



COMPLETION REPORT FOR PROJECT

RESTORATION OF VETERINARY SERVICES IN IRAQ (A5-08)

Summary

Participating UN Organisation: FAO

FAO – Food and Agriculture Organization of the UN.

Cluster: A5

Agriculture, Food Security, Environment and Natural Resources Management.

Project No. and Project Title:

A5 - 08
Restoration of Veterinary Services in Iraq
(OSRO/IRQ/407/UDG)

Project Location/Region/Province:

Iraq –Nationwide

Reporting Period:

06 October 2004 – 31 December 2008

Report Number:

9 and completion report.

Counterpart organisations / implementing partners:

MoA – Ministry of Agriculture

Project cost:

- Cost at Approval: USD 10 565 843
- Revised budget: USD 8 758 964
- Cost at Completion: USD 8 682 552
- Left over resources: USD 76 412

Abbreviations and acronyms:

MoA – Ministry of Agriculture
AUSAID – Australian Agency for International Development
FMD – Foot and Mouth Disease
HPAI – Highly Pathogenic Avian Influenza
TAD – Transboundary Animal Diseases
USAID – United States Agency for International Development.
GSCVS – General State Company for Veterinary Services

Project Duration:

- Original project duration: 2 years from 08 July 2004 to 30 June 2006.
- Starting Date: 06 October 2004
- Extension: 30 June 2006 to 31 December 2008.

I. Purpose

Main objectives and outcomes expected as per approved Project/Programme/project document:

The project's overall objective is to address problems associated with the breakdown of all branches of veterinary services in Iraq – in particular the serious threat to livestock posed by trans-boundary animal diseases (TAD) and increased public health concerns arising from occurrence of zoonotic diseases. Reestablishment of the Iraqi veterinary services and its capacity in animal disease control and surveillance will ensure that TADs and zoonotic diseases are effectively contained. As a result, livestock mortality and resulting economic losses are minimized and threats to public health reduced.

Expected outcomes are:

- update the skills of professional technical staff in animal disease control and surveillance through training and capacity building;
- restore and re-equip veterinary infrastructure with particular emphasis on field services, laboratory diagnostic services and the cold chain system;
- re-establish the national capacity for animal disease surveillance;
- re-establish the national capacity for quality control and food safety; and
- evolve effective control strategies for transboundary animal and zoonotic diseases.

Agreed changes during the course of the project:

In 2005, a USD3.0 million tender issued for the construction of 9 new veterinary centres (related to main activity number 8 in the project document) was cancelled at the last moment on request of MoA which preferred to support a national Brucellosis control campaign instead (activity number 9). MoA proposed to do this through the procurement of USD1.5 million in vaccines and equipment. However, the appearance of the first Highly Pathogenic Avian Influenza (HPAI) cases inside Iraq in February 2006, which caused a limited number of human casualties, in combination with the underfunded status of the project, made FAO and GSCVS management decide during an extraordinary technical meeting in Rome (20 – 24 February 2006) that budget for some activities would once more be re-allocated from the Brucellosis towards the HPAI control campaign.

In 2008, the MoA again approached FAO for assistance to its Brucellosis campaign through the procurement of Brucella vaccines. Accordingly, an order was placed for USD310 000. Unfortunately, in February 2009 (hence, after the operational closure of the project but before the delivery of the vaccines), MoA requested FAO to cancel the order as the vaccines were no longer needed. Consequently, the funds committed under this order will not be spent any more and be returned to UNDG ITF as part of the balance of funds.

Reference to how the programme/project related to the UN Assistance Strategy to Iraq and how it aimed to support Iraq national development goals and the Millennium Development Goals:

FAO ensures that project activities are integrated in the overall UN strategy for Iraq (which supports the Iraqi National Development Strategy and contributes to the Millennium Development Goals) designed to achieve the following outcomes:

- Enhanced sustainable long-term food production and natural resource management;
- Rehabilitation and reconstruction of infrastructure;
- Strengthened institutional development and capacity building;
- Support to legislation, policy and strategy formulation;
- Enhanced employment and income-generation;
- Enhanced environmental restoration and conservation.

Project Management arrangements

Programme/project implementation and supervision arrangements; in-country and region based capacity of organisation utilised:

This project has been executed by FAO and co-implemented by the Ministry of Agriculture. FAO ensured a timely recruitment of project personnel, in collaboration with the Ministry of Agriculture, including the National Project Coordinators (NPC) to coordinate project activities from Baghdad and Erbil with MoA counterparts (Veterinary Services). The International Chief Technical Advisor (CTA) based in Amman has been in constant contact with the NPCs and FAO Headquarters. Besides this distant technical as well as operational management, intensive face-to-face meetings in Amman (and occasionally at FAO Headquarters in Rome) with the Ministry of Agriculture interlocutors plus the many training courses and workshops in Amman or overseas, have made a good and effective implementation possible though sometimes challenging.

Cornerstone of the supervision and monitoring system for this 'remote control' project implementation, have been the monthly reports prepared by the CTA on the basis of input from the NPCs in Erbil and Baghdad. Furthermore, intensive e-mail and telephone contact between FAO headquarters, the CTA and the NPCs as well as periodic visits to Amman by the NPC and the counterparts provided for an adequate monitoring of the project implementation.

Main international and national implementing partners involved, their specific roles and responsibilities in project implementation and their interaction with the agency:

The main implementing partners have been the Iraqi Ministry of Agriculture in general, and the Veterinary Department and the General State Company for Veterinary Services in particular. These institutions are directly responsible for all veterinary issues and activities inside Iraq and are close counterparts of this FAO project. The project has directly targeted, supported and collaborated with both the senior management of these institutions and the veterinary officers in the field, based in the 18 Governorate veterinary departments and its districts, and in the 18 Governorate veterinary hospitals. The FAO team has worked closely with its veterinary counterpart colleagues in implementing the project throughout Iraq.

For implementing and delivering the extensive technical and management training component of the project, FAO has sought close collaboration with a variety of international expert institutions. These include the World Organization for Animal Health (OIE), Pennsylvania State University (USA), Freie Universität Berlin (Germany), Curtin University

(Australia), the Australian Biosecurity Cooperative Research Centre for Emerging Infectious Diseases, Institut Agronomique et Vétérinaire Hassan II (Morocco), Elizabeth Macarthur Agricultural Institute (Australia) and Veterinary Laboratories Agency (UK).

