International Labour Organization

SELECTING THE ROAD TO MORE AND BETTER JOBS

SECTOR SELECTION REPORT OF THE ROAD TO JOBS PROJECT IN NORTHERN AFGHANISTAN

the LAB
MARKET SYSTEMS DEVELOPMENT FOR DECENT WORK

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BACKGROUND

Road to Jobs (R2J) is a three-year project that aims to create more and better jobs in the provinces Samangan and Balkh in Northern Afghanistan. The project follows a market systems approach to address important underlying constraints inhibiting better growth and employment outcomes, which in turn contribute to improving livelihoods and poverty reduction. Its impact indicators are:

- Number of people recording a positive change in working conditions and/or incomes, (disaggregated by gender/poverty status/migrant status).
- Net additional income accruing to target enterprises as a result of the programme.
- The net additional employment created and sustained as a result of the programme.

R2J targets poor and vulnerable rural households and income earners who work either in rural communities, or in urban centres and other major centres of employment. Poor are defined as those living on less than US$1.25/day, and disadvantaged/vulnerable groups include women, internally displaced people (IDPs), and migrant workers. R2J aims to facilitate change in a small number of sectors that are important to the economic livelihoods of these target groups.

The project finalised an inception phase, which ran from January to November 2015. The main tasks to be completed in this phase included:

- Select a maximum of 4 sub-sectors, or market systems, with the greatest potential for impact at scale.
- Analyse these to understand the underlying constraints of underperformance.
- Identify areas of intervention.

This is the report on the first step, i.e. sub-sector selection, which took place over the period of April to July 2015. The report first describes the process followed (Chapter I); the selection criteria and key research questions (Chapter II); analysis of findings and sector selection (Chapter III). A final chapter provides some conclusions and lessons learned (Chapter IV). Results for each of the sub-sectors is summarised in sub-sector technical notes as contained in the Annex of this report. The report draws freely on the various documents produced in the sector selection process, by the project team, those supporting it at ILO Headquarters, and the consultants working with the team.

I. THE SECTOR SELECTION PROCESS

Sub-sector selection is one of the most important strategic decisions for R2J to position itself for sustainable jobs impact. This means targeting those sectors that are labour-intensive, have a high reliance on wage labour inputs - not just smallholder production - and can create jobs accessible to the poor and vulnerable groups such as women and migrant workers.

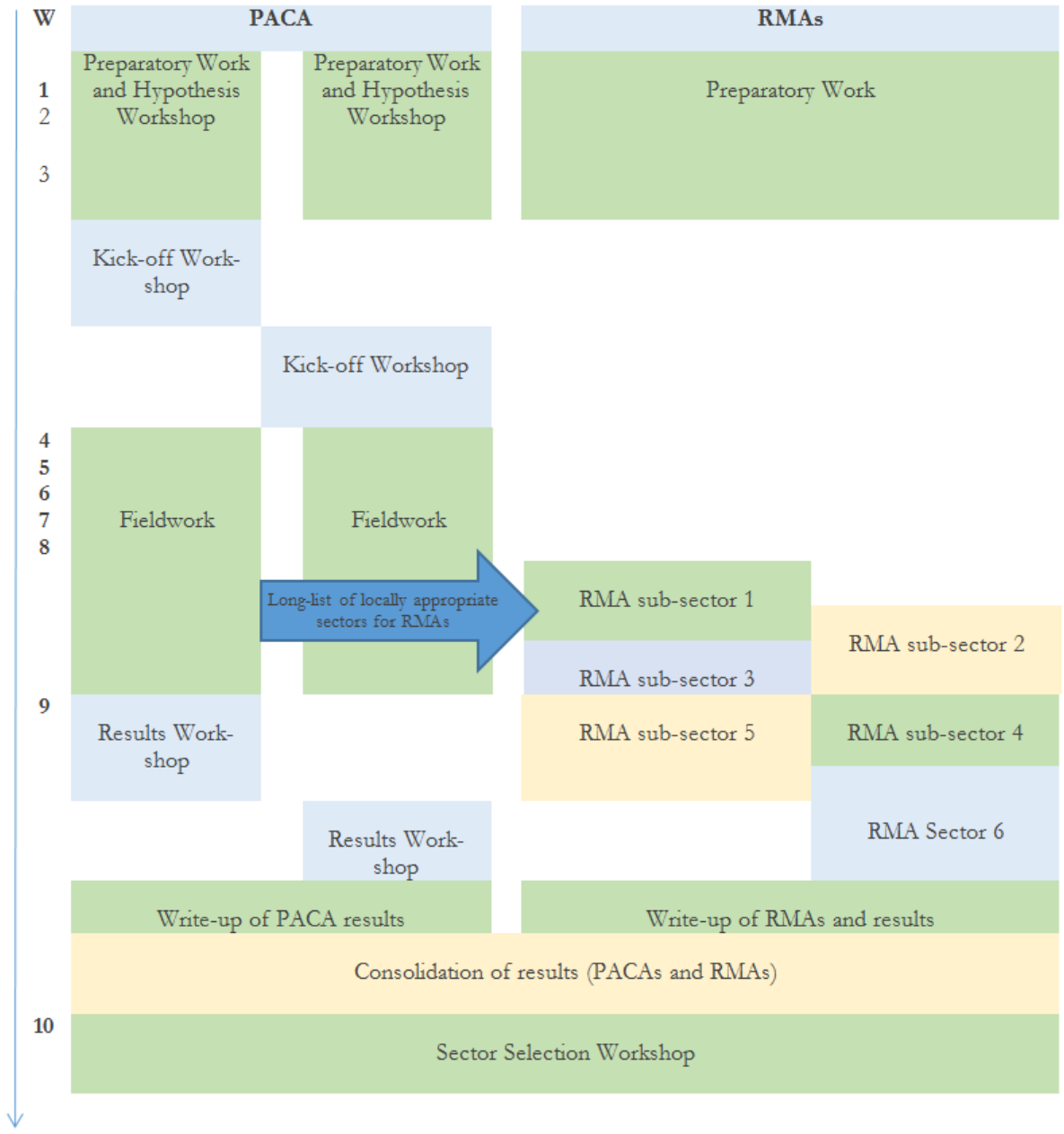
The selection process aimed at defining the sub-sectors as precisely as possible, i.e. as value chains for specific products or services rather than a set of related products or services. For instance, within the dairy sector, the value chains for cheese and for fresh milk are likely to be quite distinct and have different potential in relation to the project's goal. Within the fresh vegetables sector the potential for tomatoes for instance could be quite different from that for green leaf vegetables. This does not preclude the project broadening its interventions to include more value chains in a specific sub-sector at a later stage, to achieve greater scale.

Given its strategic importance, the sub-sector selection process designed and implemented by the project was thorough and evidence-based. It comprised three main elements:

- **Two Participatory Appraisal of Competitive Advantage (PACA®) exercises,** one for each province, provided information on local competitiveness and economic opportunities, and which activities and sub-sectors are of most relevance to the project's target territories.
- **A set of six Rapid Market Assessments (RMA)** to get a "first look" at high-potential markets to determine their likely relevance to the target groups, opportunity for positive employment change and feasibility of intervening.
- After these two parallel processes, **an internal assessment of the findings** of the above by the project team to select 3 to 4 sub-sectors to investigate more in depth through market systems analyses (MSA).

The following figure depicts the two parallel processes.

Figure 1: sector selection process



PARTICIPATORY APPRAISALS OF COMPETITIVE ADVANTAGE (PACA)

A PACA is led by facilitators who are selected from key stakeholder organizations and trained by PACA experts. It includes a range of consultations with market actors, including the target group, and dialogue is therefore a central component of this tool. This can generate significant buy-in and ownership of project activities. PACA, however, is not a strong analytical methodology, but rather good at identifying 'quick wins' that generate enthusiasm and credibility. The RMAs, on the other hand, used a strong analytical framework and depend more on 'expert' knowledge. The project's approach therefore brought together an external view and one that is more bottom-up and participatory, to deliver a perspective that aims to be valid to the project as facilitator of market systems development, as well as the actors who make up these systems.

The PACAs took place between April and July 2015. They comprised of the following main steps:

- Selection of staff of key stakeholder organisations to be trained as PACA facilitators.
- Training of facilitators (including project staff).
- Constituting two PACA teams of local facilitators, project staff, and consultants.
- Fieldwork, including a start-up workshop with representatives of a broad spectrum of market actors, data gathering through interviews, workshops and secondary data collection.
- A "results workshop" to analyse the information within the PACA team and identify possible 'quick win' interventions.
- Presentation of the findings and ideas for interventions to market actors and stakeholders.

The PACA results and 'quick win' interventions have been reported on separately.

RAPID MARKET ASSESSMENTS (RMAS)

The Rapid Market Assessment (RMA) is an evidence-based sector selection process which ensures the participation of local economic actors in identifying those sectors with the greatest potential for job creation and improved livelihoods for the poor.

During the RMA process, project staff in collaboration with the team of consultants:

- Developed criteria for the selection of sub-sectors (Chapter II)
- Researched existing material (secondary sources) to come to a long-list of sub-sectors to be considered for RMAs.
- Developed a methodology for conducting the RMAs.
- Drew up a short-list of sub-sectors to be assessed, using secondary data, information that became available from the PACAs, and applying the agreed-on criteria. Short-listed sectors included: almond, grape and raisin, dairy, poultry, sheep and goats, and cotton.
- Conducted the RMAs, analysed the information and wrote up the results.

RMA and PACAs findings were finally integrated into comprehensive sub-sectorial notes by mid-July which can be consulted in the annex of this report. Also by mid-July the project team and consultants had used this analysis to review the sub-sectors against the criteria and had come to a conclusion regarding sector selection (Chapter III).

It should be noted here that it had been the intention that the full project team would be in place before the beginning of the PACA and RMA exercises, would be provided with basic training on market systems development, conduct the research and take the lead in the analysis. This was not possible due to delays in recruitment. The absence of a full project team was addressed as much as possible through technical support, including missions, from ILO HQ and international consultants. However, much of the work had to be done by just one project team member, external facilitators and consultants. This reduced the extent to which this could be a learning experience for staff and may affect ownership over the findings.

Security was another factor that affected the research, especially for the PACAs, which are more locality-specific. Security issues caused delays and it was not always possible to visit relevant locations. This is likely to remain a concern throughout the project implementation period.

II. SECTOR SELECTION CRITERIA

Setting and applying criteria made decision-making about which sector to intervene in more transparent, and aided constructive dialogue between and with stakeholders. Below is a summary of the selection criteria and key research questions addressed under each. The "Road to Jobs Sector Selection Guidance" that was developed and provided to the team and consultants gave further detail. Interview schedules were developed as well for the PACAs and the RMAs.

There are 8 criteria which were used and these were grouped under three main areas:

Relevance to target groups

- Criterion 1: Number of target group members active in the sector
    - What is the estimated number of poor and migrant women and men engaged in the sector (disaggregated if possible)?
    - What is the geographic location/concentration of poor and migrant women and men who are working in the sector?
- Criterion 2: Nature of target group's participation in the sector
    - How do poor and migrant women and men participate in the sector (producers, employees)?
    - How important are the incomes poor and migrant women and men derive from this sector vis-à-vis overall livelihood strategies?
    - Are there any noticeable trends with respect to the roles (e.g. a movement from lower to higher value added activities), risks (e.g. exposure to volatile farm-gate price movements), and benefits (e.g. incomes) for poor and migrant women and men from this sector?
- Criterion 3: Extent of decent work deficits faced by target groups in the sector
    - In which type of enterprise do the majority of poor and migrant women and men work?
    - What issues do target groups face with regards to low remuneration (wages, incomes from self-employment), working time (either un- or under-employment), and working conditions (physical conditions and mental demands in the workplace)
    - Are there particular gaps or inequalities in labour market outcomes for women or migrant workers?
    - Are there risks that sector growth would increase decent work deficits, in particular: child labour, bonded labour, gender inequality, exploitative relationships

Opportunity for inclusive growth

- Criterion 4: Likelihood of sector growth
    - What is the nature of enterprises (from micro to multi-national) engaged in the sector?
    - What is the overall size of the sector with respect to volume and value of output, GDP contribution, foreign direct investment, exports and employment share?
    - What is the previous (past 5 years) and forecast (next 5 years) growth trajectory of the sector?
    - What are the current levels of innovation, productivity and competitiveness and/or collaboration in the sector?
- Criterion 5: Scope for improving target group employment in the sector
    - What is the job creation potential based on the investment potential and the labour-intensity of the sector?
    - Are new jobs being created likely to be accessible for target groups (based on whether they are unskilled, semi-skilled or skilled)?

Feasibility to stimulate systemic change

- Criterion 6: Capacity of market players
    - Which organisations (private/public) have a good track record of innovating and investing in this sector?
    - What significant investments have recently been made or are planned for the near future?
- Criterion 7: Willingness of market players to change
    - Are there clear incentives (social, economic) for market players to take on board new ways of working?
    - Are there available scale agents – e.g. Government Ministries, sectorial or business association – that could be leveraged? How are these organisations currently perceived by their members/clients?
- Criterion 8: Likelihood of distortion
    - Which donor programmes are present, where, and what are they doing/funding?
    - Are there any existing sectorial programs or initiatives with similar objectives in the sector?
    - Do they present opportunities for collaboration or would they be a "threat"?

III. ANALYSIS OF FINDINGS AND SECTOR SELECTION

For the choice of sectors, the project team and consultants drafted a summary table of the sub-sector technical notes (see Annex) and a scoring matrix to guide the discussions (see below). The team went through the process of scoring together, going back to the sub-sector technical notes and discussing the pros and cons of the different sectors. The following sub-sectors were selected:

1. **Cotton (in Balkh)**
2. **Poultry (mainly in Balk apart from backyard poultry in both provinces)**
3. **Grapes and raisins (in both provinces)**

In fact grapes and raisins scored the same as dairy, but it was agreed that the constraints in the dairy sector are so many and of such a nature (requiring a high level of investment) that the scope for the project to make a difference there is small.

