UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Initial assessment of potential value chains in Khyber Pakhtunkhwa and Balochistan

Project for agri-food and agro-industry development assistance in Pakistan (PAFAID)

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Abbreviations

FAO	-	Food and Agriculture Organization of the United Nations
GoJ	-	Government of Japan
GoP	-	Government of Pakistan
JICA	-	Japan International Cooperation Agency
Kg	-	Kilogram
MIT	-	Massachusetts Institute of Technology
PSC	-	Project Steering Committee
T	-	Tons
UNIDO	-	United Nations Industrial Development Organization

Background

This document, as an initial screening, serves the purpose to support the value chain selection process through an analytical assessment for the project *Agri-food and agro-industry development assistance* (PAFAID) initiative in Khyber Pakhtunkhwa (KPK) and Balochistan. It also provides socio-economic background on the potential value chains through a set of indicators or criteria which are further elaborated below. The document will be annexed to the project document developed for this intervention to report on the results. However, before the final agreement for the detailed value chain analysis under the first phase of the project, it is subject to consultation among the project partners, including the Government of Pakistan (GoP) and its provincial agricultural departments, the Japan International Cooperation Agency (JICA) and the United Nations Industrial Development Organization (UNIDO).

The clear outcome of this assessment is to recommend 2-3 value chains to the aforementioned consultation process for potential final selection by the project partners. In addition, this will also allow finalizing the project scope for submission to the GoP and the Government of Japan (GoJ). It is evident that further analyses will be required on the value chains and certain data mentioned in this document should be updated, validated and in case of their non-availability, acquired during the first phase of the project. Accordingly, certain activities and indicators should be revised based on the outcome of these analyses and validated by the first Project Steering Committee (PSC).

Methodology

The selection process of the value chains is divided into two phases: (1) shortlisting the most potential value chains based on the criteria of production volume and concentration of sectorial production, and (2) analyzing the shortlisted value chains as per the selection criteria defined in this document as a preliminary selection.

The shortlisting of the value chains allows the identification of value chains with the most potential in terms of volume of production as well as the geographical areas or districts where the production of different agricultural sectors is concentrated. The project document includes additional production volume data selected on the most potential value chains for the horticulture and livestock sector in KPK and Balochistan. These data were collected from the latest annual statistical yearbooks available at the provincial level, reports and international organization databases, such as FAO Stat and UN Comtrade. Table 1 summarizes the most potential value chains in the two provinces based on the aforementioned criteria. Additional data on export was mainly collected from MIT's[1] Atlas application and from FAO's statistical website.

Table 1. Shortlisted value chains based on their production level at district level

[1] https://atlas.media.mit.edu

Sector	Main production district	Value chain	Unit	Production
Khyber-Pakhtunkhwa				
F&V	not available	Peach	tonnes	48,605
F&V	not available	Apple	tonnes	40,023
F&V	not available	Musk melon	tonnes	36,497
Livestock	Kohistan district*	Goats	population	671,353
Livestock	D.I. Khan district	Cattle	population	411,432
Livestock	D.I. Khan district	Buffaloes	population	205,636
Balochistan				
F&V	Killa Saifullah	Apple	tonnes	261,975
F&V	Turbat	Dates	tonnes	102,522
F&V	Killa Saifullah	Apricot	tonnes	91,578
Livestock	Jaffaranad	Cattle	population	518,382
Livestock	Kohlu	Sheep	population	1,561,518
Livestock	Khuzdar	Goats	population	1,133,273

*D.I. Khan district is the 3rd largest producer with the goats population of 583,923

As it is shown in table 1, fruit production in KPK is more significant than vegetable production, and the province is particularly well-known for its peaches. [2] The Peshawar area of peach production is considered better than the rest of districts due to the practices of model fruits growers compared to non-model growers in rural areas. However, due to the dispersed production of fruits within the province, in comparison to the high level of livestock population and concentration within the D.I. Khan district, the selection criteria will be applied for the livestock sector for the province. However, it is important to mention that the most of the animal slaughtering is taking place in Peshawar district where the main governmental abattoir located, despite the fact that D.I.Khan has also 3 slaughter houses. Since 80 percent of the national peach is produced in the Swat region, called Swat peaches, their market potentials could be also taken into account. As per the request of the donor community, the Hazara region should be considered for this assessment and accordingly it was

With regard to Balochistan, the livestock sector is also significant and might be considered larger in comparison to KPK, which shall be considered by the project stakeholders. When it comes to horticulture, Balochistan is the largest apple production province within Pakistan, around 80 percent of

[2] Khan, Naushad et al. (2010) A Comperative Study of Model and Non-Model Fruit Growers in Rural Areas of Khyber Pukhthunkhwa, Pakistan. Link: https://www.researchgate.net/profile/Naushad_Khan7/publication/323557189_A_COMPARATIVE_STUDY_OF_MODEL_AND_NON-MODEL_FRUIT_GROWERS_IN_RURAL_AREAS_OF_KHYBER_PUKHTHUNKHWA_PAKISTAN/links/5a9d5a61aca2721e3f32b06d/A-COMPARATIVE-STUDY-OF-MODEL-AND-NON-MODEL-FRUIT-GROWERS-IN-RURAL-AREAS-OF-KHYBER-PUKHTHUNKHWA-PAKISTAN.pdf

the quality apples are produced and exported from this province, supplying other markets throughout the year. Balochistan has also the largest production of dates with 51 percent annual production, mainly coming from the Pangjur and Turbat districts. Pakistan is also among the seven largest producers and exporters of dates in the world. Considering its market position in horticulture, particularly in apple and dates, the selection criteria will be applied on these value chains.

Selection of criteria

As mentioned above, a set of criteria should be utilized in this initial processing in order to support the selection of the most potential value chains in KPK and Balochistan. The mix of these social and economic indicators will ensure that the most potential value chains will be assisted during the PAFAID intervention, allowing the highest value for money, in terms of socio-economic impact and sustainability. A table (see Table 2.) defining the purpose of these criteria is mentioned below.

Table 2. Explanation of the criteria applied for the initial screening of the value chains

Name of criteria	Purpose of the criteria
Production level	As per the available statistical data, the production volume defines the production in a quantitative unit. To comply with the requirements of domestic and international buyers, for the purpose of trade, adequate volume should be handled as a prerequisite to the value chain actors to reach the foreseen goal. It also important to take into consideration that there is a production surplus for the specific value chain thus avoiding any food security issue due to sales or trade to other geographical areas.
Export potential	Export potentials of value chains should consider underlining factors for the value chains: (1) adequate practices in terms of SPS and TBT; (2) volume or total quantity (referring to the production level); and (3) national and regional competition's practices and pricing. Further detailed assessment of this aspect will be done under the value chain analysis.
Existence of required enabling environment	Ensuring proper practices of value chain actors within a country and regional area requires an existing enabling environment which includes soft infrastructure, such as supporting services (certification and agricultural extension services), laws, standards, human resources and availability of proper financial or loan schemes for farmer) and also hard infrastructure, such as controlled atmosphere storage and transportation, road systems etc. Certain infrastructures might be more advanced than others due to the former governmental initiatives and interventions by development partners.
Number of female and male farmers involved in the value chain	The project should consider the overall social impact and how many households can benefit from improved practices and higher sales in compliant products. This important point of cost-benefit analysis will be an integral part of the detailed value chain analysis.
Potential involvement of both genders	As a capacity building initiative, the project has to ensure the social inclusiveness of the intervention, taking also into account the

	possibility of supporting more vulnerable groups, such as youth and women.
Relevance to country priorities	Certain value chains are also highlighted as strategic goods in governmental policies and strategies.
Existing or past technical assistance initiative for the VC	Reaching certain level of development stage during previous technical assistance initiatives will increase the potential for new interventions to reach their impact by learning from previous practices and recommendations and building on a development status acquired in the past. Accordingly, these can play an important role in the impact of the project.