Intra cluster cooperation and goods/services other agencies supplied/common services utilised:

FAO cooperated closely with WHO and UNICEF during and following the Highly Pathogenic Avian Influenza outbreaks in 2006 and 2008. Also for issues of food safety, meat inspection procedures etc, FAO coordinated closely with WHO in the framework of both this Veterinary project and the related UNDG ITF funded D2-17 Food Safety Project, implemented by WHO, UNIDO and FAO together with the Ministries of Health, Industries and Agriculture. Close coordination has also taken place with the FAO implemented A5-10 Livestock project, lead by the same Project Manager as this A5-08 Livestock project.

Procurement and transport arrangements:

Already in August 2004, FAO, in a written agreement with its key counterpart ministries, has obliged itself to assure a strong involvement of the ministries throughout the procurement process, which includes the following elements and which has been applied during the whole length of the project:

- Identification of inputs or services required undertaken jointly by FAO/Iraqi Line Ministry;
- Preparation of detailed specifications, bill of quantities, drawings, delivery time and destination by FAO/Iraqi Line Ministry and endorsed by the latter;
- List of local potential suppliers provided by Iraqi Line Ministry, to be included by FAO in its invitations to bid;
- Tenders launched by FAO inviting local and international potential suppliers;
- Technical review of the offers received and preparation of recommendation carried out jointly by FAO/Iraqi Line Ministry and endorsed by the latter;
- Purchase Orders or Contracts issued by FAO.

Regarding transport (and insurance) arrangements, we saw significant changes during the life of the project. FAO normally prefers to have the good it procures shipped and delivered at final destination under Delivered Duty Unpaid terms (DDU, Incoterms 2000). However, as a result of the worsening security situation, less and less suppliers have been either willing or been able to ship into Iraq, as it has become increasingly difficult for them to find freight forwarders and insurance companies that want to take up the job and cover the risks. As a result, FAO often had no choice but to take charge of the goods ex-factory, and hire a freight forwarder separately for the transport and delivery. In most cases use has been made of a standing contract with the company Kühne+Nagel, resulting from a worldwide tender that UNICEF floated, and to which also FAO adhered. Shipment through this company, which makes use of local forwarding agents inside Iraq, also includes adequate insurance of the goods.

Systems for programme/project monitoring, quality control (including financial tracking and accounting audit), quality control (including lesson learning and corrections) and impact assessment; methods for data collection and monitoring:

- In line with FAO policies and procedures, project progress monitoring has been done at all crucial stages of implementation of the project based on the measurable indicators and means of verification identified in the logical framework of the project document. Telephone calls, e-mails and formalized reports as well as periodic visits to Amman of National Project Coordinator and counterparts took place for monitoring, fact-finding, triangulation and follow up on implementation of the project. Continued copying of the chain of events and correspondence to all pertinent parties also helped in performing monitoring of project activities.
- For monitoring of delivery of supplies to the project, a system has been put in place for

all FAO projects, whereby independent inspection agents verify quantity, quality and integrity of the goods at loading at the supplier's warehouse as well as upon arrival on site. Without a cleared inspection report on the shipment on arrival, plus a CMR/waybill signed by the counterpart (GSCVS/MoA) for receipt of the goods, no payment takes place to supplier and freight forwarder.

- For monitoring of civil works and construction contracts implemented by private contractors, FAO always puts a resident engineer on site, responsible for progress monitoring through regular progress reports and certification of (quality of) works delivered. Again, without such certification no invoices are paid to the contractor.
- For financial monitoring and tracking, it should first of all be noted that all project related disbursements are being made either by the FAO offices in Iraq, Amman or Rome. No UNDG ITF funds are transferred to and disbursements made through the MoA counterpart. On the FAO side, a solid computerized financial accounting system is in place, to which all FAO offices have access for entering of commitments and expenditures as well as monitoring of budgets.
- With regard to auditing, the following relevant internal and external audits took place on the Iraq programme during the life time of this Veterinary Project. Though not project-specific, its findings and recommendations also directly or indirectly benefited this project.
 - Review of TCE Iraq Trust Fund's Strategic and Operational Framework (FAO Internal Audit)
 - Review of TCE Iraq Trust Fund's Project Implementation (FAO Internal Audit)
 - Review of TCE Iraq Trust Fund's Personnel (FAO Internal Audit)
- Last but certainly not least, FAO's Evaluation Service is currently (February 2009) undertaking an independent final project evaluation as per FAO rules and procedures. At the time of reporting, the contracted consultancy company is finalizing its field work, and the report should be available in the second quarter of 2009, following which it will be shared.

II. Resources

Total approved budget and summary of resources used for the programme/project from the UNDG Iraq Trust Fund (and non-Trust Fund resources where applicable):

UNDG ITF funds approved: USD10 565 843

UNDG ITF funds received: USD 8 758 964

Project expenditure: USD 8 676 429

Amount still available to the project at completion of activities: USD USD 82 535

Use of Funds according to the 10 broad categories:

CATEGORY	UNDG ITF approved budget (As per Original Project Document)	Actual COST	Percentage of Approved	Budget Revision approved on 11/09/07	Percentage of revision
1. Personnel	1,956,000	1,389,363	71%	1,294,109	107%
2. Contracts	1,600,000	429,005	27%	51,261	837%
3. Training	1,285,000	1,080,276	84%	1,291,693	84%
4. Transport					
5. Supplies and commodities	800,000	1,409,251	176%	1,346,257	105%
6. Equipment	3,390,000	3,029,378	89%	3,196,071	95%
7. Travel	90,000	349,579	388%	329,682	106%
8. Security	193,620	100,687	52%	193,620	52%
9. Miscellaneous	500,000	366,958	73%	483,255	76%
10. Agency Management Support	691,223	528,055	76%	573,016	92%
Total Expenditure	10,505,843	8,682,552	83%	8,758,964	99%

Explanation of deviations of project expenditure versus original budget:

Project funds have been released only partially and in several instalments, making planning difficult and even leading to a freeze on project activities at some stage (from mid 2006 until early 2007) when all available funds had already been spent or committed. The following chronology gives some further detail on this:

- The total approved budget amounts to USD10.5 million. The first and only direct allocation of USD5 million was received from UNDG ITF in June 2005. However, at the time FAO was informed that the remaining funds for the C5-08 Restoration of Veterinary Services projects were no more available (08/12/05), the available cash balance had already long been spent, whereas the Avian Influenza outbreak in Iraq required some emergency assistance from the Veterinary project to the Ministry of Agriculture.

