Agriculture Sector Plan
Sargodha Regional development Plan

The Urban Unit
Urban Sector Planning & Management Services Unit (Pvt.) Ltd.

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DISCLAIMER

Urban Sector Planning and Management Sector Unit (Pvt.) Ltd. has prepared this report on the Agriculture Development Plan of the Sargodha Division. Maximum care and caution have been observed while developing this document.

The opinions expressed in the document are solely those of the authors and publishing in any way constitutes an endorsement of the opinion by the Urban Unit.

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EXECUTIVE SUMMARY

Agriculture serves as the backbone of Pakistan's economy. Even though the share of the agricultural sector in the GDP has dropped significantly over the years, the sector continues to play a significant role in the socio-economic framework of the country. Around 60% of Pakistan's population lives in rural areas, with the majority relying on agricultural activities for a living. Similarly, Punjab shows a significant contribution to agriculture. The major crops of Punjab are wheat, cotton, rice, sugarcane, citrus, oilseed, and various fruits and vegetables. However, the Sargodha division contributes a significant share of the Punjab agriculture production. In recent years, the yield of most crops and livestock products in Pakistan suffers from a downward trend. Furthermore, large gaps in productivity persist in most crops, diversification and a shift to higher value-added agricultural commodities have been limited, particularly in the crops sector. Increasing water shortage, decreasing soil fertility, degradation in water quality, and constraints on expanding agriculture areas, contribute to lower yields and production. With limited policy and financial support, the transition from cash crops with low crop diversification to the production of high-value commodities is challenging. Despite this extensive network and favorable growing conditions, productivity remains a challenge. Similarly, livestock productivity, preventive health standards, and quality are below world benchmarks. Feed shortage, limited knowledge of farmers in livestock production, the poor genetic potential of indigenous cattle breeds, disease, and land shortage are the main constraints affecting livestock production. The reasons are not only linked with the genetic potential of the breeds but with wider market issues as well.

Several interventions were introduced by the Government over the past few years for productivity enhancement. However, these interventions could not result in a significant increase in productivity. One of the main reasons for the failure of such interventions is not focusing on the comparative advantage of each area/zone and the value chain development approach. Therefore, all major and high-value crops will be cultivated in specific zones is the main focus of the plan. In such zones targeted infrastructural support will be provided to enhance agriculture and livestock productivity. This regional plan of agriculture development aims to improve the agricultural infrastructure and knowledge exchange by ensuring a zoning and value chain approach.

The Sargodha region plan focuses on the productivity enhancement of the agriculture and livestock sector. A detailed agriculture and livestock sectors diversification and transformation plan has been provided to transform subsistence agriculture into high-value export-oriented agriculture. It is designed to ensure integrated planning that aims to structurally transform Sargodha into an economically developed region. This plan measures the performance of the agriculture and livestock sector using the primary and secondary approaches.

The Sargodha division faces severe productivity, inefficiency and other problems like the water availability at farms is inadequate due to wastage and inefficient use, caused by a lack of modern water distribution infrastructure. This results in low productivity despite the potentially favorable soils in the division. Also, the rural population, the backbone of the agriculture sector, is comprised mainly of smallholding, poor farmers who lack access to modern farming methods, machinery, transportation, storage facilities, electricity, inputs, and improved seeds. In addition, low-value addition in agriculture produce especially in high-value crops has prevailed**.** Moreover, the market system of the division is inefficient due to the markets are located in isolation and are not within reach of the farmers.

Similarly, pulses crops have been largely neglected by research, development, and extension services in Pakistan over the last three decades compared with major crops such as wheat, cotton, rice, and sugarcane. Evidence of this neglect is relatively small pulses breeding programs, poor distribution of certified pulses seed, lack of pulses production technologies and mechanization, and the pushing of pulses production towards marginal areas with no irrigation facilities. Pulses crops are relatively drought-resistant crops and can survive in the drought conditions but current varieties are largely unimproved and are prone to climate-related diseases and insect/pest attacks. These factors have resulted in the decline in area, yield, and therefore the production of pulses crops. With increasing domestic consumption, this reduction in production has led to a gap in demand and supply. Pakistan has a significant dependence on imports to meet domestic consumption needs.

To address the problems, the identification and specification of the cluster/zone for each crop based on the agroecological zone are recommended to increase and sustain productivity. As a result, 19 crops out of 50 are recommended for the Sargodha region based on agroecological conditions, production, yield & values. After the identification of these 19 crops, we proposed interventions to develop a complete value chain for

these crops starting from the provision of the certified seed to, specialized extension services, quality inputs, mechanization, packaging, storage, transport, harvest, post-harvest management, and market development. Proposed interventions are consulted with relative stakeholders such as the Extension and Research wings of the Agriculture Department and other stakeholders. To optimize the agricultural value chain, interventions are linked with the crop zones/cluster. These interventions are incentive-based; the farmers for the adoption of only the selected 19 crops in the Sargodha region will be incentivized. To this end, high-value cropping zones have been identified in the Sargodha region that can lead to maximizing yield per area of land utilized.

The proposed investment projects include both the ADP ongoing and new projects with few that need to increase the scale of the ongoing projects. These projects are divided into different phases, projects will prioritize according to the value chain components. For example, the provision of the certified seed is the first phase, the second phase would be the provision of the cold storage and processing industry. Because each phase is linked with the completion of the previous phase, there is a need for prioritization based on their relative order in the value chain.

INTRODUCTION

The agriculture sector contributes 19.2% to the GDP and generates 38.5% of the employment of Punjab's Labour force. This sector comprises crops, livestock, fishing, and forestry. Important crops in Pakistan include wheat, rice, sugarcane, cotton, and maize. Together, these crops account for 25.6 percent of the value-added in overall agriculture and 5.4 percent of GDP. The major crops occupy approximately 80 percent of the total cropped area. Notable minor crops include gram, oilseeds, pulses, onion, potatoes, and tobacco, and they account for 11.6 percent of the value-added in overall agriculture. Chickpeas (gram), mung bean, lentil, and mash bean are the major pulses grown in Pakistan. Chickpea is the largest Rabi pulse crop, accounting for 76 percent of the total production of pulses in the country (GOP 2016). Pulses play an important role in the nutritional security of a large number of people across the world. They are a major source of protein in many developing countries, especially among the poorer section of the population who rely on vegetable sources for their protein and energy requirements (FAO, 2005). Also, Punjab, the most populous province, accounts for an Agriculture contribution of 21% of GDP and employs 47% of the workforce. However, the agriculture sector of Pakistan and Punjab as well suffers from low productivity due to poor quality and inadequate agriculture inputs, poor farm management practices, limited availability of key agriculture inputs to the subsistence farmers due to limited knowledge, and high cost, and limited accessibility. Small farmers are unable to make use of modern machinery due to their poor economic conditions and high cost of technology. Although large farms do use machinery and equipment, they are unable to match international production standards. Therefore, the share of agriculture in total GDP has been declining since independence in 1947. Agriculture contributed more than 50 percent to GDP in the 1970s. Moreover, compared to major crops, livestock had a smaller contribution in the 1970s.

Livestock comprises cattle, buffalo, sheep, goats, camels, horses, mules, poultry, and their products. Over the years livestock has emerged as the largest subsector in agriculture. The sector contributed 60.1 % to the agriculture value addition and 11.5 % to the GDP during FY2021 (Pakistan Economic Survey, 2020-21). More than 8 million rural families are engaged in livestock production and derive more than 35-40 % of their income from this source. According to FAO Statistics, Pakistan ranks 2nd in buffalo population in the world and ranks 4th in total Livestock population. Moreover, Pakistan stands at rank 12th in cattle milk production and 4th in goat population. In the prevailing situation, the need of the hour can be to develop the livestock sector as per international standards to cater to the meat and milk demands of the rapidly growing population of the country. With this motive, the initial step must be to identify the core issues/problems of the livestock farmers so that they can contribute better to the livestock sector by adopting the latest and up-to-date production and management practices.

PROBLEMS IN AGRICULTURE AND LIVESTOCK

Agriculture is the backbone of Punjab's economy. However, the growth of the Agricultural sector has been constrained by shrinking arable land, climate change, water shortages, and large-scale population and labor shift from rural to urban areas. Another source of concern for crops is the high cost of inputs such as fertilizers, pesticides, and seeds. Early generation seeds are scarce, and preliminary research is insufficient to create new varieties that can withstand pests, diseases, and climatological pressures.

Figure 1 below shows the yield comparison of some important crops in the Sargodha region as compared to progressive farmers and international best yields. Despite some progress, however, a huge productivity gap has been observed in all crops as compared with the world average. It is also observed that the gap

between progressive farmers of Punjab and Punjab Average is also very high that showing potential otherwise.

This reflects upon the goal of enhanced agricultural productivity which could be achieved in the entire Sargodha Division by making huge investments to improve agricultural research and extensions systems, accelerate diffusion and adoption of the latest agricultural and irrigation technologies and improve inputs use, irrigation water management, and reclamation and drainage to increase productivity in the proposed crops.

Figure 1: *YIELD COMPARISONS (MUND/ACRE)*

Source: FAO and Crop Reporting Service

Figure 2 below shows the productivity gap of some milking and meat animals in the Sargodha division as compared to progressive and international best yields. Milking animals, as well as milk yield, play an important role in enhancing milk production. It is also observed that milking buffaloes yield a greater potential of a liter per day while the exotic cattle show the maximum productivity respectively. In short, the cattle milk and meat potential are higher internationally. In contrast to the international market, camel milk and buffalo meat show the maximum productivity gap in the Sargodha Division. This sheds a light on the past when milk yield augmentation had been practiced through artificial insemination, which had a very diminutive impact on milk production. Milk yield can be raised only through genetic advancement and cross-breeding of cattle with high-yielding exotic breeds.

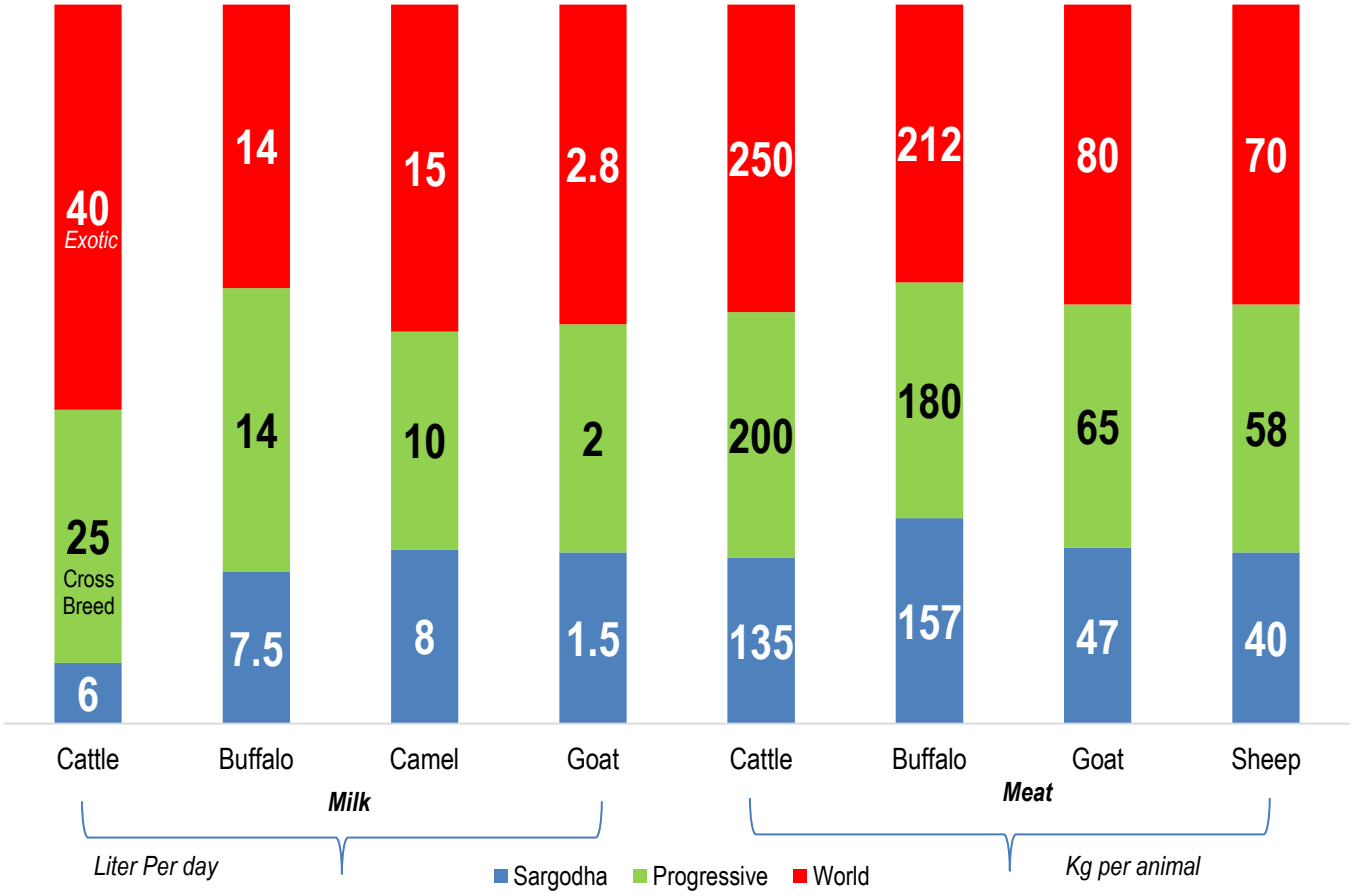


Figure 2: *PRODUCTIVITY GAP*

Source: Field Survey, FAO, State Department USA, PIDE

ENABLING THE BUSINESS OF AGRICULTURE

Enabling the Business of Agriculture assists policymakers in assessing the agricultural regulatory environment. The study by (World Bank, 2019) investigates whether government-designed regulations and processes help or hinder domestic farmers' agricultural activities. It provides the components that track performance and identify impediments to agricultural market integration and innovation. The study uses eight indicators using a broad dimension of agriculture data. Enabling the business of Agriculture score strongly links to broader development outcomes. Countries with better regulation, as measured by enabling the business of agriculture, have on average lower poverty rates. It suggests that the efficiency gains from higher productivity translate to better incomes for farmers and more employment opportunities for the rural population. However, Pakistan stands at the 68th position out of a total of 101 countries as shown in figure 3, and needs to improve the enabling environment about the enabling environment for faster growth of the agriculture sector.

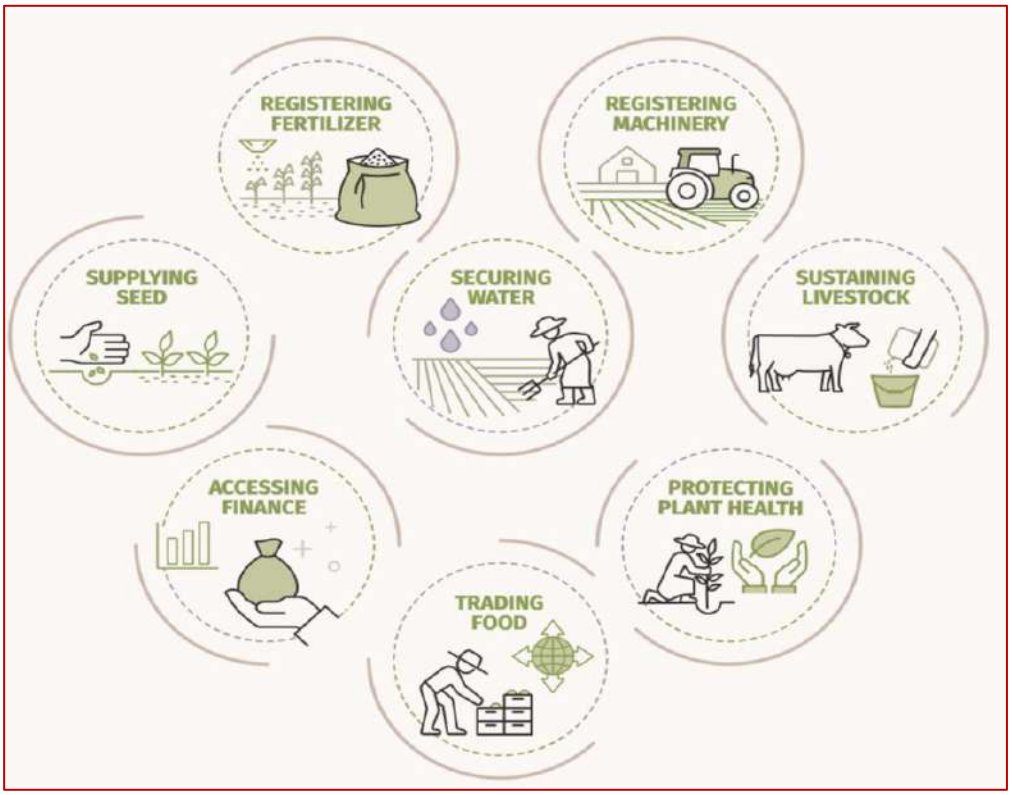


Figure 3: *ENABLING THE BUSINESS OF, AGRICULTURE INDICATORS*

Source: Enabling the Business of Agriculture 2019

RANKING	COUNTRY	SCORE
1	France	93.7
2	Croatia	92.68
3	Czech Republic	92.32
4	Hungary	91.77
5	Spain	91.71
12	Brazil	75.25
55	Malaysia	51.68
57	Mexico	69.46
40	India	62.23
99	Vietnam	61.41
68	**Pakistan**	**48.87**

Figure 4: *ENABLING THE BUSINESS OF AGRICULTURE*

Source: Enabling the Business of Agriculture 2019

GLOBAL WATER PRODUCTIVITY GAP

The next problem of water availability is associated with the agriculture sector which is of immense importance. Water is essential for irrigation in agricultural production and has been a hot issue in recent times, not only in Pakistan but also all over the world as the shortage of water can affect the national economy very badly. Pakistan has one of the largest irrigation systems in the world with more than fifty million acres of irrigated land but unfortunately, water productivity in Pakistan as well as in Punjab is very low.

It is evident in Figure 5, in which water productivity in Punjab is compared with two other countries India and the USA. Therefore, improving water efficiency is going to be a critical initiative to drive agriculture sector growth in Punjab.

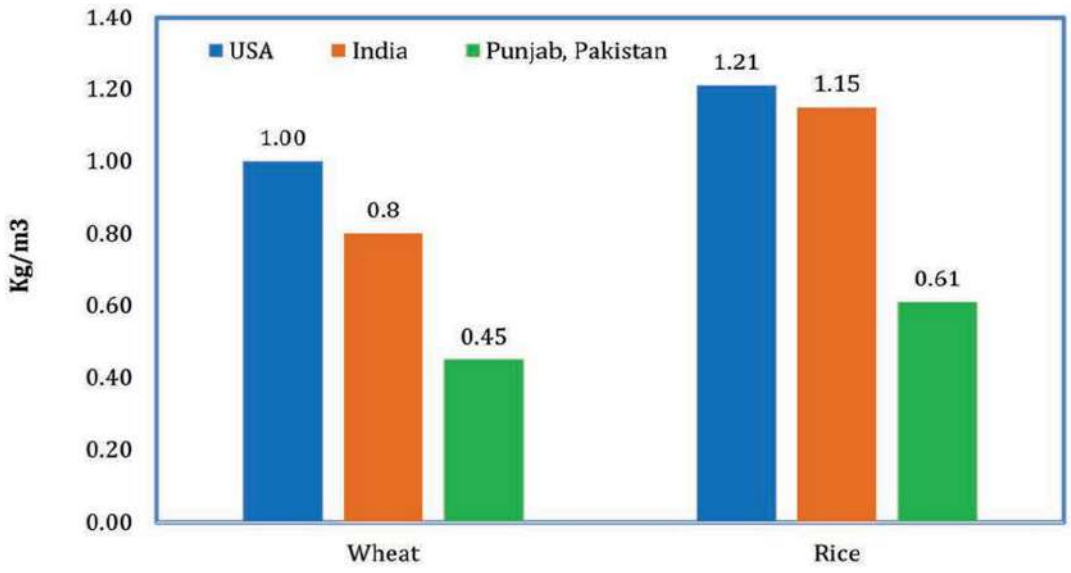


Figure 5: *GLOBAL WATER PRODUCTIVITY GAP*

Source: Agriculture Sector Plan 2015

TOTAL FACTOR PRODUCTIVITY GAP

Total Factor Productivity (TFP) in agriculture is currently the lowest in the region; and, it has been declining since the 1980s which is regarded as the golden period of Pakistan's agriculture. It is not only low and declining because of the large variations across regions and the size of farms while TFP has been stagnant. However, the growth is directly linked with greater input use rather than technological change or modern practices. Factors contributing to this decline include a lack of new seed varieties, the resistance of pests to existing pesticides, stagnant irrigation methods, decreasing soil health resulting from poor farming practices, as well as deficiencies and imbalances in fertilizer use, and a failure to leave the land fallow.

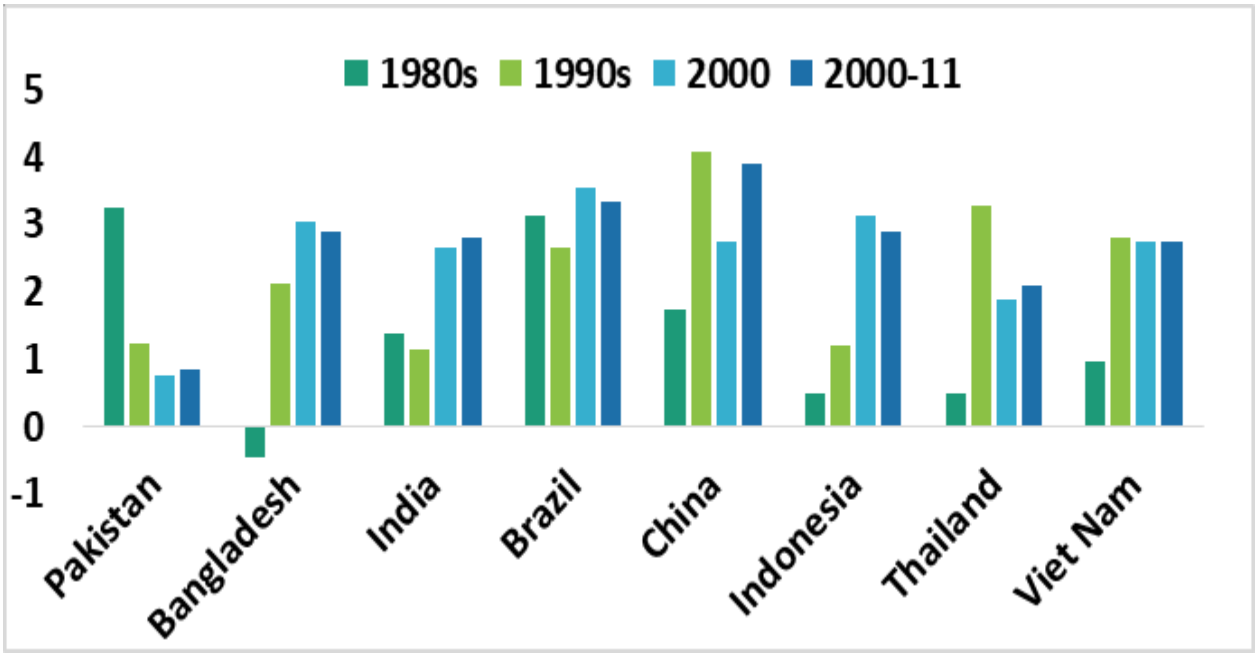


Figure 6: *TOTAL FACTOR PRODUCTIVITY SINCE THE 1980S*

Source: Agriculture Sector Plan 2015

AGRICULTURE, FORESTRY, AND FISHING, VALUE-ADDED PER WORKER (CONSTANT 2015 US$) - PAKISTAN, SOUTH ASIA

A measure of agricultural productivity is agriculture value added per worker. In agriculture, value-added is defined as the output of the agricultural sector less the value of intermediate inputs. Agriculture includes the value added by forestry, hunting, and fishing, as also crop cultivation and livestock farming. Argentina ranks first in the world in terms of agricultural value-added per worker. Argentina's agriculture value added per worker in 2019 was 2.76 million US dollars, accounting for 50.19 percent of global agriculture value added per worker. The top five countries (Iceland, Canada, Singapore, and Norway are the others) account for 58.52 percent of it. However, In 2019, the total agricultural value-added per worker was estimated to be 5.5 million US dollars. In addition, South Asia's agriculture value added per worker in 2019 was 1.99 million US dollars while that of Pakistan's agriculture value added per worker was 2.63 million US dollars 2019.

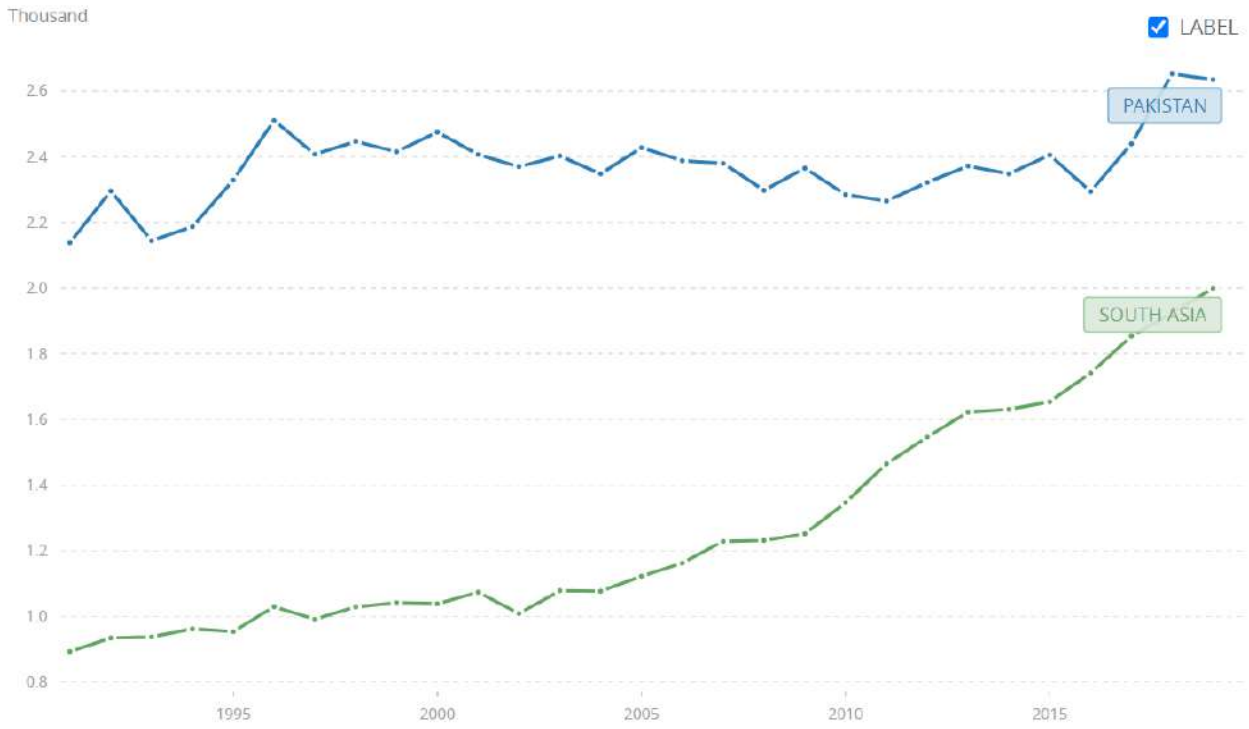


Figure 7: *VALUE ADDED PER WORKER, (CONSTANT 2015 US$)*

Source: World Bank

Table 1: VALUE ADDED PER WORKER, (CONSTANT 2015 US$)

Country	Most Recent Year (2019)
Pakistan	2,634.47
South Asia	1,998.93

AGRICULTURE, FORESTRY, AND FISHING, VALUE ADDED PER WORKER (CONSTANT 2015 US$) - PAKISTAN, BRAZIL

The comparison of agriculture, forestry, and fishing shows that Brazil's agriculture value added per worker in 2019 was 9.99 million US dollars while that of Pakistan's agriculture value added per worker was 2.63 million US dollars 2019.

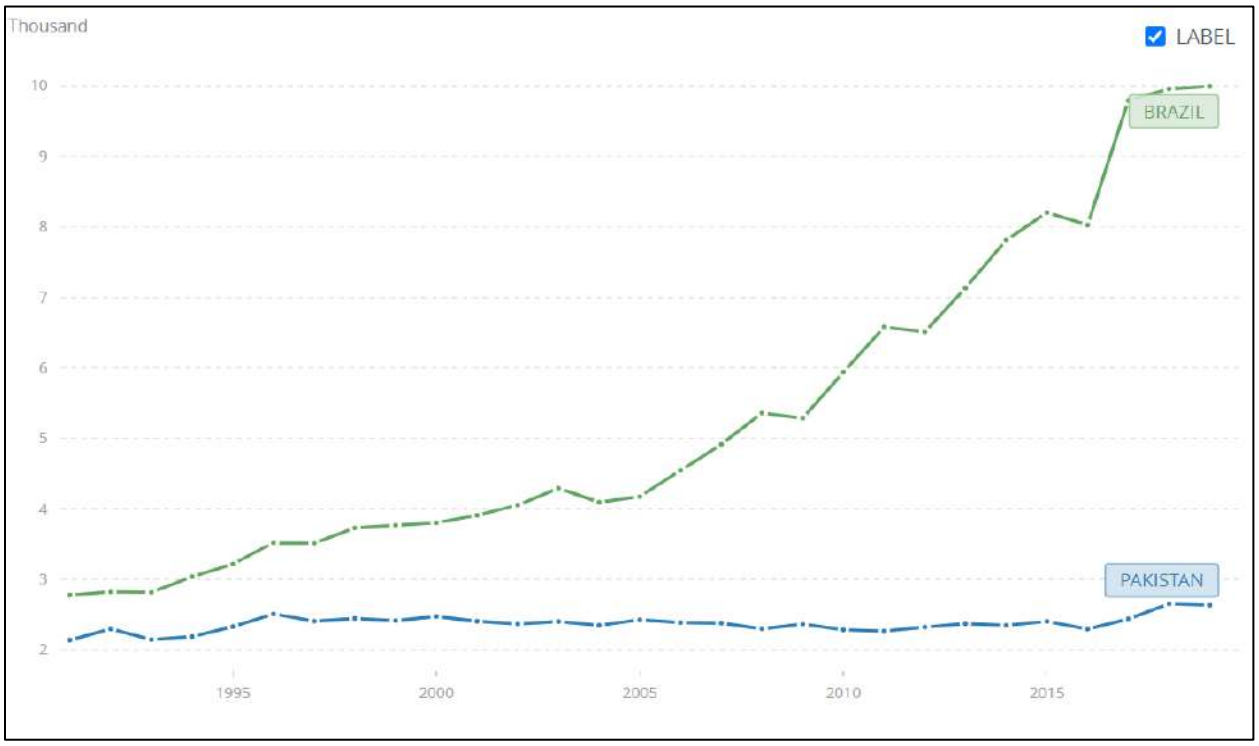


Figure 8: *VALUE ADDED PER WORKER, (CONSTANT 2015 US$)*

Source: World Bank

Table 2: VALUE ADDED PER WORKER, (CONSTANT 2015 US$)

Country	Most Recent Year (2019)
Pakistan	2,634.47
Brazil	9,992.42

AGRICULTURE, FORESTRY, AND FISHING, VALUE-ADDED PER WORKER (CONSTANT 2015 US$) - PAKISTAN, INDIA

The comparison shows that India's agriculture value added per worker in 2019 was 2.07 million US dollars while that of Pakistan's agriculture value added per worker was 2.63 million US dollars 2019.

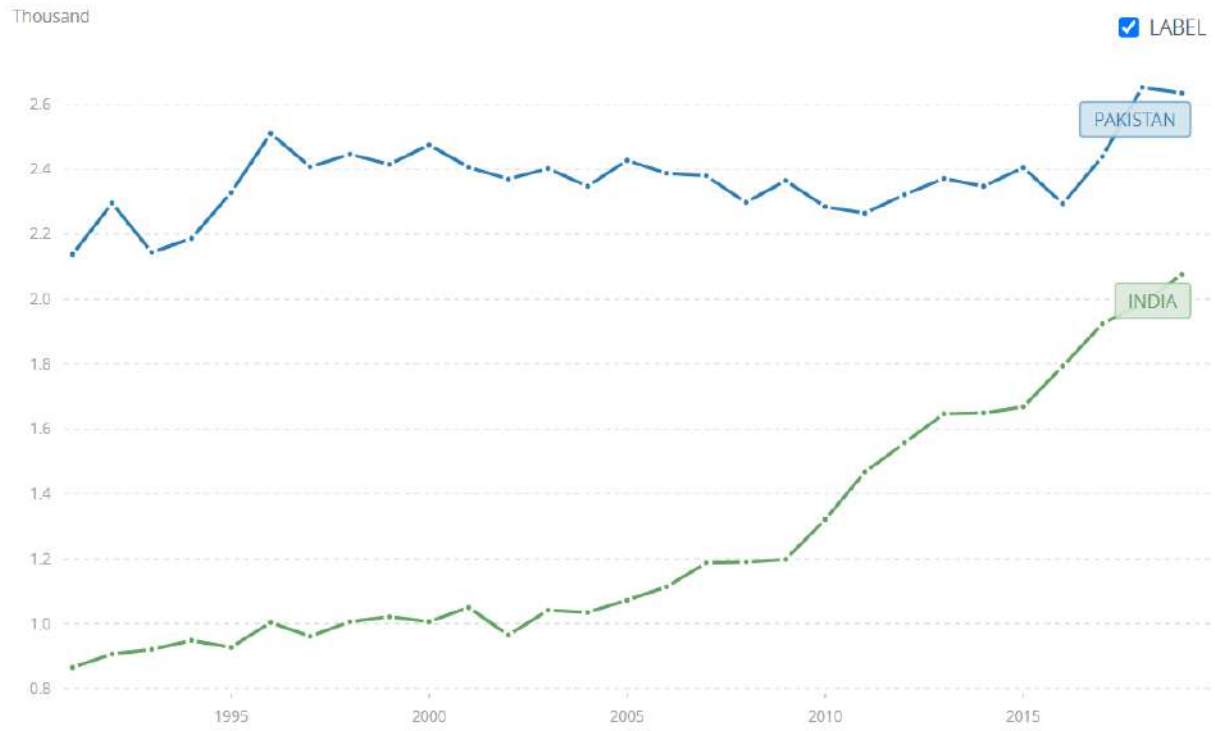


Figure 9: *VALUE ADDED PER WORKER, (CONSTANT 2015 US$)*

Source: World Bank

Table 3: VALUE ADDED PER WORKER, (CONSTANT 2015 US$)

Country	Most Recent Year (2019)
Pakistan	2,634.47
India	2,075.83

AGRICULTURE, FORESTRY, AND FISHING, VALUE-ADDED PER WORKER (CONSTANT 2015 US$) - PAKISTAN, TURKEY

It has been observed that Turkey's agriculture value added per worker in 2019 was 12.3 million US dollars in comparison to Pakistan's agriculture value added per worker was 2.63 million US dollars 2019.

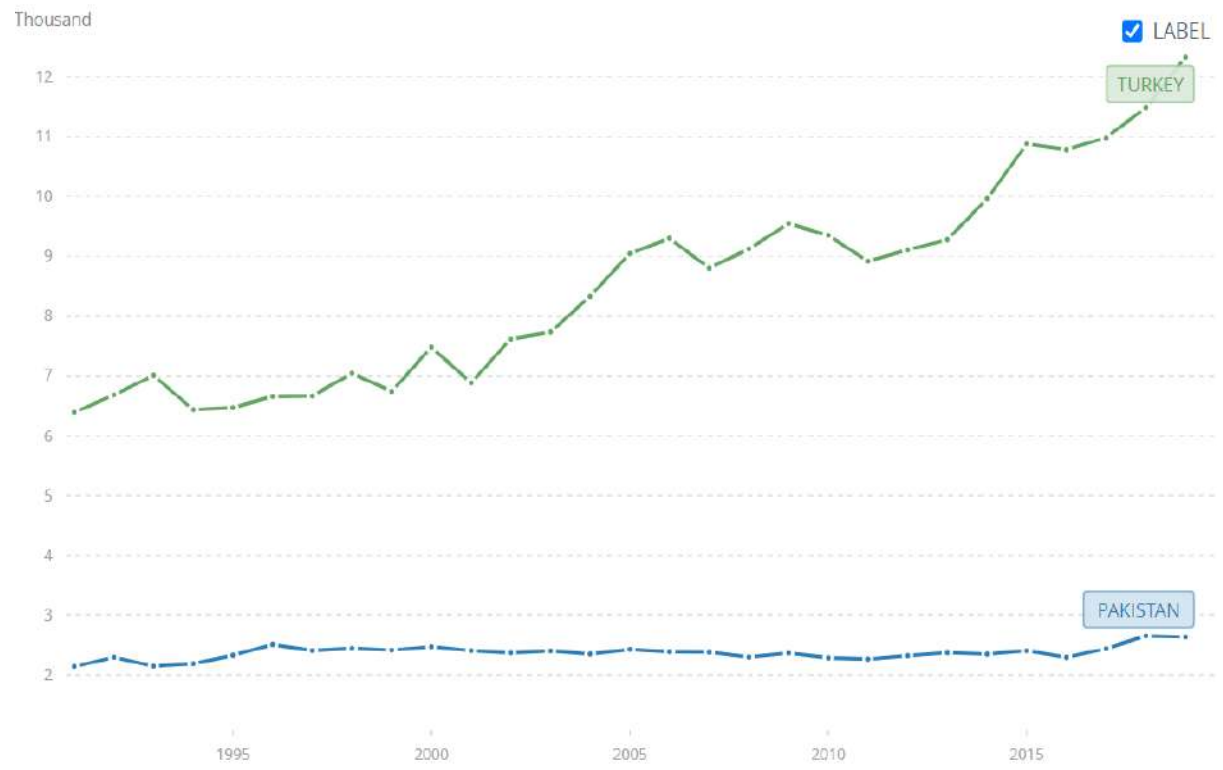


Figure 10: *VALUE ADDED PER WORKER, (CONSTANT 2015 US$)*

Source: World Bank

Table 4: VALUE ADDED PER WORKER, (CONSTANT 2015 US$)

Country	Most Recent Year (2019)
Pakistan	2,634.47
Turkey	12,336.58

AGRICULTURE, FORESTRY, AND FISHING, VALUE-ADDED PER WORKER (CONSTANT 2015 US$) - PAKISTAN, CHINA

The graph below shows that China's agriculture value added per worker in 2019 was 5.60 million US dollars while that of Pakistan's agriculture value added per worker was 2.63 million US dollars 2019.

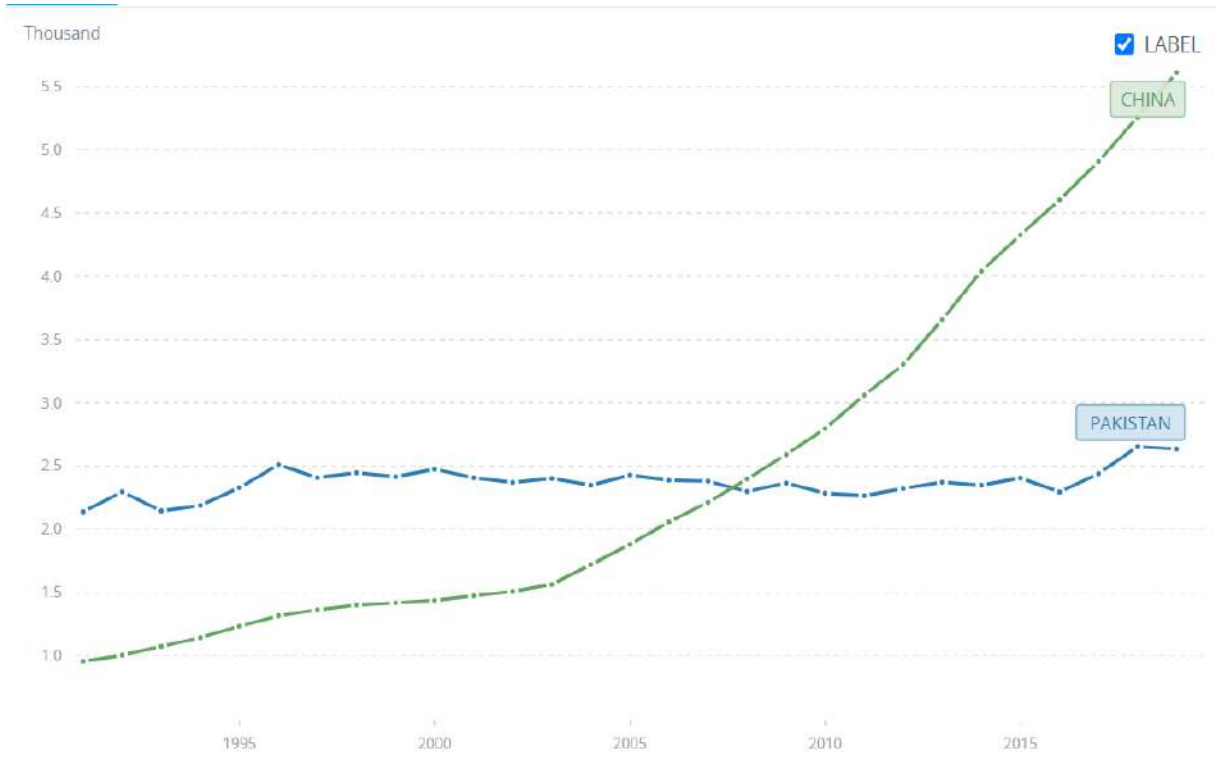


Figure 11: *VALUE ADDED PER WORKER, (CONSTANT 2015 US$)*

Source: World Bank

Table 5: VALUE ADDED PER WORKER, (CONSTANT 2015 US$)

Country	Most Recent Year (2019)
Pakistan	2,634.47
China	5,609.01

STAGNANT LIVESTOCK PRODUCTIVITY

The yield comparison of milking cows (Kgs Per Lactation period) of the World and Pakistan has been shown in figure 12 below. Pakistan production is only **5.4%** (while the share of Sargodha is almost negligible), of the world's total production, and only gets **55%** of the potential yield in comparison to the world. The Share of Pakistan in the milk trade is only **0.4%**. Therefore, the gap in the yield of the Milking animals exhibits the need for interventions like; Breed improvement, Demand-driven applied research, Disease-free compartments, Provision of FMD vaccination, Market-based price mechanism, Milk and Meat Processing Units, etc. to increase productivity and exports substantially.

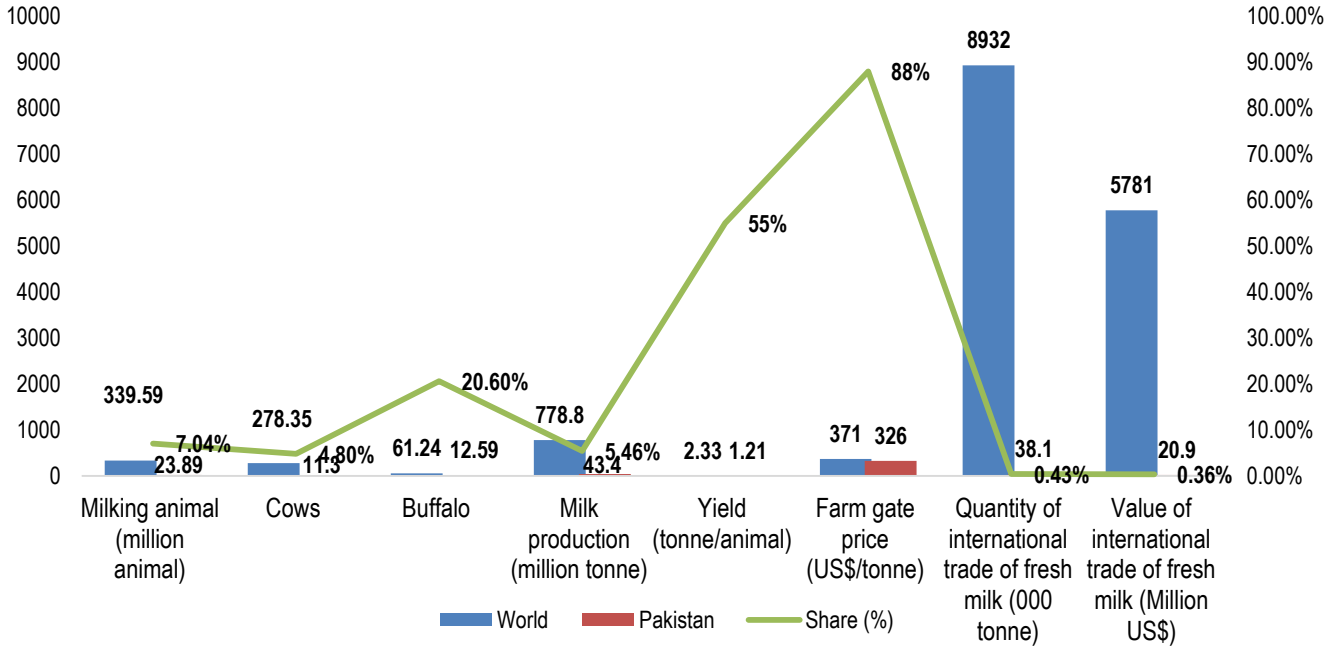


Figure 12: *MILK COMPARISON WITH THE WORLD*

Source: Urban Unit

Figure 13 below shows the beef comparison between Pakistan and the World. The urbanization, economic growth, industrialization as well as eating pattern increases per capita meat which raised higher demand for meat and allied products. From statistics, it can be seen that Pakistan is only **2.68%** of the world's total production while having the **7th** Largest population in the world. In addition to it, the share of Pakistan in the Beef trade is only **0.06%**.

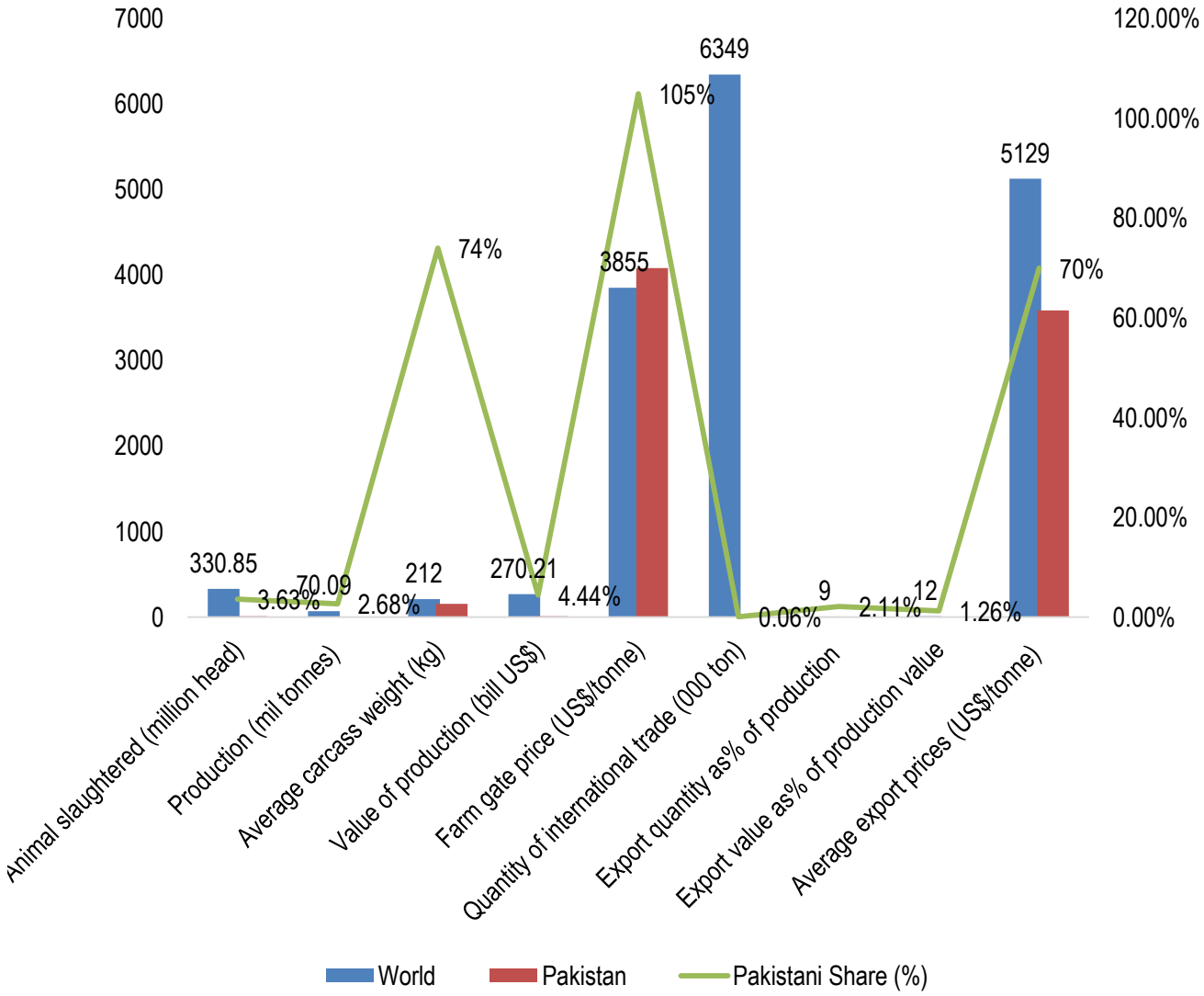


Figure 13: *BEEF COMPARISON WITH THE WORLD*

Source: Urban Unit

Yet, demand for healthy animals, healthy husbandry practices, and proper feeding schemes can improve the livestock sector and Pakistan has the potential to earn capital by investing in this sector to meet the demand both locally and globally. Moreover, Pakistan has the potential to become a mainstream international participant the in red meat industry and can significantly contribute to the global halal red meat trade. Prevailing, both government and private sector are focusing on *long-run* policies and developing projects to bring quality Red meat with improved nutritional value and also reduce wastage of by-products with minimizing environmental pollution.

ISSUES AND CHALLENGES OF AGRICULTURE

The problems highlighted above about the global water productivity, factor productivity, and stagnant livestock productivity described that the agricultural sector is critical to the growth of the economy, food security, job creation, and poverty alleviation, especially in rural areas. Therefore, increased agricultural productivity is central to sustainable economic growth, alleviating poverty, and ensuring food security.

All the above factors have lowered Pakistan's competitiveness in international markets. Although lower farmgate prices in Pakistan do give some comparative advantage to the traders, these lower prices are generally due to the low quality of the produce. Improving the quality of agricultural produce to international standards is the greatest challenge to improving Pakistan's competitiveness in national and international markets

In addition, factors that hold back progress in the agriculture sector also include the inefficient distribution of irrigation water and lack of effective clusters of high-value crops, absence of timely adoption of new strategies and technology, policy distortions, and inadequate market development. Accordingly, various other issues and challenges to the agriculture sector (specifically for Saargodha) have been highlighted below:

Inputs

- Quality inputs are either not available or costly
- Mostly dependence on costly imported seed and fertilizers
- Lack of QA

Diversification

- Low diversification (only 3 % area under high-value crops)
- No mechanism and support system

Value Addition

- Limited processing, storage, and logistic capacity
- Focusing on traditional crops only

Markets

- Inefficient agriculture markets and operating framework
- Lack of markets for fruits, vegetables, and oilseed crops

Natural Resource Productivity

- Poor practices depleting natural resources
- Low land and water productivity

Human Capital

- Inadequate investment in human capital and obsoleted farm methods/techniques

Land Holding

- 80 % small farmers (< 7.5 acres landholding)
- Less focus on export & foreign markets due to scalability issues

Land Development

- A major chunk of land is uncultivated due to the high cost of land development and water scarcity

Water Management

- The inefficient water system, dearth of water near-desert areas and villages on tails

LIVESTOCK ISSUES AND CHALLENGES

Livestock, which accounts for 60.07 percent of agricultural output and 11.53 percent of GDP, grew by 3.06 percent (Pakistan Economic Survey, 2020-21). The fishing sector expanded by 0.73 percent, with a share of 2.01 percent in agricultural value addition and 0.39 percent in GDP, while the forestry sector grew by 1.42 percent, with a share of 2.10 percent in agriculture and 0.40 percent in GDP. The issues and challenges faced by the livestock are discussed below:

Farm Productivity:
Inadequate quality of feed, breeding & nutrition services and labs and R&D facilities

Farm Management:
Poor farming practices & scarcity of medical and extension services, lack of institutional coordination and poor input & financial accessibility

Value Addition:
Low processing & preservation mechanism, lack of product innovation and low product quality & human resource management

Markets:
Low standards, lack of certification, inefficient price mechanism, limited access to the global market and under developed supply chain

Disease Spread:
Costly imported and low quality of **vaccination** cause high spread of disease such as **FMD, mastitis**

Inefficient Nutrition:
*Inadequate quality of **feed & nutrition** services and labs and R&D facilities*

COMPREHENSIVE AGRICULTURE TRANSFORMATION PLAN

Keeping in view the problems, the Government needs to focus simultaneously on three broad strategies, the first one being to identify the potential areas for each crop and make clusters/zone of each crop and provide all facilities and specialized support systems for each crop in cluster/zone particular to their needs. It will increase efficiency in the system (efficient use of resources like land, labor, water, inputs) and facilitate government to easily manage the whole value chain of each crop (management of inputs, extension services, technology, R & D, and providing subsidy).

Secondly, gradually shift crop-mix patterns from low-value crops to high-value crops by identifying potential areas of those crops. In this regard, identify some potential crops from high-value crops on a priority basis for the next five years and to develop a complete value chain for those crops. Crops such as Citrus, and Onion, are identified based on profitability; demand; high potential for value addition; export, and comparative advantage in international markets for the upcoming five years ultimately resulting in the growth of the agriculture sector in Punjab. Lastly, the yield of major and other crops (other horticulture, food grain, oilseed, and minor crops) can be increased so that the production is achieved from a limited area and hence the remaining area is optimally utilized to produce high-value crops.

Punjab spatial strategy is a long-term spatial development framework for the province of Punjab, across all sectors including agriculture, livestock, irrigation, food, forestry, industries, environment, urban planning, and social development. The strategy aims to ensure integrated spatial planning by identifying the comparative advantage of each area that will structurally transform Punjab into an economically developed region.

Furthermore, in PSS a comprehensive agriculture transformation plan was prepared which focuses on the comparative advantage of each region/division of Punjab. In this regard, the Urban Unit has been given the task to devise a comprehensive agriculture development plan for the Sargodha region which covers detailed agriculture and livestock plan by value chain of each potential/identified crop of the region.

REGIONAL PLANNING (SCOPE OF WORK)

The agriculture sector is one of the most important sectors of the economy of Punjab; an increase in agricultural productivity will make a massive contribution to increasing the growth rate of Punjab's economy. However, there is no spatial lens through which development projects can be assessed and evaluated for the targeted economic growth. Therefore, the Punjab Spatial Strategy focuses on the potential for economic growth in the agriculture of the province.

Considering the Punjab Spatial Strategy framework, the agriculture sector of Punjab must reposition itself to transform the agriculture sector in the province of Punjab to increase crop productivity, bring the additional uncultivated area under cultivation and improve the crop mix to create maximum value addition in the province to contribute towards inclusive economic growth. This would be done by transforming the farmers of Punjab into progressive farmers, equipping them with state-of-the-art support and knowledge, providing them with quality and timely inputs as well as creating an enabling environment.

This work will be to develop and validate agro-ecological conditions and socio-economic profiling of agriculture and livestock sectors of the region focused on;

a. Assessment of physical environment (land cover, geology, natural resources, climate and meteorology, hydrology, population, land use, community social structure, etc) to determine optimal cropping pattern for intensification
b. Cropping pattern identification with yield, price, cost of production, profit per acre, etc
c. Proposed cropping pattern for intensification
d. Identification of problems in the product-level value chain (seed to market), resource, and financial constraints.
e. Proposing solutions and interventions at each stage of the value chain to enhance production and exports
f. Focusing on exportable surplus and finding value propositions for interventions leading to economic growth in the area
g. Water availability and utilization assessments for natural resource preservation
h. Economic activities (livestock and agro-based industries, employment, and labor market) assessments.

i. Key facilities assessments (agricultural markets, farm mechanization, breeding and seeding facilities, etc) for infrastructure and policy interventions

Therefore, the regional development plan for Sargodha Division focuses on the need to change our current cropping pattern from low-value crops to high-value crops. So that farmer income is increased and the agriculture sector may flourish. This is achieved by making clusters of these high-value crops in the areas where we have a comparative advantage with respect to yield and productivity as well as suitable ecological conditions.

SARGODHA AGRICULTURE SECTOR PLAN

VISION

The vision is driven by elaborating the policy areas, targets, key actions, and stakeholders in the Sargodha division. The Agriculture Development Plan in the Sargodha region focuses on;

"Efficient use of resources to enhance productivity and generate value addition in agriculture through improving the regional and country positioning in terms of attractiveness and competitiveness by leveraging existing natural endowments for the economic wellbeing of people, especially rural communities"

OBJECTIVES

The main objectives of the regional plan for the agriculture and livestock sector are:

1. Enhance the competitive position of the agriculture sector to capture global demand and cater to domestic demand through the modernization of traditional agriculture practices.
2. Ensure food security by improving food quantity, quality, and nutrition diversity through higher yields and better crop mix and also increasing farmer profitability.
3. Enhance sustainability and resilience in the wake of climate changes by conserving agricultural resources through efficient use of land & water.
4. Strengthen and promote private sector participation in agriculture value chains with increased investment, technology infusion, and resource management.
5. Improving breed development, on-farm mechanisms, medical facilities, and providing high-quality nutritional feed for enhanced productivity.
6. Contribute towards poverty alleviation and economic development of the province through the provision of an enabling environment and farmer support services in the livestock sector
7. Incorporating modern processing technologies to move towards high value-added meat and dairy products.
8. Strengthen local markets and price mechanisms and increase accessibility to the international market by adopting international standards and certification.

POLICY FOCUS AREAS IN AGRICULTURE AND LIVESTOCK

To achieve the above-stated objectives, the following policy focus areas should be adopted strictly to increase the income of the farmer, improve their standard of living and bring overall development to the rural areas.

- Low productivity to high productivity (Lessening the productivity gap in all crops, livestock)
- Identify the potential areas for each crop and make a cluster/zone of each crop
- Provide all ancillary facilities and specialized support systems for each crop in the cluster/zone.
- Gradually shift crop-mix pattern from low-value crops to high-value crops (identifying potential crops from high-value crops on a priority basis for the next five years).
- Wasteful use of water to efficient use of water and develop 24 agriculture corridors along 24 main canals and focus on integrated rural development in these corridors.
- All Departments coordinate and implement integrated action plans by using the maximum agriculture potential.

To achieve sustainable development of livestock, dairy, and meat processing sectors in the Sargodha region, the following major policy areas are prioritized:

- Spatial zoning of the province for livestock production based on the locational advantages
- Nutritional values of soil, environmental and ecological conditions of each area shall be done
- And particular support services are provided for feed, fodder, silage, breeding, nursing, and disease control
- The area-specific coverage and results of extension services are also worked upon
- Supply chain management in the dairy, poultry, and meat sectors is improved and developed
- Market distortions are removed by implementing minimum farm-gate prices for milk and meat producers
- Capacity building of farmers (livestock producers) along with the institutional capacity building to address the market gaps across the value chain shall also be ensured
- R&D for breeding, disease control, and establishment of Disease-Free-Compartments
- Earmarking Areas for livestock processing industries in Industrial Zones and Estates

METHODOLOGY

This section provides detail about the methodology used for the analysis.

Field Data Collection

Preliminary meetings

Once the data collection forms were finalized the planning team of Agriculture and Livestock was to initiate the data collection process in the field. First, a meeting was held with the Direction Extension Agriculture Sargodha to discuss the field data collection work plan. In this regard, all District wise officials were notified. The duties were assigned and a briefing was given to these officials about their role in data collection and field visits. The agriculture & livestock team discussed the general development issues of the agriculture and livestock sectors with the relevant stakeholders and notes were recorded.

Sources of Data

a) Macro-data: Relevant macro data were collected from various published and unpublished reports of government and non-governmental organizations and internet searches. The macro data used in this regional development plan of Sargodha are overtime area, production, yield, and wholesale values of the commodity at provincial, national, and international levels, overtime import, and export quantity, and major importing and exporting countries of the world. The list of published data sources normally includes FAOSTAT data on crop and livestock production, trade of crop and livestock, and population, Agriculture Statistics of Statistics data on regional and national area and production of crops, animal numbers, prices, imports and export, provincial Crop Reporting Sections, Publications of Directorate of the commodity in research institute mainly on production costs, internet on input, machinery and equipment costs, processed and unprocessed output prices, etc.

b) Stakeholders Consultations: Primary information about production and processing costs and margins, gaps and potential in supply and demand of a commodity, possible interventions to improve productivity and processing, and their potentials were collected through meetings and

consultations, key informant interviews, surveys, and focus group discussions using open-ended questionnaires. Efforts were made to consult wide-ranging stakeholders along the whole value chain.

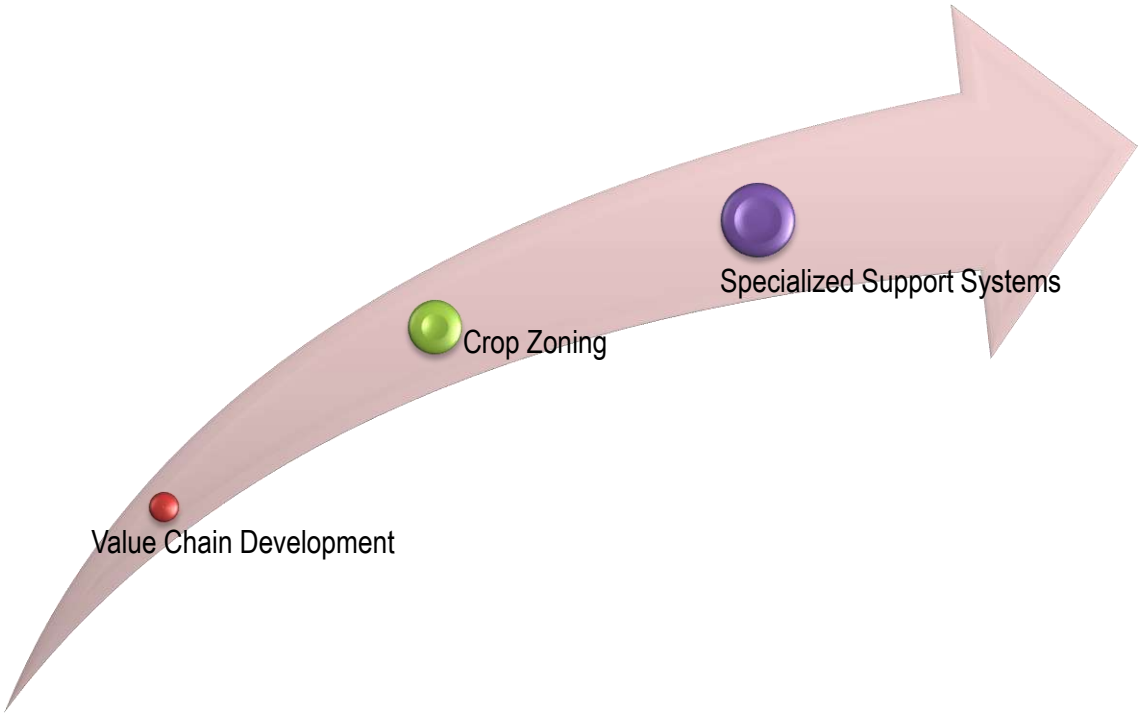
c) Literature: The literature and development projects (current and in the past) related to the functioning, gaps, and interventions in each assigned commodity value chain were reviewed and synthesized.

Data Analysis

Once the team collected the data, all of the information was then discussed and analyzed. The data was cleaned, integrated, and rechecked if any gaps were found in the collected data. Additional information was gathered from Agriculture and Livestock departments via email and telephone conversations. Based on the information collected in the field, the descriptive maps for the proposed Rabi and Kharif crops based on agro-ecological conditions were developed. Further analysis was then produced by the Agriculture and Livestock team.

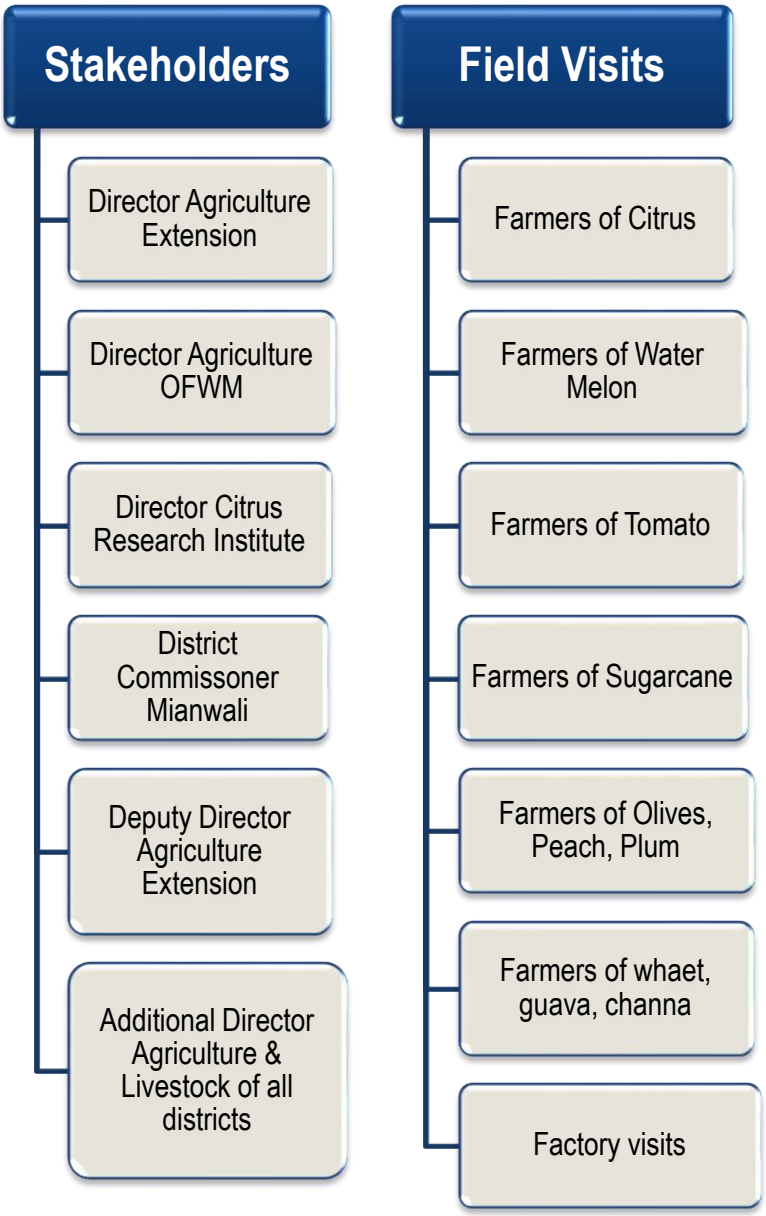
Identified Potential Crops in Sargodha Division

The potential crops in the Sargodha Division exhibit the importance of Value Chain Development through Crop Zoning and Specialized Support Systems which are considered the key strategies to improve the productivity and profitability of the region. It can be seen that 56% of Punjab Citrus produce is from Sargodha. 70% of Canola and 81% of Guar seed of Punjab production is from the Sargodha Division. In addition to it, Peach & Olives are the newly identified high-value crops as recommended by the Research Institutes.