As indicated before, certain data is not publicly available and it requires further data collection procedures by UNIDO in the form of field visits during the detailed value chain analyses.

Quantitative assessment of preliminary selection

To ensure the fact-based assessment of the shortlisted value chain, a quantitative tool in the form of a matrix with grades of 'readiness' was developed. The grading mechanism of this assessment is explained below in table 3 to ease the navigation within the matrix and its results.

Table 3. Grading system of the initial screening

Name of the criteria	Grading system
Production level	Production surplus or production of other value chains with similar nutritive content in the same province **0 point** - not sufficient **1 point**– sufficient for the district **2points** – sufficient for the province **3 points**– sufficient for the region **4 points**– sufficient at national level **5 points** – surplus for export potential *Note:* Regional and national production data should be compared with the population and the required dietary protein and other vitamin intake for adequate human health.
Export potential	<u>Adequate SPS and TBT measures by the industry</u> **0 point** – non-existence and no awareness **1 point** – limited number of value chain actors aware but do not apply required measures **2 points** – value chain actors knows about SPS and TBT requirements but they do not able to comply with them **3 points** – value chain actors know about SPS and TBT requirements but only a limited group of them (less than 25% of total suppliers) is able to comply with them **4 points** – value chain actors know about SPS and TBT requirements and wide group also complies with them (more than 50% of total suppliers from the value chain)

	5 points – value chain actors know about SPS & TBT requirements and most of them comply with them (more than 90 percent of total suppliers from the value chain) <u>Volume for trade</u> **0 point** – no excessive volume for trade **1 point** – Able to export to one country **2 points** – Able to export at least to five countries **3 points** – Able to export at least to a region (at least 7 countries) **4 points** – Able to supply a continent **5 points** – Able to supply globally <u>National and regional competition</u> **0 point** – there are other companies offering the same product at cheaper price with higher quality in targeted export markets **1 point** – there are other companies offering the same product at cheaper price with higher quality in non-targeted export markets **2 points** – there are other companies offering the same product at the same price with the same quality in targeted export markets **3 points** - there are other companies offering the same product at the same price with lower quality in targeted export markets **4 points**- there are other companies offering the same product at higher price with lower quality in targeted export markets **5 points** – there are no competitors in the region
Existence of required enabling environment	<u>Soft infrastructure</u> **1 point** for the existence of each element: - Local conformity assessment services (testing and certification) - Required agricultural extension services (private or public) for the value chain - Availability of required personnel for value chain operation - Education center (local university or institute to train professionals for the value chain) - Existing food safety regulatory authority (provincial or national) - Existing laws and standards - Availability of adequate proper financial and loan schemes for value chain actors <u>Hard infrastructure</u> **1 point** for the existence of each element: - Availability of proper road infrastructure for transportation - In 150 km radius an equipped airport or port for cargo - Availability of controlled atmosphere storage - Availability of vehicle services with controlled atmospheres - Existence of processing centers (community-based or privately owned)
Number of female and male farmers involved in the value	**1 point** – farmers involved in the value chain are less than 3% of the total number of farmers involved in this value chain at provincial level

chain	**2 points** – farmers involved in the value chain are between 3 and 5% of the total number of farmers **3 points** – farmers involved in the value chain are between 5 and 15% of the total number of farmers **4 points** – farmers involved in the value chain are between 15 and 30% of the total number of farmers **5 points** – farmers involved in the value are more than 30% of the total number of farmers
Potential involvement of both genders	**1 point** – Only one gender involved and considered to be done only by that gender **2 points** – predominant by one gender along the value chain (less than 5 percent involvement of the other gender) including managerial positions **3 points** – certain processes along the value chain are predominantly male or female, however, management dominated by one gender **4 points** – most processes are gender balanced with predominance of one gender at management level **5 points** – all processes are gender balanced including managerial positions
Relevance to country priorities	**0 point** – value chain not mentioned and prioritized in any national or provincial strategies or policies **1 point** – value chain was mentioned but neither prioritized at provincial level nor at national level **2 points** – value chain was mentioned but only prioritized as a 'strategic product' in provincial policies and strategies **3 points** –value chain was highlighted as a provincial and national 'strategic commodity' in national and provincial policies and strategies
Existing or past technical assistance initiative for the VC in the province (or the country)	0 point – no past or existing technical assistance and there were no **1 point** – no past technical assistance, however, potential investments are under consideration by different parties **2 points** – one small-scale (less than 0.5 million US Dollar) intervention is / was implemented for the value chain **3 points** – one small scale intervention was implemented and additional investments are under planning as 'hard pipeline' **4 points** – few interventions (total value less than 2 million US Dollar) were implemented in relation to the value chain **5 points** – one or multiple large scale projects (more than 2.5 million US Dollar) were implemented and additional investments by government or the donor community is foreseen.

As per the criteria and grading above, the highest total grade which can be scored by a value chain is 50 points. To evaluate the potential of the shortlisted value chains (goats, cattle, buffaloes, apples and dates), data research and analyses are conducted by UNIDO. This data collection might require further assessment during the detailed value chain analysis.

Data collection & assessment

Peach

Production level

According some statistics, the peach production of Swat is the highest among other districts in KPK with 17,625 tons in 2014. Peaches and nectarines are vital fruits and among the top fruit produced in KPK, besides apple and musk melon.[3] Despite of the high level production, 35-40 percent of the ripe peaches are wasted due to post-harvest issues. Local traders are also exporting the Swat peaches to down country.

Grade: **4 points**

Export potential

Considering the impact of the past USAID project on providing technical assistance to farmers on adequate practices, some level of food safety and hygiene awareness and practices might be in place at farm level. It is still inevitable to revise the project impact and current practices after the project closure. To ensure compliance along the value chain, such as proper processing, transportation and storage capacities, the value chain faces many issues.

Grade for adequate SPS and TBT measures by the industry: **2 points**

According to the MNFSR, KPK produced 36,155 tons of peaches in 2013-14, 65 percent of the national production. In terms of volume, the local peach production is sufficient to supply the local market, and its production level is not among the top 10 producing countries in the world. As a comparison with the major producers, China produces half of the world production with 14.5 million tons of peaches, Turkey 674,136 tons and Iran 817,170 tons in 2016.

Grade for volume for trade: **1 point** (a country requiring smaller quantity)

As it was mentioned before, at national level, KPK province, particularly Swat region has much potential in the down country when product quality issues will be resolved. With regard to the regional competition, the data available through FAOStat shows some discrepancies, e.g. relatively low export volume and quantity by China or even Pakistan. Accordingly, comparing regional competition with China, Iran and Turkey is not possible based on these data. Despite this fact, current development level of the value chain along with larger production level by Iran, Turkey and especially China, peach export might have to face with stiff competition in the region.

