

**DEVELOPMENT OF INTEGRATED DAIRY SCHEMES IN NANGARHAR PROVINCE  
UTF/AFG/060/AFG**



**INCEPTION REPORT**

**FOOD AND AGRICULTURE ORGANISATION OF THE UNITED NATIONS**

**Nangarhar, August 2010**

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**UNITED NATIONS RATE OF EXCHANGE  
(August 2010)**

1 US\$ = *Afghanis* 45.6  
(as per UN rate)

**UNITS OF WEIGHT**

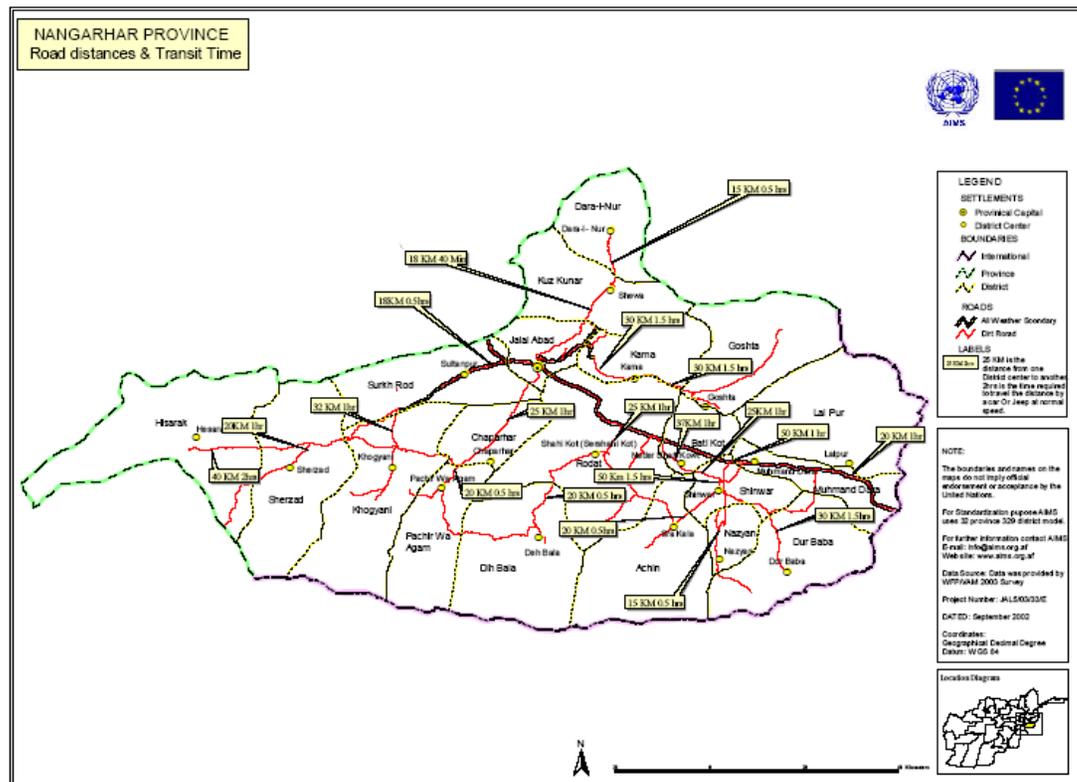
1 *mun* = 7 kilograms

## ACRONYMS

AALP	Alternative Agriculture Livelihoods Project
AGAP	Animal Production Service (FAO)
AI	Artificial Insemination
ANDS	Afghan National Development Strategy
BVW	Basic Veterinary Worker
CTA	Chief Technical Advisor
DLHPS	Department of Livestock Health and Production Services
DAIL	Department of Agriculture, Irrigation and Livestock
FAOUN	Food and Agriculture Organization of the UN
FAOR	Food and Agriculture Organization Representation
FBA	Field Budget Allocation
FPMIS	Field Programme Management Information System
GDP	Gross Domestic Product
GMP	Good Manufacturing Practices
GCP	Government Cooperative Programme
IFAD	International Fund for Agricultural Development
IDS	Integrated Dairy Scheme
IP	Implementing Partner
ISP	Independent Service Providers
LoA	Letter of Agreement
MoU	Memorandum of Understanding
MAIL	Ministry of Agriculture, Irrigation and Livestock
MOPH	Ministry of Public Health
MRRD	Ministry of Rehabilitation and Rural Development
MPCS	Milk Producer Cooperative Societies
NGO	Non-Governmental Organization
NFM	National Field Manger
PSC	Project Steering Committee
SMA	Subject Matter Assistant
TSS	(FAO) Technical Support Services
TOR	Terms of Reference
UN	United Nation
UNDP	United Nation's Development Programme
YPC	Young Professional Consultant

**DEVELOPMENT OF INTEGRATED DAIRY SCHEMES IN NANGARHAR PROVINCE**  
**Government of Afghanistan/FAO Project AFG/UTF/060/AFG**

**Map of Nangarhar province**



- Area:** **764,110** hectares  
 73,780 hector is mountainous;  
 134,860 hector is forest;  
 166,940 hector land is pasture;  
 388,530 hector land is arable.
- Population:** 1.8 million (86% rural, 14% urban, 51.18% male and 48.82 % female)
- Code:** 10
- Province degree:** 1<sup>st</sup>
- City:** Jalalabad
- Districts #:** 21 districts
- Climate:** Annual precipitation on an average 130 to 160 mm, during summers maximum range of temperature exceeds up to + 48 degree centigrade and during winter the minimum temperature comes down to 4 degree centigrade.
- Elevation extremes:** *Lowest point 500 m and Highest point 1200 m*
- Agriculture products:** cereal crop, olive, vegetables, fruit, opium and fodder crops.