The following steps of the methodology involve:

a. **Desk Research**: Review of existing documents, datasets, and reports on agriculture.
b. **Stakeholders Consultation / Field Visit:** Next step, after the collection and review of secondary data, involved the ground trotting of the data and quality assessment of agriculture and livestock facilities through field visits/ stakeholder consultation. The stakeholders involved are the following:

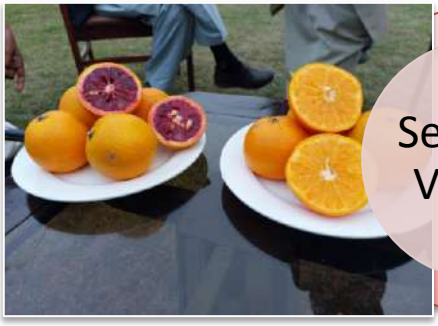


c. Rapid Assessments – Field Visits

The Urban Unit Agriculture & Livestock sector teams visited the Sargodha division during two visits in February 2022

Meeting with Director Extension and Additional Directors

Water irrigation system

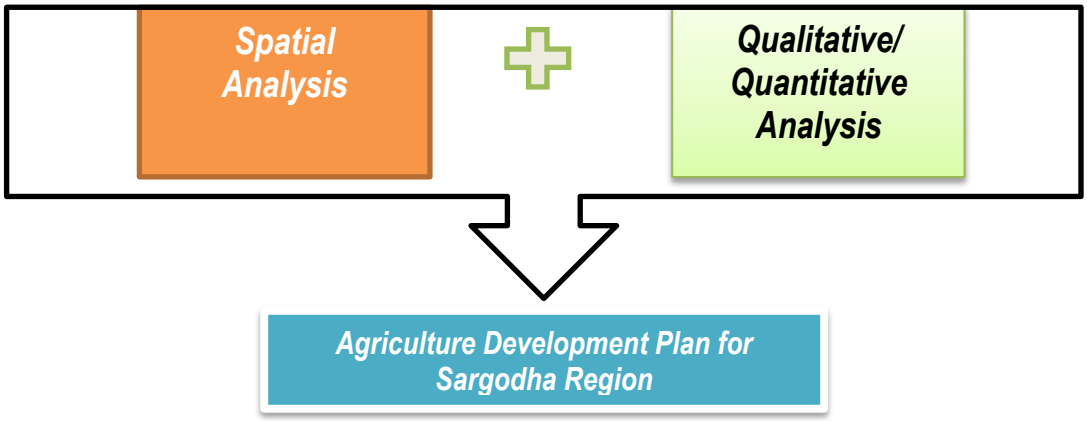


Seedless Variety

Meeting with Director Citrus Research Institute

d. **Report Writing:** The final step will be a write-up of the Agriculture and Livestock Sector on the Sargodha Regional Plan.

All these steps would entail the following level of analysis:



SARGODHA AGRICULTURE SNAPSHOT

PRODUCTION

The production of major crops like Citrus, Sugarbeet, Canola, Moong, Gram, and Guar seed shows that 56% of Punjab's Citrus production is from the Sargodha division, 68% of Sugarbeet, 70% of Punjab's Canola production, 67% of Punjab's Moong and Gram and 81% of Punjab's Guar seed are from the Sargodha Division. Keeping in view the performance of the Sargodha division, the government should give a specialized support system and improve technology for the high-value crops so that the overall production is increased with minimal utilization of input factors such as land, water, and labor. Based on the existing pattern of crops, it is visible that the Sargodha region is of immense importance and can provide significant production of these crops.

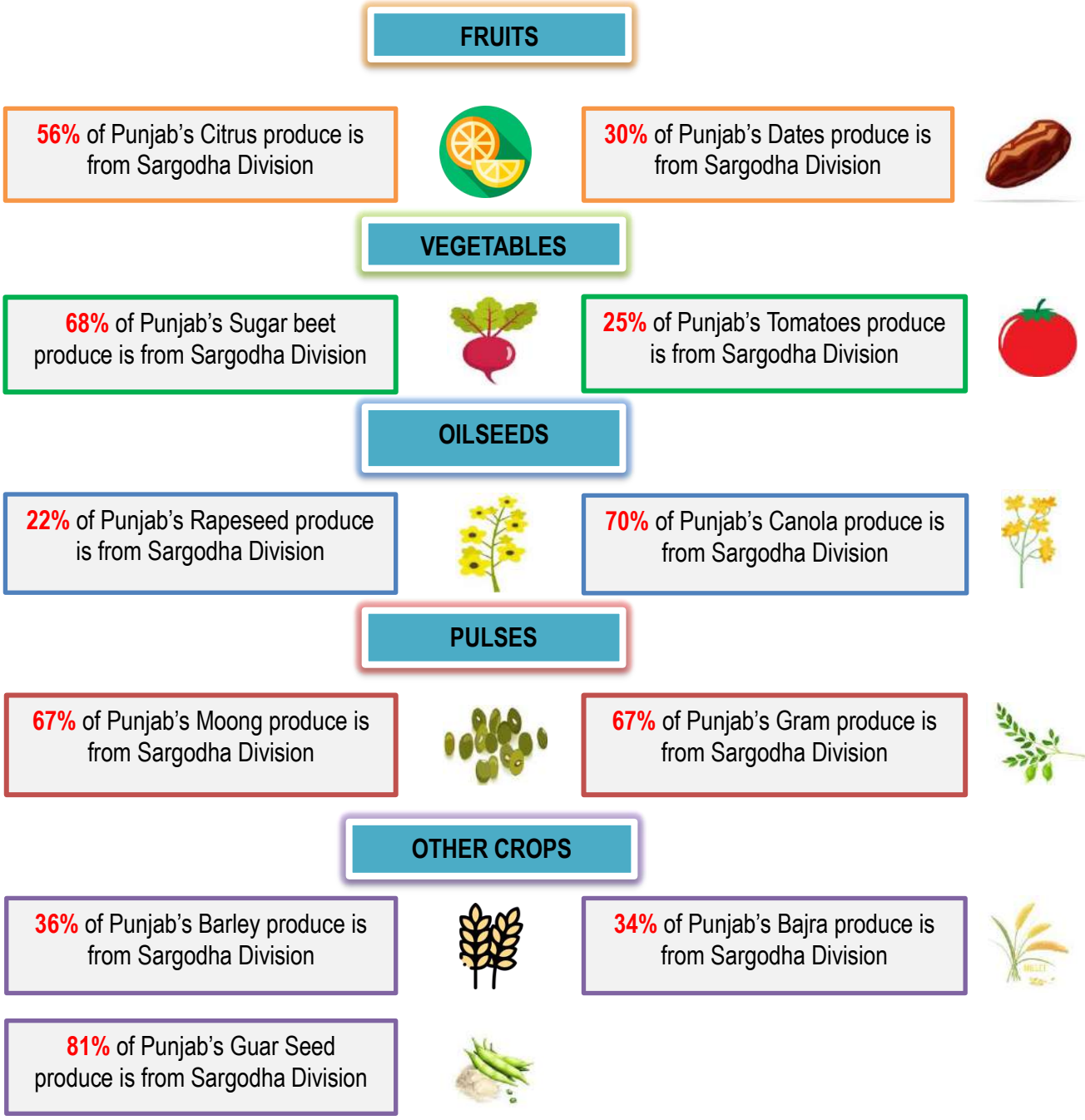


Figure 14: *POTENTIAL CROPS IN SARGODHA DIVISION*

Source: Crop Reporting Service

YIELD

The factors like plough and rotavator, planking, irrigation, seed type & treatment, urea fertilizer, farmyard manure, latest varieties & certified seed, weed spray, diseases, and pests' sprays are found as contributing factors towards higher yield of all crops while the soil type, excessive seed rate, weeds, diseases, and pests attack negatively influence the yield of crops. Despite the unbalanced quantities of input, the yields of crops in the Sargodha region exhibit an important contribution as seen below. Tomatoes yield is higher than Punjab's yield in Sargodha and Mianwali districts, and Citrus khushab and Mianwali indicate a higher yield than Punjab's yield. Thus, the production and yield of the Sargodha division show a significant contribution to the agriculture sector.

*Greater **Tomatoes** yield in Sargodha & Mianwali than Punjab's Yield*

*Greater **Citrus** yield in Khushab & Mianwali than Punjab's Yield*

CURRENT CROPPING PATTERN

The current Rabi cropping pattern of the Sargodha Division is given in figure 15. The value per acre of crops and the area of each crop are shown in the figure below. It shows that 31 crops are being sown in this season from which wheat, gram, and citrus are produced significantly. Wheat is the major crop of this division of the Rabi season and is cultivated on 1.8 million acres whereas the total area of this region accounts for 3.2 million acres of land. Also, it is revealed that currently most of the area cultivated is under low-value crops whereas, the area under cultivation of high-value crops is negligible. That is why the Sargodha Division is getting only Rs. 38,360/ acre output in Rabi despite having rich recourses of land, water (ground & surface), and labor in this region.

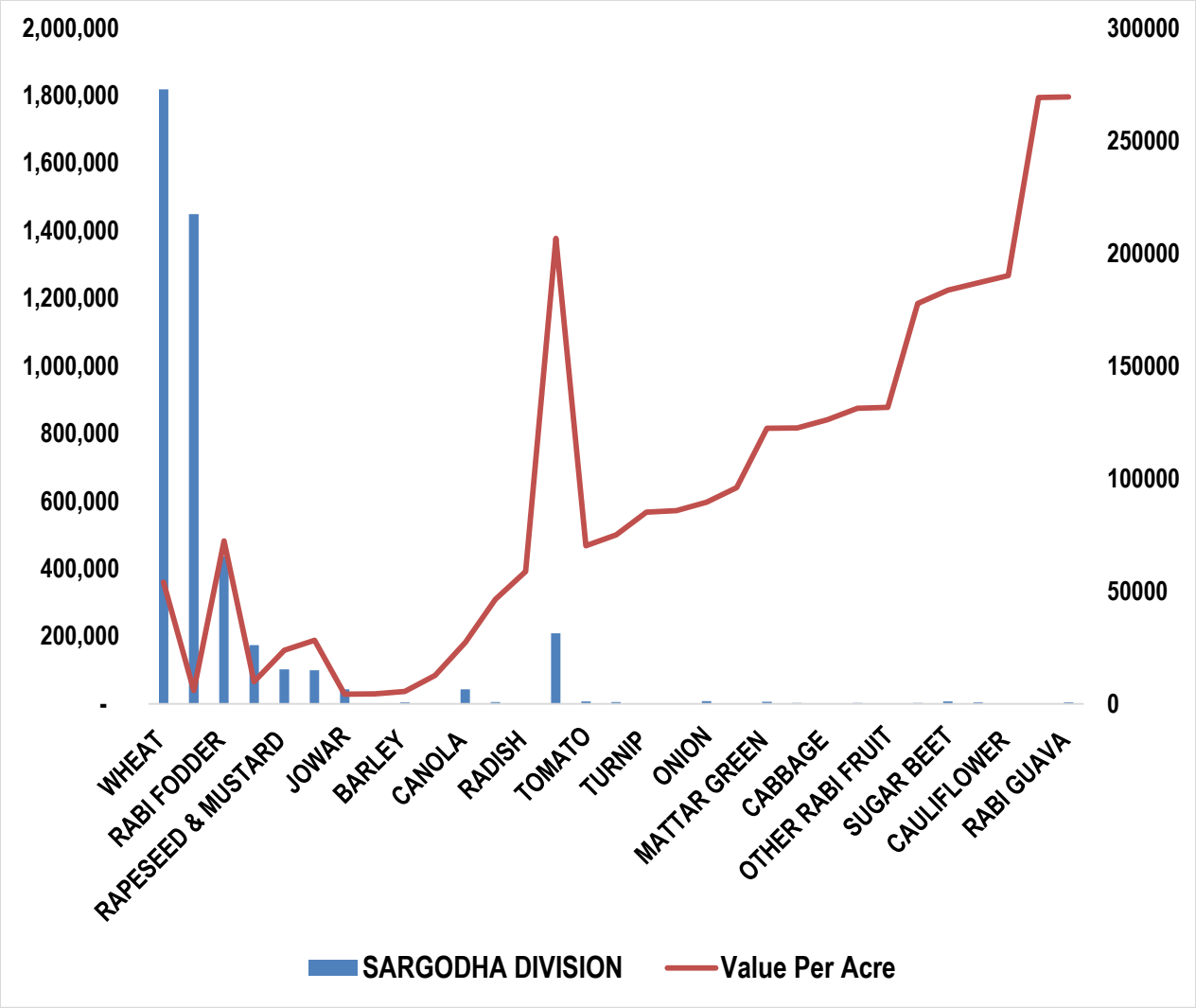


Figure 15: *CURRENT CROPPING PATTERN IN RABI*

Source: Crop Reporting Service

Figure 16 below shows the current Kharif cropping pattern. In this season 20 crops are sown of which Sugarcane, Fodder, and Moong show a significant contribution. The Sargodha Division is getting only Rs. 21,276/ acre output in Kharif season despite having rich recourses of land, water (ground & surface), and labor in this region.

Consequently, the current cropping pattern needs to shift towards high-value crops. This needs to be done in a proper scientific manner by identifying the agroecological condition, the suitable crops of that region, and the development of the value chain. Although, there is a great agricultural potential available in the division such potential has not been fully identified, and that requires thorough investigations/study. This

gap can easily be bridged by plugging in the loophole in the existing supply chain of agriculture products with a specialized support system. It can be achieved by identifying the potential for diversification in agriculture and identifying the constraints hindering production enhancement and increase in profitability. Therefore, based on agroecological conditions, some of the crops are proposed that will achieve the stipulated goals, effectively.

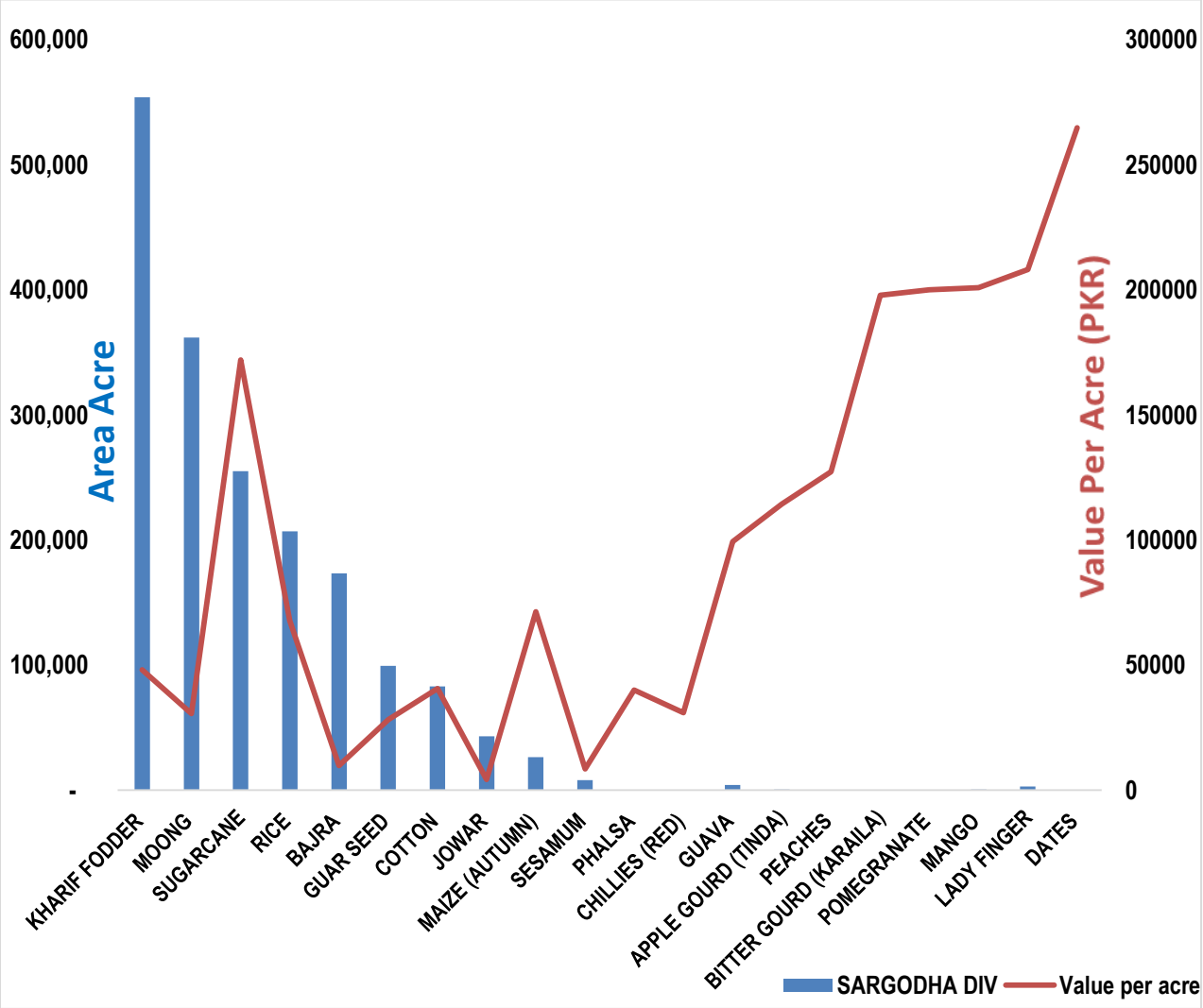


Figure 16: *CURRENT CROPPING PATTERN IN KHARIF*

Source: Crop Reporting Service

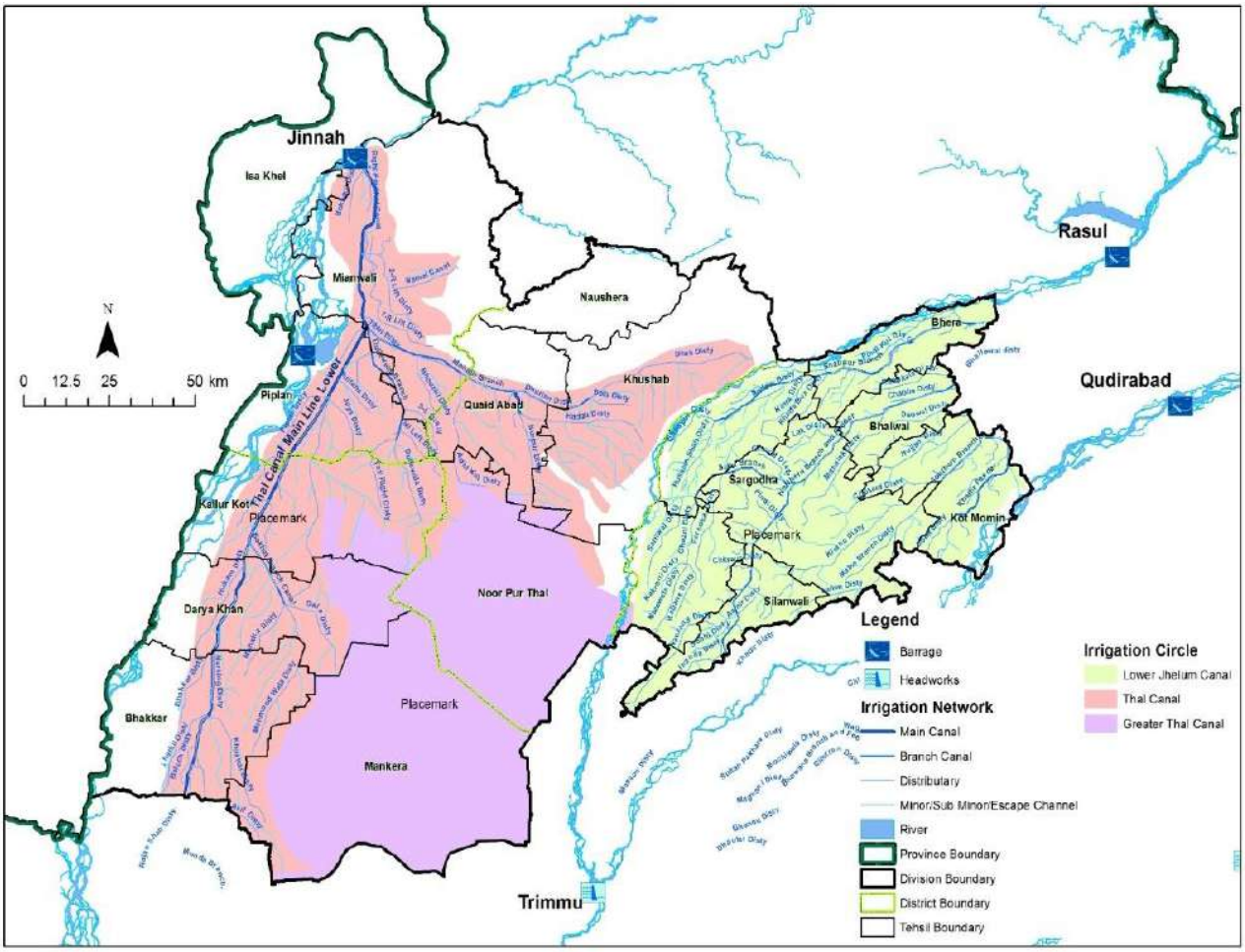
INEFFICIENT WATER MANAGEMENT & POOR GROUNDWATER SUITABILITY

The Sargodha Irrigation Zone consists of three canal circles namely:

- Lower Jhelum Canal
- Thal Canal
- Greater Thal Canal

The map below describes that the Surface water availability (1.6 feet/acre) is comparatively high as compared to the Punjab average (2.24) but the efficiency is very low due to conveyance & field application losses (Water efficiency is only 54 %). Considering the watercourses, out of 7,201 watercourses, 40% need to be improved to increase conveyance efficiency. Due to this, 30-40% of farmers (villages at Tail and Mid-Tail) in the division did not receive canal water or get only 50 % of the allocated amount whereas 40% of villages have unfit groundwater for crops.

The total water availability is very low because the canal system is inefficient due to which there is an improper distribution of water. This further elaborates to focus on proposing innovative interventions for maximizing water efficiency. Crops with high yield and low water usage should be preferred. More importantly, it is essential to spatially conserve water to provide irrigation to areas, which require more water. Therefore, water efficiency needs to be further prioritized in the Sargodha division to meet international standards.

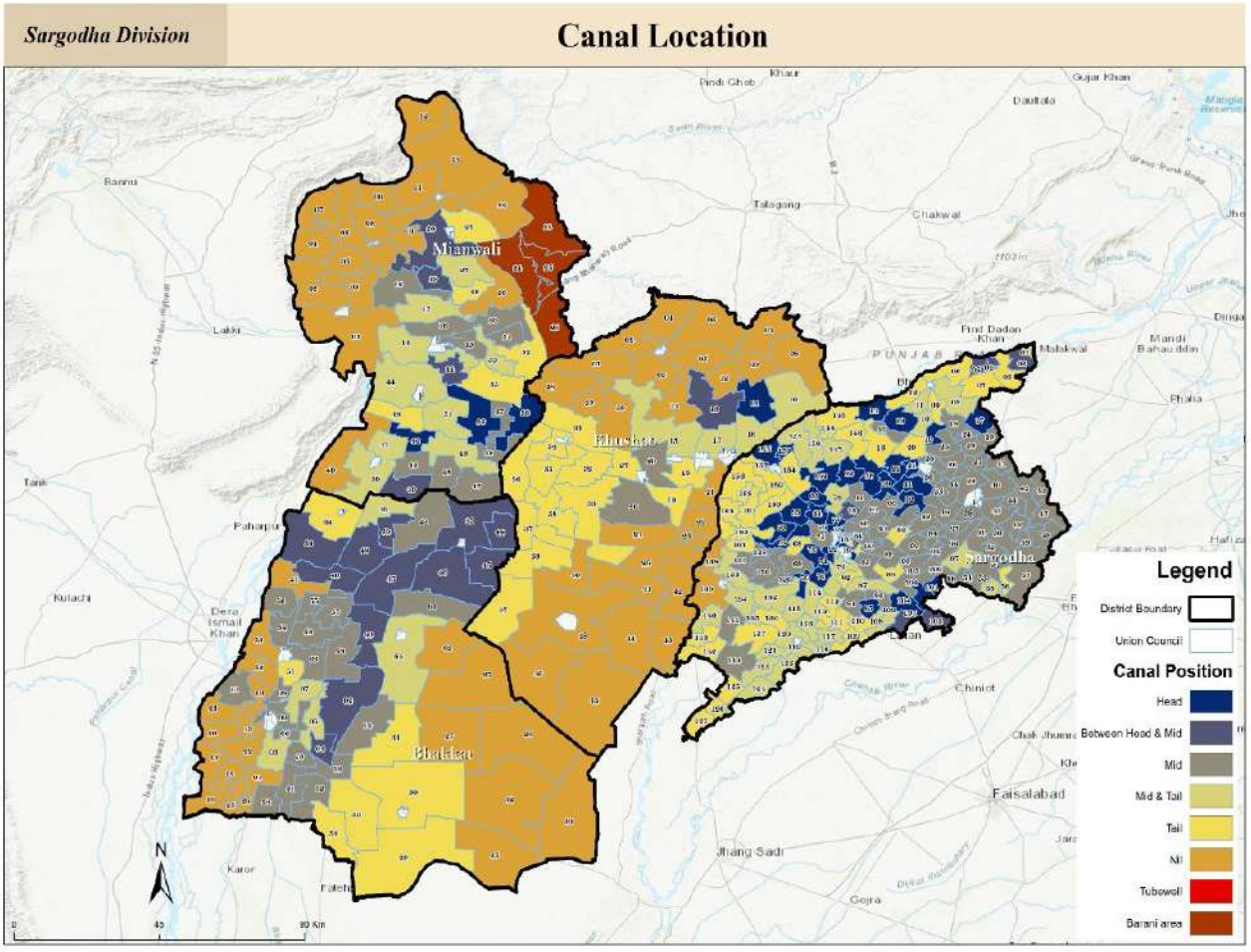


Map 1: IRRIGATION NETWORK

Source: Punjab Irrigation Department

VILLAGE LOCATION ON THE CANAL

The division village location on the canal represents that 30-40 % of the villages at Tail and Mid & Tail depict less water availability in comparison to others. Mostly the water unavailability is around the mid and tail canals with the least at the head.

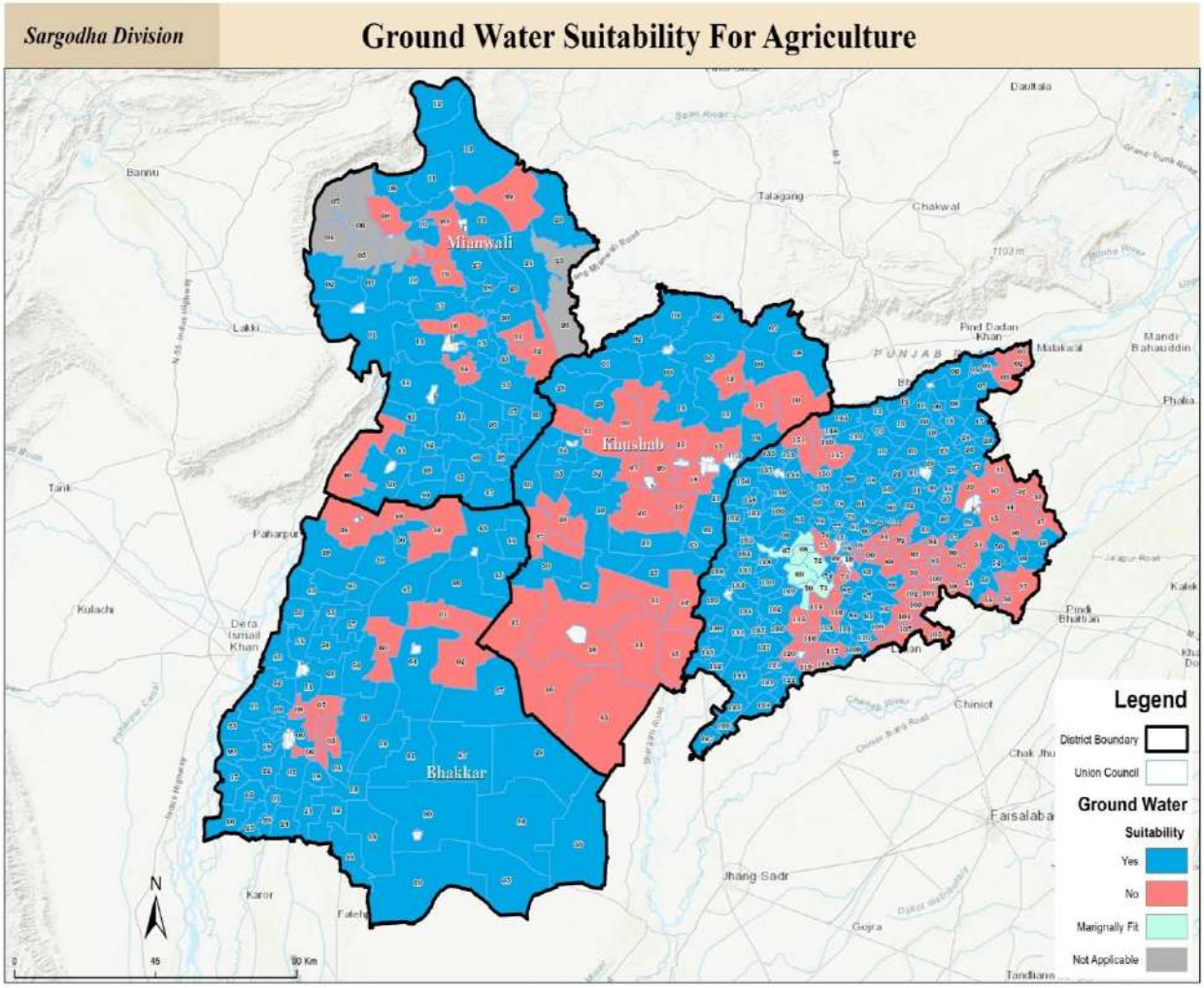


Map 2: *VILLAGE LOCATION ON THE CANAL*

Source: Urban Unit

GROUNDWATER SUITABILITY

Groundwater irrigation is more prevalent in areas where canal water availability is less than the irrigation water demand. The estimated groundwater suitability for the crops of the Sargodha division shows that 40% of Villages have unfit groundwater. The maximum amount of unsuitability can be seen around the district Khushab.



Map 3*: GROUNDWATER SUITABILITY*

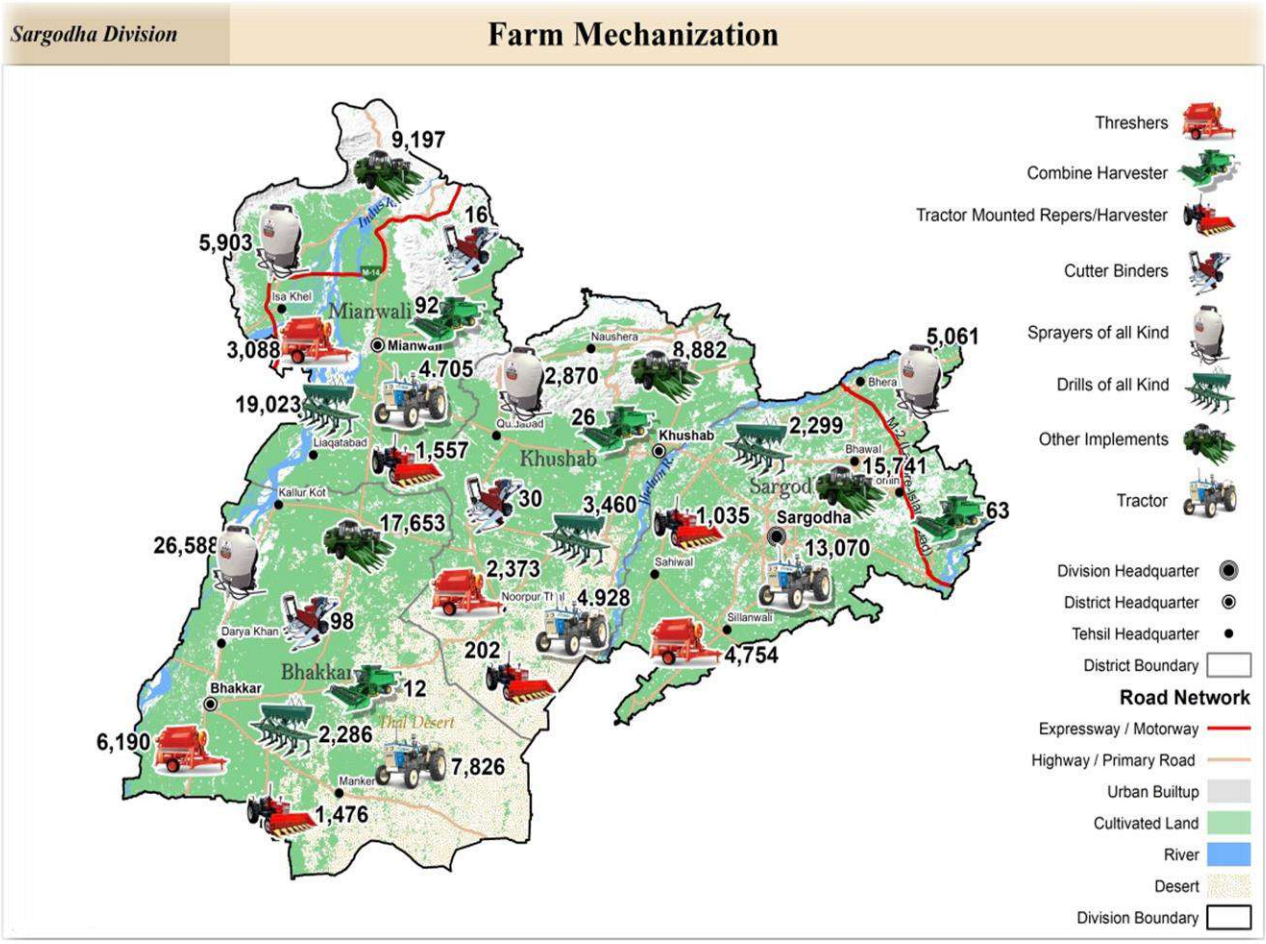
Source: Urban Unit

POOR FARM MECHANIZATION

The poor farm mechanization constraints faced in the Sargodha region are due to the following main reasons:

- Small and scattered landholding
- Poor farmers, lack of investment
- Farm machinery has a large turning radius

- Lack of knowledge
- Fuel affordability
- Lack of repair and maintenance facilities
- Seasonal nature of agriculture (machinery remains idle)



Map 4: *POOR FARM MECHANIZATION*

Source: Punjab Development Statistics (2019)

MECHANIZATION GAP IN PUNJAB

Table 6 elaborates on the Mechanization gap in Punjab as compared to Indian Punjab. The existing coverage of implements shows that chisel plow, rotavator, and disc harrow exhibit a very low share in Punjab in comparison with Indian Punjab. Therefore, to remove the mechanization gap in Punjab it is essential to deploy smart tools and service centers in each crop zone to promote Mechanization. This also implies that the extension services are weak, and many farmers are unaware of modern methods including information on agrochemicals, crop varieties, and fertilizer use.

Table 6: MECHANIZATIPON GAP IN PUNJAB

Implement	Applicability	Punjab (Per 10,000 acres)	Indian Punjab (Per 10,000 acres)	Existing Coverage As % of Indian Punjab
Tractors	All Crops	140	295	47%
Chisel Plow	Cotton Sugarcane	2	28	8%
Cultivator	All Crops	102	224	46%
Disc Harrow	All Crops	5	118	4%
Rotavator	All Crops	14	155	9%
Seed Drill	Wheat	21	124	17%
Ridgercum Fertilizer	Sugarcane Cotton	22	56	38%

Source: Punjab Development Statistics (2019)

AVAILABILITY OF MACHINERY

Table 7 illustrates the availability of agriculture machinery. It can be seen that forty-four farmers are provided with single machinery i.e. a thresher and it would cover 384 acres of land. This indicates the amount of machinery the specified number of farmers are getting in the Sargodha division. In addition, the effects of mechanization had always been overall positive. Since farm mechanization not only increased the income and labor productivity at the farm, but also generates off-farm employment in manufacturing, supply/maintenance of agricultural machinery, and post-harvest operations of agricultural produce.

Table 7: AVAILABILITY OF MACHINERY

Agriculture Machinery	(Farmers/Machine)	Acres / Machine
Threshers	44	384
Self Propelled Combine Harvester	3,839	33,377
Tractor Mounted Reapers/Harvester	147	1,278
Cutter Binders	4,621	40,176
Sprayers of all Kind	17	150
Drills of all Kind	67	580
Other Implements	14	118
Tractor	25	213

Source: Punjab Development Statistics (2019)

LOW-VALUE ADDITION & EXISTENCE OF TRADITIONAL AGRO-BASED INDUSTRY

Map 5 shows the spatial distribution of rice, sugar, fertilizer, and flour mills in the Sargodha region. Low-value addition in agriculture produce especially in High-Value Crops is seen in this region. Also, the industrial units are not located in the potential crop zones. Moreover, there is no processing industry for HVC. The availability of district-wise agro-based industries in the region is shown in the map below.

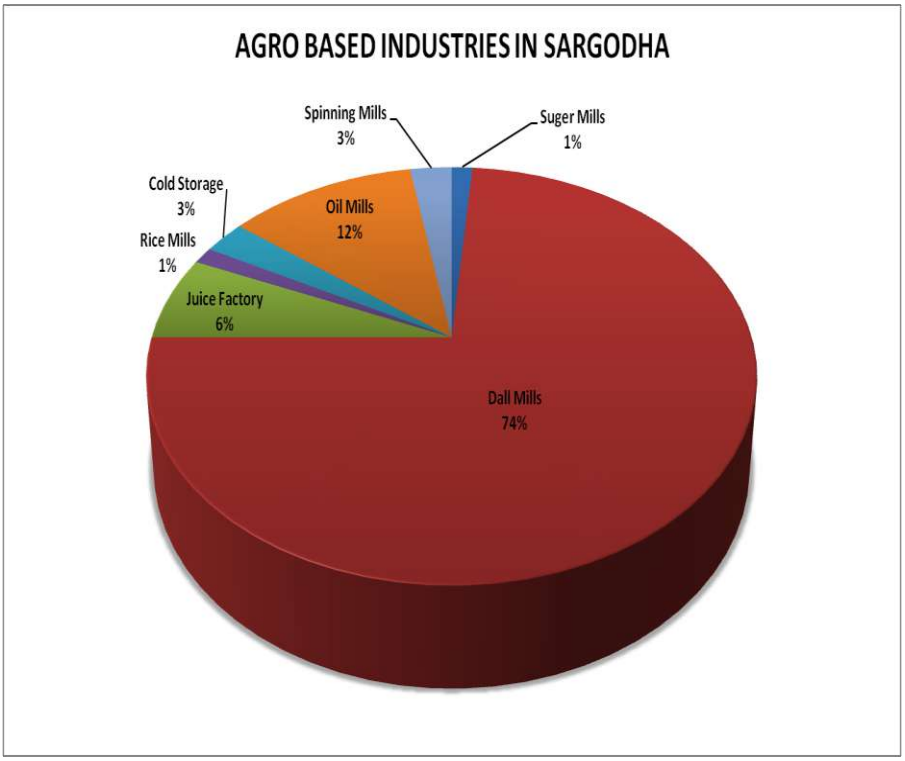
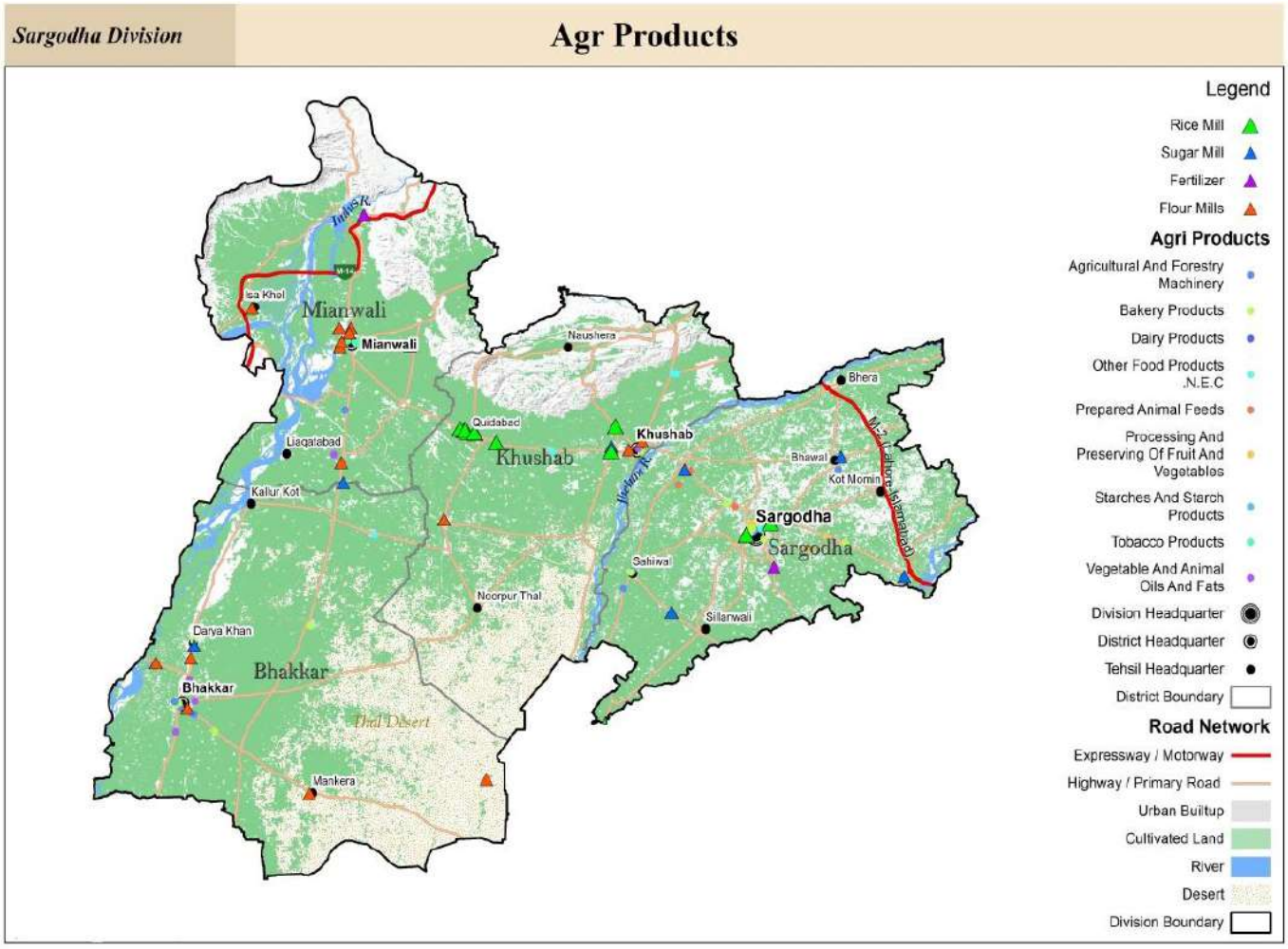


Figure 17: *AGRO BASED INDUSTRIES IN SARGODHA*

Source: AMIS

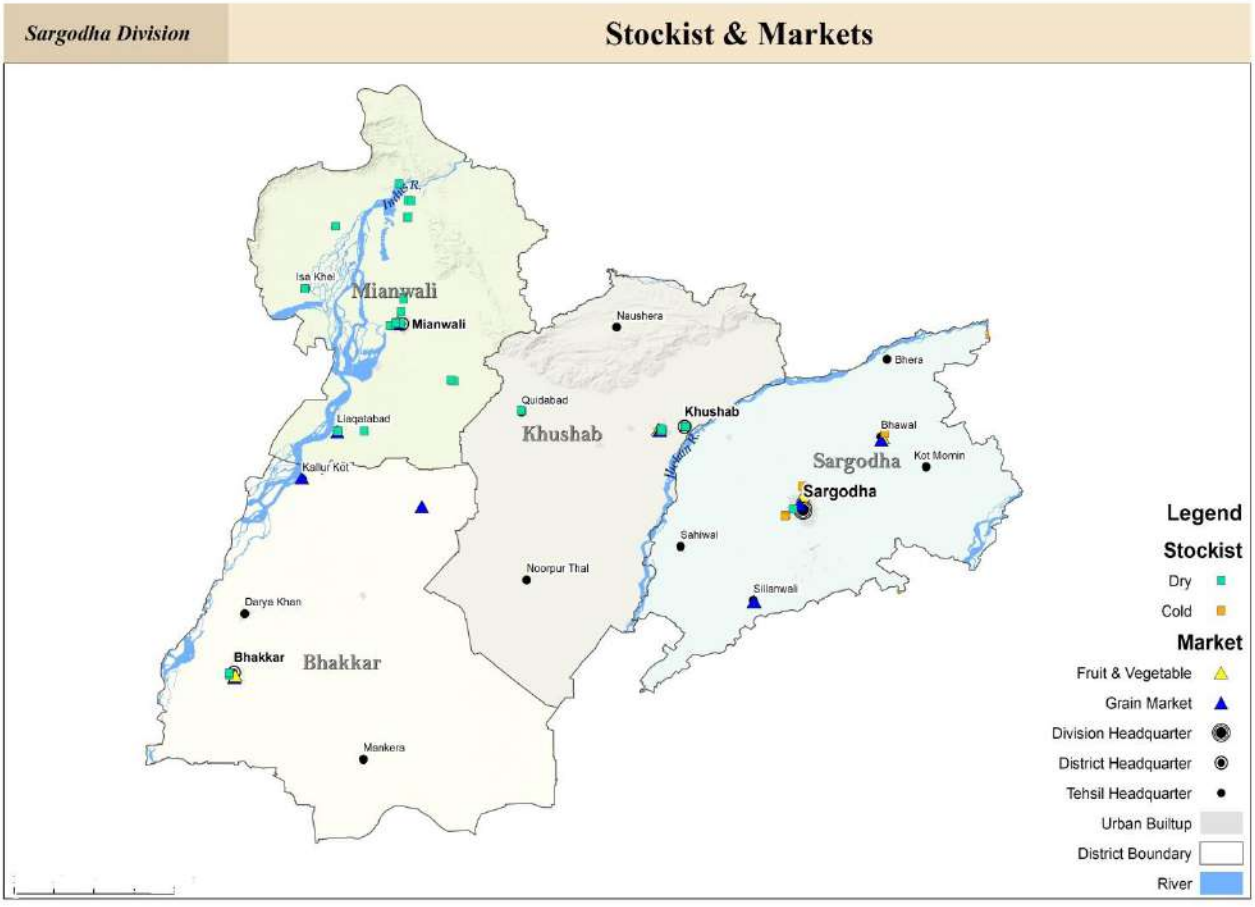


Map 5: *AGRO-INDUSTRY IN SARGODHA DIVISION*

Source: Urban Unit

INEFFICIENT AGRICULTURAL MARKETS

Map 6 shows the inefficient markets in the Sargodha region. The majority of the markets are located in isolation and are not within reach of the farmers. Also, a huge number of fruits and vegetable markets are not functional in various tehsils of the Sargodha division. Due to this the role of the Middle man has reduced the profit margin of the farmer, as shown in table 8.

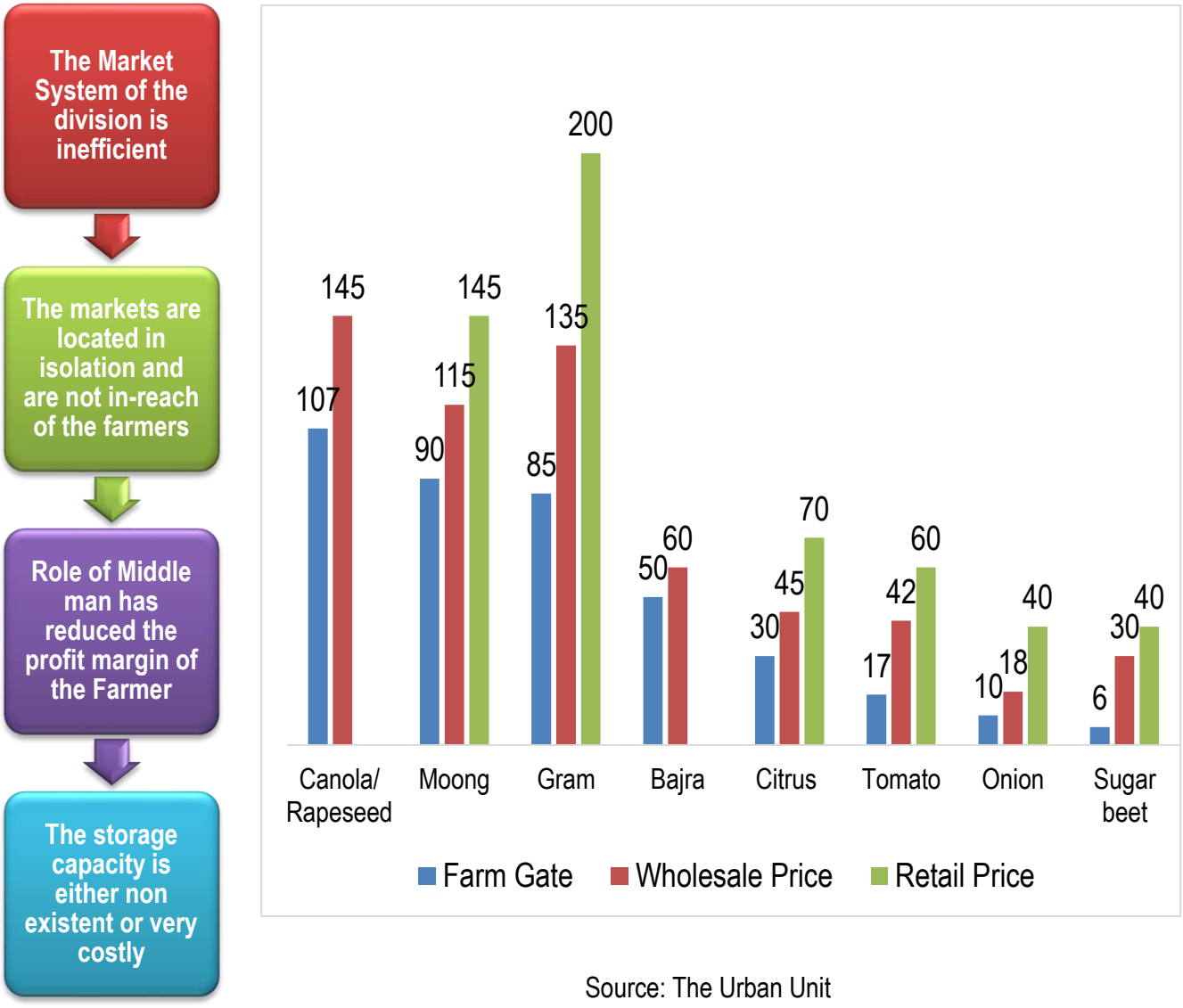


Map 6: *MARKETS IN SARGODHA DIVISION*

Source: Urban Unit

Table 8 shows that there is no proper storage capacity in markets and the existing storage capacity is costly. The commodity/crops prices are shown below as an example to show the inefficient market behavior in the Sargodha region.

Table 8: INEFFICIENT MARKET BEHAVIOR



Source: The Urban Unit

AGRO-ECOLOGICAL CONDITIONS

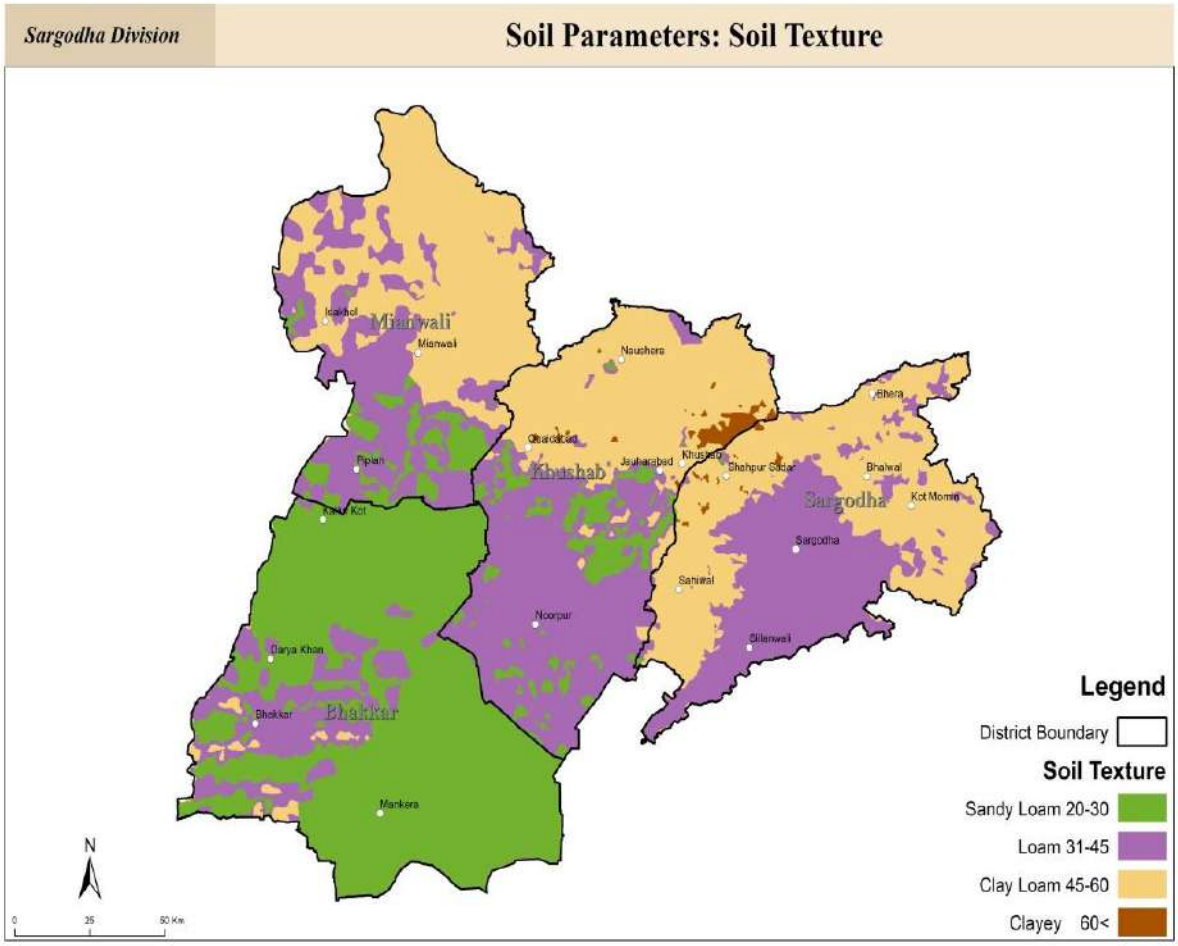
Climate is a prime factor that exerts a major influence on vegetation, soil health, and water resources. Changing climate is likely to elevate the vulnerability of agricultural systems (Rosenzweig et al., 2013) by increasing temperature, changes in rainfall patterns, and more frequent extreme weather events in the world (IPCC, 2014). There is an explicit change in the weather patterns in Pakistan (Ahmad et al., 2015). Subsequently, climate change and variability have impacted crop production and could also be the reason for the shift in cropping systems in some districts of the Sargodha division.

Consequently, the urban unit has identified different Agro-ecological zones in the Sargodha division based on Agro-climatic and Edaphic variables through which crop zoning has been identified;

- Identified suitability of crops in AEZs for sustainability.
- Assessment of Agro-economic performance in delineated agro-ecological zones.

The soil is a key element of agriculture, without which we could not grow plants. Each type of soil is not suitable for each crop due to the effect of different crop growth factors. Soil conditions and characteristics are one of the key factors that directly drive crop growth potential and thus, a soil data set is key information when developing agro-ecological zones.

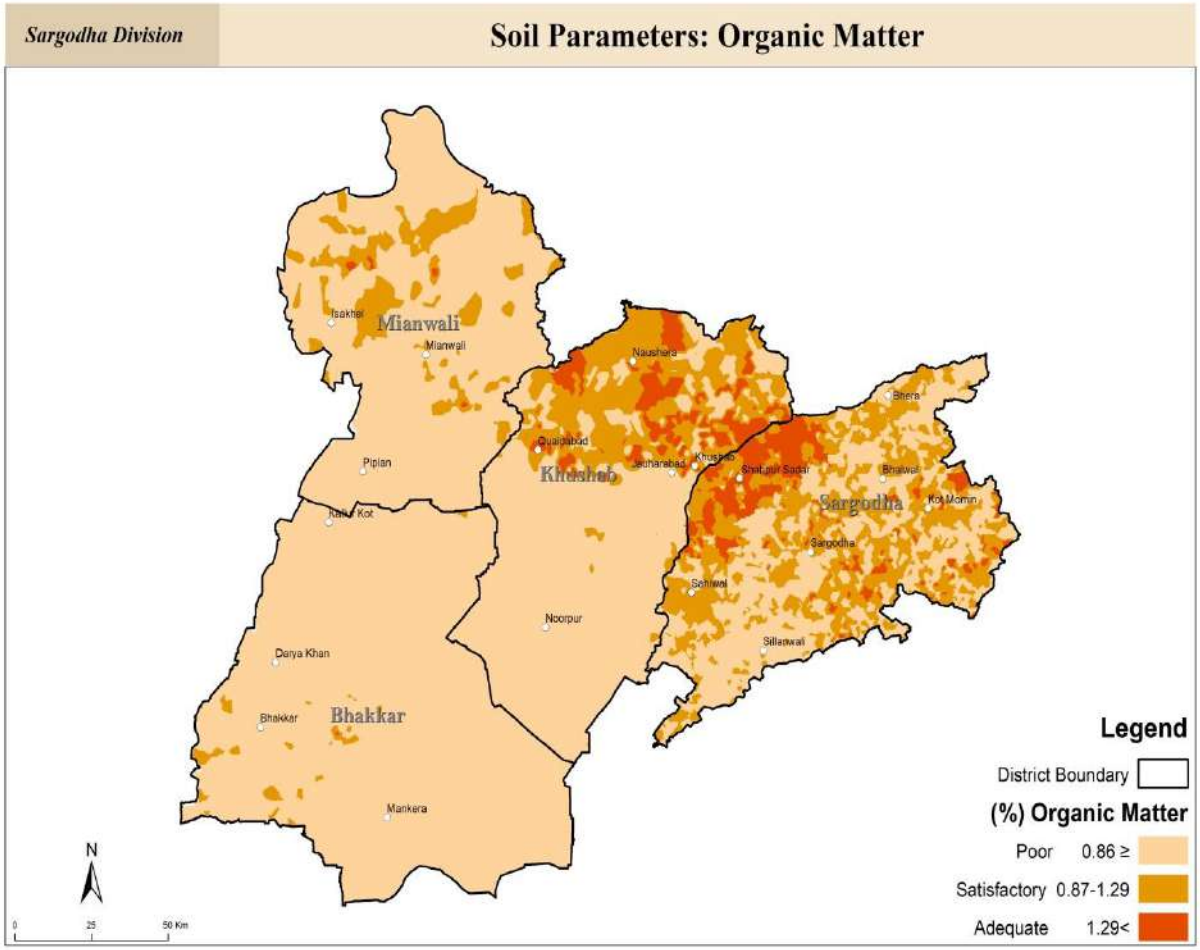
The texture is the most important parameter of soil. There are four different soil textures reflected in map 7 below i.e. Sandy Loam, clayey, Loam, and clay loam, which is the dominant soil in this region. Redefining AEZs was based on the moisture index calculated by using ET0 with an overlay of analysis of soil texture.



Map 7: *SOIL TEXTURE OF SARGODHA*

Source: Urban Unit

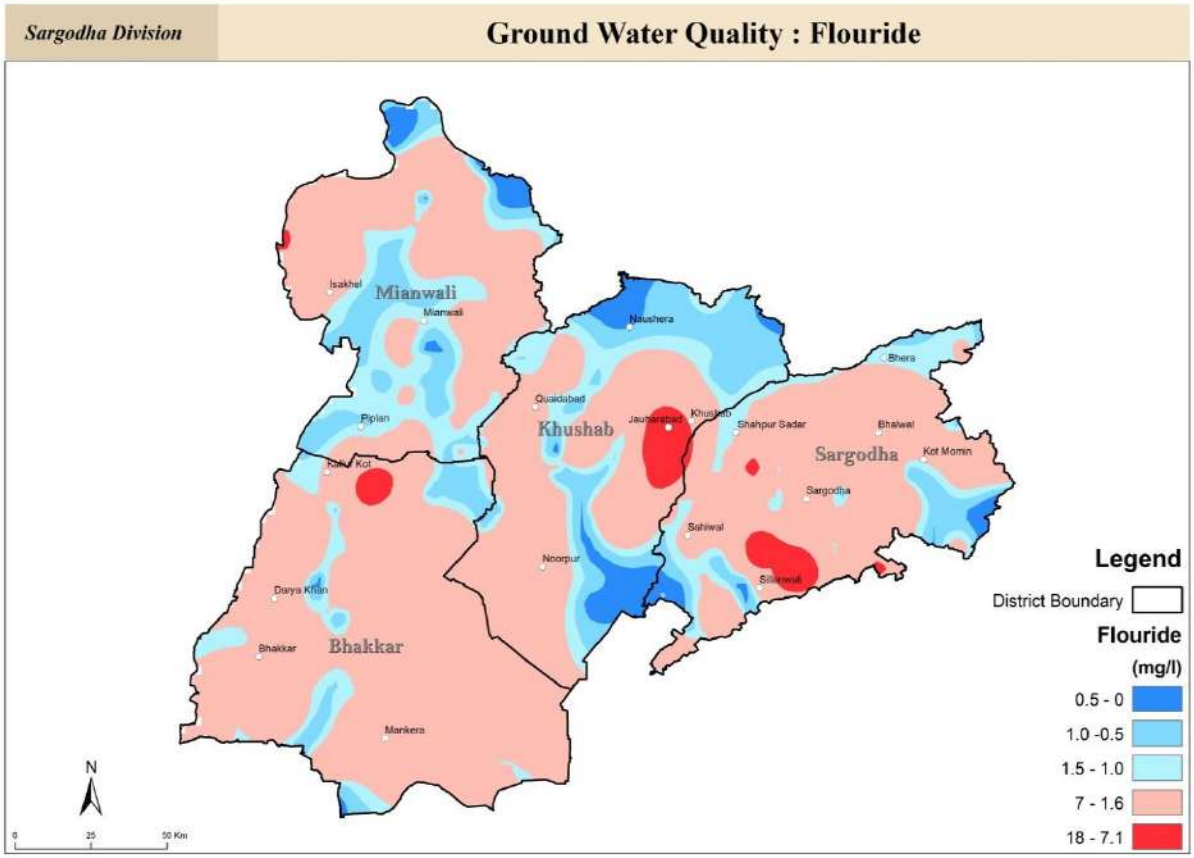
Higher organic matter reflects the higher crops yield. The map below demonstrates that most soil in the Sargodha region has poor organic matter. The problem with low organic matter in the Sargodha division is that the temperature in summer exceeds 45 °C, which increases the rate of decomposition. Furthermore, traditional farmers do not use farmyard manure and remove crops completely (grain plus straw) from soils, leaving them fallow. Green manuring is also not a trend that has been observed. Therefore, it has been discovered that soils in these areas are lacking in organic matter.