- As per UNDG ITF guidance (communication 24/08/05 between Bisrat Aklilu, Executive Coordinator UNDG ITF, and Henri Carsalade, Assistant Director-General Technical Cooperation Department FAO, allowing for full flexibility in project budget management), USD1.7 million was transferred from the project C5-10 Restoration of Livestock Services. Another USD0.5 million was taken from another project (Community Irrigation) under this temporary transfer arrangement.

- On 24/07/06, a much appreciated USD1.8 million contribution towards the Veterinary project was received from the Government of Australia through UNDG ITF, which enabled FAO to return the most of the advance funding taken from the above mentioned Community Irrigation project (USD0.5 million) and the Livestock project (USD1.3 million), but not increasing the funds available to the Veterinary project itself.

- On 19/03/07, another contribution was received from the Government of Australia through UNDG ITF for the amount of USD1.9 million. Of this amount, a last remaining USD0.4 million was returned to the Livestock project, finally allowing for the full implementation of the total project and USD1.5 million was added to the Veterinary project accounts. Only with the reception of this last instalment of funds was the project reactivated again, starting with a planning meeting with a high level delegation of the Iraqi Veterinary Department in Amman, putting a high priority on Avian Influenza prevention, preparedness, monitoring and awareness activities for the coming year(s).

- The USD1.8 million difference between the approved project budget of USD10.5 million and the total of funds received (USD8.7 million), has remained. In 2008, it was agreed with the ITF that this balance would not be requested for anymore, and that the project would be completed, with possible adjustments as necessary, based on the funds received by 30/06/08.

The main change of scope brought about by this reduced budget in combination with the HPAI outbreak occurring in Iraq in the same period, is the support to the MoA HPAI preparedness and control program which came instead of the originally planned (and considerably larger) activity of the rehabilitation of veterinary clinics and support to the national Brucellosis campaign.

Approved budget revisions:

The following two budget revisions have been submitted to ITF:

1) Submitted 14/08/07, approved 11/09/07:

Budget Category / Item Description	Total Budget USD (prodoc)	Revised Budget USD	Difference
Personnel			
Sub Total - National Staff	684,000	171,163	-512,837
Sub Total - International Staff	648,000	830,356	182,356
Sub Total - National and International Consultant	624,000	292,590	-331,410
Contracts	1,600,000	51,261	-1,548,739
Training	1,285,000	1,291,693	6,693
Equipment	3,390,000	3,196,071	-193,929
Supplies and commodities	800,000	1,346,257	546,257
Transport and Travel	150,000	329,682	179,682
Operational Expenditure including Common Services	500,000	483,255	-16,745
Security	193,620	193,620	0
Administrative Management Support (AMS)	691,223	573,016	-118,207
Total Project Cost USD	10,565,843	8,758,964	-1,806,879

2) Submitted 15/06/08, not yet approved nor rejected

Budget Category / Item Description	Total Budget USD	Revised Budget USD	Difference
Personnel			
Sub Total - National Staff	171,163	171,163	0
Sub Total - International Staff	830,356	830,356	0
Sub Total - National and International Consultant	292,590	292,590	0
Contracts	51,261	883,106	831,845
Training	1,191,693	1,031,743	-159,950
Equipment	3,338,658	3,174,737	-163,921
Supplies and commodities	1,346,257	1,122,764	-223,493
Transport and Travel	329,682	289,682	-40,000
Miscellaneous	483,255	233,884	-249,371
Security	151,033	155,923	4,890
Administrative Management Support (AMS)	573,016	573,016	0
Total Project Cost USD	8,758,964	8,758,964	0

Other funding sources available to the project: None

Human Resources

- International: 1 Chief Technical Advisor/Project Manager (shared with project A5-10)
- National: 2 National Project Coordinators
- Various international backstopping officers, specialist consultants, trainers
- Other programme management and administrative staff co-shared with other projects

Main Project Assets

- Transport equipment (refrigerated trucks, pick ups, motorcycles): US\$ 1,254,000
- Laboratory equipment: US\$ 415,000
- Cold storage rooms: US\$ 1,300,000
- Data processing and communication tools: US\$ 55,000

Complete final resources utilisation overview at annex 2.

III. Results

An assessment of the extent to which the programme/project component / programme /project has achieved the outcomes and outputs expected

Main and overall achievement of the project is fully in line with the main objective to restore the veterinary services in Iraq, namely the restoration of the veterinary infrastructure with materials and equipment, professional and managerial training updates to veterinary staff in animal disease prevention and control, and equipping and training of staff of the central and regional laboratories. All of the supported facilities are fully operational and functioning again after having been found to be closed down before due to lack of equipment, lack of trained staff, having been looted etc.

- Professional training updates provided to veterinary staff in animal disease control issues and strategies:

22 out-of-country training courses (detailed in below activities) including workshops and study tours for 196 veterinarians have been carried out in the fields of quality control of veterinary drugs, vaccines and animal food products as well as in epidemiology, virology, bacteriology, quarantine, strategy and emergency preparedness plans, disease control, data management and risk analysis procedures.

- Veterinary infrastructure restored and its various branches re-supplied with materials and equipment to improve delivery of animal health services in the country:

The supply and delivery of essential equipment, goods and materials such as cold storage rooms, refrigerated trucks, pick-ups, motorcycles, forklifts, personnel protective clothes, disinfectant, mist blowers knapsack and sprayers, computers and communication tools, has been completed according to the schedule.

All central veterinary services and the 18 regional veterinary hospitals are functioning (please see detailed report on Veterinary Services activity for 2007 in annex 4).