Grade for national and regional competition: **0 point**

[3] Khan, A. and Khan, M. (2014) Costs of Production and Marketing of Peach in Swat Khyber Palhtunkhwa, Sarhad J. Agriculture, Vol. 30, No. 2. Available at link: http://www.aup.edu.pk/sj_pdf/18%20-%20284-2013%20revised%20sja%20Almas%20(Adalat%20Khan%20Ph.D)%20(1).pdf

Existence of required enabling environment

Soft infrastructure:

With the establishment of the Food Safety & Halal Food Authority in KPK, as a competent authority in charge of safe food in KPK, certain priorities have been highlighted by the government.

- Local conformity assessment services (testing and certification): **1 point**
- Required agricultural extension services (private or public) for the value chain: **0 point**
- Availability of required personnel for value chain operation: **0 point**
- Education center (local university or institute to train professionals for the value chain): **1 point**
- Existing food safety regulatory authority (provincial or national): **0 point**
- Existing laws and standards: **0 point**
- Availability of adequate proper financial and loan schemes for value chain actors: **1 point**[4]

Hard infrastructure

- Availability of proper road infrastructure for transportation: **1 point**
- In 150 km radius an equipped airport or port for cargo: **1 point**
- Availability of controlled atmosphere storage: **0 point**
- Availability of vehicle services with controlled atmospheres: **0 point**
- Existence of certified processing centers (community-based or privately owned): **0 point**

Number of female and male farmers involved in the value chain

Data on the exact number of peach farmers in Swat is not available. This data should be collected during the initial phase of the project.

Grade: **0 point**

Potential involvement of both genders

No data is available on the role of different genders along the value chains and how many male and female farmers are actually involved in the peach production. This data should be collected during the initial phase of the project. More information is provided on general role of women in KPK under the cattle value chain.

Grade: **2 point**

[4] As per the USAID project, financial loan system provided, however, the existence of this loan system should be verified by the local agriculture department.

Relevance to country priorities

No reference is made to the peach value chain as a strategic agri-value chain at national or provincial level.

Grade: 0 point

Existing or past technical assistance initiative for the VC in the province

In 2012, USAID project has benefited 449 peach farm SMEs in Swat under a $600,000 revitalization program that aims to facilitate farmers in gaining access to greater revenues and market linkages; and make overall infrastructure improvements to strengthen the sector. According to an article, USAID launched another pilot project to introduce mobile enabled advisory and financial services for peach and potato farmers in Swat. An Annual Development Plan funded project called Technological Improvement in Research and Strengthening of Agriculture Research Stations in KPK has promoted the horticulture industry particularly the production of certified fruit plants of peach. In addition budding has been done for peach seedlings by the Agriculture Research Station, SWABI. The Istituto Agronomico per L'Oltremare (IAO), Florence had a PKR 69 million project called Technical assistance and support to fruit and vegetable growers in the Swat Valley for the improvement of production and marketing in the horticultural value chain, which established a grading processing plant. The current status of the plant should be verified through a field visit to KPK.

Grade: **5 points**

Goats (meat)

Production level:

In 2015-16, a total of 58,631 goats were slaughtered all of them in inside facilities[5] in KPK from this 1,396 in Kohistan. This province has also the highest goat population with 671,353 followed by the D.I. Khan district with 583,923 based on the census 2006. According to the statistical yearbook 2015-16, KPK has a total of 8.14 million goats which count around the 11.5 percent of the total goat population of Pakistan (70.3 million). In addition, Kohistan does not have a slaughterhouse at the moment and most of the processing takes place in other districts.

Grade: **4 points** due to the availability of other livestock products.

Export potentials:

[5] Even though the animals were slaughtered in inside facilities, food safety and hygiene conditions remain a big issue. Further information will be provided on this under cattle value chain.

At the moment there is no food safety certified abattoir in KPK and general awareness is also very limited when it comes to the handling of food stuff. The establishment of the provincial food authority called Food Safety and Halal Food Authority might play an essential role in the application of appropriate quality and safety practices by the industry.

Grade for adequate SPS and TBT measures by the industry: **0 point**

In terms of quantity, since there is sufficient production of livestock in the province, domestic and international trade remain as an option for the livestock sector. Pakistan has already exported processed goat meat in the amount of US$ 10.4 million which is 2.9 percent of the global market, to the Gulf countries.

Grade for volume for trade: **1 point** (due to the adequate supply to export to other countries)

India and Iran are the largest live goat exporters, with respectively 17 and 14 percent of the total volume, however, when it comes to processed meat products they are not considered as a major player. In case of processed goat meat, Australia is the top exporter, having 43 percent of the market followed by Somalia with 26 percent. Pakistan is the sixth largest exporter with 2.9 percent. In the national context, Punjab, Sindh and Balochistan have a larger goat population based on the available data, however, at this stage no price information is available to compare local competition.

Grade for national and regional competition: **0 point**

Graph 1. Calculated export of goat meat per kilogram among 5 major exporting countries

Table 4. Export quantity of major goat meat exporters (in tons)

	Australia	Pakistan	China	France	Kenya
2013	36,427	3,075	1,808	2,471	1,362
2014	40,169	3,230	2,247	2,369	2,091
2015	32,059	3,223	1,949	2,338	1,915
2016	27,178	2,665	2,612	2,465	2,603

Source: FAOStat

Existence of required enabling environment

Due to the similarity of situation with other livestock related value chains, further information provided under the cattle value chain.

Soft infrastructure:

- Local conformity assessment services (testing and certification): **1 point**
- Required agricultural extension services (private or public) for the value chain: **0 point**
- Availability of required personnel for value chain operation: **0 point**
- Education center (local university or institute to train professionals for the value chain): **1 point**
- Existing food safety regulatory authority (provincial or national): **1 point**
- Existing laws and standards: **0 point**
- Availability of adequate proper financial and loan schemes for value chain actors: **0 point**

Hard infrastructure

- Availability of proper road infrastructure for transportation: **1 point**
- In 150 km radius an equipped airport or port for cargo: **1 point**
- Availability of controlled atmosphere storage: **0 point**
- Availability of vehicle services with controlled atmospheres: **0 point**
- Existence of certified processing centers (community-based or privately owned): **0 point**

Number of female and male farmers involved in the value chain: No data available at district or provincial level

Grade: **0 point**

Potential involvement of both gender: Women involved in most of the process along the value chain in the Southern Zone of KPK, and actually mostly dominated by them in terms of percentage except for the marketing of animals, which is still considered an activity conducted by men.[6] Due to the similarity of situation with other livestock related value chains, further information provided under the cattle value chain.

[6] FAO (2015) Women in Agriculture in Pakistan

Grade: **2 points**

Relevance to country priorities: Goat production in KPK was not highlighted in any national strategy or policy, only in the provincial Agriculture Livestock Cooperative Policy and Strategy: A Ten Years Perspective[7]. Due to the similarity of situation with other livestock related value chains, further information provided under the cattle value chain.