While the inclusion of poultry and grapes and raisins, both relatively small sectors, limits the potential scale of impact, it may be realistic to work in smaller sub-sectors given the size of the project. Cotton on the other hand has much more potential for scale of impact.

It was also agreed that given the PACA and RMA results, a fourth market system to be included would be the **agricultural inputs** (agrochemicals and seeds) market system. In all agricultural/horticultural market systems low productivity is consistently linked to limited use of quality inputs, as a result of lack of supply and lack of knowledge, information and skills among farmers. If the project were to address the systemic causes of these constraints on a cross-sectorial basis, this would have a huge impact.

It was concluded that the scope for 'distortion' is medium to high in all sectors (including those not assessed). There are many other programmes working in the region and several are following a value chain development approach. All seem to have significant funds for cost-sharing grants to individual enterprises. The project will take this into account when developing its own approach and will consider coordinating closely with the projects concerned if needed. Two of the key market facilitators, Sustainable Economic Development and Employment Promotion (GIZ/GFA) and the Regional Agricultural Development Programme in Northern Afghanistan (USAID/DAI), have already expressed interest in this.

Working in the cross-sectorial inputs market system would differentiate the project from other programmes and somewhat reduce the distortion risk.

TABLE 1 – SUMMARY OF FINDINGS

Criteria	Goats/Sheep	Dairy	Poultry	Cotton	Grapes/raisins	Almonds
Relevance **Number of target group members active in the sector**	35,000 hh at least, women in dried yoghurt processing at home and wool processing, 20 to 30,000 shepherds who are mostly migrants	'Almost all' households in rural areas. Women do unpaid dairy work, process yoghurt, employed in processing plants	3,000 employed in commercial farms, unknown but probably large number of women with backyard farms	25,000 at least, of which about 4,000 seasonal, women mostly unpaid at farm level; some women as cotton pickers	2,000 at most, women at household level (unpaid), seasonal paid labour and in raisin processing plants	12,000, women involved at household level (unpaid), small number paid on large farms for processing
Nature of target group's participation in the sector	Farmers, shepherds, small numbers in processing, women in yoghurt at home	Dairy farmers, small numbers in processing	Wage employment, poultry (backyard) farmers, retail	Farmers, some 5,000 at other levels including processing (4,000 seasonal)	1,500 producers, rest in processing, seasonal at farm level, retailers etc.	Nearly all farmers, some women seasonal labour, 50 women in processors/exporters
Extent of decent work deficits faced by target groups in the sector	Harsh conditions for shepherds, likelihood of child labour, no social protection	No social protection	No social protection	Women's working conditions, OSH in processing factories, child labour, no social protection	Low wages for women in processing, no social protection, farmers' indebtedness	Women paid half of what men are paid
Opportunity **Likelihood of sector growth**	Likely in meat and intestine, possibly skin processing if this can be expanded, cashmere as new product, but overall	It has been growing, but demand is weak for fresh milk (non-UHT). Many constraints need to be addressed for	Growth is strong, demand growing and marketing in other provinces possible, growth is likely to continue	It has been growing though cotton prices went down, likely to continue. Low demand for oil. Overall growth is likely if constraints are ad-	It has been growing and demand is good. Grapes for raisins come from other provinces.	National and export demand is good but sector is stagnating due to low yields in the past few years.

	not strong	growth to take off.		dressed.		
Scope for improving target group employment in the sector	Likely to have been stable but there is some potential if more processing can be done in-country. At the farmer level there is more income than job creation potential.	Likely in processing if constraints can be addressed. At the farmer level there is more income than job creation potential.	Good scope, with more jobs in commercial farms.	Good, it has been growing, likely to continue at farm level, seasonal work and processing.	Limited as total employment is small. Raisin processing currently just 200.	Limited as investment in production is slowing down and few workers are in processing
Feasibility **market players with capacity**	Private veterinary services, medicine dealers	Processing factories (made some investments) , vet services, medicine dealers	Commercial farms (strong investment), vet services, medicine dealers	Large exporters/ processors, medium size as well; investment on-going	Processing companies (have been making investments), perhaps Samangan traders' association	Two exporters/ processors, several associations; low level of recent investments
Willingness of market players to change	Private veterinary services show willingness and initiative	Good in processing factories, vet services, possibly dealers of medicines.	Several commercial farms, vet services, medicine dealers have demonstrated initiative	Two large exporters/ processors have demonstrated initiative.	Good in processing companies	Nursery and orchard associations, one exporter have demonstrated initiative
Likelihood of distortion	3 programmes, of which one VCD	4 programmes, of which 2 VCD	5 programmes, of which 2 VCD	4 programmes, of which one VCD	3 programmes, of which one VCD	4 programmes, of which 2 VCD

TABLE 2 – SCORING TABLE

Scoring of sectors against the R2J selection criteria

Sector	Number of target group members active in the sector	Nature of target group's participation in the sector	Work is decent in the sector	Likelihood of sector growth	Scope to improve target group employment in the sector	Market players with capacity in the sector	Willingness of market players to change	Distortion is unlikely	Avergage	Total
Poultry	2	3	1	3	3	3	3	1	2.4	19
Dairy	3	3	1	2	2	2	3	1	2.1	17
Goats and sheep	3	3	1	2	1	1	1	1	1.6	13
Almonds (nuts and dried fruits)	3	2	1	2	2	2	3	1	2.0	16
Grape and raisins	1	3	1	3	2	3	2	2	2.1	17
Cotton	3	3	1	3	3	3	3	2	2.6	21

3 Green represents likelihood that the project can achieve its goal

2 Amber represents uncertainty about the project achieving its goal

1 Red indicates low likelihood that the project can achieve its goal.

Poultry, dairy, cotton: **Balkh**

Goats/sheep, nuts, grapes/raisins **Balkh and Samangan**

Nature of the target group participation At different levels of the value chain and paid employment score high

IV. CONCLUSION AND LESSONS

In spite of delays and conditions which were far from what had been originally foreseen (in particular with regard to recruitment and training of the project team), the process designed by the project has achieved its result. Three sub-sectors have been selected that have good potential to contribute to R2J's goal. The steps leading up to this have resulted in a consensus among stakeholders and have also been sufficiently rigorous in terms of quality of data collection and analysis.

The analysis of the sub-sectors provides a strong basis for the market systems analysis that will lead to the design of interventions. The sub-sector notes have gone further in this direction than had been originally planned, as they indicate potential intervention areas, which will be further investigated.

Work on the in-depth analysis of one of the sub-sectors, grapes and raisins, is already underway.

The following are the main lessons learned:

- The approach to sector selection developed was effective. The conjunction of PACA and RMA exercises resulted in information that was relevant and sufficient for sector selection and provided a sound basis for the market systems analysis of the selected sectors. Research tools (e.g. interview guides) were appropriate and the selection criteria provided a good framework for the analysis.

- The project needs to gain a deeper understanding of what makes the private sector, including farmers, 'tick' in the target areas. Why market players act as they do, what their incentives are, is not always clear and needs longer-term engagement to understand.

- Research and analysis suffered from a lack of quantitative, up-to-date data. The project will have to do more research itself than is usual, not only for the analysis of market systems and in preparation for the design of interventions, but also to measure and monitor progress. It may also have to rely on qualitative information more than usual.

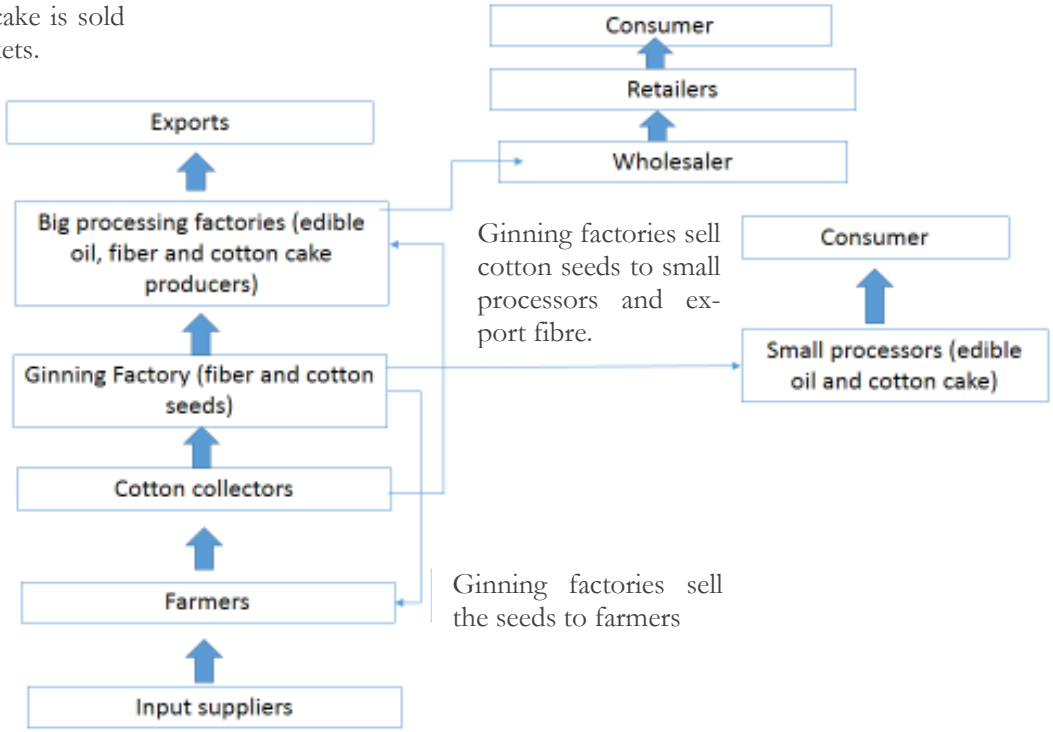
- Security is likely to be a persistent concern throughout the project, and will, in practice, slow down implementation.

ANNEX: TECHNICAL NOTES, FINDINGS BY SUB-SECTOR

COTTON

VALUE CHAIN MAP

Only cotton fibre is exported. Cotton oil and cotton cake is sold in local markets.



Big processors produce refined edible oil, cotton cake for local markets and export fibre.

Ginning factories sell cotton seeds to small processors and export fibre.

Ginning factories sell the seeds to farmers

RELEVANCE TO TARGET GROUPS

The poor

In general in Balkh the poor's income comes mainly from crop sales, including cotton as one of the most important crops. Most poor farmers produce cotton, which is their main source of livelihood. According to some estimates around 20,000 farmers are engaged in cotton cultivation in Balkh province (all districts). Relatively large producers (those with more than 1.60 Ha) outnumber the small ones as they account for almost 58% of the producers.

In addition some 5,000 poor people are engaged in transporting, processing and sale of cotton products.

Poor men and some women are also hired by large farmers in the cotton fields. The labourers are working in ploughing, planting weeding and picking. They come from Mazar and also other districts of Balkh province to Balkh district, which is the most prominent cotton producer.

Employment increases during the harvesting months of November to December.

Vulnerable groups

Women are engaged at the farm level helping the male members of the family especially for weed control. However they are mostly not paid. In rare cases women are employed by large cotton producers.

Migrant men also find work in large cotton farms, especially during harvest.

Decent work deficits

Women working in cotton fields are facing dire working conditions. They work 12 hours from 6 in the morning to 6 in the evening and they are underpaid. A man working in the same field receives 500Afs/day while a woman receives 150 Afs/day. Men are provided with lunch while women are not. Girl children aged 12-15 are even paid 100 Afs/day. The reason given is that the women cannot work as much as men can, but women have few opportunities to work elsewhere and that is why the employers use the opportunity to reduce the costs.

Child labour is not uncommon in the fields.

There may be opportunities to improve occupational safety and health, e.g. protection from dust in ginning factories.

Relevance to target groups: **high relevance**

OPPORTUNITY FOR INCLUSIVE GROWTH:

Sector growth

Cotton is the 3rd largest sector in Balkh by output value (2008), after pistachio and wheat. It is a good alternative crop when early snow prevents the cultivation of winter wheat. The flow of investments in processing technology and quality is growing, including a few large gins producing good quality lint (raw cotton fibre). More land has been brought under cotton cultivation and there is potential to expand by 2,000 hectares.

Major products are lint, cotton oil, cotton cake (made from the seeds, for animal feed) and soap (made from waste after refining the oil). Out of these products only cotton lint has an international market, mostly Pakistan, where it is converted into textile products. Cotton oil, cake and soap are sold domestically particularly in Balkh province.

There could be opportunities to invest in further processing the cotton lint into yarn and establishing textile factories, as recommended by many of those interviewed. There used to be a government owned textile factory in Mazar during the Soviet era. The factory hired a large number of people then but was destroyed during the civil war. According to officials of the department of agriculture in Balkh, if the textile factory is rehabilitated, it will create job opportunities for many poor people.

There are some important constraints on growth. The cotton price has decreased from 16,000 Afs/Bukhar to 8,000 Afs/Bukhar (Bukhar is a local unit of measurement equal to 224 Kg) over the last three years, while the farmer's production cost increased due to the high price of inputs especially fertilizers. The yield/HA is very low. This has significantly affected poor farmers. Many farmers said that in the past their cotton cultivation could generate a good income for them, but since prices declined they can make very marginal profits only.

One reason for prices having decreased is competition from China, which is increasing production and exports. Another reason given by farmers and local traders was that Farid Zargar, the largest processor, sets a price which affects the market due to its important position. This factory also provides inputs on credit to farmers and buys their cotton. However, the factory provides loans to large farmers who have credibility with the factory, not to poor farmers because the factory cannot trust them.

The decrease in price has not forced farmers to move to other crops as cotton is still profitable. The main reason is that cotton can be stored for a longer time than perishable crops, without any facility or technology. If they changed to vegetables or other crops it would still not be as profitable as cotton is.

Yields are low. According to cotton experts in different programmes and organisations, the current yield is 2 Bukhar per jerib which can be doubled and increased to 4 Bukhar per jerib. The reason for low yields is the lack of knowledge of farmers on cultivation techniques, low use of inputs, and low quality of seeds. The farmers sell their cotton to local collectors and ginning factories and buy seeds from ginning factories (after they gin the seeds from cotton fibre). Because of this practice different varieties of cotton seeds are mixed (e.g. early ripen-

ing variety with late ripening variety) and when the farmers cultivate these mixed seeds, they cannot get a good yield. The availability of high quality seeds is also limited.