Map 8: *SOIL ORGANIC MATTER (OM)*

Source: Urban Unit

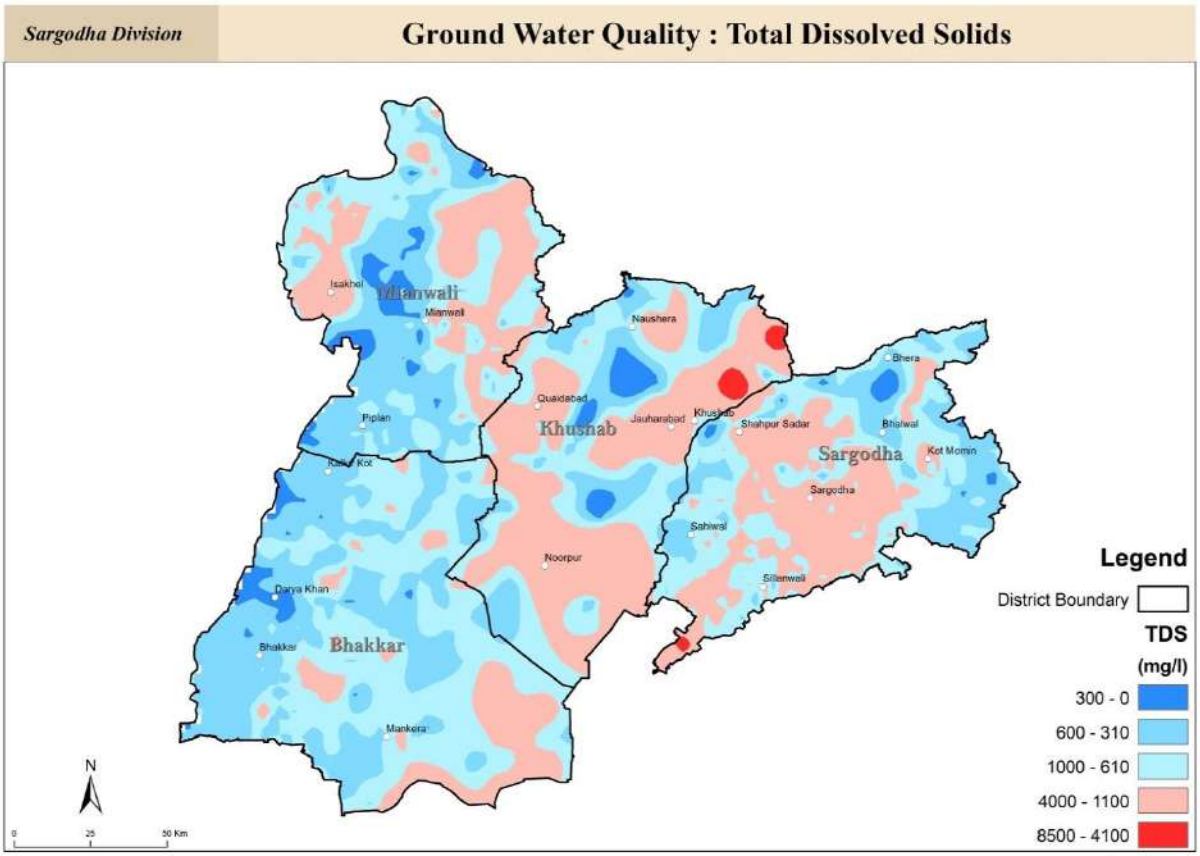
Under the arid climatic conditions of large parts of Pakistan, high fluoride concentrations in the groundwater are to be expected at least in some areas. Excessive fluoride concentrations are a problem in parts of Punjab, Sindh, and Baluchistan (Tariq, 1981). Fluoride appears not to be a national problem but is a regional problem of sufficient magnitude to merit consideration in water-testing and supply programs. The fluoride in the Sargodha division shows excessive concentrations from 7-1.6 mg/l.



Map 9: *TOTAL WATER AVAILABILITY*

Source: The Urban Unit

Groundwater not only supplies additional water to fulfill irrigation deficits but also provides flexibility to match crop water requirements. The groundwater of acceptable quality has the potential to provide the flexibility of water supply in canal commanded areas and to extend irrigation to rain-fed areas. It is estimated that up to 95% of all surface and groundwater is utilized for irrigation. Access to groundwater would assist farmers in dealing with the inconsistencies of surface supplies, diversifying cropping patterns, and converting uncertain crop yields into more sustained crop production. Since groundwater quality plays a crucial role in successful crop production, therefore groundwater quality map given below shows that most of the areas in the division are not suitable for crops.

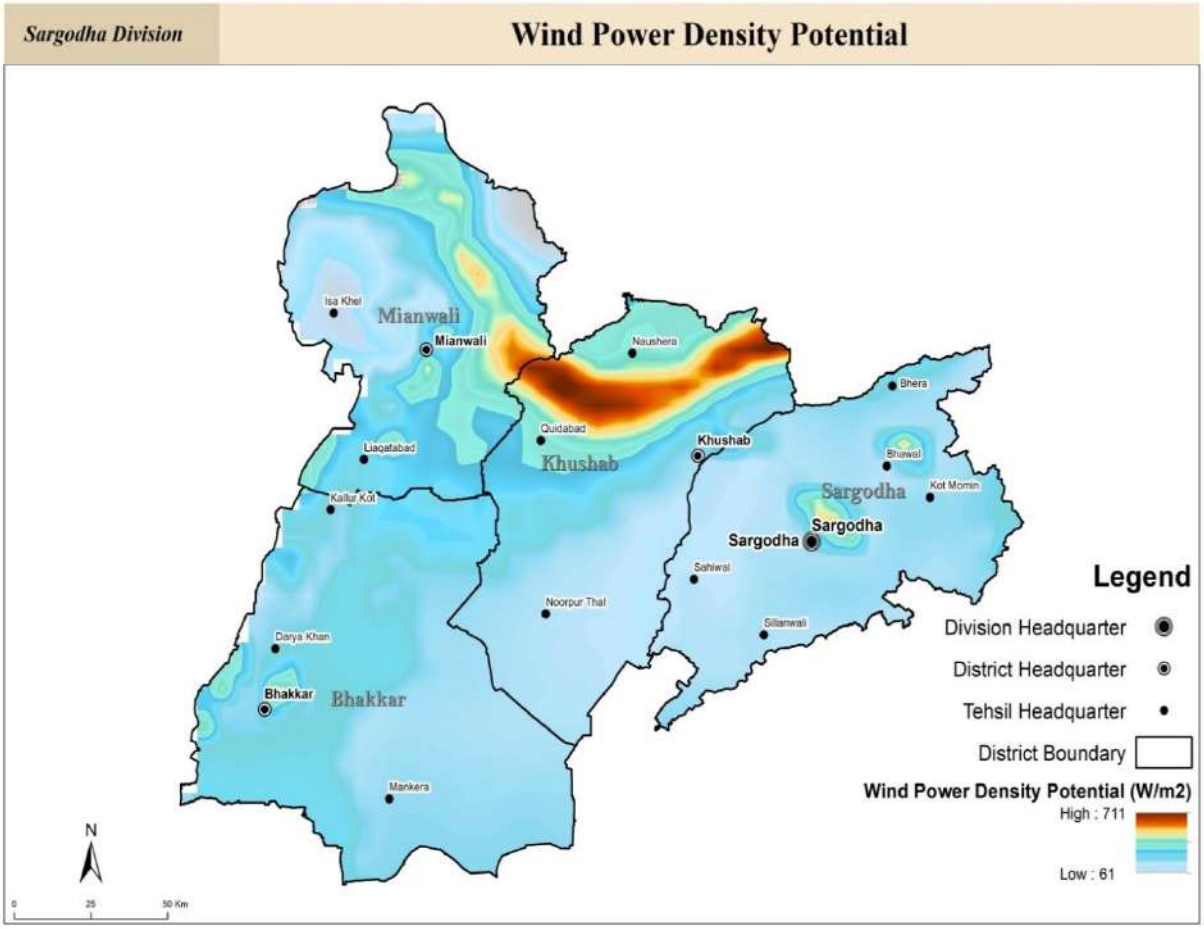


Map 10: *GROUNDWATER (TDS)*

Source: Urban Unit

The spatial distribution of weather station data points is used in the regional plan. The weather stations used for the collection of weather data include wind power, average yearly temperature, and solar irradiance.

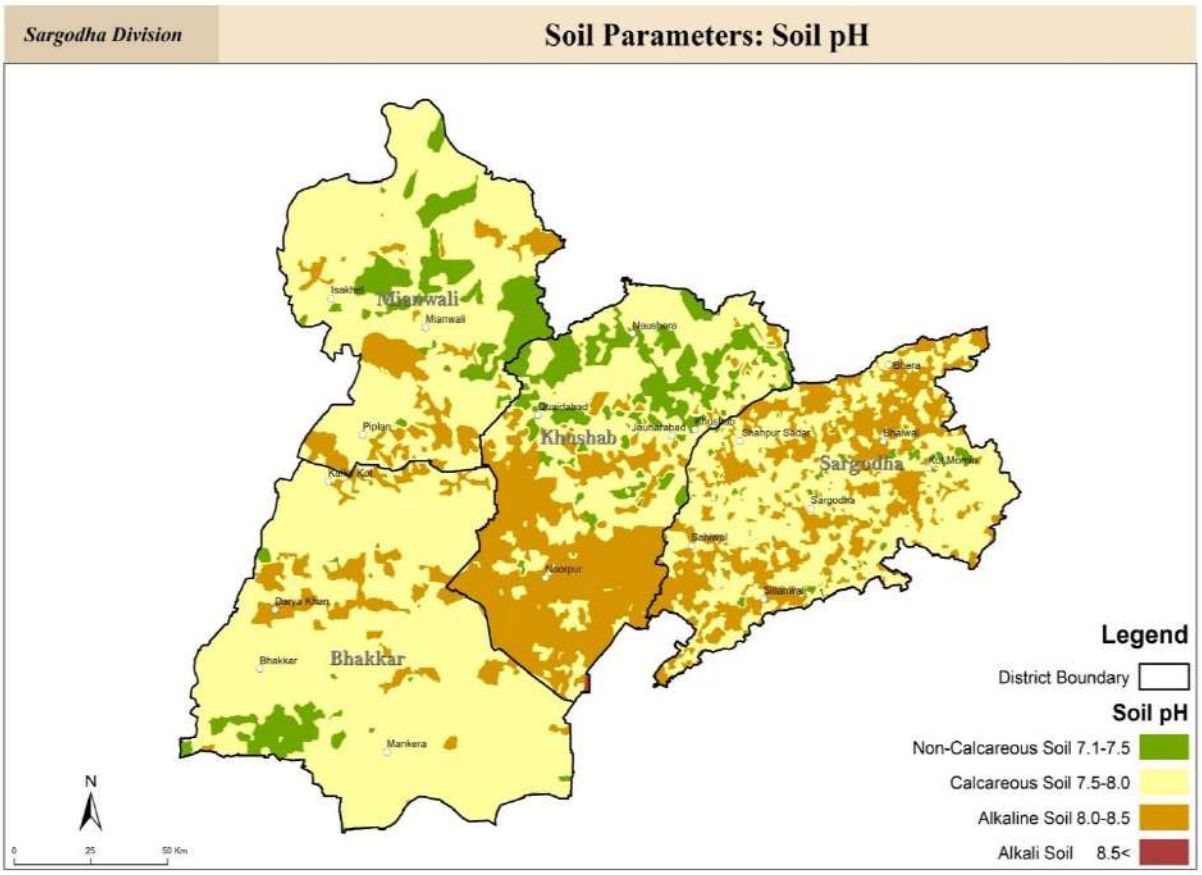
Map 11 shows the wind power density potential (W/m2) observed for the Sargodha region ranging from high 711 to low 61 density potential. A smaller portion of all three districts of the Sargodha region falls under the high-density wind power areas.



Map 11: *WIND POWER*

Source: The Urban Unit

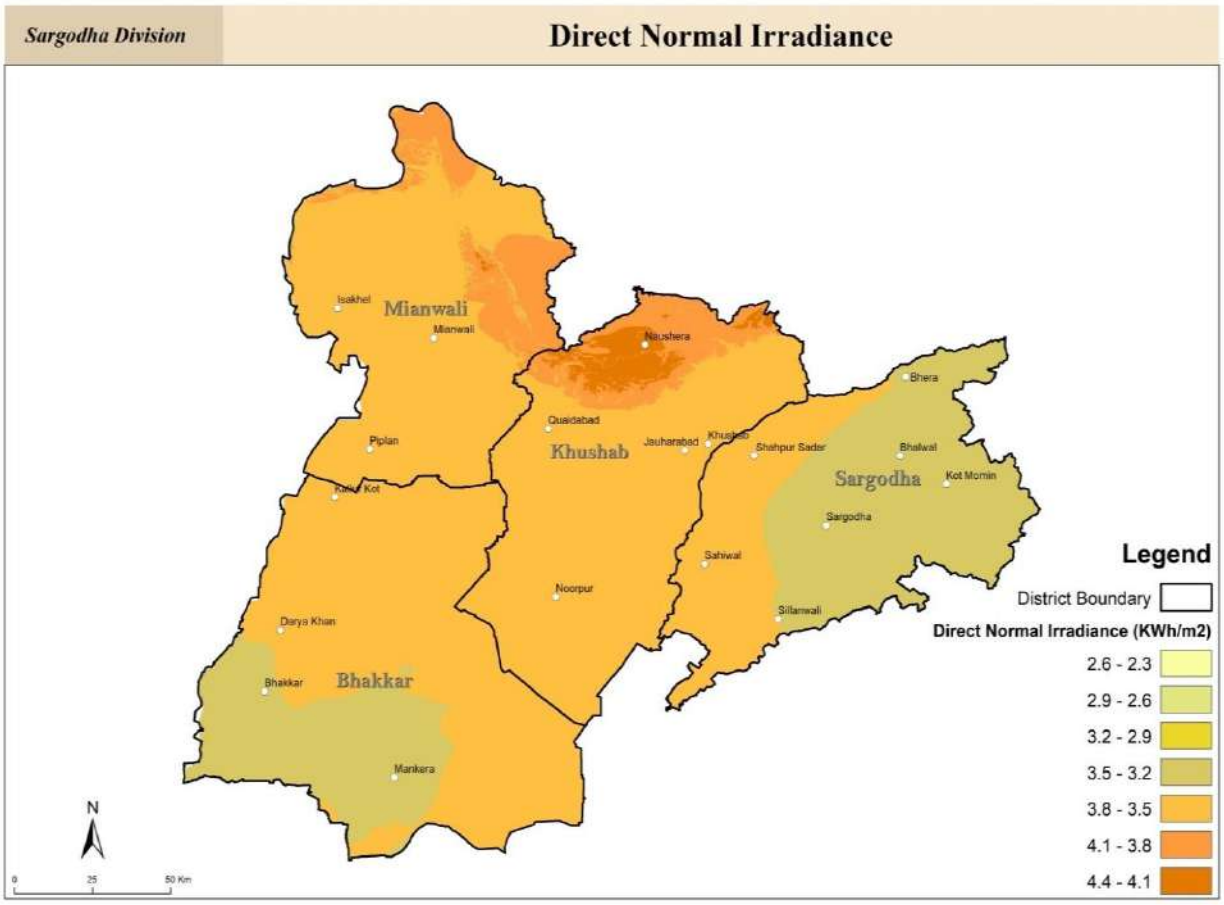
The Soil parameters like Soil pH have been observed in the Sargodha region as shown below. The soil pH in the Sargodha district ranged between 7.8-and 10.4 with an average of 8.42. In addition to it, Calcareous soil ranging from 7.5-8.0 pH has been observed in all districts of the Sargodha division out of which Bhakkar and Mianwali are covered mostly. The pH value of 5.5 to 6.0 (acidic) is considered to be an optimum for citrus cultivation; as the lower level tends to increase the leaching of lime and magnesium whereas the higher level is conducive to reducing the availability of trace elements. Nevertheless, citrus orchards continue to flourish on a wide variety of soil having a pH from 4.0 to 8.5 or even higher. It is recommended that before planting the trees, it is desirable to determine the suitability of soil for citrus orchards and if necessary appropriate reclamation measures should be taken. It is also advised that the soil pH of every citrus orchard should be assessed once a year.



Map 12: *SOIL pH*

Source: Urban Unit

The strength received from the Sun in the form of electromagnetic waves as evaluated in the range of wavelength of the measurement device is referred to as solar irradiance. Direct Normal Irradiance (KWh/m2) is computed for the Sargodha region with maximum solar irradiance observed in the Khushab and Mianwali districts.



Map 13: *SOLAR IRRADIANCE*

Source: Urban Unit

Hence, based on the above agro-ecological conditions, the Sargodha division is summarized on the following agro-climatic factors:

Table 9: AGRO-CLIMATIC FACTORS

Avg, rabi max temp (⁰C)	Avg, rabi min temp (⁰C)	Avg, Kharif max temp (⁰C)	Avg, Kharif min temp (⁰C)	Rainfall (mm)	ETo (mm)	Soil type	EC
28.09	12.31	39.28	27.31	230	3.20	Most Sandy	0.07-27
29.20	12.45	40.41	27.59	234	3.10	Loam, sandy loam (9%)	0.07-27
27.59	12.38	38.94	27.22	412	2.88	Loam, sandy loam (20%), clay loam (8%)	1-27

Source: Fao Agroecological Condition

Based on the above-described conditions, the following crops have been identified as suitable for the Sargodha division; Wheat, Sugarcane, Onion, Sugar beet, Tomato, Guar seed, Water Melon, Musk Melon, Citrus, Dates, Gram, Moong, Rapeseed, Canola, Olives, Peach, Bajra, Barley and Jowar. In this regard, production, yield & value, and logistics analysis of the Sargodha division are discussed below.

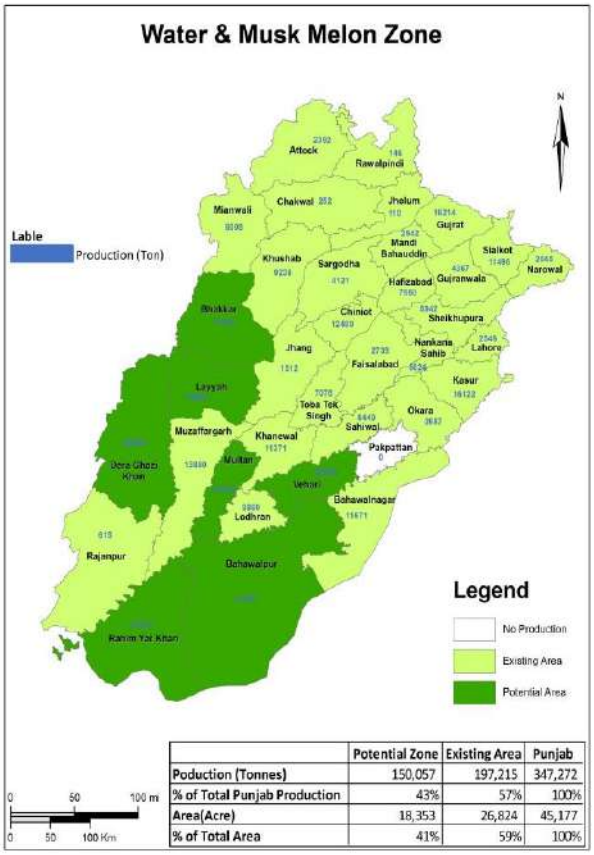
PRODUCTION ANALYSIS

The potential crops zone based on these agroecological conditions is shown on the map (figure 18). These zones are identified based on comparative advantages in yield, production, and agroecological conditions.

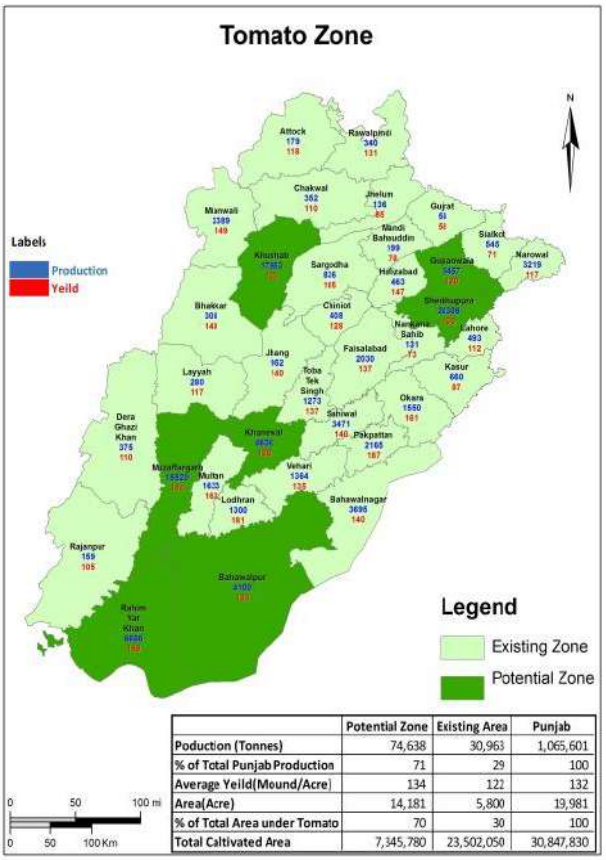
For example, Khushab is chosen for the Tomato crop and Kot Momin from the Sargodha district, and Kallur kot & Mankera is chosen for Water & Musk Melon from the Bhakkar district. The total Tomato production in Punjab is 1.4 million tonnes out of which 17% are produced in the Khushab district. Therefore, we have selected the Tehsil Khushab for the Tomato cluster. Likewise, we have identified specific high-yielding locations for each crop as shown in the map along with potential clusters for each crop clearly showing the

current cultivated areas vs. the increased area that needs to be cultivated for certain crop/cluster where a specialized support system is to be provided.

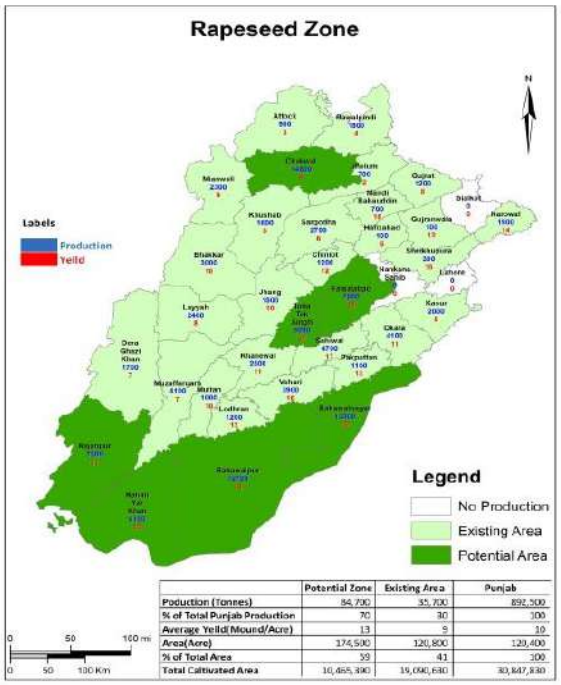
PRODUCTION AREA MAPPING

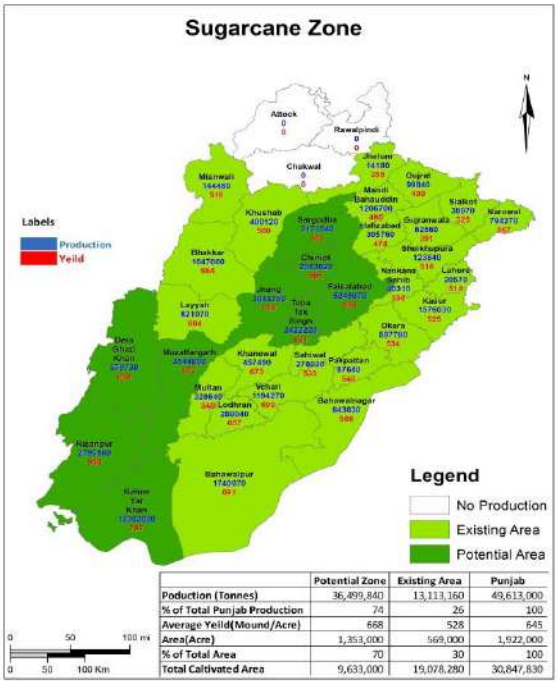


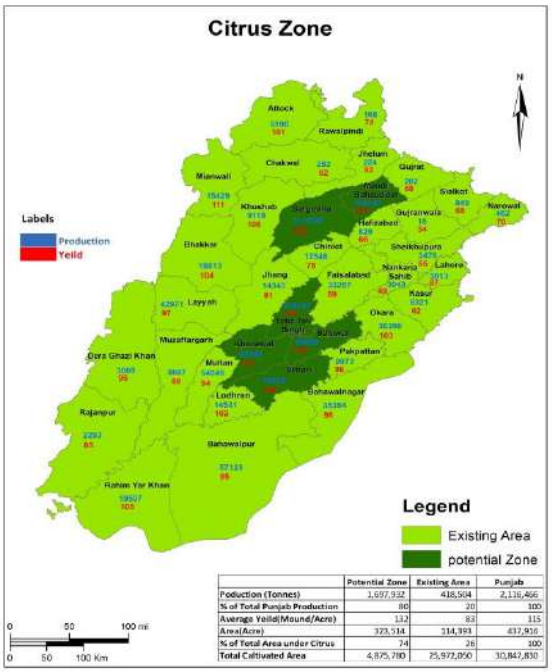
	Potential Zone	Existing Area	Punjab
Poduction (Tonnes)	150,057	197,215	347,272
% of Total Punjab Production	43%	57%	100%
Area(Acre)	18,353	26,824	45,177
% of Total Area	41%	59%	100%



	Potential Zone	Existing Area	Punjab
Poduction (Tonnes)	74,638	30,963	1,065,601
% of Total Punjab Production	71	29	100
Average Yeild(Mound/Acre)	134	122	132
Area(Acre)	14,181	5,800	19,981
% of Total Area under Tomato	70	30	100
Total Caltivated Area	7,345,780	23,502,050	30,847,830







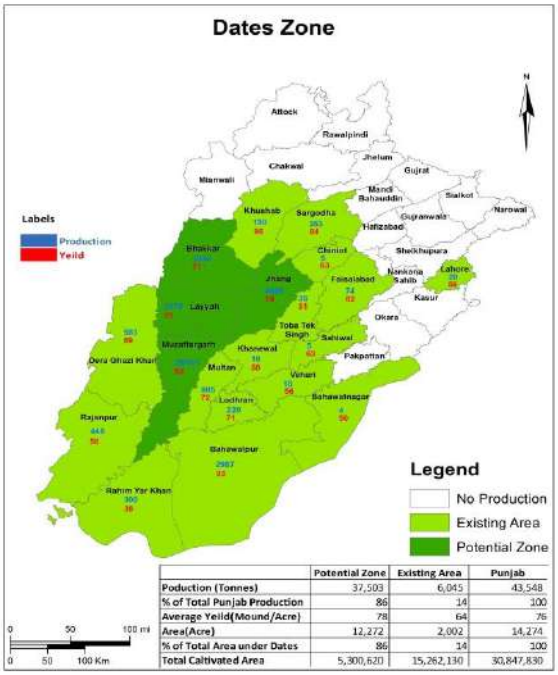


Figure 18: *PRODUCTION AREA MAPPING*

Source: Urban Unit

LIVESTOCK

The socio-economic significance of the livestock sector in Pakistan cannot be ignored. Livestock is considered the central integrant in the agricultural sector of Pakistan and employs more than 8 million families. Meat and meat products hold pivotal significance. In the domestic scenario, the livestock sector is significantly interlinked with the dairy sector, i.e. meat and other livestock products are essentially considered to be by-products of the dairy sector in Pakistan. It is therefore imperative to understand that the uplift of the livestock sector is largely dependent on the pace of development undertaken in the dairy sector. The livestock sector not only supports the agriculture sector but also the processing industry and services sectors in terms of meat and dairy processing, leather, tanneries, and wholesale and retail sub-sectors.

LIVETSOCK PROFILE IN SARGODHA

Sargodha Division has a large livestock population including the dairy breeds of buffalo cattle. Many breeds like cattle, buffaloes, sheep, and goats have good meat production potential. Sargodha division shares 12% of the total population of Punjab. The total estimated Livestock Population in Punjab (Million) comes out to be 58.33 while the Livestock Population in Sargodha Division is 7 (million) which makes up 12% of Punjab. Potential breeds of cattle, buffaloes, and sheep are also identified in this division, Sahiwal, Cholistani breed and the foreign breeds have the potential for an increase in milk yield.

The total economic losses due to different contagious diseases are immense. For instance, FMD is a serious threat to livestock causing 6 Billion US$ in Milk production and more than 8 Billion US$ in Total annually. Considering these problems associated with Livestock production, interventions are devised to incur a boost in production and minimize the losses with efficient potential breed production. As far as the Sargodha division, Mianwali, and Khushab districts are the most affected areas, this also shows that livestock in these areas is fed on open grazing land which could be the source of the spread of the disease. In addition, in dispensaries disease data recording is only for outdoor patient records, it is necessary to test samples after a certain period to limit the spread.

POPULATION OF MAJOR LIVESTOCK IN SARGODHA DIVISION (12 % OF TOTAL PUNJAB)

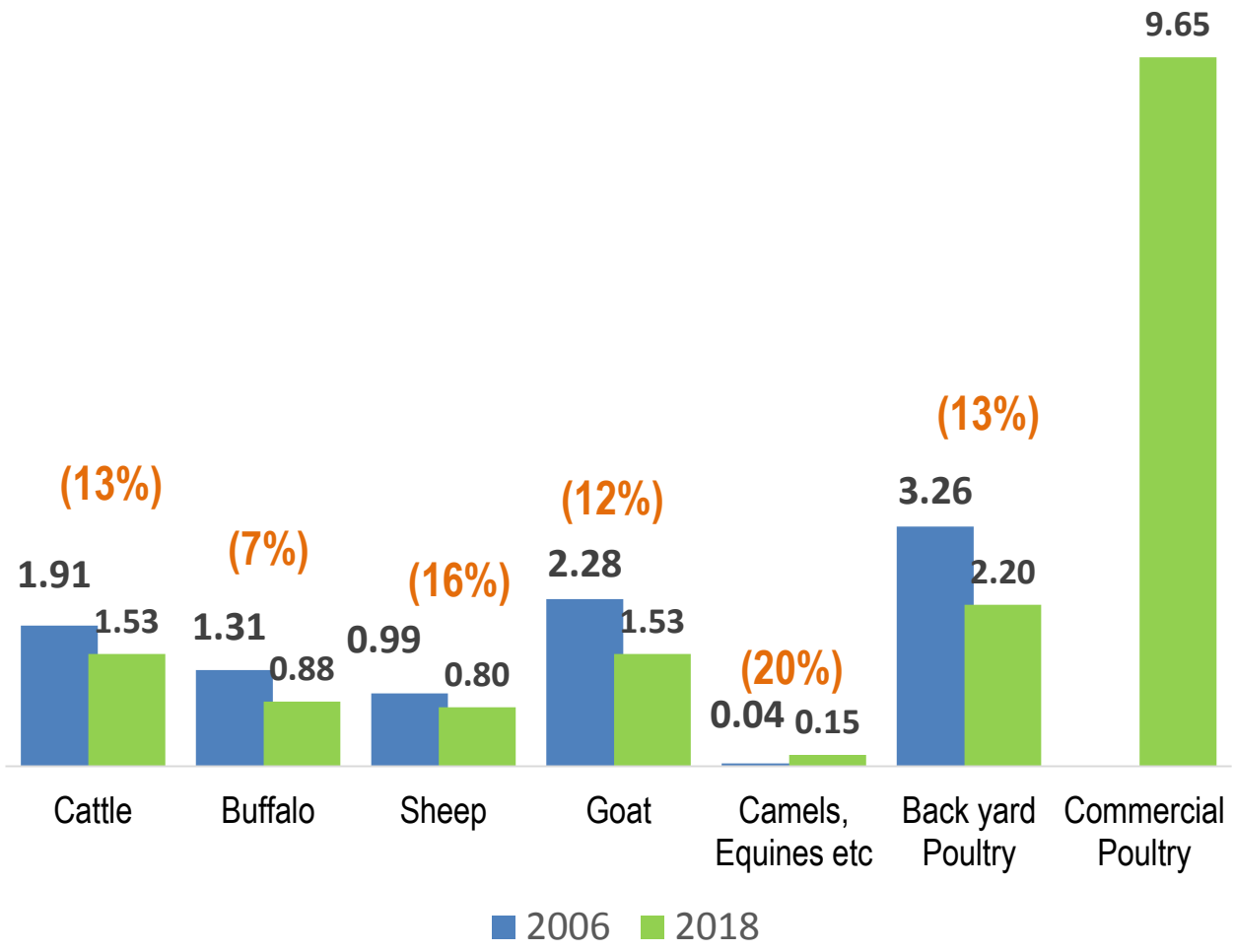


Figure 19: *LIVESTOCK STATICS OF SARGODHA DIVISION*

Source: Unpublished data 2018

WAY FORWARD FOR AGRICULTURE AND LIVESTOCK SECTOR

The agriculture sector has a strong linkage with food security and the growth of other sectors of the economy. The present situation of the Sargodha region needs a high priority for the growth of the agriculture sector on a sustainable basis and requires the implementation of the most appropriate interventions to achieve the desired outcome. The Sargodha Rabi/Kharif patterns for the growth of agriculture will further need improvement in its output and capacity-building training to trickle down to farmers. The emphasis is on the use of the better quality seed, and modern technologies to ameliorate agriculture outlook and food security.

The overall goal of the livestock sector strategy for the Sargodha region is to contribute toward poverty alleviation and economic development of the province of Punjab through the provision of an enabling environment and support services for enhancing value addition, and value chain development, enhancing exports, and profitability of the livestock sector.

Livestock is an integral part of the agricultural system in Pakistan. However, with innovative approaches, livestock financial instruments need to be developed to route the finances of milk producers via the middlemen. In addition, agroforestry can also be included in future research studies and reports.

PROPOSED CROPPING PATTERN

Based on agro-ecological conditions, production, yield & value, and logistics analysis mentioned above, 19 crops are recommended out of 50 crops for this region. Following value chains of the recommended crops in this region are proposed that are discussed below.

Figure 20 & 21 shows the spatial location of Rabi and Kharif crops for the Sargodha division. For Rabi season Citrus, Gram, Rapeseed, Onion, Tomato, Water & Musk Melon, Canola, Barley, Sugar beet, and Wheat whereas Sugarcane, Guar seed, Jowar, Olives, Peach, Moong, Date, Bajra, and Fodder are proposed for Kharif season. Specific clusters for each crop are identified as shown on the map, where 70 to 80 % of the total production of these crops in the Sargodha division is currently being produced. There is a need to increase the area of each crop in the specified cluster as calculated in the map and provide a specialized support system from seed to the international market in each cluster. It will ensure efficient use of resources and increase each crop yield & water efficiency and adoption of good agriculture practices as per international standards.

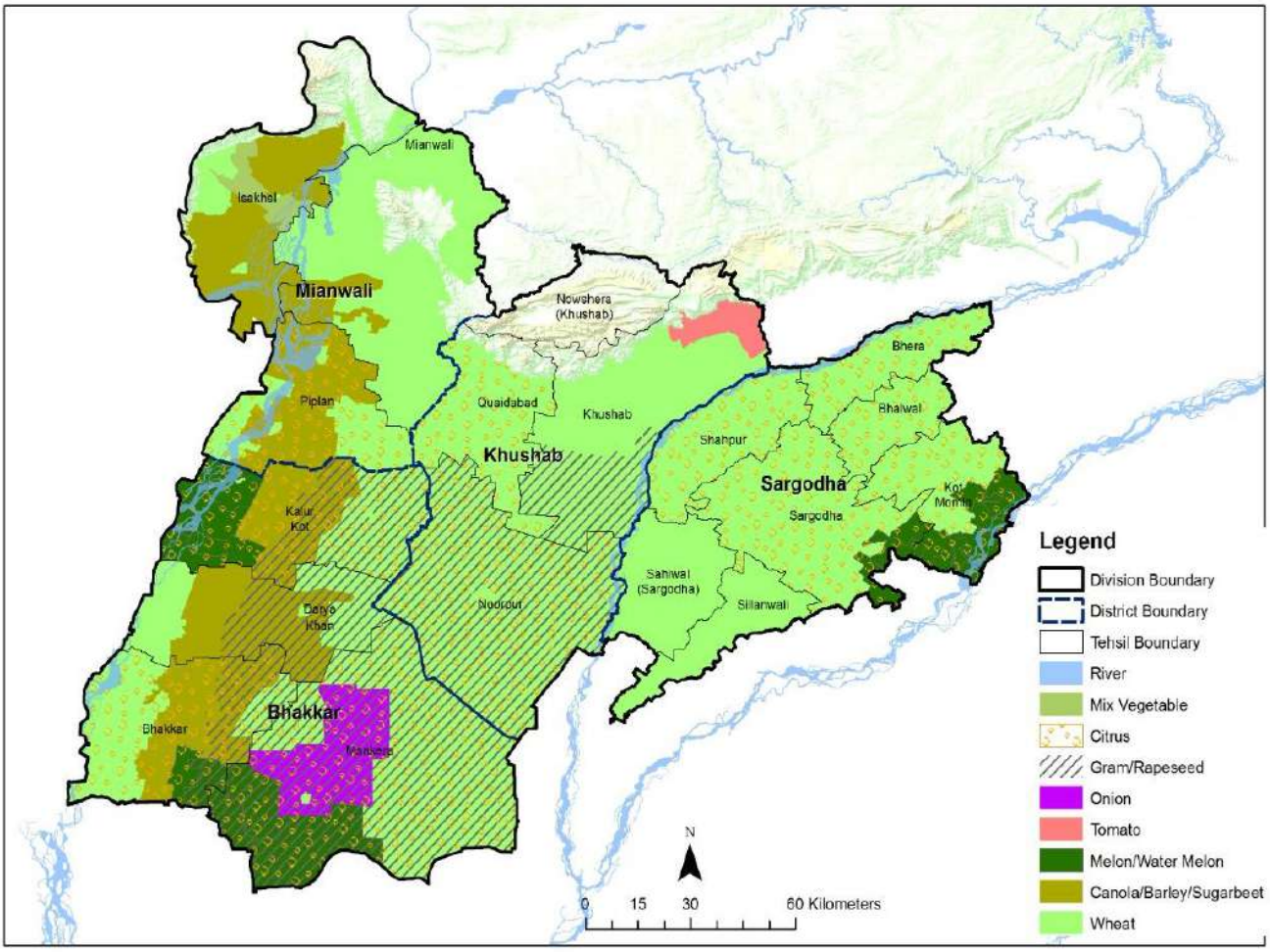


Figure 20: *PROPOSED CROPPING PATTERN OF RABI CROPS*

Source: The Urban Unit

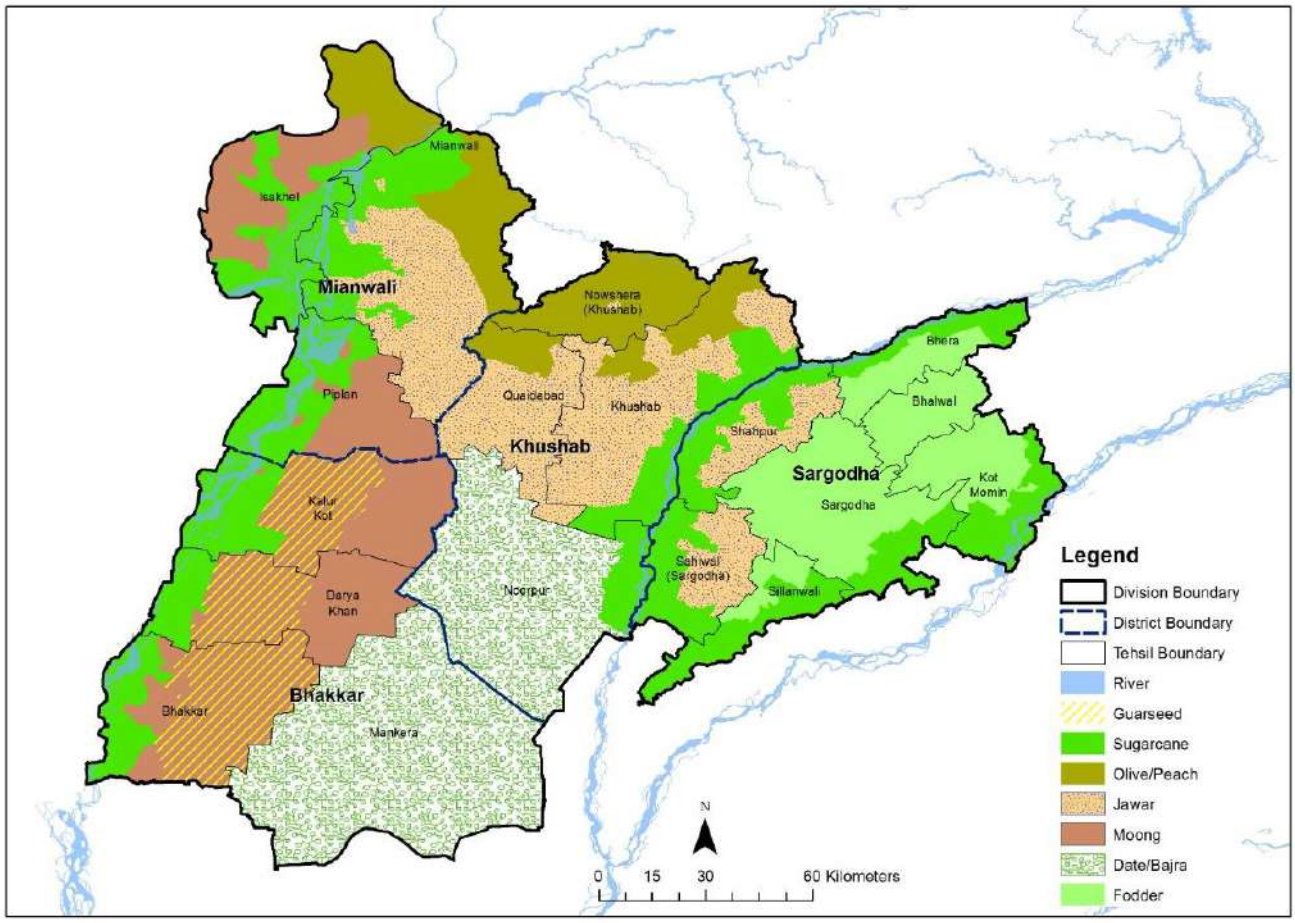


Figure 21: *PROPOSED CROPPING PATTERN OF RABI CROPS*

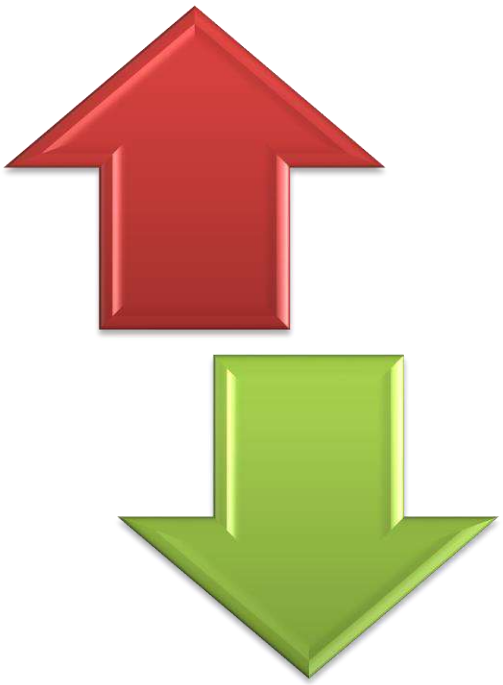
Source: The Urban Unit

IMPACT OF PROPOSED CROPPING PATTERN

The impact of the proposed cropping pattern discusses that the main focus of this plan is on the value chain development through crop zoning.

Considering the analysis highlighted above, the main target is to increase the crop yield of division at least up to the level of progressive farmers, to gain surplus, increase exports and create sustainable value addition.

Below table 10 demonstrates the potential of various proposed crops. Thus, if we achieve a yield of the progressive farmer, better quality, and proper market strategy then we can increase the Sargodha agriculture GDP from Rs. 301 Billion to Rs. 871 Billion.



Rs.301 Billion

Rs. 871 Billion

However, more efforts are required to increase the yield of pulses and grams. Whereas, high-value crops like citrus, dates, and vegetables have the potential. Therefore, sincere interventions are needed to increase their area, and a provision of specialized support systems is also necessary to develop the value chain of these proposed crops.

Table 10: IMPACT OF PROPOSED CROPPING PATTERN

Crops	Current Area	Proposed Area	Current Yield md/acre	Potential Yield Mnd/acre	Current Value(PKR)	Potential Value (PKR)
Wheat	1,818,000	2,727,000	27.68	70	98,083,537,500	272,972,700,000
Sugarcane	255,000	280,500	728.63	1,100	43,848,800,000	72,817,800,000
Citrus	208,008	260,010	172.12	184.45	42,961,680,000	220,588,531,440
Tomato	6,509	19,764	102.45	700	456,125,400	22,661,966,040
Peach	44	7,066	24.43	90	5,600,000	5,381,340,000
Dates	333	8,500	94.95	250	88,200,000	7,476,139,050
Moong	361,749	434,099	8.9	20	11,072,586,000	29,865,997,440
Barley	3,871	4,839	8.89	25	21,040,560	73,936,100
Onion	7,649	24,561	111.78	222	684,000,000	13,439,574,504
Guar seed	99,213	119,056	4.7	6	3,729,800,000	5,714,668,800
Bajra	173,188	207,826	10.66	25	1,699,194,000	4,779,988,800
Gram	1,448,520	1,593,372	1.89	15	8,528,520,000	74,569,809,600
Jowar	42,981	53,726	5.33	11	183,140,000	472,791,000
Canola	42,916	64,374	17	27	1,167,520,000	2,780,956,800
Rapeseed	101,400	111,540	14.29	32	2,405,672,000	5,925,004,800
Musk Melon	1,961	7,942	148	350	348,270,000	3,335,430,000
Water Melon	3,809	20,714	415	415	711,303,750	12,303,596,151
Other Crops					85,469,145,533	115,889,522,408
		TOTAL			**301,464,134,743**	**871,049,752,933**

Source: Crop Reporting Service

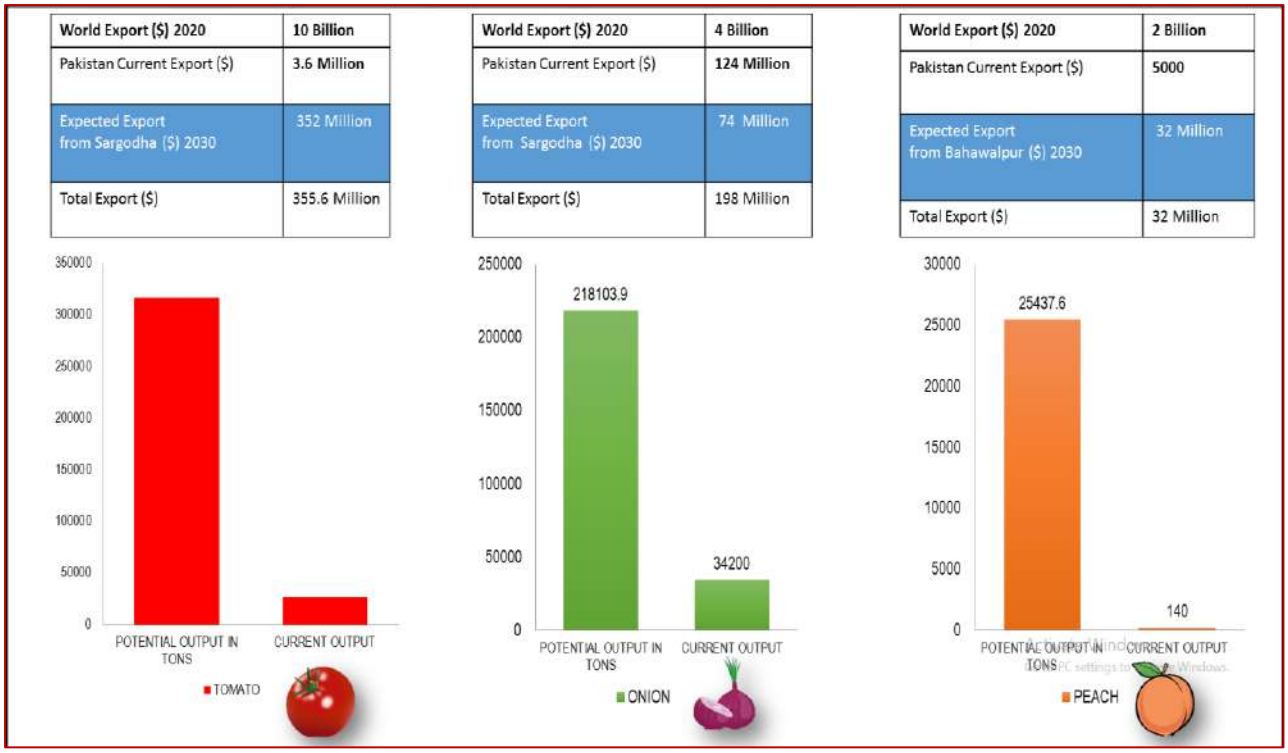
EXPORT POTENTIAL OF CROPS

The objective is to induce growth in the cropping sector by enhancing productivity, improving farmer profitability, encouraging diversification, increasing market, and trade competitiveness, fostering encouraging private investment and improving the supply-chain mechanism. The primary goal of the Sargodha Regional plan is to enhance financial inclusion in the agriculture sector to boost productivity and exports, thereby enabling rural development-driven economic growth.

For instance, if we look at the total export of Tomato ($355.6 Million) and Citrus ($1.9 Billion), the figures indicate the potential of these two crops that could extend to the expected export of $352 Million and $1.9 Billion respectively.

Henceforth, if we can develop a value chain of these recommended crops, then a significant increase in the exports of the country would be achieved. This further explains the need to focus on the improvement of value addition processes of citrus and tomato, by establishing the latest industries, which are capable of improving the processing of citrus and tomato, and its byproducts. This will increase the high-value productivity and sale in the domestic as well as international market, which will, in turn, increase the farmer's income.

In addition to these major crops, Pakistan requires rapid expansion in the production of fruits, vegetables, and pulses. To lower their domestic prices and make the products more accessible then these products need to be used to meet future food demand and even enhance exportability. A strategic approach necessitates that the Sargodha agricultural sector employs scientific methods reforms that are the result of extensive research and development to foster agricultural productivity and yield.



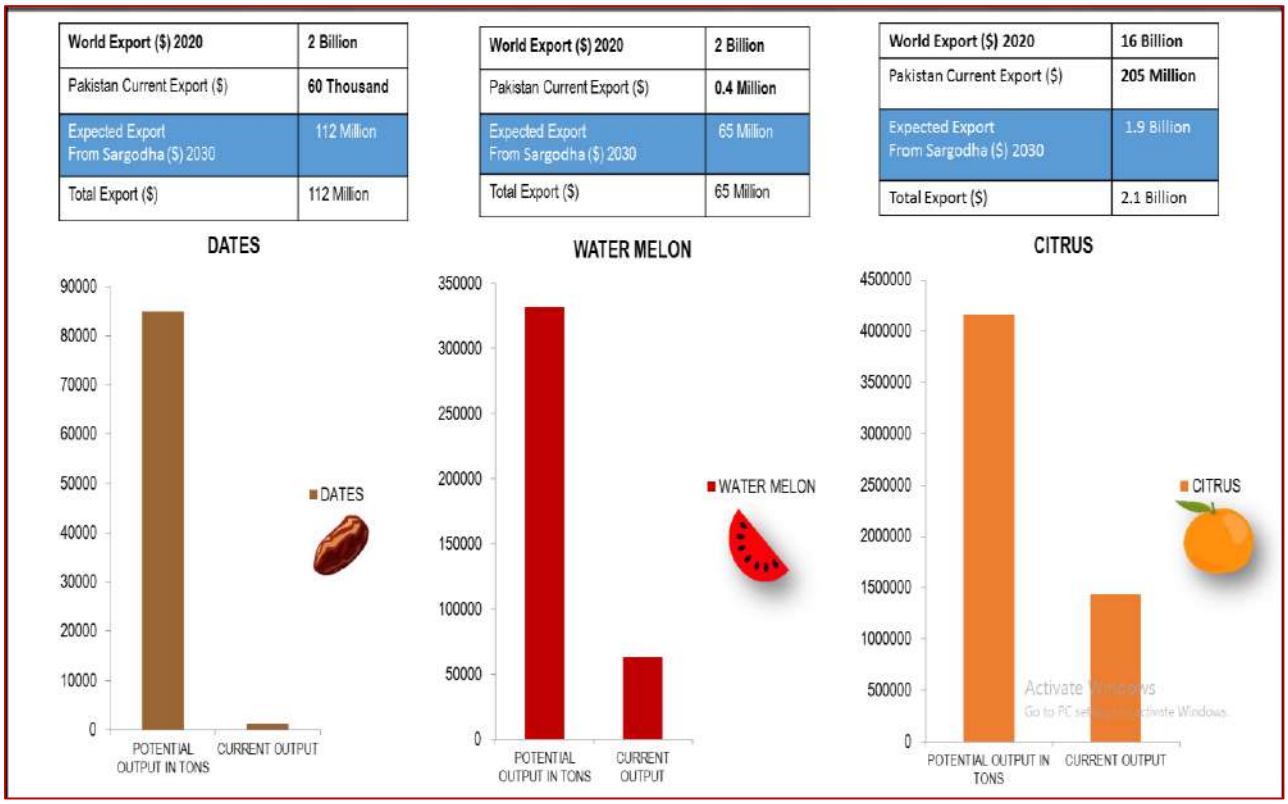


Figure 22: *EXPORT POTENTIAL OF CROPS*

Source: Trade Map

VALUE CHAIN ANALYSIS

Agri-food Value Chains are designed to increase competitive advantage through collaboration in a venture that links producers, processors, marketers, food service companies, retailers, and supporting groups such as shippers, research groups, and suppliers.

The stages involved in the process of value-chain are: The first is input supply, then production, collection, processing, and then retailing. The intermediaries are the actors in the chain that are involved at each stage that belongs to local and interprovisional commissions. In some cases, the same actor may be involved in more than one stage. The diagram also represents the institutions that help support the actors in the value chain.

Based on the value chain framework, various value-chains are devised for each crop which helps in explaining the analysis, strategy development, planning, and implementation and also presents a bird's eye view of the analytical stage of the proposed value chain projects. Following value chains of the recommended crops in this region are proposed are discussed below.

On-Farm	Livestock
• Dates	• Meat
• Tomato	• Dairy
• Citrus	
• Wheat	
• Onion	
• Sugarcane	
• Pulses	
• Gram	
• Chick pea	
• Mung bean	
• Oilseed - Canola	

WHEAT VALUE CHAIN

Wheat is one of the four main crops in Pakistan (i.e., rice, cotton, and sugarcane), with 80 percent of farmers growing it on an area of around 9.0 million hectares (close to 40 percent of the country's total cultivated land) during the winter or "Rabi" season. Marketing year (MY) 2019/20 wheat production is forecast at 25.6 million metric tons, two percent higher than the revised wheat production of 25.1 million metric tons, a year ago mainly due to conducive weather conditions and appropriate rainfall during the growing season.

GLOBAL WHEAT PRODUCTION

The main producing countries of wheat include India, China, the United States, Russia, and Pakistan of which Pakistan is at the 6th position globally.

The top 5 countries (India, the Russian Federation, the United States of America, and Canada) account for 63.46% of it. The world's total wheat production was estimated at 649,759 thousand tonnes in 2020 (Wheat Production by Country, 2019).

Although Pakistan produced a record wheat crop of 26.7 million tonnes in the 2021 year, it was insufficient to meet the country's domestic consumption requirements and maintain large strategic reserves, according to a recent Global Agricultural Information Network report from the Foreign Agricultural Service of the US Department of Agriculture (USDA).

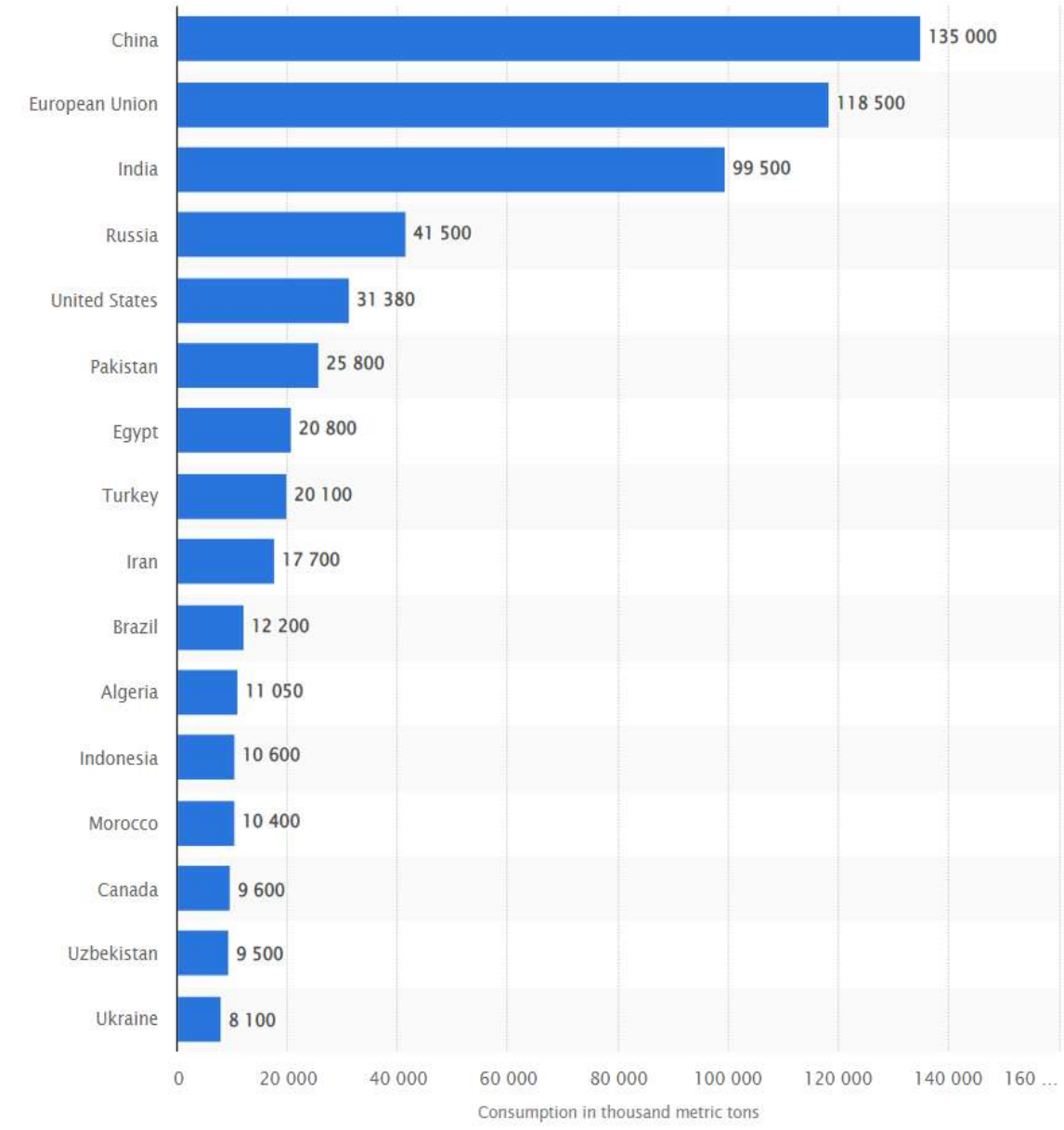


Figure 23: *GLOBAL WHEAT PRODUCTION*

Source: Statista

In the marketing year of 2019/2020, the global production volume of wheat amounted to over 765 million metric tons. This was an increase of over 30 million tons compared to the previous marketing year.

Leading world wheat exporting countries (2001–2020) are shown below in the figure. Australia, Argentina, Canada, France, Kazakhstan, Russia, Ukraine, and the USA are the largest wheat exporting countries in the world. In 2020, they accounted for 153 million tons of wheat exports, which corresponds to 77% of the total wheat exports this year. Abbreviation: ROW, rest of the world.

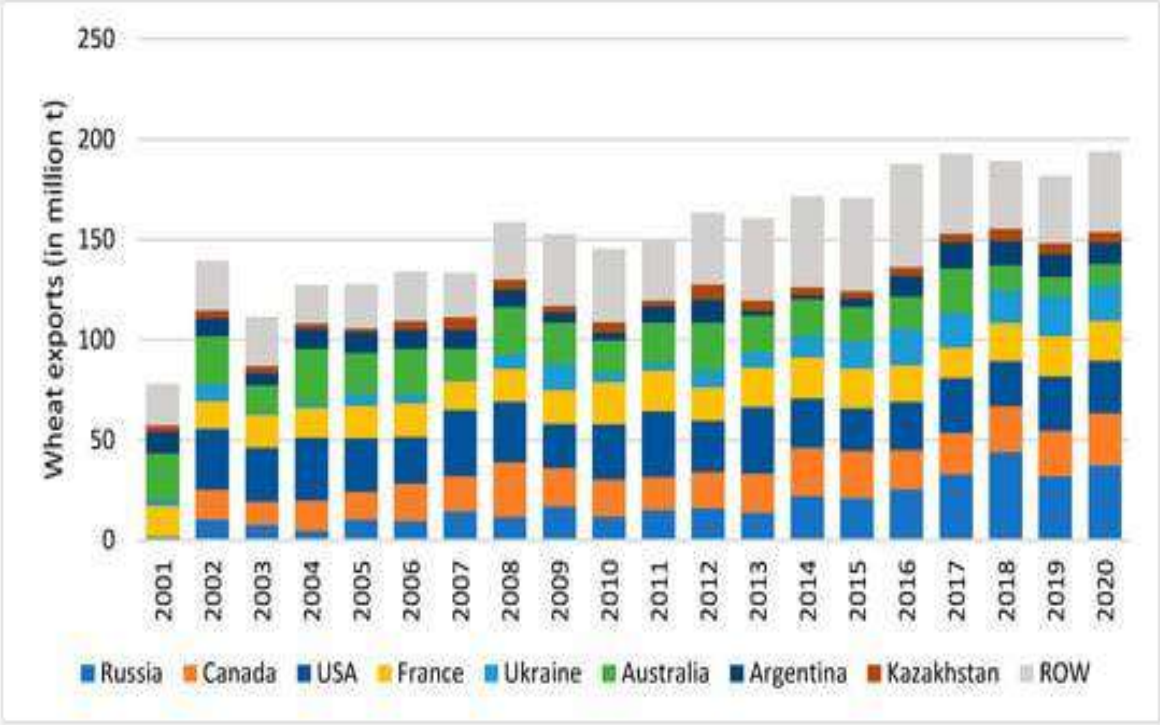


Figure 24: *GLOBAL WHEAT EXPORTS*

Source: Trade Map

The graph shows the Sargodha division average at 27.68 acres which is near to the Punjab average which is 31.34 acres. However, the progressive farmers and the international farmers are getting higher yields which shows that there is huge potential for productivity enhancement.