Grade: **3 point**

Existing or past technical assistance initiative for the VC in the province

Three mega projects of livestock department were included in this year's provincial budget. These projects include establishing veterinary research and diagnostic centers in Bannu, Karak, Lakki Marwat and Torghar and the genetic characterization of cattle project in Peshawar. Due to the similarity of situation with other livestock related value chains, further information provided under the cattle value chain.

Grade: **3 point**

Cattle (meat)

Production level

According the KPK Statistical Yearbook 2015-16, the cattle population is 6.06 million which counts around 15 percent of the total cattle population (42.8 millions) in Pakistan. The statistics also shows slightly increasing production in terms of slaughtered cattle, reporting in total 52,885 in 2016. Due to the size of the overall livestock population, the available production level and potential surplus could be considered for export without having any negative socio-economic impact, such as food security at national level.

Grade: **5 points**

[7] http://www.fao.org/3/a-at525e.pdf

Export potential

In general, slaughterhouses are in very bad conditions in KPK: lack of quality, unhygienic conditions by the industry and weak inspection and enforcement by the government. Even though some workers might have heard or had some level of training in proper practices, food quality and safety remain a huge issue. However, current practices can risk also current trade partnership due to suspension for improper practices in food handling and processing.

Grade for adequate SPS and TBT measures by the industry: **0 point**

As it was indicated in the production level, there is no issue with the required volume to supply another low populated country only from one district. In case efforts are made at the provincial or national level, Pakistan could become a major player in the livestock market especially when it comes to the halal trademark.

Grade for volume for trade: **2 points**

According the Trade Development Authority of Pakistan (TDAP) the countries meat trade is declining despite of the increasing global demand. Due to the global size and demand of the halal market, Pakistan has still a lot of potential to become a major player.

Grade for national and regional competition: **4 points**

Graph 2. Calculated export price of cattle meat per kilogram

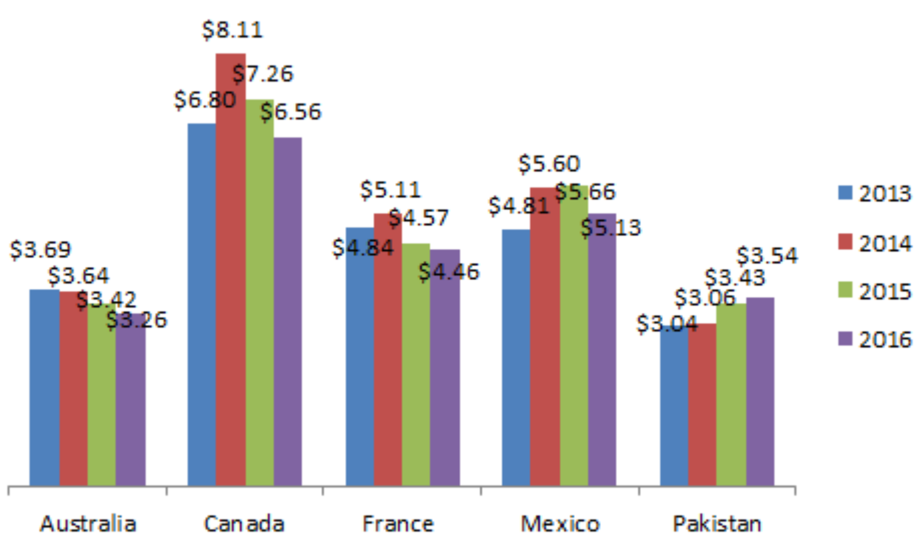

Table 5. Export quantity of cattle meat in tons

	Australia	Canada	France	Mexico	Pakistan
2013	87,981	27,535	186,015	40,131	36,658

2014	114,379	26,381	169,834	50,218	34,984
2015	100,111	22,586	166,889	59,041	44,097
2016	86,147	33,327	165,076	68,822	43,819

Source: FAO Stat

Existence of required enabling environment

Soft infrastructure:

- Local conformity assessment services (testing and certification):[8] **1 point**
- Required agricultural extension services (private or public) for the value chain: **0 point**
- Availability of required personnel for value chain operation: **0 point**
- Education center (local university or institute to train professionals for the value chain):[9] **1 point**
- Existing food safety regulatory authority (provincial or national):[10] **1 point**
- Existing laws and standards: **0 point**
- Availability of adequate proper financial and loan schemes for value chain actors: **0 point**

Hard infrastructure

- Availability of proper road infrastructure for transportation:[11] **1 point**
- In 150 km radius an equipped airport or port for cargo: **1 point**
- Availability of controlled atmosphere storage: **0 point**
- Availability of vehicle services with controlled atmospheres: **0 point**
- Existence of certified processing centers (community-based or privately owned): **0 point**

Number of female and male farmers involved in the value chain: No data available at district or provincial level

Grade: **0 point**

[8] KP Food safety & Halal Food Authority (FSHFA) will be in charge of these activities, however current conformity assessment services should be revised during the detailed value chain analysis.
[9] University of Agriculture Dera Ismail Khan; Agricultural Research Institute, Dera Ismail Khan, (established in 1958); The University of Agriculture, Peshawar-Pakistan
[10] KP FSHFA has been established to ensure quality food for human consumption. The authority will also issue licenses and conduct on the spot tests for food handlers at production units, kitchens and food outlets. The authority will conduct training programs for business operators and food handlers on safety standards, SOPs for food production, health standards and issue certifications
[11] The Karakorum highway runs from one end of the Kohistan district to the other.
Kohistan is one of the least developed districts in the country and its national significance is the Karakorum Highway. This road is the main source of trade, transportation and link between Pakistan and China.
https://www.flickr.com/photos/sarfrazh/3819745133

Potential involvement of both gender: Women involved in most of the process along the value chain in the Southern Zone of KPK, and actually mostly dominated by them in terms of percentage except for the marketing of animals, which is still considered an activity conducted by men.[12] In Pakistan and KP women are heavily involved in agriculture. According to the Labor force survey data, in 2013-14 the percentage of women employed in agriculture stood at 74 percent. This is an increase from 67 percent in 1995[13]. According to the Labour Force Survey 2014-15 the overall percentage of men employed in agriculture in 2014-2015 in KP are 48.8 % and women are 65.2 %.[14] The t In Pakistan and KP women are heavily involved in agriculture. According to the Labor force survey data, in 2013-14 the percentage of women employed in agriculture stood at 74 percent. This is an increase from 67 percent in 1995[15]. According to the Labour Force Survey 2014-15 the overall percentage of men employed in agriculture in 2014-2015 in KP are 48.8 % and women are 65.2 %.[16] The table below highlights the same information but with a rural urban breakdown. This source shows a different figure. Table below highlights the same information but with a rural urban breakdown. This source shows a different figure.

Table 6. Percentage distribution of employed person (10 years & above) by major industry division sex & area of KPK, for the year 2014-15 (age percentage)

Industry Division	All Areas			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	**101**	**83.19**	**17.81**	**82.32**	**66.14**	**16.18**	**17.80**	**16.15**	**1.65**
Agriculture, Forestry & Fishing	34.56	21.50	13.06	33.84	20.92	12.92	0.72	0.58	0.14

Women's role is usually greater in agriculture with families that are under the poverty line. Women in the northern part of KP are also involved in activities mainly livestock rearing, sowing, hoeing, transplanting, weeding , harvesting as well as threshing and winnowing.