## ***EXECUTIVE SUMMARY***

Almost the entire population of Nangarhar province is engaged in one or other ways in livestock production as source of family income, food or draft power. Animal products, including meat, milk; skins, hides, and wool have a significant contribution in the national GDP. All most, the meat and milk produced in the Nangarhar province is consumed locally. Fresh milk is mainly available to the families who owned cows and also buffalo. Total cattle population in targeted area of the project 149,097 head reported in 2003.

This inception report briefly covers the findings of the first FAO technical support mission to assist MAIL to start up the project. Field visits were undertaken and meetings held with key project stakeholders, including the General Director of Department of Agriculture Irrigation and Livestock of the Nangarhar Province and two day workshop held with project counterparts, farmers representative and project field staff (refer to annex 1). This report presents the findings of the project inception conducted in August 2010. It reviews the project document within the present context and based on field problems, the suggests changes in the project implementation strategy, budget allocation, institutional arrangement and the project work plan based on the findings of the above activities. The main thrust has been on revising the work plan and log frame in the present context and an institutional arrangement to implement it.

The project Goals and objectives set in the project document are relevant to the project area and no suggestions have been made except the activities have slightly been modified and extended based on the findings from the field and suggestions from the farmers.

It is recommended to change the project period, the project was effectively launched from July 1, 2010, after assigning staffs in Jalalabad. This will not have any additional burden on budgetary requirement. However, allocation to different budget lines has been reviewed and revised project budget based on the new Workplan.

Project activity locations, beneficiaries and key intervention sectors have been also finalized. The project activities will be mainly based in six districts (Kama, Bihsud, Sukhroad, Khogyani, Ghanikhel and Batikot) in the Nangarhar province and is covering 1500 farmers' families. The target group for the project are 70% small farmers who have up to 5 cows and up to 4 jerib land, 10% landless farmers, who has 2 cow and 20% medium farmers, who has 10 jerib land in the context and current conditions in Nangarhar, Afghanistan. The beneficiaries will be organised in milk producer's cooperatives in the village level.

The project will target on to improve livelihood, increasing cattle production and productivity, and access to market. Main activities shall include increased productivity through AI and Animal health services, prepare feeding, introduction to new varieties of fodder crop and cattle housing and build the capacity of beneficiaries through extension and training program on livestock production, animal health and organization management. Likewise access to market shall be improved through assessment on value chains of milk collection and prepare processing facilities for dairy products.

The project will select the village and beneficiaries based on the set criteria. The baseline surveys and its analysis will be completed by RMLSP team.

The report strongly suggests a participatory model with community involvement in decision regarding design, implementation, and management of the activities mentioned in the detailed work plan to create ownership as well as for long term sustainability of the project intervention.

FAO is working with the relevant sections of the MAIL, the main project partner at both central and provincial level, together with a range of cooperative societies and dairy unions/implementing partners with whom FAO has established strong productive relationships on behalf of the beneficiaries, farmers and rural women.

## 1. Background

Livestock keeping is an important element of the Afghanistan economy both for home consumption and the sale of products. Investigations by the MAIL and the FAO Programme have shown that for a large proportion of the rural population, cattle are the most important animal species and that increased milk production for sale and home consumption are seen by many farmers as an important development opportunity. With an increasing part of the population living in the cities and growing incomes there is also an increasing demand for livestock products, which offers a good opportunity to invest into the sector and to produce for the urban markets. This can primarily be achieved by increasing animal productivity through better feeding and management, improved genetic potential of the cattle and good animal health. For dairy development the establishment of efficient marketing facilities is another important prerequisite. The strong internal demand for the products provides a good basis for a viable commercial dairy sector.

Following is the summary of livestock population in Nangarhar (FAO 2003);

Districts	Cattle	Sheep	Goat	Donkeys	Camels	Horses	Chicken
Bati Kot	27,094	9,026	1,884	5,043	192	16	58,830
Bihsud	13,950	22,560	4,093	2,520	74	55	29,750
Ghani Khel	15,366	6,218	5,088	2,124	86	0	34,680
Kama	48,313	12,893	13,245	4,017	97	5	75,440
Khogyani/ Wazir	28,815	36,377	18,175	4,533	316	190	100,059
Surkh Rod	15,559	15,285	3,670	1,668	102	172	60,283
<b>Total in targeted area</b>	<b>149,097</b>	<b>102,359</b>	<b>46,155</b>	<b>19,905</b>	<b>867</b>	<b>438</b>	<b>359,042</b>
<b>Other districts</b>	<b>155,795</b>	<b>165,390</b>	<b>192,836</b>	<b>43,473</b>	<b>2,455</b>	<b>2,924</b>	<b>481,154</b>
<b>Total in Nangarhar</b>	<b>304,892</b>	<b>267,749</b>	<b>238,991</b>	<b>63,378</b>	<b>3,322</b>	<b>3,362</b>	<b>840,196</b>

Over the last nine years FAO has practically demonstrated the opportunities and successes of small-scale Integrated Dairy Schemes (IDS) in four locations which resulted in the following key achievements:

- raising the quality and increasing the quality of available fodder through the selection and distribution of new and improved fodder varieties through demonstrations plot with selected farmers and establishing producer groups to produce the seed of improved fodder varieties;
- facilitating breed improvement through the provision of quality sires and imported semen at Artificial Insemination Centers in strategic locations;

- improving access to markets for milk and milk products by establishing milk collection schemes on the fringes of major cities, linked with processing centers to ensure that the milk and milk products are hygienic, safe and available to customers at an affordable price;
- assisting in the formation of milk producer groups as a means of raising knowledge, particularly in feeding regimes, animal husbandry and care and coordinating milk collection;
- raising knowledge of the impacts of animal parasites and disease and the actions to combat disease;
- increased availability of local support services for sustainable increased animal production.