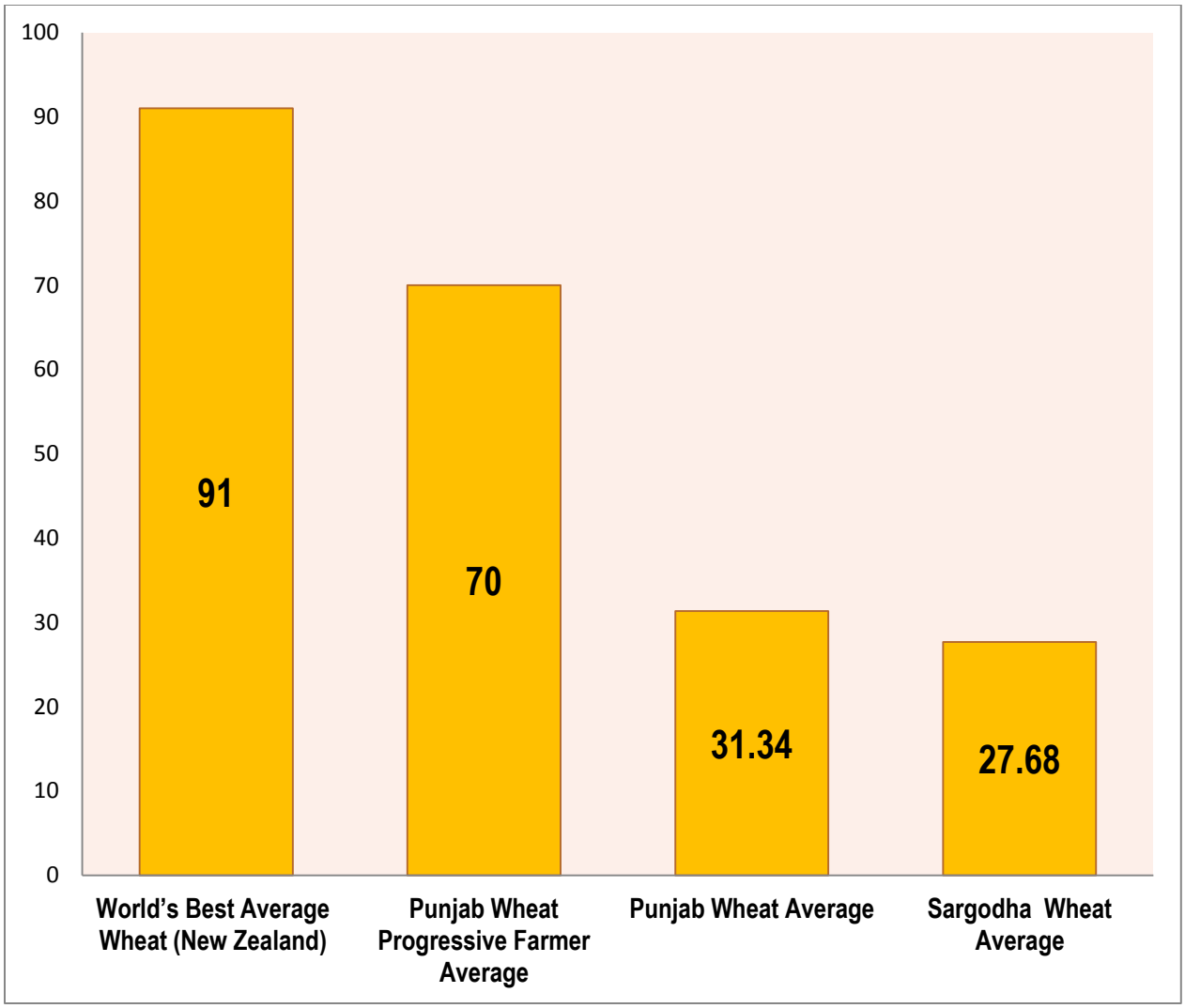


Figure 25: *WHEAT YIELD*

Source: Crop Reporting Service

CHALLENGES AND ISSUES

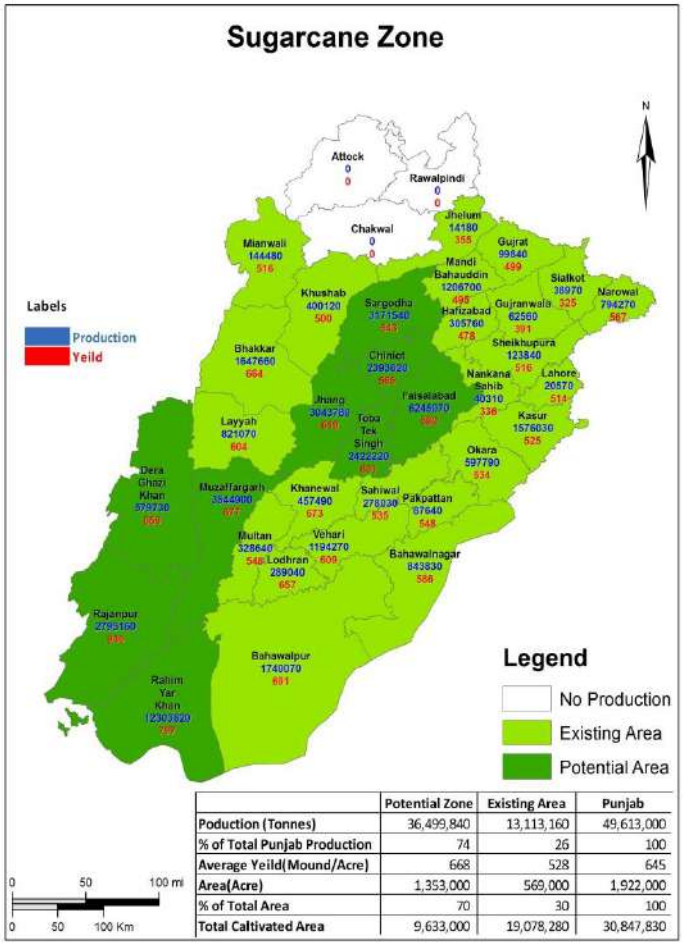
Inputs	Production	Harvest	Markets & Logistics
Unavailability of quality seed	The limited capacity of farmers	Re-evaluation of optimum sowing time in various ecologies considering the prevailing climatic changes	Poor marketing infrastructure
Delayed Planting	Spread of diseases		Lack of marketing campaign for local consumption
Lack of quality wheat	Lack of extension Services and technical assistant		Lack of market research/ market identification
Soil Salinity			
Lack of irrigated water supplies	Poor pest/disease management	Quality assurance mechanisms and standardized certifications for export are missing.	Poor access to the high-end market
Water Shortage	Drought/ Terminal heat stress		Lack of presence at international exhibitions/ trade shows
Low-quality pesticide	Water Infestation	Lack of modern Harvesting technologies	
	Non-availability of soil moisture in rainfed areas delays wheat sowing	Access to finance problem	Lack of support from trade counselors posted abroad in opening new markets/relationship management in existing markets
	Improper land leveling	Low and inadequate quality of existing storage facilities	
	Drainage problems		
	Agronomic constraint	Post-Harvest Losses	The transportation supply chain needs to be made efficient
	Inefficient fertilizer use		
	Imbalance uses of Nutrition		

RECOMMENDATIONS

Inputs	Farms Management & Zoning	Marketing & Access to Finance
Availability of Seed of Recommended Varieties	Availability of skilled and trained labor	Establishment of Research Collaboration/Linkages
Availability of inputs (fertilizers, herbicides, electricity, diesel, etc.)	Farm Mechanization	Annual Wheat Meeting to discuss strategies to enhance the wheat production
To increase yield potential, introduce Germplasm Acquisition, Evaluation, and Distribution	Awareness and training of farmers on standardized Wheat farming management and improved irrigation practices	Traveling Wheat Seminar activity of coordination to bring all stakeholders in close contact
Timely availability of water	Training of labor on the usage of processing equipment	Improved local markets, & international linkages
On-going varietal development based on market research	National Uniform Testing and Variety Release for Agro-ecological zones.	Provide an incentive for setting up new industries
Seed replacement programs.	Technology Transfer to developing decision support systems that could provide site-specific recommendations/ guidelines	Agricultural credit for realizing the production target of any crop
Special program for the Seed Companies for certified wheat seed production.	Subsidy on implements for wheat.	
Implementation of amended seed act for wheat varieties registration.	Development of Smart tools for mechanization especially for small farmers.	
To develop climate-smart high yielding, rust, and heat stress-tolerant varieties of wheat.	Subsidy on Weedicide.	
Develop Linkages with academia and international researchers for R&D	Subsidy on gypsum & green manuring.	
	Provision of extension services	

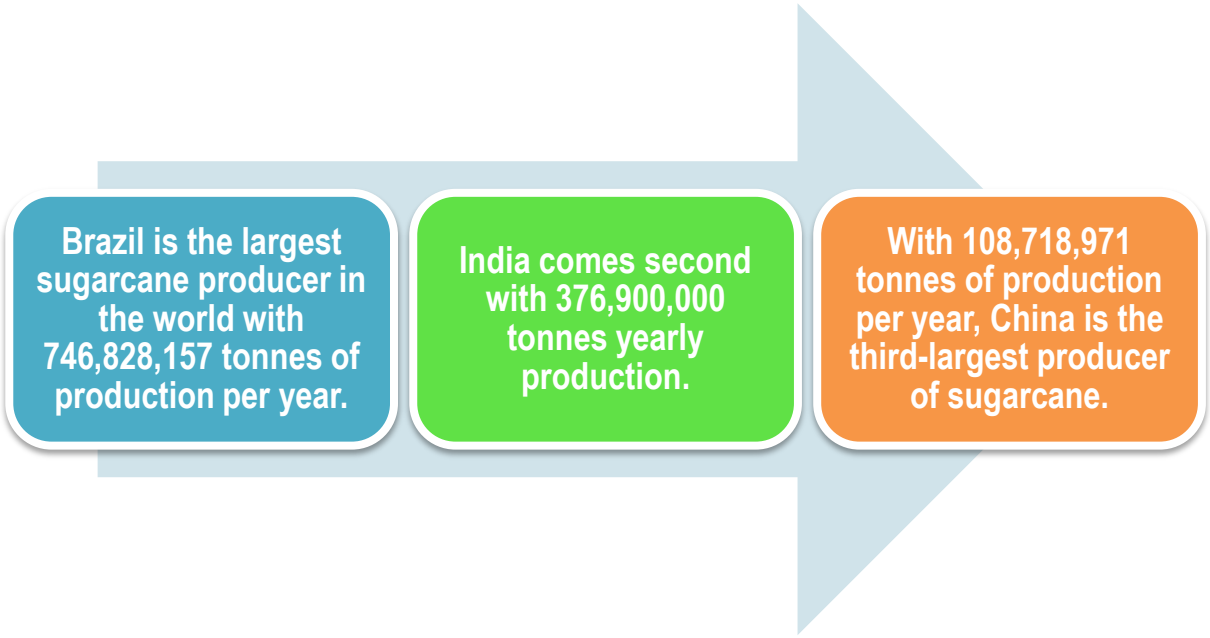
SUGARCANE VALUE CHAIN

According to the International Sugar Organisation, nearly 130 countries in the world participate in sugarcane and sugar beet production and have been providing the world with four major products including cane tops, bagasse, filter muds, and molasses. Being one of the easiest crops to grow, it has been providing countries with a sizable revenue, which has acted as a major growth driver for the global market. Since granulated sugar and liquid sugar are used in nearly all cuisines and in high amounts because of rapid urbanization, the demand for sugarcane is expected to increase. In 2018, the global sugarcane market size stood at $23.60 billion. During the forecast period 2019–2025, the sugarcane market is deemed to grow at a compound annual growth rate (CAGR) of 1.80% (“Pakistan Sugarcane Market Research Report: Market Size, Industry Outlook, Market Forecast, Demand Analysis, Market Share, Market Report 2021-2026” n.d.).



	Potential Zone	Existing Area	Punjab
Poduction (Tonnes)	36,499,840	13,113,160	49,613,000
% of Total Punjab Production	74	26	100
Average Yeild(Mound/Acre)	668	528	645
Area(Acre)	1,353,000	569,000	1,922,000
% of Total Area	70	30	100
Total Caltivated Area	9,633,000	19,078,280	30,847,830

GLOBAL PRODUCTION OF SUGARCANE



Country	Production (Tons)	Production per Person (Kg)	Acreage (Hectare)	Yield (Kg / Hectare)
Brazil	746,828,157	3,564.251	10,042,199	74,369
India	376,900,000	282.009	4,730,000	79,682.9
China	108,718,971	77.998	1,414,973	76,834.7
Thailand	104,360,867	1,508.472	1,372,169	76,055.4
Pakistan	67,173,975	332.755	1,101,946	60,959.4
Mexico	56,841,523	455.688	785,905	72,326.2
Colombia	36,276,860	726.569	408,716	88,758
Guatemala	35,568,207	2,055.718	300,246	118,463.7
Australia	33,506,830	1,337.63	442,958	75,643.4
United States of America	31,335,984	95.605	364,096	86,065.2

Figure 26: *GLOBAL SUGARCANE PRODUCTION (2018-2020)*

Source: World Population Review

Pakistan's Marketing Year (MY) 2020/21 sugar production is forecast at 5.9 million metric tons (MMT), a six percent increase from the current year's revised estimate due to an expected increase in sugarcane area. Sugar consumption for the same year is forecast at 5.8 MMT, moderately higher than last year's estimates, and exports are forecast at 400,000 metric tons. Ending stocks are expected to decrease to 1.9 MMT. The current year's production estimates are revised slightly from last year mainly due to an increase in productivity. MY 2018/19 sugar exports stand at 600,000 tons mainly due to a subsidy of $35 per metric ton provided to sugar exporters. Sugar prices jumped 33 percent in March 2020 compared to the same period last year.

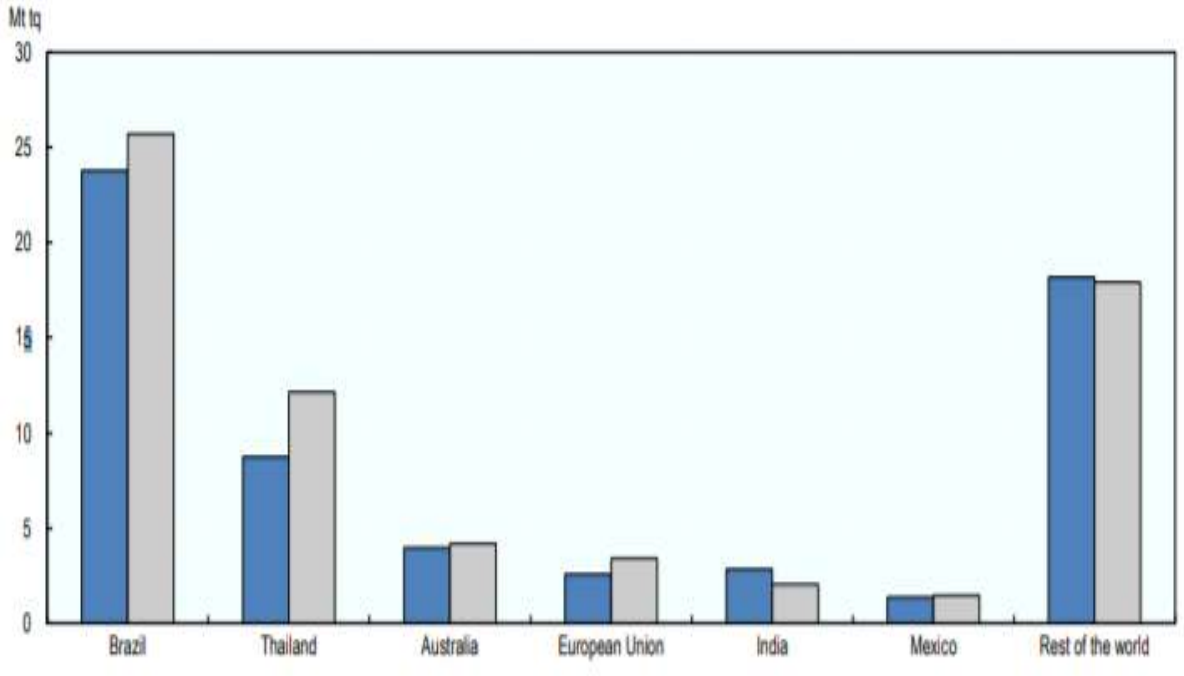


Figure 27: *PAKISTAN EXPORTS OF SUGARS AND SUGAR CONFECTIONERY*

Source: OECD Agriculture statistics 2019

Pakistan is the fifth largest sugarcane producer in the world with an annual production of 63,800 thousand metric tons (TMTs), after Brazil, India, China, and Thailand. Pakistan's marketing year (MY Oct/Sep) 2021/22 sugarcane production is forecast at **83 million metric tons** (MMT), up to ten percent from the revised 2020/21 estimate, due to an increase in area and sugarcane yields.

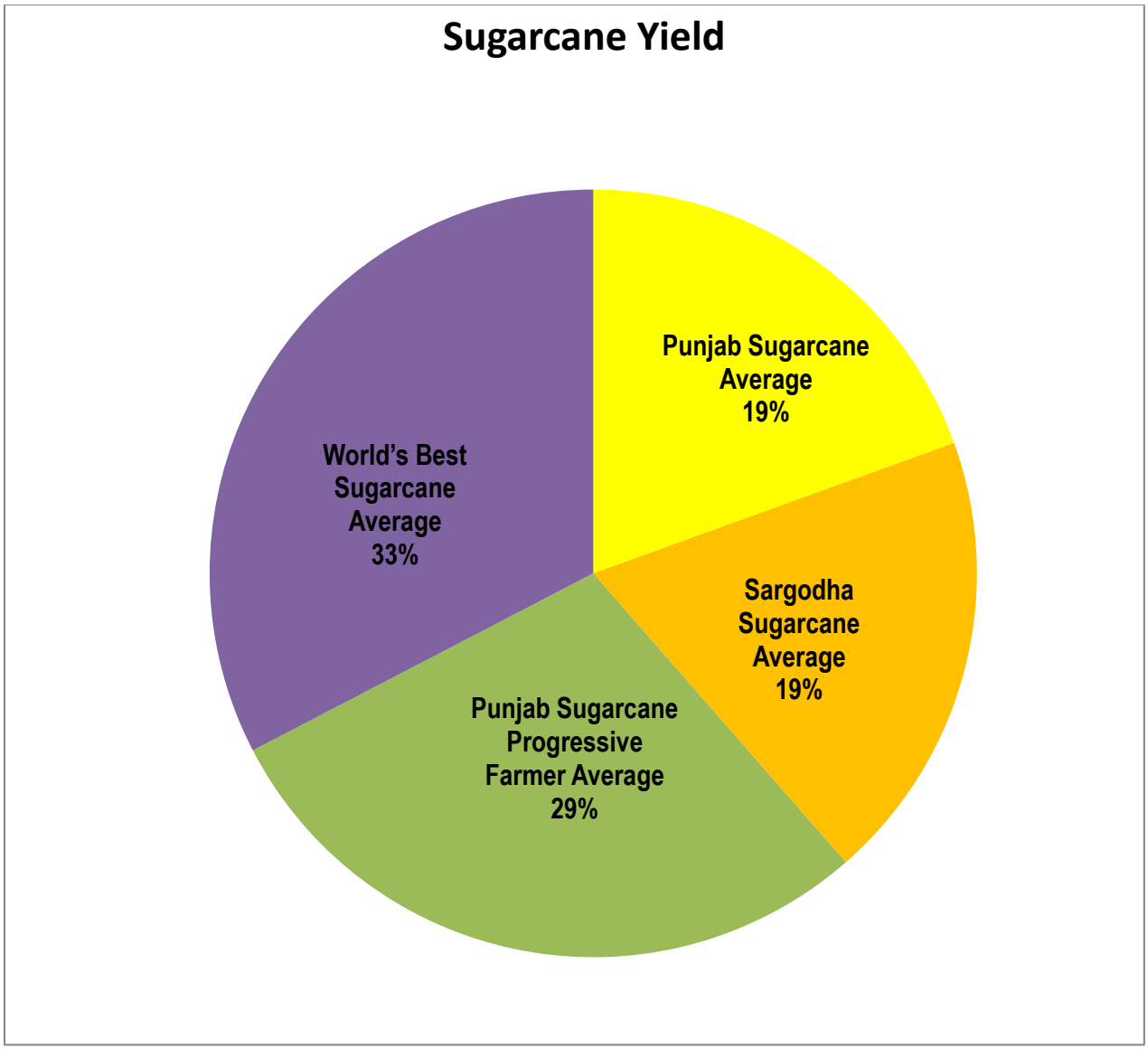


Figure 28: *SUGARCANE YIELD*

Source: Crop Reporting Service

CHALLENGES AND ISSUES

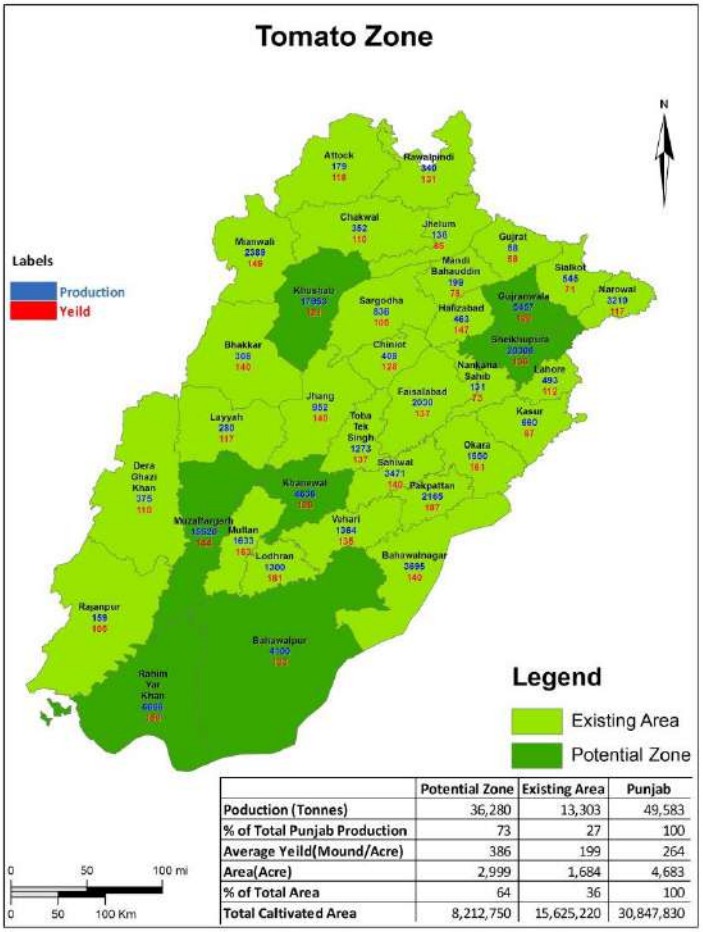
Inputs	Production	Harvest	Markets & Logistics
Non-availability of drought and salt-tolerant sugarcane varieties Low seed rate Poor plant protection measures Weak varietal development program Increase in cost of inputs	Only 50-60% area is under approved good quality varieties Improper pest management Low quality of pesticide. Lack of extension Services and technical assistant Poor land preparation Climate changes Control on the spread of unapproved and low sugar content varieties (CO-1148 in KPK, SPF-238 in Punjab & Disco in Sindh)	Lack of modern technology Access to finance problem Low-quality cane procurement system i.e. mainly through a middleman Harvesting delay due to late crushing	Role of the middle man. Lack of regulation Poor marketing infrastructure Lack of marketing campaign for local consumption Lack of market research/ market identification Poor access to the high-end market Untimely payments to farmers by the sugar mill

RECOMMENDATIONS

Inputs	Farms Management & Zoning	Marketing & Access to Finance
Development of climate-smart high-yielding varieties. DNA & all other required testings for mother plant and scion varieties Identification of demand in the international and local market Control of diseases Introduction of different varieties planted may be harvested according to their maturity. Germplasm Acquired/Distributed to date Availability of cheap and efferent Pesticides	Showcasing of Good Agricultural Practices (GAP) on balanced use of fertilizer, Weedicide application, and Integrated Crop Management (ICM). Promotion of water-saving technologies. Promotion of Intercropping, September Planting, and Chip Bud Technology. Availability of skilled and trained labor Adopt modern sugarcane harvesting technology, strengthening support services. Upgradation of Sugarcane Research Institute and capacity building of their staff Selection of cane varieties having resistance against biotic and abiotic stresses, high yield, and sucrose contents to be accomplished. Provision of extension services	Sugarcane value addition enhancement program. Improved local markets, & international linkages Provide an incentive for setting up new industries Develop feasibilities for new value add industries Linkages with academia and international researchers for R&D Improvement in cane growers' economic condition by increasing productivity per unit area.

TOMATO VALUE CHAIN

Tomato is one of the most important vegetables in the world. It is important for cash and industrial crop in many parts of the world. Tomato is the most common and important kitchen item cooked as vegetables, used as condiments, and salad in Pakistan. The consumption of tomatoes has high-income elasticity of demand. Thus, there will be more demand for these vegetables with population growth, economic growth, and urbanization. Among the vegetables, tomato is one of the most important vegetables in terms of acreage, production, yield, commercial use, and consumption. It is used as a food item on daily basis and forms a very important component of food consumed in Pakistan. Pakistan had a 150 thousand ha area and 57094 tons production of tomato. Sindh is the highest tomato-producing province with tomatoes grown in an area of 67.46 thousand hectares followed by Balochistan with 31.38 thousand hectares of the area while Punjab had 18.29 thousand ha under tomato cultivation.



	Potential Zone	Existing Area	Punjab
Poduction (Tonnes)	36,280	13,303	49,583
% of Total Punjab Production	73	27	100
Average Yeild(Mound/Acre)	386	199	264
Area(Acre)	2,999	1,684	4,683
% of Total Area	64	36	100
Total Caltivated Area	8,212,750	15,625,220	30,847,830

Productivity improvement always remains the main thrust of all the economies in the world. Increasing productivity leads to increasing trade. Innovations, productivity, and exports have strong relationships. Developed countries are leading in per hectare productivity due to the use of advanced technology. Developing countries are following the path of productivity enhancement. Pakistan is a developing country with the fifth-most populous country. The majority of which is dependent on agriculture (67%) and 43.7 percent of the labor force is involved in the agriculture sector (GoP, 2014).

Horticulture contributes 11% of the total value added to agriculture. Generally yield of different crops is stagnant except for major crops in Pakistan. In horticultural crops, tomato occupies a major position.

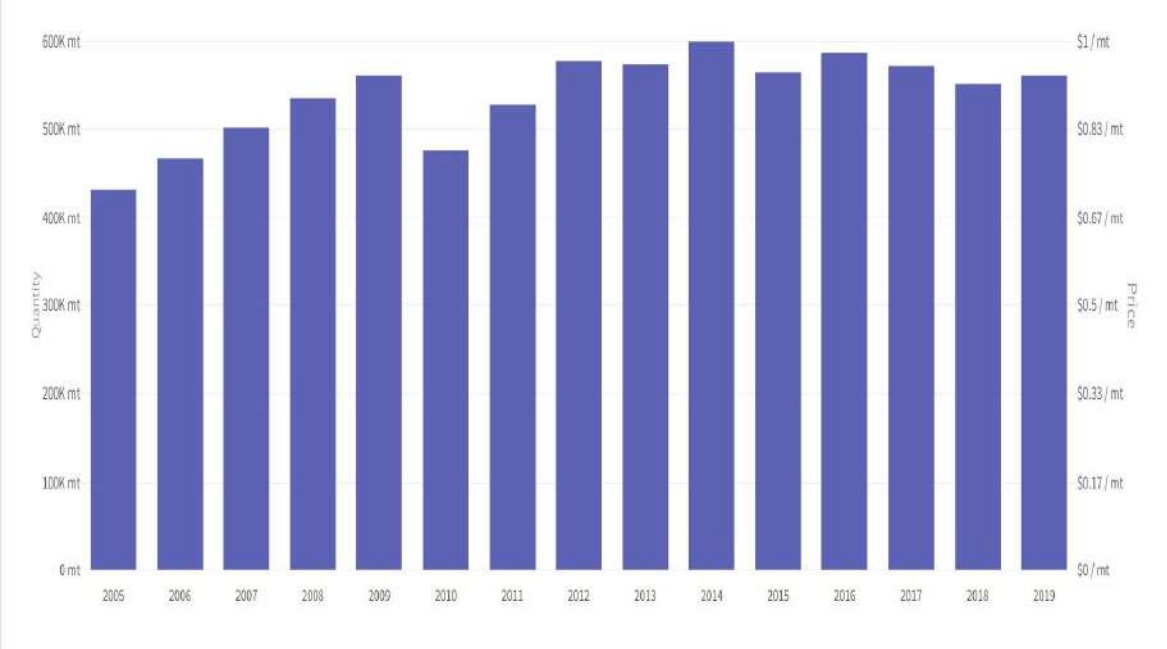
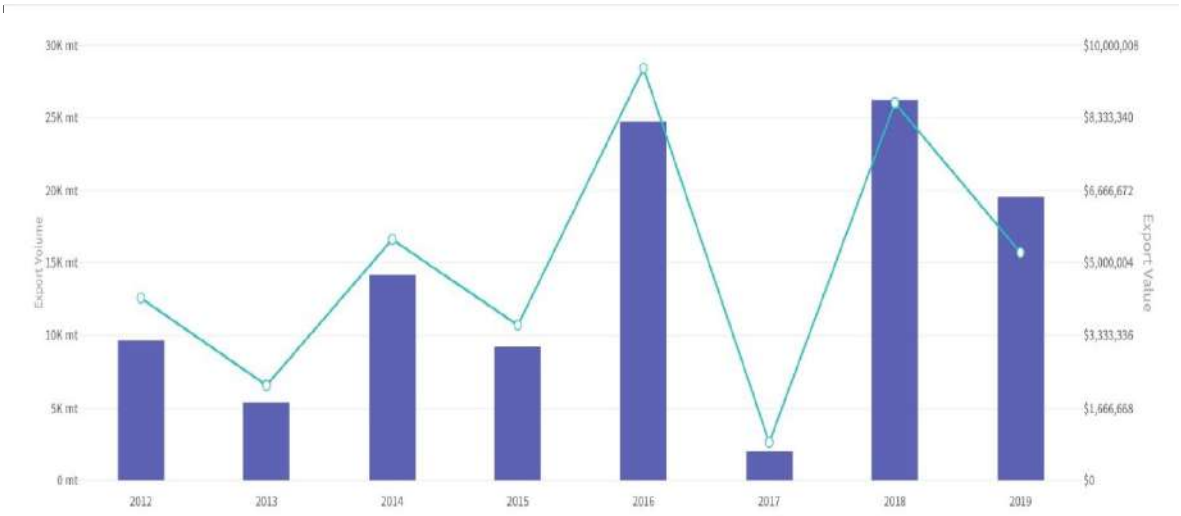


Figure 29: *TOMATO PRODUCTION*

Source: Statista

Pakistan earns only 28% of the world average export price suggesting great challenges in improving the tomato value chain. The country can export less than 1% of its production while the world average export-production ratio is 4.7%. Pakistan has great potential to improve its export-production ratio because of its lower farm gate prices than the world average.



Type	Unit	2012	2013	2014	2015	2016	2017	2018	2019
Export Value	USD	4.19M	2.19M	5.54M	3.57M	9.47M	879.48K	8.67M	5.23M
Export Volume	Metric Ton	9.72K	5.43K	14.18K	9.27K	24.79K	2.09K	26.30K	19.54K
Export Unit Price	USD / Metric Ton	431.29	403.04	390.44	385.25	381.82	421.80	329.75	267.74

Figure 30: *TOMATO EXPORT*

Source: Trade map

The global production of tomatoes is about 182 million tonnes obtained from 4.8 million ha with an average yield of 38 tonnes per ha. China and India are the leaders in global tomato production. Pakistan ranks 33rd among the tomato-producing countries. The global export of fresh tomatoes is worth US$ 8.8 billion, while the export of tomatoes and their products has reached over US$ 13 billion. Mexico leads the world in exports followed by Spain. The top importer of fresh tomatoes is the USA followed by Belgium and Russia.

The current yield of tomatoes in the Sargodha division illustrates a huge difference between the international, progressive farmer and Sargodha division yield. As a result, interventions are being proposed to increase tomato yield, reduce post-harvest losses, improve the value chain, and convert basic crop production into high value-added products; to enhance export and increase the overall value of the product for the farmers and other sector stakeholders.

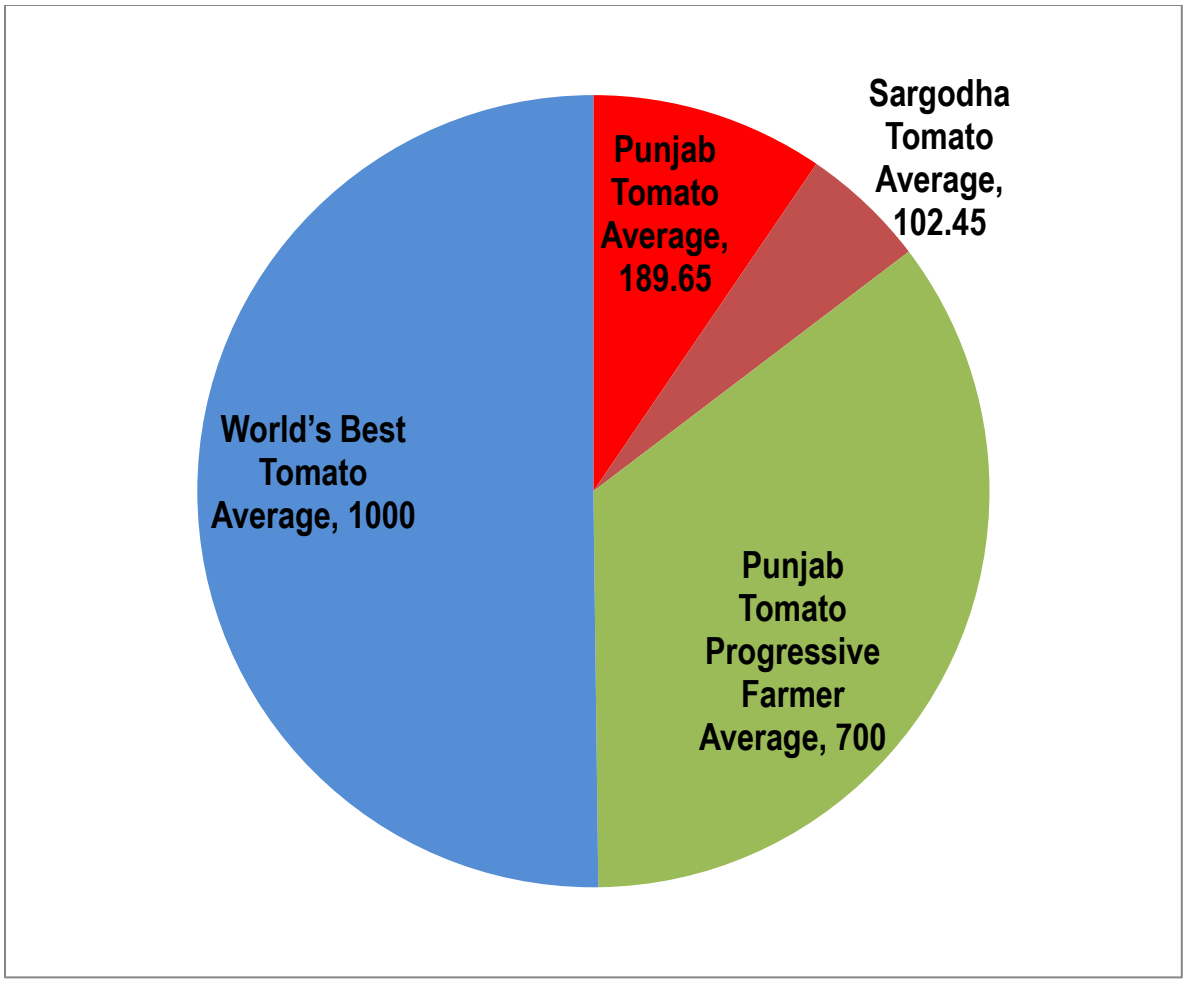


Figure 31: *TOMATO YIELD*

Source: Agriculture Policy 2018

CHALLENGES AND ISSUES

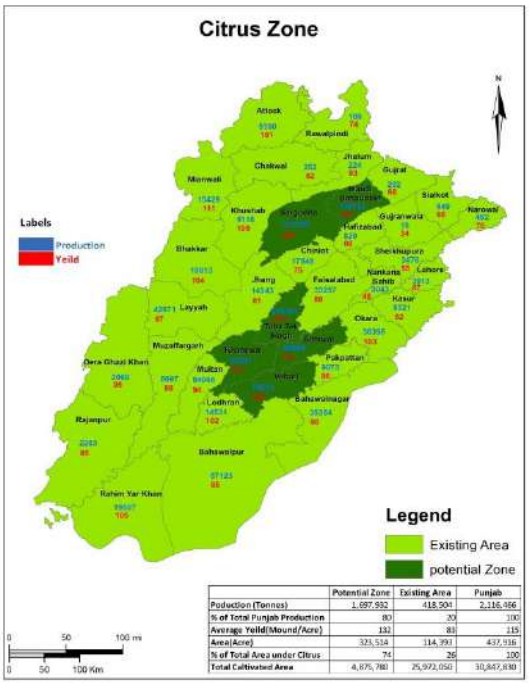
Inputs	Production	Harvest	Markets & Logistics
Expensive seeds Seed efficiency is 80 % No locally Produced Cheap seed available in the market Lack of institutional support to provide a database and inventorying of certified, disease-free seed plants. Unreliable supply of certified plants. Lack of registered nurseries Poor nursery management practices	Shortage of Skilled Labor. Most of the Production is in the Peri-Urban area due to the labor supply. Fail to meet Demand annually because of limited capacity. Inadequate supply of plants required for new zones. No disease-free zones were identified for new plantation Low quality of pesticide. Low Prices in the local market Lack of extension Services and technical assistant Poor pest/disease management Imbalance uses of Nutrition	Post-Harvest Losses up to 20% Incorporate modern harvesting technologies Inadequate and scarcity of existing facilities for Grading, Polishing, and sizing for local market demands. Quality assurance mechanisms and standardized certifications for export are missing. Lack of modern technology Access to finance problem Perishable goods and no storage capacities No Pulping unit nearby.	Role of the middle man. Lack of regulation Poor marketing infrastructure Lack of marketing campaign for local consumption Lack of market research/ market identification Poor access to the high-end market Lack of presence at international exhibitions/ trade shows Lack of support from trade counselors posted abroad in opening new markets/relationship management in existing markets

RECOMMENDATIONS

Inputs	Farms Management & Zoning	Marketing & Access to Finance
Availability of Cheap and HYV seeds in the market	Increasing cropping area and Declaring peri-urban areas to be Tomato zones.	Developing state-of-the-art Cold-Storage
VRI to develop new seed varieties	Availability of skilled and trained labor	Improved local markets, & international linkages
DNA & all other required testing are for mother plant and scion varieties	Farm Mechanization	Provide an incentive for setting up new industries
Identify protocol for export of tomatoes to the various markets.	Availability of cheap and efferent Pesticides	Providing Pulping Units
Upgradation of VRI and capacity building of their staff	Awareness and training of farmers on standardized Tomato farming management and improved irrigation practices	Availability of alternative Value addition Products of Tomatoes.
Linkages with academia and international researchers for R&D	Training of labor on Grading, Sorting, Packaging, usage of processing equipment	Develop packaging manufacturing industry for fresh fruit
Timely availability of water and other inputs	Provision of extension services	Develop local manufacturing industry to manufacture Grading/Sorting/Packing lines
		Develop a zoning-based state-of-the-art trading market.
		Identification of demand in the international and local market

CITRUS VALUE CHAIN

Pakistan is producing more than 30 types of different fruits of which citrus fruit is leading among all fruit and constitutes about 30% of total fruit production in the country. Above 90% of citrus fruits are produced in Punjab province and distributed through different value chains in domestic as well as international markets. A large part of citrus fruit produced in Pakistan is mostly consumed locally without much value addition; however, 10–12% of total production is exported after value addition.



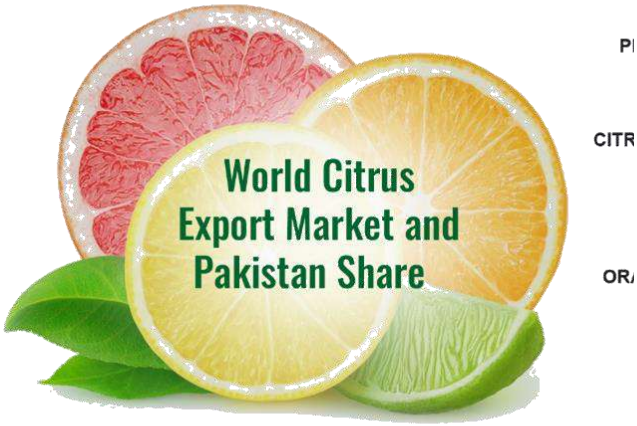


Figure 32: *CITRUS EXPORT MARKET SHARE*

Source: Trade map and FAO

In Pakistan citrus fruits are the most important fruit crops grown on an area of approximately 160,000 hectares with a production of 2.13 MMT annually, making it the 14th largest producer with global

exports share of 2.7% making it the 19th largest exporter in terms of value and 10th largest in terms of quantity. It is grown in all four provinces of Pakistan, but Punjab produces over 95% of the crop because of its greater population, favorable growing conditions, and adequate water, in Sargodha, it is mainly grown in Sargodha, & Bhakkar District. Citrus is divided into different groups Sweet oranges, Mandarine, Grapefruit, Lemon, and Lime which are being grown commercially.

World citrus production is increasing at 2.24% per annum, there is a huge potential to increase citrus production, which can be achieved with accurate interventions. Similarly, exports are increasing by 2.57%, hence to remain in the top citrus exporting countries there is an urgent need for the Government to provide an enabling environment with the requisite interventions to enhance the productivity of citrus.

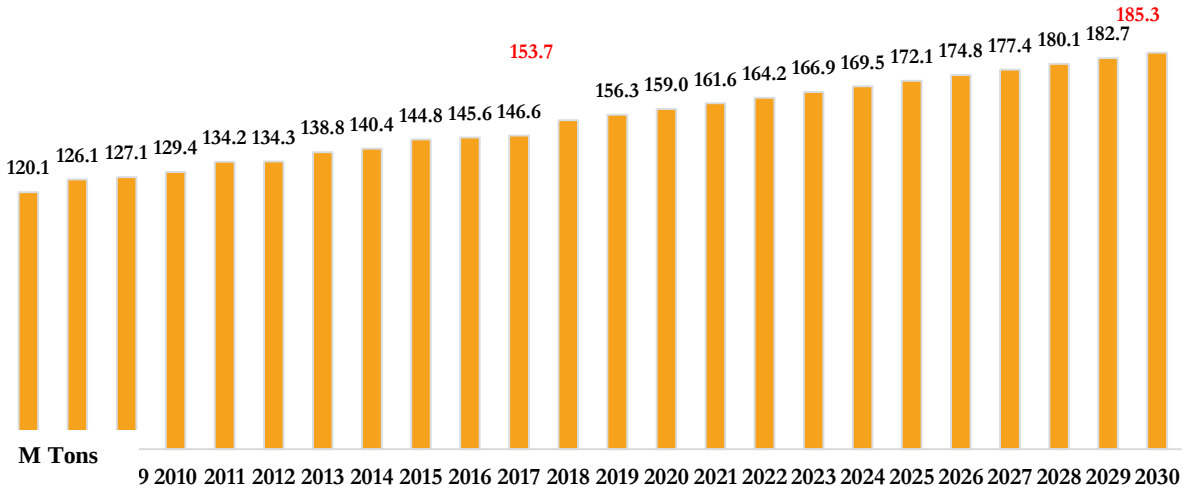


Figure 33: *CITRUS PRODUCTION*

Source: FAO

Pakistan ranks at number 10 among citrus exporting countries, Spain leading with 3,549,540 tons export value, there is a need to improve citrus quality to be among the top.

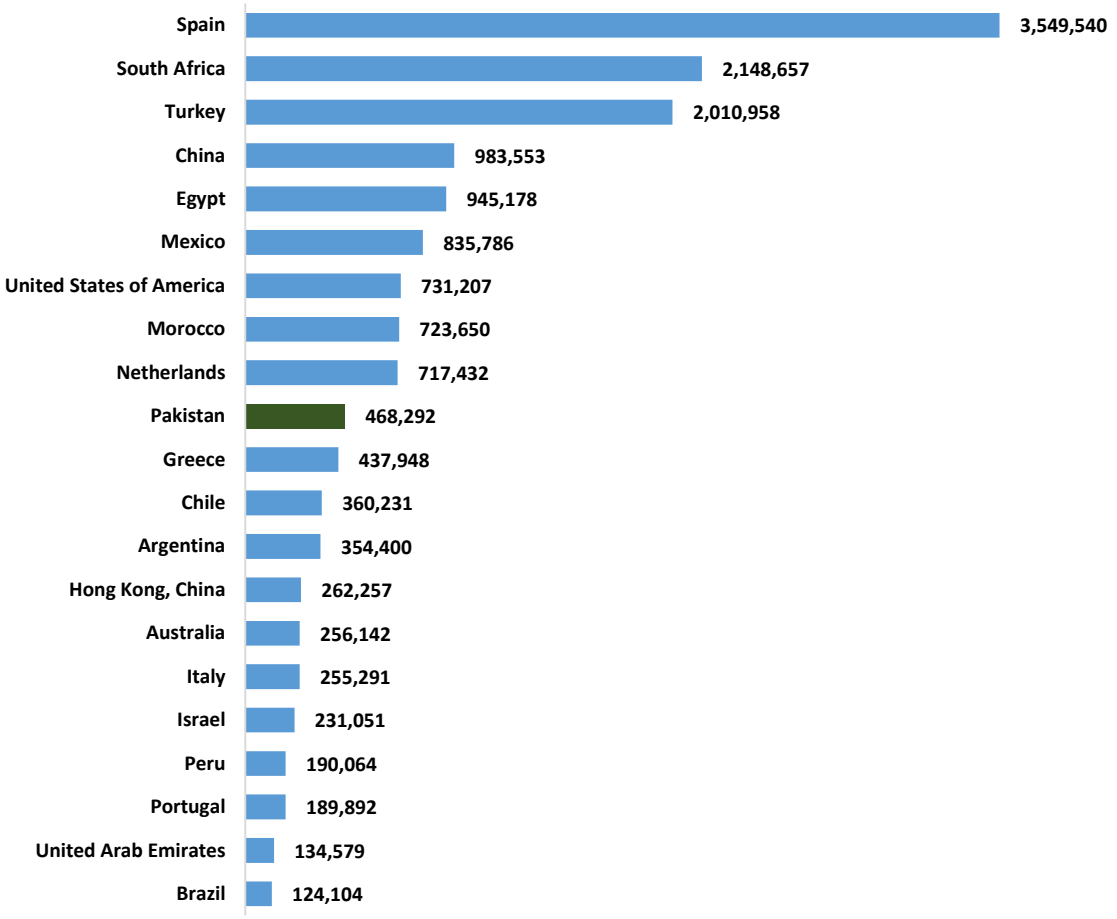


Figure 34: *CITRUS EXPORTS*

Source: Trade Map

Due to the low quality of citrus produced in Pakistan, it does not fall in the top 10 leading exporters when investigated by type of citrus exported, Pakistan only comes in the top 10 for Mandarin. Similarly, Pakistan produces extremely low yield (kgs/Acre) when compared to the top 3 countries' yield in all citrus types, there is a need to adopt good agriculture practices and high density in orchards.

Sargodha Citrus is primarily targeting the international export market; around 90% of the total citrus exports from Pakistan are being supplied. Important export markets for Pakistan kinnow are Afghanistan, Iran, Indonesia, Malaysia, Eastern European, and Russian Federation countries. To

target and cater to the market, processors need to expand more and develop a network of traders and exporters.

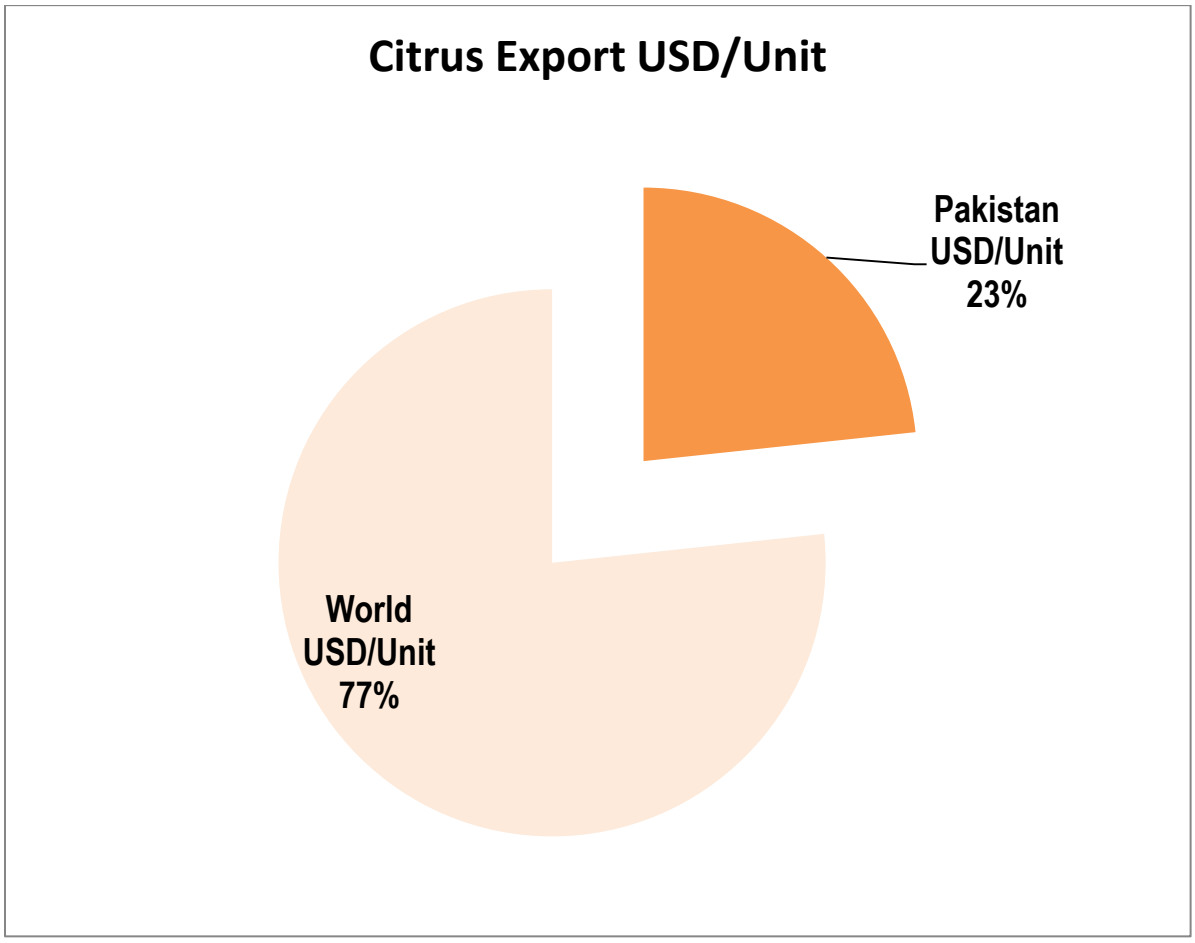


Figure 35: *CITRUS EXPORTS*

Source: Trade Map

With the changing consumer preferences toward the consumption of fresh and convenience food, the global demand for fresh fruit is increasing. The improvement in yield and quality through appropriate pruning levels in Kinnow is required in the Sargodha division which shows that maximum yield in the entire Punjab is gained from the Sargodha division.

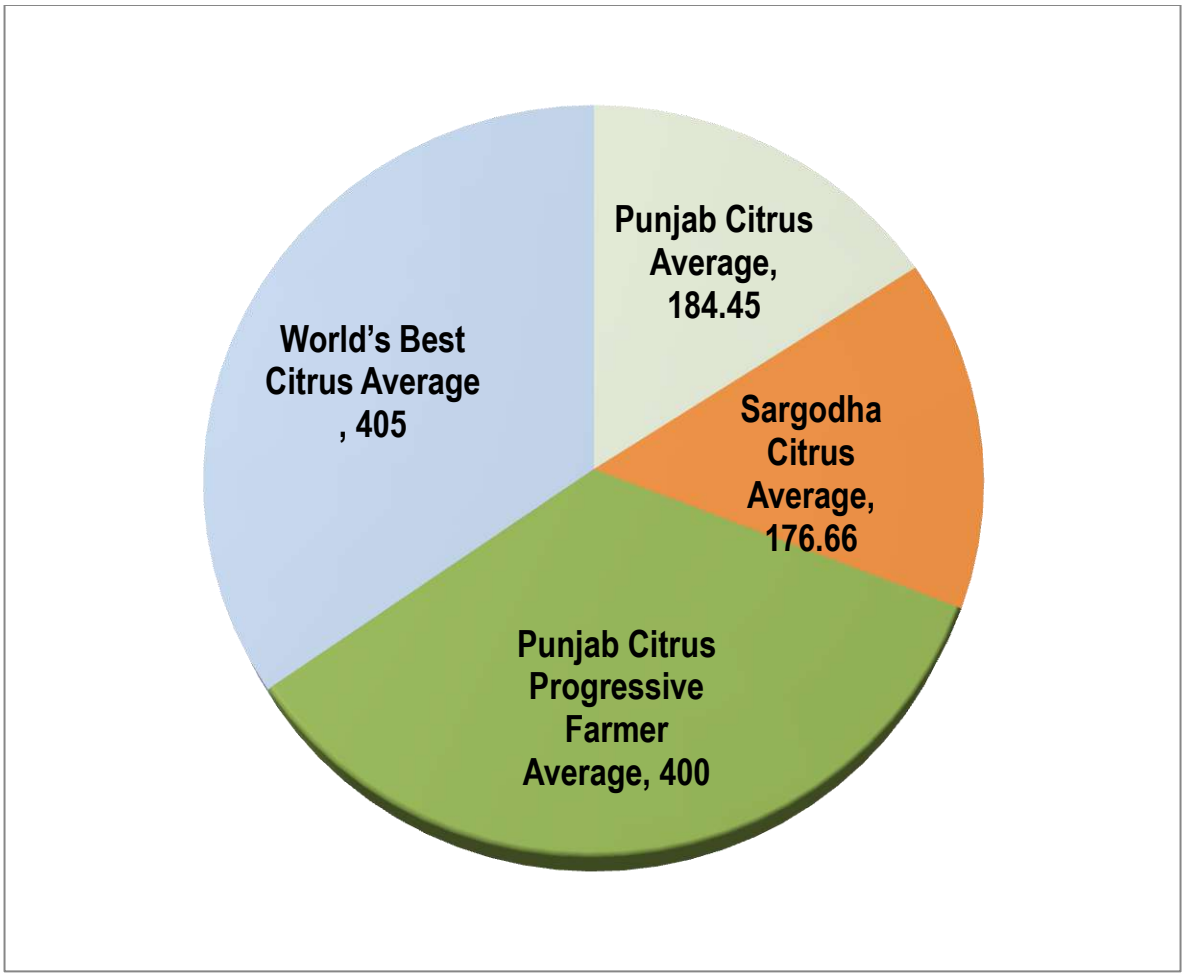


Figure 36: *CITRUS YIELD (KG/ACRE)*

Source: Crop Reporting Service

As a result, a big share of export quality citrus fruit rejected annually due to the presence of citrus related disease on fruits. There is an urgent need to control the disease to a reasonable level and be able to sort various types of Citruses. The challenges and issues faced by the Citrus production in Sargodha division are listed below. However, the PC - I form for citrus production in Sargodha division is attached in Annex A.

CHALLENGES AND ISSUES

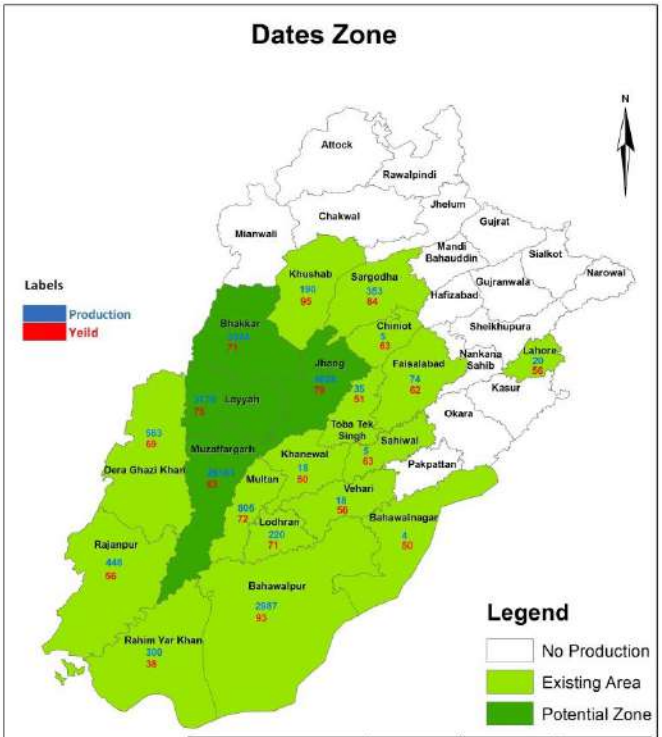
Inputs	Production	Harvest	Markets & Logistics
Unapproved/ uncertified varieties Lack of institutional support to provide a database and inventorying of certified, disease-free seed plants. Unreliable supply of certified plants. Lack of registered nurseries Poor nursery management practices Inadequate supply of plants required for new zones. Inefficient Irrigation systems	Fail to meet Demand annually because of limited capacity. Old outdated orchard management practices No disease-free zones were identified for new plantation No standardized curriculum for orchard management Reduced shelf life of fresh fruits Food safety issues Spread of diseases Low Price Lack of extension Services and technical assistant Poor pest/disease management Imbalance uses of Nutrition Intercropping	Post-Harvest Losses up to 20% Quality assurance mechanisms and standardized The existing capacity of frozen juice is low Increase the life of the product to improve exportability Lack of modern technology Low and inadequate quality of existing storage facilities Low automation Labor expenses	Poor marketing infrastructure Lack of marketing campaign for local consumption Marketing/trading Citrus under one brand from Pakistan as a premium product Lack of market research/ market identification Poor access to the high-end market Lack of presence at international exhibitions/ trade shows Inadequate and scarcity of existing facilities for Grading, Polishing, and sizing for local market demands.

RECOMMENDATIONS

Inputs	Farms Management & Zoning	Marketing & Access to Finance
CRI to develop new seed varieties	Farm Mechanization	Developing state-of-the-art Cold-Storage
DNA & all other required testing are for mother plant and scion varieties	Develop Standardized Manual on Citrus Orchard Management practices	Improved local markets, & international linkages
Identify protocol for export of citrus to the various markets.	Declare Citrus emergency to enforce the adoption of standardized manual practices	Provide an incentive for setting up new industries
Upgradation of CRI and capacity building of their staff	Develop 75,000 acres (through EMFP) on improved orchard management practices to target the export market	Develop local manufacturing industry to manufacture Grading/Sorting/Packing lines
Linkages with academia and international researchers for R&D	Awareness and training of farmers on standardized orchard management and improved irrigation practices	Develop a concerted media campaign for increasing the consumption of citrus products
Survey of nurseries to identify capacity to produce/ multiply disease-free plants	Provision of extension services	Develop a zoning-based state-of-the-art citrus trading market
Timely availability of water and other inputs		Identification of demand in the international and local market
		On-going varietal development based on market research

DATE PALM VALUE CHAIN

As per the statistics, the global production of dates is 8.2 million tons while Pakistan stands at 6th position among the largest dates-producing countries in the world. In Pakistan, dates are grown at 98 thousand ha, with 541 thousand tons of production and an average yield of 5.5 tons per ha. Globally, 1.25 million tons of dates worth price US$1.48 billion were exported during 2017. However, the top dates producing countries are Egypt, Iran, Algeria, and Saudi Arabia, while Iran, UAE, Pakistan, and Iraq are the top date exporting countries. On the other hand, India, UAE, Morocco, and France are leading dates importing countries both in quantity and value terms. The export of dates from Pakistan reached US$108 million in 2017. Such high growth in the export of dates is not sustainable because of its declining per ha yield in the country, thus production of dates in the Khushab and Bhakkar area would be suitable for high export in markets and will raise per capita consumption of dates in Pakistan. Moreover, Pakistani dates in international markets fetch only 60% of the world average export price indicating issues in its value chain resulting in poor quality dates. Expansion in export along with declining production has already reduced the per capita consumption of dates in Pakistan by about 42%.



	Potential Zone	Existing Area	Punjab
Poduction (Tonnes)	37,503	6,045	43,548
% of Total Punjab Production	86	14	100
Average Yeild(Mound/Acre)	78	64	76
Area(Acre)	12,272	2,002	14,274
% of Total Area under Dates	86	14	100
Total Caltivated Area	5,300,620	15,262,130	30,847,830

Parameter	World	Pakistan	Share (%)
Area (000 ha)	1330	98.0	7.37
Production (000 tonne)	8166	524.0	6.42
Value of production (Million US$)	9815	392.1	3.99
Yield (tonne/ha)	6.14	5.3	87.07
Farm gate price (US$/tonne)	1202	748	62.25
Quantity of international trade (000 tonne)	1253	175.1	13.98
Value of international trade (Million US$)	1477	107.5	7.28
Export quantity as % of production	15%	33%	-
Export value as % of production value	15%	27%	-
Average export prices (US$/tonne)	1042	629	60.33

Figure 37: *GLOBAL PERSPECTIVE 2017*

Source: FAOSTAT, Production, Trade, Crops, and Livestock

Countries	Area (ha)	Production (tonnes)	Yield (t/ha)
Egypt	49.5	1590.4	32.1
Iran (Islamic Republic of)	169.8	1185.2	7.0
Algeria	167.7	1058.6	6.3
Saudi Arabia	108.1	754.8	7.0
Iraq	365.9	618.8	1.7
Pakistan	98.0	524.0	5.3
United Arab Emirates	65.0	475.3	7.3
Sudan	37.1	439.4	11.8
Oman	24.6	360.9	14.7
Tunisia	64.4	260.0	4.0

Figure 38: *TOP TEN DATES PRODUCING COUNTRIES OF THE WORLD, 2017*

Source: FAOSTAT, Production, Crops

According to the last Planning Commission of Pakistan, Ministry of Planning, Development & Special Initiatives report, global production of dates was 8.2 million tonnes from more than 1.3 million ha with an average yield of 6.1 tonnes per ha. Pakistan stands at 6th position among the largest dates producing countries in the world. Sargodha division exhibits 12% of more potential in comparison to Punjab's total average which shows there

exists a huge potential for productivity enhancement since the progressive farmers and the international farmers are getting higher yields.

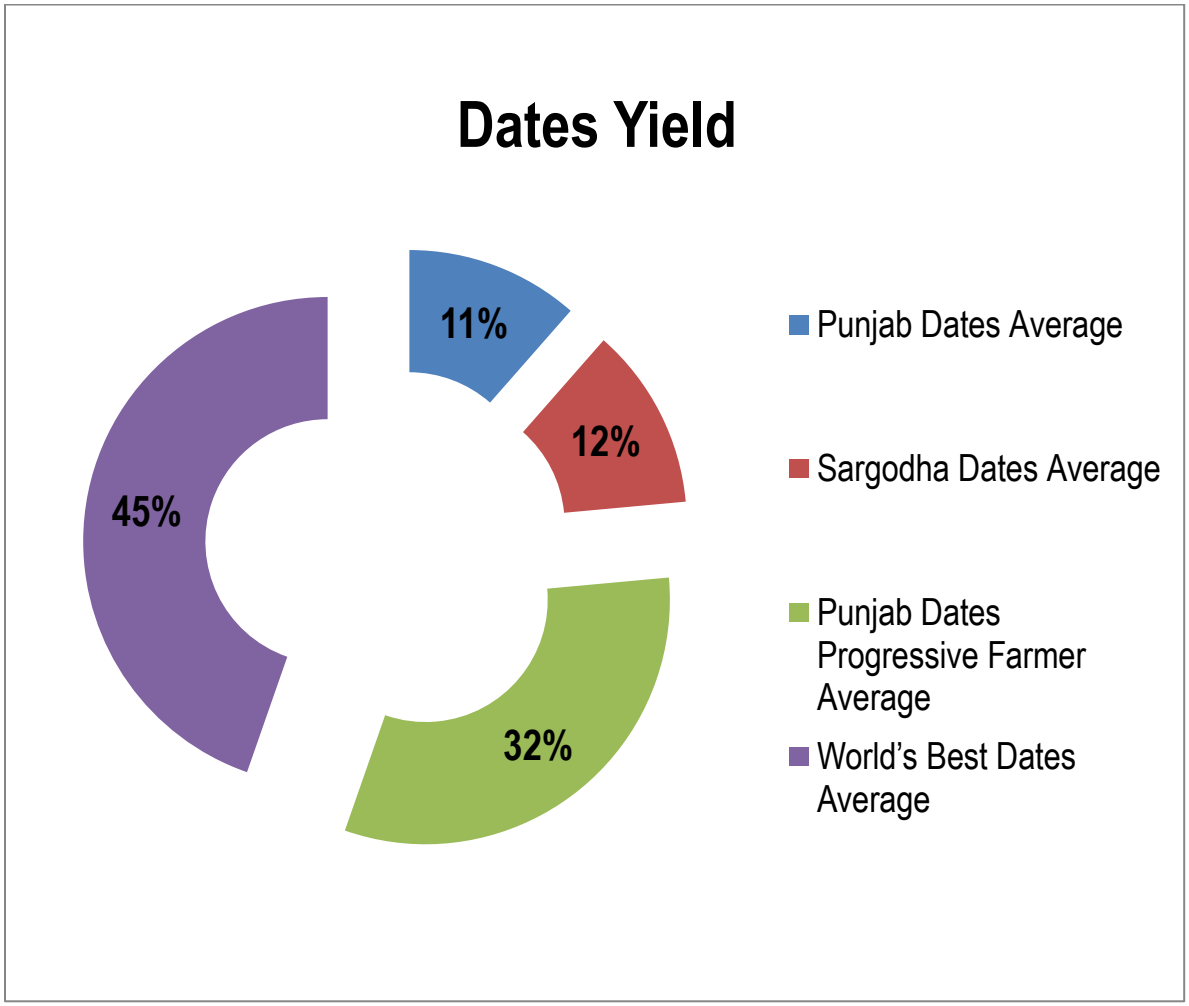


Figure 39: *DATES YIELD (MND/ACRE)*

Source: Crop Reporting Service

CHALLENGES AND ISSUES

Inputs	Production	Harvest	Markets and Logistics
High Yield Germplasm is required to replenish orchards Lack of knowledge and training programs. Low-Quality Cultivars. Lack of initial land and orchard preparation. Lack of institutional support and research to provide high-quality seed plants. Non-availability of quality fertilizers and micronutrients in the local input market.	Only a few varieties available in farmers' orchards Shortage of skilled labor Underdeveloped Date industry Monsoon rains and low temperature during the ripening of dates fruit Irregular rainfall and expensive Bunch covers Lack of Management Services Poor Farm Management. Non-availability of tissue-cultured date palms of local elite cultivars is another hindrance to dates production enhancement as farmers are using low-quality suckers.	Post-harvest losses are high. Poor handling of fruit during harvesting. Manual harvesting practice. Fruit is usually harvested at an early stage to avoid monsoon rains. Low and inadequate quality of storage facilities. No facilitated warehouses are present. Handling the crop after harvest is lacking the experience.	Secrete auction and biding for dates. Ups and downs in the market and effectively dealing with delaying payment tactics played by the commission agent. Limited knowledge of farmers about candidate markets of different quality of produce The dates farmers have little knowledge about the grading of the produce; and, they also possess less labor for professional handling.

RECOMMENDATIONS

Inputs	Farms Management and zoning	Marketing & Access to Finance
Linkages with academia and agricultural researchers for R&D. Proper orchards layout for high yield production. Initial Testing for water and soil quality. Availability of best quality inputs (fertilizers, herbicides) No formal Date grower association.	Capacity building and mechanized harvesting. Awareness and training of farmers on standardized farming and management. Improved irrigation practices. Availability of skilled and trained labor &Farm Mechanization Availability of cheap and efferent Pesticides	Agriculture literacy is needed to be enhanced for good date palm varieties and food security. Better Mode of transportation from farm gates to markets. Cold chains (cold storage, refrigerated containers (transportation) proper cold storage at markets). Easy procedures for shipment of dates to export globally.

