targets that the contractor was expected to achieve:**

a) *Increase agriculture sector productivity*

b) *Increase of total sales of USAID-assisted enterprises with a minimum target of US\$300 million) The contractor shall increase and monitor the value of financial resources raised by assisted enterprises (for example agribusiness loans) and disaggregate the data according to the type of enterprise, type of ownership and gender.*

d) *Generate employment in the agriculture/agribusiness sectors with a minimum target for example 40, 000 new jobs of which 20,000 will be full time (full time is defined as 40 hrs per week for a minimum timeframe of one year constant employment) and 20,000 part-time (defined as fewer than 40 hrs per week and with a minimum timeframe of 6 months of constant employment.)*

⁶ Indicator 1 states "Increase in total gross sales of program assisted enterprises", while Indicator 2 refers to "Increase in employment in the agriculture/agribusiness sectors attributable to project activities" According to the contractual F5 indicators, by EOP Inma is expected to create sales valued at \$300 million and 40,000 jobs, of which 20,000 were to be full time and 20,000 part time.

⁷ 424 jobs were carried forward from the last quarter for ongoing enterprises (making a total of 1860 cumulative jobs now on the ground). There are 1436 newly created jobs this quarter.

persons (39.7%) and by March 12, 2010, this had increased to 5458 persons (68.2%). The total 5458 represents 5110 males (93.7%) and 348 females (6.3%)- reflecting a need to support more training of females. The majority of training given to females was Business Management training for 199 females provided by the Women's Empowerment Organization (WEO). The WEO also trained 462 males.

The total training achievements need to be compared with the Strategic Objectives for training for each value chain. Post training random sampling will also be required at the end of the next quarter to assess impact - the degree of adoption of new technologies and increased incomes. The M & E Department carried out random sampling for fish trainees in Babil and 2009 orchard farmers in Rashdiya in FY2, Q4 and FY3 Q1.

An eighth M & E training was conducted in February 2010 for GFA staff, managers and others. Emphasis was placed on methodologies used in M & E to measure progress and issues such as relevance, effectiveness and efficiency. Twenty-five persons attended this workshop, held in Baghdad offices. Approximately 120 monitoring missions were conducted by M & E staff. In addition, GFA staff conducted numerous monitoring missions in their respective geographic areas, submitting them to M & E for analysis and feedback. The field visits have served to identify and verify findings with respect to sales, jobs and other technical aspects of the Inma project.

The following Mission Level and Performance Indicators provide analysis of the Inma Program over the quarter January 1 – March 31, 2010 (FY3, Q2). Two tables at the end of this analysis illustrate progress of Inma in achieving Indicators 1 & 2 with respect to targets and achievement of gross sales and jobs.

QUARTERLY DEVELOPMENTS

SO8.2 - Increased Capacity of the Private Sector

Indicator 1 – Increase in total gross sales of program assisted enterprises (given in US \$ millions)

At the start of this quarter, an M & E assessment of closed and active projects and indicator files, provided an update of gross sales (based on the Dr. John Mellor economic formula) to the sum of \$169,312,505 gross sales. With the jump starting of ongoing and completed infrastructure, equipment and supplies for Inma interventions in this quarter (two large fish farms, 10 feedlots, five forage sites, two of five packing sheds, six feed mills, an olive factory, 10 strawberry farms, 20 associations, six greenhouses, and four melon farms and one hundred and nine orchards) the project realized a 2.9% rise in sales from the previous gross or **\$8,588,430** gross sales. This brought gross sales for Inma to a gross total of **\$177,900,935** or 59.3% of the F5 \$300,000,000 expected by EOP.

This figure is expected to rise to EOP level with the full operation of feed mills, associations, and veterinary labs and accelerated activities in the two large fish farms (sale of fingerlings and adult fish).

Indicator 2 – Increase in employment in the agriculture / agribusiness sectors attributable to program activities.

At the start of this quarter, an M & E verification assessment of closed and active projects and indicator files provided an update of gross jobs (based on the Dr. John Mellor economic formula that each job actually generates two jobs). Gross full time jobs stood at 22% (4,430 of an expected 20,000 full time jobs) to December 31, 2009. By the end of March 31, 2010, an additional 1,020 full time jobs for the quarter, represents a 5.2% increase from 4,430 full time jobs (as of December 31, 2009) to 5,450 full time jobs, or 27.2% of the expected 20,000 full time jobs. Gross part time jobs have risen to 31,950 jobs with the additional 416 part time jobs generated in this quarter. (Combined gross full and part time jobs of this quarter are 1,436 jobs.)⁸

⁸ The figures for jobs and sales are based on a 30% return rate on M & E questionnaires for the quarter. Return rates are affected by many factors, amongst them security and logistics.

