AGRICULTURE COMMERCIALIZATION PROJECT: CONSULTING SERVICES FOR VALUE CHAIN DEVELOPMENT AND TRAINING/ADVISORY SERVICE PROVIDER

QUARTERLY PROGRESS REPORT (January-March 2017)

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Abbreviations and acronyms

ACP	Agriculture Commercialization Program
ADB	Asian Development Bank
AED-PMU	Agriculture Entrepreneurship Development-Project Management Unit
AESA	Agro Ecological System Analysis
BM	Business models
CGS	Commercial Grant Scheme
CIG	Common Interest Groups
DF	Dekhan Farmers
DSF	Dairy Stakeholder Forum
FG	Farmer Group
FFS	Farmer Field School
IPM	Integrated Production Management
M&E	Monitoring and Evaluation
MCC	Milk Collection Centre
MFI	Micro Finance Institute
NSP	National Service Provider
POM	Project Operation Manual
PP	Productive Partnership
RRS	Rayons of Republican Subordination
RTSP	Regional Training Service Provider
TA	Technical Assistance
ToT	Training of Trainers
VCDTA-SP	Value Chain Development Training Advisory-Service Provider

Executive Summary

Capacity building is the key component in the Agricultural Commercialisation Project. During the reported period (1st January-31 March 2017) the Farmer Field School approach on Integrated Production Management combined with value chain development has been applied. The combination of training and meetings among stakeholders, over the entire project period, should result in improvements in the value chain and increased margins.

The FFS training program is divided in three modules 1) Integrated Production Management (IPM) 2) Post harvest and Storage 3) Quality, Processing and Marketing. Training modules for conducting FFS have been developed by NIRAS experts. The training modules have been grouped in training packages.

Farmer groups producing apricots have during the reported period been established. The first trainings in IPM have been conducted as well as stakeholder events, linking the various actors in the value chain together. Training sessions will continue to be organized at certain intervals throughout the apricot growing season, matching the cropping calendar. The other kind of producers to be trained and to receive advisory services on demand will be the producer groups, as soon as they have been established as pilots, in testing and introducing new innovative business models (BM) and methods in production, post-harvest and marketing. The first piloted BM in apricot post-harvest, handling, transportation and storage, linking processors and exporters have been drafted during the reported period together with the PMU and brought to the WB attention, for no objection. These groups of farmers, growing into productive partners, will be eligible for investments support through the grant scheme if they have responded and developed favourably.

Information about the Business Planning and the Grant Scheme under the ACP has been included in a training package, enabling the RTSPs Trainers to disseminate information to the farmer groups how to make a grant application.

The task description/activities by NSP and RTSP during the first 18 months of the assignment have been elaborated and agreed on with AED PMU. The VCDTA-SP has recommended that their performance will be re-evaluated after six months of the assignment, assuring it will reach high quality. NIRAS will closely work with PMU in developing indicators for evaluation of NSP/RTSP performance. The quick overview, during the inception phase, of the quality of the pre-selected service providers for the project, identified some limitations in their human resources and experience relevant to the assignment, particularly in FFS, compared to other available service providers. The Consultant is of the opinion that the NSP can be made redundant, lacking experience in FFS concept as well as lacking the ability and long-term vision in how to build up a sustainable extension system in providing paid services to farmers. The savings are recommended to be channelled to the RSTP whom are better positioned, closer to the farmers in the respective regions, more engaged in giving farmers and other actors' practical advice with a longer focus in making the services sustainable.

Due to time constraint, the first ToT in apricot was planned to be split into two and the first part started during the second half of January, prior to the growing season. Due to the limited experience the selected trainers have with farmer field schools, extra guidance in training has been given. It has been decided to conduct the ToT, in each FFS training topic relevant to the season. Main future topics are harvesting and post-harvesting procedures (in apricot) as well as financial analysis of the season. In addition, training modules with general topics for all

value chains like Farmer Group Formation, Training Methodology, Business Planning, Grant Application, and Monitoring & Evaluation of FFS have been developed, strengthening the training skills of trainers, enabling farmers´ to access new technology and assessing the outcome of the training. Furthermore, it has been agreed that the PMU staff will also be trained by the VCDTA-SP during April in the FFS methodology and M&E, enabling them became more knowledgeable, being overall responsible for the quality control of capacity building among farmers and all other stakeholders in the value chains.

The Consultant has during the reported period assisted PMU in the implementation of the Commercial Grant Program (CGP), jointly reviewing of the CGP Manual, making it clearer in some points, transparent, easier to use and monitor. PMU has recently received no objection from the WB to the rewritten version. PMU will be assisted during the next quarter in the next concrete steps linked to establishing the Grant Evaluation Committee and appointment of the Grant Consultant, for timely implementation of the grants program.

1. Introduction

The *Agricultural Commercialization Project* (ACP) funded by the World Bank aims to increase the commercialization of farms and agribusinesses in selected areas of Tajikistan. This is expected to be achieved by using a coherent and complementary approach, addressing all the main aspects of this effort by, increasing the capacity of farmers, traders, agri-businesses and agro-processors to engage in agricultural markets through access to knowledge and technical assistance; improving access to finance and strengthening critical elements of the institutional framework and the sector´s academic knowledge base required to support commercial activity. Emphasis will be given particularly to strengthening the ability of the new generation of small-scale, private farmers to engage in market activity. To achieve the economics of scale in production and greater market opportunities, smaller producers will be encouraged to cooperate to facilitate their access to market. The project will deploy a comprehensive approach of farmers training and assistance with development of business proposals, access to finance through credit and grants, assistance for farmers` cooperation, research of market opportunities and responding to identified market opportunities by becoming players in those value chains. Agribusiness will receive support to ensure that all links in their value chains receive the necessary support.

The Project focuses on three regions in Khatlon, Sughd and the Rayons of Republican Subordination (RRS) where agricultural potential is high and agriculture is critical for rural livelihoods.

The Value Chain Development Training Advisory Service Providers (VCDTA-SP) is supporting the AED PMU in implementation of the following three components:
1. Value Chain/ Producer Partnership Development
2. Training and Advisory Services
3. Commercialization Grants.

Delivery of services of the Consultant is guided by the Terms of Reference and the Project Operational Manual (POM).

The main elements of this support are to focus on;

- Value chain support activities: finalizing/phasing the value chain selection and support activities, as well as guiding the work of the consultant team in implementing the support to value chains;
- Implementing the value chain support activities, including, but not limited to helping establishment of farmer group/ associations, assisting in establishing linkages along the value chains, providing TA and advisory services to the agro-processors, traders, etc. involved in the specific value chains on technological improvements, new product development, access to markets, and other aspects as required to ensure successful functioning of the value chains;
- Providing Training-of-Trainers of the Training Service Providers in the subjects of Integrated Production Management (IPM), Post-harvest and Storage and Quality, Processing and Marketing.
- Assist the AED PMU with the implementation of the Commercialization Grants Sub-component.
- The project aims to reach 12 500 under the value chain development activities, and about 16 000 overall under all project components, of which no less than 30 % should

be women and 15% young people. Minimum number of small farmers with improved commercial activity reached should be 10 000.

This Quarterly Report covers the period 1 January – 31 March 2017. It describes progress achievement of the results expected from these tasks, as well as the challenges that have been identified and need to be resolved. Recommendations are made on possible resolutions.

The work during the quarter concentrated on undertaking an analysis of both the dairy and apricot value chains visiting potential business model demonstration. The purpose of examining the value chains and based on the findings developing the first Business models in Apricot and Dairy is to ensure a common understanding. Primarily the Business models are designed to be demonstrations where approaches can be tested, improved or discarded. Simultaneously, these will provide valuable insights into constraints and opportunities in value chains. The business models are not designed to represent an average or common productive partnership but rather to test and demonstrate approaches that would be used to improve value chains. For this reason the selection criteria for the Business models can be different to that of the productive partnerships as the principle criteria is to test new and improved activities and interventions. One of the activities that will be tested in all the Business models is the formation of producer groups as this will be a cornerstone of the productive partnerships.

The support during the quarter focused on the establishment of farmer groups and the training of trainers. A substantial part of the work has been allocated to the development of Training Modules, including development of all information and training material.

2. Implementation Progress

2.1 COMPONENT 1: VALUE CHAIN DEVELOPMENT ACTIVITIES

The project will support the development of a number (4-6) of commodity-based value chains and minimum 200 productive partnerships. The selection of apricot and milk was also confirmed during the first mission of the value chain development. Further, the value chains of lemon, strawberries and greenhouse crops (mainly tomatoes) have been identified for analysis and possible support. Agro-inputs, such as seeds, fertilisers, chemicals and finance has been identified as a constraint and therefore a separate activity to support the development of input supply and finance associated with it will also take place.

D3: Market and Value Chain Reports for the first two commodities (Apricot and Milk) based on value chains, including a strategy with the action plan for addressing key bottlenecks for the two commodity based value chains

Activities during the reported period:

2.1.1 Apricot value chain

Russian Federation remains the largest and most easily accessible export market for Tajik apricot and therefore an apricot market study in Russia, presented in annex 1, was made by Gilles Walker in March 2017. The market study from Russia together with the apricot value chain analysis in Tajikistan, undertaken during the inception phase, are used as a base in developing potential business model demonstrations. Improved access to Russian market for Tajik apricot exporters implies through all the parts of the value chain:

- At the production level: improve quality and stability by reducing the number of varieties and better selecting them:
- At the processing level: improve quality control, packaging, labelling, support certification process;
- At the sales level: create a sales force in Russia for access to retail chains, support information dissemination on the Russian market for all parts of the value chain (producers, processors, exporters);
- At the strategic level: diversify supply with high value added products, develop a brand "Tajik apricots", and participate to international specialized events in Russia for the promotion of food products.

Production level challenges will be addressed through trainings, introducing improved technologies and innovations through business models and the grant component for farmers. The project will also investigate the possibility of supporting processing companies and at strategic level work with state institutions and associations on promoting Tajik brand and market information dissemination. For 2017, three business models are proposed and all three of them address the production level issues.

The first business model is about supporting fresh apricot. Eight apricot producer groups were identified in the Sughd region, each group comprising of 25 fresh and dried apricot producers with a potential to form productive partnerships. A progressive exporter of fresh apricots from the Asht region has been identified with an objective to work closely with small farmers. The exporter is well positioned on the Russian market and has developed and

practice clear quality requirements for buying fresh apricots. The apricots, separated into three grades by the growers, are collected by the exporter during the daytime, with sufficient daylight to allow for visual inspection of the boxes. Each box of fruit bought from small farmers is labelled with the name of the producer to enable traceability. By carefully selecting the best positioned exporter of fresh apricots to be supported, working closely with small farmers producing the apricots, the strategy is to use this piloted business model for future replication. Apricot and Co. is regarded to be best positioned in confirmed export orders (as a result of attending the Trade Fair in Moscow, supported by the ACP), modern equipment to colour sort, pre-cool the fresh apricots, ensuring the highest possible quality, paying a premium to small farmers for quality and ready to work in partnership with productive groups of farmers. A training module addressing the constraints in the pre-season post-harvest handling among apricot producers has been developed and will be disseminated in April and May 2017. The training module will also focus on pruning and crop management to increase the yield and higher percentage of first quality of the harvested fruits.

The second business model is about establishment of centralised collection centre isolated from dust, rain and meant for drying apricot. Fresh apricot will be bought from farmers and dried at a centralized place applying improved methods of drying apricot. This business model has two major outcomes: 1) market for fresh apricot; 2) introducing improved method of drying apricot can be replicated by farmers at a large scale, in longer term.

The third business model, currently under development, is about improving access to certified saplings. One of the key challenges of farmers at the moment is access to quality saplings. The project will closely collaborate with the Institute of Horticulture in Sughd and Khatlon to support existing nurseries on improving access to certified seedlings.

2.1.2 Dairy value chain

Based on the SWOT analysis conducted for the dairy sector the main constraints found are low milk yields, poor milk quality, seasonal production and a lack of commercialization between the producers and the dairies (milk processors). This shows that well-functioning dairy value chains almost do not exist in Tajikistan except in a few isolated cases, usually where the dairies are close to the market in urban areas and have invested in their own large dairy farm. The key problems in the development of the dairy sector in Tajikistan are:

- Majority of cows are kept in very small herds (1-4 cows) in households
- Low milk yields due to poor genetics and poor feeding, especially in winter
- Little organisation of small farmers into associations, common interest groups (CIG) which results in continuing poor milk quality and high collection costs for buyers
- No value chain development
- Some highly inefficient state farms (or pseudo-state farms) remaining
- Dairy processors usually working inefficiently way below their capacity
- Dairy processors importing milk powder and condensed milk to reconstitute into dairy products
- No real extension service operating and lack of skills to transfer knowledge to small farmers
- The major part of milk is consumed at home or made into local low value dairy products (chakka and kurut)

A market study on dairy products is being prepared by a local consultant and the international value chain expert, this will be finalized and included in the next quarterly report. Official

data is often unreliable so it has been decided to undertake further research on collect more data and verify existing data. In addition, market surveys are being undertaken in stores and in some regions. Better information is available in Sughd and an interim report on Sugdh oblast and results of current surveys in Dushanbe is to be found in annex 2.

2.1.2.1 Strategies to Improve Value Chains

Based on the market study on dairy products, the following key activities are included in the business models being developed during the quarter. These are practical steps that will make a real difference in the development of the dairy value chain:

A. **Improved feeding:**

- The growing and storage of fodder beet and its distribution to households and small dekhan farmers (DF)
- The growing and storage of maize silage and lucerne hay and its distribution to households and small DF
- Better fresh water supply and grazing techniques through improved pasture management
- The provision of simple feed milling and mixing equipment to provide better concentrate feed

B. **Improved Milk Quality:**

- The provision of refrigerated bulk milk tanks to create a Milk Collection Centre (MCC) equipped with simple milk testing equipment
- The provision of refrigerated milk trucks to keep milk cold from the MCC to the dairy
- The provision of milking machines to improve hygiene and milking technique

C. **Small Scale Milk Processing equipment and cold storage:**

- The provision of small scale processing equipment to improve small processors or for farmers' groups to start processing
- The provision of packaging equipment.
- The provision of refrigerated/cold storage of dairy products

D. **The introduction of Improved Cattle Breeds:**

- The provision of in-calf heifers or young milking cows
- The provision of improved semen to AI centres to test cross-breeding on traditional cattle

E. **Improvements in the Marketing and Promotion of Dairy Products:**

- The provision of a refrigerated truck for the distribution of dairy products
- Development of a promotional campaign for selected dairy products

The above activities will be delivered through the following common approaches:

- The activity will stimulate and be linked to the formation of a group of producers
- The activity is delivered by trainers and, as part of the Farmer Field Schools' training to ensure there is a good understanding of the aims of the intervention
- The activities will be tested on 'existing farms' by comparing the 'existing farmer method' with the 'new method' to try to provide practical evidence of the impact of the activity
- The activities are based on a regular monitoring and evaluation system

- The sustainability of the approach is tested by different approaches – e.g. the sale of better feed to households and DF which could be sponsored by the project for an initial test period

2.1.3 Status of Project Deliverables and other outputs for component 1

Table 1 shows a summary of eight potential business models which includes the type of intervention that would be used and what results that is to be expected.

Table 1. Summary of potential dairy business models.