Also farmers cannot apply sufficient fertilizers and pesticides as they cannot afford them and their level of awareness is low. The availability of agrochemicals is limited, and many are of low quality or expired. Pest damage can decrease the yield by 50%.

In addition many cotton areas in Balkh district do not have access to stream water and therefore the farmers irrigate their cotton fields from agro wells using electric pumps. With this practice farmers spend 5,000Afs/jerib more than farmers who have access to free water from streams.

The post-harvest loss is also very high. Picking cotton needs special skills and machines which farmers in Balkh lack. Cotton is harvested in winter and may be rejected by processors because it is humid. Plastic fibres from bags in which cotton is transported are another reason for rejections. In addition, there is little primary value addition by farmers, i.e. in sorting, grading and cleaning of cotton.

Better use of inputs and improved cultivation and post-harvest practices would reduce farmers' production cost, increase yields and increase profits. The capacity of extension services is insufficient to provide large numbers of farmers the necessary training and advice. There is no access to (Islamic) finance which would enable farmers to purchase seeds and other inputs. Currently farmers borrow from traders and collectors who give them a low price for their cotton.

The quality of cotton oil is very low because almost all of the oil processing factories lack a refinery facility. Moreover, according to the consumers in Mazar, local producers mix it with a chemical named caustic soda which is harmful to health and therefore many people do not want to buy locally-produced cotton oil. The local oil is not standardized or certified by any recognized certification body, which some expressed as a need. It is also not known how hygienic practices are as there is little oversight from the government. The market for the oil is therefore only among the poor, and there is currently no export potential. The price of local cotton oil is equal to the imported edible oil.

Cotton cake, which is a by-product of oil processing, is increasingly being used for animal feed. These processors face constraints with the availability of the cotton seeds, especially in winter, and seeds not being well separated from the cotton. Finance to improve their equipment is not available.

Like other sectors, investment in cotton suffers from the worsening security situation.

Employment

This value chain has the largest share of employment compared to the others. Cotton is particularly important for producers in Balkh, where it constitutes the main source of cash for 80% of the involved farmers, who are therefore rather specialised in the cultivation. The number of cotton growers is estimated to be around 20,000. Hired workers traditionally do the harvesting of cotton.

Other levels of the value chains employ some 5,000 people during peak harvesting season (months of October to December). However this number decreases to some 1,000 people during the rest of the year.

The number of people engaged in the sector has increased in recent years as some people have started cultivating fallow land and deserts using agri/tube well water. This has increased employment in production of cotton as well as in processing. Enterprises say there is potential for more.

Another type of employment for poor people in cotton sector is transportation. Small trucks called 'Zaranj' are used to carry the cotton from the fields to the ginning factories. The drivers of those trucks are poor people who receive 20 AFs/bag.

Enterprises

A number of factories have invested in the cotton sector in Balkh province. Balkh district, with the largest cotton cultivation area, has attracted cotton factories and processors to the area.

There are small cotton-ginning factories at the village and town level. They buy the cotton from farmers and separate the cotton fibre from seeds. They sell the lint to the larger factories, at a low price. They use small machines and each employs 2-3 people. At least 100 such ginning factories exist in Balkh district only, including 50 in Mazar. Their number has been increasing.

There are some other ginners, around 50, which are larger and employ 10-20 people, and therefore 500-1,000 poor people are hired by them. A daily wage labourer in such factories receives 500 AFs/day while a permanent employee receives 8,000 to 10,000/month.

A number of small, private oil presses has opened around Mazar. There are many small-scale cotton oil-extracting plants at village and town level. They buy seeds from the small ginning factories and sell unrefined cotton oil on the local market for a low price. It is estimated that there are more than 100 formal and informal oilseed mills in Balkh, of which 20 formal SMEs, most of them located in Balkh, Khulm and Nahri Shahi.

In recent years 7-10 large processing factories have been established in Balkh province which employ 50-100 people. In peak harvesting season some of these companies hire up to 500 people. All of the labourers of the processing factories (whether small or large) are men as according to managers of the factories women cannot do the heavy work. The factories produce oil, lint and cotton cake. Itifaq is one cotton oil factory which has been recently established. The Wold Bank-funded programme 'New Market Development' (NMD) has started assisting this factory to standardize its products. NMD designed a label for the bottle of oil and also NMD is in negotiation with ISO to get the company ISO 22000 certificate. However, the factory has already mentioned on its label that it is ISO certified.

During the last ten years the mills have made private investments to improve the technology for edible oil extraction, buying or getting some equipment and machines. However, much

still has to be done, as in general there is little further processing or retail packaging of the extracted oil.

The general opinion is that despite the availability of inputs and services, in Balkh province the edible oil chain operators do not have sufficient equipment, specific services, infrastructure and facilities.

Location

Cotton is grown in at least 7 out of 14 districts of Balkh province. However, Balkh, Chimtal, Charbolak and Shurtipa are the major cotton producers in the province. Balkh district, with an area of around 8,000 hectare of cotton cultivation, is the largest cotton producing district in the province. Cotton is not prevalent in Samangan.

Opportunity for inclusive growth: **while growth has been strong and can be expected to continue, there are also major constraints. Training, better use of inputs and improved cultivation practices would reduce farmer's production cost, increase yields and competitiveness and increase profits. The numbers employed are high and probably growing and a large number of enterprises of various sizes is involved. The scope for employment growth overall is therefore high.**

FEASIBILITY FOR INTERVENTION

Donor programmes

The Comprehensive Agriculture and Rural Development Facility (CARD-F) is one of the Ministry of Agriculture programmes funded by the British Development Agency (DFID) and The Danish Development Agency (DANIDA). It is working in the cotton sector. CARD-F is concentrating on the farming level of the value chain, but does include other levels too. CARD-F has established cotton farmer's cooperatives and is providing training on cultivation techniques (such as land preparation, weed control etc.) Their coverage is currently limited to 1,250 farmers in Balkh district (out of 10,000 farmers in Balk district and 20,000 in the whole province). Planned outreach is 10,000. One of CARD-F interventions ran into trouble, when better seeds that were distributed gave lower yields. CARD-F plans to buy refining equipment for one of the processing factories (Farid Zargar Co) in a 50% cost-sharing manner.

Another donor-funded entity is North and Northeast Agriculture Support Program (NEASP). It is funded by French Cooperation. This programme has a research centre in Baghlan province where it has been testing 16 varieties of cotton seeds brought from Turkey, France, Uzbekistan and some other countries. The research has been going on for the last three years but this year after harvesting they will release the results and will issue the seeds. It will take another year for seeds to be distributed to the farmers. According to NEASP officials the Yield/HA has been doubled or tripled in their research plots.

NEASP has also established a number of farmer's cooperatives. Each cooperative has 100 members. NEASP has bought ginning and oil processing machines for these cooperatives.

However, this is very limited in scale as NEASP has purchased such machinery for just 2 cooperatives.

ABADE (Assistance in Building Afghanistan by Developing Enterprises) is a USAID-funded project that provides cost-sharing for equipment, also in cotton processing.

Afghanistan New Market Development Project (ANMDP) provides support to SME business planning, capacity development, matching grants, including in cotton. It helped Itifaq oil extraction company to design a standard label for its oil.

Market players

An association of the oil producers in Balkh province to tackle their problems or find national and international markets for their products is missing. There are no cotton farmers' associations.

Balkh Industrial Union (BIU) aims to collect information about problems of members and liaise with Central government and other bodies concerned for solutions. Cotton oil processing is one of the sectors with which it is concerned.

There are some large firms that could play a role in addressing constraints, e.g. Farid Zarqar and Sanaizada Edible Oil Production Co.

The DAIL has extension workers in the districts who advise farmers on cultivation techniques but their number is very small and also they lack the necessary capacity.

Financial products and services are currently being offered by a number of established and newly emerging Microfinance Institutions, including the First Microfinance Bank (FMFB), Balkh Islamic Investment and Finance Cooperative (BIIFC), OXUS bank and ADF, but the credit lines offered are not always in line with farmers' requirements, especially in terms of costs. E.g. a local microfinance cooperative charges 2% monthly interest rate for farmers and also requires the farmers to introduce a shopkeeper in the district bazar as a guarantor. Meeting these conditions is not feasible for most of the farmers. Another reason is that such types of loans do not comply with the religious norms, according to the farmers.

Another type of financing exists in the villages. Some rich people provide loans to poor farmers and in return buy their cotton product. However in such transactions the rich set a very low price for the farmer's products and it is a kind of exploitation.

Willingness of market players

One of the processing factories, Farid Zargar, has demonstrated willingness to initiate change. It has imported improved seeds from China and Turkey and has distributed them to some farmers during the last two years. According to the farmers the yield /ha has increased. Moreover, this variety of cotton has smaller seeds with larger wool. It means it is producing more cotton lint for the factory. This year those farmers who cultivated the imported seeds sold the cotton and seeds back to the factory and the factory will distribute this to other farmers. The company plans to distribute this type of cotton seeds to more and more farm-

ers in future. However according to the farmers and factories this is not a very systematic but rather a sporadic action by the factories. In their opinion propagating seeds needs the attention of the government and larger research farms. The seeds need to be checked for two criteria, adaption to local climatic conditions and the increase in yield/ha and this is beyond any single company.

Farid Zargar and some other factories intend to establish a textile factory in order to hire more people and produce fabrics/clothes in the country. However, this faces major obstacles due to lack of enough capital and security problems. Investors are hesitating to invest more as they do not know if the security situation is worsening. Farid Zargar also has plans to produce animal feed from cotton cake.

Sanaizada Edible Oil Production Co. has direct relationships with farmers and understands the need for training and better seeds. It has investment plans for lint processing. In general, investment in the sector has been significant, also in small and medium scale oil processing.

Feasibility of intervention: **this is high as there are a number of active lead firms. While a large donor programme is active in the sector (CARD-F), its focus is at the production level. Though recently CARD-F has started negotiations with the largest firm (Farid Zargar) to establish new oil processing machinery with a 50% cost-sharing manner.**

CONCLUSIONS/RECOMMENDATIONS

The sector provides incomes and jobs to large numbers of poor people, mainly men, including migrants, in production and processing. While growth potential could be good, the sector faces some important constraints at different levels in the value chain.

Constraints in the sector:

- Low yield/ha due to lack of knowledge of the farmers on cultivation methods, lack of access to the improved and new varieties/seeds of cotton and quality agrochemicals, poor post-harvest practices, lack of water.
- Lack of access to finance to buy inputs, and for investment.
- Lack of services that can improve farmers' knowledge of cultivation and post-harvest practices and introduce primary value addition.
- Decreasing profits due to lower prices and high production cost.
- Lack of quality, certification/standardization of the cotton oil.
- No primary value addition.
- No facilities for further value addition (e.g. textile factory)

Little has been done to effectively address these. Donor programmes seem to be working with a lack of coordination and trying to carry out activities rather than focusing on the core problems. NEASP is at least addressing the key constraint of access to better seeds, but how it is planning to commercialise this is unclear. DAIL's capacity is too small to reach a significant number of farmers.

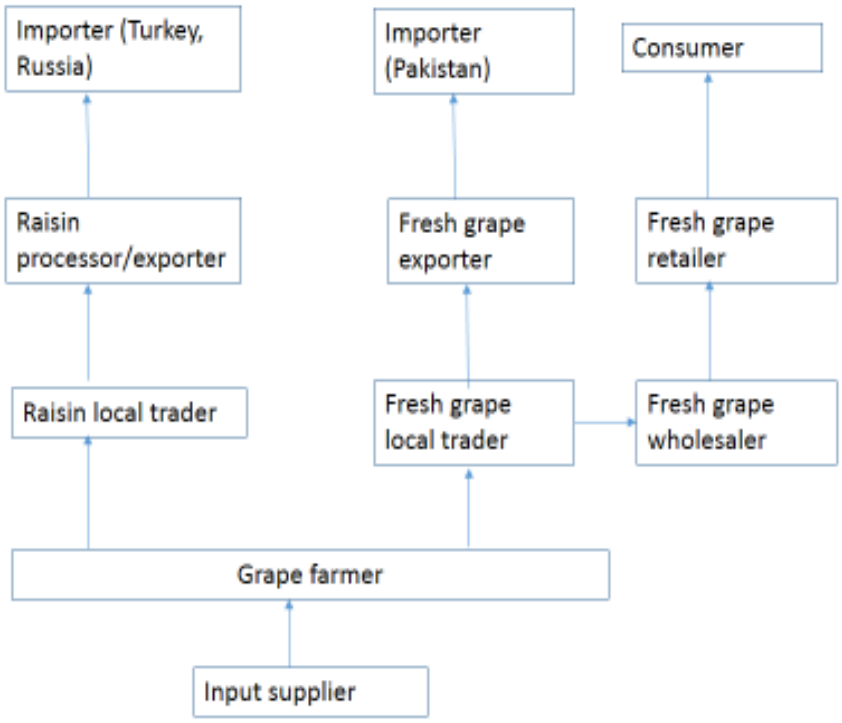
Large processing firms (one at least) are showing some initiative in providing farmers with better seeds and buying their products. The sector lacks an association.

Potential intervention areas:

- Increasing the Yield/HA through a number of activities such as:
    - Improve access to new and improved varieties of cotton seeds. Working with NEASP would be a possibility.
    - Improve access to quality agrochemicals.
    - Provide training and information to farmers on cultivation and post-harvest practices, and primary value addition.
    - Improving access to finance for poor farmers at better and culturally acceptable conditions to buy fertilizers and chemicals, and machinery for picking cotton to decrease the post-harvest losses.
- Promote expansion of land use for cotton cultivation.
- Standardization and certification of cotton oil extraction and standard refinery.
- Value addition through further processing of cotton and a textile factory. Many recommend a textile factory in order to add value inside the country. However, the feasibility of an investment as well as the advantage of domestic processing is not known.
- Improving working conditions for women working in the cotton fields.