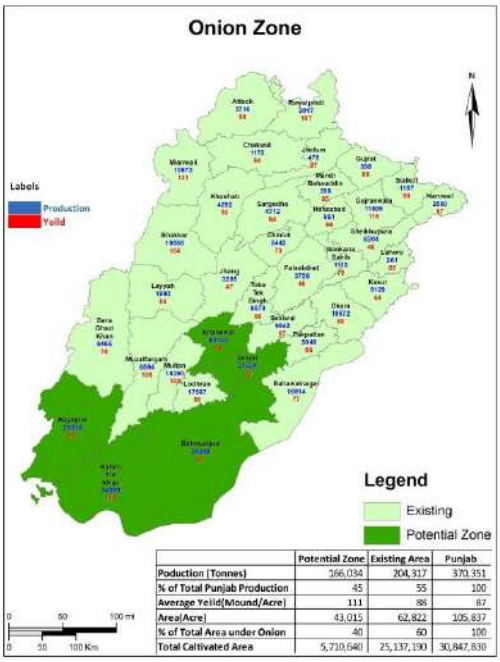
OLIVE VALUE CHAIN

Olive is a tree-borne oilseed crop that grows well in subtropical climates and is gaining popularity in Pakistan because of its socio-economic value and numerous health benefits but its cultivation is still in its infancy stage. During the last decade, more than 8966 acres have been cultivated in Pothwar, The Pothwar region in the northeastern nook of the country is being developed as an “Olive Valley” after being recognized as a suitable area for olive cultivation due to its topography and local weather. Pakistan is one of the largest importers of edible oils with a per capita consumption of 16 kgs and meets 75% of its edible oils demand through imports. The export volume of olive oil is 1,300 tons. Total olive production is around 20 tons compared to 0.5 million tons of other edible oils (cottonseed oil/rapeseed oil/sunflower seed & canola oil) (GOP, 2021). Olive plantation in Khushab would have multifold advantages: to meet the local demand for edible oil and to contribute to the economy on one hand as the soil of khushab district is well suited for its plantation. The production of Olive faces the following challenges and issues:

- Unavailability of Certified Plant
- High Cost of Production
- Lack of Production technology
- Orchard Management
- Shortage of water
- High irrigation water cost
- Marketing problems
- Pest/Insects attack.
- Difficulties in process of extraction
- Replacement of damaged plant within time
- Unfit soil
- Variety of plants is not good.
- No Processing or value addition Units/Plants

ONION VALUE CHAIN

Onion is one of the important seasonings widely used in households throughout the year across all socioeconomic groups. The green leaves and immature and mature bulbs are eaten raw or used in the preparation of vegetables. The supply of onion falls short during December-January and prices soar to more than five times compared with the normal season. The consumption of onion has high-income elasticity of demand. Thus, there will be more demand for onion with population and economic growth, and urbanization (Fateh, 2009). In Pakistan the yield of onion crop is comparatively low as compared to the global market, onion is grown on an area of 136 thousand ha with the production of 1.74 million tones across all the provinces and regions of Pakistan



	Potential Zone	Existing Area	Punjab
Poduction (Tonnes)	166,034	204,317	370,351
% of Total Punjab Production	45	55	100
Average Yeild(Mound/Acre)	111	86	87
Area(Acre)	43,015	62,822	105,837
% of Total Area under Onion	40	60	100
Total Cultivated Area	5,710,640	25,137,190	30,847,830

each having different harvesting periods giving some spread in the fresh availability of onion. Price fluctuation of onion is seasonal. In the post-harvest period, the prices drop whereas in the off-season these are quite high. Thus, from the farmers' point of view, they are denied reasonable prices for their produce. On the other hand, consumers have to pay high prices during the off-season. Hence, Government has to import onion during the off-season to increase its supply in the market. There is considerable scope to increase onion area and production in the Bhakkar district by using new technology and high-yielding onion seed varieties to cope with the high prices during the offseason.

Onion yield in Pakistan is quite low, (10-12 tons/hectare) and is considerably less than the potential yields (22 tons/hectare). Sargodha division yield shows 111.78 Mds/Acre of potential in comparison to Punjab's total average of 142.61 Mds/Acre. However, a huge gap is visible between the progressive farmer and the world average while considering Sargodha's potential. This gap between potential and actual yields is due to poor management practices and post-harvest losses.

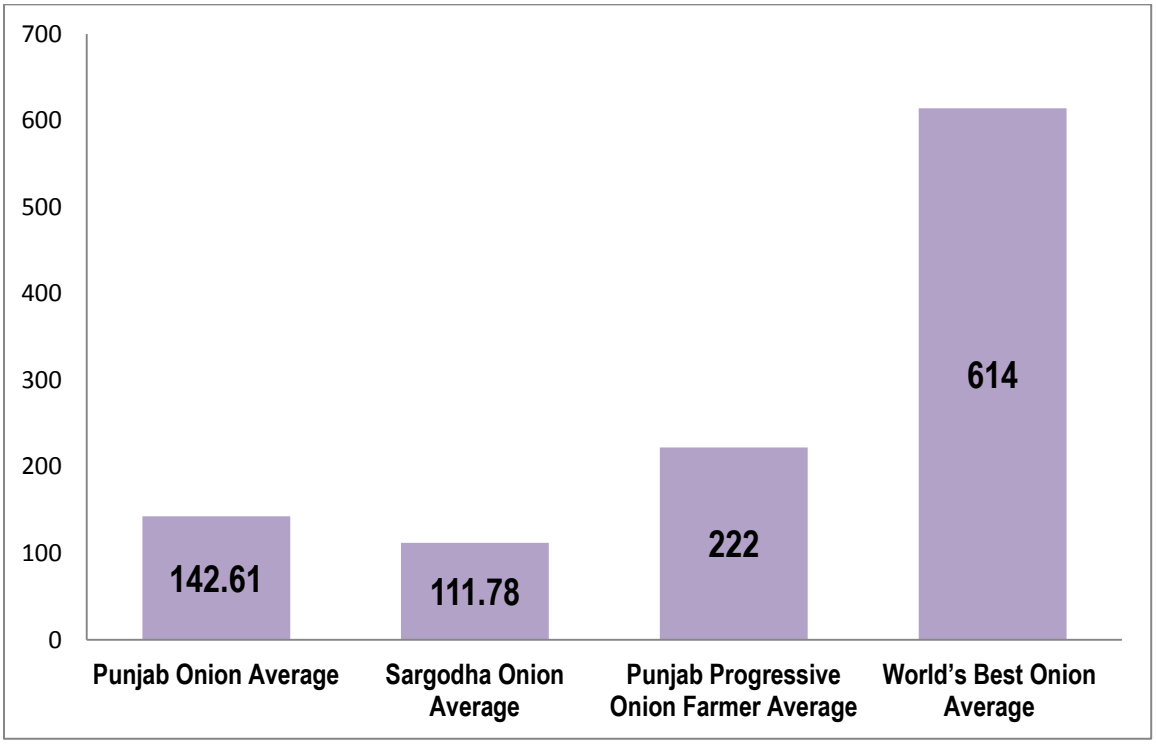


Figure 40: *ONION YIELD (MND/ACRE)*

Source: Crop Reporting Service

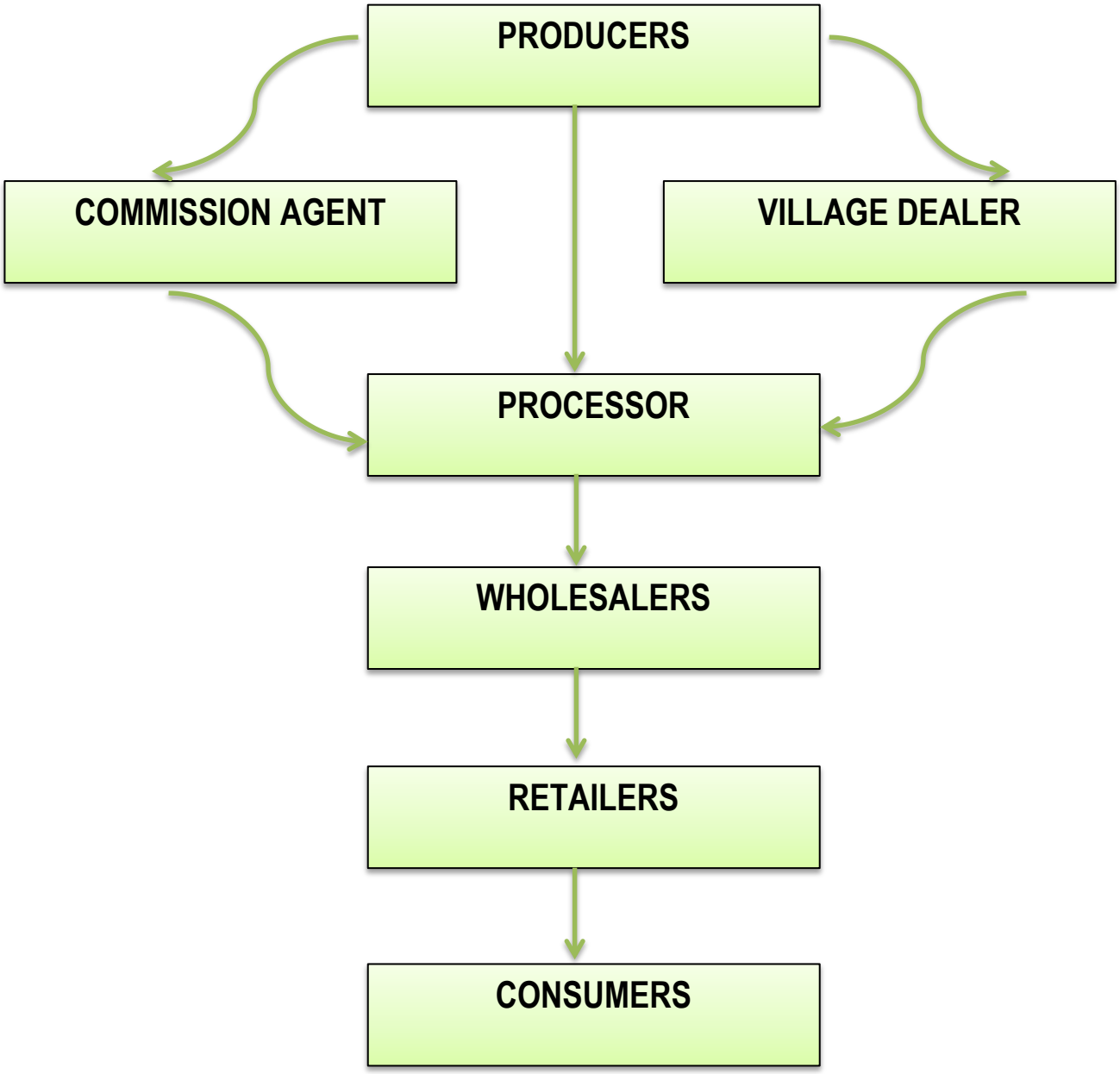
CHALLENGES AND ISSUES

Inputs	Production	Harvest	Markets and Logistics
Onions crops are mixed with other crops like wheat, mustard, Sugarcane, and other vegetables that cause disease infection. Low uptake and usage of fertilizers and pesticides. Limited availability of certified, quality, and pure variety seed/seedlings. Non-availability of appropriate quality fertilizer and micronutrients in the local input market. Unhealthy and diseased seed plantation	Heavy rainfall causes a reduction in seed and bulb yield. Sometimes monsoon rainfall causes serious damage to the onion nursery. Unhealthy and diseased seed plantation. Traditional crop management practices are faulty. Pre-harvest losses due to lack skills and infrastructure.	High post-harvest loss Unavailability of processors and modern processing plants. Poor post-harvest management practices. Lack of technologies, and canning equipment. Poor post Handling.	Most farmers have no storage facility and they sell the produce at field level. The majority of farmers and traders do not follow the commodity handling precautions and protocols. High fuel cost especially diesel used in transportation and high freight cost. Farmers are disconnected from high-value markets. No cold chains or cold storage are available Producers have little information about the quality requirements in national and international Markets

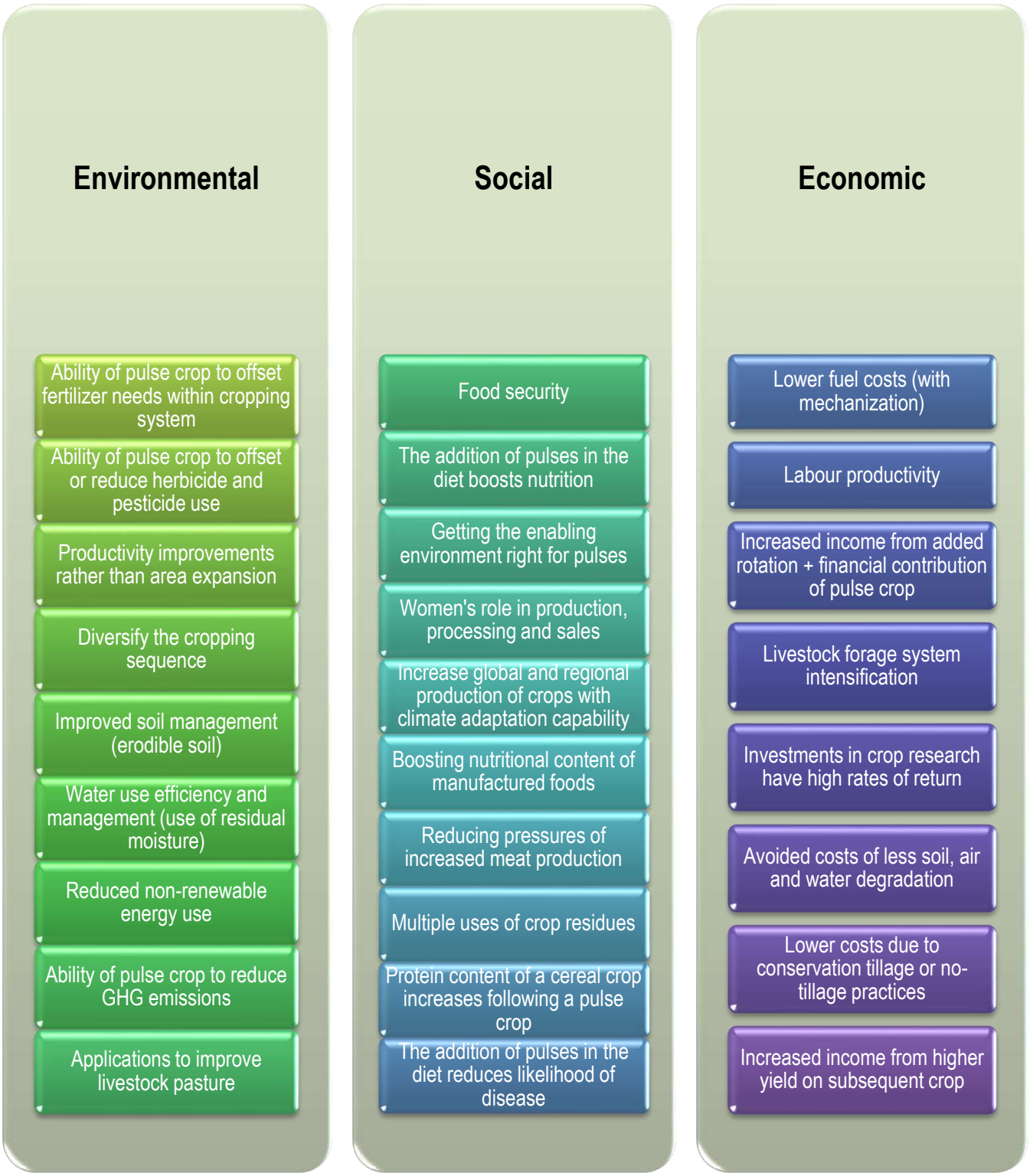
RECOMMENDATIONS

Inputs	Farms Management and zoning	Marketing & Access to Finance
Investment in R&D and processing and quality infrastructure. Training of farmers and contractors to adopt production and harvesting practices that can maintain the quality of onion.	Increase in income for farmers, middlemen, and traders. Crop management practices followed by the growers need to be further strengthened with new technologies and knowledge. Mechanized harvesting by the onion harvesting machines. Improved Extension Services.	Availability of modern processing plants, technologies, and equipment for canning and processing. Adaptation of international quality standards at each segment of the value chain to promote exports. Replace the onion varieties with high-yielding modern varieties and supply their seedlings through certified nurseries.

PULSES VALUE CHAIN



PULSES BENEFITS – FINANCIAL, ENVIRONMENTAL, SOCIAL



Source: Adapted from Kissinger (2016)

CHICKPEA/GRAM

Pulses are the most important source of vegetable protein in Pakistan. They are cultivated on 5% of the total cropped area. Their use ranges from baby food to delicacies of the rich and the poor. Because of the population growth, demand for pulses is increasing day by day. There is a need to develop varieties with higher yield potential that respond to improved management practices to meet the increasing demand for pulses.

Major importance to chickpea improvement was attributed because it contributes 70-80% to the area and production of the total pulse. The Thal desert which can not support/sustain major cash crops due to low fertility and lack of artificial irrigation is well known as the home of chickpea. This is because chickpeas can perform well under conditions of moisture stress in marginal soils. The drought tolerance in this crop is an extremely desirable attribute for moisture deficient areas of the country. The medium fertility, moderate moisture levels, sandy loam soils, and moderate winters provide optimum conditions for chickpea cultivation. The visits reveal swear fluctuation highlighting the problem of instability, which may be attributed to 3 major constraints. Drought or moisture stress and wilt are the twin problems that occur together. The third major constraint to chickpea production is Ascochyta blight.

There are two main types of chickpea, distinguished by seed size, shape, and color. The first relatively small seeds are called desi and with a large seed called Kabuli. Desi chickpea is cultivated mainly in the Indo-Pakistan subcontinent. Chickpeas are used both for human consumption and animal feed in rural and urban areas.

Chickpea is grown in tropical, subtropical, and temperate regions. Kabuli type is grown in temperate regions while the desi type chickpea is grown in the semi-arid tropics. Gram covers a major portion of the rice area in the winter season and is a common Dubari crop of rice tract in Sindh. Khushab, Thal desert, Cholistan, and Bahawalpur are the main growing areas are in Punjab.

The Gram statistics show that there exists a huge gap between Punjab, and Sargodha productivity enhancement relative to progressive farmers and the world's best yield. A good gram crop in the case of desi (black varieties) gives an output of 15 to 25 maunds yield per acre and in the case of Kabuli, varieties give about 25 to 30 maunds yield per acre. Therefore, interventions are proposed to increase yield productivity, especially in the Bhakkar district of the Sargodha division.

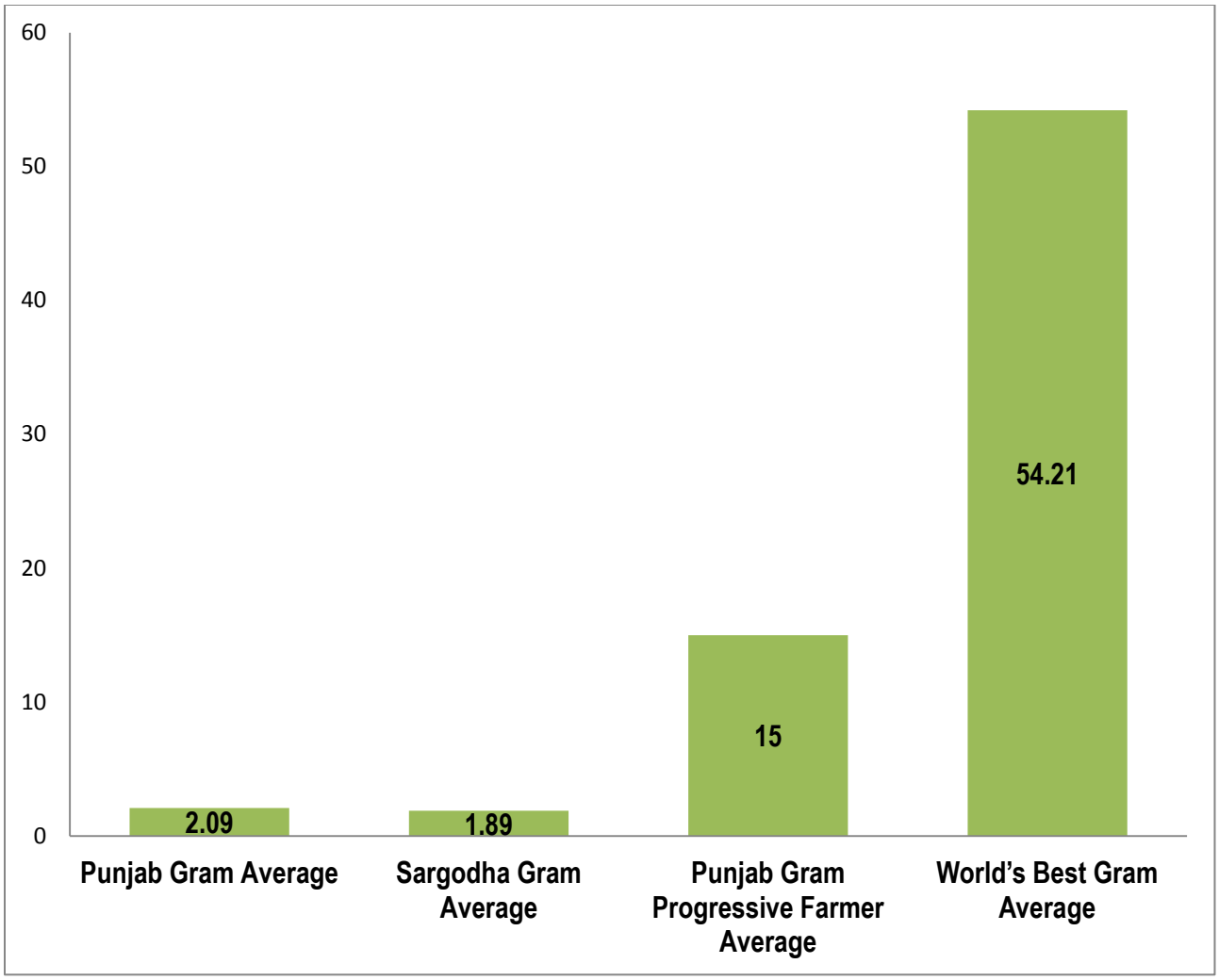


Figure 41: *GRAM YIELD (MND/ACRE)*

Source: AMIS

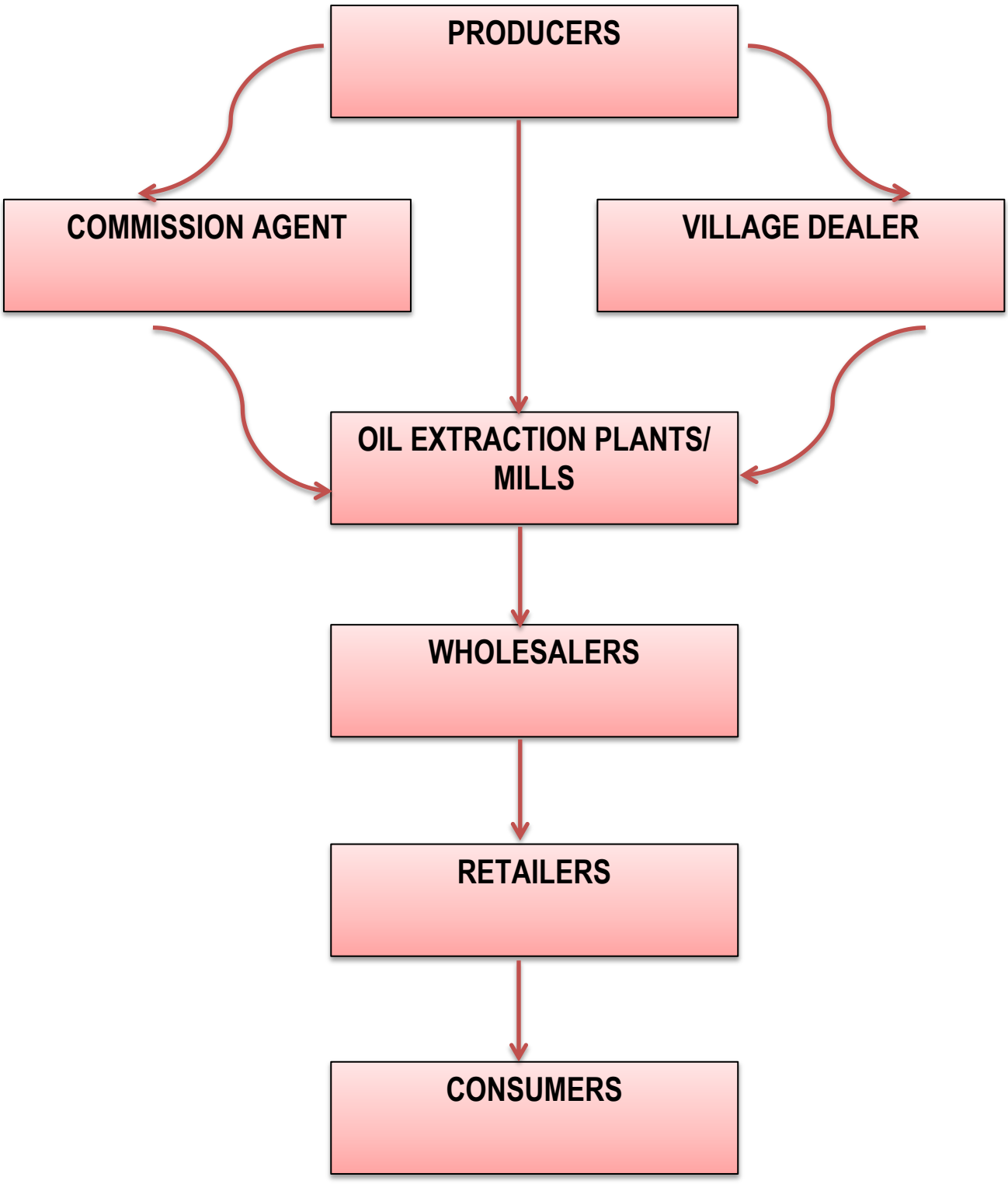
MUNGBEAN/ MOONG

Mungbean is one of the important Kharif pulses of Pakistan. It is also grown during the spring season mainly in southern Punjab and Sindh province. Punjab is the major mungbean growing province that alone accounted for 88% area and 85% of the total mungbean production. Cultivation is concentrated in the districts of Layyah, Bhakkar, Mainwali, and Rawalpindi. It is mainly grown in the Kharif season (July October). Although it is grown in different crop rotations, about 75% of cultivation follows mungbean - wheat crop rotation. The breeding improvement of mungbean had been limited until 1970 due to the selection from landraces which were of trailing types. With the development of short duration and uniform maturing varieties, mungbean can be fitted in various

cropping systems. Among the major constraints weeds, insect damage, and lack of seed production are the most important ones. The main focus is on the development of high-yielding varieties with wider adaptability, resistance to diseases like mungbean yellow mosaic virus (MYMV) and Cercospora leaf spot (CLS), early maturity, and insensitivity to photoperiod.

OILSEEDS VALUE CHAIN

Rapeseed and mustard are important species grown as oilseed crops in Pakistan. These species are a rich source of oil and contain 40-46% good quality oil. In addition, its meal has 38-40% protein which has a complete profile of amino acids including lysine, methionine, and cystine. The oil from canola quality rapeseed varieties is superior for human consumption and meal an excellent feed for animals and birds, especially poultry. Thus the development of canola quality rapeseed will enhance the use of rapeseed oil for edible purposes and meals for animal and poultry feeding. Among oilseed crops, canola has considerably contributed to the local production of edible oil due to its high varietal potential and increase in area. However, there is a great potential to increase the area under the canola.


PRODUCERS
COMMISSION AGENT
VILLAGE DEALER
OIL EXTRACTION PLANTS/ MILLS
WHOLESALERS
RETAILERS
CONSUMERS

Canola belongs to a rapeseed group (Brassica napus L.). The best soils for the production of canola are those that have good tilth, medium texture, and relatively deep topsoil with a good nutrient supply. However, the yield of Canola shows that Sargodha and Punjab yields are quite close but still a significant gap lies between the international and progressive farmers of canola. In addition, it is a future hope of Pakistan as it can play a significant role in the enhancement of edible oil production in the country.

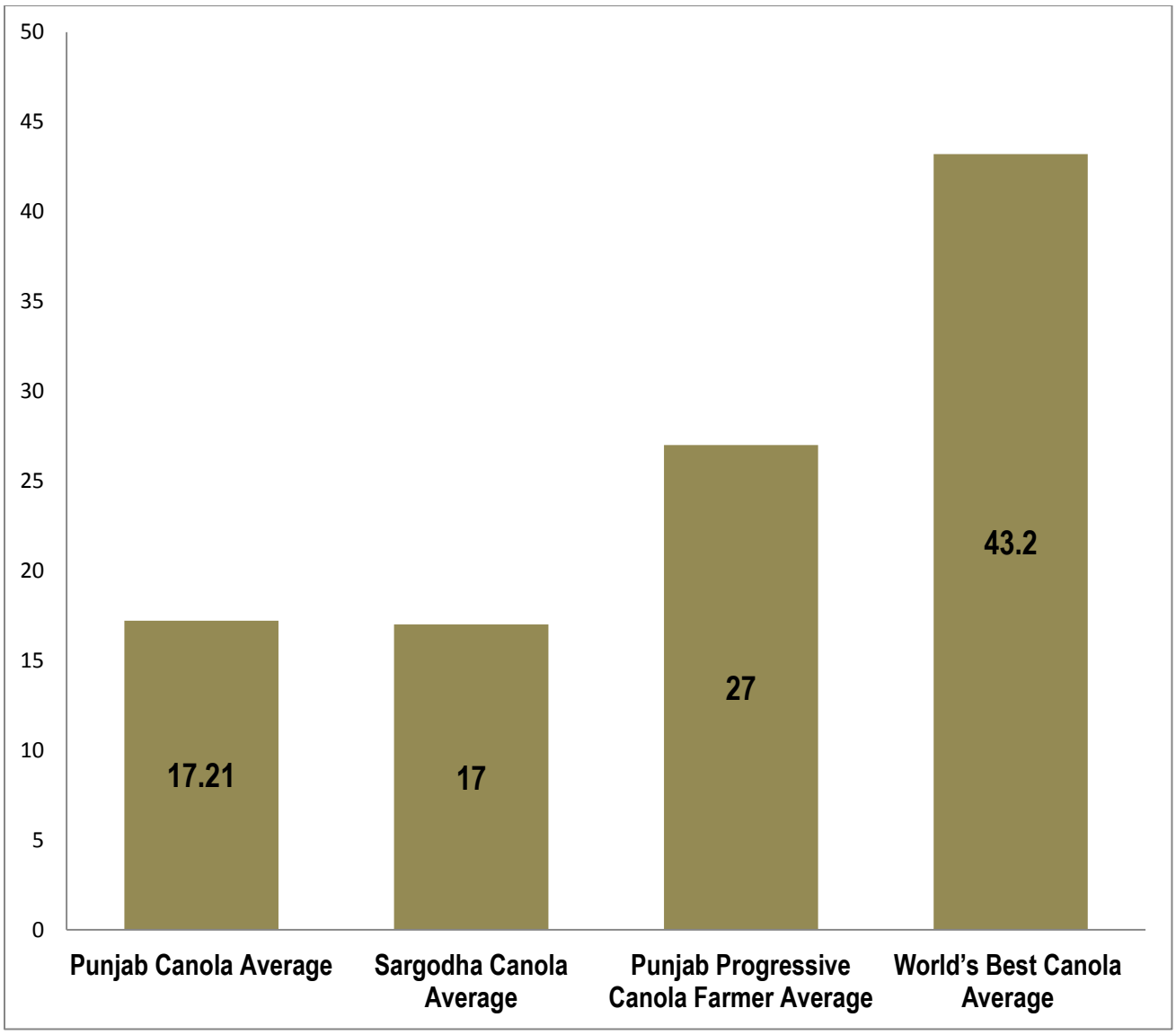


Figure 42:*CANOLA YIELD MND/ACRE*

Source: Crop Reporting Service

LIVESTOCK VALUE CHAIN

The main objectives of the livestock sector strategy are to achieve the goals for the betterment of the livestock sector and to cater to local and global markets, from both meat and milk value addition point of view.

MEAT VALUE CHAIN

FAO defines meat as the flesh of animals used for food. In production data, meat is normally reported inclusive of bone and exclusive of meat that is unfit for human consumption. As reported by individual countries, meat production data may refer either to commercial production (meat entering marketing channels), inspected production (from animals slaughtered under sanitary inspection), or total production. In 2020, the total production of meat for Pakistan was 4.74 million tons. Total production of meat in Pakistan increased from 476,696 tons in 1971 to 4.74 million tons in 2020 growing at an average annual rate of 4.90%.

The meat value chain is divided into five segments namely;

a. Inputs, used in the breeding of the livestock
b. Breeding of live animals meant for procuring meat and meat products
c. Marketing of animals bred for obtaining meat and meat products
d. Processing of meat products and value addition
e. Marketing of meat in Domestic and International markets

MAPPING OF MEAT VALUE CHAIN

Livestock Input	Production	Marketing	Processing of Meat	Meat Market
• Land • Feed and Nutrition • Herd Mix • Farm and Infrastructure • Farm Labor • Veterinary Care and Services	• Production Systems • Large Ruminants: • Rural Subsistence Small Holdings –55-60% • Rural Market-oriented Small Holdings 20-25% • Rural Commercial Medium-Sized Farming 10-15% • Peri-Urban Commercial Large-Seized Farming – 6-8% • Small Ruminants: • Nomadic • Transhumant • Sedentary Household • Occasion-specific (Eid-ul-Adha)	• Rural Farmers • Village Beoparis • Live-animal Market • Wholesales • Retailers • traders	• Recognized slaughterhouse • Unrecognized slaughterhouse • Formal-Meat Processors	• Recognized slaughterhouse • Rural Butchers • Urban Butchers • Wholesalers • Traders • Retailers • Export Market • Company related outlets

RECOMMENDATIONS

Meat Sector

Breed Improvement	Nutrition and Feed	Disease Control and Prevention	Extension Services	Bilateral Trade and Investment
				
Establishment of A2 Genotyping Facility at Quality Control Lab and Genetic Characterization of Cholistani and Sahiwal Cattle Breed	Animal Nutrition Enhancement through Provision of Silage making machines to the farmers.	Enhancement of vaccine production for Livestock	Establishment of the Centre for certification of halal meat.	Establishment of Modern Slaughterhouse with packing and storage facility at Sargodha and Mianwali Districts
Establishment of Model Livestock Farms for buffalo & Cattle		Strengthening of Disease Diagnosis, Reporting, Surveillance System, and ISO Certification of Diagnostic Labs	Establishment of New CVDs and MVDs for better in-house and on-farm services	Establishment of Model Cattle Mandi in each District. Construction of State-of-the-art Livestock Business Complex with special desk for export support

DAIRY VALUE CHAIN

The marketable milk is mainly obtained from cows and buffalos and is distributed to the consumers using various conventional as well as modern marketing channels. It accounts for 96% of the total milk produced from cows, buffalos, sheep, and camels. The milk of sheep, goats, and camels is mainly used for household consumption by farmers or small households, particularly in rural areas.

MAPPING OF DAIRY VALUE CHAIN

Farm Inputs	Production	Collection	Processing	Consumer
• Land • Livestock Feed • Herd Mix • Machinery • Labor • Medication	•Informal: 95% •Formal: 5%	**Informal** •Katcha Dodhis •Pucca Dodhis •Contractors •**Formal** •Dodhis •Contractors •Direct Farmer Procurement •Commercial & Corporate Farming	**Informal** •Producers •Processing Agents •Confectioners •Products Include: Yogurt, Lassi, Ghee, Sweetmeats, Butter, Cream •**Formal** •Large Enterprises •Bakers & Confectioners •Products Include: UHT and Pasteurized Milk and Milk Products	•**Informal:** •Direct Selling •Local Retail Shops & Confectioners •**Formal:** •Retail Stores •Company Owned Outlets •Home Delivery

RECOMMENDATIONS

Dairy Sector

Breed Improvement	Nutrition and Feed	Disease Control and Prevention	Extension Services	Bilateral Trade and Investment
				
Genetic Improvement of Non-Descript Cattle through the import of A2A2 Exotic Semen.	Animal Nutrition Enhancement through Provision of Silage making machines to the farmers	Development of cold chain resources with milk storage and transportation of vaccines.	Establishment of New CVDs and MVDs for better in-house and on-farm services	Construction of State-of-the-art Livestock Business Complex with special desk for export support.
Mapping and tagging of the indigenous cattle breeds for future preservation and Maintenance of nucleus herds of superior germplasm of local breeds		Establishment of chillers in far-flung areas to reduce milk wastage		
Upgradation and Revival of Genetic improvement center Khizerabad, Sargodha		Strengthening of Disease Diagnosis, Reporting, Surveillance System, and ISO Certification of Diagnostic Labs		

KEY INTERVENTIONS

The urban unit recognizes that some important interventions need to be addressed on short, medium, and long-term project scales.

Crops	Phase	Interventions	Cost (Tentative) in Million Pkr
Onion	Short-term	Local onion seed varieties replacement program	314
		Provision of inputs (Fertilizer, Pesticides, and Implements) on subsidy to develop onion cluster	171
	Medium-term	Capacity building of labor for onion harvesting	150
		Establishment of onion market in onion cluster	200
		Establishment of onion powder and other Value Addition	60
	Long-term	Development of Certified Seed Varieties (Pre basic, basic, and multiplication)	200
Total			**1,095.00**
Sugarcane	Short-term	Cost Sharing on Sugarcane Implements (Chisel Plough, Early hill up implement, Sugarcane Planter, Granular Pesticide Applicator).	120
	Medium-term	Showcasing of Good Agricultural Practices (GAP) on balanced use of fertilizer, Weedicide application, and Integrated Crop Management (ICM) by Public-private partnership to establish demonstration plots.	30
		Promotion of water-saving technologies for sugarcane production e.g. planting on beds, pit planting, etc. to curtail the growing menace of waterlogging.	300
		Promotion of Intercropping, September Planting, and Chip Bud Technology [Strengthening of Bio-labs for development of Integrated Pest Management program (IPM)].	20
	Long-term	Development of climate-smart high-yielding varieties.	200
		Sugarcane value addition enhancement program.	200
Total			**870**
Wheat	Short-term	Subsidy on gypsum & green manuring	1117
		Subsidy on implements for wheat	900
		Subsidy for Seed Replacement Program.	1300
		Subsidy on weedicide	1200
	Medium-term	Development of Smart tools for mechanization especially for small farmers.	1000
		Special program for the Seed Companies for Wheat Seed Production.	700
	Long-term	Climate Smart breeding program (Rebreeding,	500

		Hybridization, and innovative technologies for various zones: Rust and heat stress-tolerant varieties, Spring Wheat, Durum Wheat, Triticale, etc.).	
Total			**6,717**
Citrus	**Short-term**	Conduct a market survey to identify demand in the international and local market for Kinnow and other varieties and identify a protocol for export of citrus to the various markets & conduct a survey of registered nurseries. All nurseries are to be given targets to produce 20 million plants & monitor them.	200
		Merging of Citrus Research Station, Sargodha into Citrus Nursery Research Station, Sargodha	239
		Integrated Orchard Management	8309
		Up-gradation of CRI and Labs to develop 1 million certified plants/annum of existing & new varieties.	450
	Medium-term	Establishment of Citrus processing unit	320
		Establishment of Citrus juice processing unit	200
		Establishment of Cold storage	600
		Establishment of Citrus Research Station at Mianwali	299.5
		Establishment of Training Center at CRI, Sargodha	310
	Long-term	Development of New Orange Varieties	350
Total			**11,277.50**
Tomatoes	**Short-term**	Provision of inputs (Fertilizer, Pesticides, and Implements) on subsidy to develop tomato cluster.	696
		Local tomato seed varieties replacement program.	300
	Medium-term	Establishment of Tomato paste production unit	200
		Establishment of CA (Control Atmosphere) storage	180
		Establishment of tomato market in tomato cluster.	200
	Long-term	Development of Certified Seed (Pre basic, basic, and multiplication) to the Farmer of Tomato.	300
Total			**1,876**
Rapeseed and Canola	**Short-term**	Provide high quality seed.	250
		Provision of Support price till market development.	150
		Appreciation of best growers on provincial and district levels.	150
		Arrange seminars at the district level in core oilseed districts to create awareness about best management practices/production technology for selected crops during Rabi and Kharif season.	150
		Subsidy on inputs to increase production of oilseed crop.	533
	Medium-term	Promote mechanization for oilseed crops to minimize post-harvest losses and get good yields.	160
		Ensure Hybrid Seed Availability through National and Multinational Seed Companies.	300
		Oil extraction units in clusters.	600
	Long-term	Establishment of state-of-the-art oilseed market.	300
		Address low yields of oilseed crops by enhancing production both vertically and horizontally.	160

Total			**2,753**
Olives	**Short-term**	Provision of fertilizer and insecticides/fungicides	250
		New Plantations	150
		Establishment of Olive Orchards	70
		Orchard management program	60
		Small scale drip irrigation	150
	Medium-term	Establishment of a table olive processing unit, and specialized olive tree nurseries	350
		Small scale oil extraction plant	300
	Long-term	Establishment of olive processing facilities	180
		Value addition	200
Total			**1,710**
Dates	**Short-term**	Provision of fertilizer and insecticides/fungicides	171
		Establishment and promotion the date palm nurseries	210
		Provision of Better Management Practices for raising productivity	150
	Medium-term	Reducing Post-Harvest Losses	75
		Establishment of dates market in dates cluster	250
	Long-term	Introducing the Solar Tunnel Dates Drying	150
		Promotion of R & D activities	120
		Improving Value Addition by Introducing Pack houses for Export Market	170
		Development of Certified Seed (Pre basic, basic, and multiplication)	200
		Upgradation of Orchards with High Density Plantation	250
Total			**1,746**
Moong	**Short-term**	Improve awareness on areas to promote moong cultivation	60
		Moong soil fertility and crop management	120
		• Improved knowledge of crop management technologies and fertility requirements	
		Pests, Diseases, and Weeds management in Moong	150
		• Economic importance of pests, diseases, and weeds identified	
		• Management of pests, diseases, and weeds identified	
	Medium-term	Moong harvesting, post-harvest management, value addition, and marketing	200
		• Post-harvest losses reduced	
	Long-term	• Grain quality improved	140
Total			**670**
Gram	**Short-term**	Provision of inputs (Fertilizer, Pesticides, and Implements) on subsidy to develop gram cluster	171
	Medium-term	Support commercialization of Seed Producers	110
		Gram Value Addition	170
		Capacity building of labor	130

		Establishment of gram market in gram cluster	210
	Long-term	Provision of certified seed	150
Total			**941**
	Short-term	Good Agricultural Practices (GAP) and Food Safety Management System (FSMS)	170
		Establishment of Watermelon seed systems	180
		Watermelon climate-smart agronomic practices	110
		• Integrated soil and water management practices for Watermelon production	
	Medium-term	Watermelon harvesting and post-harvest management	130
		Watermelon value addition	200
		Mechanization of watermelon production activities	250
WaterMelon	**Long-term**	Development of certified seed	200
Total			**1,240**
		Development of agronomic practices	140
	Short-term	Provision of access to better inputs & services	150
		Improve access to extension & technology	180
	Medium-term	Experimenting with GAP as a strategy to open New Melon markets	190
		• Establishment of melon "Group GAP" zones	
Musk Melon	**Long-term**	Development of Certified Seed (Pre basic, basic, and multiplication)	170
Total			**830**
TOTAL			**31,726**
WATER EFFICIENCY			
		Climate Smart Water Management and Information Services	**304**
		•Development of a Water Accounting System	
		•Development of an Evapotranspiration-based Water Management System	
		•Development of an Early Warning System	
		•Provision of Information and Data to Facilitate Climate Change Adaptation	
		Building on-Farm Resilience to Climate Change	**348**
		•Development of practices for a climate change resilient	
		•Training of extension workers and farmer facilitators	
		Establishment of Technology Transfer Centers (TTCs) in the Sargodha Division for the demonstration to enhance water use efficiency through;	**655**
		•Farm layout planning/ designing, precision / LASER land leveling, and water budgeting & accounting.	
		•Provision of rapid soil testing kits to the farmers at TTCs for application of balanced fertilizer.	
		•Fixation of pipe nakkas according to soil type and water flow for channelized stream flows.	
Improve Water Efficiency	**Short-term**	•Installation of flow measurement devices for open	

		channels and tube wells for measuring the discharge of water for water accounting.	
		•Installation of soil moisture monitoring gadgets.	
		•Application of Alternate Wetting & Drying (AWD) and Direct Seeding Rice (DSR) water-saving techniques in rice fields to increase water productivity.	
		Support farmers for the installation of tunnels for off-season vegetable production.	**210**
		Provision of 400 LASER land levelers to the farmers/ service providers for strengthening LASER land leveling services in the private sector.	**400**
	Medium-term	Construction of on-farm water storage ponds in irrigated areas for storing excess canal/ rainwater for supplemental irrigation.	**6,825**
		Install solar systems for operating high-efficiency irrigation systems.	**630**
		Improvement of unimproved & additional lining of watercourse improvement	**6,000**
		Promote high-efficiency irrigation systems on Drip and Sprinkle Irrigation systems on fruit and vegetable farms.	**871**
	Long-term	Deliver soil moisture to the farmers/ service providers.	
TOTAL			**16,243**
COMMON STRUCTURAL PROJECTS			
		Provision of specialized extension services for vegetable crops.	**300**
		Provision of specialized extension services for fruits.	**300**
		Ease of financial access and insurance services to farmers.	**300**
		Up-gradation and establishment of agriculture markets.	**500**
		Establishment of feed mills.	**300**
		Integrated Pest diagnosis, warning, and control management for all crops	**200**
	Medium-term	Set up of support system for the farmers in case of crop failure and price fluctuation for vegetables and fruit crops.	**500**
		Establishment of state-of-the-art warehouses and grain silos.	**300**
		Promoting research for enhancement of mash and lentil production to reduce pulse import bill	**51**
COMMON STRUCTURAL PROJECTS	**Long-term**	Improving an organization's overall performance and efficiency by improving the members (individuals and groups') performances, commitment, and flexibility. (HR)	**.**
TOTAL			**2,751**
AGRI	**Medium Term**	Development of Olive Valley in Naushera District Khushab (HE Irrigation system+ Model Farms+ G.Imp	674

		Nursery/Plants)	
AGRI	**Medium Term**	Establishment of Fruit Vegetable and Grain Markets at Naushehra and Noorpur.	100
AGRI		Construction of Office and Residences of Extra Assistant Director Agriculture Economics and Marketing	50
GRAND TOTAL			**51,543**
LIVESTOCK			
Breed Improvement	**Short term**	Establishment of A2 Genotyping Facility at Quality Control Lab and Genetic Characterization of Cholistani and Sahiwal Cattle Breed	40
		Genetic Improvement of Non-Descript Cattle through the import of A2A2 Exotic Semen	1500
		Upgradation and Revival of Genetic improvement center Khizerabad, Sargodha	800
	Medium-term	Mapping and tagging of the indigenous cattle breeds for future preservation and Maintenance of nucleus herds of superior germplasm of local breeds.	2000
	Long term	Establishment of sub-centers in Districts for registration of Livestock with the following activities	900
		Registration of Livestock	
		Performance recording of production at private farms	
		Identification of Nucleus herds of Cattle and Buffalo	
		Evaluation of Institutional and Private herds	
		Conduction of research trials	
		Purchase of High Performing Sahiwal and Cholistani bull calves	
Nutrition and Feed	**Short term**	Animal Nutrition Enhancement through Provision of Silage making machines to the farmers	500
		Multiplication / Propagation of High Yielding Multi-cut Exotic Grasses to enhance Livestock Production & Nutrition	300
Disease Control and Prevention	**Medium-term**	Strengthening of Disease Diagnosis, Reporting, Surveillance System, and ISO Certification of Diagnostic Labs	200
		Enhancement of vaccine production for Livestock & Poultry.	350
	Long term	Establishment of Research Center for Molecular investigations of field strains of the FMD, HS, ETV, PPR, Mycoplasma, Brucella, ND, and Avian Influenza.	250
		Establishing technical route epidemiological survey, compulsory immunization, barrier system for controlling livestock movement from high-risk area to disease-free zone, monitoring & warning and quarantine supervision and emergency treatment and disease-free certification system.	1200
Extension Services	**Short term**	Upgradation of Civil Veterinary Hospitals and Diagnostic Labs with extended infrastructure and modern Equipment	1500
		Livestock based integrated farming systems for the improvement of small and marginal farmers	400

	Medium-term	Establishment of New CVDs and MVDs for better in-house and on-farm services	600
		Farmer's training and gender mobilization for production enhancement and genetic improvement in the livestock sector	300
	Long term	Strengthening of extension services in deprived Union Councils, through the establishment of Separate Services centers.	700
Technological Development	Short term	Demonstration of Best Farm Management Practices to the technical personnel, extension workers, and farmers to improve the production potential of their animals.	400
	Medium-term	Establishment of Model Livestock Farms for buffalo & Cattle.	900
		Establishment of the center for certification of halal meat.	400
	Long term	Establishment of R&D for processing units to enhance value addition.	200
		Establishment of Camel (Marecha Breed), Sheep (Khadali Breed), and Goat (Jattal Breed) research center.	300
		Production Enhancement through Rehabilitation & Modernization of Livestock Farms	250
Bilateral trade and investment	Short term	Establishment of Modern Slaughterhouse with packing and storage facilities in Sargodha and Mianwali	800
		Establishment of Model Cattle Mandi in every district	1000
	Medium-term	Construction of State of the art Livestock Business Complex with special desk for export support.	500
		Development of cold chain resources for meat and milk storage and transportation of vaccines.	250
LIVESTOCK	Medium Term	Re-Construction of the building of The Civil Veterinary Hospital Khura,	10
LIVESTOCK	Medium Term	Construction of damaged building of CVD bandial	9
LIVESTOCK	Medium Term	Construction of damaged building of CVD mitha khu	9
LIVESTOCK	Medium Term	Construction of damaged building of CVD dhamak	9
LIVESTOCK	Medium Term	Construction of damaged building of CVD jamali balochan	9
LIVESTOCK	Medium Term	Construction of damaged building of CVD sat shahani	9
LIVESTOCK	Medium Term	Construction of DDL office at adhikot tehsil Noor pur thal /Qaidabad	10
LIVESTOCK		Construction of New Livestock Complex District Headquarter Mianwali	TBD
LIVESTOCK		Construction of CVD at Nangni Tehsil & District Mianwali	11.78
LIVESTOCK		Construction of CVD at Rokhari Tehsil & District Mianwali	10.46
LIVESTOCK		Construction of CVD at Dher Umaid Ali Shah Tehsil & District Mianwali	11.94
LIVESTOCK		Construction of CVD at Bori Khel Tehsil & District Mianwali	11.04
LIVESTOCK		Construction of CVD at Bani Afghan Tehsil & District Mianwali	12.14

LIVESTOCK		Re-Construction of CVD at Wan Bhachran Tehsil & District Mianwali	11.23
LIVESTOCK		Re-Construction of CVH at Chakrala Tehsil & District Mianwali	11.97
LIVESTOCK		Re-Construction of CVD at Abbakhel Tehsil & District Mianwali	11.81
LIVESTOCK		Re-Construction of CVH at Daudkhel Tehsil & District Mianwali	12.48
LIVESTOCK		Re-Construction of CVH at Kundian Tehsil Piplan District Mianwali	5.75
LIVESTOCK		Re-Construction of CVH at Hafiz Wala Tehsil Piplan District Mianwali	8.99
LIVESTOCK		Re-Construction of CVH at Harnoli Tehsil Piplan District Mianwali	8.30
LIVESTOCK		Construction of CVH at Tiba Mehrban Shah Tehsil Piplan District Mianwali	9.83
LIVESTOCK		Re-Construction of CVH at Kacha Gujrat Tehsil Piplan District Mianwali	9.32
LIVESTOCK		Re-Construction of CVH at Dubb Tehsil Piplan District Mianwali	9.83
LIVESTOCK		Construction of DDL office Isakhel Tehsil Isakhel District Mianwali	TBD
LIVESTOCK		Construction of CVD Kutki Thal Tehsil Isakhel District Mianwali	TBD
LIVESTOCK		Construction of CVD Cheena Pora Tehsil Isakhel District Mianwali	TBD
LIVESTOCK		Construction of CVD Sultan Khel Tehsil Isakhel District Mianwali	TBD
LIVESTOCK		Re-Construction of CVH Isakhel Tehsil Isakhel District Mianwali	TBD
LIVESTOCK		Re-Construction of CVD Trag Tehsil Isakhel District Mianwali	TBD
LIVESTOCK		Re-Construction of CVD Kamar Mashani Tehsil Isakhel District Mianwali	TBD
LIVESTOCK		Re-Construction of CVH KalabaghTehsil Isakhel District Mianwali	TBD
LIVESTOCK		Revenue Component for Construction / Reconstruction of CVDs	25
LIVESTOCK		Revamping of existing 97 veterinary institutions in District Sargodha	200
LIVESTOCK		Provision of Modern Ultrasonography facilities at Tehsil Headquarter Hospitals in District Sargodha	7
LIVESTOCK		Establishment of FMD Free zone through Mass Vaccination with Russian Vaccine in District Sargodha	672
LIVESTOCK		Strengthening of extension services through the establishment of conference/training hall at Livestock complex Sargodha	20
LIVESTOCK		Provision of electricity to 10 existing veterinary institutions in District Sargodha	3
LIVESTOCK		Establishment of new veterinary dispensaries at Chak	70

		104/ANB, 30/SB, 111/NB, Shahzadpur, Wadhi, Muhammad Wala Dera Jadeed, Bonga Balochan in District Sargodha	
LIVESTOCK		Development of cold chain resources for transportation of vaccines and semen	6
LIVESTOCK		Improvement of local germplasm of Kajli breed through the provision of Purebred Kajli Ram to identified herds of more than 50 breedable sheep.	10
LIVESTOCK		Rehabilitation/reconstruction of Buildings of Civil Veterinary Dispensary Chak No. 35/SB	12
GRAND TOTAL			**17786.849**
AGRICULTURE & LIVESTOCK TOTAL			**69,330**

ANNEXURE A

PC - I FORM (Revised 2005)

PRODUCTION SECTORS
(Agriculture Production)

RURAL ENTERPRISES IN AGRICULTURE DEVELOPMENT (READ)

Project Cost:

(2020-21 to 2022-23)

CHIEF PLANNING & EVALUATION CELL,
AGRICULTURE DEPARTMENT, PUNJAB

October 2020

1. *NAME OF THE PROJECT*

Rural Enterprises in Agriculture Development (READ)

2. *LOCATION*

The proposed project will be implemented in Punjab Province

3. *AUTHORITIES RESPONSIBLE FOR*

a) Sponsoring

Department of Agriculture, Punjab

b) Execution

i) Punjab Agriculture Department through Planning and Evaluation Cell

ii) Project Implementation and Supervision Unit (PISU)

iii) Participating farmer/ individual (PF)

c) Monitoring

i) Planning and Evaluation Cell, Agriculture Department, Lahore.

ii) Project Implementation and Supervision Unit (PISU)

d) Operation and Maintenance

Participating Farmers/individual

e) Concerned Federal Ministry

Not Applicable

4. *PLAN PROVISION*

a) If the project is included in the current Five-Year Plan, specify actual allocation

Government of Pakistan has indicated agriculture growth, uplift of agro-economy, and pro-poor interventions as its priority areas under Punjab growth Strategy 2023. It has been planned to increase public and private investment in the agriculture sector. The private sector investment will be supported by enhancing the govt. investment to the SMEs and making these grants more targeted. The investments will be focused on upgrading facilities, especially improving the efficiency of Agri. value chain. To increase investments in the sector, the government will utilise all possible methods of mobilising additional financial resources. The government will examine carefully what aspects of its activities constitute public goods and continue to perform these, while transferring to the private sector those aspects that are of a

commercial nature. These may be done via PPPs. The government will take measures to improve cost recovery for the provision of public services.

The concerns of this project are in line with the medium term / five-year plan. A series of feasibility studies for High Value Agriculture processing including establishment of Packhouses, Dehydration and frozen Units for horticulture products were conducted by the Agriculture Department of Punjab. With increasing population and no business opportunity or low wages in the rural sector, youth are migrating to urban areas for better livelihoods. Migration of unskilled labor is creating Imbalance in rural and urban population. To maintain the density of rural population balance, there is a need for rural enterprises program in Punjab through provision of business opportunities at rural level.

This issue was also highlighted in the compilation of the Agriculture Policy 2018, which proposes to increase levels of targeted assistance for Small Commercial Farmers (SCF) with landholding between 3 and 75 acres, rural women and youth. The increase in economic activity at SCFs will increase earning opportunities and reduce poverty for rural communities including women and youth, as illustrated below:

1. *Rural Women (Youth): A key focus in addressing the agriculture related issues of growth, poverty reduction and food security is strengthening the voice and status of women in the rural Punjab, with women making up 39 percent of the labor force in agriculture and approximately 74 percent of the total female population dependent on agriculture.*
2. *Rural Youth: Pakistan currently has the largest population of young people ever recorded, with 60 percent of people below age 30, largely residing in rural areas.*

Building value chains and incentivizing SMEs in agro-processing through matching grants provides support to business entities, through a competitive process, to implement commercial activities and ultimately ensure markets to operate effectively. The Government designates funds to high priority agribusiness crucial to the development of agriculture sector. The agribusiness SMEs apply for grants or credit gaurantees, which will help agribusinesses to achieve higher productivity and efficiency, and better access to external market linkages that would benefit the farmers, broader rural society. The policy recommends that matching grants are available to any person or entity that can improve on-farm productivity or efficiency and quality all along the value chain. Preference is given to strategic and innovative agri-businesses contributing to the yield improvement through technology and innovation, improving access of farmers to highly rewarding markets, as well as women and youth to generate employment amongst their circle. The benefits for rural society will include:

i. *Creation of new jobs in rural areas, including for women and youth.*

ii. Development of rural enterprises and cottage level businesses associated with the agro-processing industries

b) If not included in the current plan, how is it now proposed to be accommodated (Inter/Intra-Sectoral adjustment in allocation of or other resources may be indicated)

Not applicable.

c) If the project is proposed to be financed out of block provision for a program or PSDP/ADP, indicate in Pak-Rupees?

Not applicable.

d) If the project is not in the plan, what warrants its inclusion in the plan?

Population of Pakistan has increased at rapid pace during last four decades and it is anticipated to be doubled by the year 2025. In contrast, a little expansion in agricultural land took place in the country during this period but total area under agriculture remained almost the same because of urbanization and land degradation due to salinity. Although, market failures in critical input sectors, such as information, mechanization, certified nurseries and seed sectors has resulted in underperformance of agriculture with large yield gaps between Punjab's agriculture and rest of the world. Similarly, market failures in post-harvest handling, storage and processing sectors has hampered growth in high potential horticulture, oilseeds, pulses and grams crop sectors. Building strong private sector enterprises and robust value chains to achieve growth is the main objective of READ, which is encapsulated in the following mission statement:

"To catalyze commercial business entities in Pakistan to undertake new and innovative business activities in Punjab those are market-led and deliver specific commercialization outcomes in the agriculture sector".

Moreover, there has been an emphasis in the 2023 Strategy to focus on reducing the cost of doing business, improving environmental compliance, adhering to labor standards and developing stronger clusters. There will be an increased focus on SMEs, especially on ensuring provision of adequate and suitable credit and business development services. Similarly, the focus in agriculture sector is going to be on improving productivity and enhancing investment in SME sector with expanding the scope of SMART (Strengthening Markets for Agriculture and Rural Transformation)

5. PROJECT OBJECTIVES AND ITS RELATIONSHIP WITH SECTOR OBJECTIVES

The Department of Agriculture, Punjab proposes the following objectives to facilitate supply chain development of fruits and vegetables facilities in Punjab:

i. *Induce technology in horticulture sector to reduce postharvest losses, promote value-addition and encourage export*

ii. Promote agribusiness projects by catalyzing private investment for generating income and Rural Employment

iii. Promotion of forward and backward linkages for efficient supply chain management

iv. Materialize transfer of technology and advisory to improve processes and value-addition

The READ project will implement schemes of agribusiness development through different modes of assistance. Potential sectors are those which will promote linkages with farmers for procurement of their produce as raw material and provide employment in rural areas.

a) ***Sectoral Relationship***

The major crops will remain important in the crop mix of Punjab, but the growth potential for most major crops have been exhausted. Farmers' profits can yet be increased through yield improvement – which Punjab has lowest in region and the world. This, in part, can be achieved through improved accessibility of farmers to suitable technology and better advisory services. This highlights the significant role private sector SMEs can play through provision of farm technologies to farmers, including for mechanization, quality seed, digital information and advisory services. However, due to varied reasons the concentration of SMEs in these sectors have been below the requirement, resulting in suboptimal performance in the agriculture sector.

The growth in horticulture sector in particular is mainly hampered by under developed value chains with low investment in the agro-processing and value-added sectors, including for fruits and vegetables pack-houses required for exports of fresh fruits and vegetables to high-end international markets. Establishment of processing units for pulps, purees, pastes, concentrates, dehydration and oil extraction (edible and essential) are required in combination with suitable storage and packaging businesses in private sector to make horticulture realize its full potential. This has been demonstrated in case of kinnow in past and increase in mango export through establishment of pack-houses in the recent past that the crop sector grow as the processing sector grows. A robust processing sector will position Punjab's agriculture to benefit from CPEC connectivity and increase exports of value added agriculture from Pakistan.

The Agriculture policy recommends that matching grants are available to any person or entity that is capable of improving of-farm productivity or efficiency and quality all along the value chain, with special consideration for women and young entrepreneurs. Preference is given to strategic and innovative agri-businesses contributing to the yield improvement through technology and innovation, improving access of farmers to highly rewarding markets, as well as those located in rural areas to generate employment in rural Punjab. The SMEs involved in value addition of

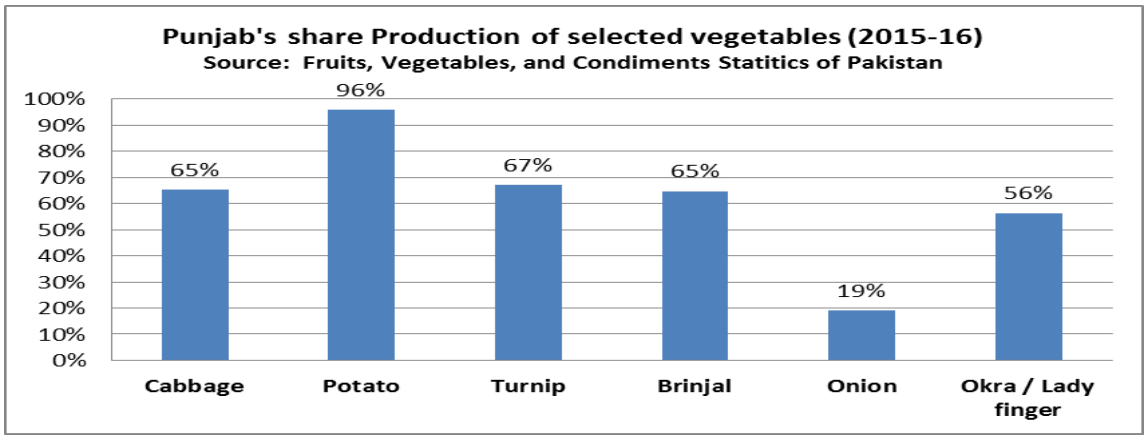
horticulture and oilseed sectors will be given special consideration to benefit from matching grants.

6. DESCRIPTION OF THE PROJECT

I) Background/Justification

Agriculture is the backbone of Pakistan economy and its contribution to National Gross Domestic Product is around 18.5 percent. It plays a vital role in Employment generation, as it provides livelihood to over 38 percent of the population. The sector is currently facing problems of unemployment, low profitability, small farm holding, marketing and supply chain linkage, inadequate storage facility, food wastage, stress selling due to erratic climate, crop failure / damage and many others. If properly addressed, then this sector has tremendous potential for employment generation and economic growth. It is, therefore, needed to consolidate resources to reap the benefits of agriculture**.** The agro-climatic conditions of Punjab provide a suitable environment to produce large variety of fruits and vegetables, providing a comparative advantage, yet the horticulture value-chain competitive position is weak due poor planning, bad marketing infrastructure and erratic price variability. The erratic prices are attributed to periods of extreme shortage at one end and market glut (over supply) on the other. The horticulture sector of Punjab is considered the food basket producing 11.9 million tons of horticulture, with a large potential for growth in production volumes. The Agriculture Department can act as a leading catalyst in developing post-harvest technologies and transfer of knowledge to enable private sector investments in value-addition.

Pakistan is one of the most populous countries of the world with more than 190 million people. As the urban population is increasing, there is a likely growth of packaged vegetables that are hygienically packed and safe for health. Moreover, customers in the developed economies are increasingly conscious of their food and nutrition. Vegetables and fruits are being demanded on a larger scale owing to their micronutrient contents and fibers. In 2016, Pakistan exported around USD 172 million worth of fresh vegetables. Data analysis reveals that the vegetable export value in 2016 reflected around 50 percent increase over a 10 year-period. Some products have experienced relatively sharper increase in exports including Cabbages, Carrots and Turnips, Fresh Onions (and Shallots) and Eggplants.



After harvest however, the horticulture-produce acts like living organism and undergoes certain biochemical and physiological reactions ultimately leads to wilting and spoilage of the produce. It is estimated that postharvest losses of fruits / vegetables in Pakistan range between 30-40 percent of total production. Decaying reactions taking place in the harvested produce cannot be stopped but can be slowed down to prolong freshness if the fruits / vegetables are kept under specific storage conditions. Measures to extend the shelf life of fruits and vegetables include control of temperature and relative humidity of the storage atmosphere and careful handling preventing injury of the delicate produce. Fresh, hygienically graded, sorted and packed vegetables fetch a better market price that hold viable business opportunities for progressive investors. Potential vegetables for this facility include Cabbage, Brinjal/Eggplant, Potato, Onion, Turnips and Okra / Lady Finger. Majority of these are cultivated in Punjab and hence, local farm fresh vegetables can be procured for processing.

Similarly, Establishment of controlled atmosphere cold storage provides refrigerated storage and preservation facilities for several fruits, vegetables & flowers. Because of technology advancements and logistic strategies, the controlled atmosphere cold storage of perishable items has become an important stage in the distribution between manufacturers/processors and retail locations. The controlled atmosphere cold storage will ensure the increased availability and improved quality of high value perishable fruits and vegetables for both export and local sale, which would otherwise perish or deteriorate.

II. Sector Grants Program

After engaging with various stakeholders in different agriculture value chains in awareness workshops and meetings, Department identified three sectors where one-stage selection stream is more suitable mechanism to provide grant assistance to agribusinesses. Ideally the selected sectors will be crucial for achieving the objectives READ, and there are sufficient numbers of potential investors to justify offering sector level grants program. Some of these programs will be developed for the strategic agribusinesses listed in project component to ensure that these high priority value chains are covered under READ. The

following framework was developed for selection of potential area of business under READ program.

