

III. Livestock and Poultry

a) Livestock

Over the years, livestock subsector has surpassed the crop subsector as the biggest contributor to value added in agriculture. Presently it contributes 60.5 percent to the overall agricultural and 11.2 percent to the GDP during 2018-19. Gross value addition of livestock has increased from Rs. 1,384 billion (2017-18) to Rs.1,440 billion (2018-19), showing an increase of 4.0 percent over the same period last year.

The importance of livestock sector can be realized from the fact that it is not only a source of foreign exchange earnings by contributing around 3.1% to the total exports, but also a source of 35-40% of income for over 8 million rural families and providing them food security by supplementing high value protein of animal origin.

Despite the fact that livestock sub sector could not attract large amount of investment due to its inherent subsistence and structural characteristics, this sector has shown a healthy growth of 4.0 % in 2018-19 over the previous year of 2017-18.

The livestock population for the last three years is given in Table 2.20.

Table 2.20: Estimated Livestock Population (Million Nos.)

Species	2016-17 ¹	2017-18 ¹	2018-19 ¹
Cattle	44.4	46.1	47.8
Buffalo	37.7	38.8	40.0
Sheep	30.1	30.5	30.9
Goat	72.2	74.1	76.1
Camels	1.1	1.1	1.1
Horses	0.4	0.4	0.4
Asses	5.2	5.3	5.4
Mules	0.2	0.2	0.2

1: Estimated figure based on inter census growth rate of Livestock Census 1996 & 2006

Source: Ministry of National Food Security & Research

The major products of livestock are milk and meat for the last three years is given in Table 2.21.

Table: 2.21 Estimated Milk and Meat Production (000 Tonnes)

Species	2016-17 ¹	2017-18 ¹	2018-19 ¹
Milk (Gross Production)	56,080	57,890	59,759
Cow	20,143	20,903	21,691
Buffalo	34,122	35,136	36,180
Sheep ²	39	40	40
Goat	891	915	940
Camel ²	885	896	908
Milk (Human Consumption)³	45,227	46,682	48,185
Cow	16,115	16,722	17,353
Buffalo	27,298	28,109	28,944
Sheep	39	40	40
Goat	891	915	940
Camel	885	896	908
Meat⁴	4,061	4,262	4,478
Beef	2,085	2,155	2,227
Mutton	701	717	732
Poultry meat	1,276	1,391	1,518

1: The figures for milk and meat production for the indicated years are calculated by applying milk production parameters to the projected population of respective years based on the inter census growth rate of Livestock Census 1996 & 2006.

2: The figures for the milk production for the indicated years are calculated after adding the production of milk from camel and sheep to the figures reported in the Livestock Census 2006.

3: Milk for human consumption is derived by subtracting 20% (15% wastage in transportation and 5% in calving) of the gross milk production of cows and buffalo.

4: The figures for meat production are of red meat and do not include the edible offal's.

Source: Ministry of National Food Security & Research

The estimated production of other livestock products for the last three years is given in Table 2.22. **Table: 2.22 Estimated Livestock Products Production**

Species	Units	2016-171	2017-181	2018-191
Eggs	Million Nos.	17,083	18,037	19,052
Hides	000 Nos.	16,421	16,974	17,547
Cattle	000 Nos.	8,416	8,734	9,063
Buffalo	000 Nos.	7,897	8,131	8,373
Camels	000 Nos.	108	109	111
Skins	000 Nos.	55,526	56,805	58,116
Sheep Skin	000 Nos.	11,397	11,532	11,669
Goat Skin	000 Nos.	27,807	28,560	29,334
Fancy Skin	000 Nos.	16,322	16,712	17,113
Lamb skin	000 Nos.	3,385	3,425	3,466
Kid skin	000 Nos.	12,937	13,287	13,647

Table: 2.22 Estimated Livestock Products Production

Species	Units	2016-171	2017-181	2018-191
Wool	000 Tonnes	45.7	46.2	46.8
Hair	000 Tonnes	27.2	27.9	28.6
Edible Offal's	000 Tonnes	405	416	428
Blood	000 Tonnes	67.8	69.5	71.3
Guts	000 Nos.	56,094	57,387	58,712
Casings	000 Nos.	17,461	18,048	18,654
Horns	& 000 Tonnes	58.9	60.6	62.4
Hooves				
Bones	000 Tonnes	878.2	904.9	932.5
Fats	000 Tonnes	279.0	287.3	295.8
Dung	000 Tonnes	1,244	1,282	1,322
Urine	000 Tonnes	379	390	401
Head & Trotters	000 Tonnes	252.5	259.6	267.0
Ducks, Drakes	Million Nos.	0.44	0.42	0.40

& Ducklings

1: The figures for livestock product for the indicated years were calculated by applying production parameters to the projected population of respective years.