Rising jobs, including 17% jobs for females in this quarter, are the result of accelerated Inma interventions. These are: two large fish farms, 10 feedlots, five forage sites, two of five packing sheds, six feed mills, an olive factory, 10 strawberry farms, 20 associations, six greenhouses, and four melon farms and one hundred and nine orchards. In addition, there are significant re-visits to orchards and pomegranate farms (those which started in January 2009) to monitor technical activities. The highest number of new jobs for this quarter are provided by the two large fish farms, one of the feed mills, the two completed packing sheds, and the feedlots.

The number of jobs is expected to rise to EOP level with the full operation of the feed mills, associations, and veterinary labs as well as construction of the three remaining packing sheds, and accelerated activities in the two large fish farms (sale of fingerlings and adult fish).

SO.8.2.1 – Increase perennial horticulture production and marketing

SO8.2.1.1. – Increase in gross sales of perennial products in program assisted areas (in US\$ millions)

The Strategic Objective for perennial crops (stone fruits, grapes and olives) 'to increase gross sales in the program assisted areas' was set based on perennial products being provided in FY1 and maturing by end of FY3. Late starts caused by various factors, amongst them government restrictions on importing improved perennial vines, etc, means the anticipated gross sales of **\$10 million**⁹ will not be realized with respect to stone fruits and grapes by EOP, necessitating a revision of the expected results total. All trees and vines have been distributed by the end of this quarter within the three geographic focus areas.

With respect to sales of perennial products, there is an olive plant being assisted by Inma which will be processing from existing olive plantations. Therefore sales of this product (processed) are expected. In the interim, Inma has provided orchard management training to 388 persons (all male) drawn from the three geographic focus areas, and Irrigation principles training to 437 persons (412 males and 25 females). The impact of orchard and irrigation training (adoption levels) will need to be assessed at the end of the next quarter.

SO8.2.2. – Increase annual horticultural production and marketing

SO.8.2.2.1. – Increase in gross sales of targeted annual vegetables and fruits (tomato) in program assisted activities (in US\$ millions)

The Strategic Objective for annual vegetables and fruits is based on an expected gross of **\$28 million**. This figure is derived from expected gross sales for open field crops (strawberries, melons, etc) of \$11.5 million gross, greenhouse sales (gross of \$1.87 million) and Packing house gross sales of \$15 million.

The compilation of the Year 1 gross annual sales (\$9,432,213), the Year 2 gross sales (\$27,054,596) and Year 3 for Quarter 1 (\$500.00) is **\$36,487,309**. In previous project years, the highest annual crop sales were for the Iron Horse Vegetable Project and Wheat seed distribution project. In the current Inma classification, these two projects would be classified as open field crops, in which case they surpassed the expected sales of \$11.5 million. Strawberry sales for this quarter are also encouraging-a gross of \$21,134.

Greenhouse sales have not been as successful to date-the Horticulture Greenhouse project (Al Tae, Baghdad) grossed only \$500 in the previous project year. Six new greenhouse sites have now been identified in this quarter situated in the three geographic focus areas. It is noted that each site has an average of 100 greenhouses. A total of 727 persons have received greenhouse training, in this quarter, in addition to targeted technical assistance and greenhouse materials, which are expected to stimulate greenhouse sales to the targeted gross of \$1.87 million.

⁹ \$10 million is based on \$3 million for stone fruit trees, \$500,000 for grapes and \$500,000 for olives. Based on the John Mellor formula, the total of 4 million actual comes to \$10 million.

The three of five anticipated packing sheds have not yet been completed, but the results for the two completed for this quarter, monitored by on-site Inma staff weekly, show good and progressing results, when compared with the packing sheds' capacities. The Taji packing shed has grossed \$243,335.00 for the quarter and the Rabea Packing Shed grossed \$49,537.

When the gross sales figures for Years 1 and 2 and Q1 of Year 3 are added together – a total of **\$36,487,309**. is reached – higher than the target of **\$28 million**.

It is recommended that the target for packing sheds the next project year (extension year) be higher than the \$28 million set for the three project years.

The impact of horticulture training (adoption and increased incomes) will need to be assessed at the end of the next quarter.

SO8.2.3 – Increase livestock and feed-grains production and marketing

SO8.2.3.1. – Increase in gross sales of local red meat from program assisted feedlots (in US\$ million)

As per the project design, 10 feedlots together are expected to make sales worth \$20 million (Gross \$50 million) over a twelve month period. (This means \$1.6 million / month) Noting that the start of the feedlot intervention was significantly delayed, with stocking of animals only beginning from October, 2009, and mainly in December 2009 and January 2010¹⁰.