GRAPES/RAISINS

VALUE CHAIN MAP



RELEVANCE TO TARGET GROUP:

The poor

The grape/raisin value chain includes smallholder farmers, local traders, processors and exporters. Most of the poor people are involved at the production level. For the households involved this is their most important source of income. Poor people are also employed sea-

sonally, for pruning (a few weeks) and harvesting (3-4 months). The poor are also involved in processing. Moreover, poor people work as retailers and street vendors of grapes during the harvesting season.

Vulnerable groups

Many women are engaged at their households, in home based primary processing (sun-drying the grapes for raisins) and packing is mainly done by women. However, overall women are generally concentrated at the lower levels of the grape/raisin value chain, where they perform irrigation, weeding, and harvesting. This is unpaid work at the household level. The harvesting is mostly done by seasonally employed women. Men, on the other hand, link households with the market to obtain input supply and sell the products, in addition to their substantial engagement in production.

Around 100 women are involved in raisin processing in factories (including sorting of grapes). Here they enjoy a wage. Raisin processing factories are one of very few industries in Afghanistan which employ more women (more than 60% of total labour force) as their workers.

Street vending of grapes is a good source of income especially for migrants in Mazar. Some of these street vendors come from districts of Balkh province and sell grapes in Mazar city during the harvesting season. During the rest of the year they sell other fruits and vegetables.

Decent work deficits

The wages women receive in processing factories are quite nominal and half of the wages paid to men. For instance, one of the companies pays women 150 Afs/day and men 300 Afs/day.

Farmers in Firoznaqshir district of Samangan province (a major grape production area) are too poor and need loans for buying inputs and also for their daily expenses. There are local traders in the district who provide loans to the farmers in spring (when the grape is flowering) and buy their products at a low price which they set when they give the loans. The farmers have no option but to accept the exploitive contract with the traders.

Relevance to target groups: **the grapes/raisins sector is of medium relevance to poor women and well as men, as numbers are small. Almost all of these people are working in their native places.**

OPPORTUNITY FOR INCLUSIVE GROWTH:

Sector growth

Grapes and raisins have historically provided export earnings for Afghanistan. Most of the fresh grapes are sold in the domestic market with some export to Pakistan, though a fair portion of raisins is exported to the countries of the region including Russia and also Turkey

and high-end markets in Europe. Afghanistan is enjoying significant export growth by both volume and value by reaching high-end markets.

Grapes

Grape is the 3rd valued fruit for Balkh farmers (in 2008 it generated approx. 18 million USD). According to some estimations Balkh and Samangan produce only 10% of the total production of the country, as most of Afghanistan's grape and raisins are produced in Shamali Plain north of Kabul, Kandahar and Ghazni. However, production in Balkh and Samangan provinces has been increasing. Many new grape vineyards and orchards have been established in Dawlatabad and some other districts of Balkh province.

Grapes from Firoznaqshir district in Samangan are exported to Pakistan. Grapes from other districts of Balkh and Samangan provinces are sold fresh in the local market. Export potential of fresh grapes is limited by the absence of refrigerated storage and transport. Prices in Pakistan are low. There may be is a possibility to export the grapes of Firoznqshir district to markets other than Pakistan. Some actors say that if trade with India through air is facilitated, their grapes would have a better price there. Some traders exported grapes from Kabul airport to India and earned a good profit, but they cannot do it very often due to bureaucratic procedure at the airport, corruption and security checks. The grapes will spoil if kept longer at the airport. According to the traders, India offers a higher price for the Afghan grapes, even with air transportation. The refrigerated transport to other countries through Pakistan can be another option to link the farmers with high-end markets.

Overall productivity is low due to traditional cultivation methods, i.e. wide beds without trellises that require much irrigation, while water is scarce in June to August. In Firoznaqshir district, however, unlike Kabul and other grape farmers, the farmers themselves have established the trellising for their grape vineyards using local materials. The trellising system helps the grape to grow better and prevents diseases. In other districts in the two provinces farmers grow grapes traditionally without trellising which causes significant reduction in yields.

Further factors reducing productivity are poor knowledge of, use of and access to pesticides and fertilisers. The quality of agrochemicals is low, and products have often expired. Supply is limited and not timely. Damage due to disease is therefore high. Control is also difficult because if not all the grapevines are sprayed with chemicals, diseases will transmit from one orchard to another. Only low quality tools are available in the local market.

Post-harvest practices are also poor. This includes premature harvesting, poor handling and poor sorting, grading and packaging. There are no cold-storage facilities to keep grapes during or after the harvesting season. Keeping the grapes longer after the peak season would enable farmers to obtain a better price.

Fewer collectors from Pakistan come due to security problems. Local collectors pay less. Road connections are poor and transportation adds to costs.

Appropriate financial services that would enable farmers to invest are not available, and extension or other services that could improve farmers' knowledge and practices are inadequate.

Raisins

Raisins processed in Mazar for export are made from grapes that originate mostly (90%) from other provinces (Kabul, Kandahar and Ghazni). Raisins sold in Mazar and Samangan are made from grapes from Sangcharak district of Saripul province (neighbouring Balkh province). According to the traders, this type of raisin is good quality and expensive and therefore they are not exported as the exporters look for cheaper raisins.

Traditionally farmers dry the grapes under sun shine due to lack of facility to dry then in the shade. The price of shade-dried raisins is double that of the sun-dried raisins in the local market. For example each 7kg of sun-dried raisin is sold for 600 Afs while each 7kg of shade-dried raisin is sold for 1,250 Afs.

Grapes are converted to raisins at farm level and are then cleaned, graded and sorted by processor/exporters.

According to the exporters, raisin exports have been increasing in recent years. One firms reported an increase by 20% last year compared to previous years due to high demand in the Turkish market. It is establishing a new processing factory to enhance production.

The processing factories do not meet the quality standards of Europe and the United States because of the basic practices and use of old and unsanitary equipment. Therefore, they export the raisins to Russia, which does not require high standards. They export to Europe through Turkey where further cleaning and processing takes place before it is exported to Europe or sold on the Turkish market.

Raisins are not packaged and branded for retail. Enhancing the standards of raisins processed in Mazar, the export quantity could be increased. Value could then be added by branding and packaging for retail.

Employment

Grapes are not a very good source of employment in Balkh and Samangan provinces as they are grown in few districts. According to some estimate around 1,000 poor men are engaged in this sector in Firoznqshir district. Some 500 other farmers are involved in growing grapes in some districts of Balkh province. According to some the number of farmers is increasing as some farmers have recently established new grape vineyards in Dawlatabad district of Balkh province. No estimates are available for seasonal labour.

Approximately 175 poor women and men are hired by raisin processors in Mazar city. As some firms are expanding growth is likely. Increasing the quality of raisins could enable further growth.

Enterprises

There are at least five processing factories in Mazar city. These factories have been established in Mazar for several reasons. First, Balkh borders the central Asian Republics of Uzbekistan and Turkmenistan and it is easy to export raisins to Europe through these countries

and Turkey. The second reason is that Mazar has 24 hours electricity which is imported from Uzbekistan and the factories need it for their operations. Some of the factories are expanding their business.

There are also wholesalers and retailers of raisins in Mazar. They sell other fruits and nuts as well.

Grape retailers sell grapes during the harvesting season. During the rest of the year they sell other fruits.

Locations

There are some districts in the two provinces which are famous for grapes. Firoznaqshir district of Samangan province produces two types of grapes, Hussaini and Taifi. The first type is highly perishable and cannot be transported over a long distance. Taifi has good appearance and are stronger, so they can be transported over longer distances to Pakistan.

Dawlatabad is a district in Balkh province which grows grapes. However, most of the grapes produced there are sold in domestic market. The processing factories are in Mazar.

Opportunity for inclusive growth: **there are opportunities for growth of the grape/raisin sector. By enhancing the standard of raisin processing to meet the requirements of high-end international markets, export can be increased which would result in employment of more labour especially women at the processing level. Farm level yield could be increased by establishment of trellising in some districts where farmers do not use this system and the yield is very low, and by increased and better use of agrochemicals. However, the sector is relatively small so the scope for employment growth is medium.**

FEASIBILITY OF INTERVENTION:

Donor programmes

The National Horticulture and Livestock Programme (NHLP) provides farmers with extension on cultivation techniques through lead farmers, and marketing assistance, including through the Samangan dried fruits and nuts association. They also provide underground storage bins to farmers.

The USAID funded programme of IDEA-NEW established some trellising in Dawlatabad district of Balkh province but the number of famers who received the assistance is very small.

RADP-N is planning to work in this sector as well.

Market players

The key market players are the processing companies and wholesalers in Mazar.

In Samangan there is an association of collectors of raisins, other dried fruits and nuts. They sell the produce in Mazar. In the public sector DAIL is the main market player.

Willingness of market players

Processing companies seem willing and have the incentives to improve the quality of their raisins, which can enhance their sales and result in more jobs. However, the farmers who supply these factories are not located in either Balkh or Samangan province.

Feasibility of intervention: **this is high particularly at the processing level. The presence of donor programmes is limited.**

CONCLUSIONS/RECOMMENDATIONS

Balkh and Samangan provinces are not the major producers of grapes compared to other regions of the country, though it is still the 3rd valued fruit for Balkh farmers. Raisins processed in Mazar-based factories mostly come from Kabul and other provinces. There is only one district (Firoznqashir) which produces an export quality grape. However, the export market in Pakistan does not offer a good price. The grapes from other districts of Balkh and Samangan provinces are sold fresh in local markets. Overall employment is limited compared to sectors that have more geographical spread, though growth in employment is likely.

Constraints in the sector:

- Traditional cultivation practices without trellises resulting in low yields in some districts.
- Poor knowledge of and access to agrochemicals.
- Poor post-harvest practices.
- Limited potential to supply grapes for raisins as the varieties produced are not appropriate.
- Low quality of raisins.
- Limited potential to export fresh grapes due to lack of cooling facilities, low prices in Pakistan, bad roads, insecurity.
- Lack of water in summer.
- Lack of access to institutional credit forcing farmers into exploitative relationships especially in Firoznqshir district (Samangan).

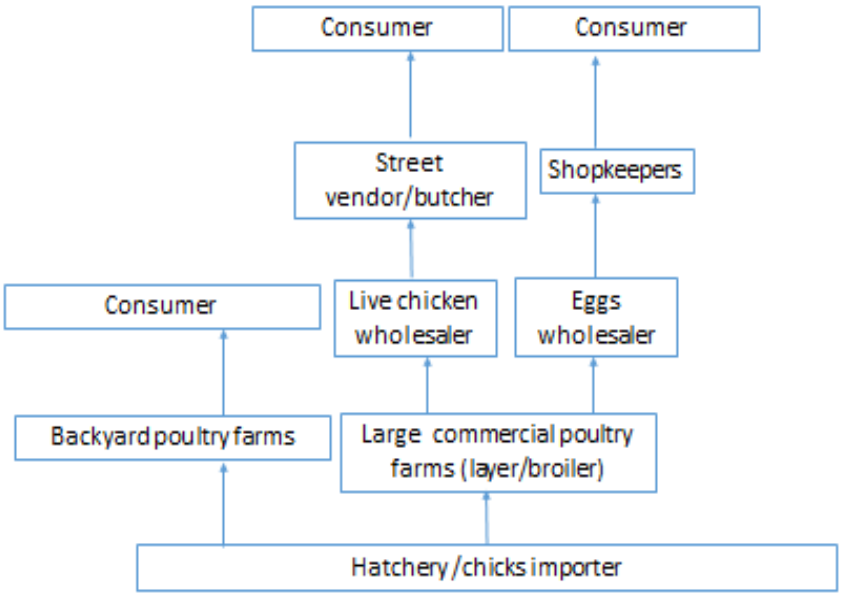
Potential areas for intervention:

- Assisting the farmers to establish trellising systems, other improved cultivation practices, and drip irrigation/water reservoirs to increase the yield of grapes.
- Improve knowledge of and access to agrochemical inputs.
- Improve post-harvest practices.
- Introduce varieties appropriate for processing into raisins.
- Affordable and accessible microfinance schemes for grape farmers.
- Better sorting and grading of fresh grapes by farmers and collectors.

- Enhancing the standards of raisin processing to meet the requirements of high-end markets and branding and packaging for retail rather than selling in bulk.
- Improve access to markets for fresh grapes, explore new markets.

POULTRY

VALUE CHAIN MAP



RELEVANCE TO TARGET GROUPS:

The poor

Over 3,000 people are hired by poultry commercial farms at the farm level. They all are poor men who entirely depend on this income for their livelihood.

The sector has also created jobs for many other people at different levels. There are people who transport chickens in their small trucks 'Zaranj' from farms to the sellers and street vendors. Many poor people are also engaged in street vending of the chickens.

Vulnerable groups

Women engage in backyard poultry. Their earnings from this makes up only around 20% of their income, as their main sources of income are dairy from their cows and their men working as daily wage labourers. Women may sell to the closest retailers.

Women are the main labour force in commercial layer farms. Their number is an estimated 800. Broiler farms employ men, migrants from villages in the two provinces.

Some migrants (IDPs) who escaped the war in Hilmand province are also engaged in backyard poultry farms.

Decent work deficits

As in other sectors, workers in the poultry sector are not included in social protection schemes and they are not organised. We do not know what the conditions of employment are.

Relevance to target groups: **This is medium. The numbers employed in commercial farms are relatively small and those numbers involved in backyard poultry are unknown.**

OPPORTUNITY FOR INCLUSIVE GROWTH:

Sector growth

Commercial farms

The poultry sector growth has been very significant during the last three years. According to the poultry farm association, there were only 100 commercial farms in Balkh province two years ago but now the number reached over 600. Balkh province is now self-sufficient in terms of chicken meat and it also provides chickens to many other neighbouring provinces.

However, most of these farms lack many facilities required for a modern poultry farm and do not use good practices. Some are located close to each other and therefore poultry diseases are easily transmitted from one farm to another. Other are located in residential areas causing discomfort to the people of the area and some do not use veterinary services.