	NAME and Location	Description	Type of intervention	Expected outcome	Replication possibility
RRS	**ELOK 2015,** Faizabad	Existing MCC with own farm of 19 cows.	Better feed for distribution to HH - including fooder beet, maize silage and concentrates. Provision of cows / heifers to HH. Setting up of 2 new MMC	- formation of group, Increased milk yields - Improved milk quality	To be assessed on the basis of M&E recommendations Expected replication in other regions
RRS	**LAZIZ LLC,** Vahdat	New dairy processor with capacity of 20 MT / day	4-6 new MCC Improved feed of fodder beet and concetrates Better cows / heifers to HH	- Improved links between dairy and HH - Better milk yields - Introduction of additional services aimed at increasing the milk yields	To be assessed on the basis of M&E recommendations
RRS	**VET MCC and DF ZAINIDIN**	Existing MCC with large DF acting as an input supplier of feed	2-3 new MCC Improved maize silage, lucerne hay and concentrates	-Group formation Increased milk yields - value addition for the community - Improved knowledge and understanding of farmers on the necessary conditions (better feeding and keeping conditions for	To be assessed on the basis of M&E recommendations
KHATLON	**FARKHOR - LLC SHUKRONA DAIRY COOP**	Existing small dairy coop processor, good products	2-3 MCC Improved feed to HH, improved cows to HH	Group formation, better yields	To be assessed on the basis of M&E recommendations
KHATLON	**Kulyab - DF Madadgor – Small Dairy**	Small dairy run by large DF	2-3 MCC Improved feed to HH, improved cows to HH	Group formation, better yields	To be assessed on the basis of M&E recommendations
KHATLON	**Nufuzi Vakhsh** Coop	Small dairy coop	2-3 MCC Improved feed to HH, improved cows to HH Improved processing equipment	Group formation, better yields Better products / marketing	To be assessed on the basis of M&E recommendations
SUGHD	**Porsoi Khujand**	Large modern dairy processor	10 MCC Improved feed to HH, improved cows to HH	Group formation, better yields Better products / marketing	To be assessed on the basis of M&E recommendations
SUGHD	**NAZIRJON DF**	DF with 10 cows, selling milk locally	Better feed, better cows and milking machines Packaging of milk	Better yields Improved milk quality Better marketing	To be assessed on the basis of M&E recommendations

From this long list a short list was discussed and agreed with the PMU. To facilitate the process, three potential business models were presented to the PMU for a detailed discussion. This helped to clarify the selection procedure for the pilots. LAZIZ LLC has been chosen as it is a new dairy that is operational with a capacity of 20 MT of milk per day but is currently only processing up to 2 MT / day. ELOK 2015 has expressed its interest to expand, by setting up further MCC, supplying some of its own heifers and small farms to HH and to improve feeding. The SHARINAV farmer group has been chosen because of its interest in buying higher quality silage from an existing DF who already makes silage.

Finalization of business models

The business models will be an important step to enable the testing of key issues and bottlenecks that need to be addressed. These include:

- Improvements in feeding (especially forage)
- Development of a cool chain by setting up milk collection centres with refrigerated tanks
- Improvements in cattle breeding
- Improvements in husbandry and hygiene

The business models would be supported by training and grants, and the grants would be provided to farmers' groups. To facilitate the selection of business models, 23 potential farmer groups and milk processors have been visited. Many of these may also be potential productive partnerships.

Table 2: Number of dairy farmer groups in the regions of Tajikistan

Oblasts	Districts	Number of dairy groups
Khatlon	Vakhsh	5
	Bokhtar	2
	Dangara	0
	Khuroson	0
	Kulob	2
	Total	**9**
RRS	Fayzobod	4
	Shakhrinav	4
	Vahdat	4
	Hisor	2
	Total	**14**

To test some of the above key constraints and to ensure different types of business models a selection has been done. A brief summary of them and key issues are:

1. LAZIZ- D LLC – A new large dairy processor but with low milk supply so enthusiastic to develop value chains through setting up new MCC and improving feeding
2. ELOK 2015 LLC– this is an existing MCC which wishes to expand by setting up further MCC, has its own farm of 20 cows and is interested to supply some of its own heifers and small farms to HH and to improve feeding.
3. SHARINAV – A new farmers group which has been set up and wishes to buy higher quality silage from an existing DF who already makes silage.

It is urgent to finalize and seek approval of the business models, ensuring that they will be implemented in time. The options for financing ought to be more flexible than in the PP, taking into consideration that they are designed to test new methods and techniques.

The two interventions that can make a rapid impact are the provision of refrigerated bulk milk tanks which will improve milk quality in a village but also will provide a market for milk that was previously not available. The second intervention is improvement in winter feeding and especially in making of high quality maize silage, lucerne hay and fodder beet. Tajikistan has

good conditions for growing forage maize and lucerne and these are two of the best crops for milk production in the world with maize providing a high energy, bulky crop and lucerne providing a high protein feed. Forage maize needs to be irrigated in dry areas and lucerne does grow well on rain-fed land even in dry seasons. The business models will be used to test various ways of making and storing forage and delivering it to households, including experimenting with different types of packaging - small plastic bags of around 20 kgs, round bale silage of 200-300 kgs and bulk storage of silage and dividing the silage throughout the winter to households. MCC, training and improved feeding should be concentrated on villages which have a larger percentage of charno-piastraya cows as these have a higher capacity to increase milk yields compared to local breeds.

Pasture management will also be improved. Probably the biggest impact to improve the pastures would be to ease the grazing pressure by providing better and more forage for a longer time in the autumn and winter. Grazing in the spring could be delayed by 10-14 days which would allow the higher grass yield and thus be more resistant to overgrazing. Then, improved techniques like strip grazing or rotational grazing would be used to further improve the grazing management.

The general level of animal husbandry would be improved to maintain healthy animals, improve calf rearing, and where appropriate, to switch from hand-milking to machine milking.[1] All of the improvements will have their costs and benefits recorded to see what the real gain in efficiency is so that 'financially sustainable' models are then rolled out to the productive partnerships. This is especially true for the distribution of higher quality silage – the models need to test whether it can be profitable for the households to buy the silage (they could pay for it in increased milk) and also if the farmer growing the silage can get a good enough price for it so that it is a profitable crop for him to grow rather to grow an alternative crop.

The above criteria would be used to identify farmer groups who could then constitute the basis of setting up productive partnerships. All visited stakeholders within milk production (small processors, large processors, milk collection centres) have said they could buy much more milk – even 2 or 3 times more if they were able to finance refrigerated bulk milk tanks. Tajikistan has one of the lowest coefficients for the processing of raw milk in the world as it is estimated that only around 5% of total milk production is processed off-farm. This means that over 90% of the villages currently do not sell milk for processing and so if this dairy program is successful it could greatly increase the volume of processed milk. Therefore, the project is also undertaking a market study as it is important to understand the make-up of the market for dairy products, how it is changing over time and how milk powder and other dairy imported products could be replaced by import-substitution.

[1]Machine milking would probably only make sense where the household has 4 or more cows.

2.2 COMPONENT 2: CAPACITY BUILDING THROUGH TRAINING AND ADVISORY SERVICES

Producers will receive group-based organized training. It is expected that about 10,000 small farmers (producers) will be organized in groups for the purposes of connecting them into value chains, providing training, and technical and financial assistance. For larger, more commercially-oriented enterprises, demand driven training and advisory services will be provided. Such advisory services will be provided to agribusinesses and agro-processors seeking to develop / strengthen new / innovative links to the selected value chains.

D8: Expertise Report on Extension Services-related Studies

An analysis of the current extension service situation, including the mapping and review of current extension services in Tajikistan, has been done.

During the inception phase the main extension service providers was met to estimate which would be best suited as partners for the ACP. Recommendations, given to PMU at that time can be found in the inception report. During the current quarter, the draft study on extension services has been finalised, showing the current status of the extension system in Tajikistan. Payment for services has been an issue among donors and project implementers during the last decade. A symbolic price for services stimulates increased quality of provided services and offered services fitting the needs of farmers. For the Agricultural Commercialization Project (ACP) the following recommendation have been formulated:

- Aim at high quality training to farmers and use the trainings to create demand for individual advice on the farms. Regular field visits to the farmers by the trainer, having as a result an increased profit will create an opportunity to receive payment for the advice at the end of the season.
- The training farmer participants will not only be potential clients for individual advice. The trainer can also offer other services such as inputs, pruning, inoculation, spraying, etc.
- Offer written information, DVD, photo pocket books and other materials developed for farmers within the frame of the ACP against a symbolic price. Mind, anything for free has less value than anything a price has been paid for. If farmers pay a symbolic price for a DVD or photo pocketbook the farmer will use it for sure. The farmer only will buy it if the quality and content fits the farmers' needs.

The development of the agricultural extension service system in Tajikistan will be further monitored and evaluated and the findings will be presented in the final expertise report on extension services related studies in March 2019.

2.2.1 Component 2A: Training of Trainers for producer level training

D9: Training Program-related reports, including the detailed training modules, provision of Master Trainers and supervision of training activities

2.2.1.1 Development and Implementation of ToT Training Modules

Draft modules on apricot integrated production management have been prepared during the first quarter. The draft module on "harvest post-harvest practices" is under preparation and ToT will be delivered by end of April and May. Marketing is integrated in the monthly meetings among the value chain actors. Monthly value chain/ stakeholders meeting was conducted in Sughd in March bringing together representatives of processing company: "Apricot & Company", "Zardoluparvaroni Asht", "Isfara food:, agro shops: "Mehroj", "arshi Somon", Micro Finance Institute: "Imon International", "Arvand" and farmers. Each stockholder including processing company, MFI and agro-shops were presenting their products. During the meeting farmers and other value chain actors had an opportunity to exchange information on potential partnership. A follow up meeting will be conducted in April, one in Sughd and one in Khatlon, enabling farmers to further discuss sale of apricots with processing companies.

In average the FFS will comprise of 6 training seminars during the season. Main characteristic of FFS is that the special topics offered during the training are based on **farmers´ needs**. Therefore, during the first FFS training seminar a seasonal calendar is made together with the participants. Based on the seasonal calendar main problems are identified. Problems which can be solved by training are included as special topics during the FFS. Modules are developed for the main topics which normally arise in apricot growing and storage. Those topics are specified per day. In the meantime, modules for some alternative topics are prepared in case farmers demand for those topics. Another characteristic of the FFS is **learning by observing**. For this purpose during the first day experimental demonstrations are initiated. In the experimental demonstrations at least farmers practice and Integrated Production Technology (IPM) practices are compared. Observations are done every training seminar through Agro Ecological System Analysis (AESA). During day two the technological card is discussed and each farmer will make his/her own technological card. The technological card is in fact the planning of activities during the growing season. In the meantime, the farmers' notebook is introduced. The farmers' notebook should stimulate that farmers become more conscious about their own practices during the season. It also will enable the farmer to make its own economic analysis at the end of the season after harvest and selling the produce.

A. Apricot module development

In order not to miss the season the first FFS training seminars started in February 2017.In total 880 farmers have been trained, during three training days. Normally one should have started with the special topic pruning in autumn. Now, the first special topics are irrigation and fertilizers. If there is still a need in autumn farmers can request for a training seminar on pruning.

A module contains all information and materials, which gives to the trainer the opportunity to train successfully. Module consists of aim of training, plan of training, lecture presented with key words; materials the trainer can use such as flipcharts; exercises or tasks the trainer wants to assign participants; forms, which should be filled in by participants during the certain tasks;

handouts, which the trainer wants to give to participants; (existing) brochures related to the topic the trainers wants to disseminate or sell to participants etc. Also, an annex with existing training materials or brochures is provided to the trainers for each module, which give additional background information for the trainer.

The modules for apricot are listed below. Modules for day 1 to day 3 are finalised and the remaining modules will be finalised during the next quarter:
day 1 FFS, IPM, bulletin test, seasonal calendar, agroecosystem, experiments topic defining. A power point presentation (ppt) on IPM and FFS, a leaflet on IPM, a ppt about agro ecosystem has been and shared with the trainers.
day 2 Experiments AESA, technological card, cash flow, notebook for farmers and special topic fertilizers and irrigation.
day 3 AESA, specific topic pests and diseases, proper spraying, prepare Bordeaux solution, label reading. Specific visualisation tools included in the module are: a photo exercise. Each trainer receives a box with laminated photos to be used during the FFS trainings. The farmers will prepare the Bordeaux liquid during the training and an instruction of this will be available on a DVD. A small photo pocketbook on pest and diseases is included in the module. This enables farmers to recognise pests and diseases when they are in the apricot orchard. A power point presentation on pests and diseases has been presented and shared during the ToT.
day 4 AESA, special topic harvesting and drying apricot. This module was finalized in April 2017.
day 5 Financial analysis based on farmers practice and IPM experiment, business planning. This module was finalized in April 2017.
day 6 Pruning. This module has been finalized for training in green pruning during the season
Additional alternative modules depending on the demand of farmers: phenology, grafting (DVD include), varieties, biological specifications, protection against frost. Those modules are under preparation.

The EU financed Central Asia Invest lV Boosting Small Businesses Competitiveness project, implemented by Hilfswerk Austria, is intensively working on apricot value chain development and close cooperation is foreseen. In 2017 a DVD on production (max 25%, most probably mainly innovation activities such as green pruning) and harvesting and drying of apricots is planned. ACP will participate in the production of the DVD in partnership with Hilfswerk Austria. A Memorandum of Understanding of this partnership is under preparation.

B. Dairy module development

A working group meeting has been conducted to define the main modules for the dairy FFS value chain development. Participants of the working group are representatives of USAID-Chemonics Feed the Future Tajikistan Agriculture and Water Activity, Agralis – importer of farm dairy equipment and vet association. Detailed ToRs and content has been decided on and it is planned that the first draft materials will be ready mid-April 2017. Contrary to the step by step approach in developing the modules on apricot all the dairy modules will be completed before starting the training. Consequently, the future trainers will have a complete overview of available modules when starting the training. The step by step approach was chosen not to lose the season of apricot.

2.2.1.2 ToT on apricot FFS value chain development

VCDTA-SP conducted a 5 day ToT on apricot FFS value chain development. The aim of the ToT was to prepare trainers to conduct FFS on integrated production technology and to facilitate VC development on apricot. The ToT was also used to make a final selection of the trainers selected by the RTSP.

BonuvoniKhatlon sent 14 trainers from Khatlon and Zarzamin sent 6 trainers from Sughd. Additionally, the PMU training coordinator and field coordinators of Sughd and Kurgan Tuppe participated as well as 3 representatives of the NSP. In total there were 26 participants while additionally other experts of PMU participated one or two days.

It was decided to organise one ToT for both regions Sughd and Khatlon, which gave the opportunity to exchange experience and make business contacts. During the training, available knowledge and skills has been used as much as possible. VCDTA-SP had the lead in training on FFS development, training methodology and negotiation skills, while participants were challenged to present topics like use of fertilisers and irrigation. Participants were invited to prepare those topics using the draft modules on those special topics as well as their own knowledge and experience. By presenting those topics they got the opportunity to receive feedback on their training/presentation skills.

Experts from NSP were involved in new innovative topics like protection against frost and in experiences on payment for services. Also more experienced participants were requested to share experiences in using marketing information and selling their advisory and information services.

The first Training-of-Trainers on Apricot FFS value chain development, conducted in Kurgan Tuppe, in February. The set of photos illustrates the close interaction between the NIRAS-PMU team, trainers and the Service Providers organizing the event.

Participants have been prepared to conduct the first three training seminars of FFS training. It was planned to have a next ToT in April for the preparation of the last three of the six FFS seasonal trainings. During the first ToT it became clear that the selected regional service providers in a very limited extent use the already available capacity / trainers on FFS in Tajikistan. Extra input and guidance is needed for the trainers and therefore it has been decided to conduct ToT for each FFS training topic simply in an FFS and to conduct the ToT exactly as how the FFS should be conducted.

Related to marketing, the FFS value chain development approach offers the opportunity to directly practice marketing of produce rather than to get (theoretical general) training on marketing. This opportunity is given through the monthly actor meetings. The monthly actor meetings will start with a strategic planning seminar. During the ToT the approach has been explained. As participants do not have experience yet in organising such strategic planning seminar, the first seminar has been conducted by the VCDTA-SP in cooperation with the RTSP in Kurgan Tuppe as well as in Sugd. Having this experience, potential buyers from Sughd also showed interest to buy in the Khatlon region.

NIRAS assisted the RTSP in Sughd in developing the agenda and organizing the first forum on 9th of March in Khujand. Fifteen leaders of the apricot Farmers groups (6 from Isfara, 6 from Asht and 3 from Baffur´s district), representatives from processing companies (OJSC "Abrikos & K", AFH "Zardoluparvaroni Asht", NGO "Isfarafud", Agro-shops ("Nexigol-Musoshir", "Sarob", "Arshi Somon" and "Mehroch")) as well as one credit organization "Imon International" took part and promoted their business, products and willingness to work with the farmers.