Due to the low milk and meat yields from animals women's income is directly affected as they are mainly involved in livestock management. Women's role in production, rearing and selling of livestock was even more noticeable than that in crop production.

[12] FAO (2015) Women in Agriculture in Pakistan
[13] https://www.theigc.org/wp-content/uploads/2016/04/Kamal-Woodbury-2016-Working-paper.pdf
[14] Women and Agriculture in Pakistan Shafaq Sohail- Lums Social enterprise development centre 2014-15 retrieved from file:///C:/Documents%20and%20Settings/user/My%20Documents/Downloads/women_and_agriculture_in_pakistan.pdf
[15] https://www.theigc.org/wp-content/uploads/2016/04/Kamal-Woodbury-2016-Working-paper.pdf
[16] Women and Agriculture in Pakistan Shafaq Sohail- Lums Social enterprise development centre 2014-15 retrieved from file:///C:/Documents%20and%20Settings/user/My%20Documents/Downloads/women_and_agriculture_in_pakistan.pdf

Women play a vital role along different stages of the value chain from soil preparation to harvesting and food protection activities. They also play an important part in activities related to crop production such as sowing, rearing, transplanting and harvesting. Specific to livestock women farmers make the feed, collect fodder, clean animals and their sheds, make dung cakes, collect manure for organic fertilizers, pump milk, process, animal products and market the products[17].

Their role generally varies within the geographic location of the province. Sowing, hoeing, transplanting, weeding, harvesting, threshing and winnowing are main activities carried by women in the northern part of the province. Their role in production, rearing selling and enhancing livestock assets is highly significant. Central part of the province is more conservative and restricts women's mobility which results in their activities being restricted to post-harvest activities including husking, cleaning, grading and storage. Southern KP is dominated by livestock farming and majority of the farm households are involved and goat and cattle rearing[18].

Grade: **2 points**

Relevance to country priorities: Cattle production in KPK was not highlighted in any national strategy or policy, only in the provincial Agriculture Livestock Cooperative Policy and Strategy: A Ten Years Perspective. [19] The Centre for Applied Policy Research in Livestock has developed a policy paper called Pakistan Meat Exports: Strategizing Productivity Enhancement which focuses on the potentials for the industry.[20]

Special economic zones for halal food production have been setup in the KP province has which has export potential for at least two billion dollars of halal meat. Expert committees would identify zones for production and processing of specific food products. Youth will be trained on how to procure inputs and services in line with Islamic financing systems.[21]

The Government of KP has signed an MOU with Zhejiang Dowish Import and Export Company of China for the establishment of animal farms throughout the province and for the export of animals to China.[22]

Buffalo, cattle, sheep and goat are the major contributors in milk production in KP. It is potentially a billion dollar industry and currently the top priority of the government as well as the private sector.

[17] https://www.slideshare.net/AllahDadKhan/role-of-women-in-agriculture-in-pakistan-a-series-of-lecturesbymr-allah-dad-khan-former-director-general-agriculture-extension-kp-province-and-visiting-professor-the-university-of-agriculture-peshawar-pakistan-allahdad52gmailcom

[18] https://www.theigc.org/wp-content/uploads/2016/04/Kamal-Woodbury-2016-Working-paper.pdf

[19] http://www.fao.org/3/a-at525e.pdf

[20] http://scholarsmepub.com/wp-content/uploads/2017/06/SJBMS-25B561-567.pdf

[21] http://dairysciencepark.org.pk/wp-content/uploads/2017/01/good-governance-review-kp-1.pdf

[22] https://www.dawn.com/news/1353842

There are several multinationals operating in the region collecting milk from local farms which creates an opportunity for set up of small and large dairy farms across various locations in the province[23].

Grade: **3 point**

Existing or past technical assistance initiative for the VC in the province

The national government has completed multiple projects worth Rs 229 million in livestock and dairy development to improve the application as well as basic research to improve health and production of animal, development of potent and effective vaccines against infections/contagious livestock diseases and surveillance, diagnosis and control of such diseases. The development projects completed by the research wing of Livestock and Dairy Development Department include the introduction of Neeli Ravi and Azakhel buffaloes at livestock research and development station Surezai, Peshawar; enhancement of livestock productivity through improved research and development methodology in D.I. Khan; Up-gradation of veterinary research and diagnostic laboratory, Balogram, Swat; strengthening of veterinary research and diagnostic centre, D.I Khan; pilot project for improved milk and meat in KP through farmers' participation; preparation and evaluation of foot and mouth disease vaccine, molecular characterization of brucella species prevalent in cattle in KP, etc.[24]

A Dairy Science Park (DSP) was formed at the University of Agriculture, Peshawar, KP in 2011 and has been accepted by the United Nations. It envisions KP, Fata, Northern areas of Pakistan and the adjoining regions of Afghanistan, Tajikistan and China as a hub for livestock and poultry entrepreneurs backed by quality control, research and development and marketing support organizations in partnership with United Nations[25].

Due to the establishment of modern slaughterhouses and meat processing complexes awareness regarding food safety standards has been created. This also has had an impact on increase in local sales as well as demand for export to other countries. In this way foreign investors will be encouraged to invest in the province in this lucrative business and will help the province to enter the global market[26].

The USAID Firms Project for Livestock Policy Reforms, a national programme, worked on disease surveillance and control. The objective was to increase government's capacity to detect new diseases including control and eradication. One of the objectives was to develop business standards (infrastructure, operational hygiene, and environmental care etc.) including licensing and accreditation of business entities to undertake domestic processing. Another area was to develop a code of practice for animal welfare in markets, slaughter, transport, research, and commercial production, reflecting good commercial livestock practice[27].

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[23] http://kpkirs.com/index.php/agriculture-livestock-fisheries/
[24] https://www.dawn.com/news/776153
[25] https://sustainabledevelopment.un.org/partnership/?p=9671

[26] http://kpkirs.com/index.php/agriculture-livestock-fisheries/
[27] http://www.sedf.gos.pk/pdf/USAID%20FIRM%20PROJECTS/Livestock-Sector.pdf

Grade: **3 point**

Buffalo

Production level

According the KPK Statistical Yearbook 2015-16, the buffalo population is 2.46 million, which represents 6.7 percent of the total buffalo population (36.6 millions) in Pakistan. In terms of buffalo processing, the statistics shows constant processing of 49,698 animals per year with a slight increase since 2013-14. Accordingly down-country provinces have a larger market share within the national market. Due to the limited buffalo population compared to the national level, buffalo processing would be recommended for local sourcing.

Grade: **2 point**

Export potentials

In terms of processing practices, there is a general lack of adequate SPS and TBT practices among meat processors which should be established at the local level. Further awareness should be established from farmers to retailers.

Grade for adequate SPS and TBT measures by the industry: **0 point**

As indicated under the production level, export potentials can be very limited due to the population size of buffalos.

Grade for volume for trade: **0 point**

Since KPK is not considered a large buffalo producing and processing province at the national level, the market potentials are considered rather limited to compete. The total value of buffalo meat export might be the issue of statistical reporting or very low added value in terms of processing which create the low market price at the moment in comparison with major exporting countries.