Broiler chicks were and still largely are imported from Pakistan. Recently, one of the farms, Muzhda poultry farm, established a hatchery to provide broiler chicks to the farms. This producer brought the eggs from eastern Nangarhar province (bordering Pakistan) and produced chicks. However, this seems to have failed because the farm could not source a sufficient number of good quality eggs. Commercial farms therefore still import chicks from Pakistan. The chicks are transported to the farms in small trucks which lack ventilation (and heating in winter); therefore, a large portion of the chicks die before reaching the farms.

The main reason for farms and associations in Mazar to import broiler chicks is that they cannot keep breeders (parental stock needed for producing eggs for chicks) since there is a

lack of a modern laboratory which can diagnose poultry diseases and the lack or high cost of veterinary care. According to the farms Pakistan has a modern system and good facilities where they can raise breeders to produce eggs and chicks. A further reason is the high cost of breeders, i.e. 1,250 Afs. As they are vulnerable to disease and treatment is not available, this poses a high risk. In addition, the breeders of broilers need to be pure (not hybrid) and would therefore have to be imported from Pakistan every time again. The farms are therefore heavily dependent on Pakistan which increases the cost of production. The solution for this problem can be establishment of a modern laboratory to detect the diseases and also a standard farm where the breeders of broilers are raised. Keeping parental stock also requires intensive and good quality veterinary care.

The eggs and chicks of layers can be and are being produced in Mazar. According to some poultry associations the reason is that they can keep the breeders of layers in Mazar as they are cheaper and in case there is an epidemic disease, they can sell the chicken with the market price. The breeder chicks of layers were initially brought from Pakistan as well but now they are produced in Mazar. They are hybrid and several generations can be produced from the same breeder.

The feed for layers is produced in Mazar, largely with imported materials. The feed for broilers is imported from Pakistan. There are some companies such as Dorokhkshan Poultry Company which plan to produce broiler feed from food waste available in Mazar. They indicated there is a need for technical support to do so. It is worth noting that the feed for layers was also imported from Pakistan but recently some companies started to produce it. Therefore it is not being imported any longer.

Backyard poultry farms

According to the Balkh poultry Product Company, the small scale backyard poultry for women which are supported by donor funded projects such as DACAAR, Helvetas, and Hand in Hand, are generally not sustainable and disappear after a while. The managers of the farms who have contracts with these NGOs to provide chicks and feed to the beneficiaries confirm this. The NGOs provide the beneficiaries (mostly women) with chicks that they buy from the commercial farms. However, after a few months the chickens disappear as the poor women cannot provide feed and healthcare and therefore kill the chickens and eat them rather than keeping them for doing business in a sustainable manner. This was confirmed when we visited some of the backyard poultry farms owned by women.

However, other female-headed households have backyard poultry and benefit from them. We visited many women who have established small backyard poultry farms (10 to 20 chickens). They are located mainly in Mazar and there are some 20 such households just in one neighbourhood. The women said initially they were provided with chicks by some NGOs but they continued their business on their own. Women combine poultry with keeping two cows. One of the reasons that these women could continue their business might be that they are mainly in Mazar and have better access to poultry feed and animal clinics. They no longer rely on the NGOs for running the business but rather take care of their animals by themselves. According to some estimation there are around 700 of such households. Most of the

backyard poultry farms are of layers and they sell the eggs in Balkh province. Layers are also sold for meat.

Domestic chicken versus imported live and frozen chickens

Despite significant growth of poultry in recent years, frozen chickens from Brazil and live chickens from Pakistan are imported to Balkh and other provinces of the Northern region, though this has decreased in recent years. Brazilian frozen chicken is cheaper compared to live local chicken and therefore it still has a market. However people prefer to buy local live fresh chicken if they can afford it. Some say that they are not certain whether the slaughtering technique of Brazilian frozen chickens is in accordance with "halal" procedure. Pakistani live chicken are older as Pakistan exports the layer chickens after a period of laying eggs. Some people prefer it because they say the local live chickens are so soft and not good for making some Afghan dishes. The price of Pakistani chickens is slightly higher than of the local live Afghan chickens. According to some traders, the price of Pakistani imported chicken is still competitive because they do not pay tax but instead bribe the customs officials. Some poultry farms have started a drive to reach the President's office and complain about this practice. If they are successful the price of Pakistani chicken would significantly increase which would make the local poultry product more competitive.

Employment

The poultry sector has created jobs for thousands of people in Balkh province. Around 3,000 people work in poultry farms. Moreover, thousands of other people are engaged in transportation of poultry products, backyard poultry and selling the poultry products. The employment in this sector increased considerably in recent years.

A number of veterinarians from other provinces of the country have migrated to Mazar and work for the poultry farms as professional veterinarians.

Enterprises

There are 629 commercial poultry farms. Each of these employs at least 5 poor workers. Other enterprises include feed manufacturers and retailers.

Locations

Commercial farms are mostly around Mazar, with some in Balkh District. Expansion potential is more likely around Mazar due to transportation problems. Backyard poultry is throughout the two provinces.

Opportunity for inclusive growth: **the sector has high potential for growth. People prefer live local chickens over imported live and frozen chickens and it is price competitive. New poultry farms are still being established and many people are skilled in this business. Some companies have started producing chicks and poultry feed which were historically imported from Pakistan. This is a good sign that the sector has been developing in the region. There are opportunities for further growth by establishment of standard poultry farms, producing breeder eggs for broilers, and establishing a laboratory for diagnosis of disease. Feed production is another possible area of growth. By increasing the number of poultry farms, Mazar could provide chickens to other provinces in the region. Though the numbers are relatively small, the likelihood of employment growth is high.**

FEASIBILITY OF INTERVENTION:

Donor programmes

Sustainable Economic Development and Employment Promotion (SEDEP) is a GIZ/GFA value chain and dialogue project for North-Afghanistan. It includes poultry and has developed an intervention framework for this sector. NHLP (National Horticulture & Livestock Project) is working on backyard poultry (model farms).

CARD-F is involved in supporting backyard poultry (extension). The World Bank-funded New Market Development programme provided some of the managers of commercial farms with exposure visits to India. Other donor programmes, such as DACAAR, Helvetas and Hand in Hand, mostly provide poor women with chicks to develop backyard poultry farms.

Market actors

The commercial farms, hatcheries and feed producers are the main actors. Muzhda is the largest cooperative. Poultry farms are among the members of the Traders Association in Mazar. There is an association of poultry veterinary input suppliers.

Balkh Industrial Union (BIU) aims to collect information about problems of members and liaise with Central government and other bodies concerned for solutions. Poultry is among its priority sectors.

Three poultry cooperatives and private businesses provide services to poultry farmers:

- Bulkh Poultry union
- Taj-e-telaye Poultry Cooperative
- Drukshan-e-Balkh Poultry Company

Market actors' willingness

Commercial farms have incentives to further develop the sector, in terms of bigger profits, and have shown they are aware of this. They see the need to develop the sector by establishment of a standard veterinary laboratory, rearing parental stock for broilers, and production of poultry feed and medicines.

Some medium-size poultry farms can also help grow the sector by enhancing standards in backyard poultry farms, increasing the veterinary care of the poultry farms and enhancing their access to poultry feed.

Balkh Poultry Product Company believes there is a need for establishment of medium size village farms (300-500 chicks). They say if they are supported by some projects, they will work with people from rural areas to establish such farms to create jobs for poor people in a sustainable way. The company would benefit in terms of a reliable supply of chickens. The farms would be able to buy the feed for their chicken and also provide good veterinary services for them.

Taj-e-Telai cooperative is willing to cooperate and help the sector grow. Additionally, Muzhda poultry farm is one of the innovative firms. Its drive to convince the government to tax or stop import of chickens is supported by all other farms.

Feasibility of intervention: **It is high as there are a number of active market players with strong incentives to partner and develop the sector. On the other hand, the presence of several donor programmes would need to be taken into consideration.**

CONCLUSION/RECOMMENDATIONS

The growth of the poultry sector is very fast and thousands of people are engaged in different levels of the sector. The number of commercial farms which have created job opportunities for many poor people is increasing day by day. This is one of the sectors which have high potential for growth and feasibility for intervention. Actors in the private sector are willing to cooperate. Recently some of the poultry companies diversified their activities. In addition there are many scattered backyard poultry farms.

Constraints in the sector:

- Lack of veterinary services outside Mazar, especially for backyard farms.
- Inability to raise broiler breeders inside the country due to absence of a laboratory to diagnose diseases. The laboratory is needed for diagnosis of diseases in parental stock which produce eggs.
- Commercial farms do not use good practices.
- Insufficient local production of feed.
- Unrestricted import of broilers.

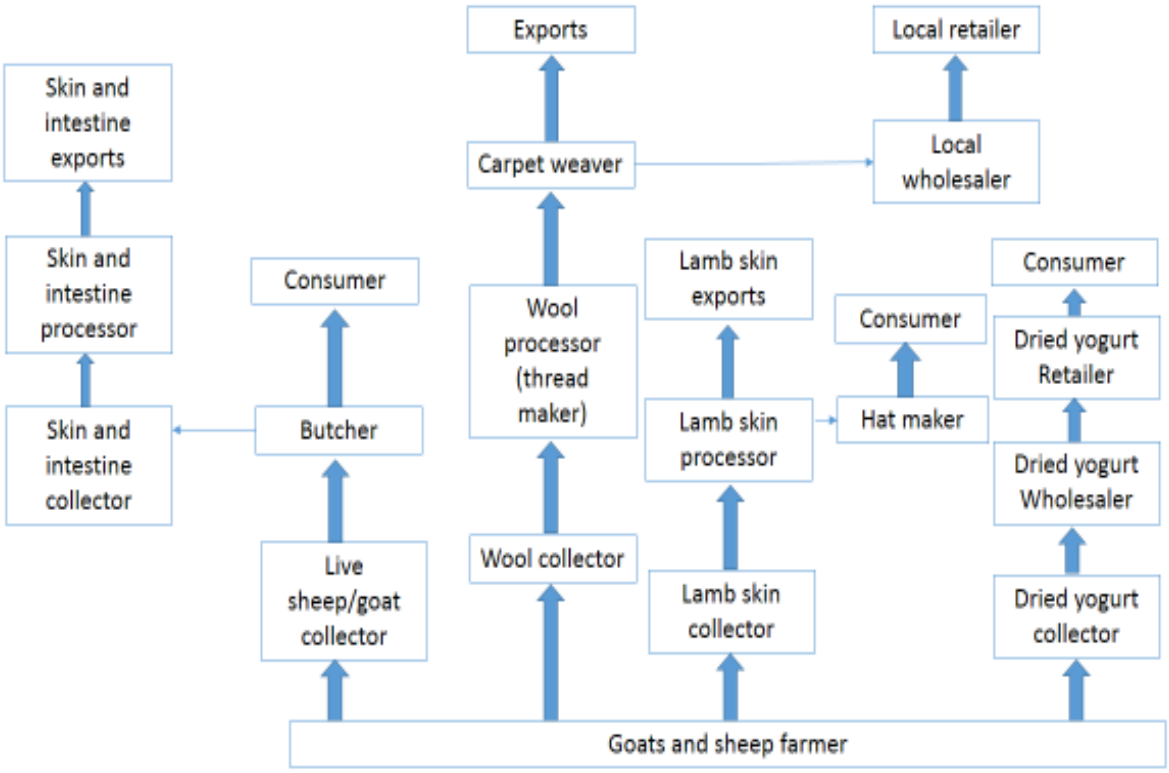
Potential areas of intervention:

- Establishment of medium size poultry farms under an outgrower system with large commercial farms. This is important for sustainability of the farms, as many small backyard poultry farms supported by some donor projects failed to continue operating.
- Establishment of a laboratory to diagnose poultry diseases in order to raise breeders inside the country. This could create job opportunities for more people.
- Improving practices in commercial farms.

- Poultry feed production: Some companies believe if they are technically supported they can produce poultry feed from food waste.
- Strengthening advocacy capacities to enable market players to better influence government policies.

SHEEP AND GOATS

VALUE CHAIN MAP



RELEVANCE TO TARGET GROUPS:

The poor

Goats and sheep are a major source of income for many households in Balkh and Samangan provinces. According to the veterinary department of Samangan province, there are over

1.375 million sheep and 231,000 goats in Samangan province alone. Balkh has no statistics, and the numbers are likely to be lower as cattle are more important there. Goats and sheep are the main source of income for those families who rear these animals.

An average goat and sheep farmer has around 200 animals and there are therefore likely to be around 7,500 households in Samangan province which rear sheep and goats. They all are poor households as their income per day is less than $1.25. The same number of households has goats/sheep in Balkh province. A goat/sheep farmer who has some 200 animals hires at least 2 people to look after the animals. According to this estimation there are some 15,000 shepherds employed in this sector in Samangan province. This number is probably lower in Balkh province. Each of these workers, often called 'Chopan', is paid an annual wage of 100,000-140,000 Afs ($1,600-2,000).

Other employment options are butchers, local small traders and collectors, workers in skin and intestine factories and transporters of skin and meat. They all are mostly poor men. Women are not hired by these actors in the value chain.

Vulnerable groups

Almost all of the hired workers at the production level are men. However, women in the above mentioned households are engaged in farming and household level processing in some areas of both provinces. They look after their own animals for grazing. They also convert sheep milk to dried yoghurt. This dried yogurt, which is called 'Qurut' in the local language, has a good market in the whole country. It is usually cooked with rice (making an Afghan dish called 'Qichiri Qurut'), which better-off people in urban areas consume. Though women are involved in farming and processing of sheep and goats products, the men are in charge of marketing and financial matters of the households. Women are employed in wool processing factories.

Most of the shepherds 'Chopan' are migrant workers as they work away from their native districts. They have to take the animals to those locations where enough grass is available to feed the goats/sheep, following the seasons.

Sheep and goats contribute to reduced vulnerability. In times of crisis households can sell them.

