



IRFFI/UNDG IRAQ TRUST FUND (UNDG ITF)

ANNUAL PROGRAMME NARRATIVE PROGRESS REPORT

REPORTING PERIOD: 1 JANUARY –31 DECEMBER 2009

| Submitted by: FAO – Food and Agriculture Organization of the United Nations Fadel El Zubi OiC FAO Iraq in Amman <u>fadel.elzubi@faoiraq.org</u> Tel. 00962 655 625 50 | <i>Country and Thematic Area</i> Iraq, Agriculture and Food Security Sector |
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| <i>Programme No:</i> A5-24 <i>Programme Title:</i> Modernization and Development of the Dairy Cattle Sector in Iraq | Participating UN Organization(s): Food and Agriculture Organization of the UN (FAO) |
| <i>Implementing Partners:</i> Iraq Ministry of Agriculture | <i>Project Budget</i> : UNDG ITF: USD 4,424,670 Govt. USD 13,400,000 (in kind under MOA Total: US\$ 17,824,670 |

Prorgamme Duration (24 months):

Start date: October 17, 2008 *End date:* October 16, 2010

I. Purpose

Provide the main outputs and outcomes/objectives of the programme

The development goal of the project is to increase income, improve nutrition, health and well being of the Iraqi population. Its objectives are to enhance the production and increase the productivity of milk and meat of the dairy herds in Iraq, through strengthening rural and institutional technical and management capacities and creating market and employment opportunities along the dairy value chain in both rural and urban areas.

Main outcomes are:

- Enhanced production and increased productivity of milk and meat of the dairy herds in Iraq.
- Strengthened rural and institutional technical and management capacity.
- Enlarge the private sector base for participation in the development of dairy sector.

Main outputs are

- Regional semen distribution centres established equipped and activated.
- Embryo transfer techniques implemented for dairy cattle breeding.
- Efficient milk collection and outlet systems established.
- Strengthened rural and institutional capabilities.
- Milk performance recording and monitoring schemes initiated at farmers level.
- Macro level: Policy frame work for the dairy sector formulated.
- Meso level: Technical skills programme implemented.
- Financing scheme implemented for small dairy producer groups.
- Micro level: Value added products.

Explain how the programme relates to the Strategic (UN) Planning Framework guiding the operations of the Fund.

ICI

FAO will ensure project activities are integrated into the overall UN strategy for Iraq. The International Compact with Iraq (ICI) in its Agriculture Strategy specified goal: "To develop a stable, competitive and sustainable agriculture to enhance food security and rural incomes, generate rural employment, diversify economic growth and protect the natural environment."

The following ICI benchmarks with indicative actions are relevant to the project:

• Benchmark # 4. Improve institutional and regulatory underpinning of public agriculture;

Indicative actions: over 2008-2010, strengthen the technical and management capacity of agricultural organization (priority action) JMM 4-2008.

• Benchmark # 5. Carry out investment plans;

Indicative actions: By 2008, develop financing plans and mechanisms including public and private sources (priority action):

- Rehabilitate damaged physical infrastructure.

- Improve delivery of public agriculture services.
- Improve the efficiency of agricultural information services.

NDS:

The project is designed to directly contribute to Iraq's National Development Goal number 1 to "Eradicate Hunger and Poverty" through its first pillar, "Strengthening the foundations of economic growth," which foresees to:

- Transform the structure of the Iraqi economy to allow for a greater role for Agriculture.
- Establish agricultural demonstration sites throughout Iraq to reinvigorate livestock production and boost rural job creation.

In light of this project, the following NDS prioritized actions will be taken:

- Development of a viable agricultural research and extension service to develop and disseminate ...successful production practices.
- Increasing production and productivity.

Moreover, the project will also increase primary milk production and availability of milk and milk products in the market, thereby alleviating the people's dependency on the Public Distribution System (PDS) also mentioned in the NDS.