Animal sales made in both Bartellah feedlot (Gross \$127,195.00) and Taji feedlot (**Gross \$50,087.50**) this quarter, bring gross sales to **\$178,003**. Two feedlot sites in Ninawa were not monitored due to lack of security in the area. Gross sales to date represent only 0.3% of the original anticipated gross sales for a twelve month period, but if compared with an average monthly gross sales, the figure of \$50,087 is 3.1%, noting it is based on only two of the 10 feedlots.

It is recommended that the expected result for gross sales by changed to reflect EOP (May 31, 2010) and the late start of animal stocking. The impact of training (adoption and increased incomes) will need to be assessed at the end of the next quarter.

SO.8.2.3.2. – Production of red meat by program assisted commercial feedlots by kilograms per year.

The 10 feedlots are expected to produce 2 million kilograms based on a 12-month period. (This means approximately 165,000 kg per month). In the last quarter, 102,560 kg were produced by the 10 feedlots. By the end of this quarter, the 10 feedlots had produced **307,348 kg** which represents an increase of 142,348 kg or a 46% increase. Based on the expected monthly kilogram the project is progressing as expected.

SO. 8.2.3.3. – Increase in gross sales of local fish by program assisted fish farms (in US\$ millions).

A gross sales figure of \$75 million based on tonnage of 5600MT-11,200MT is expected by EOP, based on the support provided by Inma in terms of infrastructure, equipment and other support to two large fish farms. These are the Euphrates Fish Farm, or EFF and the Middle East Fish Farm (MEFF) made an additional **\$8,069,580**. (This figure is based on MEFF sales this quarter of \$469,587.50 and EFF sales of \$7,600,000). The Inma M & E records indicate that gross sales stand at **\$72,192,08¹¹** or 96% of the expected gross fish sales. As shown below, Inma is expected to far surpass this figure in the next quarter.

¹⁰ Examples of stocking program: October 15 ,2010 (FY3, Q1) for the Bartellah feedlot, followed by Duhok feedlot on November 1st, 2009, and Taji feedlot on December 1st, 2009.

¹¹ This combined total is the summation of three quarters: a. FY1, Q3 (April-June 2008) = \$12,850.00' b. FY3, Q1 (October-December 2009) = \$51,272,500.00 c. FY3, Q2 (Jan-March 2010) = \$8,069,588.00.

An M & E report on 'Achievability' (produced in collaboration with the Aquaculture value chain specialist) reviewed expected value chain activities which will generate sales in the next quarter: The Euphrates fish Farm and Middle East Fish Farms are expected to make actual sales of \$21 million each selling 30 million fingerlings and 1,000 carp. (This is a combined gross of \$105 million.) It is also estimated that by the end of the next quarter, 500 fish trainees will gross \$6 million selling their matured fingerlings received at the end of training. (In this quarter, 145 persons were trained, to a grand total by end of March 2010 of 419 persons.)

SO8.2.3.4 – Four (now six) feedmills each produce 15,000 – 25,000 tons / year.

Two of six selected feed mills have been fully upgraded. At the end of this quarter, the MEFF feed mill was preparing to sell feed to three associations affiliated to it, and EFF feed mill was preparing to sell to four affiliated associations. The equipment provided by Inma means each of the six feed mills will be able to sell an average of 20,000 tons at \$600/ton to make the estimated gross sales of \$180 million.

SO8.2.4. – Increase competitiveness of agribusiness enterprises

SO8.2.4.1. – Market Information System providing daily wholesale pricing of major agricultural commodities in 18 wholesale markets

Anka continues to provide daily, weekly and monthly data on price of major agricultural commodities for 18 markets.

As the EOP approaches, the issue of Anka funding or alternative approaches to getting Market information, should be addressed.

SO8.2.4.2. – Percentage of program-assisted businesses benefiting from cluster formation

Cluster formation is not in place.

SO8.2.4.3. – Percentage of program assisted members trained to understand markets and farming profitability

Inma is required to train 65 associations to understand markets and farming profitability. To date this figure has been surpassed by numerous training programs. By December 31, 2009, 673 organizations had received training in subject matter inclusive of market and farming profitability. However, in this quarter, 121 associations received two days training. A study of documentation on the association training indicates the duration was two days. Fifteen of the 21 capitalization voucher associations also received the training, and two women's associations.

The expectation of '65 associations trained' has been surpassed; however, an assessment of the degree of understandability of markets and farming profitability will have to be carried out at the end of the next quarter. It is also recommended that the six associations (capitalization voucher) which did not receive training, be trained in the next quarter and that training duration be extended beyond two days.

SO8.2.4.4. – Percentage of program-assisted farmers who use improved technology and can document that they are getting more income from their crops

In February and March of this quarter, 121 associations in the three GFA areas received two days training on management. Fifteen of the 21 capitalization voucher associations also received the training, alongside 106 other associations including two women's associations.