The construction of two veterinary border check points, which was started with a long delay as a joint activity shared with the D2-17 Food Safety project, is nearing completion. Upon closure of the A5-08 Veterinary project, it will be further monitored and completed under the D2-17 Food Safety project.

- Laboratory capacity re-established and strengthened for disease investigation, diagnosis and surveillance:

The supply and delivery of essential laboratory equipment and supplies as well as refresher and advanced technical training courses to laboratory staff have enhanced the laboratory capacity for disease investigation and diagnosis, in particular in the field of Avian Influenza disease surveillance.

All central and regional veterinary laboratories are functioning (Please see detailed report on Veterinary Laboratories activity for 2007 in annex 5).

The programme/project addressed the critical problem of the breakdown of all the veterinary services in Iraq and the particularly serious threats this caused to livestock from trans-boundary diseases and to public health from the occurrence of zoonotic diseases. Upgraded and re-equipped, the services involved (General State Company for Veterinary Services, central and regional laboratories, Governorate veterinary hospitals) are now fulfilling again their important functions.

Besides the direct benefits brought about by strengthening government institutions, capacity building and staff training, the sedentary and nomadic livestock owners of Iraq are benefiting from the delivery of effective disease prevention services to their animals. In medium terms, because of the important functions of the livestock sector and the veterinary services, the farmers and the whole population of Iraq will in fact benefit from a decrease of the risk of

zoonotic diseases contamination and from an increased supply of a healthy source animal food (meat and milk) which will contribute to improved human nutrition, household food security and employment in the various downstream production, processing and distribution chains.

Main activities undertaken and achievements/ impacts:

Procurement

- Procurement of 7 cold storage rooms: 5 installed in the governorates of Basrah, Thi Qar, Kerbala, Hilla, Wassit and 2 still not installed in Baghdad and Diyala due to security situation (100% of planned);
- Procurement of 15 refrigerated trucks, 6 Pickups Toyota model 2005, 100 Suzuki motorcycles and 2 forklifts (100% of planned);
- Procurement of HPAI equipment: personnel protective equipment and clothes, disinfectant Virkon S and Virocid powder, mist blowers knapsack and sprayers (100% of planned);
- Procurement of 2 computers and 2 colour printers for the re-establishment of a central Animal Health Information System data base (100% of planned);
- Procurement of data processing equipment and communication tools for linking the Governorates with the Animal Health Information System : 23 computers, 23 USB, 100 cellular phones and 100 GPS (100% of planned);
- Procurement of laboratory equipment (PCR, microscopes, spectrophotometer, HPLC) and supplies (chemicals, reagents, diagnostic kits; 100% of planned);
- Procurement of clinical tools (blood collection tubes, scissors, stethoscopes, forceps, drenching guns, post-mortem sets; 100% of planned);
- Procurement of technical publications; 100% of planned).

Training

- Training abroad of senior technical and veterinary staff (100% of planned):
- 5 Modules for Change of Management. All held in Jordan – Amman:
 - Module I, 17 trainees, training in responsibilities of veterinary services, possibilities for restructuring, and identification of most significant diseases present in Iraq (5 – 9 December 2004).
 - Module II, 25 trainees, training in disease surveillance, investigation, diagnosis, reporting and recording (6 – 16 March 2005).
 - Module III, 18 trainees, training in trans-boundary disease control and emergency preparedness, using FMD and Rinderpest as examples (15 – 19 May 2005).
 - Module IV, 29 trainees, training in drafting a National control plan of Brucellosis and developing the concept of Standard Operating Procedures of activities for effective disease control and eradication (21 – 31 August 2005).
 - Module V, 18 trainees, training in Import Risk Analysis and Quarantine (12 – 15 February 2007).
- 4 trainees, eight weeks training in Production and Quality Control of Veterinary Drugs and Vaccines ; Morocco (23 May – 15 June 2005);
- 4 trainees, two weeks training in Delivery of public and private veterinary services; Morocco (19 – 28 June 2005);
- 3 senior MoA staff, participation to the World Veterinary Congress, Minneapolis, USA (15-21 July 2005);
- 5 trainees, seven weeks training of trainers in Practical Epidemiology; Australia various

- locations (Nov – Dec 2005);
- 6 trainees, two weeks focused technical training in Veterinary Public Health; Berlin, Germany (14 – 29 November 2005);
- 2 trainees, eight weeks training in Avian Disease Virology ; Pennsylvania, USA (25 February – 22 April 2006);
- 8 trainees, two weeks extraordinary technical meetings with FAO (Rome) and OIE (Paris) to discuss technical issues on surveillance and control of priority Trans- boundary diseases in Iraq (20 February – 04 March 2006);
- 2 trainees, two weeks training in Brucellosis and Mycoplasma diagnostic procedures and techniques; United Kingdom, VLA laboratories (23 April – 5 May 2006);
- 6 trainees, two weeks training in quarantine and veterinary inspections procedures Study Tour; Germany, Berlin (8 – 20 May 2006);
- 6 trainees, six weeks training in bacteriology and virology; Australia, EMAI institute (19 June – 28 July 2006);
- 10 trainees from MoA media department, one week training in internal and external communication on HPAI to enhance practical skills for information and communication with the media on Avian Influenza issues; Jordan, Amman (14 – 17 November 2006);
- 10 Iraqi and 7 Palestinians trainees, all veterinary epidemiologists, one week training of trainers in veterinary epidemiology and disease surveillance; Jordan, Amman (11 – 15 November 2007);
- 2 trainees, one week training in wild birds and Avian Influenza. Training in wild birds handling and sampling techniques; Jordan, Amman (12 – 15 November 2007);
- 3 senior staff, one week training in preparation of final dossier on accreditation of Iraq Rinderpest free country to be submitted to OIE; Jordan, Amman (14 – 21 May 2008);
- 4 trainees, one week training in Polymerase Chain Reaction techniques (PCR Real time); Lebanon, Beirut (10 – 16 June 2008; postponed to 7 – 14 July 2008).
- 9 trainees, one week training of trainers in Animal Health Information System to re-establish an Animal Disease data base; Jordan, Amman (14 – 21 June 2008);
- 3 senior MoA staff, one week meeting to review and finalize Iraqi Avian Influenza Contingency Plan; Jordan, Amman (24 – 30 June 2008).
- 2 senior MoA staff, participation to a regional meeting on Food and Mouth Disease, Sheraz, Iran (9 – 13 November 2008)