National and regional competition: **0 point**

Table 7. Quantity vs price for major buffalo exporters plus Pakistan in 2016

	Australia	USA	Brazil	Netherlands	Pakistan

Quantity (tons)	1,225,095	1,032,491	1,176,064	427,550	327,799
Price (per kg)	$ 5.26	$ 5.62	$ 3.81	$ 5.69	$ 0.40

Source: COMTRADE, United Nations

Existence of required enabling environment

Due to the similarity of situation with other livestock related value chains, further information provided under the cattle value chain.

Soft infrastructure

- Local conformity assessment services (testing and certification): **1 point**
- Required agricultural extension services (private or public) for the value chain: **0 point**
- Availability of required personnel for value chain operation: **0 point**
- Education center (local university or institute to train professionals for the value chain): **1 point**
- Existing food safety regulatory authority (provincial or national): **1 point**
- Existing laws and standards: **0 point**
- Availability of adequate proper financial and loan schemes for value chain actors: **0 point**

Hard infrastructure:

- Availability of proper road infrastructure for transportation: **1 point**
- In 150 km radius an equipped airport or port for cargo: **1 point**
- Availability of controlled atmosphere storage: **0 point**
- Availability of vehicle services with controlled atmospheres: **0 point**
- Existence of certified processing centers (community-based or privately owned): **0 point**

Number of female and male farmers involved in the value chain: No data available at district or provincial level

Potential involvement of both gender: Women involved in most of the process along the value chain in the Southern Zone of KPK, and actually mostly dominated by them in terms of percentage except for the marketing of animals, which is still considered an activity conducted by men.[28]

Grade: **2 points**

Relevance to country priorities: Livestock investments mainly indicated under the cattle value chain.

Grade: **3 point**

Existing or past technical assistance initiative for the VC in the province

[28] FAO (2015) Women in Agriculture in Pakistan

The national government has completed multiple projects worth Rs 229 million in livestock and dairy development to improve the application as well as basic research to improve health and production of animal, development of potent and effective vaccines against infections/contagious livestock diseases and surveillance, diagnosis and control of such diseases. The development projects completed by the research wing of the Livestock and Dairy Development Department include introduction of Neeli Ravi and Azakhel buffaloes at the livestock research and development station Surezai, Peshawar; enhancement of livestock productivity through improved research and development methodology in D.I. Khan; Up-gradation of veterinary research and diagnostic laboratory, Balogram, Swat; strengthening of veterinary research and diagnostic centre, D.I Khan; pilot project for improved milk and meat in KP through farmers' participation; preparation and evaluation of foot and mouth disease vaccine, molecular characterization of brucella species prevalent in cattle in KP, etc.[29]

No international technical assistance initiative was identified which focused on goat value chain in KPK

Grade: **3 point**

Apple

Production level

34 percent of the national apple production comes from Balochistan which considered the fruit basket of the country. According the Directorate of Crops Reporting Services, Agriculture Department in Balochistan, apple was the highest produced fruit grown in the province with 527,642 tons, overtaking almond and apricot. Among the districts, Killa Saifullah has the highest production level with 261,975 tons for the year 2015-16 according the same statistics. Since Balochistan's population is 12 million inhabitants, the produced apple could be sold outside of the province without any food security issues.

Grade: **4 points**

Export potentials

In terms of application of SPS and TBT measures, the CABI project had trained thousands of beneficiaries, including farmers and technical experts on biological and SPS compliance for fresh produce supply chains. There is a high possibility that the project has also trained apple farmers, however, this information should be confirmed with the CABI project. Overall, the detailed value chain mapping will show how many producers have benefited from the training and if there is any center which still applies the required practices.

Grade: **2 points**

[29] https://www.dawn.com/news/776153

Pakistan should be considered a net apple importer since it only exported 767 tonnes in 2016 according to FAOStat but imported 78,164 tons of apples. Even though the average price was 0.43 US dollar per kilo for the imported product compared to the price for which they have sold the Pakistan which is 0.47 US dollar per kilo. Considering that the food control mechanism, particularly inspection of import products, is not well developed in the country, the quality and safety of these apples might be questioned. The current distribution of apple might have to be considered as the overall production of apple in Balochistan which was 527,642 tons in 2016. Production data should be further compared with Afghanistan and other neighboring countries during the value chain analysis.

Grade: **0 point**

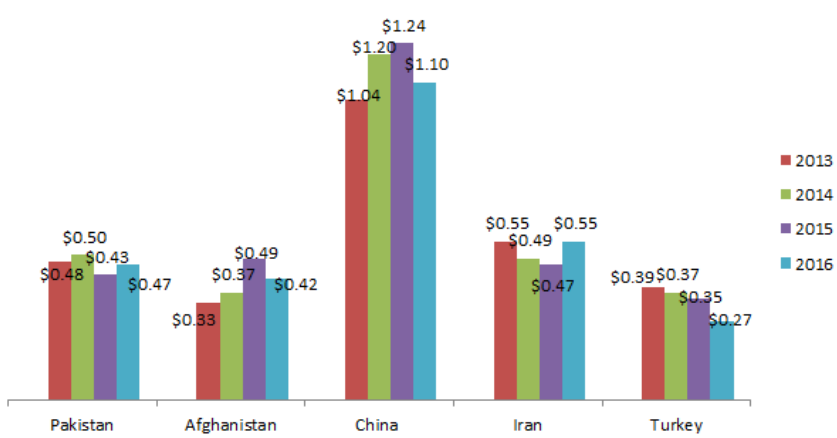
Table 8. Apple export quantity by major exporting countries and Pakistan (in tons)

Year	Pakistan	Afghanistan	China	Iran	Turkey
2013	599	31,039	1,034,924	55,214	125,682
2014	807	12,790	902,315	38,138	111,521
2015	376	32,400	875,159	74,636	142,155
2016	767	61,563	1,358,029	56,303	140,329

Since there is a wide range of different varieties of apples, each having different market price, also depending on the production techniques (organic, bio or other) and packaging , the marketing remains a huge issue when it comes to volume. Other neighboring countries already export a large volume globally and market price and quality should be competent. As graph 3 shows other countries, with the exception of China, which in reality is one of the largest apple exporters globally, Pakistan will compete with others, especially when it comes to bulk compliant and high quality products. However, huge potentials still remain within Pakistan due to the population size of the country.

Grade: **0 point**

Graph 3. Calculated export price of apple per kilogram



Source: FAOStat

Existence of enabling environment

Soft infrastructure

- Local conformity assessment services (testing and certification): **1 point**[30]
- Required agricultural extension services (private or public) for the value chain: **1 point**[31]
- Availability of required personnel for value chain operation: **0 point**
- Education center (local university or institute to train professionals for the value chain): **1**[32] **point**
- Existing food safety regulatory authority (provincial or national): **0 point**[33]
- Existing laws and standards: **0 point**
- Availability of adequate proper financial and loan schemes for value chain actors: **0 point**

Hard infrastructure:

- Availability of proper road infrastructure for transportation: **1 point**[34]
- In 150 km radius an equipped airport or port for cargo: **0 point**[35]
- Availability of controlled atmosphere storage:[36] **0 point**
- Availability of vehicle services with controlled atmospheres: **0 point**
- Existence of certified processing centers (community-based or privately owned): **0 point**

[30] Regarding the certification services, the following companies are operating currently in Pakistan: Bureau Veritas Certification (BV Certification); SGS Pakistan (Pvt.) Limited, Systems and Servicer Certification; Moody International (Pvt.) Limited; Pakistan Systems Registrar; RICCI Pakistan; CeSP (Certification Services Pakistan)

[31] Certain services are available however, the capacities should be revised.