2.2.1.3 Participants of the ToT

When preparing the ToT it was estimated that the participants would have been selected according the given criteria of relevant experience in interactive training. Specific training methodology was not on the agenda. Continuously the applied interactive methods were evaluated and lessons learned were listed. The selected trainers only have limited experience with interactive training methods. Therefore the provided methodology aspects were not really sufficient. During the season in FFS training, quality will be evaluated, and if needed, additional training on interactive methodology will be offered. As especially the trainer capacity in Khatlon is relatively limited, the VCDTA-SP conducted the first FFS training seminar of each day as much as possible together with the experienced agronomist in Khatlon. After that, the agronomist should guide the trainers intensively. Agreements about this approach have been made during a meeting with PMU, manager of Bonuvoni and manager of NSP.

An interesting aspect of the participants was that some trainers of Sughd are involved in business (input supply, packaging services, etc.). This will give the opportunity to develop the combination of business service provision and extension service provision. Costs for extension can be paid from the profit of the business. The development will be actively followed during the ACP project implementation.

Of the 14 participants of Bonuvoni, 2 participants were not approved by PMU due to an age over 75 years old. One participant himself resigned as he was not satisfied with the fee offered for conducting the training.

D11: Expertise reports on assessment of Training and Advisory Services

56 Farmer Groups have been established by the 31st March, 2017, as potential PP, in the targeted districts below:

Table 3. Number of established farmer groups in the regions of Tajikistan

Oblasts	Districts	No of apricot groups	No of dairy groups
Sugd	Asht	6	
	Isfara	6	
	B.Gafurov	3	
	Gonchi	0	
	Shahristan	0	
	Total	**15**	**0**
Khatlon	Vakhsh	7	5
	Bokhtar	6	2
	Dangara	1	0
	Khuroson	4	0
	Kulob	0	2
	Total	**18**	**9**
RRS	Fayzobod		4
	Shakhrinav		4
	Vahdat		4
	Hisor		2
	Total	**0**	**14**
	Grand total	**33**	**23**

In cooperation with PMU M&E expert and PMU training coordinator, questionnaires and excel database have been designed to collect relevant information for M&E purposes of apricot value chain development through FFS. A questionnaire for farmers before and after apricot FFS has been designed and provided to the RTSPs. The information from the questionnaires will be entered in a simple excel database. Additionally, monthly information is collected about FFS from RTSP, the FFS@aglance. This will give a quick insight in the state of affairs of conducted FFS and participants.

Monthly reporting and planning has been introduced as well. The PMU training coordinator Kurbonali will receive the following from regional service providers;

1) Monthly planning dates for FFS and monthly meetings working group.
2) Monthly Report from monthly meetings working group (participants, what topics or problems discussed. What decisions / solutions); FFS report: description of the experiments and progress, FFS training what was different than planned during the FFS, Why? What was good? What needs to be improved? How are you going to do? Others? (proposals, ideas, etc.)
3) M&E database to be prepared until 05/03/2017 and FFS excel file to be updated monthly.

Monthly deadlines: report until 5th of the month. Plan for next month until 25th of the month.

Regularly field visits take place by VCDTA-SP and PMU training coordinator. A checklist for quality control has been elaborated. Reporting of field visits will be done following this checklist.

The training coordinator and field coordinators are well engaged in this process. With some more guidance PMU and Regional Service providers will gain more experience. However, taking into consideration that the forms are quite simple, the regional service provider of Khatlon was not very cooperative and open in filling in the forms and prepare the requested reports.

NIRAS has designed a Monitoring and Information System (MIS) for tracking qualitative and quantitative indicators of FFS, working closely with the Training Coordinator and M&E consultant of PMU. At the end of March, the following number of participants in the trainings of apricot farmers had been recorded, which were presented at the in-house FFS and M&E training of PMU staff on 20th April:

Table 4. Number of participations in Farmer Field Schools.

	Total	Women	Youth	% women	% youth
Sugd	376	168	86	45%	23%
Khatlon	507	209	157	41%	31%
Total	**883**	377	243		

Table 5. Number of apricot Farmer Field Schools in Sughd and Khatlon.

Number of FFS apricot in the different districts in Sughd and in Khatlon	
Khatlon Dangara	1
Khatlon Xuroson	4
Khatlon Vahst	7
Khatlon Bochtar	6
Sugd Asht	6
Sugd B. Gafurov	3
Sugd Isfara	6
Total	**33**

2.2.2 Component 2B: Agro-processors and Agribusiness Enterprises

D12: Training materials for demand oriented training

A SWOT analyses was conducted with ten apricot agro processors and agribusiness enterprises with an aim to identify their specific needs and potentials. The results of the SWOT analyses are given in table 6 below:

Table 6. SWOT analysis for 10 apricot agro processors and agribusiness enterprises.

Strengths	**Weaknesses**
▪ Unique natural resources, conducive climatic conditions for growing fruits and high content of fructose ▪ Access to export market: Russia, Kazakhstan, Ukraine, Belarus ▪ Established logistics with Russia	• Too many varieties of apricots • Lack of awareness on Tajik brand for apricots in international market • Lack of access to quality equipment for processors • Poor packaging quality • Lack of qualified specialists on standards and technology • High cost of introducing international standards • Unstable makes: it is difficult to plan the production, processing equipment is not used at full capacity, high depreciation costs per volume • Lack of: - one standard in apricot among Tajik processors; - international accredit laboratory; - improved knowledge on processing and storage; - storage facility for raw material; - established partnership with farmers and buyers;
Opportunities	**Threats**
▪ Entering new international markets: - Asian market: UAI, Iraq, Iran, Turkey, China, Malaysia, Japan, Korea Unique natural resources, conducive climatic conditions for growing fruits and high content of fructose - EU: Germany, Switzerland, Czech Republic, Holland, Lithuania - USA ▪ Increase area with improved varieties of apricot ▪ Introduce new technologies on processing ▪ Improve quality of raw material ▪ Increase demand for premium quality through trade fairs etc. ▪ Human resources to be further trained ▪ All products of farmers is sold ▪ Diversification of products: - Apricot powder and pure.	▪ Strong dependence on Russia market ▪ Potential sanctions from Russia ▪ Lack of state benefits/subsidiaries from stat for processing companies ▪ Economic recession and social instability in the import country leads to decreased purchasing power of consumers.

The key outcomes of the SWOT analyses are in line with recommendations of the Russia Market Report when it comes to quality assurance, branding and need to study and entering other potential market. The project will further work with processing companies, association

of processors and other relevant institutions on developing a market strategy for Tajik apricots. It is planned to participate in "China International Food Exhibition and Guangzhou Import Food Exhibition" in June 2017. Processing companies who have diverse products will be supported to participate in this exhibition to promote Tajik products in the exhibition. At the same time NIRAS and PMU staff will study the potentials for Tajik apricots to enter into this market.

During the FFS and interaction with the processors and agribusiness (other participants of the value chains) they will be asked to specify other forms of training they may require. This will be described in the next quarterly report.

D13: Expertise reports on a) agricultural inputs, b) advisory services to agribusinesses progress reports, c) agro-processors progress reports

Representatives of four agro processors were supported to participate in an international trade fair Prod Expo in Moscow. Unfortunately, Tajikistan did not have its own corner in the exhibition to promote Tajik products as such. Oro Isfara was partnering with a Russian company to promote its products. Association of Apricot Processing Company was also supported to participate in the trade fair which closely collaborated with NIRAS expert on studying the Russia market for Tajik apricot. It is planned to closely collaborate with this association on developing a market strategy and Tajik brand for apricot. Two other processing companies "Apricot & Company" from Sughd and "KT Pishekombinat" from Khatlon participated in the trade fair. Apricot & Company has an experience of exporting fresh apricot to Russia through retail chains and was, during the exhibition, able to enter into partnership for 2017 with four retail chains from Russia: Magnit (http://magnit-info.ru); Agrotechnology (subsidiary of Magnit); Мария-Ра (http://www.maria-ra.ru) and Dixy https://dixy.ru/.

2.2.3 Status of Project Deliverables and other outputs for component 2

2.2.3.1 Expertise Report on Extension Services-related Studies

The draft expertise report has been finished. The deadline for this output is March 2019. Until that time the new developments in extension services in Tajikistan will be studied with emphasis on the regional service providers involved in the project.

2.2.3.2 Training Program-related report, including the detailed training modules, provision of Master Trainers and supervision of training activities

For each FFS on value chain development, training modules will be developed. Currently the modules for FFS apricot value chain development and dairy value chain development are under preparation. For the apricot modules day 1, day 2 and day 3 are finalised. The whole package of modules on apricot and on dairy will be finalised in the next quarter.

NIRAS provided master trainers involved in the development of the modules. Those master trainers will also conduct the ToTs. In principle for each topic a ToT will be organised during the season and on the spot in the FFS.

Supervision of training activities has been started using the checklist for quality control of FFS. In the next quarter the guidance by NIRAS will be intensified.

Besides the modules for specific FFS training seminars, common training manuals are available for trainers. Those common training manuals are relevant for any FFS trainer and training.

A **training manual on training methodology** has been prepared. In this manual the trainer can find many ideas and recommendations which support to conduct a good training. One chapter is dedicated to background information on adult education, training and organising training seminars. In another chapter various training methods are described which will help the trainer to involve the training participants actively in the training. Interactive training will increase the effect of the training. And finally attention is paid to visualisation of the topics in training.

Another relevant training manual is a **manual with exercises on group dynamics or energizers**. This manual was developed some years ago to be used in ToTs for Farmer Field School training and can be used again by the trainers in the ACP project.

2.2.3.3 Publication and country wide dissemination of training and information materials, both physical materials –poster, leaflets, digital copies of written information and training videos (i.e. CDs of written information, DVD copies of recorded presentation/demonstrations), plus on-line publication of all training materials

NIRAS is responsible for the development of the modules for the trainers of FFS. NSP is responsible for printing of materials which can be disseminated through trainers of the regional service providers. NIRAS developed the photo pocketbook on apricot. Unfortunately, due to the non-cooperative attitude of the NSP the photo pocketbook could not be printed for farmers before the training on pests and diseases. NIRAS disseminated the photo pocketbook already to the trainers during the ToT in January 2017.

2.2.3.4 Expertise reports on assessment of Training and Advisory Services

The assessment of the quality of FFS will start during April.

2.2.3.5 Training materials for demand oriented training

The current Farmer Field Schools are undertaking training for apricots and dairy which are described in D9 above. One of the outputs of the Farmer Groups and FFS is to identify further training that the FGs would like to have. It will be described in the next quarterly report.

D13: Expertise reports on a) agricultural inputs, b) advisory services to agribusinesses progress reports, c) agro-processors progress reports

The expertise in agricultural inputs and advisory services to agribusinesses and agro-processors will be engaged at a later stage.

2.3 COMPONENT 3: IMPLEMENTATION OF THE COMMERCIALIZATION GRANT PROGRAM

The PMU will be assisted in designing and implementing an efficient and successful grants program by; 1) defining and support the implementation of successful business models, 2) support the implementation of the Commercial Grant Programme, including the review of the CGS Manual, Support in writing the business plan and application form samples, 4)assist with the appraisal of grants application and implementation of grant contracts in the value chains supported by the ACP,5)identify new potential areas for grant support within project value chains.

2.3.1 Status of Project Deliverables and other outputs for component 3

The PMU was assisted in reviewing the existing Grant Commercialization Scheme which was then approved by the World Bank. Based on the grant scheme a training module was developed together with PMU on Business Plan development. Initial trainings were conducted in Khatlon and Sughd for eight farmer groups and staff from the National and Regional Service Providers in April. Training on Business Plan development will be further conducted to farmer groups by the Regional Service Providers (RSP). In year one NIRAS and PMU will closely work with RSPs and farmer groups in supporting them to develop business plans for grant.

Initial trainings in "Business Plan Development" and "Grant Application"

D14: Assistance to Commercialization Grants Scheme progress reports

The current approach of the grant scheme is that it is designed for farmer groups (FG) and the group can apply once with a maximum grant limit of $35,000.In the vast majority of cases the FG will be new groups stimulated to develop by the project and so are likely to be conservative in their development and want to minimize risk and limited amount of cash to finance their own contribution of 20 %.Therefore, most groups would probably apply for a small grant. If they can only apply once it means that this may create friction within a new group and they are likely to apply for 'items' they are not sure they really need. The experience from other similar schemes strongly suggests that groups usually require one season to consolidate the group – apply for grants to support production, and then the following year will apply for further value added such as sorting and packaging equipment.

To minimize the volume of work in processing grant applications it is proposed that a FG should be able to apply twice and the second application should be fairly simple (as the FG will have already met the criteria) and the 2nd application should also have some information about the experience of the first grant.

3. Coordination with other projects

Many households and small farmers produce milk without using chemicals or fertiliser but are not yet registered as certified organic producers. In Sughd, **Helvetas** and **GIZ** have supported a co-operative 'Bio-Kishovarz' which produces organic cotton and has around 300 members and over 500 Ha of land. Most of the farmers grow lucerne as part of the rotation with organic cotton and so must have dairy cows so this could be an interesting productive partnership for dairy.

The Asian Development Bank (**ADB**) has just started a project preparation project: "Achieving Food Security through Climate Resilience - Dairy Value Chain Development" and will set up a 'Dairy Stakeholder Forum (DSF)' to bring together a 'private-sector led forum for all stakeholders' to discuss issues and future strategy for the industry and discuss regulatory and policy issues with the Government. This would assist the VCDTA-SP to engage with the DSF to present recommendations for policy options to enhance the dairy sector. The Minister of Agriculture has confirmed that dairy is a priority sector for them so a working group could be formed with the DSF to make an analysis of key policy and regulatory constraints facing the dairy industry and propose solutions to the Government.

The EU financed Central Asia Invest lV Boosting Small Businesses Competitiveness project, implemented by **Hilfswerk Austria**, is intensively working on apricot value chain development and close cooperation is foreseen. In 2017 a DVD on production (max 25%, most probably mainly innovation activities such as green pruning) and harvesting and drying of apricots is planned. ACP will participate in the production of the DVD. A Memorandum of Understanding is under preparation.

There is a close cooperation with the **USAID** Chemonics Feed the Future Tajikistan Agriculture and Water Activity project in Khatlon. This project is a.o active in training in apricot and dairy as well as providing grants to strengthen value chains.

The still GIZ supported national association of extension workers has a huge experience in training of trainers and a close cooperation takes place in module development.

Several areas of collaboration have been identified in discussions with The EU Enhanced Competitiveness of Tajik Agribusiness Project (**ECTAP**) which are complementary and will together have a greater impact in strengthening the apricot and dairy value chain, providing loans to farmers to purchase agricultural equipment and machinery, testing equipment and devices for processing enterprises of food products. The ECTAP project is in the process of importing modern laboratory equipment for the control of food and feed products, enabling threshold levels to be introduced and certification. VCDTA-SP will include information on food safety in the Training Modules and train trainers who will disseminate the information to farmers.

4. Work plan and Staff Deployment

4.1 STATUS OF STAFF INPUT

Table 7. Status of staff input up until March 2017.

Consultant	Position	Inputs (Working Days)		
		This quarter	Cumulative	Budgeted
Rutger Persson	Team Leader	42,5	105,5	598
Richard Rozwadowski	Expert on VCD, including establishment on farmer group	15	34	137
Petra Geraedts	Expert Agro and VCD training	28	52	147
Gilles Walter	Finance and implementation of commercialization grant	15	25	99
Nazira Zevarshoeva	Deputy Team Leader, Value Chain Marketing Expert	52	52	1050
Ibrohim Sharifov	Local Expert on Agro and VCD trainings	34,25	52,25	294
Boymurod Kurbonov	Local Expert on establishment of farmer/group associations	45,5	64	184
Igbrahimov Mahmadlatif Jomahmadovich	Local Expert on finance in agriculture	29	34	158
International Non-key experts		0	0	84
National Non-key experts		12	12	252

4.2 WORK PLANNED FOR NEXT QUARTER

During the next quarter, 1 April - 30 June 2017 work will focus on the following, under the respective deliverable.

4.2.1 Market and Value Chain Reports for the first two commodities (Apricot and Milk) based on value chains, including a strategy with the action plan for addressing key bottlenecks for the two commodity-based value chains

Market and value chain reports are updated continually and so updates will be attached to future reports, as appropriate.

4.2.2 Market and Value Chain Reports for the remaining four commodities (tomato, lemon, strawberry and agri-inputs), based on value chains, including a strategy with the action plan for addressing key bottlenecks for the four commodity-based value chains.

This section will be updated after a meeting with PMU on 28th April to discuss the pre-selected new value chains and to consider whether any should be replaced or changed. Some basic research will be done prior to the meeting on each VC.