II. Resources

Financial Resources

Provide information on other funding resource available to the project, if applicable. The GOI is contributing USD\$ 13,400,000 of in-kind support provided to the MOA.

Provide details on any budget revisions approved by the appropriate decision-making body, if applicable. Not applicable. The original end date of the project is October 16, 2010.

Provide information on good practices and constraints in the mechanics of the financial process, times to get transfers, identification of potential bottlenecks, need for better coordination, etc. So far there has been no constraint to the financial processes

Human Resources

National Staff: details on the number and type (operation/programme)

This project has 2 national staff (NPOs), one in Salah Aldeen governorate and the second in Wasit governorate to follow up the implementation in the field and to coordinate with MOA and local councils.

International Staff: details on the number and type (operation/programme)

This project has one international Project Manager based in Amman who is in charge of the implementation of all the project activities in coordination with the two National Project Officers (NPOs), MOA and the local councils, and who is preparing monthly, quarterly and yearly reports to the FAO headquarters and donors.

III. Implementation and Monitoring Arrangements

Summarize the implementation mechanisms primarily utilized and how they are adapted to achieve maximum impact given the challenging operating context.

This project is executed by FAO and implemented together with the Ministry of Agriculture. FAO ensures a timely recruitment of project personnel in collaboration with the Ministry of Agriculture; including the two NPOs to coordinate project activities from Salah-Aldeen and Wasit .The International project manager based in Amman is in constant contact with the NPOs and FAO Headquarter and will visit the field whenever it is possible.

The project is implemented with the full participation and significant resource inputs from the Iraqi MOA and allied institutions, being:

- the General State Companies for Livestock Services (GSCLS) is concerned with the large scale implementation of modern technologies in the field;
- the General State Company for Veterinary Services (GSCVS) provides all the veterinarian services required;
- the State Board for Agricultural Extension Services (SBAES) is introducing the modern technology to the farmers and producers and develop their capacities;
- the State Board for Agricultural Research (SBAR) is responsible for the development of technology on research level. With regard to this programme, they are most directly involved in the embryo transfer techniques.

The development and delivery of the project is achieved through a participatory approach including consultations and interactions with key national livestock staff and training of trainers who, in turn, will train regional livestock and veterinary staff. In addition, the local authorities and livestock farmers' communities jointly undertake the project activities with FAO assistance.

Due to the prevailing poor security situation at present in Iraq, management by international staff is done from FAO-Iraq offices in Amman, Jordan. Management decisions are influenced by periodic progress reports from the field. The Project Manager stationed in Amman is in constant communication with the National Project Officers (NPOs) in Iraq via telephone, e-mail and video conferencing and will visit the field whenever it is possible. The NPOs also travel to Amman when necessary to discuss programme planning, monitoring, and technical specification and bids evaluation review on procurement issues. A Project Steering Committee is also meeting in Amman and.

Direct contacts are made with related technical counterparts in each of the targeted governorates on a regular basis. National experts and resource persons from research, training institutions and universities are involved to advise on specific matters of the programme and for in-country training activities, field surveys and studies. The Ministry of Industry is closely involved as they are the owners of some existing milk collection centre buildings.

Implementation Committees, one for each of the planned three milk collection centres, were formed including the representatives of local authorities, local livestock extension services, farmer's communities, dairy producer groups and other stakeholders. These committees help in implementing and disseminating the proposed technological and management packages. The project implementation process is fully participatory, designed to maximize the involvement of the target groups. In the project management and overview process the above actors are actively involved through the establishment of a Project Steering

Committee which has met twice in Amman during the reporting period. The Project Steering Committee typically provides guidance on the implementation of activities and recommend alternative course of actions when required. The project has also closely involved the private sector from the onset (including dairy processing factories, marketing structures, equipment manufacturers, private veterinary clinics etc) in order to assure economic sustainability, necessary complementarities and synergies all along the whole dairy value chain.