Decent work deficits

Working conditions of the shepherds are harsh. They stay in grazing lands away from the residential areas where they do not have easy access to food and water. During winter with extreme cold and snow, the shepherd has to sleep between the sheep and goats to keep warm. There is no accommodation facility for them in the deserts.

The children of the farmers supply the shepherds with food and water, which means they have to travel long distances. Some children are working as shepherds.

As in other sectors there is no access to social protection. We were unable to assess employment conditions in factories.

Relevance to the target group: **This is high, as goat and sheep rearing is a major source of income for the involved poor households in Balkh and Samangan provinces. The number of households is estimated to be 15,000. The sector is a source of employment not only for the owners but also for poor migrant workers who are hired by owners as Chopans (shepherds), and for women in wool processing.**

OPPORTUNITY FOR INCLUSIVE GROWTH:

Sector growth

There are several products originating from goats/sheep. As shown in the value chain map, the farmers sell four types of products: live sheep/goat, wool, lamb skin and dairy products especially the dried yoghurt 'Qurut'. Live sheep and goat are sold in the local market, urban centres and in some cases are being exported to Pakistan. Lamb skin as well as intestine has an international market.

Meat

More and more people are turning to chicken meat for two reasons. Firstly doctors increasingly recommend to avoid red meat (including lamb and beef) for health reasons, and secondly the price of one kg lamb is double of the chicken price (one kg of chicken is 150 Afs/kg while 1 kg of lamb is 300 Afs). Still demand for goat/sheep meat is strong, especially among those who are not very poor. In addition Afghan army units have started purchasing the meat. This will also have a positive effect on the market.

Intestine

Intestine of sheep and goats are collected from butchers, processed and exported through Pakistan to Germany where they are used for sausage casings. According to the traders, Germany does not accept Afghan intestine directly and that is why they export it through Pakistan. It is still a profitable business but traders complain and say that the government does not help them promote it. They think this business can grow in the future as there is good demand for intestine especially in high-end markets such as Germany. According to them the government could pave the way so that they could directly export the processed intestine to Germany by air, as is done from Pakistan.

Wool

Wool is sold to local factories in Mazar through collectors and traders. The factories process it to thread used for carpet weaving. However, due to the weak market for Afghan carpets, the price of wool also declined in recent years. Turkish and Iranian carpets are cheaper and dominate the market. The wool price also decreased because cheaper thread is imported from Pakistan.

Cashmere

Cashmere wool is a special part of goat wool used for soft fashionable clothing. People separate the cashmere wool from the rest of the wool after they cut the goat wool. Cashmere

wool has a high price while the other part is cheaper. Traditionally the cashmere wool was separated from other goat wool after the wool was cut but recently the USAID funded programme of RADP-N has sub-contracted the Dutch Committee for Afghanistan (DCA) to promote the business of cashmere wool among the goat farmers. DCA is providing some tools (e.g. a special comb) and training to the farmers on how to produce cashmere wool without shearing the sheep first. This programme was started recently (approximately in June 2015) and the result is still not known.

According to some traders, cashmere wool has a good price and market. According to their records the price of cashmere wool has increased from 800Afs/kg to 1,300 Afs/kg in recent months. However, there is no processing facility in Mazar. Instead the traders take the cashmere wool to Herat (in the west of the country) where it is processed and then exported to China.

Sheep skin

Processing in Mazar involves de-hairing, salting and packing. There is no tanning.

The price of skin has decreased significantly. Each sheep skin was sold for 300 Afs two years ago but this year it is only 60 Afs. According to traders the skins used to be exported to Pakistan where they processed it to many leather products. However, these years Iran is exporting better quality skins for lower prices. The depreciation of Iranian currency against the US dollar may be a contributing factor. Afghan skins are losing the market.

Some of skins are imported from Pakistan to Afghanistan after further processing and value addition. Afghan handicraft workers are making some products from them. Many believe that there is a need for establishing processing factories (to make shoes, clothes, coats etc. out of the skins and wool).

Lamb skin

Lamb skin (fur) is an unusual business. There are two types of sheep: Karakul and Arabi. Only Karakul is used for this business. The farmers kill the lamb just upon birth. It should be killed before its mother touches it or the lamb starts suckling the mother, otherwise the required quality of the skin will not be maintained. The local traders buy the skins from farmers and sell to the traders based in Mazar. There are big traders who have trade links in Helsinki where they sell the products through an auction which is held several times in a year. The Afghan traders attend the auction.

The Karakul sheep give birth beginning of spring (late March) and the lamb skin processing takes place during the 5 months of late spring and summer. The processing can only take place when the temperature is above 26 degree Celsius. Therefore the export of lamb skins to Finland takes place during the summer months.

There is a government-owned entity called Afghan Karakul Processing Institute located in Mazar. All the lamb skins which are exported are being processed in this centre. Then they are certified by the institute for export. According to the officials of the institute the annual trade of lamb skins is around $20 million dollar.

According to the traders, last year the price of Karakul lamb skin was very low in Finland and therefore they could not make a profit. As a result the farmers' selling price came down from $42/skin last year to $24/skin this year. During an interview with the manager of the institute R2J found that the production volume was reduced by half this year due to low prices. The farmers preferred not to kill the lambs and instead to keep them for sale to butchers. The reason for the low price in the international market is not known but some said the demand for this kind of skin has decreased.

Dried yoghurt

Another product is the dried yogurt or "Qurut" which is processed at the household level and then sold to consumers through traders. This business is still competitive. This is self-employment for poor women and this historically is a business for poor people. The market is stable but without growth. There is no production in winter when sheep yield less milk and because the yoghurt is sun-dried.

Employment

Some 15,000 households find part-time employment in this sector, while the number of shepherds may number 20 to 30,000. Estimates for other levels in the value chain are not available. There is no information on trends, but those interviewed did not report employment growth over the past three years.

Enterprises

While the value chain includes skin and intestine processing enterprises, as well as wool processors, there is no information on their numbers or trends.

Location

Sheep and goats are reared throughout the two provinces, but more in Samangan than in Balkh. Intestine processors were established in Mazar and Aybak. Wool processors are located in Mazar.

Opportunity for inclusive growth: **some products such as lamb skin, skin and wool have lost their competitiveness while some other products such as goat/sheep meat, intestine and dried yoghurt still have good demand and potential for growth. Though lamb skin prices have been going down, there have been previous such declines after which they increased again, depending on global demand. Cashmere has a good market but its exploitation is only just starting. Considering the sector as a whole, the likelihood of growth seems low.**

FEASIBILITY OF INTERVENTION:

Donor programmes

The Dutch Committee for Afghanistan (DCA), the World Bank-funded programme of NHLP and Agha Khan foundation are the donor-funded programmes working in the live-

stock especially sheep and goat sector. Though DCA has been mainly working for horse and donkey, it is providing training to local para-veterinarians in the districts to better take care of animal health including sheep and goat.

Around 100 veterinary personnel supported by DAIL and DCA have been working in 14 districts of Balkh province. They also have their own private clinics and provide veterinary services including vaccination to farmers. Para-vets are part-funded by suppliers of medicines.

The USAID-funded programme called RADP-N has sub-contracted a project to DCA which has been working in three fields of the sheep/goat sector. The first one is promotion of Cashmere wool, already mentioned. The second component is the inspection of goat and sheep meat. The project is working with butchers to improve the hygienic conditions in the slaughter houses. The third component is the promotion of Karakul fur/skin.

NHLP has been providing awareness to farmers to better handle the veterinary issues and health of their animals and when to vaccinate their sheep/goats. So far this is on a small scale.

Market actors

The main market actors are the wool, skin and intestine processors and the large karakul traders.

Though the government is doing little for veterinary services, private actors have been quite active in this regard, with support from donor programmes. A private sector company named "VetServ Limited" has been importing vaccines for 6 fatal diseases of animals and sold them to the local veterinarians and para-vets. In the past, the DCA was importing the vaccines and was distributing it free of charge but this has now been taken over by this company.

There are 19 para-veterinarians and 4 veterinarians in Samangan province. These are private sector.

In the public sector there is a veterinary surgeon, his assistant (paid by government) and 7 para-vets who receive payments from farmers (Samangan). For Balkh, see donor programmes.

There is no association in the sector.

Market actors' willingness

Apart from veterinarians and VetServ the assessment did not come across market actors who had taken some initiative or demonstrated awareness of incentives to promote change in the sector. With low prices for many products the incentives may not be strong. Much seems to be expected from the government and donor programmes.

Feasibility of intervention: **while there are many potential areas for improvement the potential for interventions seems low. Quite a few programmes are active in this sector.**

CONCLUSION/RECOMMENDATIONS:

The sector provides employment and income opportunities for a large number of poor people in Balkh and Samangan provinces and they rely on the income from the goats/sheep products.

However, the price of most of the products/derivatives of sheep/goats has declined in recent years. The current market is weak for most of these products. Afghan sheep skin lost price competitiveness to Iranian sheep skin in the Pakistani market. Sheep wool has also lost its market mainly due to low demand for Afghan carpets. Sheep/goats intestine is still being exported to Germany through Pakistan. The price of mutton has increased in the domestic market, but chicken meat is a competitor which is cheaper and healthy. Mutton, intestine and cashmere may have the best growth potential overall.

Several programmes support the sector. Private sector actors who could play a role include those in veterinary services.

Constraints in the sector:

- The price of many sheep/goat products has declined and demand is weak: sheep skins, lamb skins, wool.
- The death/loss rate among sheep/goats is high due to winter cold. The farmers do not have proper shelters to protect them against snow/cold during the winter, and no finance to build such shelters.
- Shortage of water in some areas, in summer.
- Some 15-20% of sheep/goats die due to diseases as a result of:
    - Lack of awareness of the farmers on the need for veterinary services.
    - Low quality veterinary medicines. Many companies import veterinary medicines but the quality is very bad and in some cases they are fake.
    - Low outreach of veterinary services.
- No processing facilities (e.g. sausage casing, skin tanning, leather products manufacturing, clothes etc.) inside the country. Even half processed skins are re-imported to the country.
- Decreasing grazing land due to land grabbing by warlords.
- Lack of quality fodder for use in winter, which weakens animals.
- Lack of investment due to insecurity.

- The grazing lands are increasingly being grabbed by warlords and thus its size has decreased in recent years. In many areas, the warlords force the farmers of goats/sheep to pay them for grazing their animals there, while traditionally these lands were available free of charge as they are government property.

According to farmers, many animals die due to severe cold and snow during the winter season. They added that there were no proper shelters to protect their animals from the cold and they could not afford to establish them mainly due to lack of finance. According to the veterinary officials in Balkh and Samangan provinces, the loss due to cold is much higher among goats/sheep than the loss due to diseases.

According to veterinarians in Samangan and Balkh provinces some 15% of goat/sheep die every year due to diseases and it is mainly because of lack of awareness of the farmers of the importance of vaccination and health care. Farmers think it is better not to spend money on vaccination as the animals may not fall sick.

According to Dutch Committee for Afghanistan (DCA) officials, it is not only the lack of awareness of farmers but also the low quality or even fake veterinary medicines imported from Pakistan. They say in some cases even the vaccines are fake and cannot prevent some of the fatal diseases.

The outreach of veterinarians and pharmacies is limited but has been improving (see under donor programmes and market actors).

Farmers and traders generally consider the establishment of manufacturing companies, to produce clothes and other products, one of the preconditions for growth in the sector.

Financial services that would enable farmers and other players in the value chain to invest (e.g. in sheds) are insufficiently available. Interest rates are considered too high and the perception is that available services are not in accordance with Islamic banking principles.

Increasing insecurity has reduced the willingness to invest in the sector.

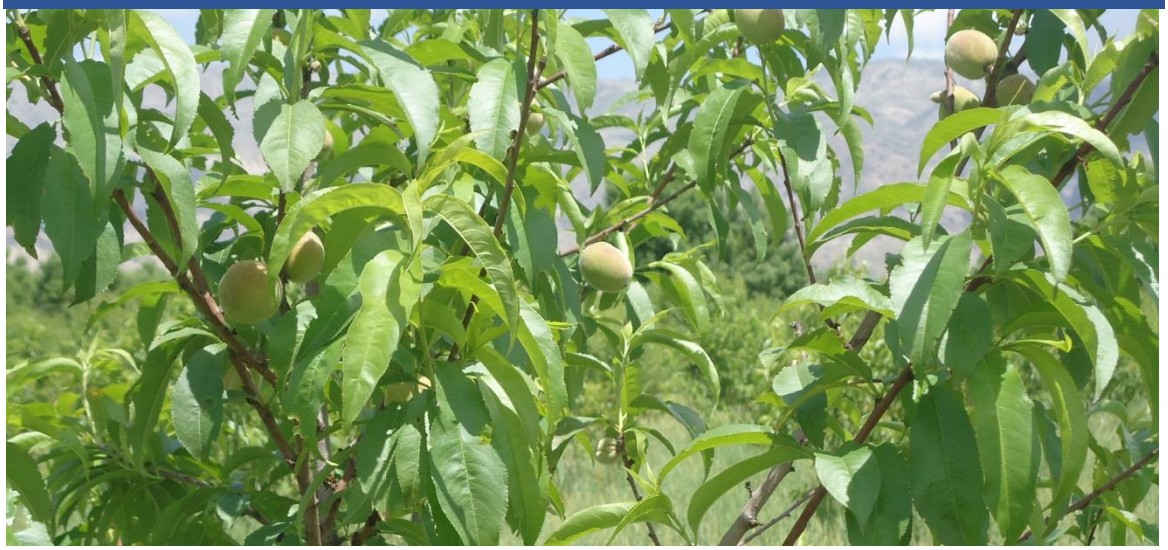
Potential intervention areas:

Though there is little possibility of intervention by private sector actors, there are some areas where an intervention could be possible. They include:

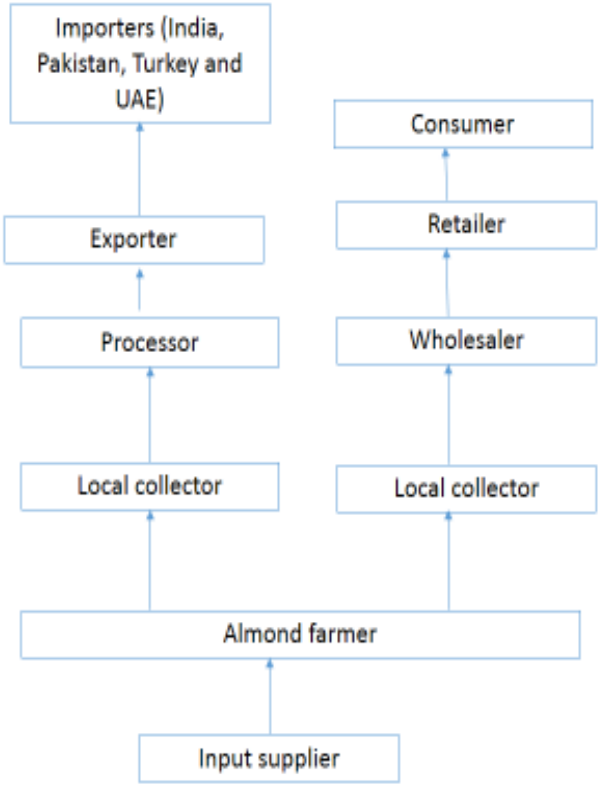
- Value addition and processing of the goats/sheep products. Skins could be further processed into leather which could be used to manufacture leather products. Wool could be used in garment manufacturing. This could employ large numbers of poor people including women, though it may not be possible under the Road to Jobs project. Many processors such as the skin and intestine processors/exporters need support for such activities and they are willing to work on this. However, they complain of lack of government attention to this sector.
- Construction of winter shelters to reduce mortality.
- Construction of reservoirs to preserve run-off rain water for use in summer.
- Enhancing the awareness of sheep/goat farmers on the need for veterinary care and vaccination. Many private veterinarians do this on individual basis, however it is too little and they cannot reach to all goat/sheep farmers.
- The need for quality veterinary medicines and vaccines. Private sector companies can be assisted to import high quality medicines which can increase the productivity of the farmers.