Source: Ministry of National Food Security & Research

b) Poultry

Poultry sector is one of the most vibrant subsectors of livestock sector. The current investment in Poultry Industry is more than Rs. 700 billion. This industry is progressing at an impressive growth rate of 8 to 10 percent per annum over last few years. Pakistan has become the 11th largest poultry producer in the world with the production of 1,163 million broilers annually. This sector provides employment (direct/indirect) to over 1.5 million people. Poultry today has been a balancing force to keep check on the prices of mutton and beef.

Poultry meat contributes 34 percent (1,518 thousand tons) of the total meat production (4,478 thousand tons) in the country. Poultry meat production showed a growth rate of 9.1 percent whereas egg production showed a growth of 5.6 percent (19.0 billion Nos.) during 2018-19 as compared to previous year. Transformation of poultry production in controlled shed system is making a tremendous difference of quantity and quality of poultry production. There are now over 6,500 controlled environment poultry sheds in the country which indicates that our poultry sector is moving in the direction of modernization and using advance technology.

The Poultry Development Strategy revolves around Disease control; Hi-tech poultry production in intensive poultry; Processing and value addition; improving poultry husbandry practices and development. The government has always been supportive to poultry industry in providing most enabling environment for its growth and expansion.

The commercial layer, breeders and broiler stocks showed estimated growth of 7.0 percent, 5.0 percent and 10 percent respectively, while rural poultry developed @ 1.5 percent when compared to 2017-18. The estimated production of commercial and rural poultry and products for the last three years is given below: **Table 2.23: Estimated Domestic/Rural & Commercial Poultry**

Type	Units	2016-171	2017-181	2018-191
Domestic Poultry	Million Nos.	85.86	87.16	88.49
Cocks	Million Nos.	11.55	11.86	12.18
Hens	Million Nos.	41.64	42.39	43.15
Chicken	Million Nos.	32.67	32.91	33.16
Eggs ²	Million Nos.	4,164	4,239	4,315
Meat	000 Tonnes	117.54	119.89	122.28
Duck, Drake & Duckling	Million Nos.	0.44	0.42	0.40

Table 2.23: Estimated Domestic/Rural & Commercial Poultry

Type	Units	2016-171	2017-181	2018-191
Eggs ²	Million Nos.	19.52	18.70	17.93
Meat	000 Tonnes	0.59	0.57	0.54
Commercial Poultry	Million Nos.	1,022.13	1,122.29	1,232.33
Layers	Million Nos.	48.83	52.25	55.91
Broilers	Million Nos.	961.50	1,057.65	1,163.42
Breeding Stock	Million Nos.	11.80	12.39	13.01
Day Old Chicks	Million Nos.	1,004.29	1,104.72	1,215.19
Eggs ²	Million Nos.	12,900	13,779	14,719
Meat	000 Tonnes	1,157.51	1,270.69	1,395.02
Total Poultry				
Day Old Chicks	Million Nos.	1,037	1,138	1,248
Poultry Birds	Million Nos.	1,108	1,210	1,321
Eggs	Million Nos.	17,083	18,037	19,052
Poultry Meat	000 Tonnes	1,276	1,391	1,518

1 : The figures for the indicated years are statistically calculated using the figures of 2005-06.

2 : The figures for Eggs (Farming) and Eggs (Desi) are calculated using the poultry parameters for egg production.

Source: Ministry of National Food Security & Research

Poultry Development Policy envisages sustainable supply of wholesome poultry meat; eggs and value added products to the local and international markets and aimed at facilitating private sector development for sustainable poultry production. The strategy revolves around supporting private sector through regulatory measures.

The federal government has given a number of concessions on import of poultry machinery, parent and grandparent stock of chicken and hatching eggs to reduce input cost. During the Budget 2017-18, government reduced the sales tax from 17 percent to 7 percent on import of various types of poultry machinery, reduced custom duty from 11 percent to 3 percent and removal of 5 percent Regulatory duty on import of grandparent and parent stock of chicken and reduced custom duty on the import of hatching eggs from 11 percent to 3 percent. These concessions will help in reducing cost of production of value added poultry products and promote value added poultry industry in the country. Furthermore, federal government is also considering support for waiver of 100 percent cash margin on opening of letter of credit (LC) on import of raw material for poultry value addition to make the Pakistani products more competitive in the export market.

Trade of Livestock and Livestock Products

The development of the livestock sector and its vertical integration to produce value added products is important to enhance trade opportunities for Pakistan in the global market place. The value addition in livestock and poultry sectors are now on the path of achieving further heights and many value adding livestock and poultry businesses have been established in the country that are actively taking part in trade of livestock and livestock products.