[32] Balochistan Agriculture College Quetta, Agricultural Research Institute Turbat under the Balochistan Agricultural Research & Development

[33] Despite the Balochistan Food Authority Act being passed in 2014, the food authority is not functional until today.

[34] The National Highway N-50 connects Quetta with Dera Ismail Khan, Muslim Bagh, Killa Saifullah and Zhob via KanMehterzathe. National Highway N70 connects Killa Saifullah with Dera Ghazi Khan via Loralai. Majority of the Intra district access to various areas comprises of shingle roads

[35] The Gwadar project locates in the southern part of the country is more than 1000 km away from the main apple production areas. Balochistan province's strategic location and short access to the warm waters of the Arabian Sea opens it to various possibilities of export to the landlocked Central Asian Republics as well as warehousing facilities. There is no airway service available in the district.

[36] The Balochistan Horticulture Cooperative Society has been facilitating its members via establishment of controlled atmosphere cold storages in Balochistan. These are mainly located in Chaman, Pishin and Quetta with the capacity of 1000 tones storage36. Despite major profits from apple export the government has failed to provide any facilities at the district level and mainly these facilities are only present in Lahore, Karachi, Multan and other big cities. http://thebalochistanpoint.com/balochistan-the-fruit-basket-of-pakistan/

Number of female and male farmers involved in the value chain

Not available

Grade: **0 point**

Potential involvement of both genders

Women play an active role in horticulture related activities in district Killa Saifullah but is mostly neglected as it constrained to within the households[37]. Role of female labor is neglected in the province due to the feudal culture and tribal setup[38]. According to the Labor Force Survey 2014-15 the overall percentage of men involved in agriculture in Balochistan is 27.3% and women are 75.9%[39.] Due to the special cultural conditions, the involvement of female social organizers is inevitable to approach female beneficiaries.

In Balochistan the role of rural women in agriculture involves weeding, seed cleaning, drying and storage of crops. They are also involved in processing of food (jam, jelly, tomato ketchup etc) but play a limited role in marketing of the products due to limited mobility and access to the market[40]. As a positive case study, In Balochistan the role of rural women in agriculture involves weeding, seed cleaning, drying and storage of crops. They are also involved in processing of food (jam, jelly, tomato ketchup etc) but play a limited role in marketing of the products due to limited mobility and access to the market[41].

More value chain specific gender assessment required during the initial phase of the project.
Grade: **1 point**

Relevance to country priorities

The Balochistan Agriculture Policy and Strategy developed in 2016 is not publicly available. The website of the Government of Balochistan highlights apple as one of the major fruit value chains in the province which might indicate its importance for the local economy. No reference to apple was made in any national policy or strategy.

The Export Promotion Bureau Quetta has been organizing Apple Shows at Quetta since 1994, as a permanent calendar activity in collaboration with Department of Agriculture, Government of Balochistan[42]. Export Promotion Bureau through these shows have genereated great interest amongst

[37] http://www.ndma.gov.pk/Publications/Development%20Profile%20District%20Killa%20Saifullah.pdf
[38] http://www.balochistan.gov.pk/index.php?option=com_content&view=article&id=837&Itemid=1087
[39] https://sedc.lums.edu.pk/file/6803/download?token=E1HCFwQl
[40] http://www.fao.org/3/a-i4330e.pdf
[41] http://www.fao.org/3/a-i4330e.pdf
[42] http://www.pakistaneconomist.com/2018/02/12/lucrative-export-opportunities-balochistans-apple-dates/

the growers and exports have picked up from almost zero in 1994 - 95 to about 6000 metric tonnes during 1999-2000[43].

Grade: **2 point**

Existing or past technical assistance initiative for the VC in the province

The Centre for Agriculture and Bioscience International (CABI) is currently implementing a biological control programme funded by USAID which focuses on the most destructive insects in the province, such as apple codling moth. This in turn will allow the reduction of pre and post-harvest losses of horticultural crops. Another Food and Agricultural Organization (FAO) of the United Nations was implemented to set up community organization and address low productivity of farmers. 165 farmer field schools were implemented, also focusing on apple production. In addition, national initiatives such as the Balochistan Integrated Water Resources Management and Development Project focused on proper irrigation of crops.

The Balochistan Rural Support Organization worked in district Killa Saifullah to form an Apple production and marketing association and village organizations. The organization worked towards development in the sectors of agriculture, horticulture and livestock as well as encouraged participation of women[44].

The U.S. Department of Agriculture, Winrock International and agricultural organizations in Balochistan worked on a project for construction of cold storage's, drying tunnels and other food preservation tools in Balochistan[45.]

Grade: **5 points**

Dates

Production level

Balochistan covers 70 percent of the Pakistan's date production. Most of the date production takes place in the southern areas, particularly in Turbat, where almost 50 percent (102,522 tons) of the provincial volume (211,340 tons) produced. The national date production stood at 494,601 tons in 2016.

Grade: **5 points**

[43] http://www.pakistaneconomist.com/issue2000/issue47/i&e1.htm
[44] http://www.ndma.gov.pk/Publications/Development%20Profile%20District%20Killa%20Saifullah.pdf
[45] https://pk.usembassy.gov/united-states-announces-additional-27-million-to-feed-temporarily-displaced-people-in-pakistan/

Export potential

Former interventions have targeted the establishment of adequate practices for date value chain, such as the FAO initiative called Australian Assistance to Agricultural Development in Balochistan or Star Farm initiative by the METRO Group. No disaggregated statistical or qualitative data are available on the awareness of industry and the application of food safety and hygiene standards. However, since Pakistan exports dates also to high-end markets like the United States or the United Kingdom, they should comply with the requirements.

Grade for adequate SPS and TBT measures by the industry: **1 point**

In terms of trade volume in price, Pakistan is the world second largest exporter with US$ 126 million, covering 10% of the global trade volume. 89 percent of dates are exported to India, which is the world largest date importer, followed by Morocco. India sources 54 percent of its dates import from Pakistan and the rest mainly from Iraq (26 percent), Iran (6.8 percent) and the UAE (6.4 percent).