On the basis of the successful on-going experience with Integrated Dairy Scheme development in Kabul, Mazar and Kunduz, the Governor of Nangarhar Province requested FAO to develop a tailored programme to assist local farm households, particularly women, to enhance dairy farming practices and conditions in order to produce safe quality milk and generate regular income by providing training, milk collection and processing services.

The sharing experiences and field visit from targeted area in Nangarhar identified the following opportunities which strongly justify the establishment of an appropriate programme in support of smallholder dairy farm families:

- scope for substantially increasing fodder production;
- encouraging results from using concentrates, legumes and fodder crops;
- economic profitability of processing and marketing of milk and dairy products;
- interest at all levels in developing the integrated (health, production, processing, marketing) dairy scheme;
- possibility of improving cattle population from local good sires available on government farms;
- farmers demand for better husbandry (animal health) practices to increase productivity; and
- possibility to strengthen local veterinary services on disease investigation, diagnosis and early reaction to disease outbreaks.

The development of successful dairy schemes is a complex process involving various technical aspects of milk production, milk collection, milk processing and marketing including variety of organizational issues. During the project period farmers were motivated to participate in the dairy business. They are motivated and understood the importance of the dairy business. Having raised their daily income from the sales of fresh milk, now they are requesting the project to help set up feed mill, as an additional income generating activities. Farmers are committed to participating in the establishment, operation and management of Dairy Cooperative Societies/Unions and farmer-owned milk processing plants.

An important objective of the proposed Project is to create independent institutions, which will continue to work for the improvement of dairy production and marketing and which could also utilize the services of already trained technical staff and provide them viable income opportunities.

The successes were due to the following reasons:

- the participatory approach encouraged community participation that led to setting up of cooperatives and unions by the communities themselves;
- close coordination of activities with the relevant departments of the MAIL;
- use of efficient and suitable technology, in terms of machineries and processing such as milk processing and animal feed processing;
- establishment of the Milk Collecting Centers were a key facility to encourage beneficiaries to sell milk on daily basis;
- hiring of dedicated and committed staff at the managerial and professional levels also positively contributed for the successful project outcomes and achievements.

The immediate beneficiaries of the project are: (i) the dairy farmers in the target areas, which will be able to earn a regular income from the sale of the milk and (ii) the consumer who will be able to purchase quality dairy products. The main benefit of the Project however will be the demonstration effect for other locations and organizations and the stimulation of the dairy sector in Afghanistan as a whole. Good documentation of the “lessons learnt” should also help other dairy development efforts to proceed more rapidly and be more effective.

## 2. Project Goal and Objectives

The overall goal of the project is to strengthen the livestock production systems of poor rural households, while developing their marketing opportunities, and improve local livestock production, productivity and smallholders’ incomes in Nangarhar.

**The project purpose is to improve production and efficiency of milk production and processing, and to establish a member-owned network of dairy producers. Activities will focus on three main areas: improving fodder production and feed availability; improving the health and productivity of dairy cows; and establishing a network of milk collection points and dairy plant and will support the following activities:**

### Component 1: **Feed resources development through:**

- Demonstrations of each improved varieties of fodder
- Organize the production and marketing of improved fodder seeds;
- Feed mill shed constructed & equipment installed ;
- Establish animal feed plant with at least 64 MT/ day concentrates and mineral feed produced capacity and sold;
- Arrange the commercial production and marketing of concentrate and mineral feeds through the dairy schemes.

### Component 2: **Animal health services through:**

- Monitoring and control of the dairy cattle of the member farmers for Zoonosis diseases ;
- Providing regular vaccination for the cattle of member farmers of the dairy schemes;
- Men and women farmers trained on animal health and Artificial Insemination ( AI) subjects;
- Support local AI technicians (Government and private) to implement AI activities for the member farmers of the dairy scheme in six district;

### Component 3: **Integrated dairy development through:**

- Collection of a minimum of five tones of milk daily through village Milk Collection Centre (MCCs) involving at least 1 500
- Establish/develop 15 village milk collection centre and provide the necessary tools and equipment for measuring of quantity and quality;
- Establish milk transportation and cooling facilities;
- Establishment of shops for selling the milk and dairy products or through commission agents;

- Establish dairy processing plant with at least 5000 liter per day capacity;
- Income generation for the development of the milk schemes.

Component 4 : **Institutional support to milk cooperatives**

- Creation of formal membership of dairy farmers to village milk collection centres/cooperative societies;
- Development of independent staff and management structures for the dairy schemes including their dairy and feed processing centres;
- Creation and development of structures for financial management and performance monitoring of the dairy scheme;

The goals, objectives and activities of the project remain highly relevant and in line with the Government's policies and programs. The policy of the Government of the Islamic Republic of Afghanistan on agriculture and rural development has been elaborated in two central documents. The first is the Afghan National Development Strategy (ANDS), an interim Poverty Reduction Strategy which outlines the development priorities for Afghanistan. It is built around the Millennium Development Goals, and thus with an emphasis of the objective on reducing poverty and hunger. The leadership change within MAIL in October 2008 prompted the review of the ministry structure and programmes in line with the ARD Sector Strategy, and resulted in the development of four key programmes:

1. Natural Resource Management
2. Production and Productivity
3. Economic Regeneration
4. Programme Support and Change Management

**Expected Results**

It is expected that after three years of the planned project period the proposed Integrated Dairy Scheme in Nangarhar will have developed into an independent and profitable operation managed with full involvement of the contributing dairy farmers. This will be achieved by the creation of an independent associative institution as owner and for the management of the dairy scheme. Staff from the central authorities of Afghanistan and FAO will jointly guide and support this process. With respect to financial and administrative issues the Nangarhar Integrated Dairy Scheme should become increasingly independent over the three years of project implementation. By the end of the Project, the dairy scheme should be able to support and employ sufficient staff members to maintain its full continuation. Support of the dairy farmers for developing their milk production will be jointly funded by the Project and the income from the sale of milk and dairy products, with a larger proportion coming towards the end of the Project from the milk income and increased level of employment at grassroots level. Also by implementation of the project will contribute in part import substitution and increased level of food security (6% annually will be decreased import??), infectious and tick born diseases are controlled and also zoonotic diseases and mastitis will be under controlled in the targeted area of the project, selected farmers will access to improved breed of cattle and improved fodder crops and finally increased access to regular and dependable raw milk market.