Agri-inputs are an important part of all the value chains so it is proposed to consider those linkages in each of the specific value chains and to produce a short assessment of cross-cutting issues, like access to machinery and equipment and, of course, access to finance and to produce recommendations.

4.2.3 Report on minimum 200 productive partnership and market linkages established

A template for the applications of productive partnerships (PP) will be developed together with the PMU.

4.2.4 Report on business model demonstration

The business models are being finalized in April and operations are planned to start in May, 2017. A description of them and initial findings from implementation will be included in the next quarterly report.Annex3 is an example of the formulation of a BM.A further dairy BM will be identified in Sughd and included in the next report.

4.2.5 Expertise Report on Assistance to Development of Market Information System

PMU has initiated collaboration with the State Statistic Department in developing Market Information System. For the time being no technical assistance from NIRAS has been requested.

4.2.6 Expertise Report on Assistance to the MoA with Policy and Regulatory Reform relevant to Agricultural Commercialization

A detailed workplan will be developed together with MoA and a technical working group established for the Agrarian Form Program.

4.2.7 Expertise Report on Extension Services-related Studies

No activities will take place in the next quarter. Deadline is March 2019.

4.2.8 Training Program-related reports, including the detailed training modules, provision of Master Trainers and supervision of training activities

The total package of modules on dairy and apricot will be finalized during the second quarter.

In a follow up meeting on 24th April with Umed Aslanov from the **Hilfswerk Austria** financed Central Asia Invest lV Boosting Small Businesses Competitiveness project, it was agreed to work together on a BM in piloting Global Gap among a group of apricot growers, training them in the requirements of Global Gap and facilities they need to acquire. A Memorandum of Understanding is under preparation.

4.2.9 Publications and country wide dissemination of training and information materials, both physical materials –posters, leaflets, digital copies of written information and training videos (i.e. CDs of written information, DVD copies of recorded presentation/demonstrations), plus on-line publication of all training materials

During the next quarter, clear agreements need to be made with the NSP to print or copy needed materials on apricot and dairy in time.

In a video film project, starting during the second quarter, together with the Austrian Central Asia Invest lV Boosting Small Businesses Competitiveness project, improved practices in apricot production, harvest and post-harvest practices will be recorded, resulting in a 3 minute long film how to increase the quality of fresh and dried apricots. This film will be disseminated to a large number of small farmers, as part of the training in the quality requirements of Global Gap. Furthermore, it was agreed with Austrian project that PMU will take part in a Regional working group to developing an Explanatory Brochure for identifying damages on the fruit that will have a negative impact on the quality and price of the fresh and dried apricot. A catalogue and poster with information and illustrations on the standards and how to grade the apricots is also planned to be accomplished during the next quarter, together with UNECE (http://www.unece.org/index.php?id=41409#/).

4.2.10 Expertise reports on assessment of Training and Advisory Services

The assessment of the FFS training and advisory services will commence during the second quarter. Observations and recommendations will be included in the next quarterly report

4.2.11 Training materials for demand oriented training

During training and throughout all the interaction with the value chains, farmers and agribusiness will be asked for specific topics for training that they require

4.2.12 Expertise reports on a) agricultural inputs, b) advisory services to agribusinesses progress reports, c) agro-processors progress reports

During the FFS and interaction with the processors and agribusiness and other participants of the value chains, they will be asked to specify other forms of training they may require. This will be described in the next quarterly report.

The need of further expertise is linked to the Agrarian Reform Program. Next meeting of the working group is scheduled to take place in end of April which will endorse the key directions. Based on that, we will work on a detailed work plan.

4.2.13 Assistance to Commercialisation Grants Scheme progress reports

Initial trainings in Business Plan development and Application of a Commercial Grant were conducted in Khatlon and Sughd for seven farmer groups and staff from the National and Regional Service Providers in April.

Training on BP development and how to apply for a commercial grant will be further conducted to farmer groups by the Regional Service Providers (RSP) with support of NSP. In year one, NIRAS and PMU will closely work with RSPs and farmer groups in supporting them to develop business plans for grant.

NIRAS will assist PMU in developing the terms of reference for the duties of the Commercial Grant Committee as well as the ToR of the Grant Consultant to be employed by PMU as a Grant Consultant. PMU will, during the second quarter, seek no objection from the WB Task Manager before the actual work can commence in evaluating and approving commercial grants that are expected to be submitted by the farmer´s groups trained and assisted in how to make an appropriate Business Plan and application for a Grant to the PMU.

5. Challenges and Recommendations

The main challenges on the implementation of the program are to ensure Farmer Groups are set up and willing to change their traditional systems and that sufficient group can be mobilised in a timely manner. Many operations depend on the time of year e.g. planting maize for silage and so a season can be lost if there are any delays. Therefore, for the business models, which are designed to test specific inputs, it is important that there is a rapid approval process and there is a greater degree of flexibility than in the productive partnerships. For both the PP and BMs an important issue will be the availability of the farmers' own contribution as usually they have little or no cash. Of course, the farmers' can make many contributions including labour for the construction of buildings (e.g. for MCC), labour for collection and preparation of feed etc. There is a requirement that all equipment purchased should be new – this does limit the demonstration effect of the BMs as, for example, a milking parlour or portable milking bale (that would be used at pasture) will be very expensive new and can be much cheaper second hand so there could be an argument to review this for very specific examples that, otherwise, would not be demonstrated.

One of the challenges of the project is to develop high quality FFS. The FFS approach is already applied in Tajikistan since 2007 and well adapted to Tajik circumstances. Unfortunately, the recruited service providers, especially Bonuvoni Khatlon and Latif, have no or limited experience with FFS. They need good guidance. PMU´s training coordinator and field officers are eager to learn and visit the FFS which gives a good perspective for the next 4 years. NIRAS experts closely work with them. In this situation, a sufficiently qualified National Service Provider with good experience in FFS approach would mitigate the situation. Until now, the NSP has not shown any interest to develop itself into becoming expert in the FFS approach. Therefore, we have questioned whether the NSP is needed in this case?

Quality of the selected trainers for apricot is too low, which will put the quality of FFS at risk. Intensive quality control will take place and solutions for improvement will be developed. Condition for success is an open attitude by the regional service providers. The regional service provider needs to be open to critical look at activities and results and be creative in finding solutions rather than to try to defend themselves. Especially Bonuvoni Khatlon needs to take this attitude into consideration. Another problem is that Bonuvoni Khatlon did not involve expertise of ATAC from Kuljab. ATAC is the organisation who started FFS in Tajikistan.

In order not to miss the season for apricot this ToT was quickly organised. A five days training in a small room with 26 participants was a good start but not enough for participants who do not have experience with FFS. Having the season in front of us the next ToT will be conducted in practice in the field. Additionally, for the future it is recommended to organise ToT per training day of the FFS. ToT will be conducted and after that the trainers can "copy" this training in the FFS. This is repeated for the following FFS training days. Only the first two days in which the FFS approach is centre of activity one ToT will be conducted.

A serious problem that affects the food safety, consumers trust in locally produced food and commercial opportunities in agriculture, and the value chains the project is supporting, is the free availability and excessive use of agrochemicals by farmers, controlling weeds, pests and diseases. Agrochemicals are freely imported from neighbouring countries. Some of these products are very toxic, persistent, and harmful for the human health and the environment. We need therefore to create awareness among farmers, value chain actors, authorities and propose

measures. ECTAP is in the process of importing laboratory equipment for the control of food and feed products, enabling threshold levels to be introduced and certification. The VCDTA-SP will include information on food safety in the Training Modules, train trainers who will disseminate the information to farmers. The Apricot Marketing Study highlights the future food safety requirements in Russia, protecting the consumers, open markets to be phased out, replaced by food retail chains with stricter food safety and traceability requirements. The Project will assist Tajik farmers and value chain actors in adjusting to the new market requirements, maintaining and possibly strengthening its market position in Russia as well as diversifying into new markets.

Annex 1 - Apricot Market Study in Russia

Promoting the sales of Tajik Apricots in Russia

Market Study

Agriculture Commercialization Program (ACP)

March 2017

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Executive summary

For obvious historical, geographic and demographic reasons, Russian Federation remains the largest and most easily accessible export market for Tajik apricots, both fresh and dry. Official statistics do not reflect the actual volume of sales, mainly because a large part of the apricots exported from Tajikistan to Russia are either registered as coming from transit countries (mainly Kyrgyzstan and Kazakhstan) or not registered at all.

Currently, apricots are mainly sold in big bags through gross markets. Only a handful of Tajik processors and exporters managed to conclude direct contracts with retail chains. Wholesale markets shall remain an important sales channel in the medium term. However, the rapid development of modern trade, including the boom of retail chains, gives obvious opportunities to apricot exporters from Tajikistan. Russian authorities also officially started to implement a strategy of supporting organic and healthy products. This is an opportunity for Tajik apricots provided that they manage to meet the certification requirement and put in place efficient logistics.

Overall, an improved access to Russian market for Tajik apricot exporters implies through all the parts of the value chain:

- At the production level: improve quality and stability by reducing the number of varieties and better selecting them:
- At the processing level: improve quality control, packaging, labelling, support certification process;
- At the sales level: create a sales force in Russia for access to retail chains, support information dissemination on the Russian market for all parts of the value chain (producers, processors, exporters);
- At the strategic level: diversify supply with high value added products, develop a brand "Tajik apricots", and participate to international specialized events in Russia for the promotion of food products.

1 Overall development and trends

1.1 Global situation: Russia is one of the top World importers of apricots

Despite the on-going economic crisis, Russia remains one of the biggest importers of fruits in the World, as shown in Table 1.

Table 1 – Main World Importers of Edible Fruits and Nuts, USD.000

Importers	Imported value in 2012	Imported value in 2013	Imported value in 2014	Imported value in 2015	Imported value in 2016
World	97 838 555	107 158 071	112 416 891	112 438 069	
United States of America	11 378 334	12 472 835	13 969 901	15 423 004	16 717 754
Germany	8 774 484	10 119 399	10 142 641	10 046 663	
United Kingdom	5 365 610	5 787 561	6 163 969	6 156 978	6 319 973
China	3 807 879	4 100 716	5 144 096	6 009 606	
Netherlands	5 324 050	5 950 821	6 251 049	5 456 164	
France	4 775 395	5 391 453	5 210 715	5 103 397	5 395 610
Canada	4 271 771	4 498 020	4 608 601	4 504 511	4 519 163
Russian Federation	**6 279 814**	**6 401 898**	**5 479 577**	**3 944 184**	**3 830 586**
Hong Kong, China	3 479 781	3 675 317	3 901 211	3 760 421	4 278 650
Italy	2 822 354	3 279 466	3 545 445	3 487 482	
Belgium	3 513 708	4 041 819	3 849 061	3 370 022	
India	1 856 833	2 162 313	2 566 366	3 042 950	2 803 340

Source: ITC, Trade Map

The overall turnover of imported fruits has decreased from USD6.4 billion in 2013 to USD3.8 billion in 2016, but Russia remains the 8th largest World importer.

Table 2 - Share of Edible Fruits and Nuts in Russia's Total Import, USD.000

	Product label	Imported value in 2011		Imported value in 2012		Imported value in 2013		Imported value in 2014		Imported value in 2015	
	All products	306 091 490		316 192 918		314 945 095		286 648 777		182 781 965	
1	Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof	51 672 092		57 818 026		56 964 844		52 105 387		34 147 899	
2	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television ...	30 943 135		35 592 204		35 547 493		33 740 293		21 110 277	
3	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	37 860 472		44 604 961		40 193 697		31 426 474		15 377 788	
4	Pharmaceutical products	13 185 259		13 393 868		14 552 450		12 804 390		8 691 484	
5	Plastics and articles thereof	10 057 256		11 503 318		11 466 621		11 030 032		7 629 191	
6	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical ...	7 604 435		10 515 927		8 942 992		7 925 091		5 106 463	
7	Articles of iron or steel	7 731 737		7 622 162		8 185 191		6 904 823		4 077 681	
8	**Edible fruit and nuts; peel of citrus fruit or melons**	**6 204 617**	**2,03%**	**6 279 814**	**1,99%**	**6 401 898**	**2,03%**	**5 479 577**	**1,91%**	**3 944 184**	**2,16%**
9	Iron and steel	6 303 275		6 402 580		5 891 705		5 701 947		3 301 202	
10	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, ...	2 912 976		3 306 835		3 508 219		3 308 309		3 248 198	
11	Aircraft, spacecraft, and parts thereof	0		4 783 239		5 841 427		7 270 980		3 170 045	
12	Meat and edible meat offal	6 189 996		7 385 304		6 748 157		5 527 833		3 106 053	
13	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	5 068 773		4 054 519		3 643 427		4 041 277		2 990 715	
14	Rubber and articles thereof	3 923 399		4 787 377		4 769 177		4 115 755		2 704 806	
15	Articles of apparel and clothing accessories, not knitted or crocheted	3 470 072		4 097 249		4 124 911		4 023 985		2 681 147	
16	Organic chemicals	3 041 881		3 372 556		3 329 068		3 099 224		2 645 671	
17	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	3 403 735		3 656 790		3 901 067		3 622 859		2 629 627	
18	Miscellaneous chemical products	2 694 298		2 864 941		3 080 288		3 118 497		2 609 592	
19	Articles of apparel and clothing accessories, knitted or crocheted	3 271 393		4 099 764		4 066 353		3 724 664		2 417 088	
20	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; ...	3 791 879		4 498 726		4 672 474		4 281 270		2 364 767	
21	Footwear, gaiters and the like; parts of such articles	4 160 035		4 260 688		4 577 835		3 682 146		2 362 348	

Source: ITC, Trade Map

Overall, edible fruits and nuts account for 2.2% of Russia's import in 2015 (Table 2). The share of fruits and nuts in total import is rather stable throughout the recent period.

Russia combines a rather large consumer market (population of 145 million inhabitants) and limited production. Despite a very large territory, climatic conditions do not allow the production of a large range of fruits, making it necessary for the Russian Federation to import them.

Apricot belongs to this category of fruits highly popular in Russia and almost fully imported, as local production remains anecdotic.

As a matter of fact, Russia is one of the main importers of apricots in the World, both fresh and dry (Table 3 and Table 4).

Table 3 – Import of fresh apricots by Russian Federation USD.000

Importers	Imported value in 2012	Imported value in 2013	Imported value in 2014	Imported value in 2015	Imported value in 2016
World	480 617	570 595	522 819	454 046	
Germany	105 367	134 628	124 209	109 718	
Italy	27 584	46 580	41 256	43 500	
Russian Federation	**73 782**	**70 859**	**45 232**	**36 344**	**18 342**
France	26 973	44 888	35 716	36 133	36 837
Switzerland	19 166	23 369	20 781	23 876	22 823
United Kingdom	15 690	19 681	27 275	20 469	20 216
Austria	18 745	20 627	18 407	19 635	
Belgium	17 568	18 943	19 173	15 544	
Kazakhstan	22 529	52 769	33 571	12 879	18 891
Netherlands	23 149	23 153	21 850	10 421	
Pakistan	5 527	2 957	6 384	8 491	
Canada	12 939	12 556	10 832	8 320	9 352
Belarus	2 603	3 223	5 755	8 263	7 218

Source: ITC, Trade Map

Table 4 – Import of dry apricots by Russian Federation USD.000

Importers	Imported value in 2012	Imported value in 2013	Imported value in 2014	Imported value in 2015	Imported value in 2016
World	408 500	417 931	460 601	414 324	
United States of America	49 109	48 067	56 706	51 550	57 344
United Kingdom	33 847	30 117	36 540	40 379	39 926
France	30 149	29 749	39 131	33 808	32 488
Germany	28 415	34 088	46 920	31 994	
Australia	15 709	13 620	15 927	21 431	14 483
Netherlands	10 672	12 888	18 026	14 245	
Brazil	13 555	13 540	21 101	14 058	12 276
India	4 143	13 665	12 675	14 009	8 222
Kazakhstan	27 582	16 036	17 985	13 629	11 284
Russian Federation	**37 292**	**36 522**	**18 304**	**12 865**	**12 280**
Spain	8 759	10 197	11 372	11 522	
Canada	10 762	10 631	11 917	10 005	10 712
Poland	6 817	9 662	10 627	9 999	10 342

Source: ITC, Trade Map

Table 4 shows a sharp decrease of dry apricots import starting from 2014. Two main factors explain this situation:

1. The economic and financial crisis led to a sharp devaluation of the Russian currency in 2014. All Russian import fell dramatically after this devaluation and the import of food products was divided by more than two in the last three years from this period;
2. The Eurasian Economic Union came into force on 1 January 2015. It established a common economic zone between Russia, Belarus and Kazakhstan, joined later by Armenia (2 January 2015) and Kyrgyzstan (6 August 2015). A significant share of fruits imported by Russia comes from Central Asia and it is estimated that import from Kazakhstan and Kyrgyzstan are not fully registered after the opening of the EEU.