Physical restoration

In March 2008, a contract was signed with an Iraqi contractor for the construction of two veterinary border check points at the Zerbata and Safwan border crossings with Iran and Kuwait, respectively. This is a shared activity with the D2-17 Food Safety project. Following significant delays because of security constraints, given that the border locations are in sensitive and military-controlled border zones, the construction is now nearing completion. Following the closure of the forelying project A5-8 Veterinary Project, finalization of the construction will be further monitored and implemented under the project D2-17

Impacts:

- The programme of technical training courses of veterinary staff and the procurement of cold chain and transport facilities have improved the operational and technical resources available to the Veterinary Department and enhanced its ability to support the livestock sector in Iraq.
- The procurement of laboratory equipment and technical training courses of laboratory staff have re-established and strengthened the laboratory capacity for disease investigation, diagnosis and surveillance.
- The procurement of publications has updated the knowledge base of the Veterinary

Department technical staff.

Implementation constraints, lessons learned from addressing these and knowledge gained from assessments, evaluations and studies that have taken place during the project:

- For a fair part of its implementation period, the project was hampered by the funding problems explained in Chapter II (Resources). Many activities had to be postponed and the project had to be slowed down; at some stage certain activities even had to be halted. Obviously, this phased funding and consequently phased implementation caused significant delays in the implementation and subsequent need for extensions.
- The security situation made the provision of technical assistance to the Ministry of Agriculture in Iraq difficult. The security situation also hampered the installation of the remaining cold rooms in Baghdad and Diyala as delivered to the MoA, which it therefore chose to postpone. Also the rehabilitation of the two veterinary border check points was severely hampered and delayed due to security and accessibility problems.
- The institutional capacity of the MoA remains weak, so that implementing field programs continues to be difficult. In fact, more and more senior veterinary counterpart staff members have left their jobs and/or country during the life of the project. And most sadly, the project's prime counterpart interlocutor, the Director General of the Veterinary Department/Iraq Chief Veterinary Officer, was kidnapped together with his bodyguards in 2007.
- Security issues prevent on-site project management and implementation is necessarily conducted by remote control and through third parties.
- The process for obtaining MoA approved and cleared nominations of individuals with a suitable background and professional history for training programs is very slow and often has an uncertain outcome, frequently leading to postponing or canceling of activities as no nominations are received in time.
- Obtaining visa for out-of-country training often appears to be difficult, and even impossible for certain countries.

Lessons learned:

- Although approved and encouraged by UNDG ITF, temporary advance 'borrowing' of funds from other projects until (partial) ITF contributions finally materialize, has appeared to be very risky and cumbersome and should not be repeated any more.
- Be very cautious in selecting the implementation sites within Governorates with regard to security conditions. This should be done in full coordination with MoA and other reliable sources of security information.
- Remote management and monitoring, difficult as it is, implies the enhancement of well-qualified and motivated national staff in the field and working with the in-country counterpart organizations in order to link the Amman management structure with the field activities.
- Training courses and study tours outside Iraq, albeit in the region, provide an extra and valuable added dimension as they allow for learning from more technically advanced and diversified countries with more sophisticated livestock systems. Utmost care should be taken that identification and selection of trainees is started as early as possible given current constraints and time required for official MoA nomination procedures, visa, travel etc. Given these constraints, and to the extent possible under the current security situation, consideration will also be given to in-country training.
- Given the time requirements, avoid whenever possible to include major civil works in any project proposal, especially if construction/rehabilitation of facilities is a pre-condition to start the implementation of other project activities.
- Continued close coordination with the counterpart Ministry is fundamental.

Key partnerships and inter-agency collaboration, impact on results:

The project is operated in collaboration with the Iraqi Ministry of Agriculture, specifically the General State Company for Veterinary Services. This partnership has proven essential in identifying needs, finalizing input specifications, implementing the training programs and distributing inputs.

Furthermore, FAO cooperates closely with the main development agencies involved in rehabilitating livestock infrastructure and in providing technical support to the Veterinary department. These agencies include WHO, USAID, AUSAID and other members of the international community.

Highlights and cross cutting issues pertinent to the results e.g. gender disaggregation, policy engagement and participation of the public:

Were the needs of particularly vulnerable or marginalised groups addressed?

The priority needs of this population are food security, food safety and well-being which have been improved at mid-term by a better provision of a safe source of animal foods. Animals provide by far the most important source of dietary protein through meat and milk.

How did the beneficiaries of the programme/project participate in its development and delivery?

The majority of project activities has been conducted with the effective participation of the existing national institutions and relevant technical divisions of the Ministry of Agriculture. National staff has been involved in the necessary monitoring, training sessions, technical meetings and workshops of particular importance. Participation of livestock owners has been achieved through extension campaigns for awareness of the importance of animal transboundary and zoonotic diseases (especially Avian Influenza and Brucellosis) to encourage their essential support in disease control and surveillance.

How did men and women benefit from the programme/project? How were gender inequalities handled?

Both men and women have been benefiting from the activities of the project including its training programmes and extension activities. Within the local Iraqi context, women in particular have been addressed in these campaigns due to their importance in livestock rearing, especially in production and processing of milk products.

Were there any specific issues in relation to the security situation?

- Field work, extension activities, and data collection are very difficult to be done in-country;
- Delivery and distribution of inputs were sometimes delayed and even halted by the prevailing security situation.
- Inability of international consultants to visit Iraq hampered direct and on site project implementation and follow-up of project management matters.

How did the project contribute to capacity building in ministries and elsewhere?

- Most essential government services in the veterinary sector had collapsed during the last war in 2003 and the period that followed. Now, thanks to the project a very important part has been rehabilitated and is properly functioning again;
- National counterpart staff working in the veterinary sector have acquired, through various training courses and workshops, updated information and skills, and have now the capacity for effective disease control and emergencies, quality control and animal food safety. In addition, animal health workers and livestock owners have, through awareness raising activities, become more knowledgeable about and involved in animal disease control and surveillance.