### 3. Exit strategy

The first step beneficiaries are the farm households and they will benefit through training, demonstration and capacity building at grass root level. As well, farmers/coop will be supported to market their improved production through development and establishment of collection, processing and marketing infrastructure and facility being owned and managed by the farmer's groups/cooperatives/unions, in close collaboration with the Ministry of Agriculture-MAIL. The community (farmers groups/cooperatives/unions) and MAIL will lead the total process of project inception, implementation and will be supported by well qualified and experienced project team, thus capacity will be built at farmers level to operate, own and manage the business enterprise, and at MAIL level, the capacity will be developed to backstop and support the community owned business enterprises through training, linkage with relevant organization and conducive policy. If, this is followed, the project supported activities will sustain and farmers will be able to continue the business in the post-project life.

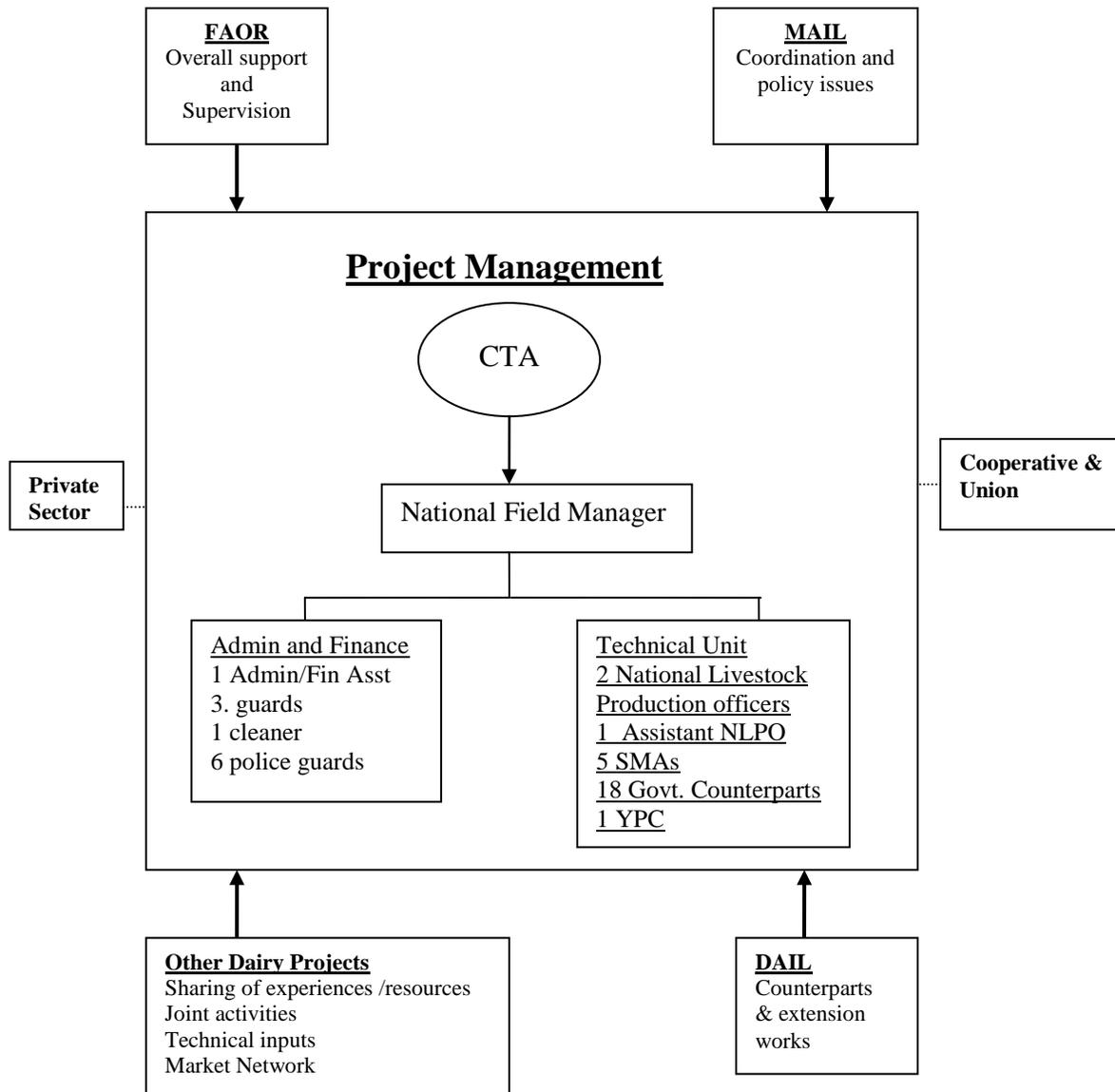
The second step, the independent management structure for the union will be established, general managers for union will be hired, business and marketing plan will be developed and the union members and management staff will be trained to oversee the business. As well, a sustainable input delivery mechanism will be established under union, thus farmers continue receiving the production inputs even after the project phases out. In this way, the dairy union will run as enterprise (change over from the development mode to the business mode), and would be able to sustain the business operation.

Firstly, the dairy processing facility and feed mill will be established in the premises owned by the dairy coops and the union. They will hire their staff to operate and manage the business under the command of the dairy union; and they will be trained and supported to run and manage the business. Thus, the ultimate ownership and responsibility has automatically gone to the farmers owned coop dairy union.