1.2 Tajikistan's trade position for apricots in Russia

Russia is one of the major importers of apricots in the World. Due to its geographic position and traditional economic and historical ties, Tajikistan logically appears as one of the main suppliers of this fruit (Table 5 and Table 6).

Table 5 – Exporters of fresh apricots in Russia, USD.000

Exporters	Imported value in 2012	Imported value in 2013	Imported value in 2014	Imported value in 2015	Imported value in 2016
World	73 782	70 859	45 232	36 344	18 342
Uzbekistan	9 770	17 864	414	644	10 478
Moldova, Republic of	30	772	688	866	2 727
Armenia	9 898	14 968	1 545	3 119	1 750
China	873	836	729	973	1 015
Serbia	1 297	557	3 619	693	705
Kyrgyzstan	927	38	0	0	595
Belarus	17	352	381	2	236
Tajikistan	**477**	**165**	**12**	**19**	**227**
Macedonia	60	32	76	130	205
Azerbaijan	1 560	49	222	35	162
Kazakhstan	0	22	9	0	113
Jordan	6	0	17	0	38
Turkmenistan	15	0	0	0	30
South Africa	87	69	58	104	26
New Zealand	17	38	45	25	22

Source: ITC, Trade Map

Table 6 - Main exporters of dry apricots in Russia

Exporters	Imported value in 2011	Imported value in 2012	Imported value in 2013	Imported value in 2014	Imported value in 2015
World	43 784	37 292	36 522	18 304	12 865
Turkey	34 633	35 022	34 526	15 869	11 073
Tajikistan	**6 607**	**1 013**	**434**	**426**	**716**
Kazakhstan	0	36	23	992	456
China	968	10	106	328	355
Uzbekistan	282	102	89	68	262
Armenia	0	5	22	31	2
Kyrgyzstan	1	0	27	6	2

Source: ITC, Trade Map

These official trade statistics can be compared to the data elaborated by the International Nut and Dry Fruit Council (INC).

Table 7 – Main World importers of dry apricots, metric tons

	2011	2012	2013	2014
World	**111 917**	**114 968**	**134 689**	**102 953**
Russia	18 364	15 059	25 390	15 133
France	**13 331**	**14 541**	**15 148**	**11 103**
Germany	6 837	7 872	8 350	9 451
UK	10 013	8 080	9 729	8 777
Australia	8 738	7 798	8 485	7 869
Poland	5 652	5 903	6 101	5 139
Brazil	1 898	2 232	4 450	3 285
Netherlands	4 042	3 677	4 104	3 226
Egypt	3 350	3 176	3 780	3 198

Source: INC

Table 8 – Estimated World dry apricot consumption, metric tons

	2011	2012	2013	2014
World	**181 960**	**184 487**	**144 945**	**133 249**
Iran	23 619	24 089	21 471	25 020
Russia	**18 352**	**15 023**	**25 350**	**14 956**
USA	14 417	14 366	15 117	11 329
France	5 394	6 491	6 676	8 028
UK	8 165	7 365	8 154	7 444
Turkey	29 137	33 508	25 000	7 000
Germany	8 200	6 398	7 101	6 376
Australia	6 221	6 449	6 572	5 118

Source: INC

These figures lead to the following remarks:

1. The sharp fall of dry apricots import in Russia between 2011 and 2016 (-70%) led to an even sharper decrease of Tajikistan's export (-89%);
2. Turkey officially accounts for 86% of dry apricots import in Russia in 2016, compared to 79% in 2011;
3. Due to the opening of the EEU and the fact that most Tajik exports are diverted through Kyrgyzstan, these flows are not properly registered. It is commonly estimated that the actual size of import from Central Asian countries including Tajikistan is much higher;
4. Overall, statistics show that Russia shall remain a priority market for Tajikistan. Even if diversification shall be supported, the key trade partner for Tajik apricot exporters shall remain Russia in the medium to long term.

2 Distribution of fruits in Russia: gross, retail and direct contracts

2.1 Wholesale market

2.1.1 Description

The overwhelming share of apricots imported in Russia, independently from their origin, is still sold at wholesale markets. All big Russian cities have wholesale markets, but Moscow is the largest logistics hub with more than half of gross fruit sales, according to common estimate. As a matter of fact, a large share of Tajik apricots sold in Russia transit through the large Moscow wholesale markets.

Two of them play a particularly crucial role: Food City and Domodedovo wholesale fruit market.

Food City

Food City is the largest wholesale market in Russia and one of the largest in Europe. It is located on a territory of 91ha with 350,000 square meters of commercial outlets and over 300,000 square meters of storage facilities[1].

It gathers mostly fresh food products with a large share represented by fruits and vegetables. Food City has quickly become the focal logistic hub not only for its Central European part, but also for all of the Russian Federation territory. According to expert's estimate, between 30 and 50% of all fruits and vegetable are sold at Food City and between 50 and 70% of dry fruits and nuts are sold there.

Domodedovo wholesale fruit market

Another strategic place for Tajik exporters is the fruit and vegetable wholesale market located near Domodedovo, South of Moscow.

[1] www.foodcity.ru

This is mainly a marketplace for fresh fruits and vegetables, where customers buy directly from trucks.

It is a convenient place for large carries but it features the same inconvenient as Food City. Sales margins are lower and various administrative pressures can be imposed to exporters.

Other wholesale markets
Other wholesale markets exist in Moscow and in other large Russian cities. They are however of much smaller size and are less organized. These markets allow only for the sales of apricots in big bags to wholesalers which mean lower margins.

2.1.2 Evaluation of distribution through gross markets

The access to the Russian market for Tajik apricot exporters, both fresh and dry, goes currently mainly through these wholesale markets, with an overwhelming share for Food City, for many reasons:

1. This is the most well organized distribution channel currently in Russia with easy access, good logistics, and relatively easy administrative procedure;
2. The bulk of apricots sold by Tajik exporters in Russia are packed in big bags, exported by trucks through Kyrgyzstan and Kazakhstan, with a low level of control over the whole transport and distribution process. These products cannot be sold through more sophisticated distribution channels than wholesale markets as they do not fit the basic requirement for that, mainly in terms of packaging and certification;
3. Some Tajik processors managed to organize direct sales at wholesale markets by opening Russian firms and selling directly to the final customers. This vertical integration is currently the only existing one inside the apricot value chain and allows higher margins. In fact, Tajik apricots are already well known in Food City. Some years ago, most fruits produced in Tajikistan and sold in Russia's wholesale markets were not openly described as of Tajik origin and often sold as from other countries. This is changing now and the visibility is increasing thanks to the direct presence of firms opened by Tajik nationals in Russia.

Wholesale markets offer therefore currently the most obvious entry gate to the Russian market. It will remain a crucial distribution channel in the medium to long term.

It has however some obvious inconvenient for Tajik exporters:

1. Tajik exporters are full price takers. Food City and other wholesale markets gather products from all over the World and impose therefore a highly competitive environment;
2. Wholesalers have a very strong negotiating power and are able to impose their conditions to producers. The main discriminating factor here is obviously the price and margins for exporters are therefore quite low. But it can also go through other means of pressure (temporarily blockage of trucks, privilege to other importers, bad presentation of Tajik apricots on stalls, etc.);
3. Wholesale markets offer very limited opportunities to increase value added, like dry apricots packed in small containers, selected fresh apricots, processed apricots, etc. They are mainly markets for intermediaries, which means that a substantial part of the sales margin is not for Tajik exporters;

4. The main Tajik competitors, i.e. Armenia, Uzbekistan and Turkey, enjoy very strong positions in Food City (storage capacity, administrative resources, many stores and stalls). Quite a few prpcessing companies from Isfara are renting shops in Food city to sell their products but again the competion is very high and Tajik exporters can therefore easily be discriminated. Considering the high sensitivity to seasonal factors, especially for fresh apricots, this is a very uncomfortable and risky situation.

Isfarafood presence in Food city

Apricot product from Armenia

2.2 Retail

2.2.1 Description

This distribution channel has been the most dynamic for grocery sales in Russia in the last 10 to 15 years. It will represent an even greater share of consumption in the medium to long term, as open markets and small grocery stores tend to disappear.

Modern trade share in the total retail sales of consumer goods has increased from about 40% in 2005 to 80% currently, and the share of federal retail chains inside all categories of modern trade has increased from 10% to 36% in the same period[2].

There are currently more than 50,000 retail stores in Russia, compared to 13,000 in 2005. This is still much less than in Western countries, but the gap tends to decrease and Russia is still considered as one of the most promising countries for retailers, with an estimated p.a. growth rate of 7-8% in the medium term.

The grocery retail industry already targets all income groups:

1. **Hypermarkets**
- Selling both groceries and a large range of general merchandise goods;
- Typically more than 2,500m2 in size.

2. **Supermarkets**
- Original and still most globally prevalent form of self-service grocery retail outlet;
- More than 300m2;
- Carries both fresh and processed food and a range of non-food items.

3. **Discount stores**
- Typically smaller floor space than supermarket;

[2]Source: Euromonitor, Company reports

- No frills environment;
- Prevalence of low-priced and private label goods;
- High product turnover rate.

4. Convenience stores

- Small outlets typically less than 300 square meters in size;
- Long opening hours and located in high footfall areas;
- Sell mainly fast moving food and drink products and non-food items;
- Typically stocking only two or three brand choices per item;
- Often carrying higher prices than other forms of grocery store.

The list of main retailers includes:

1. Federal chains:

This category includes company with stores all over the main regions of the Russian Federation.

10 companies currently belong to this category[3]:

- Magnit: 14,059 stores;
- X5 (Pyaterochko, Karusel, Perekrestok, Perekrestok Zeleny, Perekrestok Express) 8,600 stores;
- Auchan (hypermarkets Auchan, supermarkets Auchan City, supermarkets Atac, Raduga, Kazhdy Den): 267 stores;
- METRO Cash & Carry: 89 stores,
- Lenta: 243 stores,
- O'Key (O'Key, O'Key Express): 159 stores,
- Dixy (Dixy, Megamart, Minimart, Victoria Minimart, Kvartal, Deshevo, Cash): 2,802 stores,
- 7 Continent (7 Continent, Nash Hyermarket): 112 stores.
- Spar Russia (Spar, Interspar, Eurospar, Spar Express): 420 stores;
- Element Trade (Monetka): 750 stores.

2. Regional chains:

The concentration of the Russian retail market is still lower than in more mature markets of Europe or Northern America. In parallel to the large Federal chains, a whole range of federal players enjoy strong positions.

Among these companies, the following are the most important:

- Intertorg (Saint-Petersburg, 370 stores in North West Russia);
- Giperglobus (Moscow Region, 16 hypermarkets in Central Russia);

[3]Last data available for number of stores at end-2016 is from Company's reports.

- Maria-Ra (Altay Region, 900 supermarkets in the Siberian Region);
- Rewe Group (Moscow Region, 10s supermarkets under the brand "Billa" in Central Russia);
- Supermarket Kirovsky (Ekaterinburg, 173 supermarkets and stores in the Sverdlovsk Region, Urals);
- Magnolia (Moscow City, 197 convenience stores in Moscow);
- Grinn Corporation (Kursk, 27 supermarkets in the Black Earth Region).

2.2.2 Evaluation of distribution through retail networks

Only a handful of Tajik exporters have managed to conclude contracts with large Russian retailers, mainly for the sales of fresh apricots during the crop season.

Selling to large retailers in Russia is rather specific. All large retailers have purchasing department with usually one responsible for a category of product. All negotiations go through personal contact with these purchasers.

Products sold must mainly meet 4 criteria:

1. Quality;
2. Certification;
3. Guarantees on volume required;
4. Delivery on time.

A contract with a retailer usually goes with very strict conditions;

1. Payment: most retailers impose delayed payment, usually from 6 to 12 weeks, meaning that the supplier must have a rather sophisticated cash management to meet these requirement (product is sold and delivered before being paid);
2. Quality: strict quality conditions are specified in contracts with retailers. This is a crucial factor especially for fresh apricots. If quality is not met, retailers will not proceed to the payment;
3. Packaging: in parallel to quality of the product, most retailers ask for specific packaging, sometimes specific branding;
4. Delay: penalties are imposed for not on-time deliveries. Exporters must therefore organize a reliable logistics service.

Tajik exporters are not fully ready to significantly use this distribution channel. However, a simple set of measures can be implemented with a real potential for rapid improvement (see Part C/ 4/ p. 20).

2.3 Tendency: healthy food, organic products

2.3.1 A strong support to the development of organic food in Russia

Russia's organic market is in the early stage of development, but it is growing fast. Experts estimate that future sales of organic products will reach USD750 million in 2017, from less than USD100 million ten years ago.

Most of organic and socially responsible consumers are concentrated in big cities like Moscow, Saint-Petersburg and other cities with a population over 1 million people. Russian organic market is dominated by imported products. The share of import reaches 90%. Most of organic products are imported from Germany, Italy and France.

However, this situation shall change dramatically in the coming years as Russian authorities have made a clear stance towards the development of organic food.

In early 2016, President Putin mentioned healthy food as a key strategic development and declared that Russia will become the largest producer of organic food in the World by the beginning of the 2020s.

This declaration was considered as overwhelmingly optimistic, but it relies on a set of concrete measures: complete banning of GMOs and most pesticides, support to Russian organic producers, improvement of the legal and administrative framework. It is also supported by an evolution of consumers' habits. A growing share of Russian consumers is now asking for more healthy food products and organic ones. New stores and restaurants promoting healthy food have appeared and some important investors are starting to implement ambitious projects in this niche.

There are therefore clear arguments in favour of a steady development of organic food sales in Russia. As apricots are almost not produced locally, the demand for organic apricots will be met mainly by import. Tajikistan has great opportunities, as its production meet all requirements for organic classification. The key point will here be the support given to producers and processors for the granting of international certification and specific certification required in Russia to be classified as organic production.

Farmers and a Processing company Oro Isfara from Sughd have been supported by donor project to produce organic products with international certification but require further support in getting connected to market.

2.3.2 Distribution of organic production

Many organic products are available in gourmet supermarkets. These gourmet retail chains include:

- Azbuka Vkusa (79 luxury grocery stores in Moscow and Saint-Petersburg);
- Globus Gourmet (6 luxury grocery stores in Moscow and Saint-Petersburg);
- Land (11 luxury grocery stores in Moscow);
- Zeleny Perekrestok (X5 group, grocery stores developed with an emphasis on healthy and natural food products).

Stores namely specialized in organic products are still rare. But many organic farmers sell their products at street markets or via the Internet (online shopping). Major online shops include:

- Farmers' Cooperative Lavka-Lavka (http://spb.lavkalavka.com, opened food bazars and restaurants in Moscow in addition to on-line store);
- Vse Svoe (www.vse-svoe.ru), on-line store with deliveries in Moscow;
- Alekhovshina (http://alehovshina.ru), farm located in the Leningrad region with on-line store and own organic certification.

Theoretically, Tajik apricots gather most characteristics of organic products. They are mostly produced without pesticide and chemical additives, GMO free.

However, there are very strict certification requirement for any food product to be officially recognized as organic. Besides some international standards of certification, local legislation can add even more strict elements.

In Russia, as said above, there is still no clear certification system and the legal and administrative framework is not fully in place. Selling organic apricots requires therefore a specific approach in addition to global international certification.

At the same time, some subjective factors can play an even greater role than official certification.

For example, at LavkaLavka, the main condition for the selection of products is a clear traceability, with the product being sold with the name of the producer and a description of the harvesting or processing conditions (place, technology, and other interesting facts). Despite selecting and promoting mainly Russian producers, the managers of this network would welcome apricots, fresh or dry, from Tajikistan, if they fit the philosophy of the brand (farm production, fully organic, short distribution circuit). This is not specifically linked to organic certification, but more to respecting environmental factors and best harvesting practice.