Table-1: READ Sector Identification Framework

Sr. No.	Major Category	Indicator	Maximum Allocated Marks	Marks Allocation Criteria/ Explanation
1	Social	Geographical location or coverage	5	Rural =5, Peri urban 03 Urban = 2
2		On-Farm/Off-Farm	5	If the intervention is off-farm, then maximum marks = 5, as department is already investing significantly in on-farm business, for example farm mechanization and LASER units are on-farm activities
3		Potential for job creation	10	How many additional jobs would be created by the sector or intervention? Each 5 additional jobs will have 1 mark (skilled and skilled labor will be considered as same number of jobs) jobs per PKR Million
4		Number of acres directly linked/benefitted with activity	5	Each 20 acre will have one marks If some pack house activity then how many acres' produce it is accommodating, and if it is mechanized farming then how many acres are being cultivated from this machine etc.
		Sub-Total	**25**	
1	Economic	Mobilization of private sector investment	10	Maximum marks when ratio of private investment will be 1:4 or higher (indirect or direct investment)
2		Direct procurement from farm	5	Yes/No, Yes=5
3		Reduction in cost of production	5	3% decrease in cost of production equals to 1 marks
4		Capital investment requirement	10	Less than PKR 50 Million will get 5 marks
		Sub-Total	**30**	
1	Environment	Environment and Resource Friendliness	5	Is the intervention or sector is water-climate smart, 5 marks if efficient water application and climate smart technology is applied, for example use of renewable resources, solar system
2		Reduction in cost of production	5	upto 2% get 1 mark
		Sub-Total	**10**	
1	Comparative Advantage	Type of crop cash crop/ horticulture	5	Horticulture = 5 marks, exportable cash crops = 4 marks and cash crops other than wheat and sugarcane = 3 marks
Sr. No.		**Indicator**	**Maximum Allocated Marks**	**Marks Allocation Criteria/ Explanation**
2		First step of value addition from Farm gate	5	Maximum Marks at first step value addition

3		Mechanized services (farm to market linkage with minimum human intervention)	5	Reduction in each layer from farm gate to end consumer. Each layer is 1 marks and maximum marks will be 5 In case the intervention is on-farm then input's factory gate to farm application- each reduced layer will have 1 marks and maximum marks are 5
4		Ratio of cost of operation vs output price	5	5 marks to those sectors or interventions that will generate the output 4-times by investing one rupee additional, lower the ratio less will be marks
5		Existing Penetration (Entities)	5	Number of available units, 20 units/entities of existing machines will get 5 marks
6		Regulatory Framework	5	Institutional or regulatory body available in the country
7		Finished item is the kitchen item of Urban Poor's	5	Some law which encourage this business like burning of stubble is banned, Sale of open spices are banned crop cannot be sale as seed etc.
		Sub-Total	**35**	
		G-Total	**100**	

In this framework about 22 ideas were consider and evaluated on given parameter indicated in above table and only 03 business get maximum marks for this scheme along with other financial resources and ease of doing business circumstances. The detail of proposed agribusiness which is described below.

- *Pack houses for fresh fruit and vegetable processing,*
- *Upgradation of cold storage services and*
- *Setting up Agriculture and allied services centers*

II) PROJECT COMPONENTS

The major activities to be carried out under the proposed project would include, interalia, the followings.

A. Provision of grants to establishing Agri businesses in following sectors:

a) Pack houses for fresh fruit and vegetable processing,

b) Upgradation of cold storage services and

c) Setting up Agriculture and allied services centers

B. Provision of business development services to selected beneficiaries/entrepreneurs

C. Establishing the Project Implementation and Supervision Unit (PISU)

The description of envisaged activities under each component is given below.

A) Grants to establishing Agri businesses

The proposed ratio is 50:50 grant levels for all agribusinesses applying to participate in READ and all Grantees are expected to contribute at least 50% of total project costs in cash or in-kind. Program seeks to engage the private sector to help promote increased commercialisation and thus, prosperity and productivity within key agricultural industries in

Punjab. This marks a broad departure in the usual production-oriented development assistance pursued by departments, and acknowledgement of the role Government can play in facilitating the private sector's lead in the commercialisation of agriculture in Punjab by supporting the agriculture value chains, including the farm inputs and agro-processing sectors.

a) Grant Size

The Government's contribution in a grant can range between 0.5million to 20 million depending on the financial requirements of an investment project. The Government's share shall be matching by the private investment to value no less than grant being given by the Government. The Government contribution will be as technology transfer and technical assistance. Provision of technical assistance will be a mandatory requirement for all grants being awarded in READ. The private contribution in the project can be in cash or in-kind, which can include any existing assets such as land, building or machinery etc. owned by the private investor being assigned for use in investment project.

b) Grant Streams

SMEs in Pakistan often find it hard to write concept papers and detail applications required in the matching grants due to low education level of the owners. They also do not have access to professional experts to prepare good project documents. Therefore, allows One-stage selection stream for flexibility and ensuring inclusivity of small agribusinesses. The first stream lets the bidder take lead role in design of investment project with limited advisory support provided by the Government, and this too only if required. In the second stream the Government will recruit professionals to design the grant programs at a sector or cluster level and invite individual agribusinesses from the particular sectors or clusters to participate through publicizing requests for applications.

One-stage grant stream: One-stage selection stream allows small agribusinesses with owners having low education level and no access to professional experts to also participate in READ. If there is a need to add additional sectors other then three mentioned in component A, then Government will hire sector specialists and business development experts to design sector-wide grant programs, and invite agribusinesses from the particular sectors to participate by publicizing requests for applications in a single-stage selection process. The experts will design the investment programs after completing thorough sector analysis, mapping the existing capacities and capacity gaps for agribusinesses in the selected sectors followed by proposing grant programs for sector development. To ensure that grant programs are responsive to real needs of Grantees, sector and business level analysis will be done; and to ensure that project interventions leads towards improved commercial performance for

participating agribusinesses, evidence based market analysis will be included in the sector studies.

c) Technology Transfer

The technology transfer means provision of machinery, equipment, tools and software integral for production or service delivery of an agribusiness by the Government under READ Program. Some of the examples for possible technology transfers by Government to agribusinesses are as follows:

- Government's grant can be used for purchase of high-tech farm machinery for agribusinesses offering farm mechanization rental services to farmers
- Government's grant can be used for purchase of machinery for sorting extraction for an agro-processing SME involved in fruits and vegetable packing
- Government's grant can be used for purchase of food testing lab equipment for a fruits & vegetable packaging unit
- Government's grant can be used for development of Businesses website and purchasing of software required to improve the efficiency of grantee business

The machinery, equipment and tools can be locally fabricated or imported, depending on the design of grant program, business requirements of participating agribusinesses and the availability of technology.

d) Preferred Agribusinesses

The agribusinesses falling under the following categories will be given preference through assigning extra scores to these enterprises during the selection process:

(i) Woman Owned Agribusinesses

The participation of women in commercial activities helps economies grow faster. At present the participation of women in agriculture and agribusinesses has remained quite low in Punjab. The READ will give preference to women owned businesses to encourage greater participation of women in commercial activities across agriculture value chains. Women owned agribusiness means that a woman is either a sole owner or partner/Director in the business and takes active part in management of business operations. For availing extra scores, she should be main applicant of the grant program

(ii) Young Entrepreneur Owned Agribusinesses

An alarming phenomenon in the Punjab is the large percentage of unemployed graduates and post graduates in the province, as reportedly nearly 55 percent of graduates and 40 percent of post graduates were seeking employment in 2014. Moreover, around 64% of total population in Pakistan is below the age of 30, which creates a challenge of generating opportunities for the youth, so they can positively contribute in growth

of the country. The proposed program will give preference to agribusiness owned by young entrepreneurs. For the scope of this program, a young entrepreneur is defined as a business owner who has age between 20 and 40 years. In case of partnerships all owners/Directors must be between the age of 20 and 40 years to categorize as Young Entrepreneur Owned Agribusiness.

e) Rural Agribusinesses

There are few opportunities for employment in the rural areas of Punjab. Most of the population in rural areas migrates and works in the urban centers, which increase pressure on the urban infrastructure. Those who stay back in the villages often remain unemployed or are underemployed, working on odd jobs or as daily wagers. Agribusinesses operating in rural areas generate employment for the local population and uplift their economic conditions. READ will give preference to investment projects being setup in rural areas of Punjab, so there are more employment opportunities for local rural population, including for rural women and youth.

f) Strategic Agribusinesses

There is significant growth potential in processing and value addition of horticulture crops, which includes fruits, vegetables, flowers, herbs and oilseeds etc. Investments in these strategic agribusinesses will result in development of economy and the agriculture sector. These businesses will help meet domestic demand through import substitution, and will also increase export for processed agriculture products to high-end international markets. The READ will give preference to strategic agro-processing investments in following sectors:

- *Pack houses for fresh fruit and vegetable processing*
- *Frozen storage, reefer transportation and cold chains businesses*
- *Establishing Agriculture service centres*

g) Pack houses for fresh fruit and vegetable processing

This Intervention objective is to process fruit and vegetable that are in abundance but has limited shelf life and low market appeal due to their perishable nature. The entire process flow is semi-automatic requiring both skilled and unskilled workers. The unit will treat and pack the mentioned products on internationally/locally acceptable standards making the final product compatible enough for local market and even export. The unit would add value to the fruit&Vegetable by bringing it to the international standards, giving it greater shelf-life and lowering the overall wastages.

The packing materials used by the majority of Pakistani fruit growers are not conducive to protecting the product quality and are inferior in appearance and design for the export market. For Example, unfinished 18-kg wooden crates are widely used for domestic marketing of Mangos . The outer appearance of the crate is not attractive and does not enhance the value of the product inside. Furthermore, the rough inner surface of the standard

wooden crate can result in significant physical injury to the delicate skin of the commodity if it comes in direct contact with the rough wood surface. Newspaper and straw are commonly used to protect the fruit inside the wooden crate, but these materials are not appropriate for marketing fruit to supermarkets, high-end shops, or for export. Furthermore, the crates are often over-filled and considerable abrasion and compression bruising of the fruit occurs inside the crate. The additional weight of the wooden crates versus corrugated cartons results in higher transport costs. Food safety regulations and packing restrictions against the use of wood containers in many export markets will preclude the use of this type of packing in the international market. Strong, well-ventilated, attractive corrugated cartons are the norm in packing fruit & vegetable for export.

Figure-1: overall processes involve in Pack houses of Fruit and vegetable

The project aims to introduce and facilitate willing entrepreneurs in acquiring finances and skills to procure farm fresh Horticulture and hygienically processing and packing them for value addition. In local markets in Pakistan, the demand for high-quality standardized and hygienically packed vegetables/Fruits has increased, particularly in urban areas where consumers increasingly shop for vegetables/Fruits in superstores. By catalyzing entrepreneurship and value-addition, Rural Enterprises in Agriculture Development (READ) in Punjab will directly contribute towards reducing postharvest losses and stabilizing market demand. Farmers will gain the opportunity to sell part of their surplus production through better farm to market value chain linkages, otherwise lost due to low demand and prices in peak production seasons.

Despite the quality and availability of raw material the SMEs in agribusiness sectors have remained underdeveloped, due to the market failures. It is observed that the financial sector is shy in funding SMEs. Another factor contributing in underperformance is the unavailability of advisory and information services to SMEs, as the business development

service (BDS) sector has by and large remained dormant in the country. The READ project will attempt to plug these market failures through improving financial viability and connectivity with the formal banking sector in selected value-chains and provision of BDS to agribusinesses.

Agriculture department through Agriculture delivery unit (ADU) has carried out feasibility study for Pack house business during 2018 and concluded it technically feasible and economically viable with following results.

- *Internal Rate of Return (IRR) 34.05%*
- *Payback Period (Years) 3.00*

Small and marginal farmers are not aggregated at various levels. Such non aggregation of their produce makes them un-viable economic entities, losing them from benefiting the modern technology, farm mechanization, reducing cost of farm's operation, cheaper input supply, remunerative price for producing an efficient supply chain management. While mechanization services are common in Punjab but due to resource constraints the pool of implements available with the service providers are limited to few and only the popular / routine ones.Proper programming and use of technology in disbursement of targeted and outcome-oriented relief projects has proven to show remarkable progress for young and old farmers alike.

h) Establishment of Cold Storage Facility in Rural Area

Controlled atmosphere cold storage provides refrigerated storage and preservation facilities for several fruits, vegetables & flowers. Because of technology advancements and logistic strategies, the controlled atmosphere cold storage of perishable items has become an important stage in the distribution between manufacturers/processors and retail locations. The controlled atmosphere cold storage will ensure the increased availability and improved quality of high value perishable fruits and vegetables for both export and local sale, which would otherwise perish or deteriorate. Following key parameters must be addressed as per grant scheme open under READ program

Technology: CA cold storage is a used for storing produce such as vegetable and fruits in an atmosphere that is considerably different from normal air with respect to CO2 and O2 levels. The CO2 and O2 levels within gas tight stores are monitored and adjusted to preserve the storage items. Due to metabolic activity of the respiring fruits and vegetables in the store and leakage of gases through doors and walls, the gas mixture will constantly change. The gases

are therefore measured periodically and adjusted to the predetermined level by the introduction of fresh air or nitrogen or passing the store atmosphere through a chemical to remove CO2.

Location: CA Cold Storage can be set-up in any major city with significant population such as Lahore, Rawalpindi, Islamabad, Multan near Sabzi Mandi or fruit & vegetables trading hub. This business can also be done in all small second tier towns in addition to suburban towns of large cities.

Product: In the proposed controlled atmosphere cold storage there would be a capacity to store high end imported or local products which can be stored for a duration of about 06 months and more. The proposed products would be Apple and Kinow due to their storage life in CA cold storage up to six months.

Target Market: Target market would be Growers, whole sellers, retailers, hyper stores, Importers and Exporters of fruit and vegetables.

Small and Medium Enterprise Development Authority (SMEDA), Ministry of Industries & Production, Government of Pakistan has carried out feasibility study for cold storage business during 2017 and concluded it technically feasible and economically viable with following results.

- *Internal Rate of Return (IRR) 16%*
- *Payback Period (yrs.) 5.71*

The main critical success factors that affect the decision to grant under READ program in the proposed business setup are:

- *Better insulation technology and compartmentalization of cold storage as compared to the rest of the cold storages in Pakistan.*
- *Energy efficient construction hence low operating/fuel costs due to efficient insulation.*
- *Compartmentalization i.e. compartments has the provision of storing different commodities at their respective temperatures.*
- *Complete adherence to best Agriculture practices is critical to the success of this project; therefore, technical knowledge & experience of the entrepreneur in the field of horticulture and in fresh fruit processing business is absolutely necessary.*
- *Awareness about HACCP standards and Strict Quality assurance of process and products.*
- *Selection of quality fruits on the basis of best analysis of cost and revenues for a given season; cost efficiency through better management.*
- *Appropriate post-harvest arrangement for transportation of product to the processing unit in case of 'own stock' business model.*
- *Appropriate storage arrangement and internal control for processed fruits; cold chain refer container arrangements for transportation to local and international markets.*

- *Properly trained seed staff should be engaged and comprehensive staff training programs to be adopted for capacity building.*
- *Careful selection of good location and purchase of land at competitive price.*
- *Effective marketing and distribution of the product particularly to the exporters, industrial units and super store buyers.*

i) Establishment of Agriculture Service Center

READ shall adopt a broad view on innovation to embrace the private sector service providers will offer a range of demand driven extension services to not only support crop diversification but also assist individual farmers in enhancing the production of conventional crops through the adoption of new technologies including on farm training, information and advisory services. Starting from registration of farmers, yearly crop planning, crop budgeting, and in assisting farmers in developing resource plans, provide on farm technical assistance in land preparation, crop management, harvesting and post-harvest management rental services, finally linking farmers to the buyers. Furthermore, farmers will also be linked to the input suppliers and service providers for timely execution of crop plans. The innovative agribusinesses services include those with new solutions, products, services or processes, which leads to:

- *Improvement in quality and outreach of information and advisory to farmers*
- *Mainstream the use of precision technologies in agriculture*
- *Promotion of climate smart agriculture technologies*
- *Availability of standardized, certified and high quality inputs to farmers*
- *Prooning and interculture operation*
- *Tunnel farming & hydroponic services*
- *Development of e-marketplace*
- *Custom hiring services for farm operations*

The private sector service provider will interact with the participating farmers through periodic face to face meetings which will be supplemented by an ongoing interaction with each farmer through the latest available technological means. This interaction will be supplemented by printed literature, group meetings, trainings, and supported through a dedicated ICT platform.

In this READ program the private sector entity will submit their proposal in accordance with EOI documents and applicant may demand different type of innovative equipment, machinery tools for rental base services to farmers. However, applicant may also establish the service delivery center in the rural area of the Punjab.

j) Request for EOI to Agri Business

A simple EOI form template developed (Annexure-A for Pack houses sector). it will published on the website/ newspaper for download. The EOI form will require basic information on agribusinesses regarding the existing facilities, if any, qualification of management team, and vision for business development etc. to qualify for grants provision through competitive process. The PD can also ask for support documents such as company registration, tax certificates, resume of core team responsible for implementation of investments etc. PD will request agribusinesses in the sector to fill and submit the application

forms along with support documents before the announced deadline. Fund Manager will be responsible to ensure that there is widespread awareness on grants program among the targeted agribusinesses through use of multiple communication channels including, seminars, meeting and advertising in the newspapers etc. EOIs of the other sectors will be developed by the Project Director thorough coordination/consultation with stakeholder which include but not limited to Existing industry, Universities experts and relevant individual from private/ public sector

k) Receiving Applications

Applications will be completed by application using the guidelines given on the EOI forms. The applicants will be required to submit the application forms along with required support documents to PD READ before the last date of submission. Within two week following last date of submission, PD will confirm receipt of the application to the applicants. The applicant may also submit the application form through Online Application system which will be developed under this scheme as separate READ portal.

l) Web Development

The READ Scheme is a first of its kind for the Government of Punjab and Agriculture Department, a website is planned to be launched for the whole program to make information and updates on the Program available online. This will help in creating an environment for "Ease of Doing Business" as well as building awareness for investors on benefits and success stories. The website will be developed exclusively for the Program and regularly updated. The EOI forms, information, feasibility studies and other relevant information will be available on this website to increase investments in agribusinesses sectors. It will serve as a one-stop-shop for the stakeholders of the scheme. Keeping in view, following facility would be available through online application, in which applicant may easily check/asses their eligibility criteria, fill up application form, and evaluation score. Guild line for filling-up the application form

PD would engage through short/long term consultancy services a web developer and a designer as part of the web development team to assist the Agriculture department in designing and executing the website for grants program (READ Program).

a) TORs for Web Development

- *Gathering, interpreting requirements from clients and designers and translating them into CMS based websites with pixel-perfect fidelity from Photoshop designs.*
- *Transforming Photoshop/Illustrator mock-ups into complete CMS themes*
- *Testing, debugging, and refining websites to produce final, fully QA tested product*
- *Collaborating closely with business stakeholders, content writers and designers to support production of highly interactive, engaging, websites and/or portals*

- *Candidate must have a strong understanding of UI, cross-browser compatibility, general web functions and standards.*
- *The position requires constant communication with colleagues.*
- *Experience in planning and delivering software platforms used across multiple products and organizational units.*
- *Managing development workflow and communications with team and clients.*
- *Providing development scoping support to fast-moving business development team.*
- *Creating accurate and realistic timelines*
- *Deep expertise and hands on experience with Web Applications and programming languages such as HTML, CSS, JavaScript, JQuery and API's.*
- *Deep functional knowledge or hands on design experience with Web Services (REST, SOAP, etc.) is needed to be successful in this position.*
- *Adhering to best practices in code development.*
- *Ensuring that websites are responsive and SEO-optimized*
- *Maintaining the functionality of CMS sites (updates, plugins, code- changes, database configuration) as needed*
- *Updating content on CMS sites as needed*
- *Designing and uploading various documents prepared through ADU for access on Department's website*
- *Awareness of modern web design best practices including all aspects of responsive web design.*
- *Conceive, develop, test and present ideas that deliver the highest quality user experience in terms of innovation, simplicity, and consistency.*
- *Collaborate closely with Business Stakeholders, Users and customers to help define detailed product requirements as prototypes, descriptions and detailed wireframes.*
- *Communicate and present the designs and design ideas to stakeholders and developers as visualizations in a clear, well- documented form.*
- *Good understanding of colour theory and impacts of the use of various colours on target audience.*
- *Design logos to create distinctive branding that may represents company or product.*
- *Create icons as a communication tool, these icons can be used in web design to support text content or in replacement of it where possible.*

- *Design publish ready booklets from MSWord documents.*

- *Develop the designs and design materials in sufficient detail that they can be expressed as clear features suitable for implementation by software development teams.*
- *Work with developers to ensure the designs are implemented as intended and the integrity of the user experience is maintained in the final product.*
- *Continually incorporate feedback to improve the UI/X experience.*
- *Designing and uploading various documents prepared through P&E cell for access on Department's website*

b) Required Qualifications and Experience for Web Developer

Minimum of Bachelors Degree in Software Development, Computer Science or Any other field.

- *2+ Year verifiable experience of working as web developer*
- *CMS Development (WordPress, Drupal or similar CMS)*
- *Build Products Using HTML/CSS/JS and Other Front-End Technologies*
- *Creating, Managing and Improving Databases*
- *Code and Deploy Applications in a Cross-Platform, Cross-Browser Environment*
- *CMS Theming, and Module Development Experience*
- *Web Programming Skills*
- *Verbal Communication*
- *Cross-browser compatibility*
- *Web User Interface Design (UI)*
- *Security Principles*
- *Object-Oriented Design*
- *Web Services (REST/SOAP) and API Integrations*
- *Must have strong portfolio of related past work*

c) Required Qualification and Experience for Designer

Minimum of Bachelors degree in Communication Design, Graphics Design or Any other field.

- *2+ Years of verifiable experience as web designer.*
- *Experience in creating interfaces for websites or applications*
- *Experience in creating eBooks and/or publish ready content.*
- *Strong proficiency in Adobe Photoshop, Illustrator and/or InDesign*
- *Experience with prototyping tools such as InVision, Marvel, Proto.io etc.*
- *Experience performing user research and testing*
- *Experience creating style and/or component guides*
- *Must have a strong portfolio (Include top 3: Web Designs, Logo/Icon)*

m) Eligibility Criteria

The agribusinesses in input technology and value added sectors would be eligible for READ Program. Both existing and startup enterprises will be eligible. The following criteria for applying in above three sectors

Table-2: Eligibility criteria of the applicant

Sr. No.	Criteria	Source of Verification (SOV)*
1	The applicant must be a Pakistani citizen	Computerized National Identity Card (CNIC)
2	The applicant's business must have a valid National Tax Number (NTN).	FBR NTN Certificate
3	Education level minimum Matriculation	SSC Certificate or Equal
4	The applicant's (Existing business) must be registered with the relevant authorities (in case the business is not registered at the time of application, registration must be completed before the issuance of award letter of matching grant).	FBR NTN Certificate showing business name in title or description and registered with Registrar of firm or any relevant forum of business registration

5	The applicant's manufacturing facility/services provision facility (existing or proposed) must be located in Punjab	Ownership Documents/ Rent Agreement/Contract Agreement
6	The applicant would have to contribute his/her share; at least equal to the amount of grant requested by him/her.	Annexure-II
7	Public limited companies and companies listed on stock exchanges are not eligible to apply. Government controlled entities are not eligible to apply.However Public sector universities in collaboration with Farmers are eligible are encouraged to apply	
8	The applicant's business should be based on primary agricultural produce of Punjab.	

Eligible investment projects will qualify for funding if they can demonstrate the following:

- *The applicant can be an existing or a new business*
- *The applicant business must be a privately-owned entity*
- *The applicant business must be capable of proving and is able to fund it share in the investment project*
- *The investment project being funded by READ must be established within Punjab*
- *There should be an expectation of positive societal impacts (i.e. public benefits) such as increased income, employment generation and/or value addition*
- *The investment project must have a positive impact in relation to on-farm productivity or efficiency and quality anywhere along the postharvest value chain be it through technology intervention, agro-processing or agriculture value addition business*
- *The investment project should stimulate increased investment and profitability or reduced risk for the target agribusiness enterprise*
- *The investment project must contribute, directly or indirectly, to improved incomes and economic opportunities for farmers of Punjab*
- *The investment project must have a positive impact on skill and workforce development. be it in processing, packaging, transport management, business acumen or any related domain*
- *The investment project must be commercially sustainable and demonstrably increase the competitiveness and viability of the agribusiness after the funds have been utilised*
- *The investment project which encourage investment in a sector or market through demonstrating new ways of doing business that benefit farmers will be preferred*
- *The investment project must demonstrate potential to replicate elsewhere in Punjab and Pakistan*
- *The funding provided by READ will be utilised within two years, other than in exceptional circumstances*
- *The investment project must not create permanent unfair competition or otherwise permanently distort markets*
- *The investment project must not cause any social or environmental damage*
- *The investment project (existing business) must have demonstrate the significant capacity enhancement in their sector.*

Bids must be led by private sector firms including: a private for-profit company, joint ventures, partnership, cooperative, sole trader, etc. Only in exceptional cases will READ Fund consider new businesses (start-ups), where there is strong evidence that the new company has credible and experienced investors and management team.

n) Assessing Applications

Applications will be reviewed by READ team to ensure that they are complete and required support documents are attached. The complete applications will be assessed and results will be recorded on the assessment and evaluation forms. For the applications shortlisted for submission to Independent Assessment Panel, due diligence checks will be undertaken by PD to ensure sufficient levels of governance, financial management, and implementing capacity exist with the applicant. A short report summarising assessments and diligence outcomes will be prepared.

o) Evaluation Criteria

Evaluation of the grant applications received against this EOI will be carried out as per clearly defined criteria. Each applicant will be assigned marks against all the evaluation factors. Total marks of each applicant will be calculated by adding the marks scored against all the individual factors. Highest scoring applications will be approved for grants; in accordance with the number of grants available for each sector. The decision of Evaluation Committee in this regard will be considered final. The evaluation criteria and EOI will be approved from the Project implementation committee.

However, 16 factors have been considered for evaluation and they have been assigned a total of 100 marks. Evaluation factors and the marks assigned to each of those factors have been provided in Table-2. Further explanation of the marks of some of the factors listed in Table-3.

The applicant(s) must have to get minimum qualifying score in all evaluation factors described in table 1. However, in total applicant(s) must have required 60 marks for qualifying for existing business and 38 marks for new business as per criteria given in table-3.

Table-3: Grant evaluation Scoring criteria

Sr. No.	Factors	Maximum Marks	Qualifying Marks for New to Business	Qualifying Marks for Existing Business
1.	Applicant's Gender	3	-	-
2.	Young Entrepreneur Status	3	-	-
3.	Applicant's Education	5	2	2

4.	Tax Filer Status	3	3	3
5.	Membership of Professional Bodies	5	-	5
6.	Related Experience (Self-Employed/Employee)	5	1	3
7.	Ownership of Factory Land	10	5	4
8.	Geographical Location of the Unit/Factory	4	-	-
9.	Bank Account Statement	5	1	5
10.	Local/International Exposure Visit	5		3
11.	Production Capacity of Proposed Plant	7	2	5
12.	Raw Material geographical location	3	2	2
13.	Benefit/Cost ratio analysis	10	6	8
14.	Payback Period of the Proposed Project	10	6	8
15.	Internal rate of Return of the Proposed Project	10	6	8
16.	Production of End Product	6	2	2
17.	Unit Functionality	6	2	2
	Total	**100**	**38**	**60**

p) Independent Assessment

An independent assessment Panel which Program implementation committee meet to consider applications proposed by PQC for funding. The Panel's assessment will recommend one of the following:

- *The application is successful, and a grant will, subject to contract, be provided in accordance with the application*
- *The application was approved, subject to clarification of certain matters and/or review of aspects of the application prior to final approval (requires more work)*
- *The application was unsuccessful.*

The Project Director will communicate the decision of the IAP in writing to applicants within a week. The Panellist of independent assessment will be compensated for their efforts with the Honoraria of PKR 10,000 per application with an upper limit of one salary per year. if the Member of the panel is from Private sector then his upper limit of Honoraria will be PKR 100,000 per Year and per application rate will be same which is PKR 10,000.

q) Contracting

The PD READ will sign the contract on behalf of the Government of Punjab with the recipient agribusiness in accordance with the Laws of Pakistan. PD will conduct and complete contract negotiations with successful applicants and finalise the scope of grant assistance. The content of contracts will be standardised (Annexure-B). The application, setting out the objectives, indicators, work plan, activities, milestones, funding arrangements and reporting schedules, will form an integral part of the contract. PD with support from Grantees will

update project budgets and work plans annually and submit these to the PIC for information . The Draft Contract placed at Annex-B and this can be updated (if needed) with the help of Legal advisor ADU.

r) Grant Disbursements

The Grantees will purchase goods and services as per contractually agreed terms and conditions with the Government. Cash disbursements will be linked to performance of specific tasks by Grantees, for example the cash disbursement can be linked to opening of LC, on receipt of bill of lading and following commissioning of machinery at Grantee's production site etc. The PD will disburse cash grants to Grantee upon completion of these activities and after verifications of documents and / or physical activities by READ team.

PD and a Grantee can agree to purchase machinery under cash disbursement method, while BDS can be provided through in-kind disbursement method under same grant contract. The disbursement arrangements must be negotiated and agreed between PD and Grantees, prior to the signing of grant contract, and the negotiated terms must be clearly stated.

s) Ineligible Expenses

The grantees of READ program will not receive Government's support for following expenses and will have to arrange for these at their own cost:

- *Purchase or rental of land*
- *Building and civil works*
- *Hire of office staff and labour*
- *Operating expenses*
- *Purchase of office equipment*
- *Purchase of vehicles/Tractor*
- *Debt owed to any party*
- *Interest on debt*

Participating grantees will be responsible to make necessary expenses and arrangement, which will include purchase or rental of land and building, development of civil infrastructure, availability of raw material, purchase of office equipment, purchase of vehicles, hire of office staff and hire of labour etc. required for the operationalization and routine functioning of investment projects. These arrangements will be made by the Grantees, as per the requirement of the investment projects and on agreed upon timelines. These expenses will add to the cost share of Grantees and will be considered as part of their 50% contribution in the investment projects.

t) Monitoring READ-Funded Investment Projects

The task of managing and monitoring of READ funded investment projects is the responsibility of the PISU, which will be based on the following documents:

- *Contract agreements*
- *Quarterly Reports prepared by READ team in consultation with Grantees*
- *Post completion reports*
- *Capacity building participation reports*

Examples of measurements that will be included in the M&E Strategy include:

- *The degree to which targets included in contracts are achieved*
- *The degree to which projects will meet their objectives*

u) Implementation Plan for provision of Grants to Agri Business

The plan for provision of grants distribution to value added Agri business under READ program to rural entrepreneur on cost sharing basis, during 2020-2021 is as follows. The same implementation plan would also be observed during the rest years of the project. The overall grant evaluation procedure Annexed-J.

Table-4: Implementation Plan for Grants to Agri businesses

Sr. #	Activity	Sub-activity	Timeline
1	Preparation of EOI for participating of Entrepreneur /famer	Preparation of EOI for Pack houses, Cold storage and Agri business Sector	By 20th December 2020
		Finalization of EOI	By 10th January 2021
		Approval from the Implementation Committee	By 20th January 2021
		Notified the EOI	By 30th January-2021
2	Selection of the Entrepreneur /Farmer (service providers).	Advertisement for invitation of application from Entrepreneur	By 30th January-2021
		Scrutiny of applications	By 20th February 2021
		Finalization of beneficiaries	By 28th Februry-2021
		Issuance of allotment letter	By 30th March-2021
3	Standardization of specifications of machinery/implements	Preparation of specifications of unit Machinery/implements	By 30th Februry-2021
		Meeting of standardization committee for approval of standards	By 15 March-2021
		Final approval of standardized specifications	By 20th March 2021
4	Finalization of Manufactures/supplier of unit/Machinery/implements	Evaluation of documents & Quotations of manufacturers/firms	By 10h April-2021
		Approval of manufacturers/firms	By 20th April-2021
5	Purchase of the machinery/unit	Booking by grantee with firms	Up to 30th April-2021
		locally/import of implements by the firms.	Up to 30th May-2021
		Validation of perquisite of Machinery/Unit	Up to 5th June 2021
		Final completion / installation Machinery/equipment	Up to 10th June-2021

		Payment of bills to grantee	By 15th June 2021
6	Technical training to the beneficiary	Holding of technical training to farmer/Beneficiary from Supplier	Up to 10th June 2021
7	Business Development Services	Engagement of Business development expert	By 30th March-2021 upto contract Period

B) Business Development Services

Government will provide technical assistance to Grantees in form of Business Development Services (BDS). The unavailability of advisory and support services to businesses has been a major constraint in Pakistan, hampering growth and resulting in high failure rate among SMEs. It is also a crucial element in success of grants program. The grants where technical assistance in provided along with technology transfer have demonstrated better outcomes then those without provision of technical assistance. Therefore, provision of technical assistance to Grantees will be a mandatory requirement in the READ program, with 10% of Government's contribution going towards provision of BDS to Grantees. There can be grants where 100% of Government's support will be in form of technical assistance. The BDS in READ will be customized to the needs of participating agribusinesses. The BDS may include, but not limit to the following:

- *Business diagnostics and business development strategies*
- *Business planning and business management*
- *Marketing, distribution, sales and / or export development*
- *Procurement planning and procurement management*
- *Production planning and operations management*
- *HR planning, management and capacity building*
- *Financial planning, budgeting and accounting*
- *Technical support, product development and process efficiency*
- *Certification, standards and adoption of quality systems*
- *Access to finance and formal credit*
- *Skills development of factory labor and technical staff*
- *Access to business, market and technology information, trends and updates*

Payment to BDS providers will be deliverable based, and will be made upon achievement of specific deliverables or objectives. The deliverables and associated payment will be defined in payment schedule of service contract of BDS providers in accordance with grantees contract.

a) Pre-qualification/Registration of Business Development Expert

READ project would implementing through business development support (BDS) activities designed to facilitate growth and enhance productivity in small and medium sized enterprises (SMEs). The project is focused on helping small businesses by addressing

challenges to business growth - sales/exports, marketing support, product development, access to finance, quality control and compliance, IT/ICT development and digitization, and skilled workforce. READ project will provide with cost share support to acquire business development services from competent, pre-selected experts.

Aiming to support the grantees for smooth implementation of the agreed activities and business development services. The engagement of business development experts with grantees should be required in this regard. Therefore, the pre-qualification process shall be initiated for shortlisting of such experts for their onward engagement with the grantees. The business development experts would provide overall following services to the grantees.

- *Technical assistance: technical trainings, new product development, engineering solutions, productivity audits, LEAN management, short courses, etc.*
- *ICT services: website and mobile based application development, software, Enterprise Resource Planning (ERPs), e-marketing solutions, etc.*
- *Quality certifications: ISO 9000, Food safety and compliance standards (HACCP, ISO 22000) SA 8000, National food compliance, WRAP, etc.*
- *Marketing support: product development, marketing collaterals, brand designs, etc.*
- *Marketing strategies: market intelligence and new market identification n, etc.*
- *Accessing financial services: tax advisory, book keeping, financial management, digital payment solutions, e-commerce solutions etc.*

b) Eligibility Criteria

The Program will support all eligible applicants (SMEs selected through a competitive selection process) to enhance their business capacities and productivity in above mentioned sectors through Business development specialist. All interested business development experts, who wish to apply for this program must meet the following eligibility criteria:

- *A 16 years of education in Business, marketing, management, Engineering, development or related field.*
- *At least 10 years of professional experience and Technical skills desirable in areas relating to Agri businesses development, technical/trade skills training, and skills in SME business development.*
- *Familiarity with Local, Regional and international trade, economic development and private sector development context.*
- *Excellent computer skills and new interactive media user skills: social media platforms, word processing, spreadsheets, databases and web-based research.*
- *Ability to write and communicate clearly, and analytically. Excellent spoken and written English, Urdu and Punjabi*
- *The following are the desirable skills and attributes:*
  - *Strong technical background on value chain*
  - *Strong linkage with government and other concerned stakeholders working in agri business sector*
  - *Capability to build and capitalize the existing network*
  - *Understands the technology, its working principle, benefits and limitations*
  - *Works well together with a team as well as independently*

c) TORs of Business Development Expert

The Business Development Consultant shall, under the guidance of the PISU Manager, carry out the following key tasks:

(i) Ensure successful implementation and establishment of SMEs development with consultation of grantee.
(ii) Conduct periodical marketing research to identify demand gaps for business products and services in the marketplace in collaboration with the PIU.
(iii) Facilitate Business Consultation sessions to READ/PIU Clients.
(iv) Work with PISU Manager in developing strategies for Business Centers and improving products and services.
(v) Conduct trainings to facilitate and deliver training sessions.
(vi) Assist PISU/READ Manager to facilitate research and development, pilot testing and technical training activities associated with SME business incubator projects.
(vii) Establish linkages and manage the supply chain from both ends; contract resorts and other major businesses with the products produced by the community, READ/PISU to ensure the smooth running of the operation.
(viii) Develop creative strategies to retain the clients including interviewing them to take their feedback and incorporate it into the growth plan.
(ix) Develop in-depth knowledge about business development practices, marketing activities, prospective clients and industry trends.
(x) Act as a liaison between local organizations, businesses and individuals and representatives of government, business and industry concerning economic development ad participate in industry forums.
(xi) Perform any other duty not listed above assigned by the READ/PISU Manager
(xii) Connect the linkages between farmers, distributors and manufacturers
(xiii) Finalize the plan of action as per the feedback given by READ/PISU team;
(xiv) Set up links with projects and organizations and mobilise the Practical Action's Interns wherever deemed necessary for acceleration of the promotion and sales action;
(xv) Ensure and maintain good coordination and communication between grantee, manufacturers, and concerned stakeholders

d) Implementation plan of BDS Consultant

The BDS in READ program will be customized to the needs of participating agribusinesses. The implementation plan (Table-5) for pre-qualification of pool of business development expert to provision the services to the selected beneficiaries. The second round of the selection/prequalification processes may also initiate on the basis of the requirement of READ program. The grantee may select the BDS consubstantial by their own choice and service charges would be managed from the grantees Contract.

Table-5: Implementation Plan for onboarding of business development experts

Sr. #	Activity	Sub-activity	Timeline
1	EOI for participating of Business development Expert	Preparation of EOI	By 20th October 2020
		Finalization of EOI	By 10th November 2020
		Approval from the Steering Committee	By 30th November 2020

Sr. #	Activity	Sub-activity	Timeline
		Notified the EOI	By 5th December -2020
2	Selection of the BDS Experts	Advertisement for invitation of application from specialist	By 10th December-2020
		Scrutiny of applications	By 20th January 2021
		Finalization of Expert	By 2nd Februry-2021
		Issuance of prequalification letter	By 10th Februry-2021

e) Business development services through department

For enhancing the grantees business, the agriculture department through extension would also provide the following business development services for smooth execution of the processing facility.

(i) Engagement of farmers to prevails the processing facility
(ii) Purchase of Raw material
(iii) Preparation of specification of the machinery for processing unit
(iv) Facilitate in getting different certificate from govt. institution
(v) Facilitate and inform in Different domestic and international expo

C) Establishing the Project Implementation and Supervision Unit

As this READ Program for rural business development services which is a mega project and department already did not execute such kind of services for rural community, therefore, a dedicated PISU/Project Directorate (PD) will be established at provincial level and will consist of a team that is knowledgeable about the agricultural business sectors in Pakistan so that they can act as a facilitator of ideas and proposals, and be pro-active in promoting business enterprises as a means to commercialize local agriculture. The PD office will be subordinate office of Chief Planning and Evaluation cell. The Team Leader/PD will be supported by sector experts with extensive experience working in agribusiness and other business enterprises in Pakistan. They will be supported by other professionals, such as Grants Procurement, Communication, Legal expert, Accounts and Business Development specialists and other staff. The PISU will be established at provincial level through recruitment from open market or transfer from existing set up of the department with incentive through the project allowance. In the non-existence of the hiring of project staff, the Short-term consultants under same position would be hire for managing the project activities accordingly.

Their main responsibilities will, inter alia, include design EOIs review/approval, grant limits, technical assistance, and overall coordination for project execution. The PISU team shall primarily report to the Secretary Agriculture but its major responsibilities will be the introduction and implementation of the scheme. All records and data shall be open and available to the PISU to enable them to perform their functions efficiently. The selection of PISU team will largely depend on their technical expertise and experience in providing services under similar projects. The PISU's scope of work would include but not limited to the following's tasks:

i. Draft technical documents/agreements/formats for grantee, supplier, business development services and including contract agreement and spatial conditions,
ii. Provide project management support services to Chief Planning and evaluation cell
iii. Help in evaluation of the technical and financial proposals of Grantee.
iv. Assist in mobilization and screening of applicant for grant as per criteria.
v. Facilitate in finalization of grant amount for various project activities (DLRs).
vi. Advise on standards, specifications, and criteria for machinery/ tool with the coordination of department
vii. Review and approve plans, designs, financial limits of Grants
viii. Facilitate timely completion of the proposed interventions and recommend scheme design modifications.
ix. Submit monthly, quarterly, and annual reports for proposed project activities besides other periodic reports as per requirements of project management.
x. Provide technical support for training of Department staff in all project interventions, particularly relating to grantees finical utilization plans
xi. Deliver technical assistance for updating/up gradation of grant database, development of new feasibility, and its management.
xii. Liaise with provincial, regional, and district for smooth execution of field activities.
xiii. Extend technical support to maintain a website containing information on facilities and services, applications, procedures, database etc.

a) Key Staffing Requirements

The experts required for the overall product development and smooth implementation are given below. The detail TORs and Experience attached as Annexure-E**.**

Sr. No.	Position	No. of Post
1	Project Director (MP-II)	1
2	Grant Specialist (MP-II)	1

3	Finance Manger (MP-III)	1
4	Contract Specialist (MP-II)	1
5	Business Development Analyst (MP-III)	04
6	Assistant Account Branch	1
7	Driver	02
8	Naib Qasids/Peons	1
9	Sweeper	1
10	Chowkidar	1

All above position will be recruited on contract Policy-2004. The draft Advertisement for recruitment of the staff attached as **Annexure-C** and application form as attached as **Annexure-D**. Th detail job description and eligibility criteria of each position attached as **Annexure-E.**

a) Selection Criteria for Appointment

The selection criteria would be followed as per the contract policy -2004 and onward amendments/ SROs made by the competent forum.

Table-6: Selection Criteria

Sr. No.	Distribution	M. Marks
1	Qualification Maximum marks for 1st division, 40 for 2nd division and 30 for 3rd division	**50**
2	Foreign Scholarships for three months or more. degree/certificate/diploma (Fulbright, Chevening, Australia award, Endeavour etc.)	**5**
4	*Experience minimum requirement=5 marks: (Relevant experience 5 marks for each 1 year upto 4 year)*	**25**
5	Interview	**20**

b) Pay Package and contract appointments

Considering the nature of assignments these appointments will be made on contract basis. Each officer will sign the performance contract with Head of Unit. Extension in employment and pay raise will be linked with annual performance. To attract the best human resource available in the province, the policy envisages better pay packages for these appointments. Beside Better service delivery, Department will be free from liabilities of pension and post-retirement benefits. These staff will be hired on contract basis whereas, the bulk of appointments in the Government sector were made on regular basis. However, during the last few years, it has

been increasingly realized that the regular mode of appointment is not suitable for most of the Government sector assignments due to administrative and financial factors.

The hiring procedure of the project staff is very cumbersome process. However, the timely execution and smooth implementation of the Project activity, department staff would be notifying as a project staff up to the deployment of project staff. The project Allowance will be provided to the notified project staff on the recommendation of Project Steering Committee.

c) Plan for Development of Communication Strategy

The Project Director will develop and implement a Communications Strategy to attract existing businesses to establish subsidiary investments in Punjab to expand their operations and new start-up agribusinesses. The Communications Strategy will inform the business community of the types of opportunities that exist in Punjab agricultural industries, and facilitate the generation of ideas and preparation of applications. The aim of the Communications Strategy is to ensure that potential applicants will actively solicit responses from businesses, rather than simply advertising the scheme with the expectation that the target market will be ready with workable project proposals. READ team needs to be proactive in identifying suitable businesses and entrepreneurs for READ funding. This will necessitate personal meetings, road shows, workshops and seminars in order to build knowledge of READ and potential business opportunities within the business community. The action plan is as follows;

Table-7: Implementation plan of Communication Strategy

Sr. #	Activity	Sub-activity	Timeline
1	Standard promotional materials	Promotional leaflet summarising objectives and explaining methods of engagement	Up to 15th November 2020
		A standard presentation, comprising a set of slides	Up to 30th November-2020
		Banners, standees and other outdoor and events related promotion material	By 30th December-2020
		Website and Facebook page along with appropriate social media presence at other platforms	By 30th December-2020
		Success stories, case studies and	By 30th June-2020

Sr. #	Activity	Sub-activity	Timeline
		other image building material	
2	Holding of. Seminars/Road Shows	Selection of venue for gathering	By 30th November-2020
		Advertisement through Website/Newspaper Add	By 5th January-2020
		Preparation of banners/panaflex/posters	By 10th December-2020
		Catering arrangements through PPRA	By 30th December-2020
		Invitations to potential participants	10th January-2021
		Invitations to notables entrepreneur of the Trade	15th January-2021
		Arrangement for media coverage	15th January-2021
		Identification and invitation to resource persons	15th January-2021
		Holding of Seminars/Ceremony of each trade	By January-2021

7. CAPITAL COST ESTIMATES

a) Indicate date of estimation of project cost estimates

The cost estimates of different project interventions have been prepared during September, 2020.

b) Basis of Determining the Capital Cost

Capital cost of the project is based on the prevailing average market rates of various items available in the open market during September 2020. The grant size of each business ranging from 0.5 million to 20 million.

c) Year-wise/Component-wise Phasing of Physical Activities

The year-wise and component-wise phasing of physical targets/activities of the project is appended at **Annexure-F**. It is indicated that the year-wise targets are indicative and the same will be approved by the PIC every year considering available resources.

d) Year-wise/Component-wise Financial Requirements

The year-wise/component-wise phasing of financial requirements through ADP provided as **Annexure-G**.

8. ANNUAL OPERATING AND MAINTENANCE COST AFTER COMPLETION OF PROJECT

It is envisaged that Business development expert would assist the grantees in operation and management of established unit and machinery equipment supplier firm will provide services in warranty period and ensure provision of after sale service. The participating grantees would, however, be responsible for the operation and maintenance of their business under the proposed project. It is, however, indicated that proposed value chain business/ interventions would need continuous technical support for its expansion with operation and maintenance even after project completion. The Extension/BDS staff would provide technical support services to the grantees for sustainability of the envisaged business after project completion. An amount of about Rs. 50.00 million per annum would be required after project completion to provide support services to the farmers for sustainable operation & maintenance of the completed works as well as maintenance/ operation of activities.

9. DEMAND AND SUPPLY ANALYSIS

As mentioned earlier, that owing to rising demand for standardized and hygienically packed fresh vegetables, the case for setting up a packhouse facility is worth consideration. In order to select some of the vegetables and fruits for processing at the packhouse, the following three opportunities

- *Local production (Punjab): Those vegetables be given priority which are cultivated in Punjab and are available in sizable quantity for export purposes.*
- *Existing Local + Export Demand: Owing to urbanization and also global increase in incomes, the demand for hygienically packed and sorted vegetables are increasing locally as well as in international markets.*
- *Potential for future demand: Customers in the developed economies are now more conscious of their food and nutrition. Vegetables and fruits are being demanded on a larger scale owing to their micronutrient contents and fibers.*

The envisaged business, pack houses, farming service center and cold storage facility offers great opportunity and potential in meeting the above challenges and opportunity and increasing ensuring food security, enhancing farm returns, economic uplift of farmers, and improving agricultural economy of the country as a whole.

10. FINANCIAL PLAN (FINANCING SOURCES)

a) Equity

NA

b) Debt

NA

c) Grants alongwith Sources

(Rs. in million)

Sources		Amount for Capital Cost	Amount for Recurring Cost
(a)	Foreign Assistance		
	i- Loan	-	-
	ii- Grant	-	-
	iii- Technical Assistance	-	-
(b)	Federal Government	-	-
	i- Grant	-	-
	ii- Loan	-	-
	iii- Investment	-	-
	iv- Direct Expenditure	-	-
(c)	Provincial Government	-	-
	i- Grant	*1262.89.00*	-
	ii- Loan	-	-
	iii- Investment	-	-
	iv- Direct Expenditure	-	-
(d)	Sponsoring Agency's own fund	-	-
(e)	Private Investment (SSCs)		-
(f)	Local Body Resources, if any	-	
(g)	Non-Government borrowing	-	-
(h)	Beneficiaries Contribution	*1,112.76*	-
(i)	Other sources (e.g. Recoveries)	-	-

d) Weighted Cost of Capital

NA

e) Flow of Funds

Special Drawing Account (SDA) will be opened in the name of Project Director READ Punjab and Deputy Director Planning P&E Cell after authorization of the Finance Department and fulfilling prescribed codal formalities. The allocated funds will be transferred into SDA by Finance Department for its further utilization. The PD (READ) would be allowed to maintain and operate the said account for channeling the funds released into the SDA. The allocations will be approved by the Project Implementation Committee (PIC) for payment of financial assistance/ subsidy for Agri. businesses as well as other transactions. The PIC would be authorized to make necessary adjustments in financial and implementation modalities, if needed, while keeping the overall scope and cost of the project intact.

11. PROJECT BENEFIT AND ANALYSIS

i) Financial Benefits

The project will have both tangible and intangible benefits but there will be no direct income from the scheme to the government. The implementation of the project activities would result in substantial increase in SMEs and provide enhanced employment opportunities to the rural population. packaging is the most modern technology for storing fruits/vegetables pulps/concentrates. It is a capital intensive technology compared to the other options. There is demand for aseptically packed fruit and vegetable in the local market by large companies producing quality consumer products. In the international market, packing is demanded by a wide majority of the customers and is considered as one of the most important requirements for exporting fruits/vegetables. One major benefit of aseptically packed products is the ease in use of handling; since it is not frozen. Moreover, the controlled atmosphere cold storage will ensure the increased availability and improved quality of high value perishable fruits and vegetables for both export and local sale, which would otherwise perish or deteriorate that would provide additional income as compared with the traditional selling. The cost benefit analysis for project interventions is given at **Annexure-H**.

ii) Economic Benefits

The proposed project would have a transformational impact on Punjab's agriculture sector by cutting down the system losses through introduction of value added services and crop productivity enhancement and input cost reduction technologies. The interventions proposed under the project are economically feasible with following economic returns.

i)	EIRR	=	32 %
ii)	BCR	=	2
iii)	Payback	=	4.5 Years

Following positive outcomes are also expected from the scheme.

The private sector SMEs can participate through provision of farm technologies to farmers for mechanization, quality seed, digital information, and advisory services. The same would result in substantial increase in farm returns and provide enhanced employment opportunities to the rural population of project area. The following positive outcomes are expected from the scheme:

- Increased agricultural growth, poverty alleviation, and private sector development in rural areas where most of the absolute poor is inhibited
- Alleviating poverty by improving agricultural output as well as increased employment opportunities in the rural areas

iii) Technical Soundness of Project Activities

The project interventions are technically viable/ sound and socially acceptable with significant potential for agricultural development in the Punjab. The payback period of the technology package envisaged under the project is about 3-4 years and life of the technologies (Pack houses and cold storages) is more than 15 years. The reduction of post-harvest losses through envisaged technologies would enhance income level of the farmers.

iv) Social Benefits

The project interventions would have substantial impact on social lives of the rural people. The increased employment opportunity through envisaged businesses would enhance income level of the farmers. The implementation of the project would provide direct employment to **1,000** people as value chain business Operators and indirect employment opportunities to the rural population of project area as Machinists and Helpers for installation of unit/machinery and Farming services. Moreover, establishment of repair and maintenance facilities for the technologies envisaged under the proposed project will open new avenues of employment for skilled workers.

v) Environmental Impacts

The project builds on existing infrastructure to bring operational improvements in crop production systems. It would, therefore, not cause any adverse environmental effects normally associated with new developments, e.g. resettlement, depletion of land and water resources, loss of wildlife habitat etc.

vi) Employment Generation

The implementation of the project would provide enhanced employment opportunities to the rural population of project area. It is estimated that about 1,000 persons will get direct employment as value chain Operators. Improvement in crop yields will also boost economic activity in rural areas of the province that will also create further employment options. It is estimated that an amount of about Rs. 1,112.76 million would be contributed by the participating individual for value chain and Agri. business under the project and these developments will create employment opportunities at operational stage. It is, therefore, concluded that project implementation will stimulate employment generation not only for skilled and unskilled labour in the villages but will help in opening of new earning opportunities in the rural sector.

vii) Impact of Delays on Project Cost/Viability

Any delay in implementation of proposed interventions may result in irreversible losses besides increase in project costs due to price escalation of materials.

12. IMPLEMENTATION SCHEDULE

a) Starting and Completion Dates

Starting Date	Completion Date
October 2020	30 June 2023

b) Result Based Monitoring Framework

The Result Based Monitoring Framework is a powerful tool used for public sector management to track progress and demonstrate the impact of development project. The proposed project envisages promotion of agro processing including Value chain and farming technology for enhancing crop yields, increasing farm incomes, improving livelihood of people, enabling farmers to adjust the agriculture practices with varying environments, promoting renewable energy sources and alleviating poverty in the province. The Result Based Monitoring Framework prepared to track project progress and impact is enclosed at **Annexure-I**.

(c) Monitoring and Evaluation Framework

Monitoring and evaluation cover the management of READ at two levels: Grantee itself and individual investment projects supported by READ. all monitoring and evaluation activities would be caried out under the supervision of M&E committee. The M&E activities are divided into four main areas:

i. *Monitoring of READ operations*
ii. *Evaluating the effectiveness and efficiency of READ operations*
iii. *Monitoring the Grantees' investment projects*
iv. *Evaluating the impact of READ-supported projects*

Monitoring and evaluation at the level of READ itself will be derived primarily from Grantees reports to READ program. At individual investment project level quarterly, annual and post-completion reports will be provided. The Fund Manager will prepare these reports in consultation with Grantees and collect data from other independent sources as per the requirements.

d) Monitoring of READ Operations

Monitoring READ operations will be achieved through the reports to READ Fund. The principal operations that require monitoring are as follows:

- *Marketing, promotion and supporting applicants in selection process*
- *Managing the receipt and processing of concept papers and applications*
- *Managing the compilation of sector studies, grant program proposals and application for one-stage selection stream*
- *Supporting applicants in the preparation of applications*
- *Carrying out due diligence and verification of information*
- *Obtaining approvals*
- *Managing fund disbursement along with related procurements and contracts*

Examples of measurements for these operations that will be included in the M&E Strategy to be developed by the PD, but could include indicators such as the:

- *Number and nature of organisations that register enquiries with READ program*
- *Number of sector studies, grant program proposals developed and percentage approved*
- *Number of agribusiness submitted applications, segregated by grant streams*
- *Number of applications approved by READ program*
- *Number (and timing) of contracts concluded with Grantees*
- *Total value of grants awarded, including those to preferred agribusinesses*
- *Number of investment projects expected to bring about indirect impacts, including system change, replication, scaling up, and behavioural changes in the business community*
- *Successful completion of investment projects (and number of investment project failures)*
- *Number of Grantees to receive credit through financial institutions during or following the implementation of grant investments*
- *Number of Grantees to have improved access to new local and / or international markets and resulting have increase in sales revenue as direct outcome of grant investments*
- *The cost-efficiency achieved by Grantees as direct outcome of grant investment*

e) Evaluating READ Effectiveness and Efficiency

The evaluation of the effectiveness (impact) of READ program will be based on demonstrating the extent to which the objectives are achieved. Indicative indicators of impact on farmers through more market inclusiveness could include: increased crop productivity, increased value addition, increased incomes or improved resilience of farmer livelihoods. The indicators on impact on rural communities can include rural jobs created (segregated for women and youth), rural micro / cottage enterprises benefited from READ program supported investment projects etc.

Indirect impacts of READ program will also be measured including:

- *Systemic impacts*
- *Replication*
- *Scaling up and*
- *Behavioural change*

Evaluation committee will conduct the evaluation of the efficiency of READ program, that will be based on project reports to Secretary agriculture, which will include reporting on:

- *Portfolio, disbursements and possible future commitments*
- *Enquiries received*
- *Sector studies, concept notes and applications in process*
- *Communication outreach*
- *Contract agreements upto date*
- *Implementation updates*

13. PROJECT MANAGEMENT AND ADMINISTRATIVE STRUCTURE

The project activities will be implemented with Project Implementation and Supervision unit (PISU) base in Agriculture Department under the supervision of Chief Planning and Evaluation Cell. The major project activities will be implemented through prequalified business development experts of the

i) Provincial Setup

The Planning and Development Department (P&DD) is the apex organization at provincial level responsible for preparing overall development framework, coordination & monitoring of development programs/projects, and provision of assistance to various departments for planning & executing the development activities. The Agriculture Department is responsible for agricultural development in the province through introduction of new technologies and provision of support services to the farmers for socio-economic development of the farmers. The " Rural Enterprises in Agriculture Development program" will be overseen and monitored by P&DD, Punjab. The project will be coordinated and managed by the Agriculture Department through its Planning and Evaluation Cell.

The project activities will primarily be implemented with PISU which is established for this particular project. Project Director will be hired who will supervise, manage, and monitor the proposed project activities from provincial headquarters through existing establishment under supervision of Chief Planning and Evaluation Cell, Punjab. The Project Steering Committee will, however, decide the recruitment mode of the PD.

ii) Project Management

The project management arrangements through following committees for successful execution of envisaged activities under the proposed project. The coordination, administration, and monitoring will, however, be achieved through establishment of following committees as given below.

i) Project Steering Committee (PSC)
ii) Project Implementation Committee (PIC)
iii) Pre-qualification Committee (PQC)
iv) Monitoring and Evaluation Committee
v) Physical inspection committee

iii) Project Steering Committee

The Project steering Committee (PSC) would be chaired by Secretary Agriculture, with representative of finance department, Chief (Agri) P&D Board, Chief Planning and Evaluation Cell, as its member and Project Director of PISU will be the member/secretary of the PSC. The PSC would meet on need basis to review the physical and financial progress as well as to suggest means to overcome the constraints faced during execution of project activities. The major functions of PSC, inter alia, would be as follows:

i. Approve annual work plan and streamline flow of funds
ii. Monitor physical and financial progress
iii. If needed, Revise the criteria for selection of beneficiaries under various project components
iv. Identify new sector for grant funding and add new grant sector
v. Modify the grant slab and increase or decrease the no. of grants
vi. Identify the constraints in achieving targets and devise strategies for their redressal
vii. Review provincial/district monitoring reports and take appropriate actions
viii. Review the financial limit and grant facility and markup rate.
ix. Allocation and revision of subsidy
x. Approve work plan (targets, financial requirements etc.) for awareness, demonstration, feasibility, research activities, trainings etc. on annual basis or as required for smooth execution of envisaged activities
xi. Review subsidy slabs/financial assistance level and modify for smooth implementation of project activities

ii. Project Implementation Committee

The project implementation committee (PIC) would be chaired by Chief Planning and Evaluation cell with , deputy director P&E Cell, Representative of ADU and PD PISU will be the member/secretary of the PIC. The PIC would meet every month to review the physical

and financial progress as well as to suggest means to overcome the constraints faced in execution of project activities. The major functions of PIC would, interalia, be as follows.

i. Prepare annual work plan
ii. Review physical and financial progress and formulate the implementation strategy
iii. Coordinate and supervise the project activities
iv. Ensure implementation of decisions of Project Steering Committee
v. Approval for engagement of any short time consultant on need base
vi. Formulate mechanism for transparent monitoring of project activities as recommended by the M&E committee
vii. Review the monitoring reports and rectification of the shortfalls
viii. Finalization of the EOIs and evaluation criteria
ix. Approval of grants, implementation plan with grantee and Contract agreements

iii. Monitring and Evaluation Committee

The Project Monitoring and evaluation committee would be chaired by Aditional Secretary planning, Chief Planning and Evaluation cell, monitoring & Evaluation Advisor ADU, and Representatives from Agriculture university Multan(MNSUA), Faislabad (UAF) and Rawalpindi (UAAR) will meet in quarterly basis for monitoring of the Project activities. The major functions of MEC would, interalia, be as follows.

i) Lead the monitoring and evaluation of project activities.

ii) Supervise implementation of overall monitoring and evaluation plan including collecting, analyzing, and reporting project data for continual effective tracking of project objectives.

iii) Carry out impact evaluation of project activities to assess the project benefits;

iv) Monitor the grant implementation process to ensure implementation of grant activities in accordance with the prescribed standards, specifications, and parameters.

v) Carry out continuous monitoring of the designing plans and maintain liaison with implementation staff/ other stakeholders.

vi) Assist in reviewing and modifying the project activities for cost effectiveness and technical suitability.

iv) Prqualification Committee (PQC)

The Project prequalification Committee (PQC) will be constituted comprising of following officers.

1. Project Director PISU	*Chairman*
2. Grant specialist	*Member*
3. Procurement Analyst (ADU)	*Member*
4. Agriculture Research Officer P&E Cell	*Member*
5. Business Development Analyst	*Secretary/ Member*

6. *Any coopt Member*

The PQC would review the prequalification/Registration progress as well as to suggest means to overcome the constraints/bottlenecks faced in the field for execution of project activities and prequalification and contracts under different project component. The major functions of PQC would be as follows.

i. Prepare the grant application Packet and other related documents for Selection of Grantees, BDS experts, individual consultants
ii. Assist the PD PISU in preparing the procurement documents of Goods and services approved in PC-1
iii. Approve/ amend/ change the criteria for selection of beneficiaries/service provider under various project components, if required.
iv. Devise mechanism and constitute committee(s) for recruitment of grantees/BD consultant, prequalification of supply & service companies, issues related to implementation of field activities etc.
v. Make necessary modifications/ improvements in prequalification documents,, modalities including cost sharing, execution arrangements, flow of funds, inter-component physical & financial adjustments etc. for smooth execution of project activities.
vi. Preparation and finalization of EOIs documents, RFP and any other components
vii. Evaluation of the grantee's application and recommendation to PD PISU for issuance of award letter or further communication
viii. Finalization of specification of the grantee's equipment/ machines/tools
ix. Identify any missing information and/or any required supporting documents not attached with the application. Coordinate with the applicants to receive the missing information and/or documents.
x. Evaluate the application with respect to the evaluation factors provided in the EOI document and award scores against each factor. Consolidate individual scores to arrive at final scores for all the grant applications.
xi. Shortlist the top scorers as per the maximum number of grants allocated for each sector.

iv. Physical Inspection Committee

The project physical inspection committee would be chaired by Grant specialist, Representative of ADU and Assistant director (Post harvest research),AARI and Assistant agriculture engineer and Business development analyst (READ) will be the member/secretary. Co-opted members will also be formally invited to participate in the meetings; either through written letter. The PIC would meet on need basis and as well as to suggest means to overcome the constraints faced in execution of project activities. The major functions of PIC would, interalia, be as follows.

Key responsibilities of the Physical inspection committee members are listed below:

i. Carefully read the EOI documents for each grant offering to clearly understand the background and the eligibility and evaluation criteria for award of grants.

ii. Collect the grant applications received by the PD READ in hard and/or soft form.

iii. Create individual file of each grant applicant; that will include the filled application form and the documents attached along with the application. All the documents created during evaluation and approval process will be maintained in the applicant's file created by PQC.

iv. Physical verify the Assets of each applicant by comparing the information provided by the applicant in the application form.

v. Physical verify the information provided in the application form by reviewing the documents attached with the application.

vi. Present the physical evaluation results to the PQC Committee for final approval/rejection/reassessment decision.

vii. Maintain a formal record of all the proceedings of PQC; including the mom issued to convene meetings, minutes of the meetings, the documentation related to grant applications evaluations and any other relevant records.

viii. If required, carry out reassessment of applications as per the instructions of PQC

ix. Provide information about the status of grant applications; as and when required by the P&E cell.

x. Maintain a liaison with the grant applicants to keep them updated about the status of their applications and any other relevant information that may be required by them.

xi. Physically verify the Goods and services Procured under Grant agreement with Grantees

v) Risk Mitigation Plan

There would be no major risk involved in implementation of proposed project activities. Few risks and their extent have, however, been identified/ anticipated which may affect the project progress. Accordingly, their mitigation strategies have been proposed for ensuring smooth implementation of project activities and the same is enclosed in table below.

Table-8: Risk Mitigation Plan

Sr. no.	Risk	Cause/Factor	Effects	Risk Mitigation Plan	Institution/s Responsible to take corrective measures to mitigate Risk	Rating
1	Delay in release of funds.	No funds from the government	Overall envisioned Scope cannot achieve	Time release of total allocation of funds at one time.	Finance Department	High
2	On boarding of Business developmen	Preparation of RFP	non availability of grant to farmer	Nomination of Public sector's Employees/University experts and	Agriculture Department/PPRA	Medium

	t expert			Honoraria @ 15,000 per Month subject to satisfaction of Grantees and PDs		
3	Delay in Onboarding of grantees	Integration with Suppliers	Delay in implementation of overall project	Timely filling of posts through recruitment/transfer from the existing sources.	Agriculture Department/	High
4	On boarding of PIS Unit	Approval from the Board	Delay in Execution of the project	Timely filling of posts through recruitment/transfer from the existing sources. Selection From Agriculture's department Employees and award of Project allowance at the rate approved by P&DD	FD and P&DD	High

vi) Materials, Supplies and Equipment Requirement

It is envisaged that procurement of office equipment for PISU staff for smooth implementation and execution of the scheme. The procurement will be made by Chief Planning and Evaluation cell in accordance with PPRA procedures and guidelines approved for the purpose.

14. ADDITIONAL PROJECTS/ DECISIONS REQUIRED

Timely arrangement of fund for requirement of project staff is required for implementation of the project in benefitting manners. Necessary arrangement would also require for onboarding of commercial bank to onward distribution of grants to the Agri businesses

TA and Honoraria Compensation Mechanism

i. *Traveling & Honoraria allowance to any Public sector employee will be paid from project funds and PD will issue checque in his name under intimation to member's Drawing and disbursing officer*

ii. *Traveling allowance equal to BPS-19 and Honoria @ PKR 10,000 per Meeting/visit will be paid by the Project Director to any committee member who is from Private sector. Honoraria and Travelling allowance can be paid for up to 10 visits per year and if payment of any additional visit/meeting/ session of private member is required then approval from Principle accounting officer will be required*

Notification of Staff from Existing Employees

Till the hiring of Staff following Employees will work on additional charge basis and project allowance as per P&DD rate will be given to these employees.