### 4. Institutional Arrangement and Project Management Structure

The institutional arrangement and project management structure is shown in the figure 1. The project will coordinate with MAIL in planning and policy issues whereas DAIL staffing will be directly involved in project implementation. The project will also develop linkage with the independent service providers (the cooperatives, unions, private sectors, traders etc) for the implementation of the project activities.

Figure 1: Project Management Structure



The project will also develop strong collaboration with the other FAO projects especially the dairy projects which are funded by Germany and Italy governments, for efficient project implementation and better outcomes. This is very essential as livelihood project demands knowledge and expertise from different disciplines and FAOs different projects can contribute in this process. The collaboration will be in different sectors: sharing of resources, implementation of joint activities, provision of technical inputs etc. The project has already established linkages with the Development of integrated dairy schemes in Afghanistan (046/ITA and 040/GER) and food security and some activities have been already initiated. This synergy will not only rationalize the resources available, but also help maximize the project impacts.

The project will very closely work with IFAD team of PCU during the project implementation.

The PCU will facilitate coordination between MAIL, in particular the Livestock Production and Health, Cooperative and Extension Departments, and if it is need will be coordinated with other ministries, in particular MOPH and MRRD.

## 5. Project Work Plan and Log Frame

The project work plan and log frame have been presented in Annex III, IV, V and VI respectively. The work plan is presented with monthly timeline schedules. The work plan does not show the targets as they are presented in the log frame. However, the annual work plan which is developed on yearly basis should reflect the targets so that progress could be evaluated against the target for the year.

As mentioned in previous paragraphs, both work plan and log frame have been modified in accordance to the farming system and priorities set by the farmers. Activities under each output have been further extended to action level for further clarification. Log frame have been extended up to the activity level with measurable targets (as appropriate) for better monitoring of the project activities.

It is recommended that the work plan is reviewed every year and modified based on the prevailing situation and project outcomes till the period. The changes should also be reflected in the annual work plans. The project log frame should be also accordingly modified once changes are made in the project work plan.

## 6. Project Budget, Timeframe, revised EOD and NTE

The project period is revised from July 2010 to June 2013 to compensate three months delay in project implementation. The total project budget remains unchanged, however allocation to different budget lines have been revised based on the new work plan and timeframe. The revised budget is attached in Annex VII.

The major reasons of changing the project EOD from April 2010 to July are; project staffs were recruited and fielded to the project site Jalalabad, effective July 1, 2010; and the new project office was opened. As well, the UNDSS has made mandatory for the international staff to use armoured vehicle on field missions to and in Nanraghar, which is in process of arrival. Thus, budget revision is proposed effective July 1, and which is in the annexes.

## 7. Work Done and Findings

### 7.1 Work done:

The inception mission was undertaken by the CTA and NFM of FAO dairy project from 2-8 August 2010.

A meeting was held with the newly joined staffs. The starts up issues were discussed. Currently, there are six staffs based in Jalalabad except drivers. Courtesy meeting was held with the MAIL provincial general director and the livestock staffs. During the meeting, the 16 counterparts to be closely working with the dairy projects were identified and agreed upon. The general director has already officially confirmed the list.

During the mission traveled to selected district and discussion took place with small processors of dairy product, farmers, local village Shura, member of agriculture cooperative and small and medium scale dairy farmers on general status of agriculture and livestock, willing of farmers regarding development of livestock product, ongoing livestock production and health services and key points have been noted.

Two-day orientation workshop was organized for the MAIL counterparts and the newly joined staff members, in order to brief them about the project and its implementation modality. 16 MAIL counterparts, 13 farmers/cooperative members, 7 FAO staffs and YPC attended the two day sessions. Summary of deliberations of two days workshop is as below;

- Introduction
- Opening the workshop by the CTA
- Field problems of animal health, feeding, breeding, housing and management of production and marketing listed; (all the participants were divided by 5 working groups)
- Briefed dairy project by Lutfullah Rlung
- Skills of How to work with the farmers in field shared with the participants
- Group working on solution ways of the field problems
- Listing of the recommendations and suggestions for improvement of field activities
- In the closing ceremony Mr. Safi General director of AILD and some seiners staffs of MAIL in Nangarhar were participated, Lutfullah briefed them the workshop activities and achievements, after that all participants have approved the drafted statements, then CTA Tek and Provincial director Safi remarked closing of workshop and by final speech of Mr. Khoshal OIC of Jalalabad FAO Office the workshop ended.

These meetings and discussions were particularly useful in identifying changes which have taken place since the project design was originally conceived and also to benefit from lessons learned in the ongoing Integrated Dairy Schemes activities in Herat, Kabul, Mazar I Sharif and Kunduz. Final statement of the workshop is as follow:

- Establish the practical training center under the to be established dairy union;
- Organize study tour to leadership of farmers, counterpart and project staff inside and outside of the country; and start with from Kabul and Mazar;
- Demonstrate technical stable, fodder crop, feeding, animal health and AI services to farmers in the rural areas;
- Public awareness through media and field extension activities to the farmers;
- Organize the capacity building training course to counterpart, project staff and farmers on the subject of feeding, fodder crops, animal health, AI, housing and cattle management;
- Establish feed processing plant with 6 MT / day capacity;
- Establish the dairy processing plant with 5-10 MT/ day capacity;
- Establish the milk producer cooperatives in village level and Dairy Union in province level;
- Establish the frozen semen and liquid nitrogen producing plant in Jalalabad center;
- Provide regular input services (AI, Animal Health, cattle housing, fodder crop, animal feed, and skill/capacity building training) to the farmers as per need;
- Procure transportation facilities to the technical staff in field level;
- Procure exotic breed quality semen straw and proper AI equipments;
- Establish good coordination among the government and organizations involved and supporting livestock productions;
- Organize a survey for zoonosis disease; and
- Based on Islamic regulations provide credit to farmers.