The expectation of '65 associations trained' has been surpassed; however, an assessment of the degree of understandability of markets and farming profitability will have to be carried out at the end of

the next quarter. This will verify whether or not the associations are using the improved technology and getting more income.

It is also recommended that the six associations (capitalization voucher) which did not receive training in this quarter, be trained in the next quarter and that training duration be extended beyond two days.

SO8.2.5.3. – Number of program assisted contacts with new buyers in domestic and foreign markets

This quarter was marked with the exploration of new market linkages. A short term market research specialist worked with the horticulture value chains, identifying both domestic and foreign markets for Iraqi products. A marketing conference was held in Erbil, which was attended by both domestic buyers and government bodies involved in trade and agriculture. Inma also conducted in-house training for staff on key areas - Traceability, HACCP, both directed at food safety and quality control. This training has meant local requirements for food safety are better understood by those who were trained.

A list of program assisted contacts will be prepared in the next quarter by the Horticulture department.

SO8.2.6. – Increase agribusiness access to finance

SO.8.2.6.1. – Number and value of loans to agribusiness by private banks receiving Inma grant assistance

At the end of the last quarter, Inma had awarded **\$1 million** to the Iraqi Company for Financing Small Medium Enterprises in Anbar Province. Commercial lending began in this quarter when twelve (12) enterprises received loans through the North Bank and Bank of Baghdad totaling \$583, 898.00 (ID 689,000,000). The funds were used for enterprises falling under three of the value chains, namely Beef and Lamb, Horticulture and Aquaculture value chains, and comprised 58% of the allotted amount (\$1 million).

Gender and location disaggregated data and field visits will begin in the next quarter.

SO8.2.6.2. – Number and value of loans provided by micro-finance institutions receiving Inma grant assistance to SME agribusiness

Two micro-finance institutions continue to disburse loans in the three geographic areas where Inma works. The results show that Inma is well on the way to reaching its target of \$5 million disbursed by EOP, as by the end of this quarter, \$4,425,270 has been disbursed. The number of loans has declined from the previous quarter (418 loans) to this quarter, where **245 loans** have been disbursed. At the same time, this means the value of the loans has declined from the previous quarter of \$1,191,550 to \$760,300. The number of loans to females remains low at 1-3% for both micro-finance organizations.

It is recommended that partner micro-finance institutions provide disaggregated data by not only gender, but also size of loan, type of loan, repayment. The M & E Department has carried out three assessments of beneficiaries in previous quarters and additional assessments will be carried out.

SO8.2.6.3. – Number of jobs created through Inma grant-supported private bank loans to agribusiness

Twelve enterprises in Anbar province received loans for various enterprises ranging from agricultural equipment, purchase of animal stock and infrastructure. Each of these enterprises mean jobs are created. In the next quarter, field visits will need to be conducted to gather employment figures and progress of the enterprises.

SO8.2.6.4. – Number of jobs created through Inma grant support MFI loans to agribusiness

A total of 245 loans have been disbursed through the two micro-finance institutions, which means the creation of **490 new jobs**. Loans are much lower than in the last quarter where 836 jobs were created. The total jobs of the two quarters is 2,432 gross jobs, which means jobs creation is progressing well: 76% towards reaching the expected result of 3,200 jobs. There remains a balance of 9% completion of this objective or 278 jobs (139 loans).

The two tables below illustrate the gross sales and jobs for the two project indicators. The targets and gross sales (Actual sales times 2.5 as per Dr. John Mellor economic formula) by FY and Quarters, are shown in Table 1. Table 2 shows the actual and gross jobs (Actual jobs times 2 as per Dr. John Mellor formula) are shown by FY and Quarter. Note that this report is based on findings for Quarter 2 (Q2) which covers January to March 31, 2010.

Table 1: Inma Gross Sales by FY											
Indicator 1— Increase of total gross sales of program assisted enterprises (given in US\$ millions)	Unit of Measure	Program Target	Year I Target	Year I Gross	Year II Target	Year II Gross	Year III Target	Q1 (Oct-Dec 09)	Q2 (Jan-Mar 10)	Year III Gross	Program Actual
	Number and Value	300 of 300	\$75,000,000	\$35,259,415	\$150,000,000	\$80,141,430	\$75,000,000	\$53,911,660	\$8,588,430	\$62,500,090	\$177,900,935

Table 2: Inma Gross Jobs by FY											
Indicator 2: Increase employment in the agricultural/agribusiness sectors	Unit of Measure	Program Target	Year I Target	Year I Gross	Year II Target	Year II Gross	Year III Target	Q1 (Oct-Dec 09)	Q2 (Jan-Mar 10)	Year III Gross	Program Actual
	Number and Value	40,000	10,000	5,540	20,000	29,348	10,000	1,076	1,436	2,512	37,400