There is therefore a niche for Tajik apricot processors and exporters in a market that is encountering a real boom in Russia's big cities and is aimed at growing dynamically in the coming years.

2.3.3 Direct contracts

In parallel to traditional distribution channels (gross and retail), there is a demand for apricots, both dry and fresh, from large State structures in Russia, like army, hospitals, schools, jails, etc.

Officially, such orders are granted through open tenders. This is however a rather specific sales channel, depending mainly on relationships with the final purchaser. For Tajik apricot exporters, it can be considered as a potential alternative for export, but it is difficult to estimate its potential and we would not recommend relying primarily on such customers as it is linked to administrative resources more than to usual market principles.

3 Recommendations

3.1 At the production level: Improve quality and visibility of the product

Despite a rather positive image in Russia, apricots from Tajikistan suffer from a lack of global quality and stability.

A problem commonly mentioned is that there are too many varieties (from 60 to 80), which hampers the visibility for customers.

The problem of quality must obviously be solved at the base of the value chain, i.e. at the producer's level. However, improvement of the quality must be motivated.

The specific features of the Russian market would be a perfect argument in that sense. If Tajik exporters want to strengthen their position, mainly by diversifying sales channels and not only selling big bags in wholesale markets, they must adapt their offer to the needs of the final customers in Russia.

Training can be organized on this topic to groups of producers in the framework of the ACP Program in order to make them aware of the necessity to improve and level quality in order to increase their financial resources through export.

3.2 Develop higher value added products

Tajik apricots are currently mainly exported in big bags and sold in wholesale markets. They are directly faced with competition from other exporters and are full price takers.

The only existing vertical integration goes through the opening by Tajik firm of sales point in the main gross markets in order to have a more direct access on final customers, a better control on the logistics process and the recuperation of part of the sales margin otherwise captured by distribution companies.

As a consequence, Tajik exporters only have a very limited *direct* access to the Russian market. Turkish exporters are much more organized and other competitors are currently engaged into ambitious marketing and export strategies, especially Uzbekistan and Armenia.

As this market will remain highly competitive in the long term, Tajik processors shall develop a strategy based on differentiating their supply and increasing the value added of the product. Apricots can be sold not only fresh or dry. There are other processing processes that are accessible and would significantly increase the value added of Tajik apricots.

Organic apricots

Many Tajik apricot producers and processors can already claim to produce organic apricots. However, there is a gap between the potential and the reality of exporting organic apricots to Russia.

The following measures must be adopted in order to develop this niche:

1. Certification. Though the legal and administrative framework for organic products is still somehow unclear in Russia, any organic product will require certification to be imported and distributed on the territory of the Russian Federation. Support shall be given to processors for the certification process in different ways: information about the procedure necessary to get agreements in Russia, contact with companies granting certification, support to the quality of the product, etc.

2. Packaging: organic apricots shall not be sold in big bags but mainly in individual packaging with a special labelling highlighting organic certification.

3. Traceability: it will not be enough to gain certification in Russia for Tajik processors. They will also have to ensure traceability so that the final consumer will have the guarantee that he really buys organic apricots;

4. Marketing: as described above, the market of organic food products is still at a very early stage of development in Russia. Promotion of organic apricots necessitates therefore a case-by-case approach, mainly by direct negotiations with the main sellers of organic products (luxury grocery stores or stores specialized in natural and organic products).

Uryuk

Usually, large apricot fruits are dried out without pits, the smaller fruits, known as uryuk, are dried out with pits. In fact, a Tajik farmers and processors use this technique of fully drying the fruit on the tree not only for small fruits but also for large high quality apricots.

The result is more than convincing. Uruk as a whole fruit has a higher nutritional value and aroma is much richer.

Presented in modern packaging, this product has a strong competitive advantage compared to usual “kuraga” and a large Russian retail chain “Maria-Ra” already signed a contract with a processing company “Apricot & Company”, while it was not interested before by the usual dry apricot without kernel. This product has a strong export potential in Russia provided its quality is guaranteed and packaging adapted. To respond to the requirements of Maria-Ra, Apricot & Company has now ordered a special packaging which the company uses to export uryuk to Russia

through Maria-Ra. The first shipment will be sent in 2017 on a trial basis, depending on the results of the sale both farmers and processors need support increasing the outreach.

Apricot oil

Also called apricot kernel oil, apricot oil is a thin, odourless oil pressed from the seed or kernel of the apricot. Commonly used in the world of massage, apricot oil is a versatile oil that possesses multiple benefits. Apricot kernel oil provides an all-purpose oil appropriate for all types of cooking. Rich in monounsaturated fat, food-grade apricot oil may help lower LDL or "bad" cholesterol and promote cardiovascular health, especially when used in recipes in place of shortening, butter and other sources of saturated fat.

Prices vary, depending upon factors such as how the oil is extracted from the apricot kernel and whether it's food grade or not.

Extraction of apricot oil is possible without high capital expenditures. The technique used for best quality oils is mainly traditional. It does not require heavy investment and could be introduced in Tajikistan thanks to a relatively easy technology transfer process, mainly by training. Processing of apricots into high value-added apricot oil is therefore a full part of the development of the value chain.

Apricot Jam

Fresh apricot is a seasonal product. Tajik producers are very dependent on the short period corresponding to the harvest. In addition to climatic conditions directly influencing the volume and quality of the crop, farmers depend on transport, logistics, access to markets, in this small period of time, as fresh fruits are highly fragile and enjoy only a short shelf life.

A relatively easy way to decrease this dependency and generate more regular revenue throughout the year would be to support the processing of fresh fruits into apricot jam. This product shows very high nutritional value and is in great demand on the Russian market.

Consumption of jams is widespread in Russia, but it is mainly made of home-made jams made of fruits or bays harvested in Russia. Apricot jam available in stores and supermarkets currently comes mainly from international processors (Western European Countries) and a handful of Russian processors. There is a niche for local Tajik processors able to guarantee quality and stability of supply.

Canned apricot

Another technique to lower the dependency on the seasonal factor is to promote the canning of fresh apricots. Canned apricots in syrup can be found in all stores and supermarkets in Russia and are in high demand, especially in the winter season (which lasts at least 6 months in Russia).

This technique requires quite important capital expenditures in order to acquire the necessary equipment and it does not add very high value as apricots in can are not sold at high prices. It is therefore only an alternative strategy in case of overproduction.

Develop the range of products exported

Apricots are among the most well-known and promising fruits for export. But Tajikistan has other interesting products, which could be promoted together with apricots and support the image of Tajik products.

In addition, Russian large clients, mainly retail networks, tend to prefer signing contracts with suppliers offering not only one product. This is a well-known sales and marketing technology: mono-product suppliers are in a much weaker position than multi-position suppliers.

Products of high quality that could be associated to apricots by exporters include:

- Wild garlic;
- Lemon;
- Blueberry;
- Mountain bays;
- Other high quality natural dry fruits and bays.

The promotion of these products can be made:

1. By exporters and processors themselves by developing their supply range, diversifying their suppliers;
2. By authorities through developing not only the brand "Tajik apricots", but also "Tajik fresh and dry fruits";
3. By producers themselves in promoting a diversification of their crops.

3.3 At the processor level: Improve packaging, labelling and support certification

The overwhelming share of apricots exported by Tajikistan is packed in big bags. This is the most rudimentary technology. It is still a common way to export in Russia's wholesale markets, but it does not fit the requirement of modern distribution.

Only very few Tajik processors are implying a strategy of improved packaging despite its obvious positive consequences. As a matter of fact, in Russia, the price difference between dry apricots sold in big bags in Food City or other wholesale markets and dry apricots sold in small packs in shops is in average from 1 to 2 or 3 (sometimes even more when it comes to luxury grocery retail) times higher.

It is all the more interesting as dry apricots do not need, neither very expensive, nor highly technological packaging. In supermarkets and quality grocery stores in Russia, dry apricots are mainly sold in small paper/plastic bags guaranteeing a good conservation of the product. The price for such bags ranges from 0.2 to 0.5 USD and they are easily available. Their use mainly requires additional labour force compared to big bags packaging. But a simple cost-benefit analysis would show that it is much more profitable despite slight investment in working force during the processing period.

3.4 Sales to retailers: local presence is needed

As described above, access to Russian retailers is all but easy. It requires a number of steps that only a handful of Tajik processors and exporters have started to implement.

Access to large retailers mainly goes through personal long-term relationship. This is hardly possible without the presence in Russia of a specialized sales force responsible for:

- Studying the sector and informing the Tajik producers and processors;
- Identifying and establishing personalized contacts with retailers;
- Distributing samples and promoting the products;
- Signing contracts;
- Organizing the follow-up of deliveries and payment.

This is a rather costly organization, difficult to put in place for most Tajik apricot processors. But it could be organized collectively, especially for the exporters of fresh apricots. The capacity of the Russian market through retail network exceeds by far the current export capacity of Tajik producers of fresh apricots. There is therefore an obvious win-win process for Tajik producers if they manage to put in place a sales force in Russia capable of signing contracts that will be then fulfilled by all the members of the group.

There are only 10 Federal chains with stores all over Russia and their headquarters are all located in Moscow. At a first stage, a rather light organization with only one person representing Tajik apricot exporters could be put in place. A permanent contact with these leading retailers implies indeed a permanent presence only in the Russian capital, with regular business trips for the representative of Tajik exporters to some regions with interesting potential.

“Apricot & Company” started exporting fresh apricots to Russia through “Magnit” in 2016 and has contracts with this company for 2017 season. Magnit is the only retail chain from Russia that has a representation office in Tajikistan and is committed to long term partnership with Tajik exporters.

For 2017, copping season, Apricot & Company has entered into partnership with following four retail chains for sale of fresh apricot and on a trial basis dried apricot (uryuk- dried apricot with stones):

1. Magnit (http://magnit-info.ru);
2. Agrotechnology (subsidiary of Magnit);
3. Maria - ra (http://www.maria-ra.ru);
4. Dixy https://dixy.ru/.

3.5 Marketing: develop the "Tajik Apricot' Brand

Tajik apricots were popular and famous in Russia during the Soviet time, especially because of the fame of places like Isfarra.

However, the disruption of traditional economic ties between Russia and Tajikistan in the 90s-2000s and the opening of the Russian market to international trade have resulted in a very low visibility of Tajik products among Russian consumers. While fresh fruits are imported from all over the World, dry fruits are mainly imported from Turkey, South and North America. When it comes to former Soviet Republics, Uzbek or Armenian apricots are much more recognized than Tajik ones. A large part of consumers and resellers even consider that apricots mainly come from Kyrgyzstan, while this country is first and foremost a transit point for Tajik apricots exported to Russia.

The need to promote the fame of Tajik apricots on the Russian market is all the more urgent, as competitors are more and more active. Turkey is a long time well organized exporter in Russia, but Armenia and Uzbekistan are also developing very actively the export of apricots in Russia through aggressive marketing, branding and logistics.

The creation and the promotion of a brand "Tajik apricot" would lie on the strong foundation of the historical fame of apricots from Tajikistan, which only needs to be restored.

This measure shall follow strong principles:

- The definition of clear specifications for Tajik producers that will be authorized to sell their production under a common brand;
- The creation of a task force with strong marketing skills defining the main features of the promotion campaign under a "Tajik apricot" brand;
- Official registration of the brand on the local and on the Russian market (it can then also be registered in other international markets);
- The promotion of the brand and specifications required among Tajik producers with emphasis on the direct link between following the brand requirement and improved access to export.

Technical assistance based on best international experience and practice can be given to Tajik producers and organizations in order to develop this program.

3.6 Knowledge: Support information dissemination for Tajik apricot exporters

A key feature of export promotion is the capacity to support local producers by giving them the right information on the market's situation. This is especially true for basic agricultural products, for which international competition is particularly harsh. Information on the main factors driving demand, prices, consumer habits, etc. are therefore of crucial importance.

Tajikistan still dramatically lacks behind on this field. Most apricot producers have only limited information on prices, mainly those applied in the local market, hardly know the quality and variety requirement to reach export market and are therefore not aware that they must adapt their production to these needs.

In order to improve this situation, information must be easily accessible on the following topics:

- Price evolution on international and local markets: a regular price index for dry and fresh apricots on the Russian market can easily be obtained and diffused;
- Global production: prices vary mainly depending on the volume of harvest in other countries. As the season for fresh apricots is very short, information must be quickly disseminated in order for processors and exporters to anticipate demand volume and prices;
- Trade legislation: as Tajikistan is still not a member of the EEU, it does not have any privileged access to the Russian market. Russian authorities frequently adapt and update their trade legislation and it is important for Tajik producers and exporters to be fully aware of the legal needs for export to Russia;
- Administrative request (certification, etc.): in parallel to legislation change, Russian authorities can adopt a whole set of rules on food import. Some restrictions can be introduced on a day-to-day basis and might concern any type of products. Detailed and up-to-date information on request or ban by Russian food authorities must be made available to exporters;
- Logistics: the main problem for Tajik apricot exporters is to reach the Russian market despite its relative vicinity. The most common transport remains by truck. It would be very helpful for exporters to have regular information on the availability of carries (many trucks deliver goods to Tajikistan and go back empty, for example), their cost, custom procedures, etc.
- Exhibitions and fairs: a good way to promote the export of food products is the participation to specialized fairs and exhibitions like PRODEXPO or World Food in Moscow. Information on these events is available long time in advance and can easily be diffused.

A special organization shall be created in Tajikistan devoted to informing all stakeholders in the apricot value chain.

This function could be assumed by an existing organization (for example Association of apricot producers) or can be devoted to a newly organized information agency.

3.7 Export promotion agencies and the participation to events in Russia

A key role to promote export of such a competitive product as apricots is the participation to specialized food exhibitions. This marketing instrument is almost fully neglected by Tajik processors and exporters, while its main competitors broadly use it.

Turkey is, by far, the most well organized country among apricot exporters. It has a whole network of associations, the most active for apricot exporters being: Dried Fruits Promotion Committee of Turkey, Aegean Dried Fruits Exporters' Association, and Istanbul Dried Fruits and Products Exporters' Association.

The dominant share of Turkey in the World apricots export is in fact not linked to a comparative advantage in terms of production. Volume of production, overall quality, global capacity, does not significantly differ from countries like Tajikistan. But Turkish producers are much more organized at every level of the Value Chain. It ends up with export volume ten times higher than Tajikistan. Even on the Russian market, Turkey is,

by far, the dominant player (even if official statistics show a higher share than reality as stated above).

The two main direct competitors of Tajikistan apricot exporters, Armenia and, to a lesser extent, Uzbekistan, have engaged in similar strategies to support their export force. Armenia has gathered various traditional food products under a pavilion branded simply "Armenia", including processed apricots (apricot oil, apricot brandy, apricot jam, dry apricots). The promotion of Armenia's agricultural products is a very interesting example to follow, as it is centred mainly on the Russian market and resulted in constant increase of export of food products to the Russian Federation in the last 10 years. In addition to participating to global events like PRODEXPO or World Food under a unique brand "Armenia", the country has also opened permanent shops under this unique brand in strategic places such as Food City.

Uzbekistan was participating to Moscow's *PRODEXPO* in a square under the sponsorship of the Export Promotion Fund and brand *Uzagroexport* (www.uzagroexport.uz). Uzbekistan's export was penalized since the 1990s by a law imposing export duties to producers and processors. Under the new Uzbek President, this law has been cancelled and there is a strong move from authorities towards promoting export of traditional Uzbek products, including apricots. Tajikistan could well lose position on the Russian market against this strong competitor if it does not adapt quickly. Tajikistan has currently only one active inter-professional organization: the Association of apricot producers. It mainly gathers processors from the Isfarra region. This organization deserves support, but other more global export promotion agencies should also appear to support the global development of apricot exporters from Tajikistan.

The participation of Tajikistan's apricot exporters is crucial for the promotion of exports to Russia in at least 2 events:

- PRODEXPO (www.prod-expo.ru/en/)
- World Food (www.world-food.ru/en-GB/)

Oro Isfara was present in Moscow trade fair Prod Expo and presented its products as a separate company in partnership with a Russian company. Products from Tajikistan as such were not promoted.