Name of Officer	*Current Designation*	*Additional charge as*
Rana Mahmood Akhter	*Chief Planning & Evaluation cell*	*Project Director*
Mr Irfan Razzaq	*Assistant Director OFWM*	*Grant Specialist*
Mr Hafiz Abdur Rehman	*Technical Advisor ADU*	*Contract Specialist*
Mr Zafar Lodhi	*Assistant Director ,*	*Finance Manager*
Mr Mehran Hussain	*Assistant Research officer*	*Business Development Analyst*
Mr Shahid Ali	*Superintendent*	*Assistant Account Branch*

15. CERTIFICATE

Certified that the project proposal has been prepared in the light of instructions provided by the Planning Commission for the preparation of PC-I for production sector projects.

Prepared by:

(Hafiz Abdur Rehman)
Program implementation Analyst,
Agriculture Delivery Unit
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Recommended by:

(Wasif Khurshid)
Secretary
Government of the Punjab
Agriculture Department, Lahore
Ph. # 042-9921013

Annexure-A

Expression of Interest (EOI) Document for Selection of Fruit & Vegetable Pack House Unit

Under

Matching Grants to Agribusinesses

Agriculture Department, Government of Punjab

Department of Agriculture, Government of Punjab

21-Davis Road, Lahore. Pakistan

Table of Contents

Disclaimer

This Expression of Interest (EOI) Document has been advertised for use in preparing and submitting applications to avail matching grants to promote private sector investment in Fruits & Vegetables Pulping sector in Punjab. This EOI Document is being issued by PD READ, Department of Agriculture, Government of Punjab, Pakistan (hereinafter referred as the "Department" where relevant, the term includes its employees, personnel, affiliated entities, consultants, advisors, agents and contractors etc.), solely for the use of the Applicant(s) interested in the Assignments enumerated hereunder.

Unless expressly specified otherwise, all capitalized terms used herein shall bear the meaning as ascribed in this EOI Document.

This EOI is not an agreement and is neither an offer nor invitation by the Department to the prospective Applicant(s) or any other person. The purpose of this EOI is to provide interested parties with information that may be useful to them in the formulation of their application for qualification pursuant to this EOI (the "Application"). This EOI includes statements, which reflect various assumptions and assessments arrived at by the Department in relation to the Program. Such assumptions, assessments and statements do not purport to contain all the information that each Applicant(s) may require. This EOI may not be appropriate for all persons, and it is not possible for the Department, its employees or consultants or advisors to consider the investment objectives, financial situation and particular needs of each party who reads or uses this EOI. The assumptions, assessments, statements and information contained in this EOI may not be complete, accurate, adequate or correct. Each Applicant should therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments, statements and information contained in this EOI and obtain independent advice from appropriate sources.

Information provided in this EOI to the Applicant(s) is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Department accepts no responsibility of the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The evaluation criteria have been laid down for the purpose of shortlisting of the Applicant(s). The Department or its affiliated entities including its consultants, advisors, employees, personnel, agents, make no representation or warranty and shall have no liability to any person, including any Applicant, under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this EOI or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the EOI or in any other Document made available to a person in connection with the tendering process for the Assignment(s) or for any other written or oral communication transmitted to the recipient in the course of the recipient's evaluation and any assessment, assumption,

statement or information contained therein or deemed to form part of this EOI or arising in any way with shortlisting of Applicant(s) for participation in the Selection Process.

The EOI submitted by any Applicant shall be upon the full understanding and agreement of any and all terms of this EOI Document and such submission shall be deemed as an acceptance to all the terms and conditions stated in this EOI Document. Any EOI submitted by any Applicant shall be construed based on the understanding that the Applicant has done a complete and careful examination of this EOI Document and has independently verified all the information received from the Department.

This EOI Document shall neither constitute a solicitation to invest, or otherwise participate, in the Assignment, nor shall it constitute a guarantee or commitment of any manner on the part of the Department that the Grant will be awarded. The Department reserves its right, in its full discretion, to modify the EOI Document and/or the Assignment at any stage during the procurement process to the fullest extent permitted by law, and shall not be liable to reimburse or compensate the Applicant for any costs, taxes, expenses or damages incurred by the Applicant in such an event. Similarly, the Department reserves the right, in its full discretion, to cancel the EOI Document and/or Assignment at any stage of the procurement process and shall not be liable to reimburse or compensate the Applicant for any costs, taxes, expenses or damages incurred by the Applicant(s) in such an event.

EOI ADVERTISEMENT

REQUEST FOR EXPRESSION OF INTEREST (EOI)

For Matching Grants to Agribusinesses

PD READ, Planning and Evaluation Cell, Department of Agriculture, Government of Punjab has launched a Program 'Matching Grants to Agribusinesses' under its Agricultural Innovation & Development Enterprise (READ) Fund to provide support in following Sectors:

- Fruits and Vegetables Pack house
- Establishment of Cold Storage
- Establishment of Agriculture services

The applicant(s) may apply in all sectors for the grant according to their EOIs. Grants will be approved through a competitive process on the basis of clearly defined eligibility and evaluation criteria. The purpose of the grants is to provide technology support and technical assistance to promote agriculture value addition; so as to ultimately benefit the local farmers by improving marketability of farmers' produce.

PD READ, Department of Agriculture, Government of Punjab invites Expression of interest (EoI) for aforesaid sectors from the interested investors, who hold a valid National Tax Number (NTN), to apply for these matching grants. The agribusinesses selected through this EOI will receive Government's support as Matching grant of up to 50% of total project's cost in form of technology transfer (machinery, equipment, tools and software) and business development services.

3. Expression of Interest documents, (containing detailed terms and conditions, etc.) can be obtained from the PD READ, 21 Davis Road Lahore, Pakistan. The EOI documents can also be downloaded from the websites of Agriculture Department, Government of Punjab http://www.agripunjab.gov.pk/.

4. The expression of interest, prepared in accordance with the instructions in the EoI documents, must reach at PD READ, Department of Agriculture, Government of Punjab at 21 Davis Road Lahore Pakistan on or before 3:00 PM on August 31, 2020 and will be opened on same day 3:30 PM.

5. Applications will be evaluated and informed about the approval or rejection by contacting them through email and/or letter. This advertisement is also available on PPRA website at www.ppra.punjab.gov.pk and Agriculture department website www.agripunjab.gov.pk.

PD READ,
Planning and Evaluation Cell,
21-Davis Road, Lahore, Pakistan

INTRODUCTION

Definitions

In this document, the following terms shall be interpreted as defined below:

Applicant	Any individual, partnership firm, joint venture or sole proprietorship that applies for the matching grant offered under this EOI. The applicant(s) can only apply for one unit/sub-sector as given in table 9.
Department	PD READ, Department of Agriculture, Government of Punjab.
Due Date	The date mentioned in the advertisement as deadline for submission of EOI
EOI	Expression of Interest to be submitted by the Applicants containing the information as set out and required under this EOI Document
Project Cost	The cost of the existing land and building of the applicant's project for which the grant money will be used and the cost of machinery & equipment that will be procured under this grant program
Target Sector	Fruits and Vegetables Pulping sector
Signatory of the Application	The person signing the matching grant application offered under this EOI
Business Development Services	Consultancy services that will be offered to the grant beneficiaries to improve their operations in different business functions
Management Committee	The Committee formed to take matching grants approval or rejection decisions on the applications received against this EOI
Operations Manual	Approved and notified document; 'Operations Manual - Matching Grants to Agribusinesses' that provides key features and guidelines about the matching grants being offered under this EOI
New Business	means the individuals/firm/joint venture willing to start a new agriculture value added services/business in pulping sector
Existing Business	means the individuals/firm/joint ventures who are already involved at least three years in pulping business and willing to enhance their production capacity
GDP	Gross Domestic Product is a monetary measure of the market value of all the final goods and services produced in a specific time period.
Turnover	Generally it means that calculates how quickly a business conducts its operations. However, in this EoI the turnover means that the applicant should have required total transaction amount in the bank which clearly shown in bank statement in a year.
Exposure Visit	means that the applicant or her/his business in local or international exhibitions should be as a registered visitor of products related to his proposed business. Or applicants or his/her official stall should be booked by the applicant in local or international exhibitions.
Self Cultivation	means that applicant self grower of the proposed vegetable or fruit.
Net Present Value (NPV)	means the net present value or net present worth applies to a series of cash flows occurring at different times.
Payback Period	The Payback Period shows how long it takes for a business to recoup an investment or to reach the break-even point.

Internal Rate of Return (IRR)	means a measurement used by companies to determine the profitability of a potential investment or project based on predicted cash flow.
NTN	National Tax Number(NTN) means that the applicant(s) individual/company/joint venture must be registered with Federal Board of Revenue (FBR) as an active filer. In case of new business, the applicant(s) must register his/her business with FBR before award of the grant.
HACCP	Hazard Analysis and Critical Central Point (HACCP) certification includes steps designed to prevent problems before they occur and to correct deviations in a systematic way as soon as they are detected. Such preventive control systems with documentation and verification are widely recognized by scientific authorities and international organizations as HACCP Certification enables the producers, processors, distributors, exporters of food products to utilize technical resources efficiently and in a cost effective manner in assuring food safety. The applicant who having ISO certification will have extra score.
ISO	means a certification can be a useful tool to add credibility, by demonstrating that your product or service meets the expectations of your customers. It certified that a management system, manufacturing process, services, or documentation procedure has all the requirement for standardization and quality assurance. The applicant who having ISO certification will have extra score.
SoV	Source of Verification(SoV) is a process of ensuring that required data accurately represent the source data/documents which it was derived. In this EOI it specifically means that the evidence(s) for required data must be submitted. So, Please submit/attach all the relevant documents/certificates for source of verification
Bank Account Statement	In this EoI Banks account statement specifically means that the applicant should have required total transaction amount in the bank which clearly shown in bank statement in a year.
Specification	The detailed specification of required machinery/unit/equipment that include but not limited to make, model, origin, capacity, output etc.
SSC	Secondary School Certification means that applicant(s) must have at least matriculation education for qualification.
Contract/Grant Agreement	means an agreement between the Department of Agriculture (READ Funds), Government of Punjab and a Grantee that sets forth the terms, conditions and limitations applicable to the Grant.

o Background of the Program

Agriculture is the lifeline of Pakistan's economy accounting for 19.5% of GDP and 42% of the total labor force. The sector meets the food requirements of the local population and also acts a supplier of raw material for many value added sectors like textile, leather, sugar, rice and various other food processing industries. Agriculture-based products account for around three fourth of country's total exports of which about 60% share is contributed by Punjab. After Livestock, crops sector is the second largest contributor that account for around 37% of Agricultural GDP. Major share of this is contributed by larger crops like wheat, rice, cotton and sugarcane whereas fruits, vegetables and condiments claim a smaller share of the total Agricultural GDP.

The province of Punjab is the largest agriculture producer in the country. In 2016-17, it held 72.9% share in total national production of cereal crops, 66.8% share in total national production of cash crops and 51% share in total edible oilseeds production of the country. Punjab holds a leading position in horticultural production as well; accounting for 62.6% share of national fruit production, 96.6% share of national potato production and 63.4% share of other vegetables production.

Agriculture sector possesses a high potential to contribute towards high-paced, sustainable economic growth of Pakistan. This potential is derived from presence of diverse agro-climatic conditions/zones, fertile soils, scope for increasing cropping intensity, large domestic market, huge export potential, rising demand for high value foods, urbanization trends, growing middle class, increasing number of enterprising farmers, growing regional trade opportunities through CPEC and the growing use of ICT in agriculture.

Traditionally, the focus of agricultural development has been on major cereal and cash crops due to their higher value and higher relevance in ensuring food security. As a result, the non-traditional sectors like fruit, vegetables, condiments, flowers, pulses and oilseeds have not been able to get their due attention; in spite of their higher value addition and profitability potential for farmers and other stakeholders. Pakistan grows around 8 million tons fruits and 7 million ton vegetables annually, most of which are consumed in fresh form. A small share of the production is used to make value-added products. Fruits & vegetables are processed and graded which serve as base raw materials for production of value added consumer products and avoid unnecessary costs to meet the demand in local and export markets.

Supporting Fruits & Vegetables Grading & Packing sector will help bridge technology gaps in the sector and improve business operations by offering business development services. This will result in an increased production of high value added products; leading to an increased marketability for farmers' produce to increase their overall profitability.

Matching Grants

Matching grant is an instrument that is used in development programs to increase access to finance for business enterprises to start/grow their businesses. Matching grants are offered in sectors where certain market failures are acting as barrier to hinder free flow of private sector investment. Financial institutions are usually reluctant to offer loans in such sectors. Provision of financial support through grant money reduces the investor's perceived risk to enable investment which otherwise would not have been there. Along with limited access to finance, another reason for suboptimal performance of business enterprises is the unavailability of advisory and information services. Facilitating access to business development services (BDS) helps such businesses manage their businesses more effectively to achieve a sustainable growth at a fast track.

Matching grants is a subsidy that caters to wide variety of financial needs, however use of matching grants for providing technological support remains as one of the more common use of this development instrument. Facilitating provision of BDS to business enterprises is another common use of such matching grants.

Matching Grants for Agribusinesses

PD READ, Department of Agriculture, Government of Punjab, has been mandated with the responsibility to provide technological support in agriculture value added sectors by facilitating acquisition of machinery and equipment and by facilitating provision of business development services. For this purpose, the Directorate is offering financial support through matching grants, through a competitive process, to the interested private sector investors in selected agriculture value added sectors.

Fruit & Vegetable Grading & Packing Sector

The EOI targets the Fruits & Vegetables grading & Packing sector that produces value added products like fruits/vegetable such as in fruits Mango & Guava and in vegetables i-e. Tomato, Potato and Onion; to be used as base raw material for the production of value added consumer products.

Nature has blessed Pakistan with an ideal climate for growing a large variety of fruits and vegetables. Pakistan is one of the largest producer of mango and guava and have huge demand in the international market due to their rich flavor, aroma, and health value, i.e., nutrients and minerals contents. Pakistani Mangoes is the worlds' 5th largest exporter of mango. Similarly, it is largest producer and exporter of vegetables i-e tomato, onion and potato.

Agricultural produce particularly fruit and vegetable forms are an important part of trade both nationally and internationally. However, such produce often brought in many markets which have variable characteristics and sometimes they may deliver immature or contain shriveled, damaged and rotten materials. Delivering such produce generally results in lower prices. Among the post-harvest operations applied during handling of fruits and vegetables, grading

& Packing plays an important role to remove undesirable or foreign matters from the harvested crops into various fractions.

Grading & Packing is sorting or categorization of fruits and vegetables into different grades according to the size, shape, color, and volume to fetch high price in market. It develops confidence between buyers and growers and increases the market efficiency by facilitating buying and selling a produce without personal selection. Moreover, grading & Packing improves product uniformity within particular grade and serves as the basis for price, which increases producers and distributor profits by avoiding heavy marketing cost in packing and transportation.

Thus, systematic grading & Packing is pre-requisite for efficient marketing of fruits and vegetables. The bruised, damaged and misshapen produce should be sorted out and healthy fruits or vegetables should be graded according to their size, weight, shape, color, maturity etc. The fruits or vegetables can be graded in extra fancy, superior and standard grades or class.

Thus, there is still a great demand of initiating fruits grading & Packing business with introduction of modern processing techniques especially, fruits i-e mango, grapes and guava and vegetables tomato, potato and onion.

(B) THE GRANT OFFERING

1. Invitation to Apply for Matching Grants

The present Expression of Interest (EOI) has been launched to invite applications for matching grants to promote high potential agribusinesses.

Grant applications will be completed by the applicant using the guidelines given on the application form; attached as Annex I. Form can also be downloaded from the websites of Agriculture Department, Government of Punjab http://www.agripunjab.gov.pk/ and Punjab Procurement Regulatory Authority http://www.ppra.punjab.gov.pk/.The applicant will be required to submit the application form along with required support documents to PD READ, Department of Agriculture,, 21-Davis Road, Lahore; latest by the last date of submission mentioned in the EOI advertisement. Within two weeks, from the last date of submission, Department will confirm receipt of the application to the applicants.

2. Grant Size and Matching Share

- The grant size ranges from PKR O.5 million to PKR 20 million. Approval of the grant amount will be on the basis of an independent assessment of the applicant's business's investment requirements and it may differ from the amount requested by the applicant.

- The Government's share shall be matched by the private investment to value no lesser than grant being given by the Government. The Government contribution will be as technology transfer (machinery & equipment, tools, software) and technical assistance (business development services). Provision of technical assistance will be a mandatory requirement for all grants being awarded. The private contribution in the project can be in cash and/or in-kind, subject to appropriate limits, which can include existing land and building owned by the private investor being assigned for use in investment project.

- For calculating the in-kind contribution of the potential beneficiary, the value of the available land will be determined as per the Government's approved DC rates. Value of the available building will be determined through an assessment by an evaluator.

3. Uses of Grant Money

- The grant money can be used to acquire:

    i. Machinery, equipment, product testing lab equipment and tools
    ii. Software for improved production/process management
    iii. Business Development Services to improve applicant's business performance

- The grant money can be used to support a new business.

- The machinery, equipment and tools procured through grant money may be of local or imported origin; depending upon the business requirements of participating agribusinesses and the availability of technology.

- Rationale and need for the machinery, equipment and tools will have to be justified by the expected improvement in business operations. This improvement may be in terms of increased production capacity, improved manufacturing process, improved product quality, reduced product cost, new product development, etc.

- In addition to processing machinery and equipment, the grant money may also be used to procure quality testing/control equipment.

- At least 10% of the total grant money will have to be utilized for business development services; that will be provided by the consultants/specialist. These services may include support for improving production planning and operations management, product development, product certification, quality certification, sales and marketing development, overall business management, strategy development, procurement planning, layout and installation of machinery, HR management/development, or any other areas that may be identified by the beneficiary to help manage her/his business in an improved manner.

ii. Ineligible Uses of Grant Money

- The grant money cannot be used for the following purposes:

    - Purchase or rental of land
    - Building and civil works
    - Hire of office staff and labour
    - Operating expenses
    - Purchase of office equipment
    - Purchase of vehicles
    - Debt retirement
    - Interest on debt
    - Working Capital

- The grant money cannot be used for buying used or second hand machinery. Only new machinery can be financed by it.

- The grant shall only be given to lawful agribusinesses.

o Eligibility Criteria to Apply

Matching grant application eligibility criteria is provided below:

Sr. No.	Criteria	Source of Verification (SOV)*
1	The applicant must be a Pakistani citizen	Computerized National Identity Card (CNIC)
2	The applicant's business must have a valid National Tax Number (NTN).	FBR NTN Certificate
3	Education level minimum Matriculation	SSC Certificate or Equal
4	The applicant's (Existing business) must be registered with the relevant authorities (in case the business is not registered at the time of application, registration must be completed before the issuance of award letter of matching grant).	FBR NTN Certificate showing business name in title or description and registered with Registrar of firm or any relevant forum of business registration
5	The applicant's manufacturing facility/services provision facility (existing or proposed) must be located in Punjab	Ownership Documents/ Rent Agreement/Contract Agreement
6	The applicant would have to contribute his/her share; at least equal to the amount of grant requested by him/her.	Annexure-II
7	Public limited companies and companies listed on stock exchanges are not eligible to apply. Government controlled entities are not eligible to apply.	
8	The applicant's business should be based on primary agricultural produce of Punjab.	

*Please submit/attach all the relevant documents/certificates for source of verification.

4. Documents to be Submitted

The grant application must be accompanied by documents as per the details provided in the application form attached as Annex I of this EOI.

(C) INSTRUCTIONS TO APPLICANTS

1. Fraud & Corruption

i. The Department requires that the Applicant observes the highest standard of ethics in relation to submission of EOI for shortlisting and documentation required for shortlisting and thereafter.

ii. The Department will reject a proposal for shortlisting if it determines that the Applicant has directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or obstructive practices in competing for the grant in question and will declare the applicant ineligible, either indefinitely or for a stated period of three years or such other period.

iii. Any misinformation, forged/fake documents/statements etc. will lead to disqualification at shortlisting stage in addition to any other action as per law.

iv. The grant shall stand cancelled if during the execution of the same, it is proved that the grantee has submitted forged information/documents /indulged in fraudulent activities.

2. Eligibility

i. Any individual, partnership firm, joint venture or sole proprietorship that applies for the matching grant offered under this EOI. Moreover, the applicant(s) may only apply for one unit/sub-sector (described on table 9) of this document.

ii. The Applicant shall complete all eligibility requirements as set out in this document supported by verifiable documentary evidence. Applications without complete supporting documentary evidence, as required under this EOI, shall be considered non responsive and may be rejected.

iii. The applicant will provide an undertaking on Judicial Paper that the firm is not insolvent, not blacklisted and not involved in litigation that may affect or compromise its ability to perform the Contract (except as disclosed). (Annex II)

3. Language

i. Language of this EOI and subsequent all processes and correspondences shall be English

4. EOI Advertisement

i. The EOI advertisement shall form an integral part of the EOI Document.

5. Clarifications in Relation to EOI Documents

i. The applicants will be provided the opportunity to clarify any queries and confusions faced by them in understanding the contents of EOI document and filling of

Application Form. This will be done by inviting the applicants to attend an interactive session with the Department. Relevant officials from the Department will provide the required clarifications for the benefit of all the applicants. The session will be held on May 30, 2019 at 10:00 AM at Department of Agriculture, 21-Davis Road, Lahore.

ii. For clarification purposes, the applicant may contact through email: altafkahoot@gmail.com The procuring agency shall receive requests for clarification no later than 23 August, 2020 till 4:00 PM.

ii. Amendments in EOI Documents

i. At any time prior to the deadline for submission of EOI, The Department may amend the EOI Document by issuing an addendum.

ii. Any addendum issued shall be part of EOI Document.

iii. To give Applicants reasonable time to take an addendum into account in preparing their applications, The Department may, at its discretion, extend the deadline for the submission of applications.

iv. No objection shall be entertained regarding the terms & conditions of this EOI Document after deadline for submission of EOI.

iii. Cost of Application

i. The Applicant shall bear all costs associated with the preparation and submission of EOI. The Department will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the shortlisting process.

ii. The Department will not be responsible for any costs or expenses incurred by the Applicant in connection with the preparation or delivery of proposals or visits to any office or site.

iii. The Department shall be under no obligation to return any EOI or supporting materials submitted by the Applicant.

iv. Documents Establishing the Qualifications of Applicant

i. To establish its qualifications, the Applicant shall provide the information requested in the corresponding sheets, evaluation criteria, etc. in the form of verifiable documentary evidence.

v. Sealing and Identification of Applications

i. The Applicant shall enclose ONE copy of its EOI in a sealed envelope that shall:

a) Bear the name and address of the Applicant
b) Be addressed to the PD READ, Department of Agriculture, Agriculture Marketing Building, 21-Davis Road, Lahore, Pakistan

c) be clearly indicating the subject title and the sector

ii. Applicants are also required to state, in their proposals, the name, title, phone & fax numbers, e-mails, and addresses of their contacts, through whom all communications shall be directed until the procurement process has been completed or terminated.

iii. The Department will accept no responsibility for not processing any envelope that was not identified as required or with incomplete or incorrect entries.

vi. Late Application

i. Any application received by The Department after the deadline/Due Date and time for submission of applications, as mentioned in the EOI advertisement, shall not be entertained.

vii. Confidentiality

i. Information relating to the evaluation of Applications, and recommendation for shortlisting, shall not be disclosed to the Applicants or any other persons not officially concerned with such process until the notification of shortlisting is made to all Applicants.

6. Clarifications of Applications

i. To assist in the evaluation of applications, the Department may, at its discretion, ask any Applicant for a written clarification of its application which shall be submitted within a stated reasonable period of time. The Department may also ask the Applicant to submit any missing documents/information that may be required for verification and evaluation of the application. The Department reserves the rights to get clarification about any information provided in the application.

ii. If an Applicant does not provide written clarifications of the information or the documents requested by the deadline, the application shall be evaluated based on the information and documents available at the time of evaluation of the application. Failing to provide requisite information may lead to rejection/disqualification of application.

ii. Responsiveness of Applications

i. All applications not responsive to the requirements of the EOI Documents shall be rejected.

iii. Notification of Shortlisting

i. The purpose of this EOI Document/Advertisement is to shortlist Grant Applicants for their further participation in the selection process. The Department shall promptly notify each Applicant as to whether or not it has been shortlisted after completing the process and procedure of shortlisting.

iv. Interpretation and Final Determination

i. The interpretation and final determination of any matter relating to the EOI Document, all enclosed documents, sections, compliance documents, etc. as well as any additional or supplementary information required by The Department will be at Department's sole discretion which shall be final and binding on the Applicants.

v. Use of Information

i. The department reverse the right to disclose information submitted by the applicant to its governing bodies/department, its consultants, advisors and personnel's for the purpose of evaluation of application and shortlisting.

vi. Governing Law

i. The governing laws for shortlisting of the grantee the Program and the contract thereto shall be laws of Pakistan (where Federal laws are applicable) and laws of Punjab (where provincial laws are applicable). The selection of applicants will be governed under the Punjab Procurement Rules 2014 (as amended up to date) as available on the day of publication of this EOI, instructions of the Government of the Punjab received during the completion of the process, and other applicable laws of Punjab Province. The Rules may be downloaded from the Punjab Procurement Regulatory Authority (PPRA) website www.ppra.punjab.gov.pk. Moreover, the entire EOI Document shall be construed in the light of these Rules.

APPLICATION EVALUATION CRITERIA

Evaluation Process

Applicants will submit their grant applications on the standard 'Grant Application Form' provided in Annex I. Matching grants applications will be received by PD READ, Agriculture Delivery Unit, Department of Agriculture, Government of Punjab. The applications will be processed keeping in view the sector opportunities and challenges. Sector and business development experts will review and evaluate the applications in the light of clearly defined evaluation criteria.

Applications will be reviewed by the Evaluation Team to ensure that they are complete and the required supporting documents are attached. Applicants may be requested to provide any missing or additional information that may be required for verification. Verification of the attached documents will be carried out. Complete applications will be assessed for correctness of the provided information. If required, field visits may also be carried out at project's site or other relevant locations for verification of the provided information. Provision of wrong information will lead to rejection of grant application and may also result in a ban on the applicant for applying for any other grant under this program.

The Evaluation team may also collect information from independent sources to verify the information provided by the applicant. Specific activity in this regard may include getting quotations for machinery, equipment, tools, software etc. that has been requested to be financed through the grant.

The evaluation team will furnish the evaluation report, along with its recommendation, to the Management Committee which will comprise of members notified by the Government. The Management Committee can ask the Evaluation team to present the cases in review sessions. After deliberations, the Management Committee may accept the proposal and approve the grant, or may reject the proposal, or may send the program documents back to Evaluation team with specific recommendation for some further clarifications and resubmission.

7. Key Evaluation Considerations

Grant applications will be evaluated in the light of the following key considerations.

i. Actual needs of the applicant will be assessed in the context of the overall business proposition, the potential value addition of the grant and an evaluation of the actual developmental needs of the business. This will include verification of the actual need of the business and the cost of the requested machinery and equipment.

ii. It will also be assessed if the applicant possesses all other machines/systems that are required to make the requested machine operational and useful for the business. The presented need for the requested machine will not be evaluated in isolation but in the context of overall production system of the applicant.

Priority Factors

i. Women applicants will be assigned a higher priority in application evaluation by giving higher marks. Women owned agribusiness means that a woman is either a sole owner or partner in the business and takes active part in management of business operations as chief executive or in a senior management role.

ii. Youth will be assigned a higher priority in application evaluation by giving higher marks. For the scope of Grants Program, a young entrepreneur is defined as a business owner who has age between 20 and 35 years. In case of partnerships, all owners must be between the age of 20 and 35 years to categorize as Young Entrepreneur Owned Agribusiness.

8. Evaluation Score Distribution

Evaluation of the grant applications received against this EOI will be carried out as per clearly defined criteria. Each applicant will be assigned marks against all the evaluation factors. Total marks of each applicant will be calculated by adding the marks scored against all the individual factors. Highest scoring applications will be approved for grants; in accordance with the number of grants available for each sector. The decision of Management Committee in this regard will be considered final.

16 factors have been considered for evaluation and they have been assigned a total of 100 marks. Evaluation factors and the marks assigned to each of those factors have been provided in **Error! Not a valid bookmark self-reference.**.Further explanation of the marks of some of the factors listed in **Error! Not a valid bookmark self-reference.**, are provided in Table 2 to Table 14.

The applicant(s) must have to get minimum qualifying score in all evaluation factors described in table 1. However, in total applicant(s) must have required 60 marks for qualifying for existing business and 38 marks for new business as per criteria given in table-1.

Table 11 – Evaluation Factors and Assigned Scores

Sr. No.	Factors	Maximum Marks	Qualifying Marks for New to Business	Qualifying Marks for Existing Business	Marks Allocation Criteria
17.	Applicant's Gender	3	-	-	Female (3)
18.	Young Entrepreneur Status	3	-	-	All partners between 20-35 years (3) ….All partners not between 20-35 years (0)
19.	Applicant's Education	5	2	2	See table 2 for details
20.	Tax Filer Status	3	3	3	Active (3)…..Non active filer (0)…..See table 3 for details
21.	Membership of Professional Bodies	5	-	5	Chamber of Commerce (2)..…Registered Association(s)/ body (5)
22.	Related Experience (Self-Employed/Employee)	5	1	3	1 point per year of experience up to maximum of 5
23.	Ownership of Factory Land	10	5	4	See table 4 for details
24.	Geographical Location of the Unit/Factory	4	-	-	See table 5 for details
25.	Bank Account Statement	5	1	5	See table 6 for details
26.	Local/International Exposure Visit	5		3	See table 7 for details
27.	Production Capacity of Proposed Plant	7	2	5	See table 8 for details
28.	Raw Material geographical location	3	2	2	See table 9 for details
29.	Benefit/Cost ratio analysis	10	6	8	See table 10 for details
30.	Payback Period of the Proposed Project	10	6	8	See table 11 for details
31.	Internal rate of Return of the Proposed Project	10	6	8	See table 12 for details
32.	Production of End Product	6	2	2	See table 13 for details
17.	Unit Functionality	6	2	2	See table 14 for details
	Total	**100**	**38**	**60**	

Table 12 – Scoring Criteria for Applicant's Education

Graduation in Agriculture Agri. Engineering or food sciences (Previous 3year)	Graduation in other subjects or grater period of category-I	Technical Diploma (DAE)	Intermediate or A Level	Matriculation or O Level
5	4	3	3	2

Table 13 – Filer Status Explanation

Explanation of Filer Status Marks
The name of the individual applicant or the name of applicant's business has to be in Active Taxpayers List of FBR.

Table 14 – Ownership/Lease/Rent detail of Factor/Processing Unit Land

Availability	Existing Business	New Business
Land only (Factory /processing unit)	5	5
Land & Building	6	10
Land, Building and around 50% machinery	8	-
Complete Facility	10	-
The marks will be allocated on the availability of commercial facility. Any lab-scale facility will not be considered eligible for assigning points. *Only that facility will be rated as 'Complete' which will have the capacity to perform all the important processing steps to produce the final product.*		

Table 5 – Geographical location of the Proposed Unit/Factory

Type	Unit Description	Location	Marks Allocation
Fruit	**Geographical location of Fruits Grading & Packing Units**		
	Mango Grader	Multan, Bahawalpur, Muzaffargarh, RY Khan, Khanewal, Vehari, Bahawalnagar	4
	Guava Grader	Sargodha, Kasur, Vehari, Okara, Sahiwal, Khanewal, Toba Tek Singh Lahore, Sheikhupura, Faisalabad, Gujranwala, Nankana Sahib and Bahawalnagar	4
Vegetable	**Geographical location of Vegetable Grading & Packing Units**		
	Potato Grader	Sahiwal, Pakpattan, Kasur, Chinniot, Khanewal, Sheikhupura,	4

		Sialkot, Vehari, Toba Tek Singh, Lahore, Khushab, Jhelum, Multan, Faisalabad, Jhang, Okara, Narowal	
	Onion/Garlic Grader	Lodhran, Vehari, Kasur, Khanewal, Bhakkar, Bahawalpur, RY Khan, Sheikhupura, Okara, Gujranwala, Bahawalnagar, Nankana Sahib, Faisalabad, Layyah	4
	Tomato Grader	Lahore, Sheikhupura, Nankana Sahib, Muzaffargarh, Khushaab, Gujranwala, Hafiz Abad, Vehari and Pakpattan	4
	Other District location have 0 marks		

Table 6 – Scoring Criteria for Annual Transaction/Balance of the Applicant/Business Bank Statement

Production Capacity	Marks Allocation
Annual Turnover (last year) Minimum 5% of the Support Amount at the closing date of the applications	5
Annual Turnover up to PKR 1 million (during 2019-20)	3
Annual Turnover up to PKR 0.5 million (during 2019-20)	2
Less than 0.5 million up to 0.3 million (during 2019-20)	1
Less than 0.3 million have no marks	

Table 7 – Scoring Criteria for Local & International Exposure Visit and Exhibition (last 5 years)

For New to Business		For Existing Business	
No. of visit	**Marks for Local/ International Visits**	**No. of Exhibitions**	**Marks for Local/ International Exhibition**
5 or more	5	5 or more	5
4	4	4	4
3	3	3	3
2	2	2	2
1	1	1	1
None	0	None	0
Participation of applicant or her/his business in local or international exhibitions should be as a registered visitor of products related to his proposed business.		*Participation means that official stall should be booked by the applicant in local or international exhibitions. Valid proofs/certificate from exhibitor will be required for assigning marks on this basis.*	

Table 8 – Scoring Criteria for Production Capacity of Proposed Unit

Production Capacity	Marks Allocation
15 Tons or higher Fruits/Vegetables per hour	7
10 Tons Fruits/Vegetables per hour	5
5 Tons Fruits/Vegetables per hour, or low	2
In a process flow, the lowest capacity of any stage in the line will be considered as the total processing capacity of the unit	

Table 9 – Geographical location of Raw Material to be purchased or sown

Unit Description	Location	Marks Allocation (Contract Agreement with another farmer minimum 50 acre)	Marks Self-cultivated acre minimum 10 acre
Fruits Grading & Packing			
Mango Grader	Multan, Lodhran, Muzaffargarh, DG Khan, RY Khan, Khanewal	2	3
Guava Grader	Lahore, Sheikhupura, Jaranwala & Bahawalnagar	2	3
Vegetable Grading & Packing			
Potato Grader	Lahore, Pakpattan, Narowal, Sahiwal, Okara	2	3
Onion Grader	Lodhran, Vehari, Muzaffargarh, Multan, Bahawalnagar, Faisalabad, Layyah	2	3
Tomato Grader	Lahore, Sheikhupura, Gujranwala, Vehari, Pakpattan, Muzaffargarh	2	3
Other district location has 0 marks. Self-cultivated applicant gets maximum marks, having cultivation certificate of the crop anywhere in Punjab			

Table 10 – Scoring Criteria for Benefit/Cost Ratio analysis of Proposed Project

Benefit/Cost Ratio	Marks
(NPV of Benefits/NPV of Cost) of 10 years	
Less than 1 to 1	0
1.1 to 1.2	4
1.3 to 1.4	6
1.5 to 1.9	8
2 or more than 2	10

Table 11– Scoring Criteria for Payback Period of Proposed Project

Payback Period	Marks
(Total Initial Investment/Net Annual cash inflow)	
1 year to 2 year	10
2 years to 3 years	8
3 years to 4 years	6
4 years to 5 years	4
Above 5 years	2

Table 12 – Scoring Criteria for Internal Rate of Return of Proposed Project

Internal Rate of Return (IRR)	Marks
Below 10% but not less than 8%	2
10% to 12%	4
12.1% to 16%	6
16.1% to 20%	8
20.1% to 25% and Above	10

Table 13 – Marketing of End Product

Marketing Facility	Marks Existing Business	New Business
Local sale	2	
Export sale	4	

Table 14 – Scoring Criteria for Grading & Packing Production

Description	Marks Allocation	Maximum Marks	SOVs
Type of grader	Screen grader (1), Roller grader (1)	2	Specification of the required unit
Grading & Packing Facility	Each functionality of the grader have (0.5 mark) Color grading & Packing, Size grading & Packing, Weight grading & Packing, Shape grading & Packing	2	
Operational procedure	Washing and Sterilization (0.5) Waxing (0.5) Additional protective coating (0.5) Drying Packing (0.5)	2	

o Grievance Redressal Committee

An effective mechanism for receipt, processing and disposal of grant applicants' complaints will be available. Names and designations of the persons to be contacted and their phone/fax numbers e-mail and postal address are listed in the below table:

Name	Rana Mahmood Akhtar
Designation	PD READ,
Email Address	chief_pe_cell@hotmail.com
Telephone No./Fax	042 99200754
Postal Address	21 Davis Road Lahore

Name	Khurram Shehzad
Designation	Technical Officer, Agriculture Procurement Facilitation Cell
Email Address	
Telephone No./Fax	0333 6624005
Postal Address	21 Davis Road Lahore

Name	Muhmmad Altaf
Designation	Procurement Analyst ADU
Email Address	Altafkahoot@gmail.com
Telephone No./Fax	03005189770
Postal Address	21 Davis Road Lahore

IMPLEMENTATION OF GRANT CONTRACT

Grant Disbursements

The grants can be disbursed in two possible ways, explained as under:

Cash: The Grantees will purchase goods and services as per contractually agreed terms and conditions with the Government. Cash disbursements will be linked to performance of specific tasks by Grantees, for example the cash disbursement can be linked to opening of LC, on receipt of bill of lading and following commissioning of machinery at Grantee's production site, etc. The READ Fund will disburse cash grants to Grantees upon completion of these activities and after verifications of documents and/or physical activities by Fund Manager.

Both disbursement methods can be adopted for provision of assistance to Grantees in single grant contract. Selection of a disbursement method or combination of methods will depend on the requirements of Grantees. For example, Fund Manager and a Grantee can agree to purchase machinery under cash disbursement method, while BDS can be provided through in-kind disbursement method under same grant contract. The disbursement arrangements must be negotiated and agreed between Fund Manager and Grantees, prior to the signing of grant contract, and the negotiated terms must be clearly stated.

EOI ANNEXES

Annex I - Application Form

MATCHING GRANTS TO AGRIBUSINESSES

GRANT APPLICATION FORM
FRUITS & VEGETABLES GRADING & PACKING SECTOR

Name of the Applicant: _____

Official use only	
Date of receiving: _____	Registration No.: _____

INSTRUCTIONS FOR APPLICANTS

1. This form is free of cost and can be downloaded from the website of Agriculture Department, Government of Punjab.
2. The form should be filled by a Partner/Shareholder/Startups that holds a key position in management of the applicant business
3. Please apply **only** if you meet all the eligibility criteria mentioned below.
4. Please go through the EOI document before applying.
5. Please answer all the questions. If some question does not seem relevant to you, please write 'Not Applicable' in response.
6. Kindly provide correct and easily verifiable information to ensure quick processing.
7. Providing false information or using unfair means/references may lead to rejection of application.
8. Please attach all supporting documents mentioned with each question and at the last page of the form.
9. Kindly sign the application form; with an official stamp of the business enterprise on all the pages of EOI documents and Contract Agreement Form.
10. Applicant will be provided with a Registration No. through SMS on his/her mobile number or on email.
11. Submission of application does not make Agriculture Department liable to award the grant. Grant decision will be based on fair and transparent evaluation of the application.

MATCHING GRANTS TO AGRIBUSINESSES

Type of Applicant: □ New Business □ Existing Business

APPLICANT'S ELIGIBILITY CRITERIA (MANDATORY REQUIREMENTS)

Sr. No.	Criteria	Source of Verification (SOV)*
1	The applicant must be a Pakistani citizen	Computerized National Identity Card (CNIC)
2	The applicant's business must have a valid National Tax Number (NTN).	FBR NTN Certificate
3	Education level minimum Matriculation	SSC Certificate or Equal
4	The applicant's (Existing business) must be registered with the relevant authorities(in case the business is not registered at the time of application, registration must be completed before the issuance of award letter).	FBR NTN Certificate showing business name in title or description and registered with Registrar of firm or any relevant forum of business registration
5	The applicant's manufacturing facility/services provision facility (existing or proposed) must be located in Punjab	Ownership Certificate/ Rent deed agreement/ Contract Agreement
6	The applicant would have to contribute his/her share; at least equal to the amount of grant requested byhim/her.	Annexure-II
7	Public limited companies and companies listed on stock exchanges are not eligible to apply. Government controlled entities are not eligible to apply.	
8	The applicant's business should be based on primary agricultural produce of Punjab.	

SECTION I – APPLICANT'S PERSONAL INFORMATION

1. Business Sector/Industry:_____
   (please apply only for one unit/sub-sector of this industry/sector)

2. Please provide the following information about yourself:

Name: CNIC:		❒ Female ❒ Male
Father's/Husband's Name:		
Position in the Business:		
CNIC No:---------- CNIC issuance date:----------		Age:
Mailing Address:		
Permanent Address:		
Phone No.	Mobile No.	

3. Please provide names, CNICs and contacts of other Partners/Shareholders in the business:

Sr. No.	Name	CNIC	Mobile No.
i.			
ii.			
iii.			
iv.			
v.			

SECTION II – APPLICANT'S BUSINESS INFORMATION

4. Please provide the following basic information about your proposed business.

Name of the Business				
Nature of Business	❒ Manufacturing. ❒ Value addition	❒ Trading. ❒ Processing	❒ Services ❒ Cultivator	❒ Other _____
Year of Registration				
Nature of Ownership	❒ Sole Proprietor	❒ Partnership	❒ Private Limited	❒ Other
NTN with Date & Place				
Business Mailing Address				
Office Phone No.		Mobile No.		
Fax:		Email:		
Website:				

7. Please provide the Business's/Applicant Bank Account Details;

Account Title:	Account Type:	**SOV**
Bank:	Branch:	Bank account Statement minimum upto one year
Date of opening:	Annual Turnover: PKR	

5. Please provide the Education level of Applicant:

Sr. No.	Name	Title/ Designation	Education Level	Specialty	SOV
i.					Certificate from the Board, Council, Institute, Technical College, University or Any other
ii.					
iii.					
iv.					
v.					

6. Please provide the Experience of Applicant (Preferably Technical Experience):

Sr. No.	Name of the Applicant	For New to Business				For Existing Business			
		Name of the Organization/ Self-Owned Experience	Designation/Position title	Year of Experience	SOV	Type of Grader	Production ton/year	Supplier	SOV
i.					Verifiable Experience Certificate				Verifiable Supply Order/Certificate from the Supplier
ii.									
iii.									
v.									

7. Provide details of marketing exhibitions and/or study-exposure visits in which the business participated over the last three years.

Sr. No.	For New Business				For Existing Business				
	Visit/Seminar Nature	**Country**	**Year**	**SOV**	**No. of Exhibitions**	**Organizer**	**Country**	**Year**	**SOV**
i.				Visit/ Seminar/ Training certificate from the organizer					Exhibitions certificate from the organizer
ii.									
iii.									
iv.									
v.									

8. Please inform if the location of the business is self-owned/leased/rented place?

Factory (_____) Area	**Sale Point (_____) Area**	**Office (_____) Area**	**SOV**
Location:	**Location:**	**Location:**	
❒ Owned	❒ Owned	❒ Owned	Provide the Ownership/Rental/Lease Agreement (Detail of each unit if separate)
❒ Leased	❒ Leased	❒ Leased	
❒ Rented	❒ Rented	❒ Rented	

9. Please provide information about the membership of Chamber of Commerce & Industry/ Registered Associations or other registered business/professional bodies. If any

Sr. No.	Name of the Body	Membership Year	Membership Number	SOV
i.				Registration certificate from the registrar of firm, SECP, CCI, business registered in FBR or any other
ii.				
iii.				

10. Please provide information about the key raw materials being used.

Sr. No.	Raw Material	Source		Please specify the Local District	Self-Cultivation (acre)	SOV
i.		❒ Local	❒ Imported			Please provide the Girdwari certificate of area sown or area sown agreement certificate from the Deputy district officer Agriculture (Ext &AR)
ii.		❒ Local	❒ Imported			
iii.		❒ Local	❒ Imported			
iv.		❒ Local	❒ Imported			

11. Does factory/unit/service/end product have any following certifications/registrations?

Sr. No.	Certification/Registration	Valid Status	Comments (if any)	SOV
i.	ISO 9000 or equivalent	❒ Yes		Certificate from the Certification Agency
		❒ No		
ii.	HACCP	❒ Yes		
		❒ No		
iii.	ISO 22000	❒ Yes		
		❒ No		
iv.	Punjab Food Authority	❒ Yes		
		❒ No		
v.	Other _____			

SECTION III – SUPPORT REQUIRED THROUGH MATCHING GRANT

12. For the matching grant scheme, please specify your needs for Machines & Equipment/Plant

Sr. No.	Type of the Plant/Equipment Name	Production Capacity (Ton/hour)	Price of the Plant (PKR)	Source (Imported/Local)	SOV
i.					Broacher/Specification of the proposed machine/plant
ii.					
iii.					
iv.					
v.					

Please use additional sheet if required.

13. Please provide the Operational Capacity and End Product detail of Proposed Plant/Unit/Factory

Sr. No.	Type of the Plant/ Plant Name	End Product	Operational Production (Ton/day)	Operational Expenses /ton of end product (including Raw material of the Product)	SOV
i.					Broacher/ specification of Proposed Plant/Machine
ii.					
iii.					
iv.					
v.					

14. No. of employees involved in the Proposed Unit/Plant/Factory

Sr. No.	Type of resource (technical/non-technical)	No. of resource	Per month Expenses (PKR)	Duration (Month/year)	SOV
i.					CVs
ii.					
iii.					
iv.					
v.					

15. Provide information about the main geographical markets where you sell your products. (Current Sales)

Sr. No.	Product	Main Local Markets	Main Export Markets	SOV
i.				Contract Agreement Supply Order
ii.				
iii.				
iv.				

16. Have you previously benefited from any grant program (government and/or donor agency)?

Sr. No.	Department/Donor Agency	Grant Description	Applicant's Share in Grant	Status
i.				
ii.				

Project Feasibility of Proposed Project

17. Project Feasibility/ Economic Report (You may obtain Soft Form of these sheets from office of ADU, Agriculture Department)

Year	Description	Fixed Cost	Operational & Maintenance Cost	Total Cost	Total Revenue	Net Additional Benefit	Comments/Assumptions if any
0	Land	='Fixed cost'!H4	0	=D3+C3:C8	0		
	Building	='Fixed cost'!H5					
	Office Equipment	='Fixed cost'!G15					
	Plant & Machinery Charges	='Fixed cost'!G29					
	Tool & Fixture	='Fixed cost'!G34					
	Pre Operating Cost	='Fixed cost'!G42					
1			='Operation Expense'!G25	=C9+D9	=Benefit!F10	=F9-E9	
2			='Operation Expense'!H25	=C10+D10	=Benefit!K10	=F10-E10	
3			='Operation Expense'!I25	=C11+D11	=Benefit!P10	=F11-E11	
4			='Operation Expense'!J25	=C12+D12	=Benefit!U10	=F12-E12	
5			='Operation Expense'!K25	=C13+D13	=Benefit!Z10	=F13-E13	
6			='Operation Expense'!L25	=C14+D14	=Benefit!AE10	=F14-E14	
7			='Operation Expense'!M25	=C15+D15	=Benefit!AJ10	=F15-E15	
8			='Operation Expense'!N25	=C16+D16	=Benefit!AO10	=F16-E16	
9			='Operation Expense'!O25	=C17+D17	=Benefit!AT10	=F17-E17	
10			='Operation Expense'!P25	=C18+D18	=Benefit!AY10	=F18-E18	

Overall Project	
NPV of Costs***	=NPV(0.08,E5:E18)
NPV of Benefits	=NPV(0.08,F5:F18)
B/C Ratio	=C21/C20
IRR	=IRR(G5:G18)
Payback Period (Years)	=(C5+C6+C8+C3+C4+C7)/F9

***NPV of costs and benefits have been calculated @ 8% annual escalation rate

18. Please describe the fixed cost associated with proposed unit:

Sr. No.	Items	Unit	Qty.	Unit Area /Capacity	Unit Rate PKR	Total Cost (Million)	Comments/ Assumptions (if any)
1	Land					=(D4*F4)/10^6	
2	Building					=(D5*F5)/10^6	
3	Office Equipment						
i.						=(D7*F7)/10^6	
ii.						=(D8*F8)/10^6	
iii.						=(D9*F9)/10^6	
iv.						=(D10*F10)/10^6	
v.						=(D11*F11)/10^6	
vi.						=(D12*F12)/10^6	
vii.						=(D13*F13)/10^6	
viii.						=(D14*F14)/10^6	
Sub Total						=SUM(G4:G14)	
4	Plant & Machinery Charges*						
i.						=(D17*F17)/10^6	
ii.						=(D18*F18)/10^6	
iii.						=(D19*F19)/10^6	
iv.						=(D20*F20)/10^6	
v.						=(D21*F21)/10^6	
vi.						=(D22*F22)/10^6	
vii.						=(D23*F23)/10^6	
viii.						=(D24*F24)/10^6	
ix.						=(D25*F25)/10^6	
x.						=(D26*F26)/10^6	
xi.	Taxes					=(D27*F27)/10^6	
xii.	Duties					=(D28*F28)/10^6	
Sub Total						=SUM(G17:G28)	
6	Tools & Fixtures*					=(D30*F30)/10^6	
i.						=(D31*F31)/10^6	
ii.						=(D32*F32)/10^6	
iii.						=(D33*F33)/10^6	
Sub Total						=SUM(G30:G33)	

7	Pre Operating Cost						
i.	Electricity. Connection					=(D36*F36)/10^6	
ii.	Water connection					=(D37*F37)/10^6	
iii.	Gas Connection					=(D38*F38)/10^6	
iv.						=(D39*F39)/10^6	
v.						=(D40*F40)/10^6	
vi.						=(D41*F41)/10^6	
Sub Total						=SUM(G36:G41)	
Total						=SUM(G42,G34,G29,G15,G5,G4)	

19. Operation Expenditure Accrued during the project cycle:

Sr. No.	Operation Expense Yearly	Units	Unit Rate	Qty.	Total Cost (Rs.)	Year -1	Year -2	Year -3	Year -4	Year -5	Year -9	Year -10	Assumptions if Any
	Description					**Total Cost (M)**	**Total Cost (M)**	**Total Cost (M)**	**Total Cost (M)**	**Total Cost (M)**	**Total Cost (M)**	**Total Cost (M)**	
1	Raw material cost of fruit					0							
2	Raw material cost of vegetable					0							
3	Non-technical labor wages					0							
4	Technical labor wages					0							
5	Machinery & generator maintenance					0							
6	Electricity cost					0							
7	Gas cost					0							
8	Water cost					0							
9	Fuel cost (Generator/Operation)					0							
10	Transportation (Raw Material and End Product)					0							
11	Administration expense					0							
12	Communications expense (phone, fax, mail, internet, etc.)					0							
13	Office vehicles running expense					0							
14	Office expenses (stationary, entertainment, janitorial services, etc.)					0							
15	Marketing expense (leaflet, add,					0							

	banners, social marketing, exhibition)												
16	Insurance expense					0							
17	Professional fees (legal, audit, consultants, etc.)					0							
18	Depreciation expense					0							
19	Amortization of pre-operating costs					0							
20	Amortization of contingent					0							
	Total (Million Rs.)				0	0	0	0	0	0	0	0	

*This is the sample Performa for guidance. Please use separate sheets in which all years from 1 to 10 are incorporated.

20. Revenue through Unit/Plant production yearly:

	Year -1					**Year -2**				
Sr. No.	**Product**	**Production Quantity Sold (Tons)**	**Sales Price (Rs. / Ton)**	**Revenue (Rs.)**	**Revenue (Million Rs.)**	**Product**	**Production Quantity Sold (Tons)**	**Sales Price (Rs. / Ton)**	**Revenue (Rs.)**	**Revenue (Million Rs.)**
A	B	C	D	E	F	G	H	I	J	K
1				=D4*C4	=E4/10^6				=I4*H4	=J4/10^6
2				=D5*C5	=E5/10^6				=I5*H5	=J5/10^6
3				=D6*C6	=E6/10^6				=I6*H6	=J6/10^6
4				=D7*C7	=E7/10^6				=I7*H7	=J7/10^6
5	Income Taxes				=SUM(F4:F7)*0.05	Income Taxes				=SUM(K4:K7)*0.05
6	Sale Tax				=SUM(F4:F7)*0.16	Sale Tax				=SUM(K4:K7)*0.16
Total (Million Rs.)					=SUM(F4:F7)-F8-F9					=SUM(K4:K7)-K8-K9

Year -3…….	**Year -10**

Sr. No.	Product	Production Quantity Sold (Tons)	Sales Price (Rs. / Ton)	Revenue (Rs.)	Revenue (Million Rs.)	Product	Production Quantity Sold (Tons)	Sales Price (Rs. / Ton)	Revenue (Rs.)	Revenue (Million Rs.)
1				=D4*C4	=E4/10^6				=I4*H4	=J4/10^6
2				=D5*C5	=E5/10^6				=I5*H5	=J5/10^6
3				=D6*C6	=E6/10^6				=I6*H6	=J6/10^6
4				=D7*C7	=E7/10^6				=I7*H7	=J7/10^6
5	Income Taxes				=SUM(F4:F7)*0.05	Income Taxes				=SUM(K4:K7)*0.05
6	Sale Tax				=SUM(F4:F7)*0.16	Sale Tax				=SUM(K4:K7)*0.16
Total (Million Rs.)					=SUM(F4:F7)-F8-F9					=SUM(K4:K7)-K8-K9

Please Note Main Assumptions for Developing Feasibility:

Sr. No.	Description	Detail
1	Land	DC rate as per factory land
2	Building	C&W department District rate (https://finance.punjab.gov.pk/mr-2020)
3	Office Equipment	Quotation from the vendor
4	Plant & Machinery Charges	Quotation from the vendor (As per required Capacity Machine)
5	Lab Equipment	Quotation from the vendor (As per required Capacity Equipment)

Operating Cost Assumptions:

Sr. No.	Description	Detail
1	Capacity of the machine (Ton/hour)	
2	Working hours per day	
3	Day operating in a year	
4(i)	Purchase cost of raw material	
(ii)		
(iii)		
5	Packaging	

Please add the operating cost assumption

21. Please identify your Business Development needs by writing ‘1’ for the most important, ‘2’ for the second important and ‘3’ for the third important and so on to rate all the listed needs.

Area	Priority
Workers Skills up-gradation	
Product Design / Development / Improvement	
Facility Layout	
Machinery Selection/Installation/Commissioning	
Technology/Machines / Tools Up-gradation	
Wastage Control & Production Yield Improvement	
Quality Assurance/Certifications	
Local Marketing	
Export Marketing	
Training of Supervisory Staff / Managerial Staff	
Accounting & Financial Controls	
Other (mention here) _____	

DECLARATION BY THE APPLICANT

By affixing my signature below, I certify that the information provided in this application form is correct to the best of my knowledge and nothing has been withheld. I agree to all the terms and conditions as outlined in the instructions to Applicants. I understand that all information contained in my application will be treated confidentially by the Agriculture Department (only for internal use). I also agree that the Department can have access to the original documentation referenced in this application, as and when required. I understand and agree that provision of false information can lead to rejection of my application.

Name:	Title:
Signature:	Business Seal
Date:	

(This form should be signed and submitted either by owner or partner or manager or any other responsible person)

LIST OF DOCUMENTS TO BE ATTACHED WITH THE APPLICATION

Sr. No.	Documents	Check (✓)	Page No.
1	CNIC of the applicant		
2	NTN certificate		
3	Educational Last degree Certificate		
4	Business incorporation certificate issued by the relevant authority		
5	Registration of Chambers/Associations or other business/professional bodies		
6	Land ownership/rent/lease documents (Registry, Fard, lease/rent agreement		
7	Bank Account Statement (Last One Year)		
8	Broacher/Specification of the proposed machine/plant/Equipment/Tool		
9	Factory/unit/service/end product have any following certifications/registrations		
10	Exposure Visit/ Exhibition Certificate		
11	CVs of Proposed Technical Team		
12	Declaration by the applicant (Annex II) & (III if required) (on stamp paper of Rs 100)		

RECEIPT OF APPLICATION SUBMISSION

Received a Matching Grant Application from Mr. /Ms. (name, address, mobile no.) _____

_____

under 'Matching Grant for Agribusinesses' Program in _____ sector. The applicant will be informed about the progress within one month of receipt of application.

Name:	Title:
Signature:	Office Stamp
Date:	

Annex II – Template for Undertaking by the Applicant

Undertaking

I/We, [*Name and Address of Applicant*], do hereby declare on solemn affirmation that:

I/We have not been black listed from any Government Department/Agency.

I/We have not been involved in litigation with any party during the last 3 years except as disclosed or annexed herewith.

I/We acknowledge that we have read, understood and accepted the EOI along with all terms and conditions specified above in the document.

I/We understand that Agriculture Department shall have right, at its exclusive discretion, to require, in writing, further information or clarification from any or all the Applicant(s).

I/We undertake that, if my/our application accepted, I/We will contribute the share in a sum equivalent to 50% of total project/proposal cost in kind or cash.

I/We understand that Agriculture Department shall have right, at its exclusive discretion, to change the dimensions of the Program, accept/reject any or all application(s), cancel/annul the selection process at any time prior to award of Contract, without assigning any reason or any obligation to inform the Applicants of the grounds for the Agriculture Department's action, and without thereby incurring any liability to the Applicant and the decision of the Agriculture Department shall be final.

Dated:	
Applicant's Name:	
Signature:	
CNIC No.:	
Designation:	
Address:	

Witness 1	Witness 2
Signature:	Signature:
CNIC No.:	CNIC No.:
Name:	Name:
Designation:	Designation:

Address:	Address:

Annex III – Template for Undertaking by the Partners

Undertaking

It is solemnly declared that [Name and Address of the Applicant] is a partner in the [Name of the Business] located at [registered address of the business]. He/She is authorized to apply for matching grant under 'Matching Grants to Agribusinesses' Program of the Agriculture Department, Government of Punjab. Further, [Name and Address of the Applicant] is authorized to sign jointly, severally or singly all documents/agreements on behalf of the firm for operations of 'Matching Grants to Agribusinesses' Program.

[Name and Address of the Applicant] owns this business in partnership with other partners. By affixing their signatures, all the partners in the [Name of the Business] located at [registered address of the business] hereby affirm that the application for matching grant has been submitted with their consent and none of the partners has any objection to applying for this matching grant.

By affixing the signatures below, it is also affirmed that the provided list of partners is complete and there is no other partner in this business.

	Name	**CNIC**	**Signature**
Partner 1 (Applicant)			
Partner 2			
Partner 3			
Partner 4			
Partner 5			
Dated:			

If required, please add more rows to complete the list of all the partners

Annexure-B

Grant Agreement

The Parties to this Grant Agreement dated [ ] are:

The Department of Agriculture, Government of Punjab (**the DoAg**):
and
[·] (**the Grantee**), referred to collectively as the **Parties** and each individually as a **Party**.

WHEREAS

(A) In pursuance thereof, the Government of Punjab has set up a matching grants scheme under the name and style of Agriculture Innovation & Development Enterprise or "READ Program/READ PROGRAM";

(B) READ Program provides matching grants in the shape of equipment and business development services to selected agri-businesses;

(C) The goal of READ Program is to improve and promote agriculture value chain and ultimately benefit local farmers with better marketability of produce;

(D) An expression of interest "EOI" for improvement of [insert essential oil/pulping etc.] value-chain was floated on [ ] in response to which the Grantee submitted an application;

(E) The Grantee has been selected as a beneficiary of the scheme and the Parties wish to record their understanding through an enforceable agreement.

NOW THEREFORE THIS AGREEMENT WITNESSETH AS UNDER:

1. **Introduction and Definitions**

1.1 This Grant Agreement contains the terms on which grant funding is being provided to the Grantee for the Project.

1.2 In this Grant Agreement:

(a) "**BDS Consultancy"** means consultancy for business development services provided by third-party vendors, which are registered/pre-qualified by Granter for improvement of the Grantee's value-chain enhancement as described in clause 9;

(b) "**Day"** means a day on which banks in the Islamic Republic of Pakistan are open for business

(c) **"Eligible Expenditure"** means expenditure for purchase of plants, Machinery and Equipment whose specifications are approved by grantor or Business Development Services, as the case may be and as mentioned in clause [];

(d) **"Equipment"** means the tools and machinery which the Grantee may use to deliver the Project for which grant funding is being provided under this Grant Agreement;

(e) **"Evaluation"** means an assessment of the Project by the Grantor, or one or more persons appointed by the Grantor as provided under clause 12 ;

(f) **"Evaluation Visit"** means a visit of up to 10 days made by one or more persons appointed or nominated by the Grantor and will comprise of site visit, interviews, 3rd Party Validation and interaction with stakeholders involved in the Project;

(g) **"Financial Year"** means the 12 month period 1st July to 30th June ;

(h) **"Funding Period"** means the period for which the Grant is awarded as specified in clause 4.1 of this Grant Agreement;

(i) **"Grant"** means the sum or sums of money [in local currency] to be provided to the Grantee in accordance with this Grant Agreement;

(j) "**Grant Implementation Team"** means the staff of the Grantor or any other nominee of the Granter, which will monitor and implement the Grant on behalf of the Grantor.

(k) **"Project"** means the wider programme objectives, outputs and activities set out in the Project Final Bid Form in Annex A;

(l) **"Project Implementation"** means all the activity which the Grantor and the Grantee undertakes in order to deliver the Project which is being funded under this Grant Agreement;

(m) "**Reimbursing Bank**" is the financial institution hired by the Grantor under a separate agreement for agreed banking services and to disburse the grant funding;

(n) **"Staff"** means all persons employed or otherwise used by the Grantee to perform its obligations under this Grant Agreement;

(o) **"Unspent Monies"** means any monies paid to the Grantee in advance of expenditure which remains:

i. unspent and uncommitted at the end of a Funding Period; or

ii. unspent and uncommitted at the end of the Financial Year in which the Funding Period occurs;

2. **Grant Offer**

2.1 DoAg offers to pay the Grantee the grant funding set out in this Grant Agreement **on condition that** the Grantee complies fully with the terms of this Grant Agreement.

2.2 The Grantee acknowledges that the Authority agrees to provide funding only for the amount, period and purposes set out in this Grant Agreement.

2.3 The Grant Offer is contingent on release and continuation of Government financing for the Funding Period.

3. **Purpose of the Grant**

3.1 DoAg is providing grant funding for Eligible Expenditure incurred by the Grantee to implement the project entitled: *READ Program* ("the Project"). The Project outputs and activities are set out in the Project Final EOI Form at Annex A.

3.2 The Grantee accepts responsibility for the proper use and administration of all funding provided under this Grant Agreement and undertakes to use such funding only for the purpose of carrying out the Project in accordance with the Project outputs in Annex-A and work plan set out in Annex C.

3.3 The grant money can be used to acquire:

(a) Machinery, equipment, product testing lab equipment and tools;
(b) Software for improved production/process management;
(c) Business Development Services to improve applicant's business performance (minimum 10% of the grant money)

3.4 The machinery, equipment and tools procured through grant money may be of local or imported origin; depending upon the business requirements of agribusinesses and the availability of technology.

3.5 The grant money cannot be used for the following purposes:

- o Purchase or rental of land
- o Building and civil works
- o Hire of office staff and labour
- o Operating expenses
- o Purchase of office equipment
- o Purchase of vehicles
- o Debt retirement
- o Interest on debt
- o Working Capital

3.6 The grant money cannot be used for buying used or second-hand machinery and only new machinery can be financed by it.

3.7 The grant shall only be given to lawful agribusinesses.

4. **Grant Funding Period**

4.1 The grant funding period is from *[.]* to *[.].*

4.2 Project Implementation will begin on the day after the last of the two Parties signs this Grant Agreement.

5. **Amount of the Grant.**

5.1 DoAg will provide up to a maximum of *[currency and amount in numbers and words]* towards the total costs of the Grant, of which *[write amount in numbers and words]* will be paid during the grant agreements's period. .

5.2 DoAg does not guarantee grant funding for subsequent periods after the term of this Grant Agreement or in Financial Years following the Financial Year of signature of this Grant Agreement. Whether the DoAg provides additional grant funding to the Grantee will depend on factors including:

(a) the availability of funding to the DoAg; and

(b) full compliance with the terms of this Grant Agreement by the Grantee in the period covered by this Grant Agreement.

6. Opening of Bank Account

6.1 Within two (2) weeks of the signing of this Agreement, DoAg will hire the Reimbursing Bank being the financial institution for provision of agreed banking services and depositing the grant money to the Grantee's account set up under clause 6.2.

6.2 Within three (3) weeks of the signing of this Agreement, the Grantee will open a bank account with the Reimbursing Bank for the disbursal of the Grant and intimate DoAg using the letter in Annex B.

6.3 The Grantee's bank account will be operated by the Grantee.

6.4 DoAg will release the grant funding through the Reimbursing Bank after the Grantee has fulfilled the Agreed DLrs.

6.6 The mark-up of any amount lying in the Grantee's bank account in the Reimbursing Bank shall belong to DoAg.

7. Procurement

7.1 The Grantee must obtain value for money when using grant funding and will act in a fair, open and non-discriminatory manner when buying goods and services.

7.2 Subject to this clause 7, the Grantee will follow its own procurement guidelines and procedures when buying goods and services using grant funding provided under this Grant Agreement.

7.3 The Grantee will prepare the detailed specification of the equipment and seek approval from DoAg . Provided that DoAg will approve the specification of the equipment from the departmental Central Specification and Standardization Committee.

7.4 The Grantee will arrange market-competitive quotations of the equipment/implement/Machinery from the supplier/manufacturer and submit it to DoAg for approval.

7.5 After approval, Grantee will deposit their equipment purchasing share in its account maintained in the Reimbursing Bank.

7.6 DoAg will disburse the funds as per original invoice of the plants, machinery/Equipment and BDS services or the upper ceiling specified by DoAg, whichever is lower.

7.7 DoAg will provide/ release the taxes or regulatory duties money on procurement of imported equipment as per agreed procurements according to work plan/DLrs at Annex-C.

7.8 The Grantee will purchase the plants and machinery/Equipment from the seller, who is the original manufacturer/ importer in Pakistan, or authorized dealer of the manufacturer and offering complete after sales services and installation services. Preference will be given to those who have at least 4 clients in Punjab.