## 7.2 Findings and conclusions:

During the mission the following issues emerged, were discussed and agreed by the project mission team:

### 7.2.1 Production:

Before the war, exotic cattle were kept at Government farms in Jalalabad and bulls produced on these farms were given to farmers for crossbreeding.

No recent statistical data are available about the production and consumption of livestock products in Afghanistan. Based on the cattle numbers, assumed performance data and on information collected during mission/ field visits efforts have been made to calculate the total milk production of cow in Nangarhar as follow:

- Number of cattle is **304,892** head
- Surveyed family number in 2003 is **114,621** families (Average family size is 10.90 members)
- Cattle per family in Nangarhar is **2.66** head
- Average number of cows/family is **1.32** head
- Standard deviation of cows/family is **2.51** head
- Number of milking cows is **151,299** head ( 30% crossbreed/ exotic breed and 70% local breed )

#### **Annul minimum milk production of milking cows:**

Crossbreed cow milk (45,390 x 2000) = **90,780 MT** (based on 30% cow population)

Local cow milk (105,909 x 800) = **84,727 MT** (based on 70% cow population)

**Total milk production = 175,507 MT/ Year and 481 MT/ Day**

Many visited farmers expressed a strong interest to intensify milk production from cattle and to keep better cows. Farmers in Nangarhar have a priority for better milk supply to their families, but in the Nangarhar province sale of some dairy products is already common especially cheese. There were no collection, storage and marketing facilities observed for the dairy products. During the field visits, following observations were made;

- milk production from cattle is a very important part of the rural economy; and a dependable and regular source of income generation;
- most villagers have temporary milk surpluses which they would like to sell and meet the existing demand for milk and dairy products;
- the majority of cattle are of local type, but large numbers of exotic and crossbred cattle already exist around Jalalabad city and districts town ;
- in the project area are not available milk collection and processing facilities and farmers locally produced yoghurt, cheese and some time quark; and
- any significant increase in production requires improved management, feeding and development of the breeding stock.

### 7.2.2 Project area:

Although the project document has identified six target districts (Kama, Bihsud, Sukhroad, Khogyani, Ghanikhel and Batikot), during the mission the General Director of DAIL, Director of Livestock production and Director of Animal health and production identified Shiwa district which could be included in the project. Many districts have more sheep and especially goat production oriented rather than dairy production oriented.

Finalisation of the project area regarding milk collection will therefore be dependent on the outcome of the planned market survey. Opportunities to support additional villages in current operational areas are to be explored also based on their milk production and cost-effective marketing potential.

The General Director of DAIL suggested and promised with the option which was preferred by FAO to have the government allocate land for establishing planned dairy union and co-operative structures to milk collection and/or processing facilities for dairy and animal feed. DAIL further agreed to fully support this approach. Clarification on this issue and access to or allocation of land by the government to farmer co-operatives will be sought by FAO to MAIL in writing.

### **7.2.3 Target group/beneficiaries:**

The project team agreed that, the target group for the project are 70% small farmers who have up to 5 cows and up to 4 jerib land, 10% landless farmers, who has 2 cow and 20% medium farmers, who has 10 jerib land in the context and current conditions in Nangarhar, Afghanistan. There is however substantial benefits to be gained from sharing of experience and technical expertise in dairying and linkages will be established with medium scale milk producers.

### **7.2.4 Fodder:**

Due to shortage of improved fodder crop seed and lack of technical knowledge fodder is the major issue which limits production by smallholders. High priority is to be accorded to organising the set up of fodder piloting, demonstration and testing in the Nangarhar from August 2010 through project staff and counterparts. The staffs will initiate contacts to also identify suitable sites for fodder plots including possibly on government sites, land allocated by the selected dairy farmers at village level. Fodder varieties to be validated under local conditions have already been screened through the ongoing Integrated Dairy Schemes in other locations throughout Afghanistan. Additional improved varieties can also be assessed within the limited funding provided.

### **7.2.5 Feeding:**

Some of the challenges faced by the project in the area, included lack of animal feed, concentrate, and mineral feed, poor skill of dairy farmers regarding the animal feeding system, lack of proper storage facilities and lack of feed processing machinery. The lack of a local source of concentrate feed was expressed as a concern also by medium and larger producers. There is clearly a lack of technical knowledge in feed formulation which will also be covered by the planned project technical training packages. One option to be explored is the possible use of village level feed mills to optimise the utilisation of locally available feed resources, to be linked to milk collection centres.

### **7.2.6 Artificial Insemination:**

Due to poor quality of semen straw and shortage of imported liquid nitrogen is the major issue which limits production by smallholders. High priority is to be accorded to procuring quality semen straw of Holstein and Jersey and regular supply of liquid nitrogen. The AI activities will be organising and regularly set up to beneficiaries in the Nangarhar from August 2010 through project staff and counterparts.

### **7.2.7 Animal Health:**

Some of the challenges faced project in the area are included lack of quality veterinary medicine and vaccines, poor skill of dairy farmers regarding the animal health services and lack of public awareness. There is clearly a lack of technical knowledge in animal health which will also be covered by the planned project technical training packages. The animal health activities will be organising and regularly set up to beneficiaries in the Nangarhar when beneficiaries selected through project staff and counterparts.

### **7.2.8 Marketing:**

Marketing was identified by all of the stakeholders as a serious concern. Stakeholders advised that there was very strong competition from products from nearby countries, particularly Pakistan as then border is only 75km from Jalalabad city. This is a policy and trade issue which is under the responsibility of the Ministry of Agriculture, Irrigation and Livestock. MAIL will further examine the issues but is concerned that the sudden closure of trade/imports could result in a shortage of milk and dairy products in the province. FAO will explore the possible options for trade and dairy policy advice and training for MAIL decision makers.

### **7.2.9 Staffing issues:**

The project requested the nomination of MAIL staff as counterparts by letter to the provincial office of Nangarhar. They officially introduced 17 staff as counterparts. The lead contact counterpart officer will be the livestock production and health officer Dr. Ghulam Hassen. The type and quantity of specific technical counterpart expertise (e.g., feeding, breeding and animal health and manage of cooperative) are identified in the letter.

The FAO office in Jalalabad provided office space and other facilities for regular office work like computers, furniture, and vehicle and phone connection provided from other dairy project. Email addresses have been created from the FAO office Kabul.

A lead National Livestock Production Officer (Mir Basher, Fodder Crop Expert) has been identified who handle the overall co-ordination of the Nangarhar activities including the supervision of the hired an ANLPO and four SMA's. This will improve project co-ordination and streamline effective implementations. This will be reviewed in December 2010.

Based on the target groups it is considered essential that specific attention be given to gender mainstreaming in project activities. The project hired two female trainers and organize specific training for women at all levels of livestock production, dairy cow feeding, animal health, product processing and marketing.

The project will provide short training for project staff and counterpart on fodder crops, AI technique, reproductive system disease, and other needed subjects of livestock production and health to be located in project areas. The BVW will be selected by the milk producers themselves as well the milk collector/transporters etc.

The mission noted that one improvement in the milk payment system might be to incorporate a milk savings scheme so as to encourage capital growth, in facilitating investments and encourage sustainability. This will be further developed by the National specialists in consultation with the Jalalabad based SMA's and farmers co-operatives.

The mission also advices the General Director of the Agriculture Department of the need to have a solid base for future dairy activities when putting up pilot or demonstration activities with farmer groups. The General Director agreed with the option which was preferred by FAO to have the government allocate land for setting up planned dairy union structures to office and processing facilities for milk and animal

feed. DAIL further agreed to fully support this approach. Clarification on this issue and access to or allocation of land by the government to farmer co-operatives will be sought by FAO from MAIL in writing.

The next mission for the project will take place in the second week of September 2010. During that mission the collaboration regarding the milk market survey with DAIL will be finalised as appropriate. The mission will initiate contacts also to identify suitable sites for fodder plots including on government sites, land allocated by the Nangarhar dairy farmers association and also at village level for establishment of milk producer cooperative societies.

#### **7.2.10 Project Steering Committee:**

A Project Steering Committee (PSC) will be set up to monitor and guide implementation of the project and to represent the main project stakeholder groups. The Terms of Reference and composition of the PSC were drafted during the mission. These are attached as annex II. Membership should be gender balanced to the extent possible.

### **8. Recommendations**

The following recommendations are based on the findings of the inception mission and focus on those issues and activities critical to getting the project off to a timely start. As such they may be regarded as an action plan to expedite phase 1 of the project; and to ensure that everything is in place for training and demonstrations to be implemented.

***Effective project start-up date: The project was effectively launched from July 1, 2010, after assigning staffs in Jalalabad. Thus, the effective start up date should be July 1, 2010.***

#### **8.1 Project sites**

Selection of project sites will be dependent on the results of the market research to be coordinated with ongoing development partners/private sector in Nangarhar. The NFM will initiate contacts to review current available knowledge and then based on the experiences gained under project GCP/AFG/040/GER and GCP/AFG/046/ITA, undertake a mission in September to finalize implementation of a market study.

**Action:** NFM/FAO and partners

#### **8.2 Allocation of land for dairy farmer co-operatives**

FAO to request written clarification from MAIL as to the government position regarding the allocation of land by the government of Afghanistan to dairy farmer co-operatives union.

**Action:** FAO and MAIL

#### **8.3 Target group/beneficiaries**

In the context and current conditions in Nangarhar, the target group are farmers having up to five milking cows, landless farmers having up to two milking cows and medium dairy farmer also are available in project area. Efforts to sustainably develop small scale dairying will focus on this target group.

**Action:** Project team

#### **8.4 Fodder**

High priority is to be accorded to organising the set up of fodder piloting, demonstration and testing in the Nangarhar in the planned from August 2010. The staff will initiate contacts to also identify suitable sites for fodder plots. Potential for collaboration with the other seed production enterprises if it is available in the project targeted area. Planned project technical training packages and training are to be made publicly available in order to improve the competitiveness of milk production in the Nangarhar province. Selected members of the cooperatives and other Nangarhar dairy association may also participate in fodder demonstrations and also technical training in optimisation of use of local fodder resources.

**Action:** NLPO/FAO project team and Counterparts

### **8.5 Feeding:**

There is clearly a lack of technical knowledge in feed formulation which will also be covered by the planned project technical training packages and training are to be made publicly available in order to improve the competitiveness of milk production in the Nangarhar province. Selected members of the cooperatives and other Nangarhar dairy association may also participate in technical training in optimisation of use of local feed stuff resources. The possible to procure of feed mills to optimise the utilisation of locally available feed resources, to be linked to milk producer's cooperative societies and milk collection centres or service centres is to be explored.

**Action:** FAO project team

### **8.6 Artificial Insemination:**

High priority is to be accorded to procuring quality semen straw of Holstein and Jersey and regular supply of liquid nitrogen. The AI activities will be organising and regularly set up to beneficiaries in the Nangarhar from August 2010 through project staff and counterparts. New AI technicians have to train on AI techniques and for other AI technicians will be organising refresher training course as per needed. Also by imported semen straw and liquid nitrogen should be not sustainable the service MAIL and FAO request the donor support for the establishment frozen semen and liquid nitrogen production centre which can cater the entire eastern region.