Other exhibitions are more specialized or have only a regional dimension. But information could anyway be disseminated on events like Pir (https://pirexpo.com), Horex Siberia (Novosibirsk), InterFood Ural (Ekaterinburg), Food Pleasure Festive (Saint-Petersburg), Siberian Food (Irkutsk), KubanProdExpo (Krasnodar), Food World (Nizhny-Novgorod), Interfood (Saint-Petersburg).

3.8 Implement a global strategy to promote Tajikistan food products

Apricots are one of the main crops in Tajikistan and represent a key product for export. They should therefore be part of a global strategy to promote the image of Tajik food products.

The participation of Tajikistan to main trade fairs and events in Russia shall not be limited to the promotion of apricots. A global common brand would help dramatically in increasing the visibility for importers, consumers and other partners in the Russian Federation.

France, probably the most successful country in terms of brand food products, has developed on a large scale the concepts of "Maisons de…", "Houses of…". These houses are usually promoted by French regions either in France itself (for instance Maison de l'Alsace à Paris, http://www.maison-alsace.com), or abroad (for instance, Maison de la Bourgogne à Tokyo, http://www.wine-bourgogne.com). The principle of these Houses is to present and promote a variety of branded products and services of a specific region, including cultural products, so as to create efficient cross externalities and build a positive "image" of the region. In the case of Tajikistan, it would be possible for instance to promote, present and sell a combination of Tajik branded products (agro-food, handicraft, cultural goods) in customer-friendly locations in target export countries. Houses of Tajikistan should be private businesses to be efficiently managed. However, they should also receive contractual support from the Tajik State paid on the basis of precise terms of reference to be able to be launched in central and convenient places playing the role of "show rooms" and promote the image of Tajikistan making use of not immediately profitable "marketing" components such as cultural events.

Annex 2 Dairy Marketing Study in Tajikistan

PRELIMINARY DAIRY MARKET STUDY

Richard Rozwadowski,

Data research: Karomat Daminova & Alisher Kosimov

Dushanbe, April, 2017

1. Introduction

All value chains need to be based on specific markets and are designed to develop the linkages between all the participants. A review of reports on the dairy sector in Tajikistan shows that there are good opportunities for expanding market share and evidence from interviews and discussions with dairy processors (small and large) and milk collection points confirms this view strongly. However, all those involved in milk collection and sales are confirming that they could collect much more milk and sell much more. Of course, if this continues as a trend across Tajikistan it is important to assess the market to see what the capacity of the market is. Much of the data in Tajikistan is known to be of poor quality - in many sectors imports or exports are understated as a lot of product is traded informally at the border. Basic data such as milk yields vary greatly – reports on annual average yields of cows vary from 750 litres per year to 1,570 litres. Research suggests that some of the milk production data includes yaks and that average yields are calculated on all adult cows including hasaki (local breeds) and sometimes including yaks. The hasaki are kept by subsistence households as they are 'easy to keep' and well adapted but mainly kept for meat production and only produce very low yields of milk typically 2-3 litres per day. Therefore, it is necessary to disaggregate the milk production data by type (breed) of cow as modern dairy breeds (Simmental, Brown Swiss and Holstein) may well give 15-25 litres per day to give a real understanding of the sector. Data on the breakdown of breeds has not been systematically collected since 1991. In the 1980's a rayon in Sughd imported some Holstein cows and these have now been locally bred and multiplied and cross bred and were registered as an official Tajik breed, "charno-piastraya" (black and white). They have a better yield potential of between 15 and perhaps 20 litres per day and are seen all over Tajikistan. Some estimates suggest that the charno-piastraya may make up 30-60% of all cattle kept by households (varying by region and by village). Their proportion is very important as it shows a 'natural selection' by households that have adopted this breed or Brown Swiss cattle (which are also popularly kept) to breeds for milk production whereas households remaining with the hasaki breed are less interested in milk production and keep the cattle mainly for beef.

Similarly, many businesses operate with a lot of cash transactions in order to escape taxes and controls. Both these types of activity are difficult to record. In order to obtain better data, the VCDTA has engaged local experts to undertake some surveys and questionnaires to assess this. Therefore, this report is a snapshot of the current situation, largely based on official statistical data and data sourced from other reports and projects) and a more complete market study will be prepared in the next quarterly report which will include the surveyed data.

In reviewing reports and statistical data it has been found that there are large inconsistencies in the data and many reports reach conclusions based on 'selected data' which are unverified or inconsistent and so cannot be reliably used to draw conclusions. Therefore, surveys will be undertaken in sample jamoats to obtain up to date data which will allow verification of data. In particular, these surveys will disaggregate data to show the breeds of cows and, where possible, yields per breed will be estimated. These yields will be requested based on an average winter milk yield and a peak summer yield. Poor data in results in poor outputs:

GIGO: (garbage IN = garbage OUT)

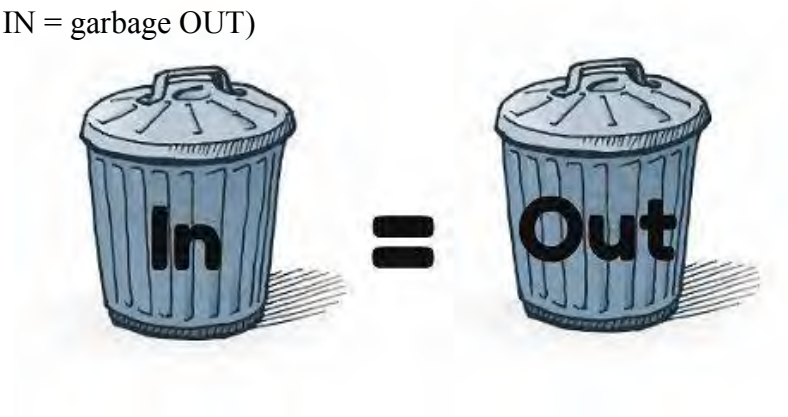


Table 1: Numbers of cattle in Tajikistan, 2016

Regions	Agri Enterprises	Dekhkan farms	Households	Total
Tajikistan	25,869	133,154	2,049,296	2,208,319
GBAO	463	5,797	108,227	114,487
Sughd	5,574	40,828	576,976	623,378
Khatlon	11,086	71,491	815,507	898,084
RRS	8,746	15,038	548,586	572,370
Dairy cows				
Tajikistan	7,559	36,198	1,088,090	1,131,847
GBAO	134	1,634	38,906	40,674
Sughd	1,751	12,059	319,025	332,835
Khatlon	3,070	18,585	438,003	459,658
RRS	2,604	3,920	292,156	298,680

As the yield per cow varies greatly between breeds and type of farm this is illustrated by table 1.

Source: Tajikistan State Statistical Service, 2016

2. Overview

The dairy industry in Tajikistan has some unusual and striking features. It has just over 1 million dairy cows which only produce around 828,000 tons of milk = 815 kgs of milk per cow, which is extremely low by international standards.

Of this 828,000 tons only around 5% is processed = 41,400 tons processed in 2013[1].

Therefore, the first question is what happens to the 95% of milk that is not sold – as yields are very low a surprising amount of milk is consumed by baby calves which usually suckle their mothers for 3-6 months and so probably consume, on average, 2-3 litres per day.[2] That would equate to 200-450 litres which may be close to half the yield of most cows. Households consume some fresh milk and the rest is made into local products like chaka, kurut, cream and cheese. The ACP project[3] estimated that local 'homemade' products are 82,000 MT and fermented products 4,865 MT and cheese and butter around 62 tons. Assuming a dry matter of around 70% for the homemade products this probably requires around 360,000 MT of raw milk. Therefore, the use of raw milk could be:

Table 2: Raw milk production and consumption by calves

Raw milk production and consumption				**2013**
	Number	**Yield ton**	**Tons**	**% share**
Cows	1 000 000	0.85	850 000	
USE		Use		
Calves	600 000	350	210 000	24.71
Fresh milk	900 000	200	180 000	21.18
Kurut / chaka			360 000	42.35
Sold to neighbours			30 000	3.53
		sub-total	780 000	
Sold to processors			70 000	8.24
		TOTAL	**850 000**	**100**
Source: Author's estimates - to be verified				

This data will be verified an adjusted through the planned surveys.

Recent (contradictory) data suggests that the overall production has increased substantially to 1,450,000 tons[4] – this is presumably due to some larger commercial farms being set up with high yielding cows and a more moderate increase in yield from the small household cows or a change in the method of recording.

Tajikistan officially imports 9,500 tons of dairy products (including milk powder) so it means that the 'retail' market has almost 25% of imported products. As customs procedures are difficult and expensive there are many reports confirming that a large percentage of exported apricots are exported 'unofficially'. Therefore, it is also likely that there are dairy products imported into Tajikistan unofficially so the real level of imports could be considerably higher. However, even at the official

[1] Analysis of dairy value chain in Tajikistan, ACP, World Bank, 2015
[2] Author's estimate.
[3] ACP op cit
[4] Tajik Statistics Office

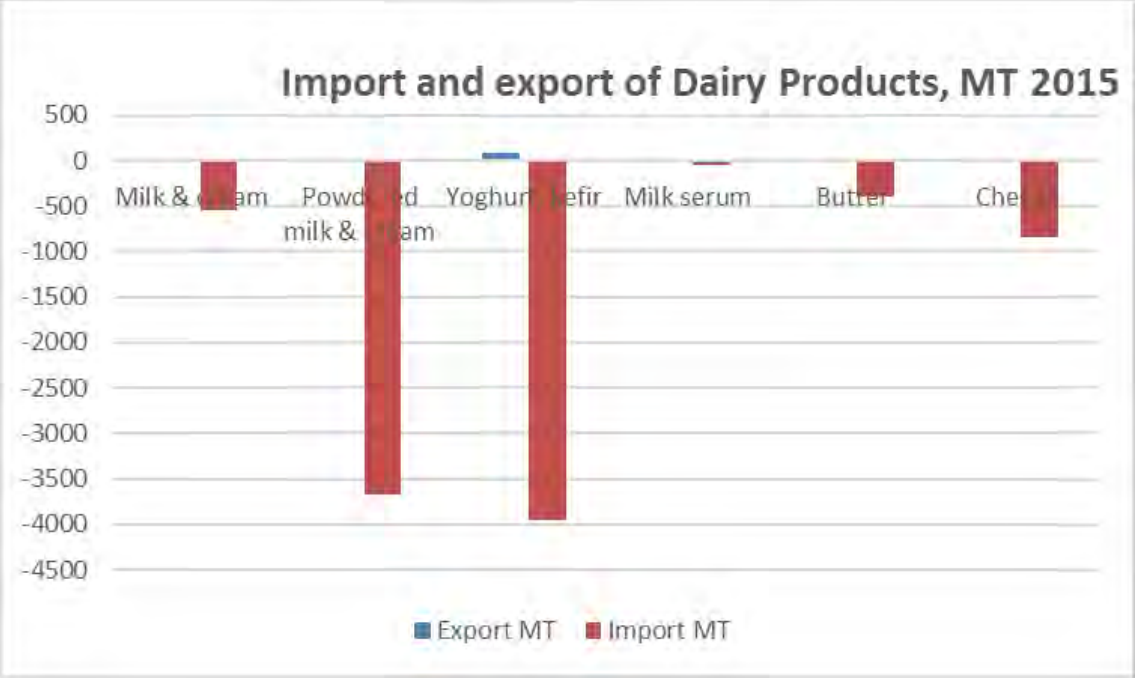
levels of imports it demonstrates there is a large volume of imported dairy products (most of which are likely to be higher value products like yoghurt and condensed baby milk etc.) which could be replaced by Tajik products if they can be produced at competitive prices and at a similar level of quality and packaging.

3. The Processing Industry

Tajikistan has around 55 SME dairy processors which include two large processors in Dushanbe. Additionally, there are many very small local processors which only process from 20-200 litres per day, perhaps rising to 500 litres per day in the peak summer months. All dairy processors complain of lack of volume of raw milk, poor milk quality and the high cost of collection as over 90% of the cows are kept in small rural households, typically with 1-3 cows. The larger SME processors typically have a capacity of 15-40 MT of raw milk per day but usually only purchase around 3-5 MT / day which may increase by 50% in the peak summer months. This shows that they operate at only about 20-40% of capacity and so are inefficiently using their equipment and overheads. Many dairies do import dry milk powder which they re-constitute into various dairy products – typically ice cream, milk and cheese.

4. Import and exports of dairy products

Figure 1. The import and export of dairy products in Tajikistan in 2015:



Source: Tajikistan State Statistical Service, 2016

Figure 1 shows that dairy exports are insignificant at 106 tons in 2015 but that imports are large at 9,490 tons.

Table 3 – Import and export of dairy products MT (metric tonnes) from 2015.

Product	Export MT	Import MT
Milk & cream	0	-553
Powdred milk & cream	0	-3680
Yoghurt, kefir	85	-3954
Milk serum	0	-52
Butter	0	-400
Cheese	21	-851
TOTAL	**106**	**-9490**

Source: Tajikistan State Statistical Service, 2016

By far the two largest imports are powdered milk and cream (mainly milk powder to be reconstituted) and yoghurt and kefir. Imported yoghurts dominate the high value dairy products and yoghurt requires high quality milk so only one or two of the larger Tajikistan dairies are able to produce it from their own large industrial dairy farms.

5. Consumer Preferences

Tajikistan's milk consumption per capita is 55 litres p.a. which is much lower than in its neighbouring countries which average around 163 litres per year and, in Kyrgyzstan, consumption is around 200 litres per year.[5] These are official figures and, again, considerable discrepancies exist with experts' estimates which are around 100 litres per capita and so almost double the official figures.

Various interviews and reports confirm that consumers in towns and cities have a strong or very strong preference for imported dairy products, especially for baby milk powder and yoghurt, as well as cream.

Although poverty is a serious issue in Tajikistan there is a growing middle class whose disposable income is increasing and they are buying increasing volumes of consumer goods. Due to the hot summers, the middle class prefers to buy processed dairy products from supermarkets or larger shops with refrigerated sections for dairy products, rather than from bazaars. A review of dairy products in Khujand report showed that milk processing had increased the volumes of processing rapidly from 2012 to 2014 (from 295 tons to 1,183 tons in 2014).[6] The main dairies there report that this was due to strongly increasing consumer demand.

A survey was carried out in one of the largest supermarkets in Tajikistan which sells 42 dairy products. Of those products 20 are produced locally and 22 imported. When the products are sorted by price it is interesting to observe that from the 26 most expensive products only 5 are produced in Tajikistan which confirms the observation that the imported products dominate the more expensive products – particularly baby milk powder, yoghurt, specialty cheese and high fat butter. Table 4, on the next page, shows the products ranked by price (cheapest first) and the locally produced firms are shaded.

[5] ACP op cit
[6] Overview of Dairy products market in Khujand, 2014, M-Vector.