7.9 In order to qualify for disbursement, the Grantee must make a purchase order for the Equipment. It will maintain a record and notify the Grantor of such purchases using grant funding. Entries in the record must include the following information (and any other requirement/Documents mentioned in Annex-C).

(a) description of the item(s)

(b) specific identification (e.g. serial number)

(c) date of purchase

(d) where the item was purchased

(e) original value (including GST, if paid)

(f) person responsible for the purchase

(g) Inspection report from Grantor' nominated individuals or firm

8. **Stages and Timing of Grant payments**

8.1 Disbursement will be linked to fulfilment of disbursement linked results (DLRs) mentioned in Annex C.
8.2 The Grantee will observe the targets and time set out in the Performance Gauge Performa Annex-D. provided that if the grantee fails to meet the above, it shall be liable to pay the liquidated damages at the rate specified at Annex-D.

8.2 After fulfilment of each DLR, the Grantee will make a withdrawal request to DoAg in the sample provided in Annex E.

8.3 DoAg reserves the right to withhold all or any payments of the grant funding.
8.4 The grantee will continue/operationalized their business on minimum of 05 years under this project.

9. BDS Consultancy

9.1 As a condition of the Grant, the Grantee agrees to avail BDS Consultancy in the manner provided in the Annex-C of a value less than 10% of the grant amount.

9.2 DoAg will shortlist the sector specialist for provision of business development services to the Grantee by their own choice as per applicable rules.

9.3 Grantee will hire the sector specialist for BDS from amongst the approved list.

10. Reduction and Recovery of Grant

10.1 Without prejudice to DoAg's other rights and remedies, the DoA may withhold or suspend payment of any grant funding due to the Grantee and/or require the Grantee to repay any Unspent Monies if any of the following events arises:

(a) the Grantee fails to comply with any of the terms of this Agreement;
(b) fraud or any other misuse of any grant funding paid under this Grant Agreement,
(c) DoAg has reasonably requested information and/or documentation from the Grantee and this has not been provided to the Grantor within the timescales reasonably required;
(d) DoAg may require that all or part of the grant funding be repaid.

10.2 The Grantee may not retain any portion of the Grant that has not been used by the end of the Financial Year in the Funding Period without DoAg's written permission.

10.3 If the Grantee is wound up or goes into liquidation, administration, receivership or bankruptcy, or enters into any compromise or other arrangement of its debts with its creditors, DoAg will be entitled to recover any grant money that has not been spent and/or may withhold any further payments. If any of the money is held by the Grantee contractors, the Grantee must attempt to recover those sums from its contractors.

10.4 If DoAg makes an overpayment to the Grantee, it will seek recovery of all sums overpaid. The Grantee will repay any overpayment to DoAg within thirty (30) calendar days of receiving a written request from DoAg to make a repayment. If there is a dispute between the Parties about the overpayment, repayment will not be made until the dispute has been resolved.

11. MONITORING AND AUDIT

11.1 The Grantee will provide a quarterly monitoring report as per Annex E and a financial report every three (3) months during the Funding Period starting from *[insert Start Date]*.

11.2 The **quarterly monitoring report** will:

(a) describe the Project activities completed and the results achieved as per template in Annex F ;

(b) contain an assessment of progress made against the proposals as set out in the Project Final EOI Form at Annex A; and

(c) refer to the indicators of success in Annex A.

11.3 The **financial reports** will state:

(a) how much funding was spent;

(b) the purpose of the expenditure of the funding in (a) above; and

(c) whether any funding was used for consultant's fees.

11.4 DoAg may request reasonable access for its authorised representatives, after giving the Grantee notice, to:

(a) project sites which the Grantee owns or occupies and where any activity in support of the Project has been undertaken; and/or

(b) records (however these are stored) which show how grant funding for the Project has been used.

11.5 DoAg will monitor the progress of the Project throughout the Funding Period and reserves the right to:

(a) carry out Evaluation Visits, after giving reasonable notice;

(b) appoint an external, third party evaluator and auditor.

11.6 The method and timing of the Evaluation Visit, and the Third-Party Evaluation of the Project, will be at DoAg's discretion. For the avoidance of doubt, the Evaluation will assess

the Project on the basis of value for money, impact and delivery of outputs. Evidence will be collected through a review of paper documents and interviews with stakeholders

11.7 The Grantee will make staff available to meet with, answer questions and provide management information to the Grant Implementation Team.

12. Records to be kept

The Grantee will ensure that all original documents are retained for a period of five (5) years after the end of this Grant Agreement and will provide these to the Authority, if requested within this period.

13. Confidentiality

13.1 Each Party will treat the other's information as confidential, keep it safe and not disclose it to a third person without the original owner's prior written consent unless disclosure is expressly permitted by this Grant Agreement.

13.2 The Grantee may disclose the DoAg 's Confidential Information to its Staff who are directly involved in the implementation of the Project and who need to know the information. Where it makes such disclosure, the Grantee will ensure that such Staff are:

(a) aware of and comply with the confidentiality obligations under this Grant Agreement; and

(b) do not use any of the DoAg's Confidential information that is received for purposes other than the implementation of the Project and in line with this Grant Agreement.

13.3 Clause 14.2 will not apply to the disclosure of information that:

(a) is a requirement of law placed upon the Party making the disclosure by an order of a court of competent jurisdiction or in order to comply with requirements including but not limited to the Punjab Freedom of Information Act 2013;

(b) occurs because information was in the possession of the Party making the disclosure without any obligation of confidentiality to the information owner and prior to any disclosure;

(c) was obtained from a third party who was not subject to an obligation of confidentiality;

(d) was already in the public domain at the time of disclosure and this was not due to a breach of this Grant Agreement; or

(e) was developed independently without access to the other Party's confidential information.

13.4 Nothing in this Grant Agreement will prevent DoAg from disclosing the

Grantee's confidential information:

(a) to any Government Body. All Government Bodies receiving such confidential information will be entitled to further disclose the confidential information to other Government Bodies on the basis that the information is confidential and is not to be disclosed to a third party which is not part of any Government Body;

(b) to any person engaged by DoAg;

(c) for the purpose of the examination and certification of the Grantee's accounts or records;

(d) for any examination of the economy, efficiency and effectiveness with which DoAg has used its resources.

13.5 Nothing in this clause will prevent either Party from using any techniques, ideas or know-how gained during the performance of this Grant Agreement in the course of its normal business so long as this use does not result in a disclosure of the other Party's Confidential Information or an infringement of the other Party's or a third party's intellectual property rights.

14. **Amendment of this Grant Agreement**

This Grant Agreement may be amended only by written agreement of the Parties and such amendments must be recorded in writing, signed by both Parties and attached to the signed original of this Grant Agreement.

15. **Breach of Grant Conditions and Termination**

Temporary Suspension of performance

15.1 Either Party may notify the other of any event or matter which was neither caused by the Parties nor is within the control of the Parties which prevents, delays or is likely to prevent or delay the performance of its obligations under this Grant Agreement. In this situation, the Parties may agree to suspend the performance of obligations under this Grant

Agreement temporarily for a period of up to one (1) calendar month (**"Temporary Suspension Period"**).

16. Termination

16.1 DoAg may by notice in writing to the Grantee terminate this Agreement with immediate effect if any of the following events occur:

(a) the Grantee intends to use, has used in the past, or uses the Grant for purposes other than those for which they have been awarded;

(b) the Grantee is, in the reasonable opinion of DoAg, performing its part of the Project Implementation in a negligent manner; in this context negligence includes but is not limited to failing to prevent or report fraud or corruption;

(c) DoAg determines (acting reasonably) that any director or employee of the Grantee has:

(i) acted dishonestly or negligently at any time during the term of this Agreement and to the detriment of DoAg; or

(ii) taken any actions which unfairly bring or are likely unfairly to bring the

DoAg name or reputation into disrepute. Actions include omissions in this context;

(d) the Grant is found to be unlawful State Aid;

(e) the Grantee commits a material breach of the Agreement;

(f) the Grantee become liable for liquidated damages exceeding 30% of the grant amount

(g) the Grantee fails to comply with any of the Terms and Conditions set out in the Agreement and fails to rectify such breach within thirty (30) days of receiving written notice from DoAg detailing the failure.

16.2 On termination of this Grant Agreement the Grantee will provide financial and narrative reports (including invoices and receipts) within thirty (30) days of receiving written notification of termination up to the date of such termination.

16.3 If DoAg terminates this Grant Agreement in accordance with clause 15, the Grantor may pay the Grantee's reasonable costs in respect of the delivery of the Grant performed up to the date upon which notice of the termination is first given to the Grantee. Reasonable costs will be identified by the Grantee and will be subject to the Grantee demonstrating that

they have taken adequate steps to mitigate their costs. For the avoidance of doubt, the amount of reasonable costs payable will be determined solely by DoAg.

17. **Liability and Indemnity**

The Grantee agrees to indemnify DoAg for any costs, claims, damage or losses which arise as a result of negligence by the Grantee or out of any breach by the Grantee of any terms of this Grant Agreement.

18. **Grantee responsibility for Staff**

The Grantee undertakes to provide adequate supervision of and care for its Staff, agents and representatives.

19. **Dispute Resolution**

19.1 The Parties will attempt in good faith to negotiate a settlement to any dispute between them arising out of or in connection with this Grant Agreement.

19.2 Any dispute which is not resolved within 30 days shall be submitted to arbitration by a sole arbitrator. The arbitration shall be held in accordance with provision of the Arbitration Act 1940 and amendment(s) or re-enactment(s) thereof and the proceedings shall be carried out in English. The venue of arbitration shall be at Lahore and the decision arrived at after such arbitration shall be binding upon the Parties to this Agreement. Arbitration shall be a condition precedent to initiating any proceedings before a court of competent jurisdiction.

20. **Entire Agreement**

This Grant Agreement constitutes the entire agreement between the Parties and supersedes all negotiations, representations or agreements either written or oral preceding it.

_____	_____
Department of Agriculture, Punjab	**Grantee**
Name: _____	Name: _____
Designation: _____	Designation: _____
CNIC: _____	CNIC: _____

Witnesses: (1) ……

Name: _____
Designation: _____
CNIC: _____

(2) ……

Name: _____
Designation: _____
CNIC: _____

ANNEXES OF CONTRACT AGREEMENT
ANNEX A: THE PROJECT EOI FORM

(Already submitted by the Applicant)

ANNEX B: BANK ACCOUNT INTIMATION

Sample of Letter advising opening of account in Reimbursing Bank with bank details and authorized signatories thereof (On recipient's letter-head)

Department of Agriculture, Punjab

Attention: Grantee

Reference: [.]

We refer to the above-mentioned grant agreement and write to advise you that the Separate Bank Account(s) have been opened as provided below and is/(are) to be used for disbursements related to the above-referenced Grant:

BANK NAME AND ADDRESS: _____

_____

_____

ACCOUNT NUMBER: _____

IBAN NUMBER: _____

NAME OF ACCOUNT and ADDRESS: _____

_____

_____

ANNEX C: THE PROJECT WORK PLAN WITH DISBURSEMENT LINKED RESULTS (DLR)

Sr. No.	DLR	Estimated Amount required to complete the task	Maximum Grants amount (Rs.)	Share with Percentage	Timeline	SOV for Evaluator
1	Intallation of Air Compressor (Inverter)	Local				
i	Ventelated space of 150 sft			100 % share of the applicant	15 days from the contract	ownership certificate/ Rent deed/ agreement in the favour of matching grant applicants/ owners of the bussiness and architecture design
ii	Covered area of 150 sft				30 days from the contract	
iii	Transportation charges			100 % share of the applicant	30 days from the contract	Invoice from the tranpoter after the contract date
iv	Development of Plateform for fixation (if moveable loking tyre option available)				40 days from the contract	Physicaly inspected and found satisfactory with approved Architecture desgin
v	Purchase of the Machine			100% share of the applicant	45 days from the contract	Purchase order, Approved sapcifcation of the machine, account maintinace certificate with one time 10% additional amount of the equipment purchase showed in matching grant account
v	Electrification				45 days from the contract	Meet the electrification requirement of the manufacturer with comltete elecrict circuit diagram
vi	Complete installation			75 % of grant amount by the granter	50 days from the contract	Purchase innovice, minimum three qutation, operation manual and operation tool kit
vii	Operation Trainning certificate from the manufacturer	-		5 % of grant amount by the granter	50 days from the contract	Training certificate from the manufacturer
viii	working operational performance	-		20 % of grant amount by the granter	70 days from the contract	evaluation report through log book of the machine and physical verification
2	Installation of New CNC Machining Centre	Imported				

i	Ventelated space of 400 sft			100 % share of the applicant		ownership certificate/ Rent deed/ agreement in the favour of matching grant applicants/ owners of the bussiness and approved architecture design
ii	Covered area of 400 sft					
ii	Development of Plateform for fixation					Physicaly inspected and found satisfactory with approved Architecture desgin
v	Purchase of the Machine			100% share of the applicant		Purchase order, Approved sapcifcation of the machine, account maintinace certificate with one time 10% additional amount of the equipment purchase showed in matching grant account
vi	Taxes and import duties			upto 28% share of grant amount(as per actual) by the granter		Inovice generated by the FBR or Pakistan coustom, Bill of lending, V bok certificate and bank LC or other releated
vii	Transportation charges with loading					Invoice from the tranpoter after the contract date
vi	Electrification connection and fixation	1		100% share of the applicant		Meet the electrification requirement of the manufacturer with compltete elecrict circuit diagram
vii	Complete installation			62% of gran amount by t granter		Purchase innovice, Bill of landing minimum three qutation, operation manual and operation tool kit
viii	Operation Trainning certificate			5% of grant amount by the granter		Deploma from the any technical training institute, Salrey slip of the Operator
ix	Hiring of designer			100 % share of the applicant		Deploma of auto cade or Solid design from t any technical training institute, Salrey slip of the Operator
x	working operational performance			5% of grant amount by the granter		Evaluation report through log book of the machine. And physical evaluation
xi	Quality Control certificate	0				QCC certificate from any of the (Parts developed through this machine) EDB, GTDMC ,PITAC Punjab Small Industries Corporation (PSIC)

3	Bussiness Development services					
i	Conducting & Issuance of Energy Audit Report	00	273,360	100 % share of the applicant		Report issued by the Prequalified Spacialist
ii	Implementation of Report recommendation			30 % share of the Grant by the granter		Combined Evaluation report issued by the Evaluator and Specialist
ii	Development of Website	5		100 % share of the applicant		Obtain name and Website develop from the develper (IT degree holder)
	Launch of Website	-		5 % share of the Grant by the granter		Payment certificate the domain for Two year fungtional, Avaliablity certificate on .com or .com.pk or .net
iv	Marketing strtagy	1		100 % share of the applicant		Report issued by the Prequalified Spacialist
v	Export the product to any country			15 % share of the Grant by the granter		V book certificate, Departure report, Work order from the purchaser and payment received certificate
vi	ISO processesing certification			10 % share of the Grant by the granter		After issuance of Certificate ISO 9000 processing
vii	Pakistan Standard Certification			10 % share of the Grant by the granter		Standrized Minimum one implement from PSC or AMRI
viii	SECP certification			10 % share of the Grant by the granter		After issuance of SECP Certificate
ix	Participation in local Exebution			5 % share of the Grant by the granter		Exebition particpation certificate from the orgnizer
x	Participation in forign Exebution			15 % share of the Grant		Exebition particpation certificate from the orgnizer

				by the granter		

ANNEX D: PERFORMANCE GAUGE PERFORMA

Service Level	Service Level Target	Performance Measures Protocols	Resolution Time	Penalty

opening of bank account	Within 15 days of the Contract	Bank opening certificate,	Within 03 days	0.1 % of Grant amount per week of the delay
Submission of Final draft specification of the Items n._____	within the 30 days of the contract	Final specification and Quotation, Incas not provision of all agreed item	Within 05 days	0.3 % of Grant amount per week of the delay
Engagements of the Shortlisted Business development expert	Within 2 Month of the prequalifies BDS expert from the department	Contract agreement with Shortlisted Business development expert	within 10 days	0.3 % of Grant amount per week of the delay
Booking of local implement _____	Agreed timeline as per Work plan	Work order/Purchase order	within 15 days	0.1 % of Grant amount per week of the delay
Preparation of pre requisite of booked Implement	Agreed timeline as per Work plan	QP Report and READ PROGRAM team Visit report	Within 05 days	0.1 % of Grant amount per week of the delay
Installation of the Implement	Agreed timeline as per Work plan	QP Report and READ PROGRAM team Visit report	Within 05 days	0.1 % of Grant amount per week of the delay
First production of the implement	Agreed timeline as per Work plan	Standard Certification from the Concerned authority of production/produce	within 15 days	0.2 % of Grant amount per week of the delay
Booking of imported implement _____	Agreed timeline as per Work plan	Work order/Purchase order	within 15 days	0.3% of Grant amount per week of the delay
Preparation of pre requisite of booked Implement	Agreed timeline as per Work plan	QP Report and READ PROGRAM team Visit report	Within 05 days	0.1 % of Grant amount per week of the delay
Installation of the Implement	Agreed timeline as per Work plan	QP Report and READ PROGRAM team Visit report	Within 05 days	0.1 % of Grant amount per week of the delay
First production of the implement	Agreed timeline as per Work plan	Standard Certification from the Concerned authority of production/produce	within 15 days	0.2 % of Grant amount per week of the delay
Booking of Implement implement _____	Agreed timeline as per Work plan	Work order/Purchase order	within 15 days	0.1 % of Grant amount per week of the delay

Preparation of pre requisite of booked Implement	Agreed timeline as per Work plan	QP Report and READ PROGRAM team Visit report	Within 05 days	0.1 % of Grant amount per week of the delay
Installation of the Implement	Agreed timeline as per Work plan	QP Report and READ PROGRAM team Visit report	Within 05 days	0.1 % of Grant amount per week of the delay
First production of the implement	Agreed timeline as per Work plan	Standard Certification from the Concerned authority of production/produce	within 15 days	0.2 % of Grant amount per week of the delay
Provision of quarterly report	10th Day of each Qater	QPR report of concern quarter	Within 05 days	0.5 % of Grant amount per week of the delay
Conducting Marketing strategy	Agreed timeline as per Work plan	Duly verified from the Prequalified BD Expert	Within 10 days	1% of Grant amount per week of the delay
Conducting Energy Audit	Agreed timeline as per Work plan	Duly verified from the Prequalified BD Expert	Within 10 days	1% of Grant amount per week of the delay
Preparation and Launch of Website	Agreed timeline as per Work plan	Site IP and Address	Within 10 days	2% of Grant amount per week of the delay
Membership Certificate (any)	Agreed timeline as per Work plan	Duley verified from the Prequalified BD Expert	Within 10 days	3% of Grant amount per week of the delay

ANNEX D: WITHDRAWAL REQUEST

Withdrawal Application

[Date]
Department of Agriculture, Punjab

Attention: Grant Implementation Team

Reference: Grant No. [ ] &Grant Agreement dated [ ]

1. This instalment is related to the fulfilment of DLR [.] of the attached programme of work.

2. We hereby apply for this withdrawal from the Grant Account, and hereby certify and agree as follows:

(a) The attached document is evidence of fulfilment of this DLR.

(b) The funds covered by this application are required exclusively for the purposes of the Project.

3. Please pay (amount)_____in the bank account indicated in our Bank Account Certification Form

Recipient: _____

Authorized Signature: _____

Name and Title: _____

Date:

ANNEX E: QUATERLY MONITRING REPORT

QUARTERLY MONITRING REPORT
Grantee's Name_____

1. About Report

Project/ Scheme Name	Matching Grant to Agribusiness (READ Program). For _____
Title of Report	Quarterly Progress Report (QPR)
Reporting Period	
Address with Phone Number	
Reported By	
Date of Report	

2. Project Initials:

The main features of the project/scheme are as under:

Grantee Introduction (Company Profile)	
Project Title	
Funding Agency	Matching Grants Scheme- READ Programs under Department of Agriculture, Government of Punjab, Pakistan.
Project Duration	

3. Project Activities (Overall Accomplished activities during this quarter)

Sr.	Project Targeted Activities Concern Quarter	Achievement		Justification (in case targets are NOT yet achieved)	Remarks (Future Plan to conduct delayed activity etc)
		Yes	No		
1. Name of Machine/Equipment:					
1	Preparation of Ventilated Space of (150 sft)				
2	Preparation of Covered Area of (150 sft)				
3	Arrangement of Transportation of the machinery				

4	Development of Platform for fixation				
5	Purchase of the Machine				
	Machinery reached on port (if applicable then Taxes and Duties Paid)				
6	Proper Electrification system installed				
7	Complete Installation and functionalized of the machine				
2. Business development services					
8					
9					
10					
11					
12					
13					
14					

(please add more row if required

4. Grant Funds Utilization Summary

Funds Utilization Summary Cost Share Status

Donor Fund Position	Amount (PKR)
Total Project Budget	
Total Grant Budget	
Amount received under this agreement (Till date)	
Remaining Balance	
Amount Agreed during this Quarter	
Amount received during this Quarter	
Current Request for disbursement	

Remarks (If any)

_____

_____

5. Project Activity Plan for Upcoming Quarter

Sr.	Project Targeted Activities Concern Quarter	Estimated Completion date	Remarks
1. Name of Machine/Equipment: _____			
1	Preparation of Ventilated Space of (150 sft)		
2	Preparation of Covered Area of (150 sft)		
3	Arrangement of Transportation of the machinery		

4	Development of Platform for fixation		
5	Purchase of the Machine		
2. Business development services			
8			
9			
10			
11			
12			
13			
14			

6. Evaluation Visit during this quarter

Total Visits	**Findings & Recommendation**	**Actions Taken on the light of findings & recommendations**

Annexure-C

Draft Advertisement

JOB OPPORTUNITIES IN

"PROJECT IMPLEMENTATION AND SUPERVISION UNIT (PISU)" AGRICULTURE DEPARTMENT

Agriculture Department, Government of the Punjab has established an "Project Implementation and Supervision Unit" (PISU)" comprising a body of competitive individuals who closely work with the department on Rural Enterprises on Agriculture Development Project. In this regard, Agriculture Department, Government of the Punjab, Lahore is looking for dynamic, competent individuals on market-based salaries initially for a period upto June 2021 (extendable for further period subject to approval by the Government) for the following positions:

Sr. No.	Position	No. of Post
1	Project Director	1
2	Grant Specialist	1
3	Finance Manger	1
4	Contract Specialist	1
6	Business Development Analyst	04
7	Driver	3
8	Office Boy	1

Note:

I. Relaxation in upper / lower age limit is admissible as per government policy.

II. The contract appointments are temporary in nature, non-transferable, job/post specific, non-pensionable & conferring no right for regularization.

III. Retired persons are not eligible. The persons who are already in Government service including contract employees should apply through proper channel. In case of selection, a confirmed civil servant shall retain his lien against his original substantive post as per rules.

IV. The recruitments will be made strictly on merit on all Punjab basis in accordance with the rules, selection criteria and other provisions of Recruitment Policy and Contract Appointment Policy 2004.

V. The applicants should clearly indicate the post applied for on one side of envelope along-with Curriculum Vitae (CV), three passport-size recent photographs and attested copies of all the relevant documents, CNIC / certificates / degrees/detailed mark sheets, which include provisional certificates indicating CGPA (if applicable). Late and incomplete applications will not be considered. No TA/DA shall be paid for appearing in the interview.

VI. In case of any query / clarification, the candidate may approach the Planning & Evaluation Cell, Government of the Punjab, Agriculture Department before closing date.

VII. The competent authority has the right to increase or decrease the number of posts.

The applications addressed to the Secretary Agriculture must reach in the office of the **Chief Planning and Evaluation Cell** within two weeks of appearance of advertisement in the newspaper. Details of job Description, Qualification, Experience and Application Form are available at

SECRETARY AGRICULTURE
GOVERNMENT OF THE PUNJAB
AGRICULTURE DEPARTMENT
LAHORE.

Annexure-D

APPLICATION FORM

Sr. No.	Contents	Description
1.	Project	READ Program
2.	Post Applying For	
3.	Name	
4.	S/D/W of	
5.	Age	
6.	CNIC No.	
7.	Current Posting with Department	
8.	Current Pay Scale	
9.	Cadre / Service	
10.	Residential Address	
11.	Office Phone No.	
12.	Cell No.	
13.	Specialty	
14.	Total Years of Experience	
15.	Employment History (Please attach)	
16.	NOC (Please attach)	
17.	Detailed resume along-with statement of purpose (not more than 500 words)	

Annex-E

Job description and Qualification of Staff

Job title	**Project Director**
Responsible to	**Chief Planning and Evaluation Cell**
Qualification	• *16 years of education s in Business Administration from HEC recognized university, Agriculture Engineering* • *Foreign Professional Qualification (Degree/ Diploma/ Certificate/ Membership/ Fellowship, etc.) in related fields Rural Development/ Project Management/ ICT etc.) will be preferred.* • *Good understanding of livestock sector of Pakistan and of other countries.* • *Strong analytical and writing skills, and experience of presenting complex technical information in a comprehensible way for non-specialist readers.* • *Well versed with the policy and strategy documents, so far been developed by governmental or development agencies for policy and institutional reforms in Pakistan / Punjab with respect to underlying economic factors and impact.* • *Strong Communication and written skills in English and Urdu* • *Well versed with MS Office (Word, power point, excel and access).*
Experience	• *At least 10 years of professional experience of working in a role of economist in public sector, multination organizations, and development agencies and / or as consultant on assignments related to various economic issues of livestock sectors*

Key Responsibilities of Economist are:

- *To attend office at designated office hours during the employment period;*
- *To develop liaison with the P&E Cell , on regular basis for work assignments given, and updating about the progress, as and when required;*
- *To work independently or jointly on various assignments with other BDS experts, having expertise of procurement, ICT and core agri business sector;*
- *To provide technical inputs to team on business economics and economic cost // benefit analysis of various joint assignment, as and when required;*
- *To hold regular meetings with internal and external stakeholders of Department for extensive deliberations on the economic analysis of the assignments.*
- *To develop the situational and economic analysis, briefing papers, concept notes, short reports and recommendations as well as producing other deliverable, after due diligence and research work.*
- *To devise methods and procedures for collecting and processing data, with the use of available data sources as well as various econometric and sampling techniques, with the ultimate objectives of generating useful information that can serve as stepping stone for policy decisions.*
- *To carry out study of various opportunities in value chain sector for investments, and in turn development of pre-feasibilities;*
- *To coordinate effectively with experts engaged for technical assistance to Department and other technical staff of the department to analyze various policies affecting Agri business sector;*
- *To support and participate in economic and social policy dialogue as appropriate under the guidance/supervision of the Secretary agriculture along with P&E CELL;*
- *To participate in meetings and to liaise with public and private stakeholders and experts on various aspects of livestock sector, as per advice of Secretary; and*
- *To coordinate and participate in meetings between Department relevant directorates, governmental stakeholders, elected representatives and experts working with donors.*

Job title	**Grant Specialist**
Responsible to	**PD PISU**
Qualification	• *16 years of education of Business Administration/Engineering or equivalent to it.* • *Experience in determining end-user requirements and procuring produces to meet those needs;* • *Key understanding of prevailing GoPb Procurement Legislations (PPRA 2014)* • *Strong negotiation skills;* • *Advanced proficiency in MS office-Outlook, Word, Excel and Power point.* • *Strong financial and analytical skills;* • *Strong communication and interpersonal skills and capable of working with senior officials; and* • *Fluent written communication of English and Urdu.*
Experience	• *A minimum of ten years of relevant work experience in the government, academia, international agency or the private sector, working with procurement of complex IT solutions;*

Key Responsibilities of Procurement Specialist are:

- *To support in development of annual and bi- annual procurement plans, procurement performance dashboards, monthly / Quarterly reporting system for procurement activities and bidding documents for complex procurements in PISU;*
- *To develop and draft Procurement manual for READ program which will include all best practices and procedures during complete procurement cycle;*
- *To coach and guide concerned staff about all stages of procurement cycle like; requirement identification, procurement planning; procurement requisition processing; determine procurement method; prepare and publish Invitation; Pre-bid proposal meeting and site visits; bid proposal submission and opening; bid proposal evaluation; award recommendations; contract negotiations and contract award;*
- *To design, develop and conduct training programs on different subjects of procurement conflict of interest in Procurement, types of procurement methods, open competitive bidding process and contract management to concerned officials*
- *To supervise tasks and activities for procurement of goods, works, services and consultancies for READ projects;*
- *To develop contract administration system after outsourcing contracts to technology providers;*
- *To provide technical support about contract management services and post contract services to the PISU for ensuring compliance with TORs of contracts for avoiding un necessary delays in goods. Works, services and consultancies;*
- *To develop Standard operating procedures for proper maintenance of record to bring transparency in the process and also both for internal and external audits;*
- *To develop mechanism and checks for identifying fraud and embezzlement in procurement process; and*
- *To communicate with external stakeholders for public-private partnerships through predefined rules and regulations.*

Job title **Financial inclusion Specialist**

Responsible to **Head PISU**

Qualification

- *16 years of education/16 years of education 's Degree in Financial Services Management, Finance, Business, Accounting & Finance, or Commerce from a reputable & recognized local/international educational institution. Candidates with Qualified Chartered Accountant (CA, CFA, ACCA or equivalent) and Economics can also be considered.*
- *Development sector experience will be an added advantage*

Experience

- *Minimum of (8) years of work experience in financial management in public sector organization preferably under a donor assisted project.*

Key Responsibilities are:

- *Financial Specialist will be responsible for provision of technical guidance and expertise in the financial management activities under the project within the framework of prescribed policies and guidelines of the government. The FS will provide comprehensive support to team lead regarding establishment and maintenance of finance and accounting systems, processes and procedures, and ensuring adherence to the same. Major responsibilities will include, interalia, the followings.*
- *Develop strategies and finacial product for improvement in financial management and implementation of READ programs in close collaboration with the senior officials and various Wings of Agriculture Department*
- *Conduct financial grant product analysis offered under READ , implemented by the PFIs, ensuring that maximum benefit is being extended to the farmers at least cost to the Government*
- *Ensure strategic guidance about overall operations of the project.*
- *Assist in managing all accounts, budget and audit matters.*
- *Supervise in preparing cash flows, their planning, and management.*
- *Support in dealing with the Bank and PFIs on financial management issues.*
- *Monitor the financial resources and accounting to ensure accuracy and reliability of financial reports.*
- *Establish an efficient, accurate and updated reporting mechanism, preferably a real time transaction recording and reporting system with help of PITB, PLRA and SBP.*
- *Assesses risks and internal controls by identifying areas of non-compliance; develop and evaluate manuals and financial processes; identifying process weaknesses and inefficiencies and operational issues.*
- *Complete audit work papers and memoranda by documenting audit tests and findings. Communicates audit progress and findings by providing information in status meetings; highlighting unresolved issues; reviewing working papers; preparing final audit reports.*
- *Supports external auditors by coordinating information requirements.*
- *Provides financial control information by collecting, analyzing, and summarizing data and trends.*

Job title **Business Development Analyst**

Responsible to **Head PISU**

Qualification

- Bachelors or 16 years of education s degree in Agriculture Economics/M&E/Engineering Project Management/Research Methods/M&E/MBA, or other relevant administrative Sciences from a well reputed HEC recognized national or international University/Institute/College.

- Proven record and experience in rigorous quantitative & qualitative research & implementation of analytical methods.
- Demonstrated hands-on practical experience of setting up and managing dashboard monitoring system preferably in the cash disbursement environment.
- Proficiency in the use of ICTs and job specific applications.
- Previous work experience in similar role in Livestock sector in Pakistan or abroad wll be an added advantage and the applicant shall not older than 45 years.

Experience

- *Minimum 5 years of verifiable work experience, with progressively increasing level of responsibility in public or private sector at monitoring and evaluation positions*

Key Responsibilities are:

- *Assist in coordinating collection of baseline data; provide regular support to the implementation of the PMP;*
- *Set and monitor performance targets for the M&E team and works with the M&E team to achieve M&E targets on time and within available resource constraints.*
- *Participate in the baseline study, focus group and field visits and internal coordination meetings as needed to assure correct implementation of M&E design and provide quality control and management support.*
- *Work with the agricultural department to integrate M&E indicators into their work plans.*
- *Analyze data to identify significant trends requiring corrective action, assess possible causes, and suggest solutions based on the field findings for further improvement of activities.*
- *Focal point for communicating monitoring reports, disseminating to management for submission to stakeholders.*
- *Oversee ongoing data verification process and data Quality assessments.*
- *Meet deadlines in both narrative and quantitative reporting requirements.*
- *Assist in preparation of monthly and quarterly analytical M&E reports of grantees (both qualitative and quantitative), and additional reports as requested by management.*
- *Write qualitative and quantitative reports, lessons learned and case studies from various M&E activities.*
- *Develop him– or herself to learning a range of M&E tools available to development practitioner.*
- *Provide technical assistance to help other staff understand M&E systems and requirements.*
- *Demonstrated conceptual, mathematical, analytical and problem solving skills.*
- *Can work well under time pressure, meet deadlines, and balance competing tasks.*
- *Ability to understand and analyze data and economic at the firm, industry and market levels.*
- *Excellent organization, Planning and time-management skills.*
- *Demonstrated excellent oral and written communication skills in English.*
- *Excellent interpersonal skills in order to conduct interviews with a variety of stakeholders.*
- *Ability to articulate ideas, work within a team to accomplish objectives, and accept direction.*

OFFICE BOY

Qualification, Experience and Age Requirements:

- Must have domicile of Punjab province
- Must have matriculation certificate
- 01year experience in government/semi government departments
- Bearing good character (shall attached character certificate with the application)
- Not more than 30 years of age

Driver
Qualification, Experience and Age Requirements:

- Must have domicile of Punjab province & Must have valid LTV License
- Must have matriculation certificate
- 01year experience in government/semi government departments
- Bearing good character (shall attached character certificate with the application)
- Not more than 30 years of age

Annex-F

Year Wise Physical phasing of physical activities

Sr. No.	Machinery/Implement name	Unit Cost	Year -1		Year -2		Year -3		Total	
			Quantity (No.)	**Maximum Amount**	**Quantity (No.)**	**Amount (million)**	**Quantity (No.)**	**Amount (million)**	**Quantity (No.)**	**Amount (million)**
1	Pack houses for fresh fruit and vegetable (units)	15.5	**12**	186	**13**	201.5	**14**	217	**39**	**604.5**
2	Cold Storage services	18	4	72	4	72	5	90	**13**	**234**
3	Establishment of Agriculture services centres	5.7	16	91.2	17	96.9	17	96.9	**50**	**285**
Total Yearly			**32**	**349.2**	**34**	**370.4**	**36**	**403.9**	**102**	**1123.5**

Annex-G

Year-wise/Component-wise Financial Requirements

Object Code	Description	Year-1	Year-2	Year-3	Grand Total
A01106	Employ Related Expenses				
	Project Director	1.4	4.2	4.2	9.8
	Grant Spacialist	1.08	3.24	3.24	7.56
	Contract Specialist	1.08	3.24	3.24	7.56
	Finance Manager	1	3	3	7
	Bussiness Development analyst (04)	1.6	4.8	4.8	11.2
	Assistant Account Branch	0.4	0.6	0.6	1.6
	Drivers	0.45	0.9	0.9	2.25
	Naib Qasids/Peons	0.15	0.3	0.3	0.75
	Sweeper	0.15	0.3	0.3	0.75
	Chowkidar	0.15	0.3	0.3	0.75
	Total Employ Related Expenses (A01)	7.46	20.88	20.88	49.22
A01277	Project Allowance	4.8	1.2	1.3	7.3
A032	Communication				
A03201	Postage & Telegraph	0.7	0.76	0.79	2.25
A03202	Telephone & Trunk Call	0.3	0.32	0.33	0.95
Total A032		1	1.1	1.1	3.2
A033	Utilities				
A03302	Water	0.12	0.13	0.13	0.38
A03303	Electricity	1	1.2	1.3	3.5
Total A033		1.12	1.33	1.43	3.88
A037	**Consultancy and other Contractual work**				
A03770	Others	3.5	6	4.29	13.79
A038	Travel & Transportations	0	0	0	0
A03805	Travelling & Allowance	0.7	1.5	1.6	3.8
A03807	POL Charges	1.1	2.2	2.8	6.1
Total A038		1.8	3.7	4.4	9.9
A039	General				0
A03901	Stationery	1.1	1.26	1.1	3.46

A03902	Printing and Publication	1.1	3.2	1.1	5.4
A03907	Advertising and Publicity	1	1.1	1.8	3.9
A03918	Exhibition Fairs and other National Celebrations	1.5	3	2	6.5
A03936	Foreign inland training course fee	1.2	2.9	0.67	4.77
A03955	Computer Stationery	0.5	0.63	0.6	1.73
A03970	Others	0.4	0.6	0.26	1.26
Total A039		6.8	12.69	7.53	27.02
Total Operating Expenses					
A092	Purchase of Computer Equipment				
A09201	Hardware	0.5	0.9	0	1.4
A09202	Software	0.3	0.4	0.2	0.9
A09203	I.T. Equipment	1.5	1	0	2.5
A09501	Purchase of Transport	7.8	0	0	7.8
A09701	Purchase of Furniture	1.1	0	0	4
Total A09		11.2	2.3	0.2	13.7
A13	Repair & Maintenance				
A13001	Transport	0.5	1.34	1.24	3.08
A13703	I.T. Equipment	0.5	0.09	0.1	0.69
Total A13		1	1.43	1.34	3.77
A038	Travell & Transportations				
A03805	TA/DA	1.2	3.6	2.8	7.6
A05120	Subsidy on Value added processing Unit				0
	Pack houses for fresh fruit and vegetable (units)	186	201.5	217	604.5
	Establishment of Cold storage bussiness	72	72	90	234
	Establishment of Agriculture services centers	91.2	96.9	96.9	285
Grand Total		**389.1**	**424.6**	**449.2**	**1262.89**

Annex-H

Estimation of Economic Analysis

Sr. No.	Year	Total Investment Cost	Operational and Maintenance Cost*	Total Costs	Total Incremental Benefits**	Net Additional Benefits
		PKR Million				
1	1st	733.20	-	733.20	-	(733.20)
2	2nd	793.67	77.81	871.48	568.23	(303.251)
3	3rd	848.75	78.58	927.33	641.54	(285.79)
4	4th	-	78.75	78.7	678.20	599.46
5	5th	-	78.83	78.8	696.53	617.7
6	6th	-	79.15	79.1	586.55	507.4
7	7th	-	80.89	80.9	751.52	670.6
8	8th		81.04	81.0	720.36	639.3
9	9th	-	80.16	80.2	788.18	708.0
10	10th	-	80.53	80.5	824.84	744.3
11	11th	-	80.79	80.8	934.82	854.0
12	12th	-	83.06	83.1	843.17	760.1
13	13th	-	85.28	85.3	887.16	801.9
14	14th	-	89.75	89.7	989.81	900.1
15	15th	-	95.49	95.5	971.48	876.0

Overall Project	
NPV of Costs***	2,652
NPV of Benefits	5,648
B/C Ratio	2
EIRR	32%
Payback Period (Years)	4.5

Annex-I

Result Based Monitoring Framework

Design	Performance Targets / Indicators with Baseline Values	Data Sources and Reporting	Risks / Assumption
Impact	• *Shift from traditional to high value horticulture crops* • *Increase in investment in horticulture infrastructure* • *Improved trade balance*	• *Ministry of Industries Statistics* • *Import Export Statistics* • *Pakistan Agriculture Statistics*	
Outcome	• *Income increase for farmers, traders, exporters and entrepreneurs due to Unit facility* • *Number of jobs created at farm and agro-processing sector* • *Percent decrease in postharvest losses for farmers benefitting from the facility* • *Percent increase in value addition of vegetables' produce through dehydration, freezing and packaging* • *FDI of export of high value horti products* • *Monetary domestic sale of dehydrated horticulture products*	• *Differential selling rates b/w raw vegetables and value added* • *Crop Reporting Services / Extension data* • *ITC COMMTRADE / PBS* • *AMIS*	• *Ensuring relevant ministries / departments collect the requisite data* • *Incorporating vertical and horizontal frameworks among concerned public entities for data collection and analysis*
Outputs	• *Volume (tons) of horticulture produce* • *Monetary value of service fee collection* • *Information booklets* • *Number of local and international business linkages facilitated for dehydrated products*		

Annex-J

GRANT APPLICATIONS

EVALUATION PROCEDURE

for

‘Rural Enterprises in Agriculture Development’ Program

Agriculture Department, Government of Punjab

Department of Agriculture, Government of Punjab

Agriculture Marketing Building, 21-Davis Road, Lahore. Pakistan

Sept. 2020

Table of Contents

SCOPE OF THE PROCEDURE

The procedure covers the activities that will be carried out once the Agriculture department has received grant applications in response to public invitations to apply.

- The first part of this procedure covers the evaluation process that will be carried out by the Prequalification Committee (PQC) and the following review and approval (or disapproval) of grants by the Project Implementation Committee (PIC).

- The second part of the procedure covers the activities that will be carried out during contract negotiations with the approved grantees and the subsequent implementation of the grant contracts.

GRANT APPLICATIONS EVALUATION & APPROVAL PROCEDURE

Evaluation by Grant Application

Prequalification Committee (PQC) Composition

Evaluation of the received grant applications will be carried out by Prequalification committee; notified under PC-I of READ, Agriculture Department. PQC comprises of following permanent members; listed in **Error! Reference source not found.**.

Table 15 – Grant Prequalification Committee

Sr. No.	Name	Position in Committee
1.	Project Director PISU	Member
2.	Grant specialist	Member
3.	Procurement Analyst (ADU)	Member
4.	Business Development Analyst	Secretary/Member

Change of any permanent member of PQC will be done with the notification of Additional Secretary Planning, Agriculture Department.

Co-opted Members in PQC

If deemed necessary, PQC may invite co-opted members in its meetings to get technical advice during evaluation process. These co-opted members may be the relevant persons from Agriculture Department or from Agriculture Delivery Unit (ADU) or they may be the consultants engaged by the Department for the READ program.

Terms of Reference of PQC

PQC will be responsible for carrying out the evaluation of the grant applications received by the Agriculture Department. Evaluation will be carried out as per the criteria laid down in the Expressions of Interest (EOI) for grant offerings in different target sectors. It is very important that PQC members follow an across-the-board, fair and transparent approach for all the applicants; as per the applicable eligibility and evaluation criteria; without assigning any favor or disfavor to anybody. The evaluation process should not be influenced by any personal likes/dislikes or any discrimination on the basis of caste, creed, color, religion or any other factors not related to the process itself.

Key responsibilities of the PQC members are listed below:

xii. Prepare the grant application EOI and other related documents

xiii. Approve/ amend/ change the criteria for selection of beneficiaries/service provider under various project components, if required.

xiv. Devise mechanism and constitute committee(s) for recruitment of grantees/BD consultant, prequalification of supply & service companies, issues related to implementation of field activities etc.

xv. Make necessary modifications/ improvements in prequalification documents, modalities including cost sharing, execution arrangements, flow of funds, inter-component physical & financial adjustments etc. for smooth execution of project activities.

xvi. Preparation and finalization of EOIs documents, RFP and any other components
xvii. Evaluation of the grantee's application and recommendation to PIC
xviii. Finalization of specification of the grantee's equipment/ machines/tools

Working of PQC

Holding MSC Meetings

1. PQC meetings will be held once the Agriculture Department has received grant applications in response to public announcements for inviting applications. Meeting will be called after the announced last date for receiving the applications.

2. One of the three PQC members will be designated as 'Convener/Secretary' of the Committee who will be responsible for holding Committee's meetings. Convener will be designated between the member of PIC.

3. PQC Meetings will be called by issuing forma meeting notice/ official mail by the Convener to the other permanent members. Copies of these memos will be circulated to Planning and Evaluation cell, Chief Technical Advisor ADU, Project Director Grant Program and the Head GMC.

4. Co-opted members will also be formally invited to participate in the meetings; either through written memos or official emails.

5. All the documentation for holding PQC meetings will be made part of record by P&E Cell.

MSC Quorum

1. PQC quorum will only be completed by participation of minimum four members. Absence of any member from minimum of four member in a meeting will make the proceedings invalid.

2. In case of any long-term unavailability of any member, Additional Secretary Planning, Agriculture department, through an official notification, may replace the unavailable person with a new designee.

Applications Evaluations

PQC members will carry out evaluations of the received grant applications as per the following procedure:

Applicants' Files Creation

1. Applications will be opened by PQC in the presence of minimum four permanent Committee members. If required, the co-opted members may also be present at this occasion.

2. A separate file will be created for each applicant. The application form and the attached documents will be inserted and maintained in the file. Each file will be

assigned a unique number and the following correspondence with the applicant will be done with reference to that number.

3. Separate copies of application forms may be provided to member of PQC members to facilitate them individually review the information. Or alternately, application forms may be scanned and displayed on multimedia for having a joint discussion.

Eligibility Assessment

1. The received applications will be assessed with respect to their eligibility for applying for the grant program. The eligibility criteria mentioned in the application form and in the EOI document will be used as the assessment criteria. This assessment will be carried out on **Form I** (attached as Annex to this document).

2. The applications conforming to all the factors mentioned in the eligibility criteria will be selected for further evaluation.

3. The applications not conforming to any basic eligibility criterion will be rejected at this stage. However, such applications which appear to be eligible but some supporting documentation is not complete, will not be rejected and will be taken to evaluation stage. The final approval of grant however, will be contingent upon provision of the required information/documents.

Evaluation Scoring

1. The PQC members will carry out evaluation of the information provided in the application form and the attached documents as per the criteria provided in the EOI documents used for inviting applications in different sectors.

2. Each of the three PQC members will review the provided information and assign scores as per their individual assessment against each evaluation factor. This scoring will be carried out on **Form II**; attached as Annex to this document. PQC members will also mention the justification for the score assigned by them; in the space provided on the form. If desired, any member may also use additional sheet for elaborating his/her justification. Such additional sheets should be referred in and attached with the main evaluation sheet.

3. Scoring for 'Idea Evaluation/Project feasibility' will be carried out on **Form III**; attached in the Annex. The evaluator should provide justification for the scores given by him/her.

4. The scores assigned by MSC members at this stage will be termed as 'interim scores' which will be finalized after physical verification of the information provided by the applicant.

5. Based on the scores assigned in three individual sheets, a consolidated scoring sheet will be developed. Total score for each evaluation factor will be obtained by taking the average of the member of individual scores. Total score of each applicant will be obtained by summing up the individual scores for all the evaluation factors.

6. Co-opted members of MSC will be part of the evaluation process to provide any technical advice; however, no separate scores will be assigned by those members. Only the permanent members will assign evaluation scores.

Request for Missing Information

1. During applications' evaluation, some missing information or supporting documents may be identified by the PQC members. Request to provide missing information will be sent to the applicants on standard template; attached in the Annex as **Form IV**. The information letter will have the list of the missing information/documents and the specific date by which it must be received by PQC. This request will be sent through courier at the postal address as well as on the email address provided in the application form.

2. The information provided by the applicants within the specified time period will be received by PQC and will be included by the Convener of the Committee in the respective applicants' files.

3. Missing information/documents will be mentioned on the evaluation form (Form II) and status will be updated when information/document is received (or not received).

4. The applicants who will not provide information within the specified time period will be informed about that and their applications will not be considered for further processing. Any rejection of application on the basis of incomplete information will have to be justified by providing the evidence of having had formal communication with the applicant to provide information.

5. In case the applicant requests for additional time to provide the information, it may be granted only with the approval of PQC members.

Shortlisting of Applicants for Grants

1. PQC will shortlist the potential grantees by arranging all the applicants in descending order with respect to their interim scores to identify the top scoring applicants. The number of applicants selected will be as per the number of grants available in each particular sector during that round of receiving applications. In some cases, total number of available grants may also be mentioned in the relevant EOI document.

Physical Verification of Information/Documents

1. Verification may require visiting the proposed location of the project or any other relevant locations to physically verify the information provided by the applicant. GEC may request support from different wing of agriculture department, ADU or from Agriculture Marketing department for carrying out this verification. For physical verification of the grantees information following committee has been proposed as physical Inspection Committee:
    1. Grant specialist,
    2. Representative of ADU and

3. Assistant director (Post harvest research), AARI and
4. Assistant agriculture engineer (Field wing)
5. Business development analyst

(i) Carefully read the EOI documents for each grant offering to clearly understand the background and the eligibility and evaluation criteria for award of grants.

(ii) Collect the grant applications received by the PD READ in hard and/or soft form.

(iii) Create individual file of each grant applicant; that will include the filled application form and the documents attached along with the application. All the documents created during evaluation and approval process will be maintained in the applicant's file created by PQC.

(iv) Physical verify the eligibility of each applicant by comparing the information provided by the applicant against the eligibility criteria given in the application form.

(v) Physical verify the information provided in the application form by reviewing the documents attached with the application.

(vi) Present the physical evaluation results to the PQC Committee for final approval/rejection/reassessment decision.

(vii) Maintain a formal record of all the proceedings of PQC; including the mom issued to convene meetings, minutes of the meetings, the documentation related to grant applications evaluations and any other relevant records.

(viii) If required, carry out reassessment of applications as per the instructions of PQC

(ix) Provide information about the status of grant applications; as and when required by the P&E cell.

(x) Maintain a liaison with the grant applicants to keep them updated about the status of their applications and any other relevant information that may be required by them.

2. If required, PIC may also carry out verification of the documents provided by the shortlisted applicants. Support may be requested from ADU or Agriculture department for carrying out this verification.

3. Verification will be carried out on standard template **(Form V)** attached as Annex to this document.

4. Based on the results of the physical verification, PQC will review the interim scores of the applicants and make any required corrections to finalize the scores.

5. Information verification and review of interim scores may lead to any change in the list of shortlisted applicants; with some already shortlisted applicants getting out and some next best ones coming into the list of shortlisted applicants. This will be done once MSC will rearrange all the applicants with respect to their final scores in

descending order. Top scoring applicants will be shortlisted. This will be the final list of shortlisted applicants that will be sent to GMC.

Following checkpoints should be given fair significance while physical verification

1) Acquisition Date of Machine: it will show how old machine is. From acquisition date, obsolescence of machine can easily be determined.
2) Purchase Order of Machine: this will show the ownership status of respective machines whether they are owned or are being used on rental basis.
3) Periodic repair and maintenance log should be there of every machine in order to see after how much time machine will incur repairing cost.
4) Out of total machines how many are still in warranty and how many machines have expired warranty period.
5) The condition of assets either they are in reasonable state to produce/support sufficient revenue generating units.
6) All machines should be installed inside factory vicinity.
7) Market value of major old installed machines should be taken in order to draw a comparison between cost of old and new demanded machines.
8) Access the production capacity of demanded machine and how much percentage wastages will be reduced
9) By how much percentage there would be increase in a production volume
10) Access the applicant bear the regular periodic repairing/overhauling cost of requested machine
11) Competent personnel already available or availability to applicant to operate the demanded machine

Following checkpoints should be given fair significance while physical verification of factory land:

1) Ownership of factory land: the ownership status should be checked from land legal documents from either purchase deed or sale deed. Land must be in the name of applicant and if on rent, rent deed should be in name of applicant or its company.
2) Land must be registered with that area has authorized registration office i.e PLRA or LDA or any other registered office.
3) Land area should be verified from legal papers (fard from patwaari) and real measurements should be taken in order to verify its accuracy.
4) Copy of land documents should be taken in order to see whether same documents were sent in application
5) Factory structure is made according to the bylaws made by competent authority of that area.
6) Factory area should be reasonable and sufficient to support increased volume of production, if any grant on new machinery is given to them.
7) Reasonable assurance should be taken that factory land is not pledged to another party in this one year.

Preparation and Submission of PQC MOM

1. PQC Convener, in consultation with other members, will prepare MOM to be sent to PIC for review and approval of grants for the shortlisted applicants. The MOM will be prepared separately for all the sectors and it will include the list of ALL the grant applications which have been received by the Department in each particular sector. Even the applicant whose applications have been rejected by PQC due to being ineligible or having not been selected due to their scores being lower than the minimum required score will also be included in the PQC mom.

2. The PQC memo will have the names of all the applicants arranged in descending order of their final evaluation scores; with the top ones highlighted as the shortlisted applicants. The rejected applicants will be shown in the last of the list; also mentioning the reason(s) for being rejected. Template of MSC memo is attached as Annex to this document.

3. PQC MOM should be accompanied with the complete file of each applicant that will have the evaluation results of the PQC and the supporting documents.

4. The PQC mom will be signed by all member of PQC members and final remarks of the convener of the committee formally sent to PIC for grant approval (or rejection) decisions.

Review and Approval by Project Implementation Committee

Project Implementation Committee (PIC) Composition

Final approval (or rejection) decision of the grant applications will be carried out by Project Implementation Committee (PIC); headed by Additional Secretary Planning (ASP), Agriculture Department and comprises of five permanent members which are listed in bellow:

(i) Chief Planning and Evaluation cell,
(ii) Deputy director P&E Cell,
(iii)Representative of ADU and
(iv)PD PISU of will be the member/secretary

Change of any member in PIC will be done with the notification of Additional Secretary Planning of agriculture department.

Co-opted Members in PIC

If deemed necessary, PIC may invite co-opted members in its meetings to get technical advice in review and approval process. These co-opted members may be the PQC members or relevant persons from Agriculture Department, ADU or may be the consultants engaged by the Department for READ program.

Terms of Reference of GMC

PIC will be responsible for conducting the final review of the evaluations carried out by PQC and taking grant approval (or rejection) decisions. PIC will take all possible measures to

ensure that an across-the-board, fair and transparent approach is followed for all the applicants; without assigning any favor or disfavor to anybody. The evaluation process should be free of any personal likes/dislikes or any discrimination on the basis of caste, creed, color, religion or any other factors not related to the process itself.

Key responsibilities of the GMC members are listed below:

1. Review the PQC mom and with the individual files of all the applicants to take approval/rejection decisions.

2. Verify the correctness of evaluations carried out by PQC by comparing the results of the evaluations sheets with the information contained in application forms and the attached documents. The members may carry out this activity by reviewing a sample of information from the documents or by going through the whole of evaluation sheets and the attached information.

3. Provide advice and take decisions on any issues/questions related to grant program that may be unclear and may have been referred by PQC.

4. Initiate decisions on the shortlisted grant applications by either i) approving ii) rejecting or iii) sending it back to PQC for reassessment by further probing through additional information to facilitate grant decision making for PIC.

5. Record the grant decisions taken by the Committee on a Grant Decision Sheet (GDS).

6. Maintain a formal record of PIC meetings; including the memos issues to convene meetings, minutes of the meetings and the documentation related to grant approvals.

7. Provide information and status updates on grant applications; as and when required by the higher officials or PSC or Agriculture Department.

Working of PIC

Holding PIC Meetings

1. The frequency of PIC meetings will be as per the need; determined by the number of evaluated grant applications available with PQC.

2. PIC Convener will inform the Project Director Grants Program/Chairman of PIC about submission of PQC mom to PIC.

3. Chair through P&E Cell will check the availability of PIC members and request a meeting at a suitable date and time by issuing a letter. Approach should be to hold this meeting without any unnecessary delays to expedite the grant process. Along with all the PIC members, copy of this memo will be circulated to all members.

4. If desired by GMC Head, co-opted members will also be formally invited to participate in the meetings.

5. All the documentation for holding PIC meetings will be made part of record by P&E cell.

GMC Quorum

1. GMC quorum will be completed by participation of at least three of the four members. Absence of more than one member will make the proceedings of the meeting invalid.

2. In case of unavailability of ASP, he may designate (in writing) any other PIC member to chair the meeting in his absence. The proceedings of the meeting will be valid if the quorum is complete by participation of the other four members.

3. In case of any long term unavailability of any member, Chief P&E cell through an official notification, may replace the unavailable person with a new designee.

Grant Review and Approval

PIC members will carry out review of the evaluation results received from PIC as per the following considerations:

1. PIC members will review ALL the applications evaluated by the PQC; including the shortlisted ones and all others; even the ones rejected due to not meeting the eligibility criteria or due to inability to provide required information/documents. This is important to ensure that an equal and fair treatment is maintained for all the applicants.

2. PIC member may get the assistance of PQC members and/or the co-opted members to better understand the rationale for assigning evaluation scores.

3. PIC members can take either of the three decisions:
    a. Approve a grant application
    b. Reject a grant application
    c. Put a grant application on hold for getting more information

4. PIC will take decisions with the majority vote. Three of the five members will have to vote for any particular decision to make it valid. The vote of Head of PIC will also be equal to the vote of other Committee members.

5. PIC will record its decisions on Grant Decision Sheet (GDS); All the GMC members will sign the GDS for all the applicants along with their comments.

6. Sector-wise consolidated sheets will be prepared by the PIC that will show the Committee's decisions on all the grant applications in each particular sector. This consolidated sheet will be signed by all the PIC members. Template for this Consolidated Grant Decision Sheet (CGDS).
7. CGDS will be sent to conventioneer with the instructions to i) start implementation of the approved grant projects, ii) send regret letters to rejected applicants and iii) carry out the additional work on the applications put on hold for taking final decisions.

GRANT IMPLEMENTATION PROCEDURE

The implementation time line would be vary according to the sector and implementation status. However, the implementation of the grant would be completed during the project period. The implementation time line prepare accordance with grantees and made part of the contract agreement of the grantee. The following factor should be consider while developing the implementation time line with grantee.

- Number and brief descriptions of project phases. A implementation phase is a manageable portion of work that is accurately defined and measured by a deliverable and time-frame. Usually the implementation phase is divided into logically dependent activities to compete a certain DLR. Each DLR should be briefly described during the *Project Setup process* to provide an overview of the jobs being initiated and completed during that time.
- The deliverables set being archived within each project phase. Completion of each DLr results in achieving or producing deliverables. The implementation schedule should specify a specific set of deliverables being achieved after successful completion of every DLR.
- During implementation of each DLR, the major activities should be outlined in order to achieve each deliverable, within the defined time-frame of that phase.
- The way to audit and control implementation of each project phase is to define check-points (the key milestones) to be conducted on a regular basis during the implementation process.
- Completion of each project phase requires allocation of responsibilities. The grantee should set employee responsibilities and assignments per DLR and also define who is responsible for and assigned to the delivery of the major activities within each project phase.
- A dependency is a measure of interaction between two or more DLRs that identifies how one DLR exerts influence on other DLR. Dependencies define an overlap between several DLRs and identify what deliverables result in successful completion of two or more DLRs.

Grant Contracts Negotiations

1. The sector grant programs will be based on the outcomes and recommendations of sector reviews and sector development plans. They will include the type of technology transfers and technical assistance support that will be offered to the Grantees. Business specific grant support will be finalized at later stages i.e. at the time of contract negotiation. This to ensure that the grant support being provided is customized to the need of specific Grantee.
2. PQC or its member will negotiate and conclude matching grant contracts with successful bidders, taking into account any conditionalities imposed by funding agencies, and manage the contracts in accordance with the agreed operating procedures

3. Both disbursement methods can be adopted for provision of assistance to Grantees in single grant contract. Selection of a disbursement method or combination of methods will depend on the requirements of Grantees. For example, PD/PQC and a Grantee can agree to purchase machinery under cash disbursement method, while BDS can be provided through in-kind disbursement method under same grant contract. The disbursement arrangements must be negotiated and agreed between PQC and Grantees, prior to the signing of grant contract, and the negotiated terms must be clearly stated.

Grant Contracts

The PD READ will sign the contract on behalf of the Government of Punjab with the recipient agribusiness in accordance with the Laws of Pakistan. Fund Manager will conduct and complete contract negotiations with successful applicants and finalise the scope of grant assistance. The content of contracts will be standardised. The application, setting out the objectives, indicators, work plan, activities, milestones, funding arrangements and reporting schedules, will form an integral part of the contract. PQC with support from Grantees will update project budgets and work plans annually and submit these to the PD READ for approval.

Performance Gauge Performa

Service Level	Service Level Target	Performance Measures Protocols	Resolution Time	Penalty

Disbursement Linked Results

Sr. No.	Sector	Agreed Indicator	Verification Through SOV	Percentage of Grants

Grant Implementation:

Grant will be implemented through Business development consultant which is prequalified by the Department, through these consultants the department would implement the workplan agreed by the grantee in the contract agreement. In this regard department would prepare the Eoi document for prequalification of the BDS consultant, after prequalification processes the best suitable person would engage with grantee to full fill the agreed DLRs and business development services. The following task would be carry by the BDS consultant

- *Submission of the Quarterly progress report of the grantee*
- *Timely completion of agreed DLRs*
- *Prepare the specification of the Machinery / tool and approval from the department*
- *Enhance production capacity and efficiency of the grantee*
- *Execution and establishment of the Agri service business*
- *Improve the marketing strategy of the business*
- *Improve the efficiency of the technology and overall business*

ANNEXES

Evaluation Forms

FORM I

RURAL ENTERPRISE AGRICULTURE DEVELOPMENT
FORM I – APPLICANTS ELIGIBILITY VERIFICATION

Date:	Sector:
Applicant's Name:	Applicant's Registration No.
Applicants Business Name :	
Type of Business : ❒ Existing ❒ New	

Sr. No.	Eligibility Factor	Status	Documents Attachment	Comments & Actions
1.	Pakistani citizen	❒ Yes ❒ No	CNIC ❒ Yes ❒ No	
2.	Business's tax registration status	❒ Yes ❒ No	NTN ❒ Yes ❒ No	
3.	Business registered	❒ Yes ❒ No	Registration Certificate ❒ Yes ❒ No	
4.	Business location is in Punjab	❒ Yes ❒ No	Address provided ❒ Yes ❒ No	
5.	Agricultural raw materials from Punjab[1]	❒ Yes ❒ No	Not applicable	
6.	Willingness to contribute	❒ Yes ❒ No	Not applicable	
7.	Business entity type	❒ Sole Proprietor ❒ Partner ❒ Pvt Ltd.	Registration Certificate ❒ Yes ❒ No	
8.	Land & building	❒ Owned ❒ Leased ❒ Not available	Land/Lease Documents ❒ Yes ❒ No	
9.	Credit history status	❒ Clear ❒ Not Clear	❒ Yes ❒ No	
10.	Not a large business	❒ Not public Ltd. ❒ Not Listed	Registration Certificate ❒ Yes ❒ No	

11.	A private business	❒ Not a Govt. Entity	Registration Certificate ❒ Yes ❒ No	

Assessment Decision		Name	Signature
❒ ELIGIBLE ❒ NOT ELIGIBLE	Evaluator 1		
	Evaluator 2		
	Evaluator 3		

FORM II

RURAL ENTERPRISE AGRICULTURE DEVELOPMENT
FORM II – APPLICANTS EVALUAION & SCORING

Date:	Applicant's Registration No.
Applicant's Name:	
Applicants Business Name:	
Evaluator's Name:	

Sr. No.	Factor	Documents Attachment	Comments & Action	Interim Score	Final Score
1.	Gender	Not applicable			
2.	Young Entrepreneur Status	CNICs of Partners ❒ Yes ❒ No			
3.	Applicant's Education	Copies of Certificates ❒ Yes ❒ No			
4.	Tax Filer Status	Name in ATL ❒ Yes ❒ No			
5.	Membership of Professional Bodies	Registration Certificate ❒ Yes ❒ No			
6.	Business Operation Years	Business transactions ❒ Yes ❒ No			
7.	Ownership of Factory Land	Land/Lease Document ❒ Yes ❒ No			
8.	Production Capacity	Relevant Documents ❒ Yes ❒ No			
9.	Availability of Lab Equipment	Relevant Documents ❒ Yes ❒ No			
10.	Local Exhibitions/	Relevant Documents ❒ Yes ❒ No			
11.	Experience	Relevant Documents ❒ Yes ❒ No			
12.	Project Feasibility	Relevant Documents ❒ Yes ❒ No			
13.	B/C Ratio	Relevant Documents ❒ Yes ❒ No			
14.	IRR	Relevant Documents ❒ Yes ❒ No			
15.	Payback Period	Relevant Documents ❒ Yes ❒ No			

	Total				

Evaluator's Name:	Evaluator's Signature

FORM III

RURAL ENTERPRISE AGRICULTURE DEVELOPMENT
FORM III – PROPOSED PROJECT FESIBILTY

Date:	Applicant's Registration No.
Applicant's Name:	
Applicants Business Name:	
Evaluator's Name:	
Type of Business : ❒ Existing ❒ New	

Sr. No.	Intervention Benefits	Rationale
1.	Capacity Enhancement	
2.	Technology status of the proposition	
3.	Product Quality improvement	
4.	Production efficiency enhancement, cost savings & wastages control	
5.	Potential for exports/import substitution	

6.	Potential to move into upper tier in local market	

Evaluator's Name:	Evaluator's Signature

FORM IV

RURAL ENTERPRISE AGRICULTURE DEVELOPMENT
FORM IV – REQUEST FOR MISSING INFORMATION

Date:	Applicant's Registration No.
Applicant's Name:	
Applicants Business Name:	

Dear Mr./Ms. [----enter applicant's name----]
Agriculture Marketing Department has received from you a grant application, registration no. [----enter applicant's registration no.----]. The application is being processed to evaluate your case to receive the requested grant. Initial review of the application shows that some required documents are missing from your application; which have been marked in the following table:

	Document	Details
❒	CNIC	
❒	NTN certificate	
❒	Business incorporation certificate	
❒	Registration of Chambers/Associations or other business/professional bodies	
❒	Land ownership/rent/lease documents	
❒	Experience certificate	
❒	Copy of Bank account certificate	
❒	Business Account Maintenance Certificate	
❒	Booking details of the exhibitions	
❒	Project feasibility report	
❒	Declaration by the applicant	
❒	Declaration by all the business partners	

❒		
❒		
❒		

You are requested to kindly provide the above-mentioned documents by [----date----]. Kindly send these documents either by courier to Director Market Committees Provincial Fund Board, Agriculture Marketing Building, 21-Davis Road, Lahore; or deliver it by hand in the Director's office

Name:	Designation:	Signature

FORM V

RURAL ENTERPRISE AGRICULTURE DEVELOPMENT
FORM V – APPLICANT'S INFORMATION PHYSICAL VERFICATION

Date:	Applicant's Registration No.
Applicant's Name:	
Applicants Business Name:	
Verifier's Name	

The Verifier may use additional sheets if required. Additional sheets should be signed and attached with this Form.

Location:

Land:

Building:

Machinery & Equipment:

General Observations: