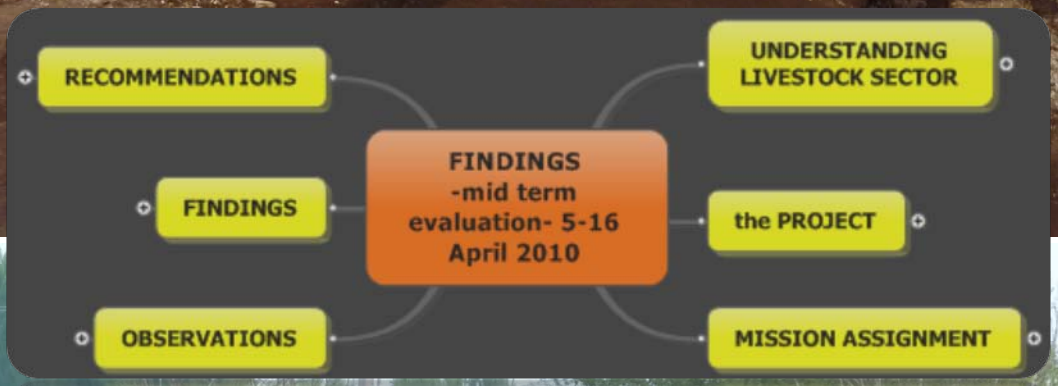
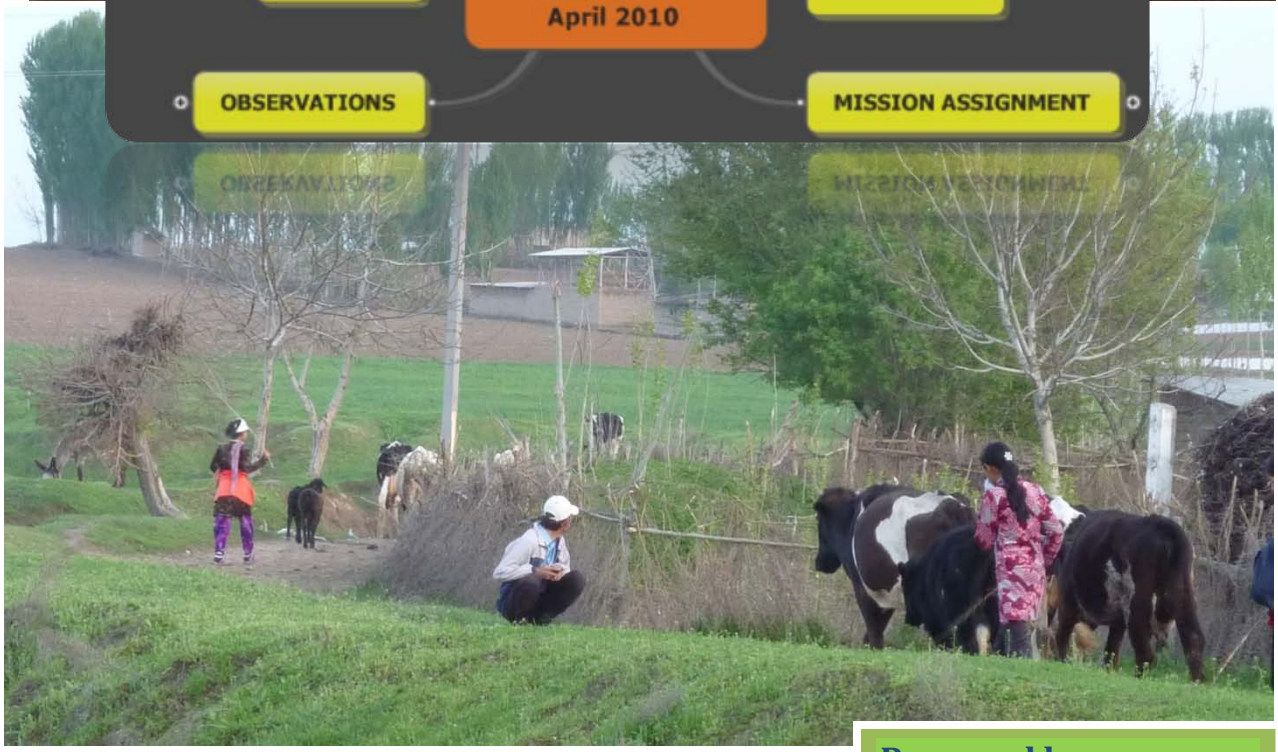
# REPORT

## MID-TERM EVALUATION

## (APRIL 4 – 17, 2010)

## "SUPPORT TO SUSTAINABLE DEVELOPMENT OF LIVESTOCK SECTOR IN UZBEKISTAN"



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**21st April, 2010, Arnhem, the Netherlands**

**Acronyms and Abbreviation**

| | |
|---|---|
| A.I. | Artificial insemination |
| ABD | Area Based Development (http://www.undp.uz/en/projects/project.php?id=122 ) |
| CINADCO | Centre for International Agricultural Development of Israel |
| *Dehkan farm / Dehkan plot* | In Uzbekistan, a Dehkan farm is a family-based small-scale enterprise that produces and markets agricultural products; it uses family labor and cultivates a plot adjacent to the family home. Such a plot is locally referred to as '*tomorka'* and is usually smaller than 0.1 ha. About 10 percent of households have additional Dehkan plots, often outside, but close to, their communities. These additional Dehkan plots (0.15-0.2 ha) are used for cultivation and/or for house construction. Dehkan plots (both *tomorka* and additional Dehkan plots) are held for a lifetime and can be inherited. Dehkan farms may be registered as legal commercial agricultural entities; but there is no requirement of registration. |
| Dehkan/Peasant, farmer | in Uzbekistan this word means an owner of a Dehkan plot |
| DM | Dry Matters |
| E&E | Energy and Environment |
| ELS | Enhancement of Living Standards Programme (www.els.uz ) |
| FMD | Foot and Mouth disease |
| HF | Holstein Friesian |
| LL | Lesson Learnt |
| LPNC | Livestock Project National Coordinator |
| LTDC | Land Tenure Development Center |
| LU | Livestock Units |
| MASHAV | Centre for International cooperation, Israel Ministry of Foreign Affairs; info regarding Uzbekistan available at: http://www.mfa.gov.il/MFA/MFA+events/Around+the+world/UNDP%20and%20Israeli%20embassy%20to%20support%20livestock%20development%20program%20in%20Uzbekistan%2014-Nov-2007 ; http://mashav.mfa.gov.il/mfm/Data/45164.pdf |
| MDGs | Millennium Development Goals; http://www.undp.org/mdg |
| MAWR | Ministry of Agriculture and Water Resources |
| MoU | Memorandum of Understanding |
| PM | Project Manager |
| PPR | Peste des Petits Ruminants |
| SSDLS | Support for Sustainable Development of Livestock Sector in Uzbekistan |
| St. Com | Steering Committee (also called Board Meetings) |
| UNDP | United Nations Development Programme |
| UVRI | Uzbek Veterinary Research Institute |
| UzASPC | Uzbek Agricultural Scientific Production Centre |
| Uzb. | Uzbekistan |
| UZS | Uzbek som, (official currency of Uzbekistan) |
| w.r.t. | With regard to |
| WWS | World Wide Sires (www.wwsires.com ) |
| Yrs | Years |

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| NOTE | Conducting a mid-term mission in circumstances where one does not speak the language makes it at times difficult to verify things, to read background information and/or papers shared. In this regard, mistakes are regretted while the content is solely the responsibility of the author. |
|---|---|

## I. Background information

The Republic of Uzbekistan, one of the newly independent states of Central Asia, lies between the Syr Darya and Amu Darya Rivers. The total territory of the republic is 458,000 square km, of which agricultural lands constitute 272,000; in size, it is second among the republics of Central Asia. Structurally, it consists of 12 Provinces and the Republic of Karakalpakstan: the provinces are Andijon, Bukhara, Dzhizak, Kashkadarya, Nawoiy, Namangan, Samarkand, Syrdarya, Surkhandarya, Tashkent, Fergana, and Khorezm. The capital is Tashkent. Uzbekistan is located in the centre of the Region and is bordered on the northeast by the Republic of Kazakhstan, on the east and southeast by Kyrgyzstan, Tajikistan and Afghanistan and on the west by Turkmenistan. The natural features of Uzbekistan are varied and terrains include a mixture of large valleys, foothills and mountain regions. The northwest and the west of the Republic are desert, while the south and southwest consist of foothills and mountains[1].

Livestock production in Uzbekistan is distinguished by its richness and variety. Each animal type is characteristically distributed in its own agro-ecological zone. For example milk cattle are mainly found in irrigated croplands near industrial centers; beef cattle in mountain zone pasture areas; Karakul sheep production systems are mainly in deserts; meat-wool and ram production systems and horse breeding are concentrated in pre-and mountain zones of the Fergana valley, while pig and poultry production industries are near large cities and industrial centers.

Various methods of cattle production have been used in Uzbekistan since independence; the main direction has been to increase the use of production potentials in the private sector, privatization of animal production farms, reorganization of state-owned companies, saving of large corporate complexes and changing their status into joint stock companies.

The distribution of animal production systems is dictated by feed availability and climate. For example, cattle are located in different pasture areas, poultry production is common where there is good production of plants such as *Medicago sativa* (Lucerne), *Zea mays*, and *Beta vulgaris*; arid zones are the main food source for Karakul sheep, and horse and ram production. Lucerne is a fodder of very ancient cultivation locally, at least 2,500 years, Uzbekistan being in its zone of domestication.

Annually the Republic produces on average 3.5-4.0 M mt of milk (4.3 M mt in 2005), 461,000-592,300 mt of meat (551,000 mt in 2005), 14,900-19,500 tonnes of wool (16,000 tonnes in 2005) (FAOSTAT, 2006), also 712,000 Karakul pelts. Most livestock products are consumed locally and sold on local markets to procurement organizations, state and private enterprises. Until recently Karakul pelts were an export product, now the state order is cancelled; only a small number (40,000 pelts) are exported, and most are sold locally. Beef and veal imports have fallen from 127,000 tonnes in 1995 to only 4,535 tonnes in 2000 and less since, while milk equivalent imports have grown from 49,930 tonnes in 1995 to 96,016 tonnes in 2002 and then down to 50,767 tonnes in 2004.

Today, 291,428 people in Uzbekistan are engaged in crop production; 856,324 ha of land are allocated to them on 41,743 farms. There are about 20.5 ha of land and 4.2 small ruminants and 4.2 cattle per farm. Stock indicators on farms depend on the level of specialization and concentration of production. In specialized livestock farms, the stock in terms of conventional sheep is about 3,000 head.

Since independence, milk production increased by 57,700 tons or by 16.7 percent, meat production increased by 30,700 tons or 3.9 percent. The intensity of milk production increase is

[1] Key data used for this chapter are derived from different FAO source; available at http://www.fao.org/waicent/Faoinfo/Agricult/agp/agpc/doc/Counprof/Uzbekistan/uzbekistan.htm

much higher than the average world indicator. However, the growth reserves are not fully used so far: the use of animals remains low. Over nine years the average lactation yield decreased by 149 kg (8.8 percent); the weight of slaughter cattle decreased by 124 kg or 33.4 percent. Uzbekistan is far behind other countries in these indicators

To address the large potential of the livestock sector, the Government of Uzbekistan issued two important Presidential Resolution; i.e.

- ✓ **# 308 dated 23 March 2006** on **"Measures for Stimulating of Livestock Expansion in Household Plots, Dehkan and Private Farms"**, which became an important milestone for the livestock sector's development and paid special attention
  - to the state support for procurement of pedigree stock and intensification of pedigree animal breeding,
  - to establishment of veterinary services; provision of micro-loans to buy highly productive livestock
  - to creation of new jobs; increasing of income and food security of rural population through their motivation to breed livestock", and
- ✓ **# 842 dd. 21 April 2008** on **"Additional Measures for Strengthening of Livestock Expansion in Household Plots, Dehkan and Private Farms and Escalation of Livestock Production"**[2].

The latter concerned a refinement and amendment of the former.

Both 'Presidential Resolutions' were perceived as revolutionary. They also formed the base of the initiation of the 'Support to Sustainable Development of Livestock Sector' project[3].

The Israel's Agency for International Development Cooperation (MASHAV) with the support of USAID has been investing in 'Akkurgan Demonstration Project for Dairy Cattle Husbandry'[4] since 1998. The focus was on setting up a model modern large-scale dairy farm and the main lesson learnt has been that **purely investing in hard ware had enormous limitation**. Investing in capacity building would be a much better approach as MASHAV experienced elsewhere.

In 2006, the above-mentioned resolution #308 provided new opportunities for the Government of Uzbekistan and MASHAV to redirect its cooperation and provide support in capacity building. Given the importance of the livestock sector for the overall economy of the country and the complexity of the issues to be resolved, the UNDP also showed interest in contributing to strengthening the sector. During the same year, various deliberations took place and the first Memorandum of Understanding (MoU) between the UNDP and Government of Uzbekistan (MAWR) was signed in March 2007. As per MASHAV 2007[5], the two parties approached the Government of Israel, through MASHAV, with a request to assist in the implementation of the project given the well-known achievements of Israeli's livestock sector. In the preliminary discussions, a delegation of Uzbekistan visited Israel on a study tour in January 2007, and a mission of Israeli experts went to Uzbekistan in June 2007.

[2] Details regarding both orders are presented in annex VIII.I

[3] Proposed project duration is: 15/02/2007 – 31/12/2011 (about 5 years) and overall budget US$ 500,000, contribution of Government of the Republic of Uzbekistan (in kind) US$ 33,600.

[4] Reference: website of MASHAV namely: http://www.mfa.gov.il/MFA/Mashav+%E2%80%93+International+Development/Activities/Akkurgan+Demonstration+Project+for+Dairy+Cattle+Hu.htm

[5] **MASHAV, CINADCO, 2007**. 'Uzbekistan, Sustainable Livestock Sector Development', mission report submitted by Mr. Zevi Lerman (Faculty of Agriculture, The Hebrew University), Mr. David Ran-Radnitz (MASHAV, Ministry of Foreign Affairs), Mr. Zvi Roth (Facultuy of Agricultuire, The Hebrew University), Mr. Daniel Werner (Director of Projects and Special Assignments, CINANDCO)

Concerned mission report provided an overview of the Uzbekistan Livestock Sector, discussed the constraints in the Dairy Livestock sector in Uzbekistan, provided background on the Israeli Model of the Dairy Sector and proposed 'A Pilot Model for the Uzbekistan Livestock Sector Development Project'. Based on MASHAV's insight that a successful livestock sector is determined primarily by three factors[6] namely:

- on-farm organisation of production,
- the genetic make-up of the animals and
- upstream and downstream farm services,

and the finding that the Uzbek agriculture has the necessary basic knowledge and infrastructure for operation, the UNDP and MASHAV proposed to cooperate in establishing **an effective channel for the transmission of relevant Israeli know-how and technology** to Uzbek farmers. Thus, the third party MASHAV got involved and the first MoU between UNDP and MASHAV signed in 2007.

Given the importance of integration of the above mentioned factors, MASHAV proposed '*to set-up a pilot project[7] that will encompass a number of existing farms –both FARMS[8] and Dekhkans- in a certain compact region plus a fully integrated service module able to offer the entire range of support services to the Farms in the pilot'. 'The entire pilot project will be based on local resources, and act as a conduit for the transfer of Israeli experience to Uzbek farmers. The goal of the project is to stimulate reorganisation of farm management and production techniques, leading to improved productivity and profitability.*

The UNDP project document for SSDLS has, as the main purpose is to assist the Government of Uzbekistan, in particular the Ministry of Agriculture and Water Resources, in determining its strategy for the livestock sector development in Uzbekistan. This objective will be realized through implementation of the following components:

i) Create a better regulatory and institutional framework through provision of necessary changes into existing laws and policies that will enable livestock sector to function efficiently under market conditions

ii) Enhance capacity of farmers and Dehkans through demonstration of best management practices in livestock breeding and management

iii) Increase efficiency of livestock production through establishment of service structures (artificial insemination and veterinary service) at the local level

[6] Sub components of the three main factors/components are:

1) On-farm organization of production requires:
   a) Training to acquire the essential skills for farm management (including animal care, feeding, crop production, milking, and reproduction)
   b) Extension and veterinary services for on-farm support of production
2) The genetic make-up of the cattle depends on:
   a) Availability of properly equipped AI services
   b) Existence of adequate semen banks
   c) Properly trained inseminators
3) Upstream and downstream services include:
   a) Channels for supply of farm inputs –mainly feed and machinery
   b) Channels for marketing farm products
   c) Opportunities for generating value added through dairy processing

[7] Estimated budget implications are about 350,000 US$ (covering costs as training courses, long-term specialist, Israeli specialist dispatched to Uzbekistan)

[8] Term 'fermery' is used.

**Comparing the interest of the three parties, it can be observed that proposed components as spelt out in the project document are in line with the Government of Uzbekistan's efforts to strengthen and develop the sector as adopted through resolutions # 308 and # 842, while MASHAV's interest focuses on component/output 2 shortly 'Capacity building & Pilot Farms'**.

On a higher level, the purpose of SSDLS project should serve the service line 'Sustainable Land Management to combat desertification and degradation'[9].

MASHAV's interpretation of SSDLS is: *'the goal is to improve the well-being of rural population to be achieved in particular by improving the performance and productivity of the dairy sector, as rural families (Dehkan farms) are the main milk producers in the country'*[10].

Notwithstanding that the interests of the third party (MASHAV) is only partially in line with the other two, a first MoU between UNDP and MASHAV was signed for 2007 and subsequently for the year 2008. For the same period, MoUs between UNDP and the Government of Uzbekistan, MAWR were signed, while on January 21, 2009 and on December 3, 2009 tripartite MoUs between these three parties were signed for respectively the year 2009 and 2010.

It was estimated[11] that by the end of 2009, MASHAV has made the largest investments.

[9] As per UNDP Country Program Results and Resources Framework, the objective is to contribute that Uzbekistan meets obligations under the UN Framework Convention on Climate Change (UNFCCC), UN Convention on Biodiversity (UNCBD) and the UN Convention to Combat Desertification (UNCCD), Millennium Development Goals (MDGs). Service line 3.4, 'Support to Sustainable Development of Livestock Sector in Uzbekistan', falls under UNCCD.

[10] 5

[11] An estimated budget presented on page 18 of MASHAV, 2007 report, indicated that costs of first training course for 25 participants are 47,000 US$, salary of long term expert 120,000 US$ per year and the air tickets to Uzbekistan of Israeli experts 800 US& each. Considering the number of participants trained, experts visits (Reference annex VIII.J) and presence of long term expert, the year-to-date expenditure are at about 350,000 US$. As per recent e-communication with MASHAV, it was revealed that the actual cost of the two dairy courses for Uzbek participants (in which 28 participants took part in each course) was: 67.000 US$ - spring 2008, 65,000 US$ - summer 2009.

## II. Introduction

As has been elaborated in the previous chapter, the SSLDS has three main components (Part II, Project Document), while three outputs were planned and under each a number of activities as shown below.

| **Output one:**<br>'Situation analysis' | **Output two:**<br>'Improvements in Institutional and Legal Framework' | **Output three**:<br>'Enhancement of capacity of farmers and demonstration of effective methods of livestock production and services' |
|---|---|---|
| **Activity 1.1**. Strategic Assessment<br>- At the policy level<br>- At the production level | **Activity 2.1**. Revise existing institutional and legal frame work and recommend necessary changes and procedures for effective development of the livestock sector and monitoring progress | **Activity 3.1** 'Learning by seeing' (Pilot Farms)<br><br>**Activity 3.2**: 'Mobile Service structures |

Apparently, Output one and two are related to component one, while three to component two and three. Studying the envisaged project results and outcomes (Section II, Project Document), only two 'indicative type of activities' are provided namely 1.) 'Situation analysis and Improvements in Institutional and Regulatory Framework' and 2.) 'Pilot demonstration sites and pilot activities'.

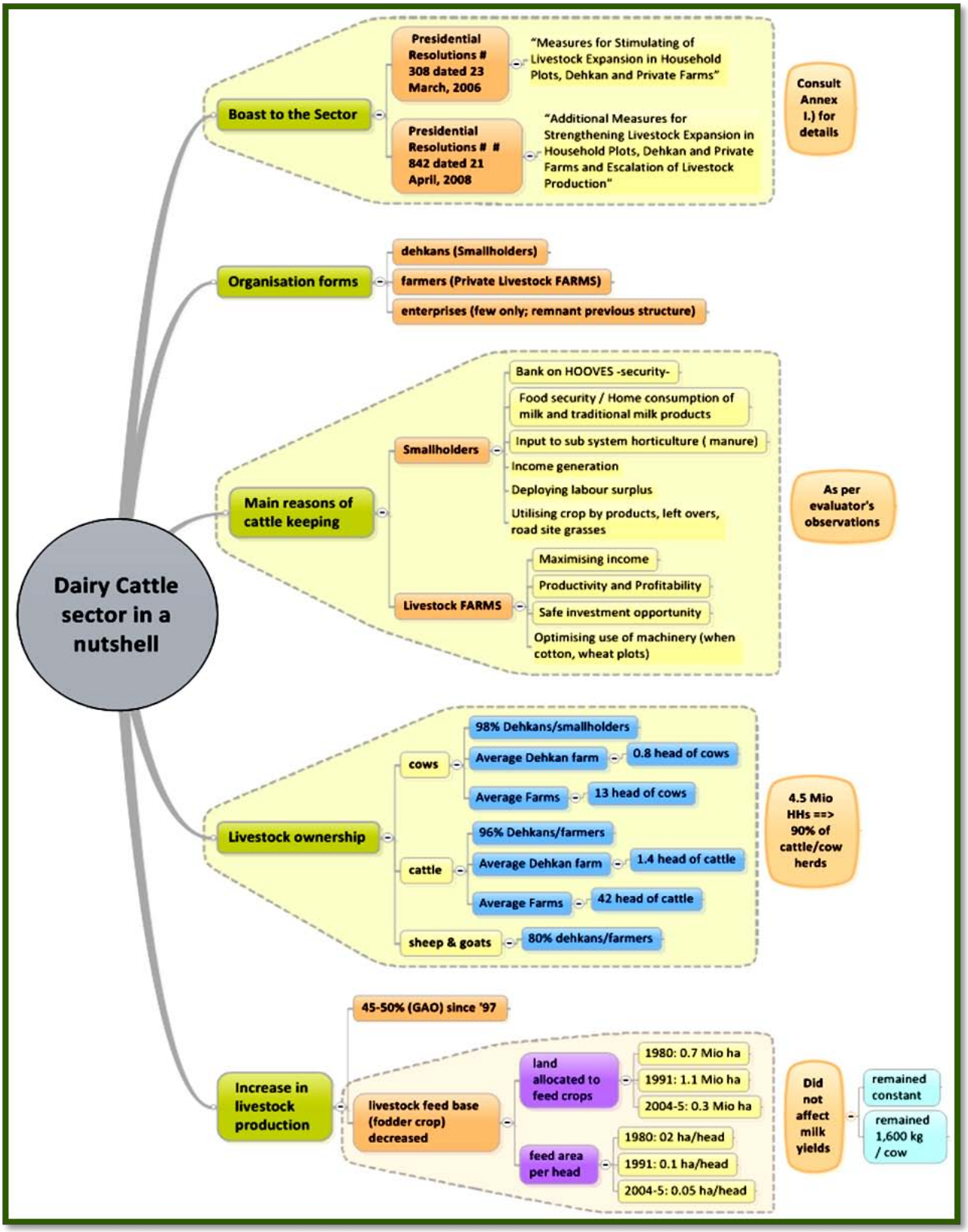
In short, there are shortcomings in the Project Document and it is difficult to understand what type of logical framework is applied. The three main components are, for instance, formulated as objectives, but are sometimes referred to as 'outcomes' and in another document as 'components'. Fortunately, annex 1 provides some detailed descriptions of selected project activities.

Throughout the project document, the focus is on **LIVESTOCK sector** while in practice the focus is on a **sub-sector of the Dairy Sector**, namely **'Intensive Cattle Dairy Farming'** implying that dairy goats and sheep were excluded. Considering the interest of MASHAV, it is understandable that the project opted for this focus but this redirecting was not documented.

To keep the mid-term evaluation manageable, the evaluator assessed primary the outputs and related activities as spelt out in the above presented overview, while keeping the main components (objectives) into account as well as the strategies proposed.

After presenting a Mind Map depicting the Cattle Dairy Sector in Uzbekistan, the different chapters shall take the reader through the outcome of the mid-term evaluation as follows. In chapter III (page 10), the purpose of evaluation and methodology deployed are presented. Chapter IV (page 12) provides the **main findings**; first, the **overall performance** (page 12), followed by addressing the **effectiveness and efficiency** (page 14), the **implementation and management arrangements** (page 18), the **sustainability of interventions** (page 21) and the **lessons learnt** (page **Error! Bookmark not defined.**)**.** Shortly, the **relevance in terms of National Priorities** (page 25), and **feasibility** and **risks** (page 25) are addressed. In the next two chapters, **conclusions** (page 27) **and recommendations** (page 28) are shared respectively in chapter VI and VII, while chapter VIII, page 32, gives the **plan of action**.

The range of annexes (page 33) provides supplementary information.



## III. Purpose of evaluation and methodology

The detailed Terms of Reference are presented in annex A (VIII.A ). The work plan as presented in annex E (Work plan) was in principle followed.

The overall purpose of the evaluation was defined as follows:

1) To assess overall performance against the Project objective and outcomes as set out in Project Document and other related documents.
2) To assess the effectiveness and efficiency of the Project.
3) To analyze critically the implementation and management arrangements of the Project.
4) To assess the sustainability of the project's interventions.
5) To list and document lessons concerning Project design, implementation and management.
6) To assess Project relevance to national priorities.
7) To assess changes in the baseline situation and provide guidance for the future activities in the area of capacity building for sustainable livestock development in Uzbekistan.
8) To study feasibility and risks of the project for further expansion of activities

According to the UNDP Handbook on planning, monitoring and evaluation[12], "a mid-term evaluation generally has a *formative* nature as it is undertaken around the middle period of implementation of the initiative. ***Formative evaluation*** intends to improve performance and is therefore most often conducted during the implementation phase of projects or programs". A **Formative** assessment is a self-reflective process that intends to promote attainment of all involved and therefore the methodology chosen concerns the so-called mirror technique[13]. It is a method, which facilitates the **looking**, the **learning** and **realizing development**. The evaluator partially succeeded in applying this method partly because the agenda prepared for the mission had not included space for focus group discussions while she also quickly realized that the project team is not acquainted with participatory approaches and tools. Nonetheless, she adjusted her method and used a kind of derived 'mirroring method namely working with **hypothetical -** and **probing questions**[14]. Examples[15] used are:

- 'As land and irrigation water are scare consider allocating arable land for food production and cash crop; non arable land for livestock production'
- 'Less cattle, more milk, less land needed'
- 'where to invest'
  a. In arable land based private livestock farms.
  b. In arable land based Dehkan farms.
  c. In pasture based Farming/herding.
- Smallholder: low input, low output system; Medium-Large scale Dairy farms: high input, high output; -
  ⇨ What is the link between these two?

[12] UNDP 2009. Handbook on planning, monitoring and evaluating for development results. Chapter five-eight, page 127-189.

[13] Consult annex E (VIII.F) for introduction to mirror technique.

[14] The purpose of probing questions is to help the presenters clarify and expand their own thinking about the matter they have presented to the group. This is the time to ask open-ended questions such as: - Why? , - What other approaches have you considered regarding...?, - What do you think would happen if...? etc.

[15] Consult annex C (VIII.C ) to capture the gist of these discussions/interactions.

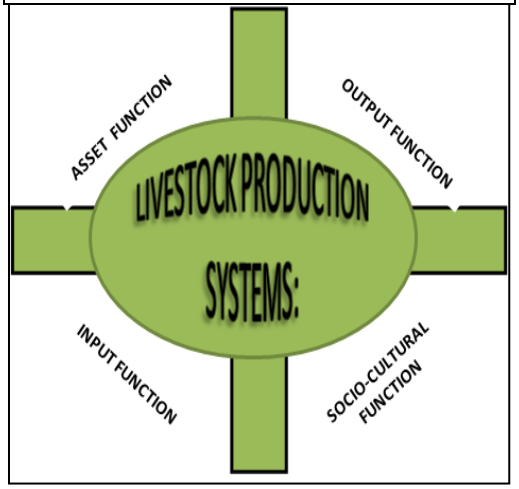
- What is wrong with a vulnerable household obtaining milk through using by-product (straw/bran) and road side grass (tethering based system); is he/she not the most competitive?
- The increased volume of milk generated during the last ten years is realised by smallholder farms, while they also produced 95%[16] of all milk. Why then concentrating on medium-large scale specialised farms?
- What is the relationship between achieving the MDGs and investing in medium-large scale specialised dairy farms?

At times, it led to confusion, hot discussions and narrating real life experiences, it triggered a different line of thoughts, and/or it provided new insights, but above all, it helped in realising that circumstances of a smallholder household are very different from those of medium-large scale specialised dairy farms.

In many ways, the method evolved. After the first three days, it was agreed beforehand how to conduct the visits to the smallholder farms (Dehkan farms) namely trying to obtain insights in the four functions of livestock for these households.

Throughout four core indicators have been given focused attention namely – relevance, - efficiency, - effectiveness and – sustainability. There was not necessarily a common understanding regarding these terms, as each person would have his/her own perception.

Diagram 1. Functions of Livestock




Cross cutting themes, such as 'mainstreaming gender and arriving at gender equality' were as alien terms for many of the actors involved and therefore handled with utmost care.

The strengths of the method has been the range of actors with whom she could freely and openly interact thanks to excellent but at times also biased translations[17], flexibility and willingness to learn.

In retrospect, it would have been helpful in case an introduction to the project was provided at the onset and a mid-term overview summarizing the activities conducted, the data collected and analyzed, difficulties experienced and first lessons learnt. In addition, timely sharing of all relevant reports is another important aspect. A set of most relevant reports prepared by MASHAV as recent as June 2009 were handed over at the end of the mission. As a result, the evaluator had a lot of work to sort out all the bits and pieces presented in as many as 40+ small, medium and large documents. Notwithstanding, the project team managed to provide whatever data were missing and has been helpful throughout and in all aspects.

[16] As it concerns examples of hypothetical questions, 95% was used to show the high proportion of smallholders' contribution to the overall milk production.

[17] Fortunately, for the last two days an outside translator was made available. Each translator has his/her dis – and advantages.

## IV. Main findings

**The main findings are also presented in the form of Mind Maps presented in Annex VIII.L**

### A. Overall Performance[18]

| Outputs (1-3) | Performance | Observations |
|---|---|---|
| **1. Situation Analysis** | **Moderate**, but of crucial importance<br>- **Policy note**; analysis of survey data is often pragmatic[19] but not scientific; addresses a sub sector namely dairying (cattle only, not sheep, goat, etc); studies output function of livestock only; no gender related considerations, etc. Small ruminants, poultry etc not covered, while title is 'Livestock Sector'<br>- Importance of smallholder farms (Dehkans) in cattle dairying recognized; - networks of extension and service stations; - infrastructure relevant to them etc.<br>- Draft **Livestock book**; a considerable improved content compared to policy note. It will turn into a most valuable book<br>- No follow-up on survey conducted; remains a one-time exercise. Situation of the sector keeps changing | - No clear evidence why results led to focus on high tech intensive cattle dairy farming; recommendation is towards Dehkans/Smallholders actually<br>- UN conventions (3) and MDGs not taken into account<br>- Not clear whether livestock farms operate more efficient than Dehkan farms<br>- Utilizing survey data as baseline not recognized (data might be lost/not properly stored)<br>- Final recommendation (relaxing –cotton and wheat land allocations-): not realistic on short term |
| **2. Improvements of Institutional and Legal Framework** | **Limited so far**<br>- Institutional and legal frame work not clearly addressed in above mentioned study<br>- Recently (April, 2010) a new study has been initiated[20] to address, | - Policy lessons (PL) are survey findings; i.e. - entail an 'extension message' (1, A.I., 2. Feeding/care) or – provide issue for policy implication. Thus, limited relevance regarding |

[18] As per ToRs 1.: To assess overall performance against the Project objective and outcomes as set out in Project Document and other related documents.

[19] It is, for instance, concluded that when artificial insemination is deployed on the farm, the milk yields are higher. Factors as water, feed and fodder, health, general management are however not kept constant. It then formulates a policy lesson accordingly, namely 'Artificial insemination (A.I.) as the main tool of breed improvement has a positive effect on milk yield'. A.I. is a technique only. Whether it will actually lead to breed improvements and higher milk yields depends on many factors of which genetic potential is just one attribute. There are plenty of examples, where A.I. did not lead to higher milk yields due to low feed and fodder quality, no outlet for selling the milk, wrong choice of semen (leading to inbreeding, etc.).

[20] It is still under consideration. It will be re-looked at whereby taking the mid-term evaluation findings into account.

| Outputs (1-3) | Performance | Observations |
|---|---|---|
| | among others, some legal and institutional issues<br>- Though mentioned in the Project implementation Report for 2008, the evidence of Institutional Capacity Assessment has not been presented | Institutional and legal frame work<br>- Gaps not clear and if present relate to intensive cattle dairying only<br>- Lack of understanding what institutional and legal framework for livestock sector entails |
| **3. Enhancement of capacity of farmers and demonstration of effective method of livestock production and services** | **Demonstration**: moderate/good/excellent; (5 pilot farms, concerning one category of farmers only)<br>- concerned cattle dairy management improved substantially,<br>- not clear how advise of international expert on monthly basis can be justified,<br>- limited in-depth economic insights of each pilot farm (no data on profitability)<br>- innovations not yet translated to possible policy implications,<br>- innovations not documented yet,<br>**Capacity** – limited so far,<br>- considerable investment made – often led by MASHAV,<br>- no clear strategy: - who (which actors, which institutions) and - how (strategy and method for capacity building not in place), - no monitoring system in place, - limited structural involvement of relevant Govt./private/semi-private institutions<br>- participants appreciated training; pilot farmers, however, obliged to attend | - This output received most attention<br>- Concerns only one category of farmers against three identified categories<br>- Effects of training/exposure not yet obvious<br>- A lot of hand holding (weekly, monthly visits to 5 pilot farms)<br>- Good rapport developed (pilot farms, a number of Dehkans/other actors in the vicinity)<br>- Relevance of high tech (aiming at standards of Israel, USA etc.) cattle dairy farming not obvious; why opting for high input, high output systems; why, for instance, not for low external sustainable input systems<br>- Little exposure to countries with successful smallholder cattle dairy production systems, (Kenya, India, Albania, etc.) |

### B. Effectiveness and Efficiency[21]

Currently, the project is not very efficient neither effective but has the capacity and modalities to improve. The team has however a spirit of hard working and wanting to achieve.

Although not proposed in the original Project Document, the entire **approach chosen concerns the <u>Transfer of Technologies</u>** namely from Israel to Dairy Farms in Uzbekistan, and they in turn to Smallholders.

In this regard, the following overview will clarify that this is not effective neither efficient.

| Assumption | Observation | Remarks |
|---|---|---|
| Private farm willing to adopt Israeli technologies/dairy farm practices (from feeding, fodder production, housing, feed mixing, milking, etc.) | Notwithstanding, the exposure to Israel, very intensive follow-up and hand holding, most pilot FARMS[22] only adopt some or part of the recommendations/ advices given.<br>Pilot Farm productivity has improved but as the owners are indicating themselves a range of measures of which some are project related have contributed to it. | The MASHAV mission reports of 2009 (VIII.D.1) acknowledge this also.<br>In general, the owners are happy to receive free advice, but some are less and less eager to take time for the project and participation in the activities.<br>Would the pilot FARMS not have reached the same productivity without the project's advice? |
| Private Farms willing and equipped to advise smallholders/Farms in his/her circle of influence. | Notwithstanding, that some information does spread, via the workers for instance, it is wrong to assume that he/she is interested in providing free services.<br>Some service delivery might work as long as the project is in place (MoU signed between Private Farm and project). | The social distance between a Private Farm and smallholders is huge.<br>Cooperation might work when Private Farm can increase economies of scale, for instance, milk collection.<br>It might also work when he/she has a social objective regarding serving the community at large. |

[21] As per ToRs 2: To assess the effectiveness and efficiency of the Project.

[22] Note, Moshe Katz, August 2009. **Cooperation Level between the Farm and the Project**. Full cooperation = 5, There is no cooperation = 1

| Subject/ Farm | Asia | Jamol | Hojakent | Abulkasim | Yulduz |
|---|---|---|---|---|---|
| Nutrition | 5 | 4 | 3 | 2 | 2 |
| Insemination | 5 | 5 | 2 | 2 | 2 |
| Buildings | 2 | 5 | 3 | 1 | 2 |
| Milking | 3 | 5 | 2 | 1 | 3 |
| Registrations | 5 | 5 | 4 | 1 | 2 |
| **Average Score** | **4.0** | **4.8** | **2.8** | **1.4** | **2.2** |

| Assumption | Observation | Remarks |
|---|---|---|
| Smallholders/other Private Farms willing and able to adopt. | Private Farms have a lot of land, capital, expertise and farm machinery, which smallholders do not have.<br>The circumstances hardly allow adoption; it might lead to adapting some measures.<br>Assuming that more land will be allocated for fodder is not realistic on short term. | Certain forms of cooperation might happen over time but this is different from adopting technologies and receiving services.<br>If more land would be allocated for fodder, it is questionable whether the large-scale private farms are the most efficient in growing fodder crops. A smallholder being just allocated a small portion might be more productive. |
| Once an ideal Pilot is in place (Farm adopting all measures and technologies) so that it is at par with Israeli dairy farms, the right example is created. Next, many in the circle of influence will be impressed and adopt. | Each Farm setting is different and full adoption is therefore unrealistic.<br>The well-endowed Farms go themselves abroad to acquire new expertise, advice and technologies.<br>In addition, a range of non-production factors matter such as capacity to lobby, be connected, etc. | On the large FARMS, the older workers indicated that their situation is not much different from before when it was still a State Farm.<br>Large Farms are able and have the capacity to access high quality advice and technologies (National/International) on their own. |
| Farms (livestock) are a tiny majority; i.e. 9,000 farmers with about 5% of all cattle. Creating livestock farms with 50-100 cows from scratch has partially been the Govt. policy under the assumption that these would produce and market more efficiently than one-cow smallholders. | The situation analysis conducted at the onset of the project, proposed 'to enable the small Dehkan households to gradually increase their herd from 1 to 5 cows, then perhaps 10 cows, and so on, until they reach the limits of their managerial capacity and skills. | Contrary to the project's finding, the chosen pilots concern all livestock Farms.<br>It is worth noticing that the family based medium scale farms (those who were early Dehkans/Crop farmers) show a better cooperation than the manager based farms. The latter, however, have more means to invest in equipment, housing, etc. |

**Capacity building**[23] is high on the project agenda and impressive in terms of activities.

A summarized overview of the capacity building activities is presented on the next page, while annex J (VIII.J) provides the details of type of capacity building, content, and background of the participants, duration and venue.
During the last two years (2008, 2009) In total 805 participants of which 76 were women attended the training sessions and/or were involved in the exposure visits to Israel.

**Table 1. Summary of capacity building activities during 2008 and 2009**

| Activity | Participants | | | No. | Organiser | Remarks |
|---|---|---|---|---|---|---|
| | male | female | total | | | |
| Exchange visit to Israel ≥7days | 56 | 0 | 56 | 3 | Project team, MASHAV, CINADCO | - Livestock specialist, - Farm managers (Pilots), - Board members, - Veterinarians, - etc. |
| Expert Mission; - sharing observations, training | 218 | 49 | 267 | 5 | Project team, MASHAV, CINADCO | - Health care, registration; - fodder preservation, crop rotation, animal nutrition; cattle shed design/construction; veterinairy routine, reproduction |
| Presentations + practicals on A.I. | 82 | 18 | 100 | 3 | Project team, SION company | - three sites; one mission |
| Round table | 28 | 0 | 28 | | Project team, | - sharing findings survey |
| Workshop (occasion opening 'UzNaslchilik' | 120 | | 120 | 1 | Projec team, UzNaslchilik', MinTube (German company) | - workshop at occasion of inauguration UzNaslchilik' |
| A.I training, Israel | 2 | 0 | 2 | | SION, MASHAV, projec team | - full fleched artificial insemination training |
| One-day seminar | 223 | 9 | 232 | 10 | Project staff, specialist of Uzb. Insitutions (Govt. related) | - specialised aspects of fodder production, feeding, housing, breeding, milking |
| Total: | 729 | 76 | 805 | | | |

Considering the focus on intensive medium-large scale dairy farming, the content is technical oriented and of considerable specialization. The instructors concern highly qualified Israeli experts and occasionally Uzbekistan experts of Uzbek Institute of Livestock Breeding and Uzbekistan State Veterinary Department. Otherwise, the international livestock expert of the project and occasionally the Project manager or Pilot coordinator provided the instructions.

Although, it is indicated in the relevant MoU's[24] that *participants participating in the MASHAV training will upon return to Uzbekistan serve as local leaders/trainers and provide their services to the established extension service*, this is not yet happening systematically.

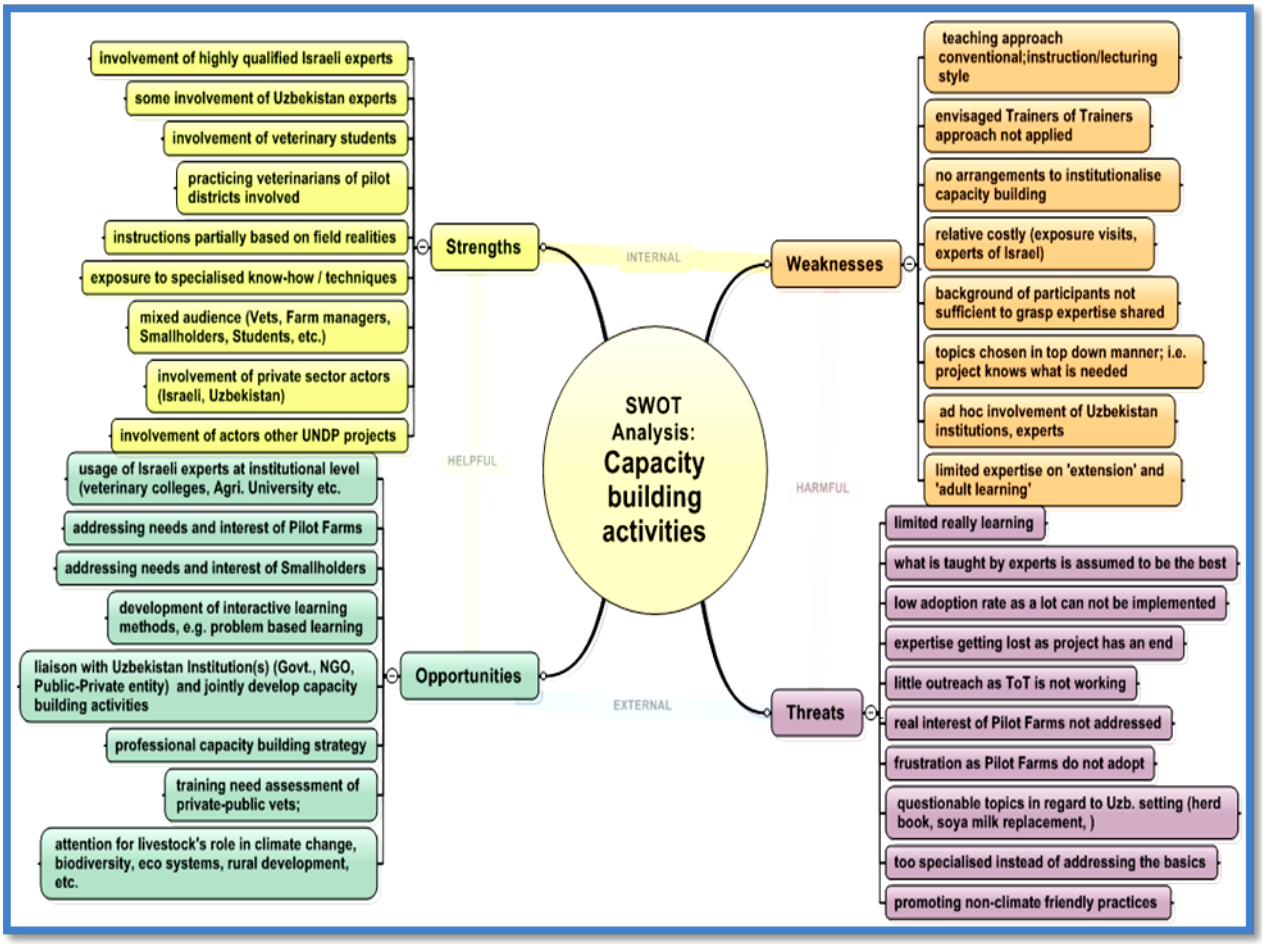
Majority of the participants concern Pilot FARM farmers or managers, some neighboring smallholders, veterinarians of the pilot district and occasional of districts related to other UNDP projects. When seminars were organized at the occasion of an expert Israeli mission, veterinary students would be invited.
Notwithstanding the enthusiasm of the project team and the considerable investments made by MASHAV, the investment in capacity building are not yet efficient neither effective as the Strengths, Weaknesses, Threats and Opportunities (SWOT) analysis[25], presented on the next page, shows.

[23] As per ToRs 7.: To assess changes in the baseline situation and provide guidance for the future activities in the area of capacity building for sustainable livestock development in Uzbekistan.
[24] In annex one of Memorandum of Understanding UNDP-MASHAV for 2007, 2008 and 2009. It is no longer shown in the tripartite MoU (UNDP, MASHAV, MAWR) for 2010.
[25] The same overview is enlarged and presented in annex VIII.H

Although the evaluator interacted with participants who benefited from the training and all expressed appreciation, it was beyond the scope of the mission to make a detailed assessment of the effects of the capacity building. A one-time interaction easily leads to polite and appreciative answers.

The project restricts the monitoring of capacity building mainly to keeping detailed records of activities conducted, but not whether it has an effect, whether it is in line with the needs and interest of the participants, etc.

A Trainer-to-Trainer approach needs sufficient guidance as well as a favorable environment. The latter is in particular important when it concerns Uzbek Specialists namely, whether the needed modalities are in place so that they can train others.




Apart from ad hoc involvement of institutions –especially when an Israeli mission is expected- no strategy to conduct capacity building with and through an institution are in place neither considered; centers organizing trainings for practioners and farmers are in place while veterinary colleges, research institutions and universities are present in Tashkent.

The current capacity-building set-up is not sustainable.

Fewer women are involved in intensive medium-large scale dairy farming and this is definitely a reason that female participants are in the minority. On the other hand, there is no critical reviewing whether this is good or questionable. In short, there are not much gender related considerations made by the project. For instance, hand milking is per definition a female task, but when milking machines are in place, less women are keeping the job of milker. Women also tend to be close to farm animals and easily observe, for instance, when the cows' behavior

changes and thus are naturally better equipped to detect signs of heat.

There where veterinarians or veterinary students are involved female participation is higher.

## C. Implementation and Management arrangements[26]

### 1. How we do development – what we do

[27]Planning, monitoring and evaluation should be geared towards **ensuring that results are achieved** – not towards ensuring that all activities and outputs are produced as planned. The handbook further stresses the importance of supporting national partners in achieving their **national priorities**. It also elaborates on development effectiveness namely '**how we do** development is often equally if not more important than **what we do**'.

The implementation team of SSDLS is geared towards 'doing' and there is not sufficient reflection of 'why' we do it this way, 'how we could do best'. In the project document[28], the three UN conventions as well as the MDGs[29] are referred too, while on SSDLS should contribute to the convention 'Sustainable land management to Combat Desertification and Degradation' through the working out of/contributing to a long-term National Program for the development of the sector. In this regard, a number of observations are as follows:

- The impression given is that the user friendly UNDP handbook on planning, monitoring and evaluating for development results, which evaluator should consult beforehand, is not consulted by the project team,
- The entire project implementation team is not up-to-date with the content of MDGs and the above mentioned UN conventions neither able to reason what the possible relation is between these and investing in intensive dairy farming,
- Selection criteria[30] of pilot farms, contradicts the conclusion and policy recommendation of the situation analysis conducted; i.e. policy recommendation reads '*to enable the small Dehkan households to gradually increase their herd from 1 to 5 cows, then perhaps 10 cows, and so on, until they reach the limits of their managerial capacity and skills*'. One tends to conclude that the selection was strongly influenced by MASHAV, as their expertise is most relevant for large-scale intensive dairy farming. However, a well-conversed project team should have been able to question this and arrive at a more balanced selection. Current criteria exclude smallholders,
- A believe that what works for a medium – larger scale farm (specialized dairy farm) can work as an example for smallholders; assumption is that it will trigger down as well as private farm will transfer know-how to smallholders. There is plenty of evidence both within the extension science domain as well as development cooperation that this is not working,

[26] As per ToRS 3.:To analyze critically the implementation and management arrangements of the Project

[27] See footnote 12

[28] Section II of the project document; Indicator: 'improved capacity in environmental management through the reorganization of environmental governance structures'; partnership strategy: 'acceptable model for livestock production …….. long-term National Program for the development of the sector'.

[29] MDGs; http://www.undp.org/mdg/

[30]Physical criterions: -≥40 cows, - mechanical milking or obligation to purchase it immediately, - reasonable buildings to housing milking cows and heifers, - minimum structure to store; Human and System criterions: - owner of the farm has really interest to cooperate with the project staff, - the owner of the farm understands that the project deals with professional knowledge mostly, - obligation for meetings with project staff: + with the farm owner once per month, + with the farm manager once per week). Reference: Moshe Katz note, 24th November 2009. Criterion might have been slightly different at the onset.

- Notwithstanding that a fine rapport has been built up with the pilot farm personnel as well as others (veterinarians, A.I. workers, etc.), the method applied is top-down and concerns 'transfer of technology'[31]. Both are outdated and referring to the above 'how we could do best', a more participative oriented method[32] would be relevant considering that there is a need for building up capacity in extension (livestock service delivery),
- While visiting an alfalfa field, it was observed that insects were affecting the leaves. The first reaction was spray insecticide or pesticide, while ladybugs were all around and active,
- Whatever farms visited the attention was towards maximizing the milk production per cow and the importance of genetic improvement. At times, it is important to place such a focus in a larger perspective such as 'availability of the scares resources such as water and arable land', 'profitability of maximizing milk yields' and 'importance of animal biodiversity'. The capacity to question one self and initiate, for instance, a thematic event to reflect and develop an understanding of the long-term implications, is not in place.
- The biases towards the latest technologies[33] (milking machine, A.I technology, Israeli dairy cows, etc.) being good and all others much less if not inferior. The fact that the project staff have no educational background in livestock and/or veterinary science while neither exposed to other places as home country and Israel, might have contributed to it. Yet, it is impressive how vigorously they have grasps high tech cattle dairy farming[34], but unfortunately as a result there is little respect and appreciation for the Uzbekistani livestock/breeding/veterinarian knowhow and how it is applied in demanding circumstances; for instance, establishing one-self with little capital neither a transport mean as a private veterinarian is a challenge. It might well be the reason that cooperation with a range of Uzbekistan institutions remains low to moderate.

  In short, there is hardly interest neither capacity at hand to link and reflect upon 'what is done' and place it in a larger context. The team works very hard to obtain as fast as possible results in the field.

[31] Plenty of information and handbooks are in place; ftp://ftp.fao.org/docrep/fao/011/i0261e/i0261e00.pdf

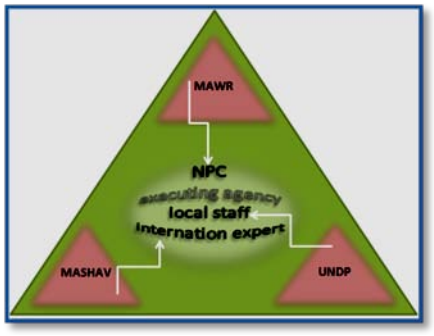
[32] The UNDP/EC supported ABD/ELS, for instance, adopted from the onset participative methods; Area Based Development (http://www.undp.uz/en/projects/project.php?id=122 ), Enhancement of Living Standards Programme (www.els.uz )

[33] Modern technologies and devices are too often perceived as being equal to those present and used in Israel. For instance, the on-going struggle to convince parties to import bull semen from Israel is unacceptable. Business interest should be kept out of the project. Referring a recent (01 March, 2010) report of Moshe Katz, one can read the following: *"Import excellent semen from Israel - In the frame of the efforts to improve the genetic value of cows in Uzbekistan, I dealing with the activities to import excellent semen from SION Company Israel. A long long negotiation between SION and Mr. Oktam Saidov the manager of AI Company in Tashkent region failed. MPC – TASHFARM Company, agreed with SION to import the semen to Uzbekistan instead of Mr. Oktam Saidov. First experimental delivery with 1,000 semen dozes arrived to MPC office in Tashkent on December 8, 2009. The project promised to MPC to buy 600 dozes from that first delivery and distribute them to the farms according to annual budget plan. This promise is according to long-term acquaintance and relationship with SION Company and its many activities to support the project with theoretical and practical professional Knowledge about AI and breeding plan. Unfortunately, till the end of February 2010 as 2.5 months from the time that the semen arrived to Tashkent, unclear and unacceptable bureaucratically reasons prevent the project to purchase those 600 semen dozes. I am recommending solving this problem immediately in purpose to supply this excellent seaman to the project farms.*

[34] At times, the evaluator observed copycat behavior instead of critically assessing the relevance of a technology, advise etc for Uzbekistan setting.

## 2. Implementation arrangement

The diagram on the right summarizes the implementation arrangement; i.e. a tripartite partnership of which each partner can be proud as it is unique.




With executing agency, we refer to the project team consisting of the National Project Coordinator (MAWR), Project Manager, Assistant to Project Manager (PM) and Coordinator for pilot area. A public relation officer is about to join the team. The latter concerns a woman, while all other staff members are men.

The National Project Coordinator, who is high-ranking official of the MAWR, ensures compliance with national priorities and delegates to PM. The PM, in turn, is responsible for the overall coordination and implementation[35] of the project under the supervision of Head of the UNDP Energy and Environmental Unit. Thus, the PM has a clear line to MAWR and UNDP. The presence of the international expert provides the link to MASHAV.

As his English language skills are good, the Coordinator for pilot area acts much as a translator for the international expert. Apart from the international advisor, no other staff member has educational qualifications related to animal production and/or veterinary sciences.

Considering the size of the project, this implementation structure is practical.

A steering committee (SC), which is also referred to as Board, is in place and meets at regular intervals. Its objective is to hold strategic consultations to adopt relevant decisions directed towards ensuring timely and efficient implementation of the project activities. The impression is that progress reports and plans are the main items on the agenda of the board meeting, while there is not much evidence that 'strategic consultations' take place.

Apart from a SC, a so-called **consultative group** representing the key stakeholders was envisaged in order to provide strategic guidance for proper decision-making as well as to keep the stakeholders informed. The consultative group has not been established. As per write-up under 'roles and responsibilities of the parties', page 7 of the Project Document[36], the differentiation between SC and consultative group is not very clear and likely the reason that the two are perceived as one and the same entity. When a truly consultative group would have been in place, the project team could have been steered towards keeping the overall goal at the centre stage of the project

In practice, for MASHAV it is clear what it wants, UNDP is in doubt (partly due to various recent changes in their unit; partly due to content Project Document versus activities planned) and MAWR provides necessarily needed support but is less engaged. As the activities conducted are technical, it is not necessarily easy for the UNDP unit Energy and Environment to understand whether the planned activities are relevant. Vice versa, the project team, being hardly conversant with the UNDP strategies, methods and values, has its own struggle to understand the UNDP.

[35] Details w.r.t. ToRs of NPC and PM are provided in the Project Document (proposal number 00046196; project number 00054878)

[36] **UNDP, 2007**. 'Support for the Sustainable Development of Livestock Sector in Uzbekistan', UNDP Project Document, Government of the Republic of Uzbekistan, United Nationals Development Program, proposal Number: 00046196, Project Number: 00054878.

### D. Sustainability of the interventions[37]

The current approach and activities adopted by the project will not be sustainable for the following reasons:

1. A transfer of technology approach is not a conducive form of developing the cattle dairy sector,
2. Dairy farming related technologies from Israel are not necessarily suitable for the Uzbek context and setting,
3. Of all livestock, cattle contribute most to green house gas – and other emissions. The larger the farm setting, the more investments are needed to mitigate climate change; in smaller units, it is much easier to control these emissions[38]. The entire footprint of cattle dairy keeping are not considered, while it would be an opportunity for Uzbekistan to learn about environmentally sound cattle dairy keeping through the project,
4. The focus is on developing a limited number of large-scale dairy farms that can serve as an example, but smallholders keep the majority of the cattle. Thus, even if the demonstrations would be successful it would only be relevant for a limited number of Farms,
5. The assumption that large and medium scale farms would be willing and interested to provided services to the actors within their circle of influence is unconvincing. It might work when the benefits are mutual,
6. Medium and especially the large Farms have considerable expertise at hand while able to buy services needed in the local and international market. This is actually happening and might be one of the reasons that the project advice is often not followed-up,
7. In the development of policy, information, and livestock-farming in Uzbekistan the leading task concerns the adjustment of management system: - livestock-farming central

[37] As per ToRs. 4: To assess the sustainability of the project's interventions

[38] Contributions that livestock in intensive and extensive systems make to greenhouse gas emissions are not easily understood as it is complex. For instance, one might reason that 10 high yielding cows produce fewer emissions per unit of milk than 10 low producing cows. It might sound obvious but the reality is much more complex.

Differences in how we assess the impact of intensive and extensive systems hinge on the differences in our approach to:

a) quantifying greenhouse gas emissions from livestock,
b) in assessing how much and what kind of land livestock use and
c) what effects they have on the quality of this land,
d) the dynamics of demand for meat and dairy foods and views on demand versus needs.

For those interested in deepening their understanding regarding 'livestock and the environment', they could consult the following documents.

- Livestock and climate change, IFAD 2010. Available at: www.ifad.org/lrkm/index.htm
- The State of Food and Agriculture, Livestock in the balance, FAO 2009. Available at: http://www.fao.org/docrep/012/i0680e/i0680e00.htm
- Intensive versus extensive livestock systems and greenhouse gas emissions, FCRN briefing paper, January 2010, Tara Garnett http://www.fcrn.org.uk/fcrnPublications/publications/PDFs/FCRN_int_vs_ext_livestock.pdf
- Livestock, feed and food security, FCRN briefing paper, January 2010, Tara Garnett. Avialble at: http://www.fcrn.org.uk/fcrnPublications/publications/PDFs/FCRN_livestockfeed_foodsecurity.pdf

Joining the **Portal of the Community of Practice for Pro-poor Livestock Development** (CoP-PPLD), which is an on-line sharing network for practitioners, managers, researchers and other actors involved in pro-poor livestock development that want to exchange experiences, innovative approaches, best/next practices and other knowledge (including tacit) for the CoP-PPLD's mutual learning, is advisable. The CoP-PPLD is rather active and one can forward questions, put up a query (for instance, from an environment point of view, what is best, 5 high yielding dairy cows or 10 low producing cows (dual purpose: milk & meat), seek advice, be informed about latest publications, etc. . Visit http://www.cop-ppld.net/cop_home/?no_cache=1 or write to the secretariat at: secretariat@cop-ppld.net

boards, - veterinary and scientific-production centre of the Ministry of Agriculture and Water Resources and their regional and district networks, institutions and companies of meat and milk production, poultry production, "Uzbekistan karakul", pedigree stock breeding associations of the republic, scientific-research institutions of livestock raising, Karakul (astrakhan) sheep-breeding and veterinary.

Placing the project in this larger context, it works at field level with the district veterinary institutions, but otherwise there are no formal collaborations established with the scientific communities, for instance working on balanced year-around feeding, fodder production, utilization of agri- and industrial by products etc.

A range of commissions are in place each charged with a certain task, for instance the Special Commission to look into the development of herdbook and during the upcoming months a 'systematic breeding plan for different livestock species' is expected. The project has no direct link with the relevant Commissions[39], while importance of herd book development and management is high on their agenda; their observations and ideas might therefore not be taken into account,

8. Training of highly qualified specialists (zootechnicians, agronomists, veterinary surgeons) is carried out at establishments of agricultural higher education. The training of post-graduate students and persons working for doctor's degree is carried out at scientific research and educational institutions. The training of the support staff is done at agricultural and professional colleges. Systematic contacts with scientific institutions of foreign and CIS countries are being strengthened.

   The project has no qualified zoo technician, agronomist or veterinarian in the team; neither has it established formal relationships with relevant institutions in charge of training specialists and/or support staff,

9. Highly qualified Israeli experts are on demand available to the project. Various missions were materialized but without strategic involvement of the relevant scientific and education institutions. As a result, the experts are not questioned neither are they challenged professionally by the Uzbek specialists[40]. An opportunity to contribute to

[39] As is often the case, commissions are easily appointed but often have also limitations for being active and producing a substantial outcome. In case of SSDLS, there are plenty of opportunities to pro-actively support the relevant committees as key persons are often also members of the SC, the NPC is in a central position, while SSDLS, UNDP as well as MASHAV have a range of means to contribute as per need and demand expressed.

[40] This finding should be understood in the right context. It was clarified by the project team that '*each Israeli Mission was accompanied not only by Project Staff but also by one of the best researchers in the respective field. The artificial insemination was completed in cooperation with Dr. Oktam Saidov. Forage growing and nutrition expert mission was conducted with active participation of Dr. Igor Massino, the best forage crop-growing scientist of Uzbekistan. Veterinary missions were organized in close cooperation with Veterinary department of Uzbekistan and its subdivision in Tashkent Province and Dr. Abdurasul Boltayev accompanied the Israeli vets. These missions caused many hot discussions about various topics. E.g. Israeli experts offered separation of crops for cereal silage due to incompatibility (maturation time etc), Uzbek opponents (Dr. Massino) recommended mixture of four crops and farmers applied combination with consideration of some of Israeli recommendations*'. The finding does not say 'there is no involvement'. It emphasises strategic invovlement. Strategic involvement would imply that time and resources are prioritised. Does the veterinary department of Uzbekistan need support? If so, what kind of support? Does the forage research group need assistance? For instance, new technology options, methods to conduct on-farm research, etc. If so, what kind of assistance is most relevant? Do you want to have a broader impact by banding together with other stakeholders to influence a policy, a strategy, a law? The next step is deciding where your expertise can be most valuable. What issues do you want to work on? And how will you know if you are effective? In short, the observation is that these Israeli experts work on an agenda set by themselves and/or the project and not by relevant institutions.

strengthen the systems is therefore lost, while limited use is made of know-how let alone being institutionalized,

The project is still very young. **A number of interventions clearly have the potential to continue on its own/to be sustained over time** namely:

1. The involvement of and cooperation with the network of veterinarians at district level in the two pilot areas as well as veterinarians and A.I. workers employed at some of the Pilot Farms might lead to innovative service delivery models. These potential innovations are still in a preparatory stage; apart from two A.I. workers serving animals of households based in the vicinity of the Pilot Farm, no other services yet established,
2. In certain pilot areas, the first basis has been formed to facilitate cooperation among smallholders/private farms/other actors and the pilot farm. 'Milk collection, processing and marketing', 'hiring land for cultivation of short fodder crop', 'ensuring quality inputs' are areas in cooperation models might develop. It needs however sufficient time to materialize,
3. Some working relationships with the public-private breeding/livestock training centers (e.g. Chorvanaslhizmat, Uznaslhizmat') are in place but not necessarily functioning smoothly. When accommodating more the interest of these institutions, a constructive relationship might develop.

### E. Lessons learnt – project design, implementation and management[41]

There are many smaller and larger lessons learnt with regard to the tripartite partnership, how it started and how the project design evolved, how diverting took place from the onset, its mode of operation etc. Below, the generic lessons learnt are presented, as these are most relevant considering the larger development context in which three parties (UNDP, MAWS and MASHAV) operate.

These read as follows:

1. Step wise developments of a tripartite partnership whereby timely calling upon an independent review, allows partners to reflect and redirect the interventions where relevant and opportune. When conducting the assessment (mid-term evaluation) in a formative/learning manner, minimal resistance is expected and making adjustments is feasbile,
2. A project team hired to implement the project should undergo an induction training aiming at understanding the interest and mode of working of each partner and creating awareness of all aspects of the project document including how the goals serve higher levels of each partnering institutions, for instance the three UN conventions on mitigating climate change, combating desertification and biodiversity. The team should thus be aware of the potential risks as well as opportunities of the tripartite partnership. Without such an induction, wrong expectations and communication barriers easily emerge,
3. In order to make effective and efficient use of an international long-term livestock expert, it requests for a team set-up with the presence of local specialist(s)/expert(s) in the same field. In that way, it creates an environment wherein critically questioning, in terms of what is relevant for the setting and what is already available locally, can take place. In addition, it prevents that those non-livestock experts of the team blindly follow the international expert,
4. When a project design is kept rather open (as is the case with SSDLS) and no concerted efforts are made to arrive at a common understanding, the risk is that one party takes the lead whereby following their interest in particular,
5. International business communities are most interested in the markets of the independent countries that came into existence following the dissolution of the former Soviet Union of which Uzbekistan is one. It is important to realise that in partnerships in which international development agencies are involved, business interest can easily enter the partnership. Therefore, a code of conducts is needed to guide such partnerships,
6. Rural development starts with understanding, acknowledging and appreciating the skills, knowledge, interests and limitations of the actors in the field. Trying to address the weaknesses and limitations observed through transferring technologies from outside, is risky and deemed to fail. Instead, through interactive learning, the local (of relevant actors) - and international knowledge, experiences, tools and skills can lead to appropriate technology options,
7. When down-to-earth field activities are planned and parallel and/or in sequences to it the influencing of policies and legal frameworks, it is important to realize that best results can be achieved when sufficient analytical capacity is in place at the project level. Ideally, it should be supplemented by coordinated efforts of a consultative group, which consists of members that have decision-making power to take the lessons learnt forward.

[41] As per ToRs 5.: To list and document lessons concerning Project design, implementation and management

### F. Relevance of project to National Priorities[42]

The project is most relevant to the National Priorities of the Government of Uzbekistan. Livestock products such as meat, milk and eggs are essential ingredients of a balanced Uzbek human diet. Observing the annual per capacity consumption (apcc) recommendations[43], as provided by Ministry of Health, with regard to milk, meat and eggs versus production (year 2006), a considerable gap exists for meat and eggs, but not for milk. The latter however provides plenty of opportunities for rural families to work on value additions through processing milk along Uzbek based traditional recipes and methods as well as adopting modern small-scale factory based techniques. Thus, it provides a potential source for rural enterprise development and employment creation in particular for women.

Serious organizational changes have taken place in the livestock sector during recent years backed up by deep socio-economic reforms targeted towards transition from the command and administration economic management system to market economy. Two important Presidential Resolutions, # 308 dated 23 March 2006 and # 842 dd. 21 April 2008, are put in place. These[44] form the basis for a sound development of the livestock sector but its actual implementations is demanding. The SSDLP is potentially in a position to provide a constructive support, while creating opportunities to innovate.

Of all livestock, cattle contribute most to green house gas – and other emissions. Contributing to and facilitating the developing of environmentally sustainable smallholder dairy systems, assists the Government of Uzbekistan to meet its obligations under the UN Framework Convention on Climate Change, while potentially also to the UN Convention on biodiversity and the Convention to Combat Desertification.

### G. Feasibility and Risks[45]

#### 1. Feasibility

The probability that the project team backed up by the relevant partners is able to adopt the recommendations as spelt out in the chapter VII '**Recommendations**' is moderate to high. Scaling down on the activities in relation to the five pilot farms (VI.2) is realistic, while facilitating the cooperation (VI.3 ) among the smallholders/private farms/others in the circle of influence of concerned Pilot Farm was already planned. The new entry, developing with the smallholders a smallholder dairy package (VI.4 ) might actually make healthy challenges to the project team as well as MASHAV.

Improving the content and methods used for capacity building (VI.7 ) are achievable while working through institutions is as much an attitudinal issue, which can be overcome when willingness is in place, MAWR pro-active and project team more appreciative of existing institutions.

Component one[46] however remains uncertain. It might be achievable when the UNDP plays a facilitation role and when synergies towards influencing policymaking and legal frameworks are

[42] As per ToRs 6.: To assess the project relevance to National Priorities

[43] See footnote 86

[44] Consult annex I. Livestock sector reforms and relevant state policy for details

[45] As per ToRs 8.: To study feasibility and risks of the project for further expansion of activities

[46] To create a better regulatory and institutional framework through provision of necessary changes into existing laws and policies that will enable the livestock sector to function efficiently under market conditions.

developed with other relevant UNDP related programs engaged directly/indirectly in the livestock sector. It is also important to recognize that the project operates in a sub-sector namely cattle dairy farming.

### 2. Risks

There are certainly risks and these are twofold. On the one hand, keep on living with the conviction that the cattle dairy sub-sector development should be achieved through investing in intensive medium large-scale farms cattle dairy production whereby ignoring the implications in terms of livestock's footprint (emissions etc.), the scarcity of resources such as land and water. On the other hand, it concerns the inability or willingness to sincerely adopt a participative mode of working.

Another risk is that this project is perceived as representing the entire sector while other sub-sectors as small ruminants (sheep and goats), monogastric animals (poultry, pigs, etc.), horse breeding and beef cattle production are not covered.

The people behind the animals are the most important and not just the animals. There is however, a risk that animals and not the people remain at central stage and if this would be the case gender, equity and equality issues will not receive the needed attention.

Moving towards the steering and implementation levels, the risks are of a different nature. Without reviewing the functioning of the SC/Board and the non-existence of the Consultative Group, the probability that the project team (PM and colleagues) prepares and convenes the board meetings as usual is high. When in addition, no efforts are made to strengthen the project team in terms of qualified local animal production and/or veterinary science expertise, the implementation of the recommendations shall easily be hampered especially regarding the recommendations which request for attitudinal and behavior changes such as recommendation 3, 4, 8 and 9 (page 28,28, 29 and 30 respectively).

Moving towards the institutional levels, the risk is that capacities built up remain scattered; the individual actor (a private veterinarian or inseminator, a private farmer, an individual researcher, etc.) might use his/her improved capacity but institutionalization might not happen at all.

## V. Conclusions

The tripartite partnership of MAWR, UNDP and MASHAV is in principle unique and appreciated by each partner in its own style. Due to the open project design[47] developed by UNDP, the eagerness of MASHAV to share and transfer its knowledge and expertise in intensive large-scale dairy farming and the pragmatic role played by MAWR, a smooth implementation was hampered. Alongside, the project team in charge of the implementation did not sufficiently understand the entire project design and tended to accommodate the interest of MASHAV most. The impressive exposure visits to Israel in which a range of participants representing a diverse set of stakeholders participated has strongly influenced all involved and might have created prejudiced views with regard to the field realities in Uzbekistan.

An overemphasis on achieving top results along parameters as nutrition, housing and breeding, created unproductive discussions and might have led to less constructive relationships with some stakeholders especially those in the private (semi private) sector. These production results had to be achieved on five pilot farms, which therefore received intensive attention while not necessarily adopting the advices provided. Requesting for expanding the number of pilot farms was a logic sequence but by then the steering committee of the project realized that a common understanding on achieving the overall goal of the project was actually not in place.

Intensive cattle dairy management and its back- and forward linkages formed the core of the program. The people behind the business were of secondary importance and therefore gender, equity and equality issues did not receive much attention.

The mid-term evaluation conducted led to a range of questioning, searching towards what happened and what happened not, seeking to cover the inner and outer[48] realities of each partner, etc.; i.e. in short, reflection took place and new insights revealed. It is believed that a much healthier situation was created. The fact that all parties in principle accepted the proposed recommendations stems for optimism and allows the project to redirect itself.

A number of crucial roles are now to be fulfilled by the key players in the program in order to adopt the proposed recommendations (VI); i.e. namely:

- the National Program Coordinator, whose engagement is desired especially regarding institutional aspects, (- institutionalizing capacity building, - linking to committees in charge of preparing plans/making amendments/strategies, etc.)
- project manager who needs to genuinely understand and accommodate the interest of all three parties, and not shy away from keeping the motto '**how we do** development is often equally if not more important than **what we do**',
- the UNDP Unit Energy and Environment should make efforts to induce relevant parties to its higher objectives, values, mode of working (including planning, reporting and monitoring) and play a pro-active role where needed and opportune (synergies with other UNDP projects towards influencing the livestock sector's policies and legal frameworks, etc.),
- MASHAV should take up the challenge to contribute to the development of smallholder dairy farming package through adopting bottom-up mode of working and reinterpreting its' know-how towards the settings of smallholders.

[47] Referring to the UNDP Project Document.
[48] 'Outer realities' represent what is said, what is put on paper, what is formally accepted, etc. The 'inner realities' represent the feelings, the doubts, in short 'what is normally not put on paper neither easily expressed.

## VI. Recommendations[49]

1. In order to strengthen the link between the MAWR and the project, it is advisable to consider the **attachment/involvement of a MAWR veterinary/livestock officer (10 yrs experiences) to the project**. It would contribute to the sustainability of the project as new know how and capacity is created from within the department, while the project can develop a better understanding of the realities facing the department. In addition, it will strengthen the capacity of the current implementation team as in terms of educational background only the international livestock expert is a professional in the field of livestock development. As a result, the available capacity in agriculture economics could also be better deployed. At any cost, a professional Uzbekistani livestock/veterinary expert should be part of the project team.

2. Considering the performance of the five **pilot farms**, it is recommended to **continue with two – three,** and reduce the **attention of the remaining two - three** to a **minimum** such as light monitoring[50] (1/quarter) and only provide advice as per their demand expressed. Developing a complete picture of the profitability and productivity is desirable. Without accurate data on productivity and productivity, the pilot farms have little meaning in terms of feasibility.

3. As envisaged, **facilitate bottom-up cooperation** among **interested female and male smallholders/private farms/others** and the **two – three pilot farms.** The geographical area should be limited to the area of influence of concerned pilot farms. Possible forms of cooperation are in the area of learning from each other (farm management, calf rearing, for instance), supplementary feeding, production of concentrate feed, milk collection/processing, veterinary and artificial insemination services, etc. Opt for an activity, which is feasible given the time span of the project, abilities of the pilot farms and human resource available. When outside expertise/skills are needed, opt for local resources first, for instance Uzanaslhizat centre (training), Chorvanaslhizmat (bull station, artificial insemination training) ABD-ELS (participatory approaches, cooperation/cooperative models), etc.

4. With a group of interested smallholders[51] and private veterinarian(s), **jointly develop a dairy farming package[52] for smallholders** (if goats and sheep are kept for milk, these should be taken along). It concerns optimising a smallholder setting, starting with respecting and understanding their current practices, and working on the problems identified such as nutrition, feed and fodder availability, health, labour and gender issues, daily care, housing, etc. **Genetic**

[49] The preliminary recommendations were discussed with the relevant representatives of the three partners and presented during the debriefing session of Friday morning, 16th of April 2010. Where relevant and opportune, the comments, suggestions and remarks were processed.

[50] It implies continuing with data collection and analysis regarding – reproduction, - nutrition and – milk production so that a comprehensive assessment of the productivity of all five pilot farms can be developed. It is necessary that the profitability be calculated too.

[51] As per policy brief (no. 1, 2008), *'a smallholder produces vegetables, fruits, milk and meat for home consumption and commercial sale. The average plot seize varies from 0.1 to 0.4 hectares of arable land (maximum 0.35 hectares of irrigated or 2 hectares of non-irrigated land) and on average keeps 1.4 head of cattle and 0.8 cows'*.

[52] With a package, a set of technology options is meant and not a one-size fit all type of extension messages.

**improvement**[53] **might be important in a later stage**. Considering the logistics and human resources[54] of the project, it is advisable to opt for a district in Tashkent region, for instance Akkurgan district, where five private veterinarians have been established and already provide A.I. services. One, two and/or two veterinarians might be interested to work along the project. It also allows making better use of the international livestock expert in place and working with female farmers.

5. Concerted efforts should be made to ensure that livestock/dairy production systems (private farms, smallholders) contribute as much as possible to mitigating climate change. Currently, there is no attention for the so-called *footprint of livestock* or *livestock's shadow*[55]. Basic considerations such as **increasing efficiency of available nutrients** (reducing nutrient losses, improving manure quality, 'precision' application in space and time), **external inputs** (fertilizers, feed supplements, legumes) and **cross system approaches** easily make a difference. Alongside, issues regarding **animal** and **plant biodiversity**, **biological control methods** and other practices promoting sustainable farming systems deserve attention. Primarily, it is much about an attitude and mindset.

6. In order to enjoy an **appropriate reference cadre** (exposure to Israel is mostly relevant for medium-large scale intensive cattle dairy farming), arrange an exposure visit to a country where smallholder dairy farming has been successful. For instance, the ISO-registered NGO called BAIF[56] in the State of Maharashtra, India, which is renewed for its achievements in small-scale livestock production systems, could be considered. This kind of exposure is in particular relevant for the current project team.

7. The ongoing and planned **development and publication of extension booklets and publications deserves priority**. Differentiating the audiences is however important and should be taken into account; i.e. – public at large, - policy makers, - practioners (vets, private actors etc), - medium/large scale farmers, - smallholders, etc. Developing appropriate materials is time consuming and needs to be planned well in time, while involvement of a professional in producing of extension materials is advisable. Apart from booklets, pamphlets and publications, other user-friendly materials could be considered; i.e. video show, posters, cassettes etc.

8. It is recommended to **lightly review and intensify the established cooperation with other UNDP projects** (SLM; ABD-ELS) as follows:

[53] Genetic improvement is not restricted to high yielding dairy breeds/cross-breeds, but it also might imply dual-purpose breed (meat and milk). It does not imply that A.I. cannot be promoted. On the contrary, suitable breeds should be advised to the smallholders, while it also provides opportunities to develop and conserve the *Bushuev* breed.

[54] Referring to recommendation one, it is assumed that an Uzbekistani professional livestock/veterinary expert is part of the team.

[55] The main greenhouse gases (GHG) from livestock systems include methane produced by the belching of animals (25 per cent), carbon dioxide (CO2) produced by uses of land that encourage the decomposition of organic substances (32 per cent), and nitrous oxide (N2O), commonly known as 'laughing gas', produced by spreading manure and slurry over lands (31 per cent). For more information consult:
http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_10_Ch10_Livestock.pdf

[56] Website: http://www.baif.org.in/aspx_pages/index.asp . Apart from smallholder dairy farming, a range of different forms of cooperation among smallholders (primary cooperative, self-help groups, producer companies, society, etc.) are in place.

a) The SSDLS project to learn from the participatory approaches developed (including familiarising with concept such as - **self – reliance**, - **problem solving attitude** and – **avoiding one-size fit all approach)** by ABD-ELS as well as their models of cooperation and cooperatives (first lessons learnt already in place)

b) The situation in both SLM as well as ABD-ELS concerns smallholders and not all knowledge and extension messages so far in place are relevant. As only gradually, new experiences with developing packages (4) relevant for smallholders will be built up, the **capacity building efforts of SSLDS** towards SLM and ABD-ELS **shall only be appropriate over time**. It is therefore advisable to work in SLM/ABD-ELS project sites as proposed under the above-mentioned recommendation 4 whereby making use of the teams in place.

c) In each project[57], the importance of contributing to **policies and institutional changes** is recognised, but rather complex to handle. In addition, there is considerable confusion of what livestock policymaking entails. It is therefore recommended that UNDP plays an active role in bringing together projects with a livestock component and assist in analysing lessons learnt towards policy and institutional implications.

d) Regarding the above-mentioned recommendation a.) and b.), it is advisable to amend the current MoU[58] between SSLDS and ABD-ELS.

9. As the **capacity building** (one-day seminars: theory morning, practical afternoon; lecturing style) efforts of SSDLS are appreciated, these should continue but testing out new methods/approaches[59] is highly recommended. In addition, it is recommended to develop a simple **strategy for capacity building** whereby also considering how this activity can be sustained best including making use of those already trained as trainers. Alongside, more visibility can be given to promote SSDLS and systematically portraying the logo's/names of all three partners (MAWR, UNDP, MASHAV).

10. As the relevant authorities are working with the **artificial insemination technique[60], rectovaginal, which is also promoted by SSDLS**, it is recommended to work out modalities, which ensure that at least one Uzbekistan based institution[61], which is currently providing training in artificial insemination, adopts concerned training capacity. In this way, the new generation of artificial inseminators will be equipped with it. It is not advisable to continue with training potential A.I. workers in Israel, but

[57] Apart from SLM, ABD-ELS, livestock plays also a role in other UNDP project/programs.

[58] **SSDLS**, ABD, **10.03.2010**. Memorandum of Understanding aiming at providing a framework of cooperation and facilitate the collaboration between the Parties, on a non-exclusive basis for establishment of veterinary points in Kashkadarya region.

[59] Methods that are people oriented starting from their interest and problems. Thus, adopt methods, which promote learning through discovering, sharing, innovation etc.

[60] Actually, the technique is already in use in Uzbekistan but could be refined.

[61] The ChorvaNaslhizmat institute showed renewed interest. Earlier efforts to cooperate did not fully materialize.

professional veterinarians, who are designated to train and monitor A.I. workers.

11. The Government of Uzbekistan, MAWR, recognises the importance of developing a herd book system in Uzbekistan and a special committee is in place and working on a systematic breeding plan for different livestock species. It is recommended that the MAWR make adequate use of the services MASHAV is willing to offer in this field. As per request, the SSLDS can facilitate access to this service.

12. It is recommended to amend the tripartite MoU[62] (MAWR, MASHAV, UNDP) signed for 2010 along the above-mentioned recommendations whereby taking into account that activities as proposed under 2, 3, 4, 7 and 9 are of equal importance.

[62] UNDP, MASHAV, MAWR, 18.12.2009. MoU covering the tripartite partnership for 2010. It is observed that this MoU covers in detail the input of the MASHAV livestock expert/other advisory services. There is no clear reference of what MAWR should provide neither the UNDP staff of the project team. To ensure more ownership and steering by the Uzbekistani project team as well as MAWR, it is advisable to bring in place a consultative group with key representatives of Uzbekistani livestock/veterinary related institutions as well as UNDP.

## VII. Plan of action

Without going into the details, a simple plan of action[63] has been drafted and is presented below.

1. Make concerted efforts to accept the main findings of the mid-term evaluation, adopt the recommendations and adjust the plans for 2010 accordingly. In thsi effort, try to look forward and not backward,

2. As soon as possible, strengthen the project team twofold;
   a) expanding the team with a qualified animal production and/or veterinary science staff member who has pronounced interest in smallholder dairy farming,
   b) develop the needed capacity in participatory approaches soonest.

3. Ideally, the current coordinator for pilot areas should continue with the activities in the pilot areas, while the above mentioned additional staff member in the newly defined district namely 'development of smallholder dairy package'.

4. Agree on planning and reporting whereby aiming at a project team output[64], for instance a quarterly plan and quarterly progress report. It is advisable to first relook at the current reporting format and arrive at a more realistic and user-friendly outline. On an annual basis, the progress made and lessons learnt can be checked against the log frame as presented in the project document. Investing in reporting will also contribute to strengthen the partnership especially when the interest and background of each partner is taken into account,

5. Consider revising the SC/Board and establishing a Consultative Group. The former can be kept lean and mean namely representative(s) of each partner and focussing on planning and progress. While the Consultative Group should comprise of all key stakeholders, be a truly consultative group that provides advises to the SC, project team, etc. It might be opportune to consider membership of other relevant UNDP programmes/projects staff.

6. On short term, development of a 'capacity building strategy'[65] whereby looking into sustainability aspects, the training/capacity needs, and the training methodology.

7. In course of time, organise a conference with a difference; different in terms of methodology and output. For instance, a methodology that starts with all kind of assumptions currently used within the Uzbek livestock sector.

[63] This action plan is not exhaustive. It should be used as a kind of checklist as actions are not necessarily put in order of priority, while various concern parallel actions. It is also important to read these actions along the recommendations made in the previous chapter.
[64] Report of the international expert should form be an input to the project team. The PM in turn should write concise progress reports. The current tabulated form of reporting is difficult to read while it does not provide the needed background information neither refecting the actual progress made. Relevant UNDP handbooks can best be consulted to develop ideas on how best reporting can be done.
[65] The consultative group might be able to provide a constructive input.

## VIII. Annexes

### A. Terms of Reference[66]

UNITED NATIONS DEVELOPMENT PROGRAMME
SPECIAL SERVICE AGREEMENT

| I. POSITION INFORMATION | |
|---|---|
| Position Title: | - International Mid-term Evaluator |
| Type: | - SSA, International |
| Project Title/Department: | - Support to Sustainable Development of Livestock Sector in Uzbekistan, Environment and Energy Unit |
| Location: | - Home based and at least 2 field trips to Chinaz and Kuyichirchik districts of the Tashkent Region, Uzbekistan |
| Duration of the service: | - 17 work days from 29 March – 30 April, 2010 |
| Reports To: | - Head of Environment and Energy Unit |

**II. BACKGROUND**

This evaluation is initiated by the UNDP Uzbekistan and aims to assess the Livestock Project activities and overall performance and provide recommendations on how to most efficiently apply the Project's capacity and potential to further scale up its activities in all aspects including pilot activities and institutional framework. Particular emphasis should be put on assessment of the project activities and their consistency with project objectives and future plans.
This evaluation is to be undertaken taking into consideration the evaluation policy of UNDP (http://www.undp.org/eo/documents/Evaluation-Policy.pdf) and the UNDP Handbook on Monitoring and Evaluating for Results (http://www.undp.org/gef/05/monitoring/policies.html ).

**PROJECT OBJECTIVES:**

The project "Support to sustainable development of livestock in Uzbekistan" is joint initiative of UNDP Uzbekistan, Ministry of Agriculture and Water Resources of Uzbekistan and MASHAV represented by the Embassy of the State Israel in Uzbekistan. The main purpose is to assist the Government of Uzbekistan, in particular the Ministry of Agriculture and Water Resources, in determining its strategy for the livestock sector development in Uzbekistan. This objective will be realized through implementation of the following components:

i) Create a better regulatory and institutional framework through provision of necessary changes into existing laws and policies that will enable livestock sector to function efficiently under market conditions
ii) Enhance capacity of farmers and dehkans through demonstration of best management practices in livestock breeding and management
iii) Increase efficiency of livestock production through establishment of service structures (artificial insemination and veterinary service) at the local level

The project is implemented by the Ministry of Agriculture and Water Resources. Overall management of the project is the responsibility of the Project Manager, who is a full time employee of the UNDP.

**III. EVALUATION REQUIREMENTS AND METHODOLOGY**

The assignment will take place in the period between March 29 and April 30, 2010 (17 workdays). The assignment will involve deskwork, mission to Uzbekistan and at least two trips to Project pilot areas in Tashkent region of Uzbekistan. Throughout the assignment, the consultant will work in

[66] Concerns shortened version.

close collaboration with UNDP Uzbekistan Country Office and relevant stakeholders.

The main objective of this mid-term evaluation is to provide the project partners i.e. UNDP, Ministry of Agriculture and Water Resources and MASHAV with an independent review of the status, relevance and performance of the project as compared to the project document, identify and assess the basic results and impacts as to their sustainability and suitability for scaling-up in other areas.

The purpose of the Mid-term Evaluation is:

- To assess overall performance against the Project objective and outcomes as set out in Project Document and other related documents.
- To assess the effectiveness and efficiency of the Project.
- To analyze critically the implementation and management arrangements of the Project.
- To assess the sustainability of the project's interventions.
- To list and document lessons concerning Project design, implementation and management.
- To assess Project relevance to national priorities.
- To assess changes in the baseline situation and provide guidance for the future activities in the area of capacity building for sustainable livestock development in Uzbekistan.
- To study feasibility and risks of the project for further expansion of activities.

Project performance will be measured based on Project's Results and Resources Framework, which provides clear indicators for project implementation. The Report of the mid-term Evaluation will be stand-alone document that substantiates its recommendations and conclusions.

The Mid-term Evaluation will also cover the following aspects:

Results and effectiveness:

Changes in development conditions. Address the following questions, with a focus on the perception of change among stakeholders:

- What are the results (outcomes and impacts) of the project?
- Have awareness on Livestock project in general and personal capacity of national stakeholders to continue project activities in particular are built?
- Have the project contributed in the establishment of efficient national institutional frameworks for Livestock project development?

## B. Itinerary

| Date/Time | Venue | Participants | Subject |
|---|---|---|---|
| **Sunday, April 4, 2010**<br>03:30-05:00 | Arrival at Tashkent | Dr. Lucy Maarse<br>accompanied by Aziz Rasulov, Assistant Project Manager | Check in for accommodation |
| **Monday, April 05, 2010**<br><br>10:00-12:50 | Livestock Project Office | Dr. Lucy Maarse<br>Mr Makhmud Shaumarov, Programme Associate, UNDP E&E Unit<br>***The UNDP project personnel:***<br>Mr. Abdurazzak Khujabekov, Project Manager<br>Mr. Aziz Rasulov, Assistant Project Manager<br>Mr. Moshe Katz, MASHAV-appointed Long-Term Farm Management Expert of the Project<br>Mr. Abdumalik Kertaev, Project Pilot Area Coordinator<br>Ms. Kamola Rasulova, Project PR Specialist | **Meetings in Tashkent:**<br><br>Introduction and coordination of the activities |
| 14:30-15:30 | Ministry of Agriculture and Water Resources (MAWR) | **Abdumalik Namozov**, Assistant to Minister, Livestock Project National Coordinator, | Acquaintance and Exchange of information about all activity of Project |
| 15:30-16:30 | MAWR | ***MAWR:***<br>**Bakhtiyar Salibaev**, Chairman of the Livestock Development department of the Ministry of Agriculture and Water Resources | Acquaintance and Exchange of information about the cooperation with the project |
| 16:30-17:30 | MAWR | Dr. Lucy Maarse<br>**Dr. Sobir Mavlanov**, Director of Uzbek Veterinarian Research Institute, | Acquaintance and Exchange of information |
| 17:30-18:30 | MAWR | **Mr. Mukhiddin Eranov** FAO "Controlling Transboundary Animals Diseases in the Central Asian Countries" Regional | Acquaintance and Exchange of information about cooperation with the project |
| **Tuesday, April 06, 2010**<br><br>10:00-12:00 | UNDP Country Office | ***UNDP CO Representatives:***<br>Mr Abduvakkos Abdurahmanov, Head of Environment and Energy Unit<br>Mr Makhmud Shaumarov, Programme Specialist, UNDP E&E Unit | Acquaintance and coordination of further activities |
| 14:00-15:00 | MAWR | **Dr. Murodilla Ashirov**, Director of Livestock Breeding Research Institute, Member of Project Board | Acquaintance and Exchange of information about cooperation with the project |
| 15:00-16:00 | MAWR | **Dr. Oktam Saidov**, Chairman of "Chorvanaslhizmat, LLC – a leading bull semen distributing company<br>Project Staff | Acquaintance and Exchange of information about cooperation with the project |
| 16:30-17:30 | Tashkent Institute Irrigation and Land Reclamation | **Dr. Aleksandr Chertovitskiy** Professor of Land Using and Land Cadastre Faculty<br>**Mr. Odil Akbarov** Director, Land Tenure Development Center, TIIM | Meeting with authors of the Policy Brief and Book |
| **Wednesday, April 07, 2010**<br><br>10:00-12:30 | Cattle Dairy Farm "Abulkasim Ogillari" | ***The Farm personnel:***<br>Mr. Abduhalik Sadirov, Farm Manager<br>Mr. Oner Sirlibayev, Farm Inseminator | **Trip to Chinaz District of the Tashkent Province**<br><br>Acquaintance with farm personnel and activities |
| 13:40-15:30 | Cattle Dairy Farm "Yulduz" | ***The Farm personnel:***<br>Mr. Husan Arabboyev, Owner<br>Mr. Muhiddin Arabboyev, Manager<br>Mr. Ibrohim , Inseminator | Acquaintance with farm personnel and activities |

| Date/Time | Venue | Participants | Subject |
|---|---|---|---|
| **Thursday, April 08, 2010**<br>9:00 Departure<br>10:00 -12:30 | "Khojakent" Cattle dairy farm | ***Farm Personnel:***<br>Mr. Babajan Kalikulov, Overall Manager<br>Mr. Alisher Hudaybergenov, Logistics Manager<br>Mr. Bahadir Jumabayev, Farm manager | Visit to Chinaz District<br>Acquaintance with farm personnel and activities |
| 12:50 – 13:30 | Chinaz Veterinary Division | Mr. Ravshan Yusupahmedov, Chairman of the Chinaz District Veterinary Division | Acquaintance and Exchange of information |
| 15:00-16:00 | Ministry of Agriculture and Water Resources Meeting Room | **Mr. Tulkin Mirzayev**, Deputy Chairman of the Main Department for Financial Regulation of Agriculture, Ministry of Finance of Uzbekistan | Acquaintance and Exchange of information |
| 16:30-17:30 | UNDP ELS/ABD Project Office | **Mr. Kadir Babajanov**, UNDP ELS/ABD Project Coordinator | Acquaintance and Exchange of information |
| **Friday April 09, 2010**<br>10:00<br>Departure<br>11:00-13:00 | Cattle Dairy Farm "Asia Milk Product " LLC | Mr. Batir Baykharashev, Farm Director<br>Mr. Abdurashid Abdurazakov, Farm Manager<br>Mr. Umarali Ahmedov<br>Ms. Amideh, Accountant | Trip to Quyi Chirchiq District of the Tashkent Province<br>Acquaintance with farm personnel and activities |
| 14:00-14:30 | Administration of "Uzbekistan" Village | Chairman of the Administration, Head veterinary service | Collection of info about village life |
| 14:40 – 16:00 | Meeting with dekhkans in the "Uzbekistan" Village | Relevant Project Staff | AI Services and registrations |
| 16:00-17:00 | Quyi Chirchiq District Veterinary Division | Mr. Azizkhoja Saydullayev, Deputy Chairman of the Division | Acquaintance and Exchange of information about cooperation with the project |
| 17.00 | Cattle Dairy Farm "Jamol" | Mr. Aytuar Tursunov, Farm Owner<br>Ms. Guljamila Tursunova, Farm Accountant<br>Farm Personnel:<br>Worker<br>Milking assistant | Acquaintance with farm personnel and activities |
| **Saturday April 10, 2010**<br>10:00-12:00 | Cattle Dairy Farm "Jamol" | Mr. Aytuar Tursunov, Farm Owner<br>Ms. Guljamila Tursunova, Farm Accountant<br>Farm Personnel:<br>Worker<br>Milking assistant | Trip to Quyi Chirchiq District<br>Acquaintance with farm personnel and activities |
| 12:00-13:00 | Veterinary and Insemination Service Station "Aytuar Zooveterinar" | Mr. Davutkhan Eskhojayev, Veterinary and AI Technician; others | Acquaintance with station personnel and activities and introduce results veterinarian and AI services |
| 13:00-14:00 | Lunch | | |
| 14:30 -15:30 | Meeting with several dekhkans | Mr. Aytuar Tursunov<br>Chairman of the Administration<br>Representatives of Dehkan households | Share knowledge farmer with dekhkans |
| 15:30-17:00 | Village "Mamut" Administration | | |
| Dinner and Desk Work | | | |
| **Sunday, April 11, 2010**<br>The whole day | Desk Work; working lunch with Mr. Makhmud Shaumarov | | |
| **Monday, April 12, 2010** | MAWR Meeting Room | **Mr. Ulugbek Islamov**, UNDP Integrated Water Management Project Manager | Trip To Zangata and Akkurgan Districts |

| Date/Time | Venue | Participants | Subject |
|---|---|---|---|
| | | | Acquaintance and Exchange of information about cooperation with the project |
| 10:00 Departure 10:30-12:30 | Cattle Dairy Farm "Milk Agro"[67] | Dr. Lucy Maarse<br>Mr. Aziz Rasulov, Assistant Project Manager | Interactions with assistant Head of Veterinary service, Private Vet and visit to one smallholder. |
| Desk Work | | | |
| **Tuesday, April 13, 2010**<br>9:30-12:30 | Israeli Embassy | Embassy officials His Excellency Ambassador of Israel,<br>Mr. Daniel Werner, Director of Projects and Special Assignments, Center for International Agricultural Development Cooperation of Israel - CINADCO<br>Mr. Moshe Katz, | Meetings in Tashkent<br>Contribution of MASHAV to the Project and plans for future |
| 14:30 – 18.00 | Project "Achieving Ecosystem Stability on degraded land in Karakalpakstan and the Kyzylkum Desert" | Programme Specialist, UNDP E&E Unit<br>**Ms. Irina Bekmirzaeva** PM,<br>**Mr. Mark Anstey**, consultant to SLM program. | Exchange information |
| **Wednesday, April 14, 2010**<br>09:00-13:00 | Dustobod Town, Restaurant "Sherzod" | Livestock Project Personnel<br>Invited Lecturers<br>Invited farmers and farm specialists | Trip To Quyi Chirchiq District<br>Seminar on Livestock aspects:<br>Young cattle healthcare<br>Principles of ensilage |
| 14:00- | Dairy Farm Temuchin Agrofayz" | Farm Owner and veterinarian from Zoovetstation "Gul" | Share practical knowledge |
| **Thursday, April 15, 2010**<br>9:00 Departure 9:30 -11:00 | Tashkent region veterinarian administration Office | Ms.Malika Saydullaeva Head of Tashkent Veterinarian; met her deputy | Exchange information |
| 11:30-13:00 | National Bull Semen Producing Enterprise "UZNASLHIZMAT" | Mr. Farmon Nazarov, Director; met his deputy | Acquaintance with activities, tour in the facility |
| 14:30 -15:30 | Project Office | Dr. Lucy Maarse<br>Mr Makhmud Shaumarov,<br>**Dr. Umid Nazarkulov** consultant Project for agricultural Economy | Discuss possibility of establishing livestock cooperatives in pilot area of the project |
| 16:00-17:30 | UNDP Office | **Mr. YuliyYusupov** – Director of the Centre for Economic Development | Meeting with author of the Livestock book |
| **Friday April 16, 2010**<br>10:00-13:00 | MAWR | See list annex VIII.K | Discussion of the evaluation findings with project stakeholders and partners<br>Dr. Maarse's Presentation about preliminary results of the mission |
| 14:30 – 15:30 | UNDP Country Office | *UNDP CO Representatives:*<br>**Mr Abduvakkos Abdurahmanov**, Head of Environment and Energy Unit<br>**Mr Makhmud Shaumarov**, Programme | Exchange information |

[67] Was skipped; instead a short visit to a control district was made namely Akkurya district

| Date/Time | Venue | Participants | Subject |
|---|---|---|---|
| | | Specialist, UNDP E&E Unit | |
| 15:30 – 16:00 | UNDP Country Office | **Ms. Anita**, UNDP Resident Representative in Uzbekistan | Exchange information |
| Desk Work | | | |

From Saturday April 17, 2010 until Monday April 19, 2010: making travel arrangements and inquiries, desk work at Hotel Tashkent, due to cancellation of the flight to Riga, Copenhagen, Dusseldorf, as a result of volcanic ashes in the air.

Tuesday night, flying from Tashkent to Istanbul, Turkey.

From Tuesday April 20, 2010 until Wednesday April 21, 2010; deskwork at Hotel Sky Kamer in Istanbul, due to no flight zones in Europe because of volcanic ashes in the air.

Thursday April 21, departure to the Netherlands.

N.B.

- The program for the first week materialised as planned but not the time schedule.
- During the second week, a number of changes were made but all persons planned were met except one non-Pilot farm visit that was exchange for a short visit to the district Akkurya.
- For the last two days, an outside translator, **Mr. Artur Ambartzumyan**, provided assistance.
- The draft report was submitted on 21st April as scheduled. The first feedback prepared by the project team reached the evaluator whithin one week while the concerned UNDP submitted theirs in about two weeks time.
- During the third week of May, the evaluator could find a slot to finalise her mission report.

## C. List of people met; Key issues exchanged/discussed[68]

1) **05-04, Monday; DAY ONE; MEETING with SSDLP team,** Mr. (Dr.) Abdurazzak Khujabekov, Project Manager (PM) (UNDP) and his team Mr. (Dr.) Aziz Rasulov, Ass. PM (UNDP); Mr. Moshie Katz Farm Mng Expert (Livestock expert of MASHAV); Mr. Abumalik Kertaev, Project Pilot Area Coord. (UNDP); Ms. Kamola Rasulova, Public Relation Specialist (UNDP)

   - Self introduction & Background (education, experiences, position in the team etc.)
   - His/her role in the project
   - How project came into existence; was formulated
   - Elaboration on start-up of the project
   - Background on recent history Uzbekistan
   - Intr. to setting of different farms (Dehkan, private etc.)
   - Functioning of the board (St. Com.)
   - Intr. to core project activities
   - Relationship: UNDP-MASHAV-MAWR (incl. contribution of each partner)
   - From surveys to books and booklets (assessment of livestock sector)

2) **05-04, Monday; DAY ONE; MEETING with National Programme Coordinator,** Mr. (Dr.) Abdumalik Namozov, **Assistant to Minister, MAWR**

   - Involved in Project from onset; contributed to design
   - Elaborating on Strengths/Achievements (7 issues)
   - Things which could improve (1 issue)
   - Dream / Vision regarding 'livestock sector in 10 yrs time'

3) **05-04, Monday; DAY ONE; MEETING with** Director of **Uzbek Veterinary Research Institute**, Mr. (Dr.) Sobir Mavlanov

   - Elaboration on role, function and activities of UVRI
   - Production of vaccines, drugs etc. ➔ income generating activity
   - Setting of research priorities (how it is done)
   - On-going work w.r.t. veterinary legislation
   - Importance of being exposed to new technologies, e.g. thermo stable vaccines. (Advised to visit site of GALVmed: http://www.galvmed.org/
   - Seminars organised by project (½ day theory, ½ practical)
   - Experiences with 2 batches of candidates who went to Israel for exposure/training
   - Post exposure/training initiatives of trainees
   - Narrating/discussing example of:
     - establishment of private station
     - on cross breeding; i.e. keeping 12.5 % local blood
     - susceptibility of Holstein Friesian w.r.t. tick born diseases

4) **05-04, Monday; DAY ONE; Meeting with** Chairman of the **Livestock Development Department of MAWR**, Mr. Bakhtiyar Salibaev

   - Relevance of mid-term evaluation

[68] Of the first week, most information collected was processed during the evening and thus presented in this annex. As time proceeded, less and less time could be allocated for daily processing of the notes. Therefore, of the last days no detailed reports are given. The people met, however, are also presented in the Itinerary VIII.B

- From '91 onwards various new legislations put in place
- 2006: two new legislations (No. 308, 842)➔ path breaking legislations
- Experiences as participant in annual and semi annual project meetings
- Views on pilot areas of the project
- How best to learn from the pilot areas; various lessons learnt (LL)
    - Most crucial LL: **'SHARING'** (horizontal and vertical exchange mechanism)
- Vision for Livestock Sector
- Tasks of private farms towards Dehkans
- Towards development of herd book
- Looking forward to objective evaluation

**5) 05-04, Monday; DAY ONE; MEETING with** Director of **Livestock Breeding Research Institute**, Mr. (Dr.) Murodilla Ashirov and **National Epidemiologist at Main State Veterinary Department / UN-FAO Transboundary Animal Diseases in Central Asian Countries**, Mr. (Dr.) Mukhiddin Eranov

- On-going work of Special Commission on development of herd book
- Importance of development of National Breeding Strategy (advanced stage); a comprehensive manual called 'Breeding Strategies for Sustainable Management of Animal Genetic Resources' is available at: http://www.fao.org/docrep/012/i1103e/i1103e00.htm (English); http://www.fao.org/docrep/012/i0770r/i0770r00.htm (Russia)
- Conservation and development of animal genetic resources; i.e. cattle breed *Bysher* (stable breed: mix *Bos indicus* and *Bos Taurus*); was initially in the project
- Popularity of *Bysher*:
    - High fat content in milk
    - Bulky bulls (meat value)
    - Resistant to tick born diseases
    - Cost efficient animal
    - Relative good milk producer
    - Can stay in the sun during hot season
    - Has degraded rapidly
    - Involvement of local administration in conservation and development
- Actions taken so far w.r.t. conservation and development of *Bysher* breed
- Functioning of board meetings
- When time is mature for up-grading of genetics; cross breeding
- Research showed that production depends on:
    - 60% nutrition; 20% management; 20% genetic make-up
- Past & present experiences with A.I.; future plans w.r.t. A.I.
- Proposal for breed conservation in place and submitted to Govt. Awaiting approval
- Not yet National Status of Animal Genetic Resources in place
- Key activities under UN-FAO Transboundary Animal Diseases
- Uzbekistan: Rinderpest free status as per 2008
- On-going work w.r.t. FMD, PPR
- Importance of having access to expertise of FAO Animal Production and Health Division; i.e. http://www.fao.org/AG/AGAINFO/home/en/index.htm
- What can be done to improve the access to FAO's
    - animal health: http://www.fao.org/AG/AGAINFO/themes/en/animal_health.html
    - animal genetic resources: http://www.fao.org/docrep/010/a1404r/a1404r00.htm
    - http://www.fao.org/AG/AGAINFO/themes/en/AnGR.html

  - animal breeding; i.e. see http://www.fao.org/AG/AGAINFO/resources/en/pubs_gen.html
- Importance of adequate legislation for animal identification

6) **06-04, Tuesday; DAY TWO; MEETING with Head of Environment and Energy, UNDP**, Mr. Abduvakkos Abdurahmanov, **Programme Specialist, UNDP E&E Unit**, Mr. Makhmud Shaumarov (he is focal point for SSDLS

- Smallholder farmers in Uzbekistan comprise about 80% of all farmers
- Background to initiating the mid-term evaluation
- 'Livestock' not a domain in which UNDP has a lot of experiences
- Where did the project start, where is it now
- Role of pilots:
  - its relevance;
  - how did it move to dairy development
  - Direction taken: the WHY; what is the strategy
- Project relatively young (2½ years); time to take stock as redirecting can be done if needed
- Key partners (MAWR, MASHAV, UNDP):
  - how is each partner performing
- Distinguishing technical versus development cooperation
- Potential to bring other donors on board; cooperation & synergies with others
- Role Board: advisory or decision making power; establishment of MoU on annual basis
  - Importance of Consensus seeking and arriving at mutual agreement

7) **06-04, Tuesday; DAY TWO; MEETING with** Chairman of '**Chorvanaslhizmat, LLC**' (leading company in bull semen distribution, Mr. (Dr.) Oktam Saidov

- Past situation w.r.t. bull semen production and distribution (State set-up)
- Resolution 308 of March 2006 opened doors for private semen import and distribution; i.e. enabling conductions such as no import duty but 1% processing fee, no VAT
- LLC was formed by former officers (retired as well as non-retired persons)
- LLC registration (district and municipality level)
- Tasks/Targets of LLC:
  - Genetic improvement (use of progeny tested semen)
  - To breed and raise sires in cattle breeding farm
  - Organisation of importing live sires
  - Capacity building
- Importance of having a National Breeding Strategy; issues as – animal identification, - progeny testing, - breeding objectives for different category of farmers, agro-ecological zones, etc
- Experiences with US-based company World Wide Sires (www.wwsires.com; criteria used for selecting bull semen; average import 20,000 straws per year; genetic potential of 13,000 – 24,000 litres of milk per 305 days lactation)
- Result w.r.t. first offspring of Holstein Friesian semen via WWS positive. Examples given namely: (conducive management and kept constant)
  - Mother Gadha: average 12 litres/day; daughter Masha: average 24 litres/day
  - Mother Almera: average 13 litres/day; daughter Diana: average 25 litres/day
- Experiences with other semen/live imports (Flechvieh, Brown Swiss, HF from Ukraine etc.); oriented towards dairying and not dual purpose (milk & meat)
- Negotiations with Israeli based company w.r.t. importation of Israeli bred HF semen; why it did not materialise

- 'Cooperate Social Responsibility' of LLC: not just making profits but also contributing to genetic improvement of Uzb. Livestock
- Whether LLC can make contribution to farming of Dekhkans
- Milk produced through mass production (limited number of farmers with high yielding cows) or masses of farmers produce milk through low yielding cows
- High input, high output dairy farms run by professionals versus low input, low output family farms
- **Hypothesises:**
    - 'Less cattle, more milk, less land needed'
    - 'As land and irrigation water are scare consider allocate arable land for food production and cash crop; non arable land for livestock production'
- Semen production, A.I., herd book management etc. (member based: one vote per member) cooperative based (reference to Netherlands)
- Dutch Ministry of Economic affairs programme to stimulate joint ventures between small/medium Dutch companies with company in the South/countries in transition; PSI: Private Sector Investment programme, info available at: http://www.evd.nl/business/programmes/programmaint_psi.asp?land=psi

**8) 06-04, Tuesday; DAY TWO, MEETING with** Professor, **Taskkent Institute of Irrigation and Melioration / Land Tenure Development Center**, Mr. (Prof.) Alexsandr S. Chertovitskiy and Director of **Land Tenure Development Center (LTDC**), Mr. (Dir.) Odil Akbarov

- Introduction to LTDC & shortly to 'Tempo Programme' which entails reform of water management education
- Type of assignments LTDC takes up; concerns an important income generating activity
- Assignment of 'SSDLS' concerned the assessment of the sector; policy brief and report produced within the given time limits
- Understanding the delays in publication of the 'Livestock Sector' book
- Main delay caused by waiting for the UNDP guidelines for publications, which was until recently under development (ready by January 2010)
- Areas in which they can provide specific services are: - land degradation issue, - land use efficiency, - water efficiency
- Finding of the assessment study such as:
    1. Current, average production around 1,600 litres of milk per cow per year
    2. Compared to earlier times, silage and concentrate feeding are lacking
    3. Abolishing of State Farms has relatively affected the livestock sector most

| **Arable land (mostly irrigated)** | **Grazing land** |
|---|---|
| - Stall feeding system<br>- Previously good fodder base; i.e. rotation system of wheat, Luzern and cotton, but got abandoned after independence,<br>- Currently, short fall in fodder is 50% (total needs as per present LUs)<br>- Compared to earlier times, silage and concentrate feeding are lacking<br>- Current, average production around 1,600 litres of milk per cow per year | - Mainly grazing based system<br>- Data less reliable but working with error margin<br>- Previously grazing strategy in place<br>- Currently, no system in place (no rotation, not respecting boundaries, many water points dysfunctional, pasture land around functional water points overgrazed)<br>- Thus, degradation of pasture land happening; 7-8 million hectare is already degraded and taken over by Forest Authorities or State Reserve of un-used land<br>- No authority to work on rehabilitation of range/pasture land<br>- Some initiatives (Uzbek environmental protection, which includes livestock-pasture) to work with all actors |

| | |
|---|---|
| | to prevent further degradation / rehabilitating degraded pasture land; - organisation of local people, - involvement of local government, technical departments, etc. 'Organisation of Dekhkans cattle grazing' |

**Hypothesis:**

A. **'where to invest'**
   - In arable land based private livestock farms?
   - In arable land based Dehkan farms?
   - In pasture based Farming/herding?

Depends on:
- What one wants to achieve? Poverty reduction or Higher Productivity
- In general a.) more implication in terms of poverty reduction,
- However, it also depends where one is; many areas b) group is poor
- Private investors (bankers, for instance), however, will only be interested in a) group

B. **'As land and irrigation water are scare consider allocate arable land for food production and cash crop; non arable land for livestock production';**
- the research paper 'Relaxing control over the cropping structure: the next step for land reform in Uzbekistan' might provide a partial answer

- For the National Economy, livestock is second most important contributor
- The project 'SSDLS' cannot solve all the problems; i.e. Govt. has big responsibility; project to set objectives and work towards it

9) **07-04, Wednesday; DAY THREE; VISITING PILOT FARM ONE:** Co-owner of Cattle Dairy Farm, Chinaz district, Mr. Abulkasim Ogillari and brothers (2)

- How he as Dehkhan
- family member got interested in dairying
- History of the farm; from Dehkhan to medium size dairy farm
- Difficulties experiences; - access to land for fodder production, - generating sufficient funds (vegetable gardening), - dealing with the bureaucracy/administration, - handling risks of making investments etc.
- Experiences with the project: - how it started, where it is currently; what worked, what did not work; - nutrition, - A.I./breeding, - housing, - fodder production, - fodder conservation (silage), - record keeping,
- From *Bysher* cattle herd towards cross-breeds plus pure Holstein Friesian animals,
- Introduction of artificial insemination; - initial enthusiasm (visit Israel), - adopting A.I. but keeping bull (alternating), - building up confidence, 100% A.I.
- Improving the housing step by step; what advise adopted from project, what not
- Receiving imported cows on lease; through local administration to those who grow cotton, automatic repayment through reduction of cotton income
- Improving the calf rearing; - during pre-weaning period feeding of concentrate and roughage
- Return to investment; i.e. indicator 'repayment soft credit 40 pregnant heifers took 4 years',
- Farming and entrepreneurship going hand in hand (task division among brother; NB all family members contribute)
- Visiting new housing: milking cows, young stock and heifers, calf rearing units, storage (fodder, feed, A.I. equipment), manure handling etc,

- Visiting home stead (Dehkan setting): - milk cooler (on lease), - young stock units, - arrangements with milk collection of about 10 -15 neighbouring Dehkan families (quality checks: density, cleanness, fat content, acidity; price margin for farmer 100 UZS/litre; i.e.
    - Farm gate price for Dehkan farmer: 800 UZS/ltr
    - Farm gate price for medium scale dairy farm: 900 UZS/ltr
    - Consumer price of one litre sterilised milk is ± 1,200, pasteurised milk ±1,000 fresh milk (from milk hawker) ±1,000
- Studying the advice service w.r.t. nutrition; monthly advice provided by project, data (reproduction, feeding) collection on monthly basis;
- Visiting fodder plot: Triticale (wheat/Ray), Oats, Barley, Fodder beans mix meant for silage making. Mix is formally recommended. Discussion:
    - Fodder beans cause buffer reaction in the silage and fodder ration is not lacking protein but much more energy; light drying of fodder mix prior to ensilaging therefore advised. In practice, the relevant farm machinery not in place, while risky concerning weather and therefore not done. Farmer is however happy with quality of his silage and says: 'my TMR is ready when I feed this silage'
    - Mono cropping of fodder wheat (triticale) advised by expert as percentage of grain would be better; barley, triticale and oats do not mature at same time, but provide large biomass; it might also spread the risks (in line with weather situation, one can be assured that at least one grain specie will do well
- Enjoyed a farm lunch at their extended family premise

**10) 07-04, Wednesday; DAY THREE; VISITING PILOT FARM TWO:** Cattle Dairy Farm (3 brothers), Family Yulduz

- Ex-Kolkhoz farm; 200 milking cows, young stock as well as sheep
- Started in 2007; task division among the three brothers: interaction with the one in charge of the overall management
- Source of capital invested: 30% family capital, 70% outside investors
- Impressive set of building; new sheds are however established
- Animals imported from Austria; i.e. farmer visited an exhibition (2008) and was attracted by Flechvieh. His brothers were not in favour when he proposed purchase of this dual-purpose dairy breed. More information was collected and finally decided to import 75 Flechvieh head and 20 HF. Flechvieh: slightly less milk (but also feeding much less concentrate), but longevity (life expectancy) is impressive, hardier animal (less susceptible for diseases etc.)
- Interaction with project and its benefits:
    - Balanced nutrition (less or more Lucerne etc)
    - Lately advice w.r.t. minerals and vitamins appreciated
    - Milk production did increase with 2-3 litres on average; however, it is due to a range of measures taken namely feeding, selection of animals etc
    - Introduced record keeping (reproduction, feed rations); all costs can be recorded and analysed over three years within the next three years. In short, difficult to obtain basic insight in cost – benefit ratio, but also the case on previous farm
    - On-going discussion regarding model of new cow shed (free stall system –cubicles- or open system –no cubicles-)
- Insemination of one cow took place in clean and quiet environment
- As it was milking time, the milking parlour could be visited; 2 x 8 cows milked with one milking caretaker at each site; i.e. one experienced female and one male caretaker;
    - Female milking caretaker very experienced in early mastitis detection as well as observing the cow/timely recognising problems/signs (in heat signs, for instance)

  - Via cow tags, the milk production per cow is automatic recorded and directly visible on the computer screen
  - In general, women care for the milking. Previous farm payment per litre milk milked and fixed number of cows. On this farm, fixed salary is paid
- Short and long term plans: - new cow shed planned for 2010; long term: - processing milk and beef on the farm

**11) 07-04, Wednesday; DAY THREE; VISITING PILOT FARM THREE:** Mr. Babajan Kalikulov, General manager of 'Khojakent' cattle dairy farm (company set-up including two other farms)

- Opportunity to study the record keeping namely
  - individual cow cards (reproduction data), inseminators diary, nutrition recording sheet kept and used at farm level
  - nutrition advisory sheet (data on ration fed versus ration advised plus written advice) on monthly basis
  - information booklet on nutrition and its use (two others interested have copied it; appreciated as it is written in user friendly manner)
  - Calving intervals and conception rates are calculated on herd – and not on individual cow basis
  - Data are recorded in orderly manner
- History of the farm: - started with import of 100 HFs from the Netherlands, - objective of the farm is to arrive at a stable well adapted herd; i.e. range of problems experienced such as:
  - Severe hoof problems
  - Severe mastitis problems
  - High death rate due to tick born disease Theileriosis
    - Currently, the herd is in good condition and overall health situation under control
- Cooperation with project regarding A.I., nutrition and cow comfort have been beneficial; almost all advice has been adopted
- Occasion for discussion on sustainability; i.e.
  - If project were no long in place, how would the current livestock delivery service (A.I., nutrition and cow comfort) be sustained?
    - Should the Government deliver these services
    - Would farmers be capable, willing and interested to organise themselves to organise themselves into a cooperative/association and ensure these services
    - Is a company set-up along the lines of LCC (see No. 7) desirable/feasible
    - Where are the relevant specialists active during pre-'91 period; i.e. expertise and know how was present

**12) 08-04, Thursday; DAY FOUR, MEETING with** Mr. Kodir Bobojonov, Interim project coordinator / Technical Advisor; Enhancement of Living Standards Programme (ELS)/

- Introduction to the programme:
  - ELS financed by EU and implemented by UNDP
  - It forms part of the Area based Development Programme (ABD) of UNDP
  - ABD operates in Karakalpakstan, Kashkadarya and Tashkent regions, while ELS focuses in the 3 regions of the Fergana Valley
  - ELS works with regional authorities to improve regional planning and test concrete actions to improve people's access to services in communities; the programme helps communities to come together and rehabilitate basic infrastructure and provide access to microfinance

  - The philosophy of the project is to tap on locally available resources to improve living standards in a way that people can fell, touch and see
- Three components are present, namely:
  1. improved capacity for local development planning
  2. support to communities to set up self-help schemes for improved access to basic services
  3. support to income generation, microfinance and job creation with focus on agriculture and demonstration of appropriate local technologies that can provide an alternative to existing centralized services and small business opportunities
- The approach is **participative** starting facilitating people to identifying the strengths and needs and search for appropriate solutions;
- Concepts as: - **self –reliance**, - **problem solving attitude** and – **avoiding one-size fit all approach** are key ingredients of the programme
- Cooperation between ELS/ABD – SSDLS started along informal lines as early as 2007 and was formalised as per MoU signed early 2010,
- Through a careful selection process 14 persons (all men) went to Israel to a course on General Dairy Production; post-course follow-up provided, but too early to indentify clear follow up actions; 1 person, however, who operates a veterinary centre bought already semen to up-grade the local genetic dairy potential
- Further, different persons participate in the relevant capacity building activities of SSDLS; topics related to nutrition, A.I. etc
- Although dairy cows (50) were distributed to vulnerable households, the experiences were not positive as it created uneasiness in the community; i.e. why does household A receive a cow and not household B. It also turns out that small ruminants are more popular among the vulnerable households
- Relevant draft extension materials (e.g. animal health) are exchanges for comments; idem w.r.t. business plans related to livestock product marketing

- Discussing relevance of SSDLS through probing and questioning;

1. **Smallholder: low input, low output system; Medium-Large scale Dairy farms: high input, high output**
   - 95% of milk produced by smallholder households (Dehkan set-up mainly)
   - SSDLS focuses on maximising dairy production through high input, high output approach (maximising yield per cow); piloting on medium-large scale dairy farms
     - ⇨ What is the link between these two
     - ⇨ What is the cost price of one litre of milk produced by smallholder compared to medium-large scale dairy farm

2. **Smallholder farmer feeds his/her animals through straw, bran and tethering (roadside grazing) – M/L scale farm through fodder production (high yielding fodder crops grown on irrigated arable land )**
   - What is wrong with a vulnerable household obtaining milk through using by-product (straw/bran) and road side grass (tethering based system); is he/she not the most competitive?
   - Smallholders and not m/l scale dairy farms have managed recent Milk production increases!

3. **Maximising versus optimising smallholder dairying**
   - What is desirable
   - As economists, have calculations been done

- Regarding sustainable family farming, what would be best

Comments/Exchanges:

- There are regional difference; in some areas grazing areas available, in others not at all;
- Many households cannot effort to buy fodder and therefore cannot effort to keep a dairy cow
- Not everybody in the community needs a cow; important is that sufficient milk is produced in a locality so that all households have access to fresh milk
- Vulnerable groups tend to be more interested in small stock (sheep and goats); i.e. micro credits under ELS/ABD are used for it and not for dairy cows
- MDGs are well integrated in ELS/ABD but on really on the agenda of SSDLS; thus, reasoning is different between the two projects

**Importance of extension service:**

- Due to pre '91 conditions where extension services were not present neither needed, there is no tradition that Govt provide agriculture and livestock related extension services
- In ELS/ABD, component 1 might provide space for developing such services
- how can SSDLS be sustained when there are no extension service mechanism; smallholders will always be in need of such service, while m/l scale farmers have sufficient means to obtain the information needed
- could cooperation between ELS/ABD – SSDLS lead to facilitating appropriate extension services whereby taking component 1 as the entry point. Both parties perceive it as a most important initiative as currently sustaining services created under the SSDLS cannot be sustained

13) **09-04, Friday; DAY FIVE; not documented**

14) **10-04, Saturday; DAY SIX; not documented**

15) **11-04, Sunday, DAY SEVEN; not documented**

16) **12-04, Monday, DAY EIGHT, interactions with Mr. Kodir Bobojonov,** Technical Advisor, Enhancement of Living Standards Programme[69]; **not documented**

17) **12-04, Monday, DAY EIGHT, interactions with Ms. Irina M. Bekmirzaeva,** Project Manager, and Mr. Marc Anstegl, part time international advisor, Achieving ecosystem stability on degraded land in Karakalpakstan and the Kyzylkum Desert[70]; **not documented**

18) **12-04, Monday, DAY EIGHT, short visit to Private Vet Station 'Ozod Chorus Services', Akkurgen district;** interaction with assistant Head of veterinary service and private veterinarian Mr. Dybek Farmonov; **not documented**

19) **13-04, Tuesday, DAY NINE**, **meeting the Embassy of Israel**; His Excellency Ambassador Mr. Hillel Newman, First Secretary and Consul, Mr. Moar Zrahyahu, Director Projects & Special Assignments[71], Mr. Daniel Werner, Coordinator of **'MASHAV'**[72], Division of International Cooperation, Mr. Gonchar Sergey, Livestock expert of SSDLS, Mr. Moshe Katz
After a short welcoming and introduction, the evaluator was given the opportunity to share her observations and bring up issues for discussions. Expressing his appreciation and providing comments/advice on the items brought up for discussion, His Excellency Ambassador, kindly

[69] Funded by EU, Implemented by UNDP; Web: www.els.uz
[70] Project of the SLM, Main Department of Forestry of the Republic of Uzbekistan; web: http://wwwforestry.uz/simproject
[71] Web: http://www.cinadco.moag.gov.il ; http://www.moag.gov.i
[72] Web: http://tashkent.mfa.gov.il

requested the group to openly discuss and search for possible improvements / relevant redirecting of SSDLS as the tripartite partnership is highly appreciated.
The remaining part of the morning was spent accordingly. Key issues discussed were:

- previous MASHAV experiences in investing in a pilot Livestock Farm (Cattle Dairy Farm 'Milk Agro') –it concerned investing in hard ware and thus the lesson learnt has been to concentrate on soft ware as is the case with SSDLS; other experiences in working in Uzbekistan and how important it is to adjust to conditions of Uzbekistan,
- background on why 'dairying' is the current focus of the SSDLS; handing over of relevant references/documents reflecting the dialogues and discussions which took place in 2006 as part of preparing SSLDS,
- moderate performance of some of the pilot farms; what works, what not and why not,
- relationships and communication among the three partners (MASHAV, UNDP, MAWR) and the interest of each partner; possible areas of improvements,
- importance of capacity building and production of publications,
- relevance of current pilot farms in the context of smallholder farms keeping 2-3 cows,
- making better use of the international livestock expert; he too needs new challenges,
- feasibility of investing in developing smallholder dairy farming packages
- support versus engagements of MAWR; how to engage them more
- importance of investing in female farmers as they are the key dairy cow managers on smallholder farms

**20) 14-04, Wednesday, DAY TWELVE = not documented**
**21) 15-04, Thursday, DAY THIRTEEN =- not documented**
**22) 16-04, Friday, DAY FOURTEEN = not documented**

## D. List of documents reviewed

### 1. Project related documents

**MASHAV, CINADCO, 2007**. 'Uzbekistan, Sustainable Livestock Sector Development', mission report submitted by Mr. Zevi Lerman (Faculty of Agriculture, The Hebrew University), Mr. David Ran-Radnitz (MASHAV, Ministry of Foreign Affairs), Mr. Zvi Roth (Faculty of Agriculture, The Hebrew University), Mr. Daniel Werner (Director of Projects and Special Assignments, CINANDCO)

**MASHAV, CINADCO, 2009**. 'Uzbekistan, Dairy Farm Planning and Design Mission to Tashkent and Samarkand'; mission report submitted by Eng. Ronen Feigenbaum, Dairy Farms Designer Specialist, June 2009.

**MASHAV, CINADCO, 2009**. 'Uzbekistan, Sustainable Livestock Sector Development, Nutrition, Management and Forage Growth Aspects'; mission report submitted by Dr. Ran Salomon, Head of Cattle Husbandry Department, Extension Service, MOARD, Dr. Efraim Zukerman, Head of Field Crops Department, Extension Service, MOARD, Mr. Daniel Werner, Director of Projects and Special Assignments, CINANDCO June 2009.

**MASHAV, CINADCO, 2009**. 'Uzbekistan, Sustainable Livestock Sector Development Project – intermediate evaluation and status report', submitted by Eng. Daniel Werner, Director of Projects and Special Assignments, CINANDCO, June 2009.

**MASHAV, CINADCO, 2009**. 'Uzbekistan, Sustainable Livestock Sector Development, Nutrition, Management and Forage Growth Aspects'; mission report submitted by Dr. Ran Salomon, Head of Cattle Husbandry Department, Extension Service, MOARD, Dr. Efraim Zukerman, Head of Field Crops Department, Extension Service, MOARD, Mr. Daniel Werner, Director of Projects and Special Assignments, CINANDCO June 2009.

**MAWR, UNDP, MASHAV, 2010**. 'Recommendations on Artificial Insemination in Cattle'. [73]

**Moshe Katz, March 2010, 'Materials and document by Moshe Katz M.Sc.Agr, MASHAV ISRAEL' Electronic version, for the evaluator of UNDP livestock project.**

| Kind | № | File name | Description |
|---|---|---|---|
| PPT | 1-4 | Steering Committees | 4 PPT files 4 steering committees |
| PPT | 5 | Dairy Industry in Israel - Yusi Malul | It's not presented yet. |
| PPT | 6 | Herd Book & Breeding | Presented in seminar |
| PPT | 7 | Israel | For 28 peoples went to course in Israel Aug 2009. |
| PPT | 8 | Management Dairy Farm | Presented in seminar |
| PPT | 9 | Metabolic Diseases | Presented in seminar |
| PPT | 10 | Nutrition | Main principals in dairy cows' nutrition. Presented in 3 seminars |
| PPT | 11 | Silage and Hay Principals _Eng | Presented in 2 seminars |
| W | 1 | AI Formation | Suggestion for how to organize AI formation in the project farms |
| W | 2 | AI Mission summary Nov 08 | Summary of the AI Mission by SION Company in Uzbekistan in November, 2008 |
| W | 3 | AI practical recomm to farm | AI (Artificial Insemination) practical recommendation for dairy farm |
| W | 4 | AI Seminar Dani summary EN | Summary of the SION/MASHAV mission for AI seminar in Uzbekistan |
| W | 5 | Animator | Measuring belt for determining the weight of cattle |
| W | 6 | Artificial Insemination in Dairy Cattle_eng_brochure | AI brochure |
| W | 7 | Avner_Shoham_Report_UNDP_Livestock | Final report of Dr Avner Shoham's Mission to the UNDP Livestock Project Pilot Areas From November 16 through November 30, 2009 |
| W | 8 | CINADCO course final report | evaluation of mashav-cinadco training activities in Israel |
| W | 9 | Comments1 to 2010 farm data | Comments for monthly report in Excel file: 2010 farm data monthly for Jan 2010 |
| W | 10 | Comments no. 2 to 2010 farm data | Comments for monthly report in Excel file: 2010 farm data monthly for Feb 2010 |

[73] A kind of booklet covering the Artificial Insemination technique in general and importance of heat detection in particular; pregnancy check (pregnancy diagnoses) is also covered.

| | | | |
|---|---|---|---|
| W | 11 | Course Principles of Dairy Industry | Course Planning proposed by Moshe Katz |
| W | 12 | Cow Standard Ration in Uzbekistan | **Very important file**: Recommended Standard Ration for Milking Cow in Intensive dairy farms |
| W | 13 | Criterions to New Farms in the Project | Criterions to add new dairy farm to UNDP Livestock Project. |
| W | 14 | Data for ration | Form to collect data from the farms |
| W | 15 | dehkhans farmer relations | Plan to construct relationship Between private farmers and dekhkan farmers |
| W | 16 | DM Checking practically | Summery of checking DM in forage by micro wave oven at home conditions. |
| W | 17 | Equipment justification | Professional Explanations For equipments for dairy industry |
| W | 18 | Farm Card Hojakent | Explanation about Hojakent farm |
| W | 19 | Farm Card Yulduz | Explanation about Yulduz farm |
| W | 20 | Farm Manager Meeting | Cooperation Level Between the Farm and the Project |
| W | 21 | Forage harvesting spring 2010 | Instructions for forage harvesting, spring 2010 Important rules to produce good quality silage and hay. |
| W | 22 | Inbreeding | Explanation about dangerous of inbreeding |
| W | 23 | List of Israeli Missions 2009 | List of Missions in the framework of UNDP Livestock project in cooperation with the MASHAV program For 2009 |
| W | 24 | Livestock project report | Report on Pilot Area Activities September, 2008 – May, 2009 |
| W | 25 | Management of Dairy Farm | Work page for the dairy farmer: Economic management of Dairy Farm |
| W | 26 | Meeting with ambassador | Subjects for meeting with Ambassador of Israel in Uzbekistan |
| W | 27 | metabolic body size | Explanation Page |
| W | 28 | microwave % DM 2 | Explanation how to check DM in forage by micro wave oven at home conditions. |
| W | 29 | Mission completed | Summary of The AI Israeli mission - Nov 09 |
| W | 30 | NDF ADF explanation | Van Soest System for forage evaluation. |
| W | 31 | Nutrition Brochure draft 1 | Based on the PPT file Nutrition |
| W | 32 | Nutrition for journal | Based on the PPT files Nutrition & Silage and Hay Principals |
| W | 33 | Pregnancy Check | Explanation Page |
| W | 34 | Recommendations for Asia Milk Product | Nutrition recommendations |
| W | 35 | Recommendations to Abulkasim | Nutrition recommendations |
| W | 36 | Recommendations to Abulkasim 3 | Nutrition recommendations |
| W | 37 | Recommendations to Asia 2 | Nutrition recommendations |
| W | 38 | Recommendations to Hojakent | Nutrition recommendations |
| W | 39 | Recommendations to Hojakent 2 | Nutrition recommendations |
| W | 40 | Recommendations to Jamol | Nutrition recommendations |
| W | 41 | Recommendations to Yulduz | Nutrition recommendations |
| W | 42 | Report 09 Analysis | Comments for monthly report in Excel file: 2009 farm data monthly for July 2009 |
| W | 43 | Report MosheKatz[1] | Report on activities rendered Moshe Katz, Long-term Israeli Livestock Expert of the UNDP/MASHAV/MAWR Project "Support to Sustainable Development of the Livestock Sector in Uzbekistan in August-December 2008 |
| W | 44 | Seed rotation table | |
| W | 45 | Sowing Autumn 2009 | Brief recommendations for sowings in period of autumn. By Efraim Zuckerman, Ph.D. Translated form Hebrew by Moshe Katz |
| W | 46 | Subjects to 3 years plan | Subjects to study and deal with on three years plan livestock project in Uzbekistan |
| W | 46 | to UNDP report 1 | Report from M.Sc.Agr. Moshe Katz Israeli expert. |

| | | | |
|---|---|---|---|
| | | | About his activities in UNDP livestock project.<br>The report for period September 2009 – February 2010 |
| W | 47 | Visit in pilot farms | Visit plan in the pilot farms in week Mon – Fri, November 2 – 6, 2009 |
| W | 48 | Vitamins Explanation | Explanation Page |
| W | 49 | Working plan 2010 Moshe Katz | Working plan 12 month year 2010 for Moshe Katz |
| W | 50 | Working Plan with farm in pilot area | Working Plan with farms in pilot area. Written on Sep 2008 |
| Exc | 1 | Milk per Country Comparison | Countries Comparison<br>Milk yield per cow per standard lactation (305 days). |
| Exc | 2 | Cattel Insurance | Calculation for disaster insurance to the herd with 1106 heads of cattle |
| Exc | 3 | Forage Consumption Calc | Calculation model – for Hojakent farm |
| Exc | 4 | farms data base EN+UZ | First data that collected from the farm Sep, Oct 2008 |
| Exc | 5 | Standard Ration | |
| Exc | 6 | Monthly working plan | Moshe Katz Activities and Visits in Pilot farms on monthly base. |
| Exc | 7 | Abulkasim Ration | Nutrition analyzing on monthly base. |
| Exc | 8 | Hojakent Ration | Nutrition analyzing on monthly base |
| Exc | 9 | Jamol Milk and Ration | Nutrition analyzing on monthly base |
| Exc | 10 | asia farm ration | Nutrition analyzing on monthly base |
| Exc | 11 | 2010 Farm Data Monthly | Data for 5 farms in Livestock Project in Uzbekistan, on monthly base |
| Exc | 12 | 2009 Farm Data Monthly | Data for 5 farms in Livestock Project in Uzbekistan, on monthly base |
| Exc | 13 | Gavish Criteria | Basic Values to GAVISH RATIONALL for many types of milking cows |
| Exc | 14 | Jamol Farm Schematic plan | |
| Exc | 15 | WENDE NDF ADF | Explanation about scientific nutrition checks |
| Exc | 16 | Heifers Measurement English | |
| Exc | 17 | Milk Calcultion | Profit calculation per cow |
| Exc | 18 | | Formulas to calculate DM consumption per cow |
| Exc | 19 | DM checking | Results of forage DM checked by Moshe Katz. |
| Exc | 20 | Lab Results Smoler Elena Poultry | Results of forage checking in Israeli lab and Uzbek lab. |
| Exc | 21 | Inseminations Diary | Form for AI writing down |
| Exc | 22 | Seed Rotation Jamol | |
| Exc | 23 | Yulduz Ration | Nutrition analyzing |
| Exc | 24 | Equipment Distribution | Equipment Distribution For Pilot Farms According To Allocation of Additional Funds Request From UNDP CO. |
| Exc | 25 | Premix Vit&Min | Pre-mix (Biomix Burenka) needs for pilot farms amounts and costs |
| Exc | 26 | 3 Years plan | Development plan of the project "Support to sustainable development of livestock in Uzbekistan" for the years 2009 through 2011. |
| Exc | 27 | schedule plan | Schedule to working plan with farms in pilot area. Sep – Dec 2008 |
| PDF | 1-3 | Engineer Ronen Figenbaum | modular dairy farm 1- 3 Model |
| PDF | 4 | anatomy_reproductive tract!!!!! | Presentation from SION comp. ISRAEL |
| PDF | 5 | Milking routine Irena | Poster: show how to apply routine of hygienic milking. |
| PDF | 6 | water tool | Technical plan |
| PDF | 7 | Yoks | Technical plan |

**SSDLS**, **14.04.2010**. PPP, Fodder Preservation.

**SSDLS**, **28.01.2010**. Annual Plan of Activities for 2010.

**SSDLS**, ABD, **10.03.2010**. Memorandum of Understanding aiming at providing a framework of cooperation and facilitate the collaboration between the Parties, on a non-exclusive basis for establishment of veterinary

points in Kashkadarya region. [74]
**UNDP**, **17.08.2006**. Minutes, Local Program Advisory Committee for Support to the Sustainable Livestock Development in Uzbekistan Project.[75]
**UNDP**, **20.12.2006**. Minutes, Local Program Advisory Committee for Support to the Sustainable Livestock Development in Uzbekistan Project.[76]
**UNDP, 2007** (?[77]). 'Support for the Sustainable Development of Livestock Sector in Uzbekistan', UNDP Project Document, Government of the Republic of Uzbekistan, United Nationals Development Program, proposal Number: 00046196, Project Number: 00054878.
**UNDP**, **2007.** Annual Review Report (ARR),[78]
**UNDP, 2008**. 'Sustainable Development of the Livestock Sector in Uzbekistan: Status and Policy Recommendations. Policy Brief. Author: Zvi Lerman.
**UNDP, MASHAV, 2007.** Memorandum of Understanding to provide framework for cooperation and facilitate collaboration between the Parties (UNDP, MASHAV), on a non exclusive basis, within the UNDP project 'Support to Government of Uzbekistan on Sustainable Development of Livestock Sector'.[79]
**UNDP, MASHAV, 2009.** Memorandum of Understanding to provide framework for cooperation and facilitate collaboration between the Parties (UNDP, MASHAV), on a non exclusive basis, within the UNDP project 'Support to Government of Uzbekistan on Sustainable Development of Livestock Sector'.[80]
**UNDP, MASHAV, MAWR**, **18.12.2009**. MoU covering the tripartite partnership for 2010[81].

## 2. Non Project related documents

**ABD-ELS, 2010**. EU-UNDP Enhancement of Living standards and UNDP Area Based Development, **Brief description of farmers' cooperatives**, January 2010. Available at: http://www.els.uz/images/stories/doc/ab/Farmers%20cooperatives.pdf?phpMyAdmin=a5bd3c58360777e2e747e9c966d8d906&phpMyAdmin=4beabd1a6b1aa7db0d9f6f8f3f0073ca

**Aleksandr Chertovitsky, Odil Akbarov, Yerbol Yahshilikov, 2007**. 'Relaxing control over the cropping structure: the next step for land reform in Uzbekistan' Paper prepared for presentation at the joint IAAE-104th EAAE Seminar Agriculture Economics: "What was expected, what we observed, the lessons learned", Corvinus University of Budapest (CUB), Budapest, Hungary. September 6-8, 2007.

[74] Key of the MoU is: - increase communities' equitable access to rural development services and business opportunities and – facilitate increase of efficiency of livestock production through establishment of service centers (A.I. and veterinary services).
[75] Minutes reflect expected intentions of the project. The project reality in 2010 is rather different.
[76] Minutes reflect that MAWRS will be the implementation agency, while a project consultative group will be established. Advise given concerns – work with existing infrastructures (e.g. ChorvaNaslhizmat), - training centers, - criteria for selecting pilot sites.
[77] No date indicated, but assumption is the year 2007.
[78] Indicates that legal and institutional base of livestock sector of Uzbekistan is studied. No evidence on this can be found in 2010. Website and Domain name ("livestock.uz" created. Latter is functioning, former not.
[79] Terms of Agreement cover four areas namely: - long term expert assignment (provision of Israeli livestock specialist), - training (conducting courses in Israel and in Uzbekistan), - procurement of semen (from Israeli company Sion or other company as recommended by MASHAV) and equipment from Israel.
[80] Terms of Agreement cover four areas namely: - long term expert assignment (provision of Israeli dairy specialist), - training (conducting courses in Israel for livestock specialists and veterinarians from Uzbekistan; upon return, course participants shall serve as local leaders/trainers and provide their services to the established extension service Uzbekistan), - procurement of semen (from Israeli company Sion or other company as recommended by MASHAV) and equipment (supporting tools and equipments for the maintenance of the semen).
[81] The terms of agreement cover five areas namely: - longer term expert assignment (one year plus possible extension), - training (conducting Trainers of Trainer training in Israel, Trainees provide thereafter their training services to the established extension service in Uzbekistan), - genetic materials and equipment (concerns procurement of genetic materials and equipments for livestock), - short term experts on livestock (as per project demand, provision of Israeli livestock expertise), - preparation of institutional changes (recommendations for amending current laws/regulations and preparations of new draft laws regarding transformation of the livestock sector of Uzbekistan).

**FAO, 2007**. Sub regional Report on Animal Genetic Resources: Central Asia. Annex to *The State of the World's Animal Genetic Resources for Food and Agriculture, Rome.* Available at: http://www.fao.org/ag/

**IFPRI, 2000**. Food policy reforms in Central Asia: setting the research priorities. Edited by: Suresh Babu and Alisher Tashmatov, Washington DC, USA.

**Mekhlis Suleimenov, 2001.** 'Trends in Feed and Livestock Production during the Transition Period in Three Central Asian Countries' in Suresh Babu et al (eds), 2001, Food Policy Reforms in Setting the Research Priorities. Available at: http://www.fao.org/ag/

**Mukhiddin Makhmudovich, 2001**. Country Pasture/Forage Resource Profiles, Uzbekistan. Available at: http://www.fao.org/ag/agP/AGPC/doc/Counprof/Uzbekistan/uzbekistan.htm

**Suresh Babu and Alisher Tashmatov (eds), 2000**. 'Food Policy Reforms in Central Asia: Setting the Research Priorities', International Food Policy Research Institute, Washington, D.C. [Chapter 6: Rangelands and Livestock Systems in Central Asia: Policy Research Needs, by PETER ORAM, page 71; chapter 7: Trends in Feed and Livestock Production during the Transition Period in Three Central Asian Countries by Mekhlis Suleimenov, page 91

**UNDP 2009**. Handbook on planning, monitoring and evaluating for development results, United Nations Development Programme[82].

**UNDP 2009**. Handbook on planning, monitoring and evaluating for development results, United Nations Development Programme[83].

**UNDP, 2003**. Uzbekistan, Common Country Assessment – United Nations – 2003.[84]

**UNDP, 2005.** Uzbekistan, United Nations Development Assistance Framework – 2005-2009.[85]

**UNDP, 2010.** Food security in Uzbekistan. Authors: Dosbergen Musaev (Earasia, Tashkent, Uzbekistan, Yordol Yakhshilikov (IFPRI, Washing DC, US), Kakhramon Yusupov (Westminster International University in Tashkent, Uzbekistan).[86]

**World Bank, 2010**. Country Brief Uzbekistan. Available at: http://www.worldbank.org.uz

**WISP, GEF, IUCN, UNDP, 2006**. Review of the literature on Pastoral Economics and Marketing: Central Asia, China, Mongolia and Siberia. Report prepared for the World Initiative for Sustainable Pastoralism, IUCN EARO by Carol Kerven, Odessa Centre Ltd., UK 2006.

[82] The Handbook aims to support UNDP in becoming more result-oriented and to improve its focus on development changes and real improvements in people's lives. It replaces and updates the previous Handbook from 2002.

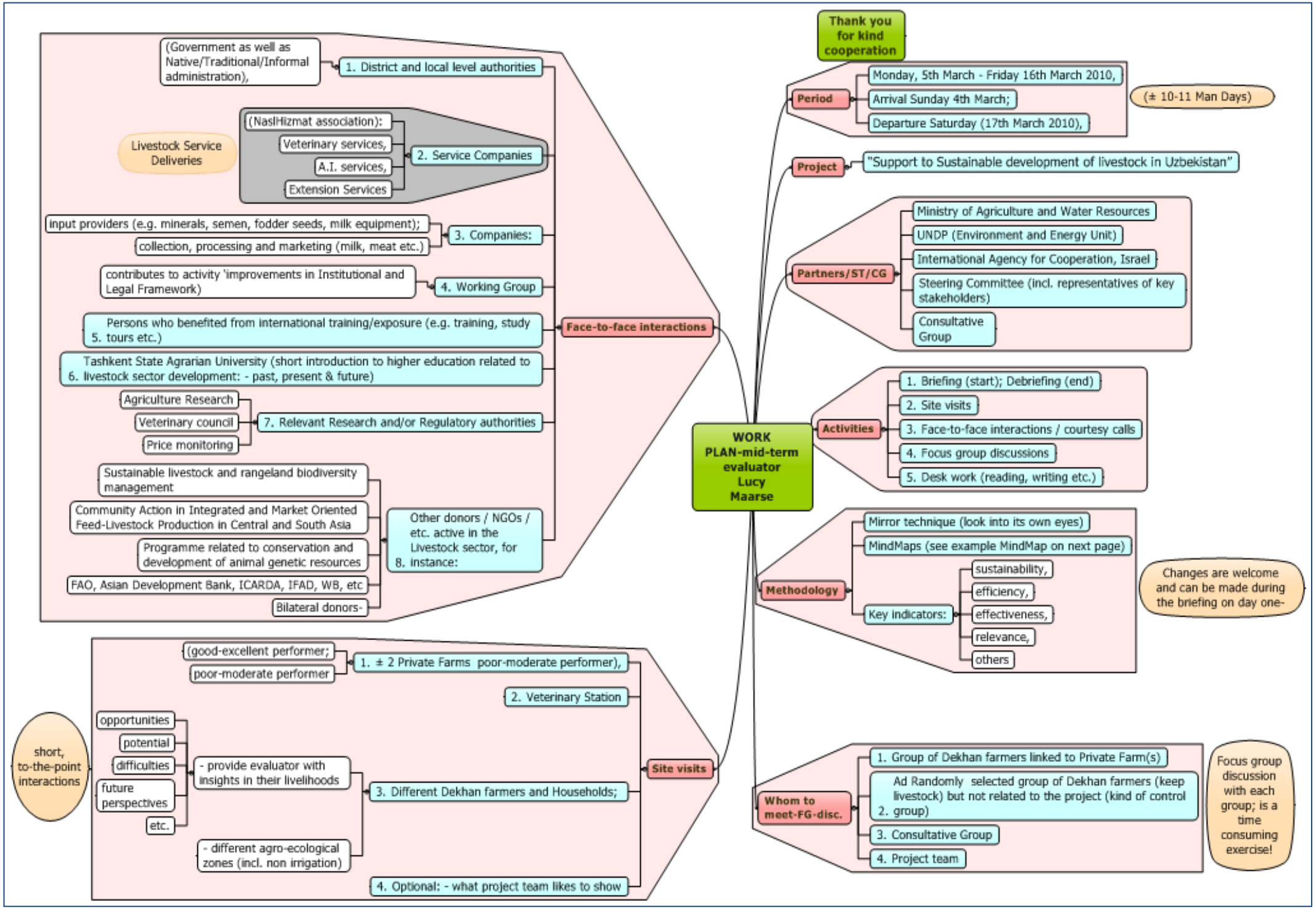
[83] The Handbook aims to support UNDP in becoming more result-oriented and to improve its focus on development changes and real improvements in people's lives. It replaces and updates the previous Handbook from 2002.

[84] Presents outcome of analyzing the key development issues of the country in relation to the progress made in achieving the national priorities. The CCA shows that the key development challenges facing Uzbekistan are inextricably linked with governance structures and institutional capacities.

[85] Covers the business plan of the UN country team for the period 2005-2009 and provides a framework for the UN reform at the country level to ensure coordinated and coherent programming, which is aligned with the MDGs and the national priorities of Uzbekistan.

[86]The publication highlights the importance of food security and initiates a discussion concerning this issue in Uzbekistan. Official statistics and comprehensive household survey data are used to assess the supply of and demand for food. Food security (defining), Food availability and Food Consumption are analyzed and lessons learnt/experiences of other countries highlighted. 'Diversifying agricultural production and adjusting the current wheat-dominated production policy' is emphasized. Livestock and livestock products receive considerable attention; i.e. the percentage change from 1995 to 2006 for meat is 33.5, for milk 32.5 and eggs 72.7. For the same period, vegetables, potatoes, melons and fruits showed a change of respectively 57.6, 132, 57.6 and 96.3 percent. *Dehkan* (smallholders) enterprises dominate Uzbekistan's livestock sector, producing up **to 90% of its output**. Comparing the annual per capacity consumption (apcc) recommendations, as provided by Ministry of Health, with regard to milk, meat and eggs versus production (year 2006), a considerable gap exists for meat and eggs, but not for milk. For **meat** it concerns a shortfall of 10.6 kg/apcc (recommended apcc: 46.1 kg, while production was 25.5 kg/apcc), and for **eggs** 115.2 pieces/apcc (recommended apcc: 295, produced 79.8 apcc). **Milk** (recommended apcc: 156.3 kg, produced: 182.1 kg) however shows a surplus of 25.8 liter/apcc.

| E. | WORKPLAN | | |
|---|---|---|---|
| **WORKPLAN** | | mid-term evaluator Lucy Maarse | |
| **Period** | | Monday, 5th March – Friday 16th March 2010, (± 10-11 Man Days)<br>Arrival Sunday 4th March; Departure Saturday (17th March 2010), | |
| **Project** | | "Support to Sustainable development of livestock in Uzbekistan" | |
| **Partners** | | - Ministry of Agriculture and Water Resources<br>- UNDP (Environment and Energy Unit)<br>- International Agency for Cooperation, Israel | |
| | | - Steering Committee (incl. representatives of key stakeholders)<br>- Consultative Group (representing key stakeholders) | |
| **Activities** | | - Briefing (start); Debriefing (end)<br>- Site visits<br>- Face-to-face interactions / courtesy calls | - Focus group discussions<br>- Desk work (reading, writing etc.) |
| **Whom to meet** | **FG-disc.** | - Group of Dehkan farmers linked to Private Farm(s)<br>- Ad Randomly selected group of Dehkan farmers (keep livestock) but not related to the project (kind of control group)<br>- Consultative Group<br>- Project team | - **Focus group discussion** with each group; is a time consuming exercise! |
| | **Site visits** | - ± 2 Private Farms (good-excellent performer; poor-moderate performer),<br>- Veterinary Station<br>- Different Dehkan farmers and Households; - provide evaluator with insights in their livelihoods (problems, opportunities, etc.)<br>- Optional: - what project team likes to show | - **Site visits** (provide adequate time) |
| | **Face-to-face** | - <u>District and local level authorities</u> (Government as well as Native/Traditional/Informal administration),<br>- <u>Service Companies</u> (NaslHizmat association): veterinary services, A.I. services, Extension Services etc;<br>- <u>Companies:</u> input providers (e.g. minerals, semen, fodder seeds, milk equipment); collection, processing and marketing (milk, meat etc.) | - **Courtesy call/face-to-face interactions** (short, to-the-point interactions) |
| | | - <u>Working Group</u> (contributes to activity 'improvements in Institutional and Legal Framework) | |
| | | - <u>Persons</u> who benefitted from international training/exposure (e.g. training, study tours etc.) | |
| | | - <u>Tashkent State Agrarian University</u> (short introduction to higher education related to livestock sector development: - past, present & future)<br>- Relevant Research and/or Regulatory authorities | |
| | | - <u>Other donors / NGOs / etc.</u> active in the Livestock sector, for instance:<br>o <u>Sustainable livestock and rangeland biodiversity management</u><br>o <u>Community Action in Integrated and Market Oriented Feed-Livestock Production in Central and South Asia</u><br>o <u>Programme related to conservation and development of animal genetic resources</u><br>o <u>FAO, Asian Development Bank, ICARDA, IFAD, WB, etc.</u><br>o <u>Bilateral donors</u> | |
| **Methodology** | | - **Mirror technique** (look into its own eyes)<br>- **Mind Maps** (see example Mind Map on previous page; i.e. Mind Map of this work plan)<br>- **Key indicators**: - sustainability, - efficiency, - effectiveness, - relevance, - others | Will introduce it during briefing |
| **Remarks** | | - <u>Changes are welcome and can be made during the briefing on day one</u> | Thank you for kind cooperation |


WORK PLAN-mid-term evaluator Lucy Maarse
Thank you for kind cooperation
Period
Monday, 5th March - Friday 16th March 2010,
Arrival Sunday 4th March;
Departure Saturday (17th March 2010),
(± 10-11 Man Days)
Project
"Support to Sustainable development of livestock in Uzbekistan"
Partners/ST/CG
Ministry of Agriculture and Water Resources
UNDP (Environment and Energy Unit)
International Agency for Cooperation, Israel
Steering Committee (incl. representatives of key stakeholders)
Consultative Group
Activities
1. Briefing (start); Debriefing (end)
2. Site visits
3. Face-to-face interactions / courtesy calls
4. Focus group discussions
5. Desk work (reading, writing etc.)
Methodology
Mirror technique (look into its own eyes)
MindMaps (see example MindMap on next page)
Key indicators:
sustainability,
efficiency,
effectiveness,
relevance,
others
Changes are welcome and can be made during the briefing on day one-
Whom to meet-FG-disc.
1. Group of Dekhan farmers linked to Private Farm(s)
2. Ad Randomly selected group of Dekhan farmers (keep livestock) but not related to the project (kind of control group)
3. Consultative Group
4. Project team
Focus group discussion with each group; is a time consuming exercise!
Face-to-face interactions
1. District and local level authorities
(Government as well as Native/Traditional/Informal administration),
Livestock Service Deliveries
2. Service Companies
(NaslHizmat association):
Veterinary services,
A.I. services,
Extension Services
3. Companies:
input providers (e.g. minerals, semen, fodder seeds, milk equipment);
collection, processing and marketing (milk, meat etc.)
4. Working Group
contributes to activity 'improvements in Institutional and Legal Framework)
5. Persons who benefited from international training/exposure (e.g. training, study tours etc.)
6. Tashkent State Agrarian University (short introduction to higher education related to livestock sector development: - past, present & future)
7. Relevant Research and/or Regulatory authorities
Agriculture Research
Veterinary council
Price monitoring
8. Other donors / NGOs / etc. active in the Livestock sector, for instance:
Sustainable livestock and rangeland biodiversity management
Community Action in Integrated and Market Oriented Feed-Livestock Production in Central and South Asia
Programme related to conservation and development of animal genetic resources
FAO, Asian Development Bank, ICARDA, IFAD, WB, etc
Bilateral donors-
Site visits
1. ± 2 Private Farms (good-excellent performer; poor-moderate performer),
2. Veterinary Station
3. Different Dekhan farmers and Households;
- provide evaluator with insights in their livelihoods
opportunities
potential
difficulties
future perspectives
etc.
- different agro-ecological zones (incl. non irrigation)
4. Optional: - what project team likes to show
short, to-the-point interactions

## F. Introduction to mirror technique

Over the years, the author has realized that the best evaluations are those where a process of learning and development is initiated for which the participants are themselves responsible. One could compare it with a mirror namely if the eye wishes to see itself, there is no other way than to look in a mirror, because only in a mirror can an eye <look into its own eyes>. Learning from experience is not a passive action, but rather an active analysis of reality. This results in new experiences, because if, for example, I look at a landscape, discover the unknown path, and take it, then I find out about a new place. Often we do not seek new experiences in order to avoid conflict or crisis. We prefer to take well-known paths instead of taking the risk of trying out a new path, because we do not know where it will lead us. Thus, we learn nothing new, and remain standing – that is the safest way! To develop, human beings cannot remain in one place, but will, as learners, progress.

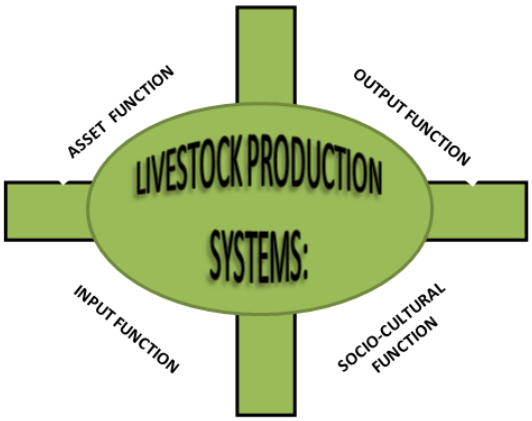
'See what is' (using the mirror), provides scope for widening of awareness of the program setting in terms of authority / financing organization (A), executing agency / project team (E) and beneficiaries (population, or groups, in project area) (B); along A., B. and C. questions to be posed –see example below- which facilitate the ***looking***, the ***learning*** and ***realizing development***. For instance, to check that agreement[87] in principle on objectives is reached between the various partners. It is important that all these groups are aware of what they wish to achieve, and exchange ideas on the subject.

| | Authority (A) | Executing agency | Beneficiaries (B) |
|---|---|---|---|
| 1 | When, on whose request, was the program taken up? | Motivation –why was this program taken up? | Who wanted the program? Who were the initiators? |
| 2 | On what basic idea was the project based? | What was meant to be achieved? | What advantages and help were requested? |
| 3 | What is the situation at present? Readiness to continue? | What has been achieved? Degree of satisfaction? | What has been received by whom? Changes? Disappointments? |
| 4 | Conditions for the future? Priorities? | Long-term aims, new efforts? | Expectations? Own contributions? |
| 5 | Short-term conditions? Measures? | Define activities foreseen for coming year? | Adjustments, short-term concerns? |

[87] Experiences persons might realise that more often than not actors involved in a project / program regularly do not agree regarding basics such as 'objectives', for instance. It might have a range of causes, which in turn contribute to conflicts, lead to resisting forces, delays in implementations, etc.

## G. Livestock is for many keepers more than a mean of production –the four functions of livestock

To capture the full significance of farm animals, it is helpful to recognise and fully understand the distinct functions of livestock.




The **output function** is related to producing food and non-food products such as milk, meat, wool, hair and eggs, but also fuel (manure / dung cakes), and urine and goat milk as medical value to meet immediate needs of the families.

The **input function** relates to providing inputs for other sub-systems.

- For crop production, livestock provide inputs such as manure, urine, grazing fallow land/stubble fields[88],
- For pasture/shrub/tree production[89] by removing biomass –preventing bush fires-, controlling shrub growth, dispersing seeds (through their hair, hoofs, manure), improving plant species composition through grazing and browsing, while trampling can stimulate grass tillering, improve seed germination and break-up hard soil crusts),
- For transport (drought power) of produce and people.

**Livestock are better and more efficient utilisers of the available biomass**.

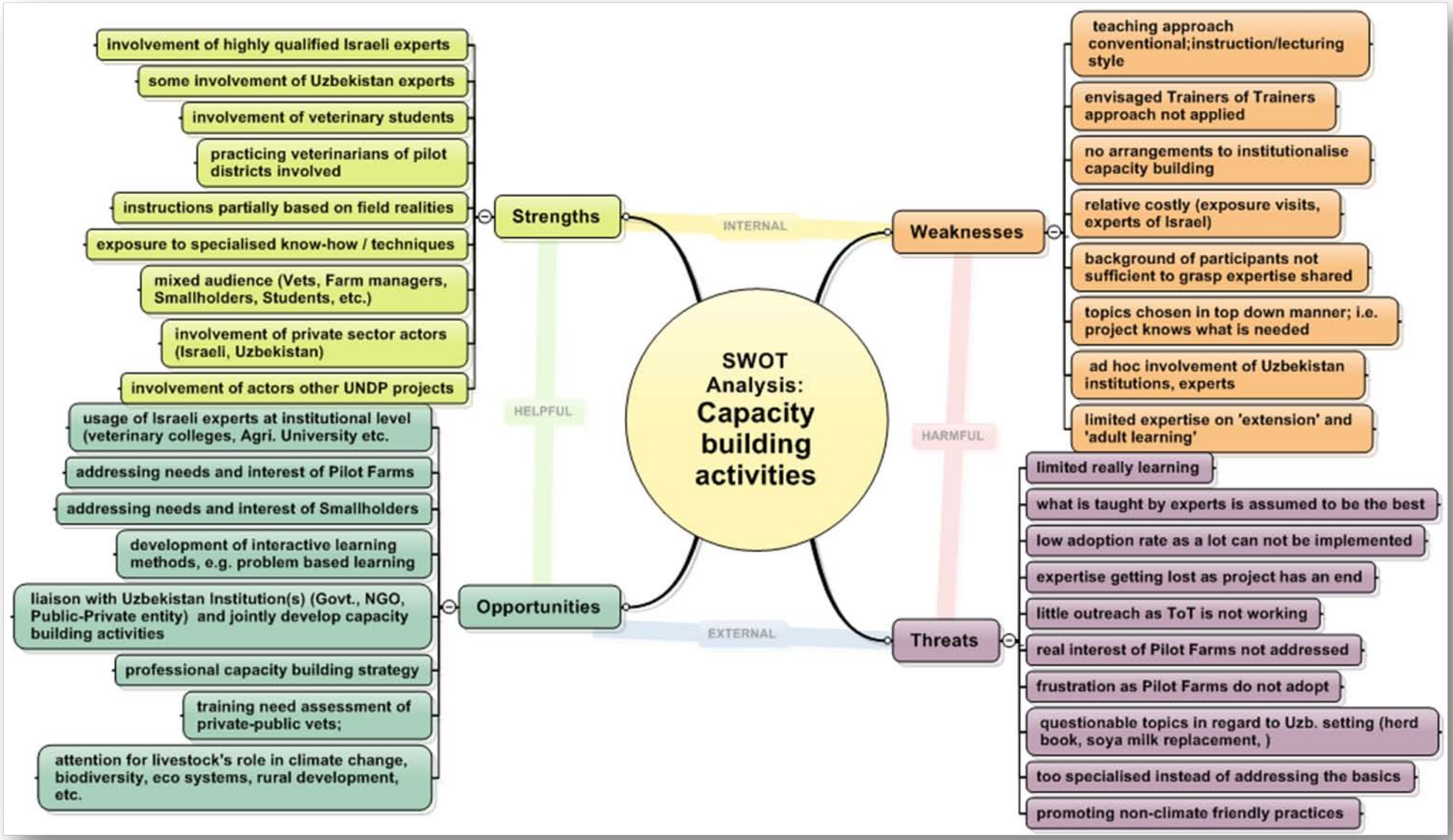
They contribute to the grasslands by dispersing valuable grass seeds, keeping unnecessary weeds in check and by fertilising the soil with their dung and urine.
In turn, they consume grass that cannot otherwise be consumed by humans and convert it to a range of valuable animal products: milk, meat, wool, manure, draught power.
As natural grasses are not available throughout the year, migratory or semi-migratory systems of livestock rearing are practiced, particularly by the pastoralists and, sometimes in acute water and fodder scarce situations, also by farmers who are engaged in more settled mixed crop-livestock farming.
Drought is a recurring feature in these areas, and people have developed their own mechanisms to cope with the reality of scarce water, which include ingenious and intricate water harvesting and water management systems, biodiverse dry land cropping practices and the careful selection and breeding of a range of livestock species and breeds. Pastoral herders maintain the largest per capita number of livestock.

The **asset function** or risk coverage relates to raising moneys in times of need and concerns asset building in the form of animals (including birds). This forms often the priority function among poor livestock keepers and the reason that animals are not necessarily sold when market price is attractive but when there is a need for cash.

The **socio-cultural function** relates to social status, culture etc. As livestock are a part of the household, the family, they remain strong indicators of social status, while many festivals and fairs are based on livestock and can include bullock cart racing, cock fighting, cow beauty contest etc. Women while cleaning, feeding or grazing and milking the animals sing many songs related to livestock.

[88] Innovative and well-knit system of penning animals in harvested fields during migration by Pastoralists, for instance.
[89] Cees de Haan, Steinfeld, H. and H. Blackburn, 1997' 'Livestock & the Environment, meeting the challenge', and 'Livestock & the Environment, finding a balance', EC, FAO, IFAD, IDRC (Canada), WB, *WRENmedia*, Sullfolk, UK. Available at: http://www.fao.org/docrep/x5304e/x5304e00.HTM, http://www.fao.org/docrep/X5303E/X5303E00.HTM

## H. Strengths, Weaknesses, Opportunities and Threats analysis of 'capacity building activities'



## I. Livestock sector reforms and relevant state policy[90]

Serous organizational changes has taken place in livestock sector during recent years backed up by deep socio-economic reforms targeted towards transition from the command and administration economic management system to market economy.

Farm restructuring among low profitable agricultural enterprises – *kolkhozes* and *sovkhozes* – has significantly impacted on livestock breeding since cattle farms were mostly attached to large cotton production farms. New livestock breeding farms emerged after restructuring of kolkhozes and sovkhozes and later of shirkats, which either owned private cattle or were operating in form of specialized livestock breeding farms sharing collective property.

The Government provided considerable support for farm and dehkan movement in livestock production in the period of emerging of new organizational and legal forms of activity in agriculture. Population was given access to preferential loans to procure cattle, also land plots were allocated to establish farms and feed production; the state procurement quotas for livestock production were abolished; pedigree stock was supplied from the countries where pedigree animal breeding was developed; production of feed compounds was established as well.

Presidential Resolution # 308 dated 23 March 2006 on "Measures for Stimulating of Livestock Expansion in Household Plots, Dehkan and Private Farms" became an important milestone for livestock sector's development and paid special attention to the state support for procurement of pedigree stock and intensification of pedigree animal breeding; establishment of veterinary services; provision of micro-loans to buy highly productive livestock; creation of new jobs; increasing of income and food security of rural population through their motivation to breed livestock.

The Resolution mentions *inter alia* that despite significant livestock number growth "some reserves and opportunities are remaining unengaged for development and establishment of dehkan and farm households to breed and raise primarily cattle and through this to increase employment rate of rural population and household incomes". It was emphasised that an issue of giving official employment status and social protection to people dealing with livestock breeding should be addressed. Also, provision of pedigreed and highly productive livestock and qualitative feed compounds remains unsatisfactory; zoo-vet infrastructure is immature as well as a micro-loan system for livestock development.

The Resolution approved the Program for Stimulation of Livestock Expansion in Household Plots, Dehkan and Private Farms, primarily of cattle for the period of 2006-2010, with the following objectives:

- increasing in number of dehkan and private farms engaged in livestock production;
- enhancing of livestock productivity;
- expanding of opportunities for local population to raise their incomes;

The following measures were envisaged to achieve these objectives:

[90] Reference: Yu.B. Yusupov et al., 2010 Livestock Production in Uzbekistan: Current State, Challenges and Prospects, Review in Context of Agricultural Sector Development Trends, UNDP, MAWR, MASHAV, Tashkent, 2010. (to be published)

- Engagement of rural population in livestock production on their household plots and in dehkan farms is now considered by the state as employment with eligibility to get pensions. This is to be applied regardless designation of production – whether it is marketed or consumed by a household.
- Stimulation of livestock expansion to be bred on household plots and in dehkan farms, including through free of charge provision of cattle to low-income and large households in the rural area. All these should contribute to increasing of cattle herd number in dehkan farms from 6 million heads in 2005 to 8.5 million heads by the end of 2010.
- Stimulation of farms to double their cattle herd from 330,000 heads in 2005 to 660,000 heads in 2010 along with increasing of the number of specialized livestock breeding farms from 8,000 in 2005 to 11,000 farms in 2010. The share of farms engaged in cattle breeding should accordingly increase from 5% in 2005 to approximately 7.5% in 2010[91].
- Improved access to vet services and artificial insemination (AI) through expanding of a vet service station network.
- Arrangement of auctions to sell pedigree livestock to households, dehkan and private farms. The Program envisages selling of 100,000 heads of pedigree cattle during 2006-2010.
- Improvement of access to micro-loans for households and dehkan farms to facilitate cattle procurement. It is planned to allocate 158 billion UZS[92] for this purpose from 1996-2010 with 80% of this amount to be channelled through commercial banks (under preferential interest rates and simplified access procedures).
- Improvement of access to feed compounds for households and dehkan farms, including through sevenfold increasing of a number of feed compound selling outlets all over the country – from 113 in 2005 to 773 in 2010. It is also envisaged that enterprises dealing with feed production will get an opportunity to procure grain from farmers directly (rather than through the state supply channels).
- Exemption of pedigree livestock breeding farms from customs fees and duties till 2010 (except fees for customs processing) to be paid for pedigree material, technological and auxiliary equipment imported to the country for development of pedigree animal breeding in livestock sector.

The strategy for livestock development was refined and amended by Presidential Decree # 842 dd. 21 April 2008 on "Additional Measures for Strengthening of Livestock Expansion in Household Plots, Dehkan and Private Farms and Escalation of Livestock Production". The Decree stresses importance of the following specific activities:

- promotion of a processes on lending micro-loans by commercial banks to households and dehkan farms to procure cattle;
- introduction and expansion of AI practice;
- adjustment of land use mechanism allocated for feed crops;
- creation incentives for provision of agricultural farms with feed harvesters under leasing terms;

[91] A Decree on "Optimization of Cropping Areas and Increasing of Food Crop Production" issued by the President of the Republic of Uzbekistan on 20 October 2008, envisages decreasing of livestock breeding farms to be established as planned initially, however their land plots will be increased.

[92] The estimated amount of loans was increased to 171 billion UZS, according to the Presidential Resolution # 842 dd. 21 April, 2008.

- upgrading of feed compound production sub-sector and improvement of access to raw materials;
- expansion of a network and rational placing of specialised outlets trading with livestock feedstuffs;
- commercialization of Zoo-Vet Units through their privatization;
- upgrading of *Uznaslchilik* (Uzbek Republican Pedigree Breeding Enterprise) production capacities.
- arrangement of activities for production of deeply frozen semen of beef sires;
- enhancement of services provided to livestock breeding farms in the area of pedigree animal breeding, trading with pedigree livestock, introduction of advanced AI technologies.

Moreover, as per the Decree issued by the President, private farms and livestock breeding farms are exempted till 2012 from obligatory contributions to the public trust funds and School Fund supposed to be paid out of their revenue earned from livestock product sales including processed products.

## J. Capacity building activities, SSDLS project in cooperation with partners

| Date | Type of Activity | Details | Participants | Key Issue/Topic | Organizer |
|---|---|---|---|---|---|
| 2008 February (1 week) | Exchange Visit to Israel | 6 Project Board members were invited to Israel to visit and see organization and management of dairy industry including dairy farms, specialists in different aspects gave presentations for them | 6 Project board members and Assistant Project Manager as translator (all men) | Exposure to modern patterns of dairy industry and farming | UNDP Livestock Project and MASHAV |
| March 17-April 10 2008 | Exchange visit to Israel | Uzbek visitors attended a special Dairy Management course in Agricultural Faculty of Jerusalem Hebrew University. | Project Manager, 23 livestock specialists (2 AI specialists, 5 farmers and 16 veterinarians) and 2 translators (all men) | Dairy Cow management, nutrition, reproduction, healthcare, milk processing, beef cattle, pasture management in beef cattle | MASHAV (through CINADCO) and Livestock Project |
| May 1, 2008 | Table discussion | Discussion of livestock sector and results of national survey conducted in the framework of the Livestock Project with international and local specialists | 6 specialists who participated in preparation of the materials and livestock specialists from different international organizations and 22 local specialists | Assessment of the livestock sector of Uzbe | UNDP Livestock Project |
| July 1-7, 2008 | Exchange visit of Israeli Veterinarians | Two veterinarians (Dr. Abe Wasserman, from State Veterinary Control and Dr. Ilan Dagoni from a private organization) visited the pilot areas, got acquainted with the veterinary system and activities in Uzbekistan met with officials of veterinary system of different levels, and gave two presentations (one in veterinary practicing and the other about controlling contagious diseases) in each pilot district | Number of participants:<br>Chinaz: 15 veterinarians and 23 vetschool students including 4 woman vets and 6 female students<br>Quyi Chirchiq: 18 vets and 5 farmers including 3 women | Efficient animal healthcare, animal registration and identification, contagious disease control | Livestock Project) and MASHAV (through CINADCO |
| July 8, 2008 | Workshop | Opening and presentations Cattle Breeding Enterprise „UzNaslchilik“ with semen new packing equipment installed by German Mini-Tube Company in the framework of the JAICA programme | 10 livestock specialists from the pilot areas of the Kuyichirchik and Chinaz districts of the Tashkent region and 120 specialists from all regions of Uzbekistan | Artificial insemination and semen production | Cattle Breeding Enterprise „UzNaslchilik“, Germany company “Mini-Tube” and Livestock Project |
| November 19-26, | Israeli AI Mission | The Artificial Insemination mission comprising | Number of participants: | AI theory and practice | Livestock Project) and |

| Date | Type of Activity | Details | Participants | Key Issue/Topic | Organizer |
|---|---|---|---|---|---|
| 2008 | from SION | two Israeli short-time experts: Mr. Dani Gilad, Deputy manager at the SION company and Mr. Tibi Shefer, artificial insemination specialist of the SION Company, Israel<br>During the mission they gave three AI Technique presentations for local specialists. Besides that Mr. Shefer demonstrated AI practice in two pilot farms and a farm in Nukus area, Karakalpakstan | Chinaz: 7 veterinarians and 15 vetschool students including 4 woman vets and 6 female students<br>Quyi Chirchiq: 18 vets and 5 farmers including 3 women<br>In Nukus : 45 livestock specialists including 5 women | Cattle reproduction | MASHAV (through CINADCO<br>Visit to Nukus was organized in cooperation with UNDP/GEF Tugay Forest Preservation Project |
| May 13-19, 2009 | Expert Mission from Israel | Dr. Daniel Werner, CINADCO Special assignments coordinator; Dr. Ran Solomon, Animal Nutrition Expert, Dr. Efraim Zukerman, Forage growing and preservation expert. The mission members gave presentations in a seminar organized by the project, visited several farms including outside the pilot area, got exposed to local conditions in nutrition and forage preparation aspects, discussed key issues with local specialists, particularly with Dr. Massino Project's fodder crop growing expert | Number of Participants: 35 livestock specialists (3 women) including 15 veterinarians, 7 livestock farmers and 13 farm workers | Cattle nutrition, balanced feeding, forage preservation (ensilage and preparation of hay), crop rotation schemes | Livestock Project and MASHAV through CINADCO |
| June 3-9 | Expert Mission From Israel | Mr. Ronen Feigenbaum, Farm designing and construction expert. The expert gave presentations in Tashkent for farmers and architects from the Tashkent province and in Samarqand for relevant audience from that region.<br>He also visited all the pilot farms and other farming facilities in other districts, gave his recommendations based on the location of each farm, prepared standard design for integrated cowshed based on modern principles of cow comfort | 50 livestock specialists (Ministry officials, farmers, agricultural construction specialists, managers), from the province including 15 women and 10 invited journalists (5 women)<br>In Samarqand: 30 participants (farmers, local agricultural department officials | Cow comfort, (housing, construction designing) | Livestock Project , MAWR and MASHAV through CINADCO; seminar in Samarqand was organized by the Ministry of Agriculture through the local department |
| July 7-24, 2009 | Practical AI training in Israel | Mr. Umarali Ahmedov and Mr. Davutkhan Eskhujayev inseminators from the pilot areas attended two week practical training in Israel where they were under supervision of one of the | Two Uzbek inseminators | AI technique, Heat detection | Livestock Project and SION Company (Mission funded by MASHAV) |

| Date | Type of Activity | Details | Participants | Key Issue/Topic | Organizer |
|---|---|---|---|---|---|
| | | most experienced SION inseminators. They consorted the Israeli specialist in his routine activities and at the end of mission passed a practical exam on AI technique, heat detection and cow reproduction anatomy | | | |
| August 7, 2009 | One Day seminar | A seminar on use of modern milking equipment conducted in Hondamir Dairy Farm in Akkurgan | Farmers, livestock specialists, dehkans from pilot districts and Akkurgan – total 25 people including 2 women | Use of modern equipment and service | Livestock Project |
| August 24-September 16, 2009 | Exchange visit to Israel | Uzbek visitors attended a special Dairy Management course in Kibbutz Shfaim, Israel. | Total of 24 livestock specialists from 5 UNDP projects from 7 provinces of Uzbekistan including 3 farm managers from pilot farms of the Livestock Project (all men) | Dairy Cow management, nutrition, reproduction, healthcare, milk processing, beef cattle, pasture management in beef cattle | MASHAV (through CINADCO) and Livestock Project |
| August 25 | One day seminar<br>Kim Sara restaurant and Asia Milk Product Dairy Farm | Topic: "Herd book – basis of animal husbandry" by project-hired experts from Uzbek Research Institute of Livestock Breeding<br>Artificial Insemination techniques and practice" presented by Dr. Oktam Saidov, Director of Chorvanslhizmat LLC and demonstrated by Umarali Ahmedov, AI technician trained in Israel | Total of 22 veterinarians of two pilot districts, 7 farmers, 3 AI technicians | Breeding plan, herd book, animal registration | Livestock Project and Uzbek Research Institute of Livestock Breeding |
| September 17 | One day practical seminar<br>Farm Kojakent | Topic: Prevention and treatment of diseases of dairy cows presented by Dr. Sobir Mavlonov, Director of Veterinary Research Institute<br>Demonstration of routine practices by a farm veterinarian in the dairy farm Kojakent | Veterinarians from the pilot districts (20 people including 2 women), 4 farmers and 5 farm employees | Cattle healthcare | Livestock Project |
| October 29, 2009 | One day practical seminar<br>Farm Yulduz | Topic No 1: "Growing soy beans as fodder crop" and "Preparation of soymilk as replacement of milk for calves" presented and demonstrated by Dr. Dilorom Yormatova, soy beans growing and cultivation expert<br>Topic No 2: "Importance of summer and winter forage crops in livestock husbandry" presented by | 10 farmers 20 dehkans from the pilot areas | Feed base management, efficient use of land | Livestock Project |

| Date | Type of Activity | Details | Participants | Key Issue/Topic | Organizer |
|---|---|---|---|---|---|
| | | Dr Igor Massino, forage crop growing expert of the Project | | | |
| November 12 | One day seminar-presentation | "Forage preservation" presented by Moshe Katz, long-term farm management expert of the project | | Forage quality upgrade, ensilage technique | Livestock Project |
| November 16-30, 2009 | Mission from Israel | Dr. Avner Shoam, Practicing veterinarian, member of Hachaklait Veterinary Association<br>Objectives of the mission: a) Detect existing veterinary diseases in the pilot areas.<br>b) Practical training of the pilot area veterinary specialists in two pilot districts and Samarqand district.<br>c) Preparation range of recommendations for development of veterinary services in the zoo veterinary stations of the pilot areas | Number of participants:<br>Chinaz: 7 veterinarians and 15 vetschool students including 4 woman vets and 6 female students<br>Quyi Chirchiq: 18 vets and 5 farmers including 3 women<br>In Samarqand : 45 livestock specialists including 5 women | Information about veterinary routine in Israeli farms, pregnancy diagnosis, reproduction diseases | Livestock Project and MASHAV through CINADCO |
| December 10, 2009 | One day seminar | "Cooperation of livestock farmers with dehkans, dairy processors and other types of livestock producers" presented by Abdurazak Khujabekov, Project Manager | 10 farmers, 23 dehkans and 3 representatives of dairy processing companies | Cooperation in milk collection, milk quality management | Livestock Project |
| December 24 | One day seminar | "Designing of livestock farms and cattle stalls" presented by Abdumalik Kertaev, Pilot Areas Coordinator | 6 farmers, 15 dehkans and 1 representative of farm construction company | Farm designing, solution of cow comfort issues in dehkans households | Livestock Project |
| January | | "Use of population genetics and large scale selection in herd" presented by Dr. Azam Nurmatov, Livestock breeding expert from Uzbek Research institute of Livestock Breeding<br>"Main selection features of dairy cattle and methods of control" presented by Dr Yusup Ibragimov, Livestock breeding expert of the Project | Veterinarians from the pilot districts (21 people including 2 women), 4 farmers and 6 farm employees | Breeding plan, herd book, animal registration | Livestock Project |
| February 18,2010 | One day seminar | "Use of pure blood breeding in herd planning" presented by Dr Yusup Ibragimov, Livestock breeding expert of the Project<br>"Use of crossbreeding in improving genetic performance of a dairy breed" presented by Dr. Azam Nurmatov, Livestock breeding expert from | Veterinarians from the pilot districts (19 people including 3 women), 5 farmers and 4 farm employees | Breeding plan, herd book, animal registration | Livestock Project |

| Date | Type of Activity | Details | Participants | Key Issue/Topic | Organizer |
|---|---|---|---|---|---|
| | | Uzbek Research institute of Livestock Breeding | | | |
| March 17, 2010 | One day seminar | "Mastitis in dairy cows" presented by Orinbasar , Expert from Tashkent Province Veterinary Department<br>"Reproduction diseases in Cattle: Prevention and Treatment" presented by Alisher_____, expert from Tashkent Province Veterinary Department<br>"Metabolic Diseases: Ketosis and Milk Fever (Hypocalcemia)" Presented by Moshe Katz<br>In the afternoon, collective visit to "Aytuar Zooveterinar" vetstation, acquaintance with the situation and work in the station, future plans | Veterinarians from the pilot districts (21 people including 2 women), 4 farmers and 5 farm employees | Cow reproductive health, industrial diseases, nutritional diseases, Veterinary station as a focal point for a area-based livestock development | Livestock Project |
| April 14, 2010 | One day seminar | "Young stock disease prevention and treatment" presented by Mr. Abdurasul Boltayev, Veterinary Science expert from Uzbekistan State Veterinary Department<br>"Principle of Silage and Hay Preparation" Presented by Moshe Katz | | Young cattle healthcare, feedbase development, cooperation around vetstations | Livestock Project |

## K. List of participants, Round Table event –sharing findings of the mission

**Round Table** in the Framework of Mid-Term Evaluation of the UNDP Project "Support to Sustainable Development of the Livestock Sector in Uzbekistan" by International Expert

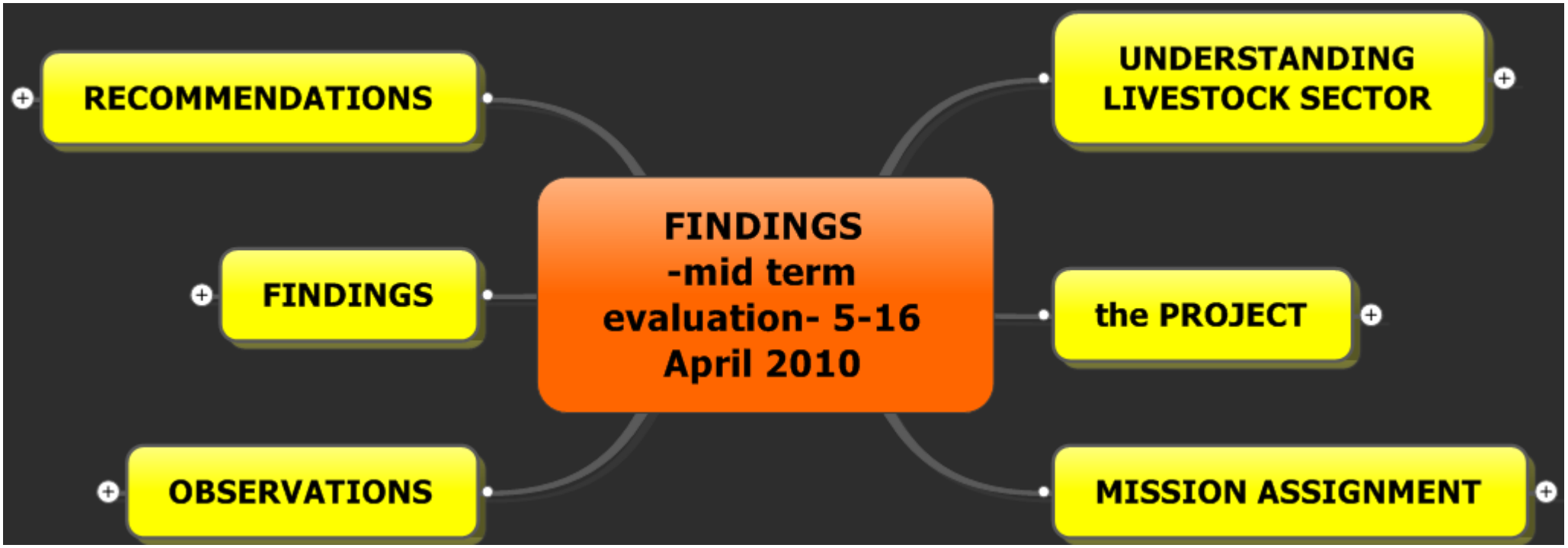
**Presentation of observations, findings and recommendations**

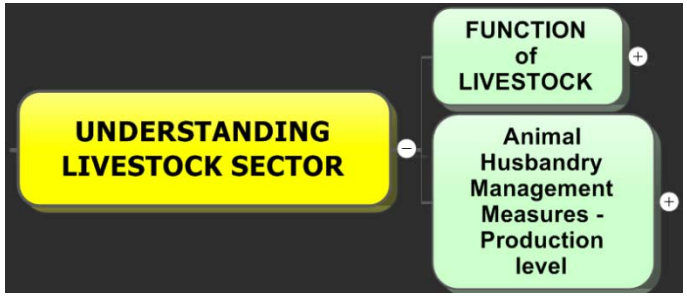
**Location:** MoAWR, Conference Hall
**Date:** 16.04.2010, **Time:** 10:00 -13:00
**List of participants**

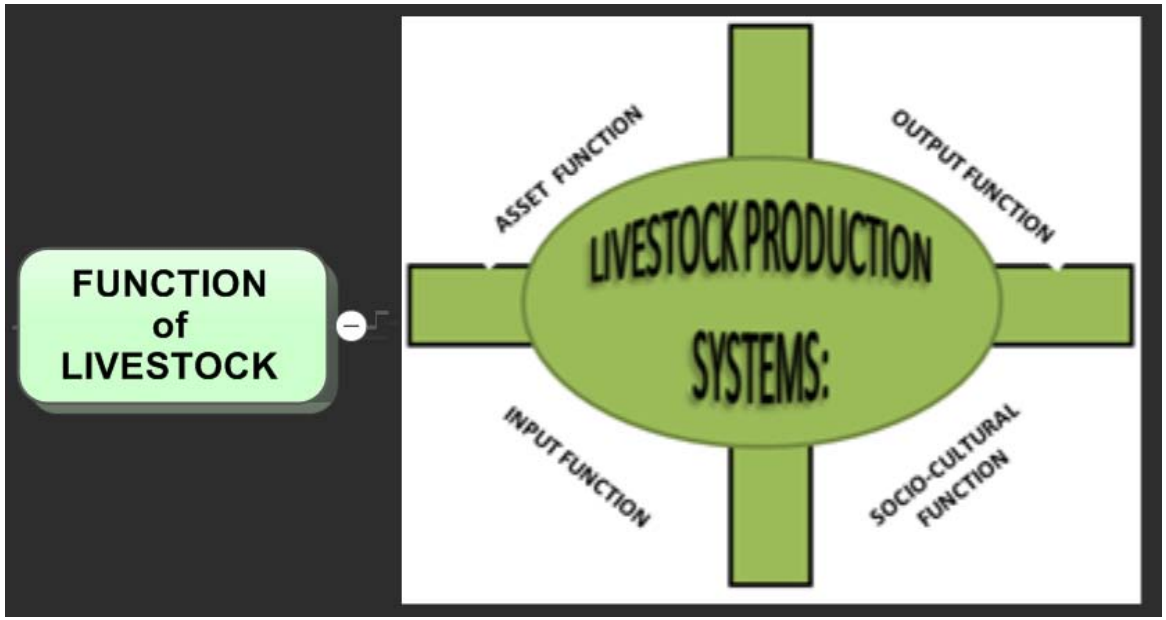
**Presentation by:**
Ms Lucy Maarse, Livestock and Livelihood Advisor, mid-term evaluator

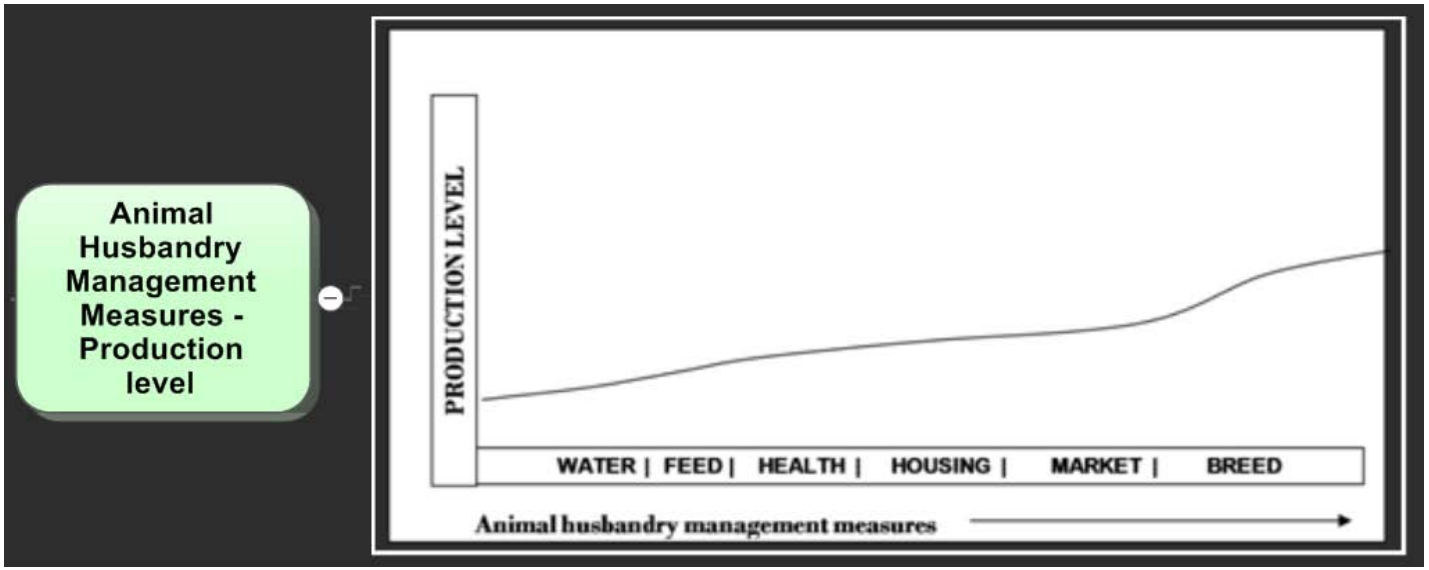
| Full Name | Title |
|---|---|
| Maor Zrahyahu | First Secretary and Consul, Embassy of the State of Israel to the Republic of Uzbekistan |
| Sergey Gonchar | Head of MASHAV Agency Branch at the Embassy of the State of Israel to the Republic of Uzbekistan |
| Makhmud Shaumarov | Programme Associate, UNDP Environment and Energy Unit |
| Bakhtiyor Soliboyev | Chairperson, Department for Development of Livestock, Poultry Industry, Bee Farming and Fish Production, MAWR of Uzbekistan |
| Ulugbek Kuchiev | Chairperson, Division of Livestock at Agricultural Science Production Centre, MAWR |
| Murodillo Ashirov | Director of Livestock Breeding Research Institute at Science Production Centre, MoAWR, Doctor of Economic Sciences, Professor |
| Bastamqul Saidqulov | Editor-in-chief, "Zooveterinary" Monthly Magazine, Chairperson of Veterinary Association |
| Oktam Saidov | Director, "Chorvanslxizmat LLC", Tashkent Province |
| Aleksandr Chertovitskiy | Professor, Land Tenure and Cadastre Faculty, Tashkent Institute of Irrigation and Amelioration, Doctor of Economic Sciences |
| Odil Akbarov | Director, Land Tenure Development Centre, Tashkent Institute of Irrigation and Amelioration |
| Ulugbek Islomov | Manager of UNDP Project "Integrated Water Resource Management in Example of the Zarafshan River Basin" |
| Abdurazzoq Khujabekov | Project Manager, "Support to Sustainable Development of the Livestock Sector in Uzbekistan |
| Moshe Katz | MASHAV-Appointed Dairy Management Expert of the Project |
| Aziz Rasulov | Assistant Project Manager |
| Abdumalik Kertayev | Pilot Area Coordinator |
| Umid Nazarqulov | Agricultural Economics Expert |
| Kamola Rasulova | Project PR Specialist |
| Artur Ambartsumyan | Translator/Interpreter |

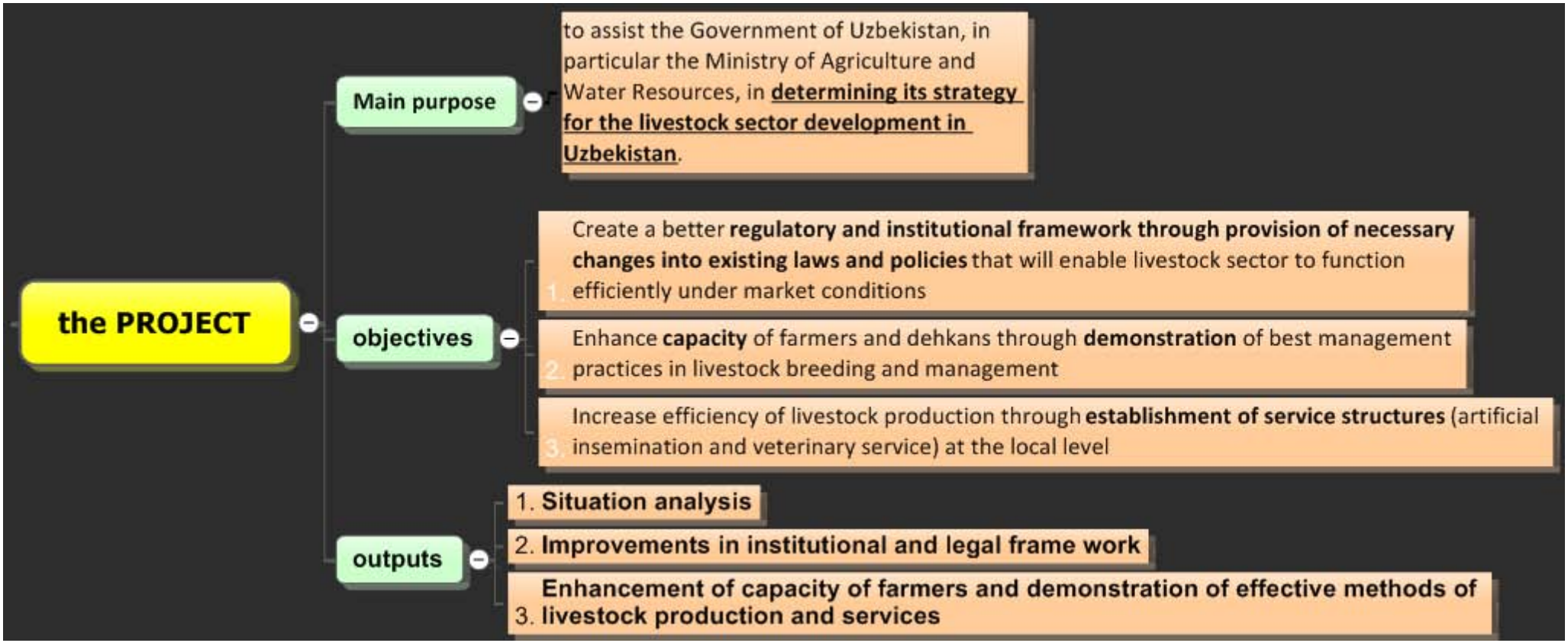
## L. Presentation presented during the Round Table meeting held on Friday, 16 April 2010



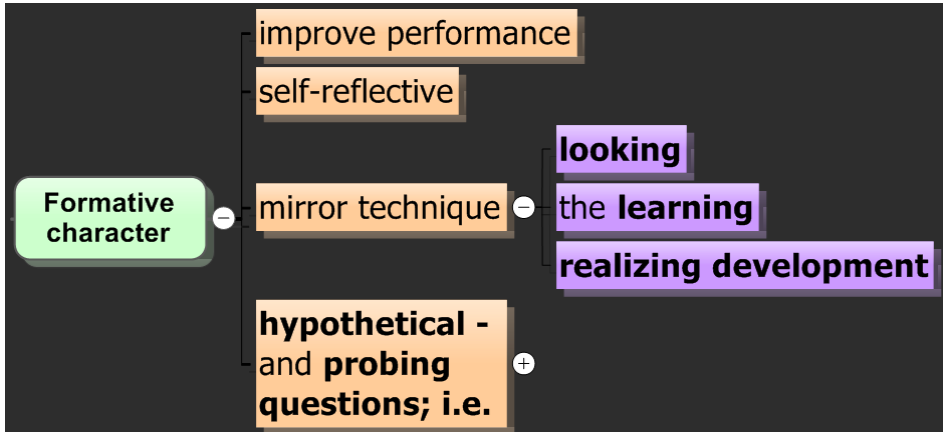

UNDERSTANDING LIVESTOCK SECTOR
FUNCTION of LIVESTOCK
Animal Husbandry Management Measures - Production level

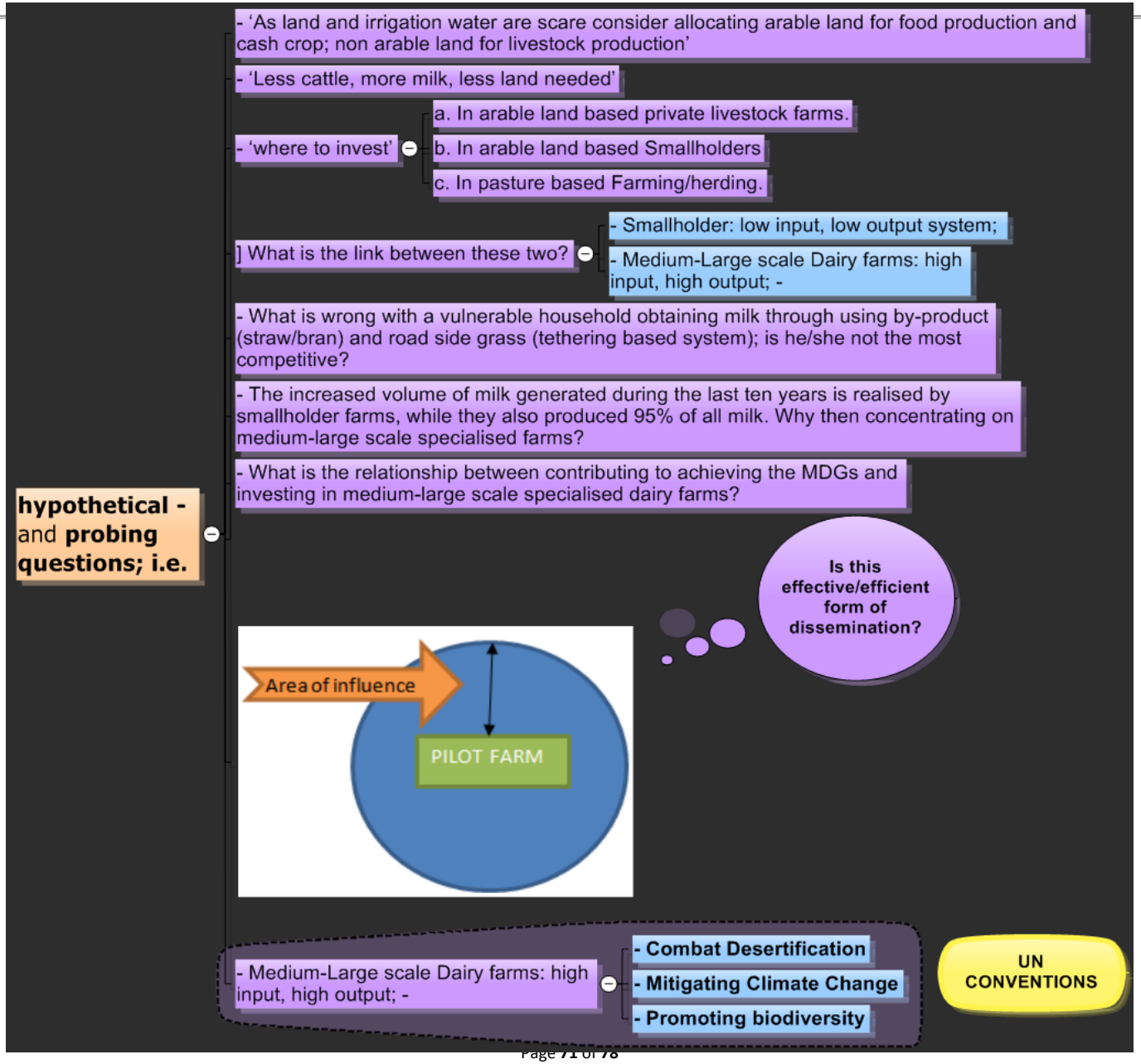

FUNCTION of LIVESTOCK
LIVESTOCK PRODUCTION SYSTEMS:
ASSET FUNCTION
OUTPUT FUNCTION
INPUT FUNCTION
SOCIO-CULTURAL FUNCTION

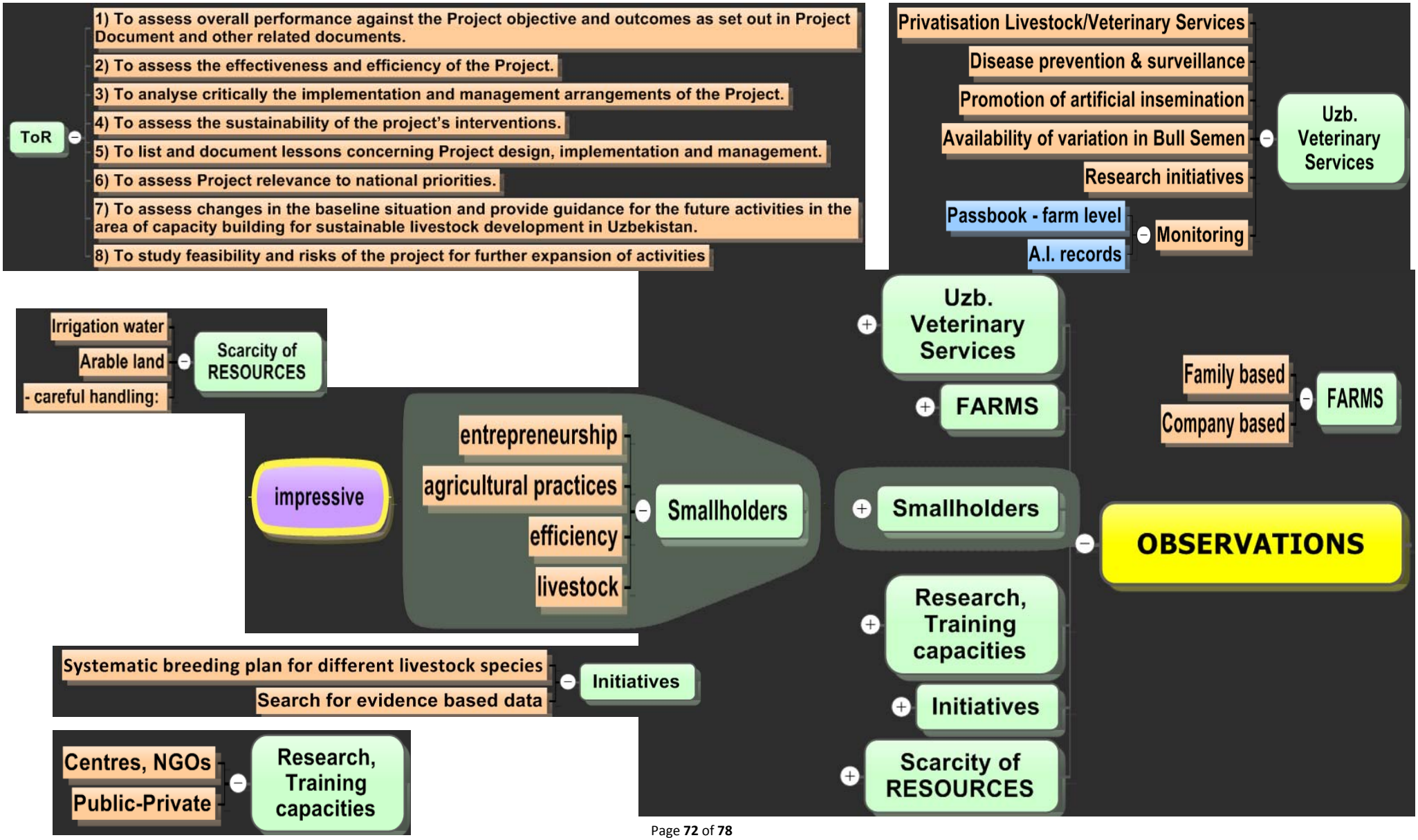

Animal Husbandry Management Measures - Production level
PRODUCTION LEVEL
WATER | FEED | HEALTH | HOUSING | MARKET | BREED
Animal husbandry management measures

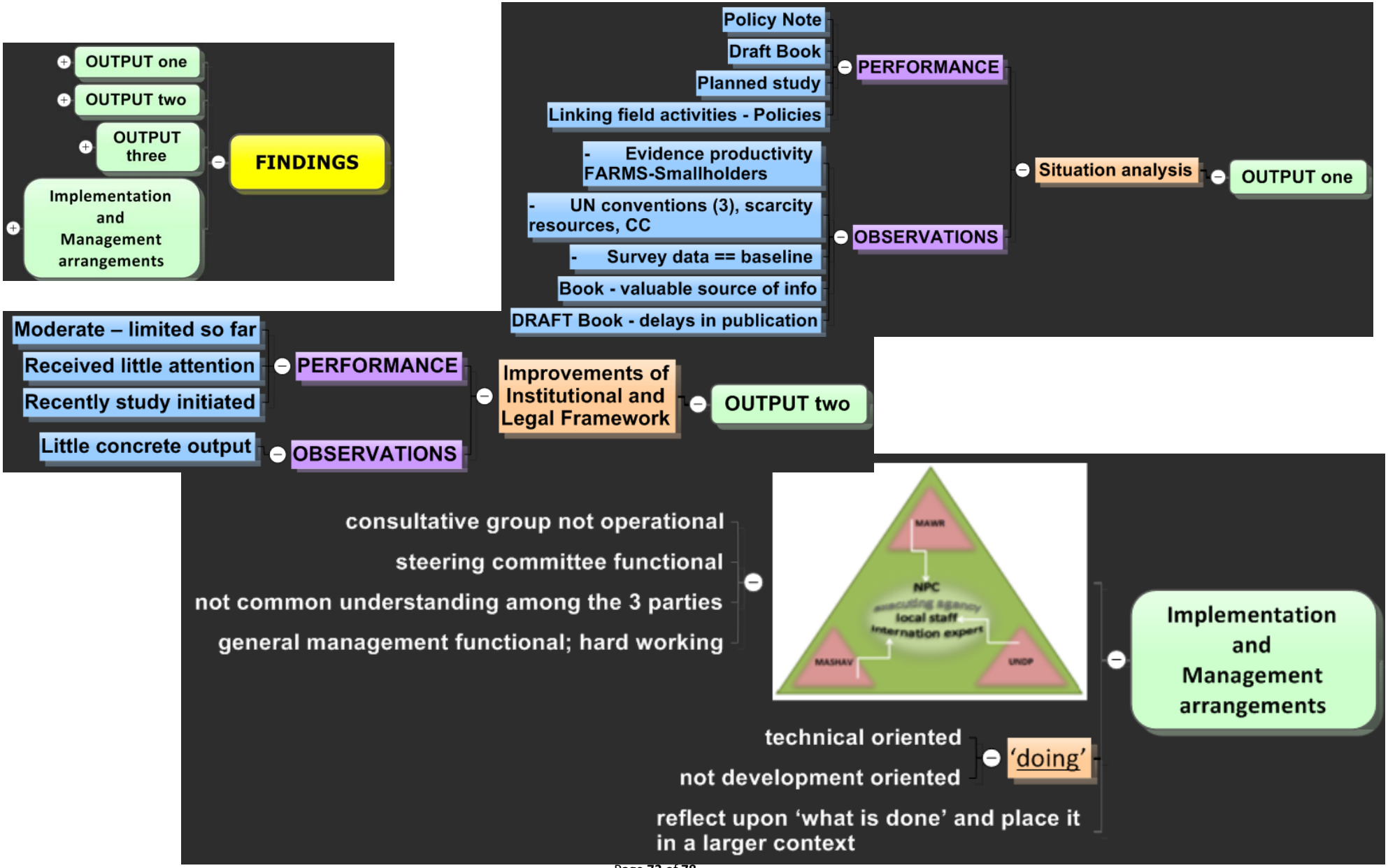

the PROJECT
Main purpose
to assist the Government of Uzbekistan, in particular the Ministry of Agriculture and Water Resources, in determining its strategy for the livestock sector development in Uzbekistan.
objectives
1. Create a better regulatory and institutional framework through provision of necessary changes into existing laws and policies that will enable livestock sector to function efficiently under market conditions
2. Enhance capacity of farmers and dehkans through demonstration of best management practices in livestock breeding and management
3. Increase efficiency of livestock production through establishment of service structures (artificial insemination and veterinary service) at the local level
outputs
1. Situation analysis
2. Improvements in institutional and legal frame work
3. Enhancement of capacity of farmers and demonstration of effective methods of livestock production and services

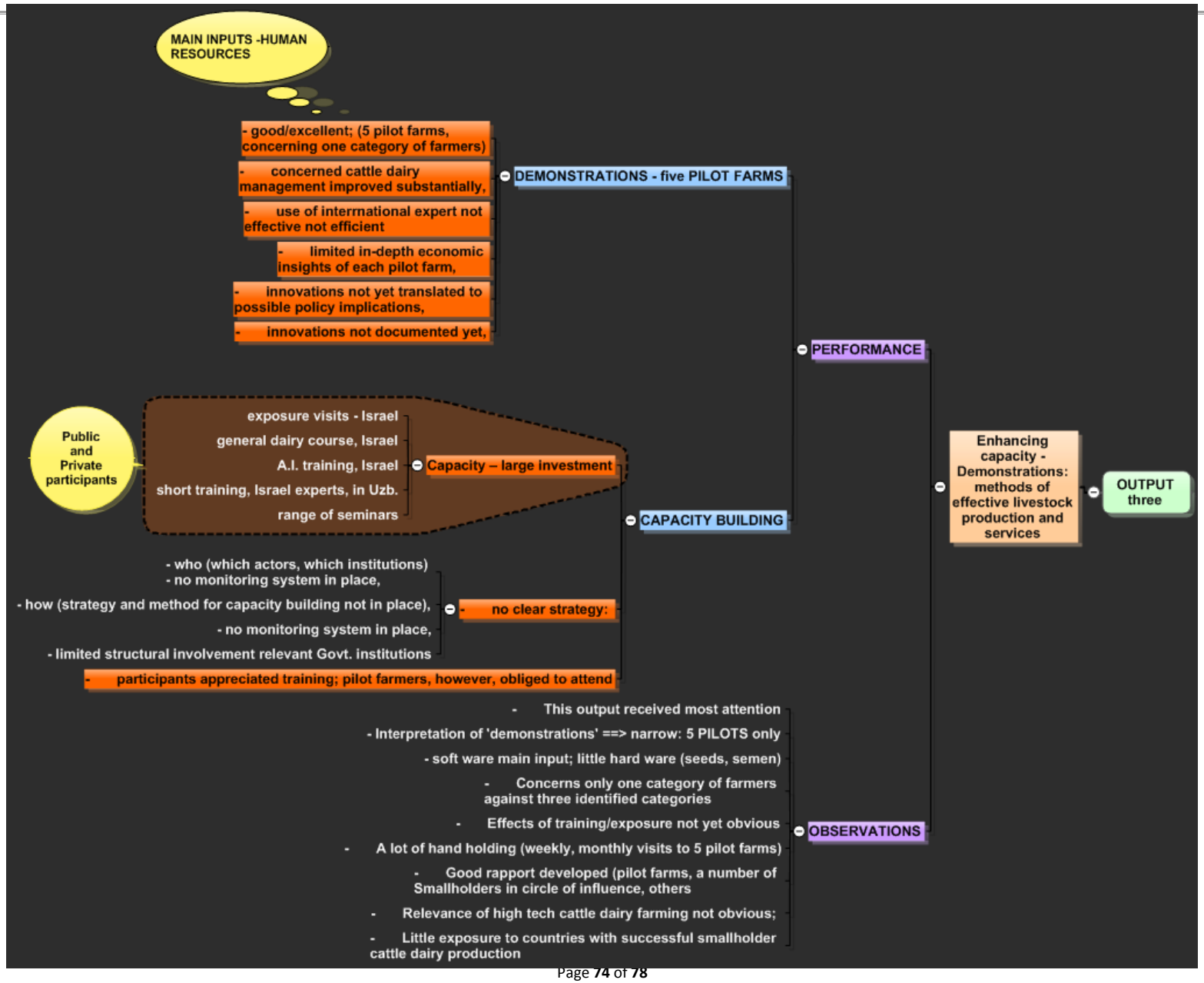

MISSION ASSIGNMENT
Formative character
ToR


Formative character
improve performance
self-reflective
mirror technique
looking
the learning
realizing development
hypothetical - and probing questions; i.e.

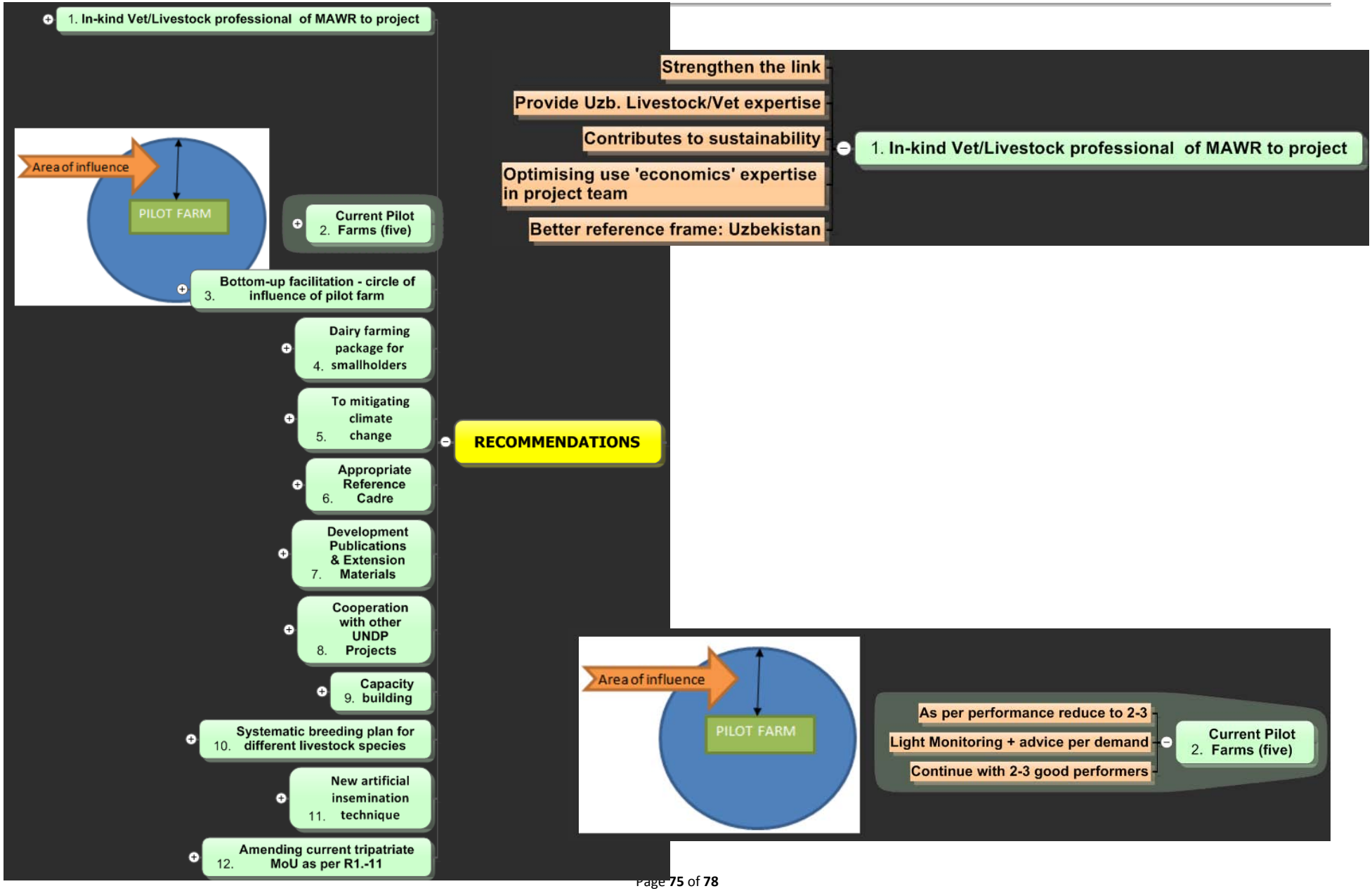

- 'As land and irrigation water are scare consider allocating arable land for food production and cash crop; non arable land for livestock production'
- 'Less cattle, more milk, less land needed'
- 'where to invest'
a. In arable land based private livestock farms.
b. In arable land based Smallholders
c. In pasture based Farming/herding.
] What is the link between these two?
- Smallholder: low input, low output system;
- Medium-Large scale Dairy farms: high input, high output; -
- What is wrong with a vulnerable household obtaining milk through using by-product (straw/bran) and road side grass (tethering based system); is he/she not the most competitive?
- The increased volume of milk generated during the last ten years is realised by smallholder farms, while they also produced 95% of all milk. Why then concentrating on medium-large scale specialised farms?
- What is the relationship between contributing to achieving the MDGs and investing in medium-large scale specialised dairy farms?
hypothetical - and probing questions; i.e.
Is this effective/efficient form of dissemination?
Area of influence
PILOT FARM
- Medium-Large scale Dairy farms: high input, high output; -
- Combat Desertification
- Mitigating Climate Change
- Promoting biodiversity
UN CONVENTIONS


ToR
1) To assess overall performance against the Project objective and outcomes as set out in Project Document and other related documents.
2) To assess the effectiveness and efficiency of the Project.
3) To analyse critically the implementation and management arrangements of the Project.
4) To assess the sustainability of the project's interventions.
5) To list and document lessons concerning Project design, implementation and management.
6) To assess Project relevance to national priorities.
7) To assess changes in the baseline situation and provide guidance for the future activities in the area of capacity building for sustainable livestock development in Uzbekistan.
8) To study feasibility and risks of the project for further expansion of activities
Privatisation Livestock/Veterinary Services
Disease prevention & surveillance
Promotion of artificial insemination
Availability of variation in Bull Semen
Research initiatives
Uzb. Veterinary Services
Passbook - farm level
A.I. records
Monitoring
Irrigation water
Arable land
- careful handling:
Scarcity of RESOURCES
impressive
entrepreneurship
agricultural practices
efficiency
livestock
Smallholders
Uzb. Veterinary Services
FARMS
Family based
Company based
FARMS
Smallholders
OBSERVATIONS
Systematic breeding plan for different livestock species
Search for evidence based data
Initiatives
Research, Training capacities
Initiatives
Scarcity of RESOURCES
Centres, NGOs
Public-Private
Research, Training capacities


FINDINGS
OUTPUT one
OUTPUT two
OUTPUT three
Implementation and Management arrangements
Situation analysis
PERFORMANCE
Policy Note
Draft Book
Planned study
Linking field activities - Policies
OBSERVATIONS
- Evidence productivity FARMS-Smallholders
- UN conventions (3), scarcity resources, CC
- Survey data == baseline
Book - valuable source of info
DRAFT Book - delays in publication
OUTPUT one
Improvements of Institutional and Legal Framework
PERFORMANCE
Moderate – limited so far
Received little attention
Recently study initiated
OBSERVATIONS
Little concrete output
OUTPUT two
consultative group not operational
steering committee functional
not common understanding among the 3 parties
general management functional; hard working
MAWR
NPC
executing agency
local staff
internation expert
MASHAV
UNDP
technical oriented
not development oriented
'doing'
reflect upon 'what is done' and place it in a larger context
Implementation and Management arrangements


MAIN INPUTS -HUMAN RESOURCES
- good/excellent; (5 pilot farms, concerning one category of farmers)
- concerned cattle dairy management improved substantially,
- use of interrnational expert not effective not efficient
- limited in-depth economic insights of each pilot farm,
- innovations not yet translated to possible policy implications,
- innovations not documented yet,
DEMONSTRATIONS - five PILOT FARMS
PERFORMANCE
Public and Private participants
exposure visits - Israel
general dairy course, Israel
A.I. training, Israel
short training, Israel experts, in Uzb.
range of seminars
Capacity – large investment
CAPACITY BUILDING
Enhancing capacity - Demonstrations: methods of effective livestock production and services
OUTPUT three
- who (which actors, which institutions)
- no monitoring system in place,
- how (strategy and method for capacity building not in place),
- no monitoring system in place,
- limited structural involvement relevant Govt. institutions
- no clear strategy:
- participants appreciated training; pilot farmers, however, obliged to attend
- This output received most attention
- Interpretation of 'demonstrations' ==> narrow: 5 PILOTS only
- soft ware main input; little hard ware (seeds, semen)
- Concerns only one category of farmers against three identified categories
- Effects of training/exposure not yet obvious
- A lot of hand holding (weekly, monthly visits to 5 pilot farms)
- Good rapport developed (pilot farms, a number of Smallholders in circle of influence, others
- Relevance of high tech cattle dairy farming not obvious;
- Little exposure to countries with successful smallholder cattle dairy production
OBSERVATIONS

**Presentation presented during the Round Table meeting held on Friday, 16 April 201**



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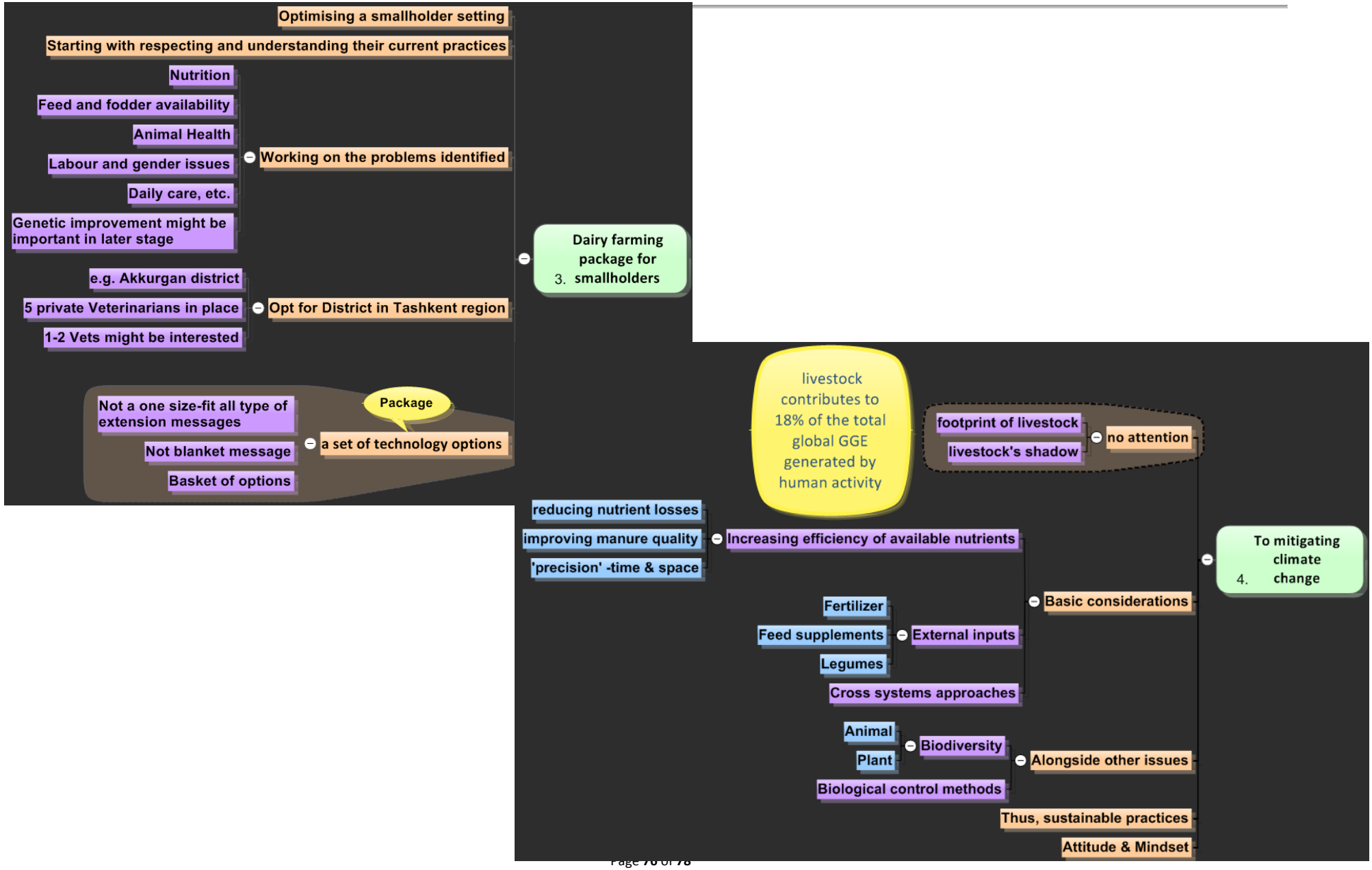
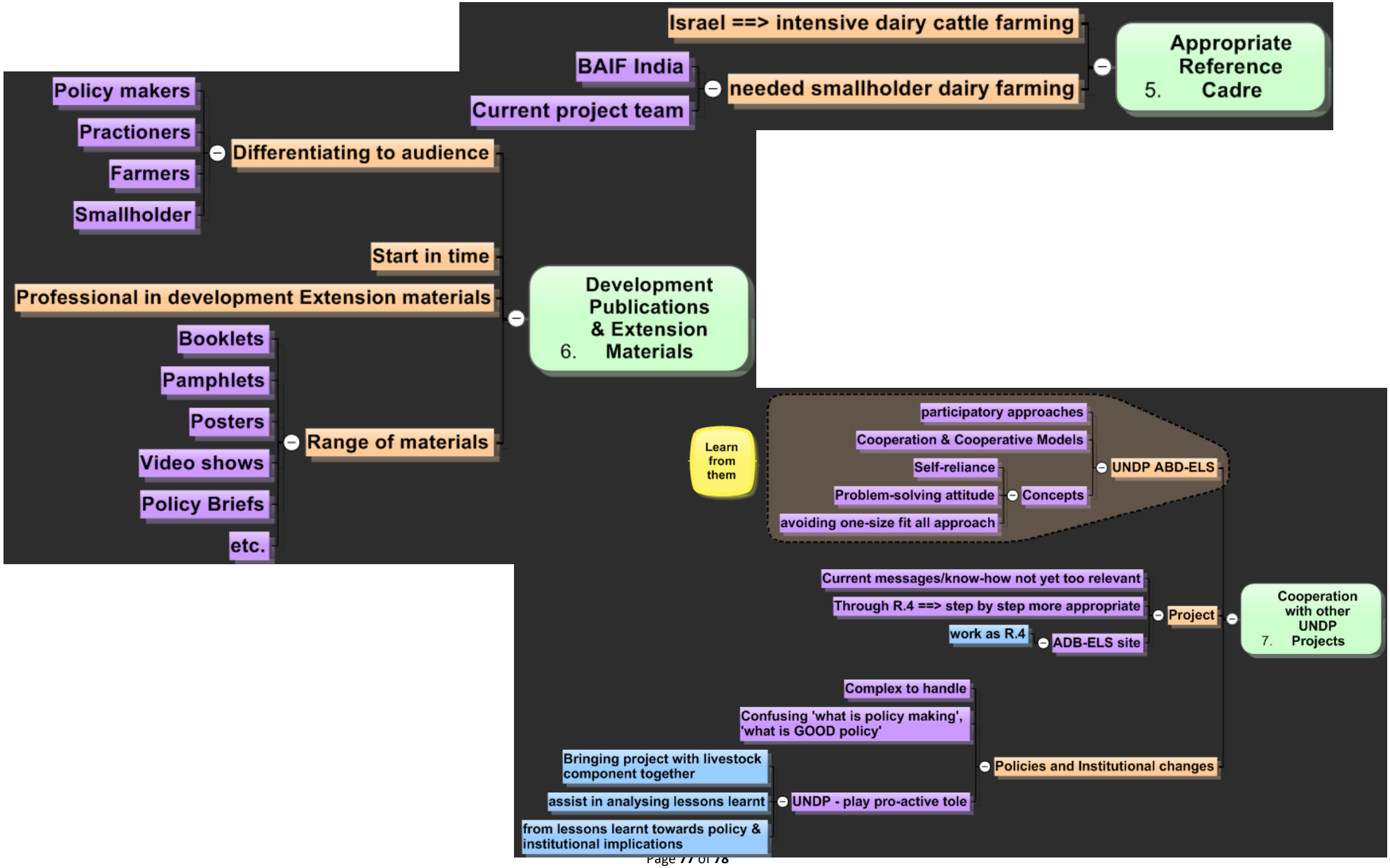
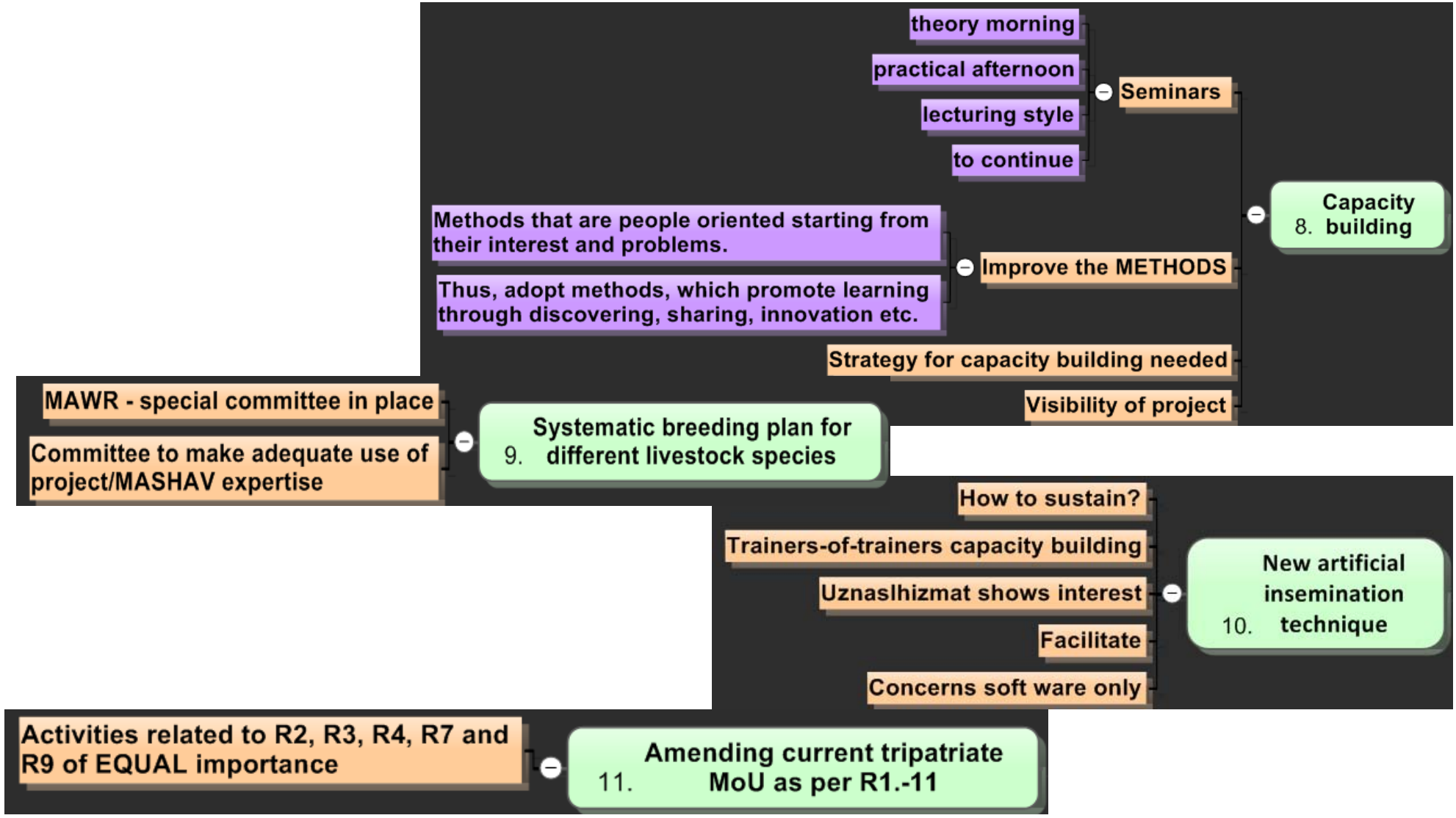



Israel ==> intensive dairy cattle farming
BAIF India
Current project team
needed smallholder dairy farming
5. Appropriate Reference Cadre
Policy makers
Practioners
Farmers
Smallholder
Differentiating to audience
Start in time
Professional in development Extension materials
Booklets
Pamphlets
Posters
Video shows
Policy Briefs
etc.
Range of materials
6. Development Publications & Extension Materials
Learn from them
participatory approaches
Cooperation & Cooperative Models
Self-reliance
Problem-solving attitude
avoiding one-size fit all approach
Concepts
UNDP ABD-ELS
Current messages/know-how not yet too relevant
Through R.4 ==> step by step more appropriate
work as R.4
ADB-ELS site
Project
Complex to handle
Confusing 'what is policy making', 'what is GOOD policy'
Bringing project with livestock component together
assist in analysing lessons learnt
from lessons learnt towards policy & institutional implications
UNDP - play pro-active tole
Policies and Institutional changes
7. Cooperation with other UNDP Projects


theory morning
practical afternoon
lecturing style
to continue
Seminars
Capacity building
8.
Methods that are people oriented starting from their interest and problems.
Thus, adopt methods, which promote learning through discovering, sharing, innovation etc.
Improve the METHODS
Strategy for capacity building needed
Visibility of project
MAWR - special committee in place
Committee to make adequate use of project/MASHAV expertise
Systematic breeding plan for different livestock species
9.
How to sustain?
Trainers-of-trainers capacity building
Uznaslhizmat shows interest
Facilitate
Concerns soft ware only
New artificial insemination technique
10.
Activities related to R2, R3, R4, R7 and R9 of EQUAL importance
Amending current tripatriate MoU as per R1.-11
11.