IV. Follow up actions and sustainability

Priority actions that should be supported/implemented following completion of project to build on achievements and partnerships rectify shortcomings encountered and use the lessons learned during the project with strong emphasis on achieving sustainability of the outcomes:

Iraq requires further assistance in making the step from transition from emergency restoration of essential government services in the veterinary sector towards starting a strategic national plan for a coordinated control of the most serious zoonotic and trans-boundary animal diseases. Such a plan will ensure the continuity of the programmes, policies and services developed under the project and enable the Iraqi's to achieve a high standard of animal health and production within the national herd. This in turn will assist in achieving the sustainable viability of the agricultural production system in Iraq.

FAO is therefore pleased that UNDG ITF has decided to support the project A5-27 "Strengthening the capacity of the Iraqi veterinary Services for control of zoonotic and transboundary animal diseases" with a USD3.0 million contribution, received by FAO in February 2009.

Indication of major adjustments in the strategies, targets or key outcomes and outputs:

In 2005, a USD3.0 million tender issued for the construction of 9 new veterinary centres (related to main activity number 8 in the project document) was cancelled at the last moment on request of MoA which preferred to support a national Brucellosis control campaign instead (activity number 9). MoA proposed to do this through the procurement of USD1.5 million in vaccines and equipment. However, the appearance of the first Highly Pathogenic Avian Influenza (HPAI) cases inside Iraq in February 2006, which caused a limited number of human casualties, in combination with the underfunded status of the project, made FAO and GSCVS management decide during an extraordinary technical meeting in Rome (20 – 24 February 2006) that budget for some activities would once more be re-allocated from the Brucellosis towards the HPAI control campaign.

In 2008, the MoA again approached FAO for assistance to its Brucellosis campaign through the procurement of Brucella vaccines. Accordingly, an order was placed for USD310 000. Unfortunately, in February 2009 (hence, after the operational closure of the project but before the delivery of the vaccines), MoA requested FAO to cancel the order as the vaccines were no longer needed. Consequently, the funds committed under this order will not be spent any more and be returned to UNDG ITF as part of the balance of funds.

Estimated Budget required:

N/A

Annex 1 Key Performance Indicators – Log Frame Matrix

Objectives	Measurable indicators	Means of verification	Outcomes
<p>Development Objective</p> <p>To improve animal production by reducing economic losses and threat to public health originating from livestock diseases through rehabilitation and strengthening of veterinary services in Iraq.</p>	<p>- A strengthened veterinary services evaluated by the number of veterinary Hospitals and laboratories fully functioning.</p> <p>- A strengthened Capacity building evaluated by the number of trainings and trained vet staff.</p>	<p>Six monthly progress reports</p> <p>Monthly field reports</p> <p>Completion project report.</p>	<p>- 18 Governorate veterinary hospitals</p> <p>2 central laboratories and 18 regional laboratories are fully functioning</p> <p>- 23 refresher trainings and study tours abroad carried out for 213 senior and veterinary staff.</p>
<p>Immediate Objectives:</p> <ul style="list-style-type: none"> ● Provide professional training updates for veterinary staff in animal disease control issues and strategies. ● Restore the veterinary infrastructure and re-supply its various branches with materials and equipment to improve delivery of animal health services in the country. Special emphasis will be given to restoration of the veterinary cold chain. ● Re-establish and strengthen the laboratory capacity for disease investigation, diagnosis and surveillance. ● Evolve an effective control policy for major animal trans-boundary and zoonotic diseases. ● Enhance national capacity for quality control of veterinary products and animal food safety. 	<p>Reports on training sessions from both participants and trainers and supervisors in the host institutions.</p> <p>Six- monthly progress reports that give details of equipments received, installed and operating.</p> <p>Six- monthly progress reports that give details of equipments and supplies received, installed and operating.</p> <p>Workshops reports and number of guidelines drafted.</p> <p>Reports on training sessions from both participants and trainers and supervisors in the host institutions.</p>	<p>Field reports</p> <p>Final Reports</p> <p>Conclusion and recommendations of the various workshops and trainings.</p>	<p>Veterinary staff professionally trained abroad in animal disease control issues and strategies.</p> <p>Veterinary infrastructure restored and all various branches supplied with materials and equipment such as 7 cold storage rooms, refrigerated trucks, pick-ups, motorcycles, forklifts, personnel protective cloths, disinfectant, mist blowers knapsack and sprayers, computers and communication tools.</p> <p>Laboratory capacity re-established and strengthened through trained staff and procurement of equipment and supplies.</p> <p>Effective control policy for major animal trans-boundary and zoonotic diseases evolved.</p> <p>National capacity for quality control of veterinary products and animal food safety enhanced.</p>

<p>Outputs :</p> <ul style="list-style-type: none"> - A sufficient number of veterinary and laboratory staff with increased skills for disease intelligence and surveillance, laboratory diagnosis and disease control. - Veterinary hospitals and clinics reactivated with the capacity to deliver effective animal health services - Effective cold chain facilities for storage and distribution of vaccines re-established and improved - Vaccination and treatment campaigns supported and implemented to protect 12 million sheep and goats, 2 million cattle and a large number of poultry farmers from endemic and diseases that limit the production potential - Strategy and emergency preparedness plans being drafted for implementation to control and prevent major diseases of livestock and poultry - Disease data generation, data management and analysis procedures introduced - Laboratory capacity strengthened for investigation, diagnosis and surveillance of major livestock and poultry diseases. 	<p>Number of trainings and staff trained.</p> <p>Number of samples and type of analysis performed.</p> <p>Number of cold chain Installed and functioning</p> <p>—</p> <p>Number of plans drafted.</p> <p>Six-month progress reports that give details of information and communication tools received, Reports on training sessions from both participants and trainers.</p> <p>Six- monthly progress reports that give details of equipments and supplies received, installed and</p>	<p>Reports on training sessions from both participants and trainers and supervisors in the host institutions.</p> <p>Monthly field reports Six monthly progress reports Completion project report.</p> <p>Monthly field reports Six monthly progress reports Completion project report.</p> <p>—</p> <p>5 Modules of Change Management workshops reports</p> <p>Six monthly progress reports Completion project report.</p> <p>Monthly field reports Six monthly progress reports Completion project</p>	<p>22 refresher trainings abroad (detailed in above activities) including workshops and study tours for 196 veterinarians have been carried out in the fields of quality control of veterinary drugs, vaccines and animal food products as well as in epidemiology, virology, bacteriology, quarantine, strategy and emergency preparedness plans, disease control and data management and risk analysis procedures.</p> <p>- 18 Governorate veterinary hospitals are fully functioning (Annex 4)</p> <p>Procurement of 7 cold storage rooms: 5 installed in the governorates of Basrah, Thi Qar, Kerbala, Hilla, Wassit and 2 still not installed in Baghdad and Diyala due to security situation</p> <p>Change of scope the brucellosis programme has been neither funded nor implemented.</p> <p>Strategy and emergency preparedness plans drafted for implementation to control and prevent Brucellosis, HPAI, FMD, Rinderpest, PPR and Rift Valley Fever.</p> <p>Animal Health Information System re-established.</p> <p>1 Central and 18 regional laboratories are fully functioning (Annex 5)</p>
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<p>- Laboratory capacity strengthened for quality control of locally produced and imported veterinary vaccines, drugs and animal food products (animal food safety).</p>	<p>operating. Reports on training sessions from both participants and trainers and supervisors in the host institutions.</p> <p>Six- monthly progress reports that give details of equipments and supplies received, installed and operating. Reports on training sessions from both participants and trainers and supervisors in the host institutions.</p>	<p>report.</p> <p>field reports Six monthly progress reports Completion project report.</p>	<p>Laboratory fully functioning. (Annex 5)</p>
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Annex 2 PROJECT COSTS

CATEGORY	UNDG ITF approved budget (As per Original Project Document)	Actual COST	Percentage of Approved	Budget Revision approved on 11/09/07	Percentage of revision
1. Personnel	1,956,000	1,389,363	71%	1,294,109	107%
2. Contracts	1,600,000	429,005	27%	51,261	837%
3. Training	1,285,000	1,080,276	84%	1,291,693	84%
4. Transport					
5. Supplies and commodities	800,000	1,409,251	176%	1,346,257	105%
6. Equipment	3,390,000	3,029,378	89%	3,196,071	95%
7. Travel	90,000	349,579	388%	329,682	106%
8. Security	193,620	100,687	52%	193,620	52%
9. Miscellaneous	500,000	366,958	73%	483,255	76%
10. Agency Management Support	691,223	528,055	76%	573,016	92%
Total Expenditure	10,505,843	8,682,552	83%	8,758,964	99%

Annex 3: List of contract awards by procurement method

Procurement Method *	Country of Origin of Supplier	Award Year	Goods/Services/Works	Award Date	Supplier	Value in USD
CB	Germany	2004	Veterinary field supplies	22/12/04	IREMCO	8,281
CB	Italy	2004	Veterinary laboratory equipment	30/12/04	INTECH	21,887
CB	Netherlands	2004	Veterinary chemicals	30/12/04	MELSPRING	8,024
CB	Germany	2004	Veterinary laboratory equipment	31/12/04	LABSCO	5,166
CB	Germany	2004	Veterinary laboratory supplies	20/12/04	KRUUSE	72,298
CB	Austria	2004	Veterinary field supplies	22/12/04	AMEX	115,714
CB	Austria	2004	Veterinary laboratory equipment	23/12/04	AMEX	138,415
CB	Austria	2004	Veterinary laboratory equipment	30/12/04	AMEX	77,709
CB	Italy	2004	Veterinary laboratory equipment	31/12/04	CHIMICA OMNIA	38,306
CB	UK	2004	Veterinary laboratory equipment	31/12/04	LABQUIP	56,646
CB	Austria	2004	Veterinary laboratory equipment	31/12/04	AMEX	309,719
CB	Lebanon	2004	Veterinary chemicals	22/12/04	ARD	17,400
CB	Australia	2004	Veterinary chemicals	22/12/04	LIVINGSTONE	15,664
CB	Iraq	2004	Forklifts	22/12/04	IRATRAC	61,199
CB	Jordan	2004	Refrigerated trucks	23/12/04	EM Motors	694,500
CB	Jordan	2004	Vehicles Toyota Pick-ups	23/12/04	EM Motors	162,000
CB	Denmark	2004	Motorcycles	22/12/04	BUKKEHAVE	345,078
CB	UK	2005	Vaccine Strains	03/10/05	NCTC	5,219
CB	Austria	2005	Veterinary laboratory freeze dryer	05/04/05	AMEX	75,389
CB	Kuwait	2005	Cold storage rooms	03/10/05	Luai A Al-Abdul Razzak & Partners	1,321,950
CB	Germany	2005	Reagents	21/06/05	BDSL	87,472
CB	UK	2006	Protective clothing kits for Avian Influenza	08/03/06	Greenham Export	83,337
CB	UK	2006	Avian Influenza disinfectant Virkon S	09/03/06	Antec International Ltd	24,057

CB	Italy	2006	Avian Influenza reagents	19/01/06	Istituto Zooprofilattico Sperimentale delle Venezie	27,515
CB	Iraq	2006	Forklifts	16/01/06	IRATRAC	49,499
CB	Germany	2006	Motorized knapsack sprayers and mist blowers	May 9,2006	Solo Kleinmotoren	34,489
CB	Lebanon	2007	Laboratory equipment	26/06/07	Ard Unifert	7,410
DC	Iraq	2007	A0 Plotter	12/11/07	Mazen Al Saadi for Computer Services	3,575
DC	Iraq	2007	Cellular phones	14/11/07	Mohammed AL Hadithi Bureau	4,500
CB	UK	2007	Handheld Global Positioning Systems (GPS)	03/10/07	GPS Store Limited	10,840
CB	Denmark	2007	Computer equipment	31/10/07	Danoffice	43,264
CB	Austria	2007	Laboratory chemicals	08/11/07	AMEX	48,186
CB	Austria	2007	PCR system	08/11/07	AMEX	126,604
CB	Sweden	2007	Personal protective equipment and clothing	13/11/07	Segre AB	39,961
CB	France	2007	Avian influenza antigen test kits	11/10/07	Synbiotics	23,367
CB	Italy	2007	Motorised knapsack mistblowers and sprayers	29/10/07	OSV	14,500
CB	UK	2007	Avian influenza reference reagents	11/12/07	X-OVO	14,745
DC	Jordan	2008	2 Desktop computers	10/06/08	Digital Company	3,532
DC	Jordan	2008	2 Printers	10/06/08	Digital Company	508
CB	Belgium	2008	Virocid disinfectant	30/07/08	CID Lines	9,943

***) Procurement method:**

CB: Competitive bidding.