Table 4. Dairy products sorted by price – large supermarket, April, 2017

№	Names of commodities	Unit	manufacturer	Sale price TJS
3	yogurt albend lend	95g	Kazakhstan	2.1
46	Ryazhenka	400g	Afzali sugd Khujand	2.55
4	yogurt Ermigud 7,5%	100g	Белорусия	3.2
6	Chocolate milk 2.5%	400g	Dairy factory of Dushanbe	3.86
34	Sour cream	300g	Dairy factory of Dushanbe	4
7	Kefir fruit 2%	400g	Dairy factory of Dushanbe	4.25
9	Kefir fruit	250 g (bottle)	Meat dairy plant of Dushanb	4.35
30	Ryazhenka	0,75 l	Dairy factory Fayzirasul Hujan	5
38	Cream	200g	Dairy factory Fayzirasul Hujan	5.5
40	Biocurefire	150g	Dairy factory Fayzirasul Hujan	5.5
35	Dairy product chaka	300g	Porsoi Khujand	5.55
36	Dairy product chaka	300g	Dairy factory Fayzirasul Hujan	5.55
37	Sour cream	185g	Kazakhstan	5.6
1	yogurt Nejny	285g	Kazakhstan	5.99
33	Curd 0.8%	300g	Shohshiri Khujand	6
11	Cottage cheese	150g	Dairy factory of Dushanbe	6.25
32	Cream 15%	350g	Porsoi Khujand	6.5
20	Condensed 8.5%	200g	Kuban	6.85
31	Cream 45%	350g	Dairy factory Fayzirasul Hujan	7
8	Family kefir fruit 2.5%	1 kg (bottle)	Saodat	7.55
5	yogurt Ermigud	290g	Belarus	8.1
2	yogurt Nejny	470g	Kazakhstan	8.95
19	Condensed milk bunny	320g	Ukraine	10.35
14	Milk bunny 1.5%	1l	Ukraine	10.65
21	Condensed milk with coffee	270 g	Kazakhstan	11
18	Condensed milk classic	320 g	Russian	11.55
10	Cottage cheese	300 g	Saodat	11.9
13	Live milk nesli 3.2%	1 l	Kazakhstan	12.91
15	Fresh milk 1,5%	1l	Russian	14.23
12	Fresh milk 3,6%	950g	Kazakhstan	15.69
22	Dry milk for children "nesli"	250g	Kazakhstan	15.98
16	Condensed milk with sugar	1,5 l	Marius	21.63
17	condensed milk ruslada	1,5 l	Kazakhstan	22.99
29	Cheese	350g	Mlko Mryagonsky	29.16
28	Kid	350g	Russian	30.55
26	Nestogen	350g	Switzerland	31.5
27	Baby	350g	Russian	36.75
39	Dutch cheese	1 kg	Leninabad	39
24	Nan	400g	Switzerland	47
44	Creamy butter	1kg	Dairy factory of Dushanbe	48
45	Creamy butter	1 kg	Russian	55
25	Nestogen	800g	Switzerland	62.42
42	Cheese	1 kg	Porsoi Khujand	63
41	Cheese	1 kg	Dairy factory of Dushanbe	79
43	Cheese	1 kg	Russian	83
23	Nan	800g	Switzerland	84

This is a preliminary report and due to the inconsistency of data available surveys are being undertaken in various outlets as well as checking the basic data of breeds of cows and associated yield as this needs to be clearly understood to be able to understand the market fully.

Annex 3 Concept Note for the Dairy Business Model “Laziz”

Concept Note for Business Model:

Pilot Project for Productive Partnership on Dairy Value Chain

LAZIZ - D (RRS)

I. Problem Analysis:

The dairy sector in Tajikistan is under-developed and milk yields are generally very low. Yields vary from around 3-5 liters per cow and day on average. Milk yields increase markedly in summer and are even lower in winter due to the poor quality of feed. Forage is the main limiting factor in improving milk yields. The traditional livestock breeds have evolved from hardy nomadic cattle. They are used to surviving on extensive grazing and therefore 'easy to look after' but very low in production, especially of milk. When the numbers of livestock were much smaller the nomadic grazing allowed pastures to 'rest' and regrow as the herds moved to other areas. In the current system, the livestock are permanently on the pasture, except for the short winter period, and so the pastures are unable to recover at the current stocking density. Winter feed, normally 'dried maize stalks', hay or dried grass, is often of poor quality as it has a low value of nutrients. However, high quality maize silage and good quality lucerne hay can be an excellent cattle feed.

Milk quality is also poor as usually there is no refrigeration in the villages and, often, the milk tanker truck is also not refrigerated and so warm or very warm milk[1] is brought to the milk factory which means the milk can already be 'spoilt' or becoming spoilt. Over 90% of the milk comes from the very small households (usually with 1-3 cows) or very small dekhan farms with 3-10 cows and so milk collection costs are high and hygiene and disease prevention standards are very low and vary among the hundreds of producers in one collection point.

Within the Business Demo/Pilot projects it is proposed to partner with the LAZIZ LLC milk processing factory. LAZIZ has been chosen as a strategic partner for the following reason:

1. It is a new facility set up in 2015 with a capacity of 20 MT of raw milk per day but is currently only able to buy less than 1 MT per day and so is very keen to develop and increase the supply of raw milk.
2. 3 Farmer Groups have been set up who are already supplying milk to LAZIZ and wish to increase and improve their milk quality.
3. LAZIZ has easy access to Dushanbe and has quality products (cream, cottage cheese, yoghurt and other cheeses).
4. The owner / manager was formerly the owner of a large cotton processing plant and so is experienced in managing such an enterprise and understands the challenges of working with small and very small producers
5. He is interested to collaborate with the project on developing a training module for dairy production based on Common Interest Groups (CIG) of households and small dekhan farms in

[1] Warm milk is an ideal breeding ground for bacteria. Good quality milk needs to be clean and cooled as soon as possible after milking.

villages and delivered through the 'Farmer Field School' (FFS) approach. A draft training program is being developed and will be tested and modified based on the actual needs of the CIGs.

6. LAZIZ is not interested in developing its own large dairy farm and understands that developments of the CIGs will be a more sustainable model.

II. Proposed interventions within Business Models/Pilot Projects:

The following sequence of activities is planned:

a) Verification of the FGs
b) Starting a series of FFS trainings – schedule and timing to be agreed
c) Setting up of a milk collection centre (MCC) based on a refrigerated bulk milk tank, based in a village and owned by the CIG. The MCC would include simple milk testing equipment.
d) Improved feeding of cows – using fodder beet, maize silage, lucerne (fresh and hay) as well as concentrate feed with pre-mix vitamins and minerals in a formulated ration and free access to clean water including improved feeding off calves
e) A pasture management program will be set up which could include strip or paddock grazing (usually using electric fences) as well as other measures to improve the pasture, depending on the local situation.
f) Individual milking machines would be provided on a 'test' basis to producers with, at least, 4 cows to improve milking technique and hygiene.
g) Distribution of a few 'higher potential' cows / heifers to 2 or 3 selected producers (to demonstrate the difference between their performance and the traditional breeds on a real small DF).
h) A small-scale maize chopper (stationery) would be funded to chop maize grown by the HH and either it would be covered by a plastic sheet (if larger amounts) or put into plastic bags. See photo below.
i) An input supplier with capacity to produce concentrate feed will be identified and provided training and a grant to improve equipment so as to provide concentrate feed for the CIG in the late autumn / winter period.
j) A local service provider will be identified and trained to monitor progress, alert problems and liase with other trainers and service providers to find solutions.

Photo – changing from traditional dried maize to high quality maize silage:

Small-scale maize chopping:

LAZIZ has funded the new dairy from scratch and so has heavily invested in the enterprise which underlines his commitment to ensuring the project is successful. However, his funds are limited to quickly expand the operation and so this justifies support from the project. The equipment in the MCC (bulk milk tanks, testing equipment and small milk containers) will be bought by a Farmer Group (FG). During three years, the project will build the institutional capacity of FG and feasibility of transforming into a Business Farmer Cooperative.

A. Objectives

- Demonstrate higher milk yields by better feeding (autumn / winter), improved pasture management
- Improved milk quality through developing a cold chain, improved hygiene and better husbandry
- Demonstrate higher yields by using better breeds of cows;
- Evaluate the profitability of better feeding for improved breeds

Increase farmers' income by increased milk yields and better quality milk

B. Outcome Indicators

1. Increased milk yield (compare 2017 monthly milk sales per collection point with 2016)
2. Monthly volume of raw milk purchased by LAZIZ compared with 2016 (if relevant)
3. Improved milk quality – somatic cell count / bacterial count / temperature of milk delivered to dairy
4. Number of Farmers' Groups formed with MCC and without
5. Milk yield measured by comparing cows with improved feed against cows with no changes (control group).
6. Milk yield of improved breeds compared to control group.

C. Sustainability

There are several detailed issues to be considered to ensure sustainability of this BM.

Formal Structure of the FG:

The FG needs to be set up as a Common Interest Group which is an accepted organisational form for such a group in Tajikistan and it allows the CIG to buy and sell equipment and livestock and also to receive grants.

Care and maintenance of the equipment: The CIG will sign an internal agreement to deduct part of the income for maintenance, servicing and purchase of consumables (e.g. cleaning chemicals etc.).

Stationery Chopper for Maize and other feed: This will be purchased by 1 FG (the selection can be made locally but it is recommended that it should be the FG that has more of better breeds of cows) and the cost of chopping for its members will be low but enough to ensure maintenance of the equipment, the chopper can then provide the same service for another of the FG but this should be at a commercial rate but discounted as there will be many users. It could also be provided to individuals who are not members of any group but this fee should also be a real commercial rate.

The Business Models will be evaluated by the PMU, supported by the VCTA, in order to determine the costs and benefits of the various interventions. This will allow lessons to be learnt, adjustments to be made and provide a basis for productive partnerships to apply for similar support. It should also be able to identify viable commercial activities e.g. improved feeding of better breeds of cows so that other farmers, dairy processors, banks and investors can develop commercial models based on this experience.

III SUPPORTING TABLES:

Table 1. SWOT ANALYSIS

STRENGTHS	**WEAKNESSES**
The Dairy is committed to increasing raw milk purchase substantially Experienced management	Very low milk yields Poor milk quality High collection cost of milk Low prices for small producers
OPPORTUNITIES	**THREATS**
Improved winter forage can substantially improve milk yields Milk cooling can greatly improve milk quality LAZIZ is a New Entrant so needs to 'do something different' than his competitors Farmer Groups can help a lot in improving pasture management coupled with electric fencing etc	LAZIZ may have insufficient working capital Farmers may not want to form Groups LAZIZ could dictate low prices to MCC Farmers may be reluctant to try new breeds Farmers can add water to dilute the milk

Table 2: BUDGET

The total planned investment for 3 FGs is $52,662 and the requested grant funding is $37,862. The 'own contribution' is $14,800 (28%) which includes the purchase of a refrigerated milk collection truck which Laziz will fund to ensure the cold chain is continuous. Each FG will set up a MCC with refrigerated tank and milk testing equipment.

The full budget is attached below as well as in a separate excel file.

Table 2 Budget:

BM DAIRY		NAME	LAZIZ		Version	10		Date	25 April		8.50 TJS / $		
#	Description	Наименование	Unit	No.	Unit cost $	TOTAL USD	Unit cost TJS	TOTAL TJS	Requested amount TJS	Own Contribution labour	Own Contribution cash	Own Contribution Total	Other
1	**Equipment**	**Оборудование**				**39,403**		**334,926**	**232,927**	**-**	**102,000**	**102,000**	
	Milk analyser «Lacto scan»	Анализатор молока «Lacto scan»	item	3	1,700	5,100	14,450	43,350	43,350			-	
	Table for milk testing (staineless steel)	Стол для анализа молока (нерж.)	item	3	53	159	451	1,352	1,353			-	
	Bulk tank (2 t staineless steel)	Танк/бочка (1 тон нерж.)	item	3	4,700	14,100	39,950	119,850	119,850			-	
	Buckets / Bidon (10 liter, plastic)	Бидон (пласт.10 л)	item	200	3	600	26	5,100	5,100			-	
	Buckets / Bidon (20 liter, plastic)	Бидон (пласт. 20 л)	item	200	4	800	34	6,800	6,800			-	
	Milking machine mobile (2 cows)	Доильный аппарат мобильный (2 коровы)	item	1	350	350	2,975	2,975	2,975			-	
	Milk truck for collection of milk (2 t)	Молоковоз для сбора молока (2 т)	item	1	12,000	12,000	102,000	102,000			102,000	**102,000**	
	Fodder beet seed / ferts.	Семена кормовой свеклы / удобрения	Ha	2	588	1,176	4,998	9,996	9,996			-	
	Chopper stationery + bags (for maize)	Харвестор/измелчатель стационарный	item	1	4,118	4,118	35,003	35,003	35,003			-	
	Feed mill / mixer for concentrate	Кормовая мельница	item	1	1,000	1,000	8,500	8,500	8,500			-	
2	**Animals**	**Животные**				**3,700**		**31,450**	**31,450**			**-**	
	Cows/heifers swiss breed, 3 years old pregnant	(Коровы шведская порода, 3 лет. бер.)	head	2	1,850	3,700	15,725	31,450	31,450			-	
3	**Tools**	**Инструменты**				450	-	3,825	3,825			**-**	
	Thermox (water heater)	Термокс водонагреватель	item	3	150	450	1,275	3,825	3,825			-	
4	**Materials**	**Материалы**				6,309	-	53,627	53,627			**-**	
	Construction materials for MCC building	Строит.материалы для постройки сбора пункта молока	item	3	2,103	6,309	17,876	53,627	53,627			-	
5	**Transportation**	**Транспортировка**				1,200	-	10,200	-		10,200	**10,200**	
	Transportation of the equipments and cows to Vakhsh	Транспортировка материалов и коров в Вахш	item	1	1,200	1,200	10,200	10,200			10,200	**10,200**	
6	**Labour**	**Рабочая сила**				1,000	-	8,500	-	8,500		**8,500**	
	Construction of MCC building labour	Стройка сбора пункта молока	item	1	1,000	1,000	8,500	8,500		8,500		**8,500**	
7	**Service**	**Услуга**				600	-	5,100	-		5,100	**5,100**	
	Collection and installation of the equipment	Сборка и установка обарудования сбор пунктов молока	item	1	600	600	5,100	5,100			5,100	**5,100**	
8	**TOTAL USD**	**Итого расходов USD**				**$52,662**				**Labour**	**Cash**	**Total**	
	TOTAL TJS	**Итого расходов TJS**						**447,627**	**321,829**	**8,500**	**117,300**	**125,800**	28.10
					Requested Grant in USD =				**$37,862**	Own share in TJS			Own %

Table 3: Logframe Analysis:

A simple log frame is provided below which shows the objectives and specific activities and will be used to set up the monitoring system of the sub-project.

	Narrative Summary	Performance Indicators	Monitoring & Evaluation	Assumptions
Overall objective: Impact	Show improved profitability of dairy farmer groups and the Laziz processor through a value chain approach	• Increase (%) in the value of sales of milk, leading to increased employment. • Increased volume of milk purchased from FGs • Increase of MSME Farm incomes	Farm surveys Laziz dairy reports Business plans Record keeping	Farmers willing to participate and contribute to investments and try new techniques.
Specific objective(s): Outcome(s)	To enhance the development of Farmer Groups dairy value-chains, the competitiveness of the dairy value chain and the quality and marketing of their products.	• Number of Farmer Groups set up and number of farmers participating (incl. % of female farmers); • Increase (%) in production of targeted agricultural products in the region; • Increased milk yield • Improved milk quality	Copy of FG contract Survey of number of women involved Survey of milk yields compared to 'control' group Project monitoring and evaluation reports to include farm / enterprises' surveys.	• The economy of Tajikistan continues to grow. • Finance available to implement the investments • FFS and ongoing training support is provided • Extension services developed

Activities	Inputs	Means of verification	Assumptions
1. Set up, consolidate and train Farmer Groups			
1.1. Identify and assess existing FGs and possible future ones.	RSP/TA	Analysis / report	
1.2 FFS set up and delivered		Training evaluation	
1.3 Set up MCC in FG (or 2 FGs) – including organisation, staffing, maintenance and record keeping		Reports	
2. Improve feeding			
2.1 Set up a service provider to make maize silage, fodder beet and lucerne hay or silage which is sold to members of the FGs and paid for in milk to Laziz.		Surveys of FG members	
2.2 Set up the provision of concentrate feed with pre-mix supplements and ensure balanced rations are provided with free access to clean water.	RSP/TA	Report on quality of feed and analysis of milk yields in on-farm trials	
2.3 Set up improved pasture management program using either strip grazing or rotational grazing, using supplementary forage in early spring and autumn.	RSP/TA	Analysis of pasture land (estimate of how many litres of milk produced per hectare).	
3. Test the performance of improved breeds of cows			
3.1. Distribute a small number of pregnant heifers of improved breeds (e.g. Simmental, Brown Swiss or Holstein) that were reared in Tajikistan. Set up on-farm trials so that 'new' breeds are compared both with charne-piastraya and husaka breeds.	RSP /TA	Reports on on-farm trials with proposals on how cow purchase can be commercially funded	
3.2. Ensure husbandry improvements are implemented –	TA	Report and recommendations	
4. Improve milk quality through hygiene and cold chain			
3.1. Improve hygiene, housing, ventilation, herd health and manure handling.	TA	Report and recommendations	
3.2 Ensure milk is cooled as soon after milking as possible, stored in a refrigerated tank and delivered to the dairy at a cool temperature.			
5. Evaluate the technical and financial performance of the BM			
4.1. Record and evaluate the use of grants, other financing and the financial rate of return.	TA	Report and recommendations	
4.2 Evaluate the sustainability of financing schemes for the supply of forage and concentrate feed and improved breeds of cows.	TA		