Action: NFM, SMA, FAO and MAIL

### **8.7 Animal Health:**

High priority is to be organised quality animal health services to beneficiaries in project targeted area by supply and procurement quality medicine and other veterinary items, increasing public awareness through training course, demonstration and media. There is clearly a lack of technical knowledge in animal health which will also be covered by the planned project technical training packages through women trainers at home level. The animal health activities will be organising and regularly setup to beneficiaries through project staff SMA animal health and counterparts in the Nangarhar when beneficiaries selected. For controlling zoonotic disease regular monitoring program will be setup and collected samples will be tested at Veterinary Diagnosis Laboratory and also survey will be conducted on zoonotic diseases. As per needed a training course will be organising to VFUs staff from targeted area in October 2010 in Jalalabad city.

Action: FAO Project team and MAIL counterparts

### **8.8 Marketing study:**

Dairy market study will be conducted for Nangarhar province> National market consultant will conduct the study under the guidance and support of international market consultant.

**Action:** FAO and MAIL

**8.9 Co-ordination of activities:**

A lead National Livestock Production Officer (Mir Basher, Fodder Crop Expert) has been identified who handle the overall co-ordination of the Nangarhar activities including the supervision of the ANLPO and SMA's. This will improve project co-ordination and streamline effective implementations. This will be reviewed in December 2010. This arrangement will be reviewed in December 2010, and need-based appropriate action will be taken.

**Action:** FAO and MAIL

**8.10 Gender mainstreaming:**

Specific attention is to be given to gender mainstreaming in project activities. It is recommended to source female members at cooperatives and union level as decision making body level.

**Action:** FAO and MAIL

**8.11 Training of village level staff:**

The project will provide one month training for BVW to be located in each of the milk producer co-operative societies. The BVW will be selected by the milk producers themselves, as will the milk collector/transport.

**Action:** FAO and MAIL

**8.12 Recruitment of staff:**

The National Livestock Production Officer (Livestock expert) and Data Collection Officer will be recruited up to December and National Marketing Consultant will be interviewed and hired in September 2010 to complete marketing survey.

**Action:** FAO and MAIL

**8.13 Project Steering Committee:**

A project steering committee is to be set up to advice and guide project implementation. The first PSC meeting should be held in December. A letter to invite the nominations, specifying the need project coordinator will sent request to MAIL.

**Action:** FAO and MAIL

**9. Conclusion Remarks**

It is strongly recommend implementing the project in a participatory model with community involvement in decision regarding design, implementation, and management of the activities mentioned in the detailed work plan in order to create ownership and long term sustainability of

the project intervention. All activities should therefore be initiated and sustained through community level action at local level. Project would therefore limit itself in providing inputs to community plans as against asking farmers to provide inputs in the project plan.

It is therefore recommended to assist farmers in developing the community action plans for integrated dairy scheme with technical input from the project. These plans would be the basis for project intervention. Likewise, each cooperative should be trained in community based monitoring and evaluation process so that farmers monitor process themselves and self evaluate the outcomes. These measures will raise capacity at local level in planning, implementation and in M&E of the project activities and help ensure sustainability of the project.

**Annex 1:**

**Orientation Workshop Participants list  
August 4-7, 2010**

S.N	Name	Title	Duty Station
1	Dr. Guam Has an	General Manager of Animal Health & Production	Allahabad
2	Baser Hamada	General Director of Cooperative Department	Allahabad
3	Afzal Khan Marof	Director of Livestock Production	Jalalabad
4	Ebadullah	Director of Cooperative	Surkh Road District
5	Safiullah	AI Technician	Ghanikhel District
6	Fateh Shah	AI Technician	Batikut District
7	Abdul Samad	AI Technician	Bihsud district
8	Babrak	AI Technician	Kama district
9	Naser Ahmad	AI Technician	Surkh Road District
10	Ulfatullah	AI Technician	Khogyani district
11	Fazal Haq	Extension Worker	Kama district
12	Zabiullah	Extension Worker	Bihsud district
13	Hamidullah	Extension Worker	Batikut District
14	M. Baser	Director of Cooperative	Bihsud district
15	Zekrullah	Director of Cooperative	Ghanikhel District
16	Fazil Karim	Director of Cooperative	Khogyani district
17	Haji Mir Alam	Chairman of Qudrat Coop.	Ghanikhel District
18	Haji Rezwanullah	Member of Qudrat Coop.	Ghanikhel District
19	Mohibullah	Chairman of Batikut Coop.	Batikut District
20	Haji Tayebullah	Member of Shamshapor Coop.	Surkh Road District
21	Mohammad Hasan	Member of Haji Sahiban Coop.	Bihsud district
22	Noor Rahman	Member of Benegah Coop.	Bihsud district

23	Abdul Baset	Member of Mastali Coop.	Kama district
24	Nek Mohammad	Chairman of Sepay Coop.	Kama district
25	Ahmad Ebraim	Chairman of Nahrmasi Coop.	Batikot District
26	Neyaz Mohammad	Member of Mullah Khel Coop.	Batikot District
27	Ehsanullah	Chairman of Weyalai 20 Coop.	Surkh Road District
28	Haji Tanadar	Chairman of Jani Khel Coop.	Kama district
29	Malik Merajan	Director of Sultanpor Awleya Coop.	Surkh Road District
30	Mir M. Bashir	NLPO of FAO dairy project	Jalalabad
31	Sayeed Maseh	ANLPO of FAO dairy project	Jalalabad
32	Raz Mohammad	SMA Fodder crop and cattle management FAO	Jalalabad
33	Nisar Ahmad	SMA AI and Animal Health FAO	Jalalabad
34	Ms. Lima	SMA Women district trainer FAO	Jalalabad
35	Ms. Khalida	SMA Women district trainer FAO	Jalalabad
36	Aminullah	Young Professional consultant (YPC), IFAD	Jalalabad
37	Lutfullah Rlung	NFM, FAO Dairy projects	Kabul
38	Tek B. Thapa	CTA, FAO dairy projects	Kabul