DC: Direct contracting, due to proprietary goods, works or services; standardization needs; urgency of action, etc, as permitted under UN Financial Regulations/Rules.

Annex 4: Activity of Central Veterinary Services and 18 Regional Veterinary Hospitals for Year 2007:

Diseases	Human cases	Animal cases	Animals Vaccinations & Prophylaxis
Brucellosis	971	4413	3674684
Hemorrhagic fever	1	2401	423367
FMD	-	15815	2908093
Anthrax	-	87	94795
PPR		3280	414410
Pox		1743	176046
Anthrax		3	94795
Black leg		710	226694
Enterotoxaemia		4477	2366990
Theileriosis		48310	
Babesiosis		9104	
Mastitis		5340	
Hydatid Cyst	316	5354	
Rabies	22	166	
Screw worm	22	120000	
Kala –Azar	524	-	
Leishmaniasis		147	
Internal Parasites			7601700
External Parasites			6862058
Poultry Diseases			
New Castle		143000	3088699
Gumboro		38000	2374350
HHS		41000	2247190
IB		38000	-
E. Coli		126000	
Salmonellosis		53000	
Coccidiosis		4358000	
Pneumonia/ Bronchite		10010500	
Gsatrieties/Enterities		4495100	
Avitaminosis		7745000	

Slaughtering and Meat Inspection

No Slaughtered Ani: Sheep Goats Cattle Buffalo Camel
280256 42106 97903 10602 3403

No Infested Carcasses: Sheep Goats Cattle Buffalo Camel
- Hydatid Cyst 2357 593 2120 278 6
- Liver Fluck 1610 514 1786 203 1
- Lung worm 1112 336 621 87 -
- Pneumonia 1514 420 861 491 1
- Hepatitis 239 102 324 78

Stray dogs Control:

Number of dogs killed: 69505

Annexe 5: Activity of Central and Regional Veterinary Laboratories for Year 2007**I / Avian Influenza Investigation and Surveillance:****Cumulative Avian Influenza working teams and Labs activities for Year 2007**

Poultry Farms			Backyard poultry			Game and wild birds			Investigation teams		Extension Activity	
Total Number	Tested Number	Test result	Total Number	Tested Number	Test result	Species	Tested Number	Test result	Visit Number	Activity type	Activity No.	Activity type
21344475	23010	- ve	219551	15347	- ve	Duck ,Dove,Pigeon Starlings,wild ducks,Crane & other game birds	10066	- ve	5735	Visit to poultry marketing ,houses , marshes	491	Lectures *

Markets & slaughters houses

Total Number	Tested Number	Test result
2148779	16340	- ve

- The extension activity involved lectures about: Lectures held with Health centre in different governorate, Lectures held with Agriculture centre in different governorate & awareness of civilians in different governorate.

Cumulative Avian Influenza working teams and Labs activities from 1/1 – 30/4/2008

Poultry Farms			Backyard poultry			Game and wild birds			Investigation teams		Extension Activity	
Total Number	Tested Number	Test result	Total Number	Tested Number	Test result	Species	Tested Number	Test result	Visit Number	Activity type	Activity No.	Activity type
10218837	19366	+ve ❖ H9	245859	14812	+ve H9	Duck ,Dove,Pigeon Starlings,wild ducks,Crane & other game birds	2489	- ve	2343	Visit to poultry marketing ,houses , marshes	313	Lectures *

Markets & slaughters houses

Total Number	Tested Number	Test result
950733	10062	- ve

- these data are for all the governorates of Iraq except (Diala , Anbar)
 - ❖ Poultry farms in Karbelaa , Najeeff , Basrah governorates:- samples showed +ve in RKT, the vet. hospital in the governorates sent samples of serum , organs to the central lab., the result is (+ve H9).
 - ❖ The Poultry farms in Najeeff vaccinated with H9N2 vaccine.
 - ❖ Poultry farms in Najaf governorate:-6 samples showed +ve in RKT, the SVC sent the samples to NAMRU-3 lab in Cairo, the result is (+ve H9) and (–ve H5&H7).
 - ❖ Backyard poultry in Basrah governorate:-5 samples showed +ve in RKT, the SVC sent the samples to NAMRU-3 lab in Cairo, the result is (+ve H9) and (–ve H5&H7).the vet. Authorities destroyed 2601 backyard chickens in the region of cases in Basrah
 - ❖ Poultry farms in Babel, Mosul governorate:- samples showed +ve in RKT, the vet. Hospital in the governorate sent samples of serum , organs to the central lab., the result is (+ve H9).
 - ❖ Markets & slaughters houses in Mesan governorate:- samples showed +ve in RKT, , the vet. hospital in the governorate sent samples of serum , organs to the central lab., the result is (+ve H9).

Summary of Avian Influenza outbreaks

governorate	Suspected farms no.	Lab. Test results			
		H9	ND	IB	Other causes.
Babel	28	9	-	6	13*
Najeef	8	8	-	-	-
kerbalaa	1	1	-	-	-
Mousel	1	1	-	-	-
Basrah	1	1	-	-	-
Mesan	1	1	-	-	-

* The other causes of Poultry death in the farms are: aflatoxins, bad management, using randomly loaded vaccinated programs .

II / Laboratory of Quality Control Biology and Drugs

Number of Analysis:

Chimio-Physiology 36	Vaccines 12	Microbiology 35	Spectrophotometer 26	Chromatography 9
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III / Laboratory Control of Public Hygiene and Food Safety

Number of Food Analysis: 1263

IV / Veterinary Central Laboratory Baghdad

Number of Analysis by Department

Screw-Worm 922	Fish and Bees 77	Bacteriology 62	Parasitological 31	Virology 305	Serology 1932
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(Source: GSCVS, 2008)