- Production of proper fodder for sheep/goats by farmers.
- Promotion of cashmere wool which has a good international market. Some organizations have recently started to work at the production level of the cashmere wool subsector.

ALMONDS



VALUE CHAIN MAP



RELEVANCE TO TARGET GROUPS:

The poor

Many rural households in Balkh and Samangan provinces grow almonds for their livelihood. The total is estimated at 12,000. Almost all are poor people who survive with less than $1.25/day. Though almond is major source of income, this has decreased significantly the last three years due to lower yields as a result of spring frost.

Most of processing work such as shelling, sorting and grading takes place at the farm level by the family members of the almond growers and some hired women.

A few almond exporters based in Mazar-e-Sharif hire women to sort and grade almonds for export. There are at least two processors in Mazar, each of which hires 20 poor women for cleaning and grading. This is a seasonal job, during the three months after harvesting starts.

Vulnerable groups

Women are generally concentrated at the lower levels of the almond value chain, where they perform irrigation, harvesting, and minimal processing, such as drying, shelling and packing almonds, at the household level. Men, on the other hand, link households with the market to obtain input supply and sell the products, in addition to their substantial engagement in production.

Rural women perform harvesting and post-harvest processing of almonds at the households. Their work goes unpaid. However, a small number of women are hired by larger almond farmers for shelling and cleaning the almonds. As mentioned before, a small number of women are hired seasonally by exporters and processors.

Decent work deficits

Women hired by exporters/processors are mostly underpaid: 200Afs/day compared to 400Afs/day for a male worker. The women hired seasonally for harvesting and processing at the farm level are also underpaid.

Relevance to target groups: **high relevance**

OPPORTUNITY FOR INCLUSIVE GROWTH:

Sector growth

There are different types of almond available in Balkh and Samangan provinces. They include Satar bai, Khairuldini, Qahar Bai, Qambari, Shokar Bai, Sangak, but generally they are categorized as soft skin and hard skin almond. In the past, people grew the hard skin types which did not have a good market and customers didn't like. In recent decades the farmers changed most of the almond trees to soft skin.

There is a steady national and international market for almonds and Afghan almonds have a good potential for growth in the domestic and international market. The product's importance at the national level is increasing strongly.

Around 70% of the almond harvest goes to Kabul where it is processed and packed by large processors and then exported to India and Pakistan. Major exporters are located in Kabul. The two local exporting/processing companies are located in Mazar. They sort, grade, clean and pack the almonds for export. Major export destinations are Pakistan and Iran. According to the exporters, India and Pakistan do not require high standards and therefore they can export most of the almonds to those countries. On the other hand some almond is being ex-

ported to UAE, but the amount is very small. According to the exporters, some UAE traders want to buy Afghan almond for its good taste. However Afghan almond is not price competitive against almond imported to UAE from California.

The almond orchards have been affected by frost during the last three successive years. Almond trees start flowering in early March when the weather is getting warm. However, the sudden return of cold weather in mid-March destroys all the flowers and thus results in trees without fruit. This used to happen throughout history, usually just one year in a period of many years. Now it has been happening in the last three consecutive years. The yield fell to almost zero during the last two years. However according to farmers and professionals this year they can harvest 30-40% compared to a normal year. This means yield is higher than the last two years but still very low compared to the years before the frost started to hit the trees.

Most of the almond currently available in the Mazar dried-fruit retailer market originates from Ghazni and other provinces as there was no production in Balkh and Samangan last year. The almonds harvested just in these days have started to arrive at the market. One of the wholesalers in Mazar said that last two years he had to close his shop and stay at home as there was no almond available, but this year there is some almond and he has started his business again. Still the quantity is much less compared to earlier years.

According to a nursery farmer, he used to sell 60,000 saplings each year some three years ago but the last two years he could only sell 10,000 saplings. It means the successive years of frost have discouraged the farmers to establish new almond orchards, though there is land available for expansion.

Ninety per cent of almond orchards in both Balkh and Samangan provinces are established with traditional methods: i.e. no proper space between the trees, no proper pruning, and intercropping with wheat, which reduce productivity. Intercropping with wheat increases the risk of disease. Harvesting is done in such a way that the trees are damaged and the following year's crop is reduced.

Another problem is the shortage of irrigation water during summer. Lack of sufficient water causes smaller almonds, and bad quality. Samangan almond orchard association believes the problem can be solved by establishing drip irrigation systems. According to them new orchards can be established using the drip irrigation system in the vast deserts of Samangan province.

Plant diseases are also a factor in low productivity. Many of the trees are affected by an insect pest. Some farmers complain that the quality of the chemicals they buy is very low and cannot cure the plant diseases, while some others say that the farmers do not know when and how to use the chemicals and therefore cannot prevent the disease. Quality agrochemicals, including fertilisers, are not available in the villages. Instructions on packaging cannot be read by many of the farmers, who are often illiterate. Microfinance which would enable farmers to buy better inputs if they were available, or to invest in expansion, is not available.

According to one of the exporters based in Mazar the almonds they receive from districts in Samangan province are of very low quality as they are sorted and graded by unskilled farm-

ers. Moreover, some farmers put the almonds in water in order to increase their weight. This affects the quality of the almonds and wet almonds may be infected by fungi. In some cases importers reject the shipment because of this problem. This limits exports to high-end markets in Europe. Improper drying, sorting and grading also increase the poisonous objects in almonds and buyers in Europe cannot accept that. There is a need to provide farmers with training to solve this problem. However, such training is not available.

Even if farmers grade and sort well, collectors and traders may mix the almonds again, thus undoing their work. Furthermore, there is no certification of almonds for export.

Employment

There are approximately 7,000 almond farmers in Samangan province. In addition, there are around 5,000 almond farmers in Balkh province. Between 40 and 50 women are hired by the processors in Mazar. There are also some 100 wholesalers and the same number of retailers in Mazar city. A new fruit market has been established in Aybak of Samangan where around 30 local traders have opened shops. They collect the almond from farmers and sell to wholesalers and exporters.

Enterprises

In addition to approximately 12,000 almond farmers in Balkh and Samangan provinces, there are some 200 traders such as wholesalers, retailers and processors, mostly located in Mazar-e-Sharif and some in Ayback city. There are two processing companies located in Mazar which process and export almond.

Locations

Almost 70% of almond is grown in the Ayback area of Samangan province, the remaining 30% is grown in Hazrat Sultan, and Dara-i-Suf districts. In Balkh province, Dawlatabad and Khulm are the major almond producing districts. Compared to many other crops almond needs much less water. Therefore it is cultivated in many districts where other crops cannot be grown due to lack of water. For example, Dawlatabad district which is neighbouring Balkh district does not grow cotton because there is much less water available, meanwhile cotton is grown in Balkh where there is sufficient water available. Therefore there are many almond orchards in Dawlatabsd district but not in Balkh district.

Opportunity for inclusive growth: **the sector has medium potential for growth. Demand is good and more orchards could possibly be established using drip irrigation. Productivity could be increased by better cultivation and harvesting practices, and better use of inputs. However the decreased productivity due to frost during the last three years has hindered growth. Many do not like to establish almond orchards as they do not want to take the risk and instead opt for other crops/trees.**

FEASIBILITY OF INTERVENTION:

Donor programmes

Recently the World Bank funded National Horticulture and Livestock Program (NHLP) of the Ministry of Agriculture, has started to assist the famers to establish good practice orchards. According to the NHLP, the new cultivation techniques can increase the production by 40%. However many farmers do not want to replace the old orchards with new ones because it will take around 5 years for the trees to bear sufficient fruit. Farmers cannot wait this long and need a source for livelihood. When farmers do want to establish new orchards, they use the instruction of DAIL/NHLP and the orchard association to create good practice orchards.

Since wheat inter-cropping increases the risk of disease, NHLP is recommending to do alfalfa inter-cropping which will even benefit almond trees by fixing nitrogen in the soil. However it seems many farmers ignore this instruction and still want to cultivate wheat in almond orchards as they need wheat.

The EU-funded Perennial Horticulture Development Programme (PHDP) has established almond nurseries to provide the farmers with improved saplings. The programme has assisted the Samangan Nurseries Association to establish a mother plant stock nursery from where they provide the nurseries with "buds" of the desired varieties for grafting. There are 30 such nurseries across Samangan.

The EU-funded programme of Afghanistan National Horticulture Development Organization (ANHDO) has established a research farm in Dehdadi district of Balkh province where they do research to develop a new frost-resistant variety. There are two types of almond. One is flowering later (which is good to avoid frost), the second is flowering earlier which is susceptible to frost but the almond quality of the latter is better. Now ANHDO cross-pollinated them to have a variety to keep both characteristics in one tree. However, it will take around three years until they can release the new variety. According to ANHDO they have started this program approximately two years ago but it will take more years as they have to test the new variety first to see its productivity and adaptability before they release it to the farmers.

ABADE (Assistance in Building Afghanistan by Developing Enterprises) is a USAID-funded project that provides cost-sharing for equipment, also in almonds.

Both RADP-N and SEDEP are working in the nuts and dried fruits sector, the latter using a value chain development approach.

Market players

The main market players are:

- Exporters in Kabul.

- Exporters in Mazar (two).
- The fruit nursery association in Samangan.
- The Almond orchard association in Samangan.
- The Samangan dried fruit sellers' association.
- DAIL (though most of its capacity is under NHLP).

Willingness of market players

The fruit nursery association and almond orchard association in Samangan province are active market players who have taken initiatives for change. The fruit nursery association has assisted farmers to establish nurseries to sell the saplings to other farmers. The association has established a 'mother stock' in a farmer's land where the 'buds' of good varieties are produced. The almond seeds are cultivated in nurseries and in the second year it is grafted with buds from the good varieties provided by the Association. Each bud is sold for 1 Afs which is a good income for the farmer of the mother stock nursery. Moreover, the nursery farmers sell each sapling for 60 Afs after keeping them for almost two years in their nurseries. This is a sustainable business which does not require funding or any assistance. However initially it was started through a donor project (PHDP). Both associations plan to establish some orchards to be irrigated by drip irrigation. They say that first they will establish a demonstration orchard to show to other farmers who can afford to establish it. They have approached GIZ with a proposal for this.

Amin Ramin Company, an exporter in Mazar, recognises the need to provide farmers with training to maintain the post-harvest quality of almonds and on sorting and grading. He needs support for such an activity, which will not only increase farmers' profits but will also provide him with high quality almonds.

The farmers' associations are also interested in establishing new orchards using the drip irrigation systems, especially in those areas where there is little water available.

Feasibility of intervention: **It is likely to be high as there are a number of active private sector players and supporting institutions. The presence of several donor programmes would have to be taken into account.**

CONCLUSIONS/RECOMMENDATIONS

This sector is relevant to the target group, has potential for growth and includes a number of active market players. However, production has significantly decreased during the last three years due to the frost. Diseases and traditional cultivation and harvesting practices also affect productivity. Quality is affected by inadequate processing at the farms.

Constraints in the sector:

- Low productivity is a key constraint. It is caused by:
    - Frost when the trees are flowering. This is the most important problem affecting almond production in Balkh and Samangan provinces in recent years.

    - Lack of sufficient irrigation water. Even though almond needs little water this is not available in summer months.
    - Plant disease. The lack of farmer awareness on the use and the low quality of chemicals and wheat inter-cropping are the main causes of the impact of the diseases, which is very significant.
    - Lack of use of and access to other agrochemicals (e.g. fertiliser).
    - Use of traditional cultivation and harvesting techniques.

- Quality is affected by lack of knowledge and skills of farmers to process almond.
- Weak access to (Islamic) finance.

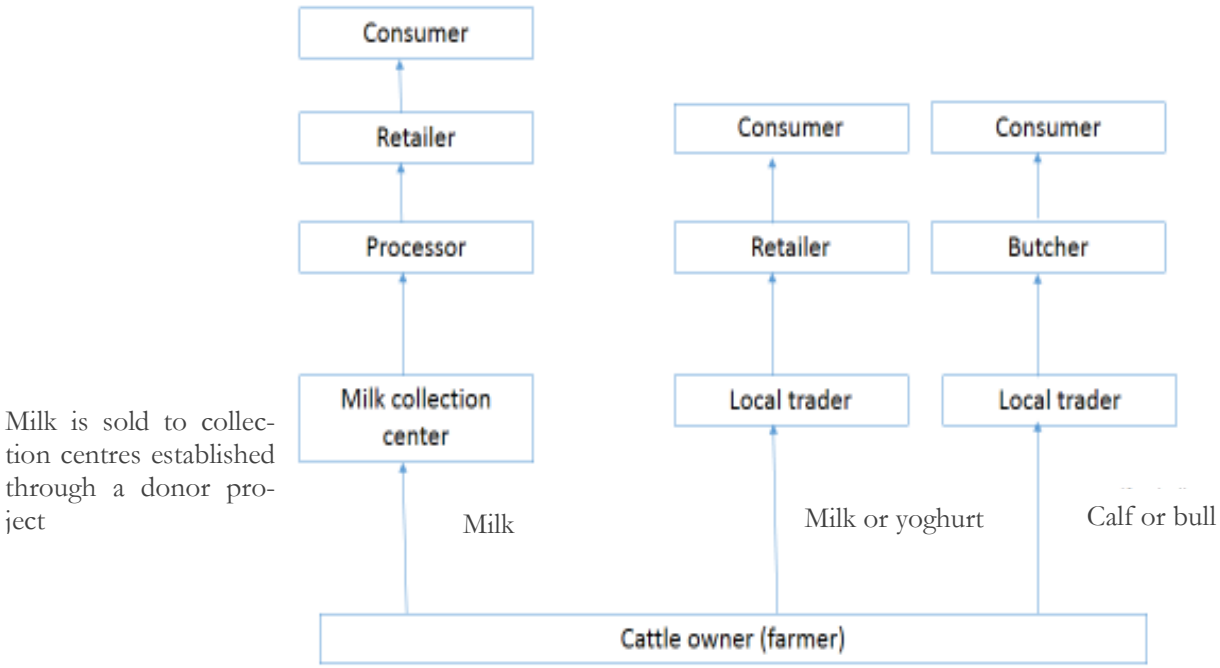
Potential areas for intervention:

Though interventions for most of the problems seem to be very long term and need a lot of effort, resources and time, such as introducing the frost resistant varieties, there is a possibility for some interventions.

- Increasing the production of almonds by establishing more orchards using the drip irrigation system.
- Using good practices (e.g. proper spacing) on the new farms. The old orchards can also be changed to good practices gradually (e.g. a part of the old orchard can be replaced with new every year).
- Increasing access to quality agrochemicals, and possibly biological disease control methods.
- Training farmers on the use of chemicals and other good agricultural practices, as well as better harvesting techniques.
- Use of manure as fertiliser.
- Training the farmers on better processing (sorting, grading) methods to enhance quality, and make collectors and traders aware of the importance of this.
- Certification of the almonds for export will increase export especially to high-end markets in Europe.
- Link farmers to new processing factories supported by ABADE.
- Strengthen access to finance.

DAIRY

VALUE CHAIN MAP



RELEVANCE TO TARGET GROUP:

The poor

All people who rear livestock are poor. Almost every household in rural districts of Balkh and Samangan provinces have at least one cow, and there are people who have up to 10 cows. There are no reliable estimates of the number of households or cows though. Poor households rely on dairy as a source of income, though it is often not their main source of income.

Vulnerable groups

Women are engaged in rearing cows. While men are responsible for selling the milk or supplying the fodder from outside the house, women are mostly engaged at the production level, in taking care of feeding, milking, among other activities, and in value addition at the household level (e.g. yoghurt). Women's direct access to markets is very limited. Women are also employed in processing factories.

Some migrant women (displaced from the restive Hilmand province due to war) keep cows in Mazar. They sell the milk to local shops to earn a livelihood.

Decent work deficits

Almost all of people rearing cows are self-employed. People involved at the processing level enjoy relatively good working conditions. Overall R2J did not identify any particular problem with regard to decent work.

Relevance to target groups: **high relevance**

OPPORTUNITY FOR INCLUSIVE GROWTH:

Sector growth

According to farmers, the number of people rearing cows has increased in recent years as this is a good source of income. Establishment of milk collection centers and of dairy processing factories has encouraged more poor farmers to keep cows and sell milk. According to some estimates rearing livestock has increased by 30% over the last 3 years and this trend is expected to continue.

Some factors negatively affect growth. Productivity is low, especially in winter. Cows are reared in traditional ways in all districts of Balkh and Samangan provinces, without application of good dairy farming practices. Breeds are low-yield and good quality fodder is not available.

The price of milk is low because not all milk produced in Balkh is being processed. The dairy factories have low capacity and weak supply lines. Five milk collection centers have been established in Balkh district of Balkh province, with assistance of the CARD-F project. These supply the Pakiza Company. The Balkh Livestock Development Union (BLDU), the only other processor, operates 10 collection centers outside Balk district. These 15 centers are sufficient to serve just a small share of the dairy farmers. Supply lines between processors and producers are therefore weak. For this reason and to ensure adequate supply in winter processors are considering establishing their own farms.

This also results in farmers selling their unprocessed milk directly to retailers at a low price or converting it to yoghurt. Much of the milk and yoghurt is spoiled due to the long transfer between producer and consumer and the absence of cooling facilities.

Currently farmers sell 1 litre of (unprocessed) milk for 17Afs to retailers and collectors in milk collection centres established by the project CARD-F (see the section on intervention potential). Collectors sell each litre with 22 Afs to Pakiza Company. Given the high price of fodder (including cotton cake, straw, alfalfa) and other costs, farmers' profit margins are reported to be low.

Local pasteurized milk is sold to consumers for 35 Afs/liter. The milk has to be sold fresh and should be transported and kept in a refrigerator. The processors do not have the equipment for Ultra-heat treatment. While the price of UHT milk imported from Pakistan and Iran is very high, at 100 Afs/litre, it dominates the market. The reason is that it can be kept for at least 6 months without refrigeration and most shops lack refrigeration facilities. Therefore there is a huge possibility to add value and improve the market for local milk. As it is, processors work below their capacity. However, the yoghurt and cheese produced by local processes are being sold in the local market (Mazar) and can compete with the imported products, in terms of price and quality.

Farmers in Dawlatabad district convert their milk to yoghurt at home and then sell it in the district center or in Mazar. Some local collectors take the yoghurt to Mazar. However, according to the farmers the wastage is very high, and some 50% of their products spoil and cannot be sold.

Some farmers sell their milk to ice cream factories in Mazar. However according to one of these, most of the milk they receive from farmers is spoiled and that is why they reject it. Due to this problem they use imported powder milk. The factories would buy fresh milk if this were available.

In terms of services, finance for farmers to build cow sheds or invest in high-yield breeds is not available.

Packaging has to be imported from Iran, as local materials are low quality. This is expensive, heavily taxed and increases the price to the consumer.

The outreach of veterinary services including artificial insemination is low, though there have been improvements over the past few years, e.g. the Veterinary Surgeons Office in Balkh has developed around 100 para-vets who receive incentives from commercial suppliers of vaccines and medicines.

The quality of semen is low. Pharmacies are also few and medicines and vaccines, nearly all of which are imported, are often of low quality or expired.

As a result of all these factors, especially the adverse market conditions, as well as the worsening security situation, interest to invest in the dairy sector is relatively low.

Apart from milk and dairy products, farmers also sell calves or bulls once in a year. Each calf or bull is sold for 20,000 Afs to 40,000 Afs which is a good source of income. Farmers use this income for some major household expenses (paying debts, some ceremonies, among others.). Balkh is therefore self-sufficient and does not import beef or cows.

Employment

The majority of people in Balkh and Samangan provinces rear cows, especially in rural districts. Many use the products for their own consumption but most sell them. Apart from farmers, other levels of employment exist such as collectors, workers in processing factories (some 60 people work in two processing factories) and butchers who buy calves and bulls and sell meat to the customers. However, most of the employment is at the production level. In Balkh district this amounts to some 2,000 farming households. As cow rearing households have other income earning activities too, the employment is part-time.

Enterprises

There are just two processing factories, in Mazar. The market for their products is small so the quantity of milk they purchase is limited.

The largest is Pakiza (mentioned earlier) which has the capacity to process 2,500 liter/day but currently processes around 1,500 liter/day. It sources from 1,000 farmers in Balkh province who can supply on a regular basis; though there are many more dairy farmers (total daily production in Balkh district alone is estimated to be 5,000 liters). It uses 5 collectors. It sells through its own sales centers (15) and retailers in Mazar.

The other processing facility, Balkh Livestock Development Union (BLDU), is a famers' cooperative established through a USAID funded project. Each of the BLDU's 10 collection centers has 50 women members who keep cows. They sell the milk to the processing unit of BLDU located in Mazar. The processing capacity of this factory is smaller than Pakiza. BLDU cannot buy all of the milk even from the members of the cooperatives due to lack of processing capacity. It also has activities on animal healthcare, breeding, feed production, training.

These factories process milk into yoghurt, cheese, cream, milk etc. The milk has to be sold fresh and under refrigerated conditions.

There are some ice-cream making factories which also need fresh milk from farmers. Ice-cream is sold through retailers.

Location

Balkh, Dawlatabad, Khulm, Chimtal, Kishindi are the districts where there are large numbers of cow farmers, though people in all districts have cows.

Opportunity for inclusive growth: **there are a number of important constraints related to productivity, supply lines, processing capacity and the market which limit the likelihood of growth to medium.**

FEASIBILITY OF INTERVENTION:

Donor programmes

CARD-F, funded by DIFID is the main donor programme in the dairy sector. It works with some 13,000 farmers, including training farmers on cattle management and feeding, and at all other levels in the value chain, as well as in providing extension services, improving veterinary services and Artificial Insemination. It has established five milk collection centers in Balkh district. The five centers are located in areas that many farmers have to travel many kilometers to reach. The farmers can take their milk only in the morning because they cannot travel this long distance twice. The milk they get in the evening has to be kept at home without any refrigeration. Around 20-30% of the milk spoils, especially under excessive heat in summer. The milk collection centers also lack refrigeration facilities and they have to send the milk to the factory in Mazar immediately after collection.

There has been considerable investment in developing veterinary services. Around 100 veterinary personnel supported by DAIL and DCA have been working in 14 districts of Balkh province. They also have their own private clinics and provide veterinary services including vaccination to farmers. Para-vets are part-funded by suppliers of medicines.

Sustainable Economic Development and Employment Promotion (SEDEP) is a GIZ/GFA value chain and dialogue project for North-Afghanistan. It includes dairy and has developed an intervention framework for this sector.

ABADE (Assistance in Building Afghanistan by Developing Enterprises, USAID) includes dairy processing among its target sectors. It provides grants for equipment.

The Afghanistan New Market Development Project (ANMDP) provides support to business planning, capacity development and matching grants to SMEs, including in dairy.

Market players

Key market players include:

- Two milk processing factories.
- "VetServ Limited", a private company, which has been importing vaccines for 6 fatal diseases of animals and sells them to the local (para) veterinarians. In the past, the DCA was importing the vaccines and was distributing it free of charge but this has now been taken over by this company.
- Veterinarians providing services on a fee basis are also significant.
- Dealers of medicines and vaccines
- The Traders Association of Mazar (which includes the processors)

In the public sector:

- DAIL
- The Veterinary Surgeon's Offices in Balkh and Samangan

Willingness of market players

Some actors of the private sector such as Pakiza Dairy Product Company and Balkh Dairy expressed their willingness to work on development of the sector and have incentives to do so given their small market share.

Pakiza Dairy believes that they can make the sector grow by helping farmers establish standard farms, establish a feed production factory, start UHT processing and work for capacity building of the farmers. They need support for doing so. The manager of the company recently visited standard cow farms in Iran and he is of the opinion that they can establish similar farms here. Pakiza is also considering to market in other provinces.

Enhancing the processing capacity, establishment of small village based milk collection centres, refrigerated transportation, producing high quality fodder to increase the yield of cows, and establishment of cow farms by the factories themselves are some other options companies are thinking about.

Dealers of medicines and vaccines could play a role in expanding access to para-veterinary services, medicines and vaccines, and have demonstrated initiative in this direction.

Feasibility of intervention: **some interventions have taken place but they have been insufficient. The sector can be further developed by interventions from the private sector but given the number of constraints and the need for investment the feasibility of intervention is medium only. The presence of several donor programmes would have to be taken into account.**

CONCLUSIONS/RECOMMENDATIONS

The dairy sector is an important source of income and employment for the poor in Balkh province, especially in rural areas, and to a lesser extent in Samangan. Balkh is producing a large and growing quantity of milk but the market is limited due to the capacity of the two processors and competition from UHT processed milk imported from Pakistan. Though nearly 3 times the price, it is more competitive because it does not have to be refrigerated. As many farmers are not linked with the processors most of the milk is sold unprocessed fresh or as yoghurt to the retailers in district markets or in Mazar. Lastly, spoilage is significant.

Constraints in the sector:

- Yields are low because:
    - Currently the cows are raised in the traditional way (no good practices).
    - Breeds are low-yield.
    - The quality of fodder is low.
    - Access to veterinary services including artificial insemination and good quality semen is low.
    - Farmers have no access to finance to improve on the above.

- There are just two processing enterprises and their supply lines are very weak, without adequate transportation, collection and chilling systems/centers. Much of the milk is therefore spoilt, or marketed locally, or consumed by the producers.
- Processors can only pasteurize the milk and cannot compete with imported UHT milk.
- Capacity of the processors is low.
- Packaging is imported and expensive.

Areas for potential intervention:

- Establishment of standard livestock farmers and helping the farmers to raise the cows in a standard way. Farmer training on cattle management to increase the production of milk.
- Improve access to modern veterinary services, artificial insemination, quality medicines.
- Develop financial products for dairy farmers.
- Developing supply lines between producers and processors.
- Enhancement of the processing capacity of the processing factories and establishment of Ultra-high temperature (UHT) processing.
- Promotion of the dairy products and targeting new markets in other provinces.
- Develop packaging sector.

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