Provide details on the procurement procedures utilized and explain variances in standard procedures.

Timely procurement and delivery of the required equipment and supplies and timely organization of training courses are considered major elements that determine the success of the project implementation strategy. The standard FAO procurement procedures, consisting of tendering through an invited bidding process, is applied for procurement of all goods and services for this project.

The procurement process as utilized by FAO is as follows:

- Identification of inputs or services required undertaken jointly by FAO/Iraqi Line Ministry;
- Preparation of detailed specifications, drawings, delivery time and destination by FAO/Iraqi Line Ministry;
- Listing of local potential suppliers provided by Iraqi Line Ministry and FAO Procurement Service;
- 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;
- Purchase Orders or Contracts issued by FAO.

Provide details on the monitoring system(s) that are being used and how you identify and incorporate lessons learned into the ongoing programme/project.

Monitoring systems: Telephone calls, e-mails and reports as well as periodic visits to Amman of NPC and counterparts (national counterparts and MOA) and to Iraq by the project manager (whenever security permits) takes place for the monitoring and follow up on implementation of the project. Continuous copying of the chain of events and correspondence to all pertinent parties are essential in monitoring of the project details. As per the monitoring system put in place, a monthly progress report from the NPC in the field is received by the CTA who in turn prepares a monthly, quarterly and annual monitoring reports consisting of parameters, such as project activities as outlined in the work plan, projected dates for the completion of the outlined activities and current status of each project activities both in terms of time and status of work. The CTA then submits the reports to the OIC of FAO-Iraq Programme for necessary action and on-forwarding to the Operations Division at headquarters.

Report on any assessments, evaluations or studies undertaken relating to the project and how they were used in support of the project

Field staff has conducted a field survey to identify project beneficiaries and to quantify the number of dairy cattle and lactating cows, the quantities of milk production per day, and the percentage of breeders using artificial insemination in the five districts which the project is focussing on for this activity. 1399 questioners were filled with the beneficiaries in Al-Sewara, Al-Haffriya, Al-Eshaki, Al-Taji, Al-Wehda. The following data was collected for each of the district:

1) Sewara District:

a-The estimated number of Dairy cattle about (4362) cows.

b-The estimated number of Lactating cows about (1944) cows.

- c-The estimated quantities of milk production per day about (19440) lit / day.
- d-The estimated percentage of Breeders who's using A/I in the area about 70%.

2) <u>Haffriya District</u>:

- a-The estimated number of Dairy cattle about (3433) cows.
- b-The estimated number of Lactating cows about (2380) cows.
- c-The estimated quantities of milk production per day about (23800) lit / day.
- d-The estimated percentage of Breeders who's using A/I in the area about 70%.

3) Eshaki District:

- a-The estimated number of Dairy cattle about (528) cows.
- b-The estimated number of Dairy Cattle according to Veterinary Directorate statistics about (1500) cows and those recorded at 2006.
- 4) Taji District:
- a-The estimated number of Dairy cattle about (10952) cows.
- b-The estimated number of Lactating cows about (6279) cows.
- c-The estimated quantities of milk production per day about (62790) lit / day.
- d-The estimated percentage of Breeders who's using A/I in the area about 20%.

5) Wehda District:

- a-The estimated number of Dairy cattle about (1551) cows.
- b-The estimated number of Lactating cows about (472) cows.
- c-The estimated quantities of milk production per day about (4720) lit / day.
- d-The estimated percentage of Breeders who's using A/I in the area about 30%.

IV. Results

Provide a summary of Programme progress in relation to planned outcomes and outputs; explain any variance in achieved versus planned outputs during the reporting period.