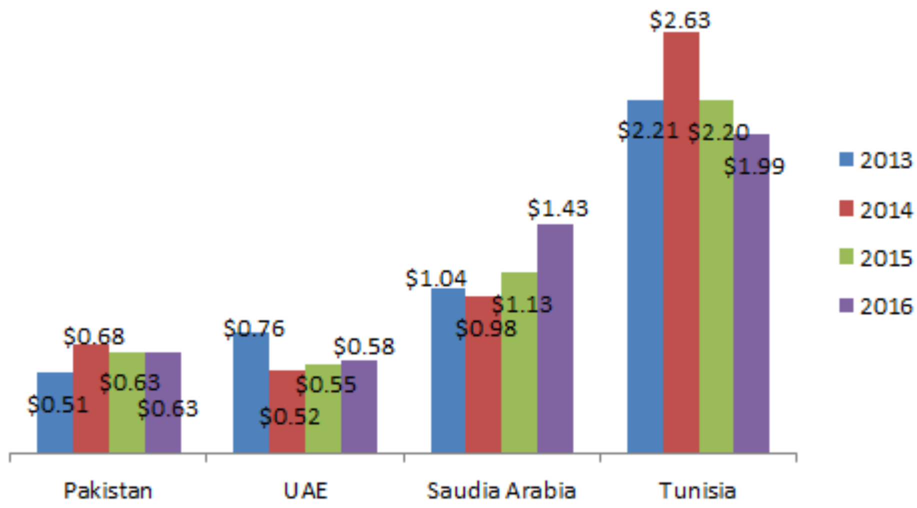
Grade for volume for trade: **5 points**[46]

70 percent of date production happens in the Balochistan, thereby there is no relevant national competition in terms of volume. At international level, graph 2 indicates the different market prices by the major importers in the globe, which does not reflect the fact that there are around 160 species of dates grown for various purposes. With regard to the price difference between the Tunisian and other dates, the former one is mostly sold on high-end markets, like the European Union or the North America, whereas the others mostly sold in Asia.

Grade for national and regional competition: **1 point**

Graph 4. Calculated export price of dates (kilogram price)

[46] Due to the size of the Indian market and Pakistan's importance as a date exporter.



Existence of required enabling environment

Soft infrastructure

- Local conformity assessment services (testing and certification): **1 point**
- Agricultural extension services (private or public): **1 point**
- Availability of required personnel for value chain operation: NA
- Education center (local university or institute to train professionals for the value chain): **1 point**[47]
- Existing food safety regulatory authority (provincial or national): **0 point**
- Existing laws and standards: **0 point**
- Availability of adequate proper financial and loan schemes for value chain actors: **0 point**

Hard infrastructure

- Availability of proper road infrastructure for transportation: **1 point**
- In 150 km radius an equipped airport or port for cargo: **1 point**[48]
- Availability of controlled atmosphere storage: **1 point**[49]
- Availability of vehicle services with controlled atmospheres: **0 point**
- Existence of certified processing centers (community-based or privately owned): **1 point**

[47] Balochistan Agriculture College Quetta, Date Research Centre, KECL, Agricultural Research Institute Turbat under the Balochistan Agricultural Research & Development

[48] Gwadar

[49] Dates need specific care during transportation of the fruit due to its sensitivity. Dhakki dates from D.I Khan or Begum Jangi from Turbat are usually transported for 7-14 hours to the big cities which requires vehicles with controlled atmospheres. Due to their non-availability cured dates are transported and the early-harvested rutab which can be sold at higher prices is not. Pakistan Agriculture and Cold Chain Development (PACCD) https://www.winrock.org/winrock-implemented-project-celebrates-successes-in-support-of-balochistan-farmers/

Number of female and male farmers

Not available

Grade: **0 point**

Potential involvement of both genders

More information provided on the role of women in Balochistan under the apple value chain. Additional value chain related gender assessment will be required during the initial phase.

Grade: **1 point**

Relevance to the country priorities

The Balochistan Agriculture Policy and Strategy developed in 2016 is not publicly available. The website of the Government of Balochistan highlights apple as one of the major fruit value chains in the province which might indicate its importance for the local economy. No reference to dates was made in any national policy or strategy. On the other hand, seeing the export volume to India, dates are definitely considered a strategic commodity.

Grade: **2 point**

Existing or past technical assistance initiative for the VC in the province

Multiple technical assistance initiatives have targeted and benefited the dates value chain in Balochistan, benefiting the private as well as the public sector. Among these programs are the Pakistan Agriculture and Cold Chain Development, the Australia Balochistan Agribusiness Prrogramme (AusABBA) program implemented by FAO or the Balochistan Small Scale Irrigation Project.

USAID Project: Successful Program for Date Farmers in Pakistan: USAID implemented a training program for date farmers SMEs and their workforce on-farm practices, food safety standards, disease management, export marketing and packaging, quality management and quality control. The farmers were provided with standardized food-grade plastic crates, date palm dryers, boom sprayers etc. The processing units were assisted with providing standardized plastic crates, cold stores, forklifts and marketing and branding material designs. The project also assisted SME's with food safety certifications and quality assurance which would help them compete in the international market.[50]
Grade: **5 points**

[50] http://www.foodjournal.pk/July-August-2012/July-August-2012-PDF/USAID-Firms-Project-dates.pdf

Results

As per the collected data and information, the table below summarizes the outcome of the assessment in the previous chapter.

Value chain	Province	District	Production level	Export potential	Existence of required enabling environment	Number of female and male farmers	Potential involvement of both genders	Relevance to country priorities	Existing or past technical assistance initiative for the VC	Total points
Peach	KPK	Swat	4	3	5	NA	2	0	5	**19**
Goats	KPK	Kohistan	4	1	5	NA	2	3	3	**18**
Cattle	KPK	D.I. Khan	5	6	5	NA	2	3	3	**24**
Buffalo	KPK	D.I. Khan	2	0	5	NA	2	3	2	**14**
Apple	Balochistan	Killa Saifullah	4	2	4	NA	1	2	5	**18**
Dates	Balochistan	Turbat	5	7	7	NA	1	2	5	**27**

In general, socio-economic quantitative data on stakeholders are very limited to measure the potential impact for the stakeholders as well as on the current SPS and TBT capacities of stakeholders. There are articles emphasizing the lacking food safety and hygiene conditions, especially at pre-processing and manufacturing level, which will hinder the value addition of products and not able to create benefits to farmers through higher market price. However, further assessment should be made during the detailed value chain assessment on the exact needs, especially to ensure the sustainability on the long-term. The limited application of food safety and hygiene certification by the agricultural sector in KPK and Balochistan show the reluctance and general misconception or non-awareness. There are some enterprises which understood the application of proper practices throughout the value chain and they are able to export their products to other markets. In addition, the availability of district level socioeconomic data, including the involvement of both gender is very limited and should be further researched during the initial phase of the project.

Even though, some comments might change the grade provided to different indicators, however, it is not expected that it will change the overall outcome of this assessment due to the production level, export potentials as well as past technical assistance to the value chains.

Based on the outcome of this initial screening, the most potential value chain is **peach, goat** and **cattle**, particularly frozen and processed meat for KPK and **dates or apples** in Balochistan.

Conclusion

As per the outcome of this initial assessment on the most potential agri-food value chains in KPK and Balochistan, peach, goat, cattle, dates and apple could be further considered for the intervention. Peach production in the Swat valley is very relevant, also in the national context, since its one third of the local productionWith regard to the goat and cattle value chains, an intervention focuses on cattle processing can be easily replicated to other livestock products in KPK. On the other hand, dates sector shows already results, by improving product quality and benefiting to farmers, however, this could be further improved through the introduction of new technologies at farm and processing level. The apple value chain shows also some potential in the local as well as international market due to its volume.

The final selection of the value chains are subject to consultation and final agreement among the project stakeholders as it was mentioned in the beginning of this document.