In practical terms, the project is concentred around three main interventions:

- (i) Set up milk collection services with and by dairy producer groups that need to be set up: this activity is progressing very well and as per planned schedule and budget.
- (ii) Support embryo transfer technologies: the number of frozen embryos to be procured has been reduced since the unit price is much higher than previously estimated and the project management and PSC have decided that the total available budget for this activity will remain as per the project budget. The training component is progressing as foreseen, albeit with some delay
- (iii) Support regional antennas of the central artificial insemination facilities: No major procurement was foreseen for this component, as MOA is supplying necessary equipment.

Report on the key outputs achieved in the reporting period including the number and nature of the activities (inputs), percentage of completion and beneficiaries. <u>Inception phase</u>

An intensive work and follow up during Dec. 2008-Jan.2009 was carried out in Iraq. Several meetings with all MOA staff concerned with the project implementation were conducted. Representatives from

MOI/SCDO and from the two dairy stations have attended these meetings. Details on the management and follow up of the project activities' implementation, selection of the AI marketing centers and milk collection centers, ET centers, ET central and mobile labs, equipment specification and training activities, were discussed (February 2009), and elaborated further and confirmed in the second PSC meeting (August 2009). The Inception Report was finalized after that, and approved in the third PSC meeting (January 2010). (% of completion 100)

<u>First Project Steering Committee Meeting held in Amman on 2 - 3 February 2009</u> After a comprehensive discussion on the project document including all activities addressed on this project, it was agreed by all participants that the project will compose of three main activities as follows:

- Embryo transfer facilities: two sites (Wasit and Sallahaldin).
- Artificial insemination marketing centres: two sites (Ninawa and Basra).
- Milk collection centres: three sites in Wasit and Sallahaldin governorate.

MOA endorsement for the above activities was obtained and lists of proposed training topics with detailed information were received from MOA (% of completion 100).

Equipment Procurement

The following equipment has been procured by FAO after completion of specifications together with MOA:

- 2 milk tanker trucks
- Milk collection and cooling equipment for three milk collection centres
- 2 vehicles for embryo transfer work
- Embryo transfer equipment
- Frozen dairy cattle embryos (still under tender, following two failed tenders).

None of this equipment has yet arrived on the project locations (% of completion: 70)

- List of equipments and specification of the milk collection centres were received from MOA and tendering is under process, (% of completion 100). AI centres accessories will be provided by MOA.
- Equipments specification of mobile clinic and central lab has been prepared in coordination with a consultant (% of completion 100).
- Two pickup vehicles were tendered and PO was issues

Rehabilitation of three milk collection centres

Six milk collection centres were identified, namely Al-Eshaki, Al-Wehda, Al-Sewara, Al-Lije, Al-Taji and Al-Hammamiat. Assessment of rehabilitation need of the six centres completed. According to agreed criteria, three most suitable centres have been chosen. Only one location has been rehabilitated (Al Sewara). At the end of the reporting period, for the works for the other two locations were only at the design stage. (% of completion: 50%)

Second Project Steering Committee Meeting held in Amman 9 – 10 August 2009

The meeting decision is listed hereunder:

• Three milk centres meeting the minimum requirements were selected as follows: Al Sewara and Al-Wehda in Wasit Governorate, and Al-Taji in SalahEddin Governorate.

- Based on the availability of milk supply in each district, it was agreed that the project will provide the equipment required for a 10 tons/day capacity in Al sawera, 5 tons/day in Al Wehda and 10 tons/day in Al Taji.
- The project will no longer purchase liquid nitrogen containers. Containers are available with the MOA who will make them available to the project areas in sufficient quantities to cover the needs for AI services in the project zones. The MOA will ensure that frozen semen is available in all regions covered by this project and will coordinate awareness campaigns to expand the use of AI in these regions.
- Funds will be used instead to purchase 2 vehicles for transport of the embryo transfer teams and additional pieces of equipment and accessories as requested by the MoA (2 sonar units, 2 vacuum pumps.)
- The number of frozen embryos will be reduced from 5,000 to 2,000. The final quantity to be purchased will be adjusted according to the amount budgeted in the project document (US\$ 300 000).

The following training activities were agreed to be conducted during the next stage of implementation:

- Embryo transfer training course abroad planned before end of 2009
- Training course on livestock identification systems
- A training of trainers (TOT) courses will be organized in Amman on the following major themes as stated in the project document: 1) Establishment of producers groups in milk production, 2) Milk post-harvest handling, processing and marketing, 3) Dairy herd management techniques.
- Local training on the same topics will be organized for the benefit of livestock extension staff and groups of beneficiaries in the project zones
- The TOT course on producers groups will be attended by 6 individuals to be nominated by the MOA and the 2 National Officers of the project
- A study tour for a group of farmers among project beneficiaries will be organized in Morocco in collaboration with the National Association of Cattle Breeders (ANEB) as recommended by ANEB and the technical staff who participated in June 2009 in the earlier course/study tour successfully hosted by ANEB Joint committees composed of the National Project Officers and representatives of the MOA and local councils will be involved in the selection of participating farmers.
- On-site field demonstrations on embryo transfer will be conducted by MOA staff involved for the technical staff of the dairy stations implementing partners
- It was agreed to involve livestock extension services in the regional Agriculture Directorates in all in-country training activities to be organized under the project

<u>Artificial insemination training course</u> for four Iraqi officials from MOA/SCLS was conducted successfully during the period 14-28/6/2009 in Tunisia.

<u>Study tour on the dairy genetic improvement</u> for four Iraqi officials from MOA/SCLS was conducted successfully during the period 14-28/6/2009 in Morocco.

Training on Embryo Transfer technology in Baghdad

Embryo transfer training course to be conducted in Al-Nahrain university on the 15/02/2010 for twelve staff from GSCLS/MOA .Several Iraqi experts will be lecturing in this course which will last for 21 days.. The course will offers trainees the opportunity to observe and to practice the standard procedures of flushing, ova collection and embryo implantation. The participants will have the chance to build and strengthen their practical skills by practicing the techniques directly. A series of presentations will

complete the training by focusing on the relevant aspects and good laboratory practices. 4 to 5 participants will be selected for advance training abroad

<u>International training course on Embryo Transfer technology</u>: a tender was floated and a contract with a specialized company in Australia signed to provide such course in 2010.

<u>Identification of two collaborating dairy stations as pilot farms for the embryo transfer implementation</u> Agreements were signed with the owners of these stations

| Quantitative achieveme | nts against outputs | | |
|--|--|-----------------|-----|
| IP Output 1.1 : Regional semen | Carry out a detailed inception / dairy cattle production system study completed | % of planned | 100 |
| distribution centres established, equipped and active | Identify project beneficiaries | % of planned | 100 |
| | Identify / agree semen distribution centres in veterinary hospitals | % of planned | 100 |
| IP Output 1.2 : | Finalize development & adaptation of embryo transfer and implantation techniques | % of planned | 100 |
| - | Procurement and installation of equipment | % of planned | 30 |
| Embryo transfer techniques | Training of technical staff | % of planned | 30 |
| implemented for dairy cattle breeding | Identify pilot dairy farmers for initial field implementation of embryo transfer | % of planned | 100 |
| | Organize field demonstrations for small and medium size farmers | % of planned | 70 |
| | Identify suitable existing milk collection centres. | % of planned | 100 |
| IP Output 1.3 : Efficient milk collection centres established | Identify rehabilitation needs. (BOQs and digrammes of the buildings of Al-Wehda and Altaji milk collection centres were prepared; rehabilitation of Al Sewara by MOI has been completed) | % of planned | 85 |
| | Procurement & installation of equipment (all procurement finished, no deliveries yet) | % of planned | 60 |
| | Training of milk collection centre staff | % of planned | 0 |

| | Training/field demonstrations on dairy handling Establish systems of milk collection including quality, storage, marketing etc | % of planned % of planned | 0 0 0 |
|--|---|------------------------------------|-------|
| | Establish producer groups and associations with selected farmers delivering milk to the centres | % of planned | 20 |
| IP Output 2.1 : | Provide technical, policy and legislative advice to MOA and beneficiaries on producer groups | % of planned | 0 |
| Strengthened rural and institutional capabilities | Conduct MOA staff training on dairy development, breeding, milk collection, handling, processing, marketing, dairy association | % of planned | 100 |
| | Conduct MOA staff training on dairy development, breeding, milk collection, handling, processing, marketing, dairy association | % of planned | 100 |
| | Conduct training for groups, organize field days, awareness campaigns and demonstrations on the above topics | % of planned | 0 |
| Output 2.2: Milk performance recording and monitoring schemes | Training Workshop on Animal ID and Recording Systems - Amman 6- 11/12/2009, reschedules to 17- 21/01/2010 due to unavailability of the lecturers. | % of planned | 40 |

Explain, if relevant, delays in programme/project implementation, the nature of the constraints and actions taken to mitigate future delays and lessons learned in the process

- According to the project document it was planned to use the data obtained from the national livestock survey which was conducted with the support of a previous UNDG-ITF funded livestock project. The results of this nationwide survey would represent the main pillar where all planned activities would depend upon. However, due to a delay from MOPD to release the data (only in Sept 2009), which was considered vital to select the locations and beneficiaries, the initiative to organize an own rapid survey to select our beneficiaries (owners of cattle) in the two already selected governorates (Wasit & Salah-Aldeen) was taken by the field staff to compensate for the lost time which amounted to about four months.
- Security status and slow responses at times from MOA have caused some delay in the implementation according to the work plan, in particular on the rehabilitation of the milk collection centres and on the embryo transfer component.
- Also the identification of required equipment and the subsequent preparation of technical specifications for large amounts of equipment and supplies through the agreed collaborative process between FAO and MOA experts were important but time consuming. Moreover so since the given budget limitations required certain priorities and strategic choices to be made.

List the key partnerships and collaborations, and explain how such relationships impact on the achievement of results.

The main implementing partners are the Iraqi Ministry of Agriculture in general, and the Department of Animal Production and the General Company for Livestock in particular. These are directly responsible for all the animal production issues and activities inside Iraq and are the main counterparts of FAO for this project. The project directly targets, supports and collaborates with the senior management staff of these institutions as well as with their animal production personnel in the field.. The private sector is also involved in the implementation, where two large private dairy stations are going to be used as a model for the implementation of all project activities. FAO will also seek collaboration with a variety of international expert institutions for institutional development and technical training.

Other highlights and cross-cutting issues pertinent to the results being reported on.

The following cross-cutting issues were considered while designing the project; however it is too early to fully assess their precise impact at this stage:

<u>Human rights:</u> Adequate nutrition and income are basic and fundamental human rights and they are essential for human dignity. Also the Universal Declaration of Human Rights, as adopted by the General Assembly of the United Nations, is clearly stating that everyone has the right to a standard of living adequate for the health and well being for himself and of his family, including food (See status on nutrition page 5). The project seeks to contribute to raising the nutritional status and well being of the people.

For as far as employment and income are concerned, due to the size and importance of the dairy production value chain, the sector has great potential for providing employment and income generation opportunities both in rural and urban areas. The project especially targets the already under-privileged and marginalized rural population and smallholders. Unlike other agricultural activities/sectors which can be seasonal, milk production is a continuous process, and selling milk will allow a steady income to the producers. Delivery to the milk collection centres will avoid losses and price fluctuations and guarantee a minimum of regular income.

<u>Gender equality:</u> The labour force in the farming community comprises men and women and therefore both will be addressed along the production, processing and distribution chains in rural and urban areas of Iraq as well as in extension and awareness exercises. Women in rural areas of Iraq have traditionally an important role in livestock rearing, especially in milking, milk handling and processing of milk products. Women will therefore fully benefit from training and capacity building activities included in the project.

<u>Key environmental issues:</u> Appropriate management of the herds in terms of feeding, breeding, reproduction, hygiene and health care will result in enhanced productivity, better fertility and higher reproductive efficiency of the cows and lower mortality of the calves. Improvement of production and food intake efficiency will diminish soil and ground water contamination by waste and excess nitrates and phosphorus excretion. However, animal by-products and manure will enable organic farming as organic fertilizer can replace chemical fertilizers. The project aims at creating sustainable milk processing and outlet channels and quality control systems. This will reduce post-harvest losses and public health risks. At the same time, it will also generate safe animal products such as meat and milk, the most important sources of animal protein and will contribute to improvement of the nutritional status and well being of the Iraqi consumers.

<u>Employment generation</u>: In each of the two targeted governorates, the project will involve at least 500 small to medium size dairy producers that will be organized around milk collection centres. Increased production efficiency through project interventions and improved organization of the sub-sector at community and village levels will create a demand for labour. Dairy production is well known to require intensive labour force at farm level for general management of the herd, including feeding, health care,

hygiene, milking, milk handling, processing and transportation. The creation of semen distribution and milk collection centres and implementation of embryo transfer techniques for breeding will immediately increase indirect employment opportunities of technicians and workers. Subsequent delivery of the milk from the collection centres to processing plants and marketing the dairy products will further boost the demand for labour and technical staff. Being a continuous process, job creation in the dairy sub-sector is not seasonal, but it is normally sustained throughout the year and for long periods of time. Increased indirect employment is also foreseen in fodder and roughage production, veterinary service requirements, dairy processing, marketing etcetera.

V. Future Work Plan (if applicable)

Summarize the projected activities and expenditures for the following reporting period (1 January -31 December 2010), using the lessons learned during the previous reporting period. The following activities will be implemented according to the work plan:

IP Output 1.2: Embryo transfer techniques implemented for dairy cattle breeding

- Procurement of frozen embryos.
- Basic training of technical staff locally.
- Advance training of technical staff abroad.

IP Output 1.3: Efficient milk collection centres established

- Delivery and installation of already procured equipment (tanker trucks, collection centre equipment etc)
- Complete the identification of the rehabilitation needs of the selected milk collection centres
- Complete the selected milk collection centres rehabilitation.
- Instillation of the milk collection centres equipments
- Deliver two milk tankers
- Training of milk collection centre staff
- Establish functioning milk collection system including pricing, quality control, transport, marketing etc.

IP Output 2.1: Strengthened rural and institutional capabilities

• Establish producers groups and associations with selected farmers delivering milk to the centre.

IP Output 2.2: Milk performance recording and monitoring schemes initiated at farmers level

- Set-up performance recording schemes linked to milk collection & delivery process
- Assist MOA in preparation and validation of a national dairy development plan

VI. Performance indicators (optional)

V. Acronym

| MOA | Ministry of Agriculture |
|-------|--|
| СТА | Chief Technical Advisor |
| UNDP | United Nations Development Programme |
| FAO | Food and Agriculture Organization of the United Nation |
| NDS | National Development Strategy |
| ICI | International Compact with Iraq |
| MDGs | Millennium Development Goals |
| NPC | National Project Coordinators |
| OIC | Officer in charge |
| MOPD | Ministry of planning and development |
| MOI | Ministry of Industry |
| MOF | Ministry of Finance |
| GOI | Government of Iraq |
| NGO | Nongovernmental organization |
| PSC | Project steering committee |
| AI | Artificial insemination |
| ET | Embryo transfer |
| BOQ | Bill of quantities |
| UNDG | United nation development group |
| SBAR | State board for agriculture research |
| ITF | Iraqi trust fund |
| UNDIO | United nation for industrial development |
| SBAES | State board for agriculture extension services |
| GSCLS | General state company for livestock services |
| | |