To enhance the trade activities of livestock and livestock products, the government has given following incentives;

- Sales Tax on import of seven types of poultry machinery is reduced to 7 percent. These include poultry incubators, brooders, grain storage silos for poultry and poultry sheds
- Sales Tax on import of seven types of poultry machinery is reduced to 7 percent. These include poultry incubators, brooders, grain storage silos for poultry and poultry sheds
- Custom duty on import of on grandparent and parent stock of chicken is reduced to 7 percent
- Regulatory duty on import of grandparent and parent stock of chicken has been withdrawn
- Custom duty on import of hatching eggs is reduced to 3 percent
- Custom duty on import of raw skins & hides has been withdrawn
- Custom duty on import of ostriches has been withdrawn
- Custom duty of 3 percent on import of bulls meant for breeding purposes is withdrawn
- Custom duty on the import of feeds meant for livestock sector is reduced from 10 percent to 5 percent and is also exempted from sales tax
- Custom duty on import of fans used in dairy sheds is reduced to 3 percent if imported by members of the Corporate Dairy Association and also exempted from sales tax

- Custom duty on import of growth promoters premix, vitamin premix, vitamin B12 (Feed grade) and vitamin H2 (Feed grade) is reduced to 5 percent for registered manufacturers of poultry feed
- Custom duty on cattle feed premix is reduced to 5 percent
- Custom duty on calf milk replacer has been reduced to 10 percent

Government Policy Measures

Livestock Wing under Ministry of National Food Security & Research, with its redefined role under 18th Constitutional Amendment, continued to regulate the sector and took several measures in this regard, including: allowing import of high yielding dairy cattle breeds of Holstein Friesian and jersey, genetic material of these breeds, (semen and embryos) for the genetic improvement of indigenous low producing dairy animals, allowing import of high quality feed stuff/micro ingredients for improving the nutritional quality of animal & poultry feed and allowing import of dairy, meat and poultry processing machinery/equipment at concessional tariff/duty in order to encourage value added industry in the country.

Livestock Wing also provided necessary facilitation for export of meat and meat products. A total of 48.8 thousand tons of meat and meat products were exported during FY 2017-18 that fetched US\$ 198.8 million, from the registered export oriented slaughter houses in the private sector. The export of other livestock by-products such as animal casings, bones, horns & hooves, gelatin etc. was also facilitated. The efforts continued for market access with the relevant concerned authorities in China, South Africa, Jordan and Indonesia using diplomatic channels for export of various meat and meat products.

Livestock Wing allowed the import of 824.9 thousand doses of superior quality semen and 8,811 high yielding exotic dairy cattle of Holstein-Friesian & Jersey breeds during 2018-19 (July-March). The policy objective of these permissions is the genetic improvement of indigenous dairy animals in terms of per unit productivity. The imported dairy cows added approximately 61 million tons of milk per annum in the commercial milk chain/system.

In order to promote corporate dairy sector, import of calf milk replacer & cattle feed premixes have been allowed at concessional tariffs. During 2018-19 (July-March), 364.6 metric tons of calf milk replacer & 297.4 metric tons of cattle feed premix has been imported for feeding to our dairy herd.

During 2018-19 (July-March), the Animal Quarantine Department (AQD) provided quarantine services and issued 27,011 Health Certificates for the export of live animals, mutton, beef, eggs and other livestock products having value of US\$ 268.887 million. The AQD generated non-tax revenue of Rs. 85.787 million during same year as certificate/laboratory examination fee of animal and animal products exported during the year.

The National Veterinary Laboratory (NVL), Islamabad is a national institution reference laboratory to facilitate international trade meeting the WTO's requirements while safeguarding the public health. The NVL conducted surveillance and diagnostics on highly contagious diseases of animals. It also carried out activities on National and Regional Projects regarding prevention and control of Transboundary Animal Diseases in Pakistan. During 2018-19 (July-March), about 11,402 samples

were analyzed for disease diagnosis surveillance, veterinary vaccines and residue testing to guide the animal health certification as well as to promote international trade livestock and livestock products.

Livestock Wing also collaborated with international (Office International des Epizooties OIE, Food and Agriculture Organization FAO) and regional organizations (South Asian Association for Regional Cooperation SAARC, Economic Cooperation Organization ECO, Animal Production & Health Commission for Asia APHCA, European Union EU) for Human Resource Development (HRD) and capacity building of national and provincial livestock institutions for diagnosis and control of animal diseases. Inter Provincial Coordination is being done by the Livestock Wing to implement the National Program to Control Foot & Mouth Disease (FMD) and Peste des Petitis Ruminants (PPR) disease in Pakistan. Pakistan has been following progressive FMD Control Pathway, Pakistan has been placed Stage 02 of the total six (06) Stage Pathways. A National FMD Control Program at a cost of Rs.763.9 million for the period of six years has been approved by the competent forums to sustain and continue project activities related to FMD during subsequent years. FAO Pakistan will implement this project under Unilateral Trust Fund (UTF) Agreement. This will help in improving animal health status of the country regarding Transboundary Animal Diseases (TADs) which are technical barrier in the international trade of our livestock and livestock products.

Moreover, to attract further investment in dairy sector, protect the small dairy farmers and the corporate dairy sector, beside regulating import and mitigate use of synthetic milk and recipe products/tea whiteners, regulatory duty to the tune of 25 percent has been imposed on import of Skimmed Milk Powder (SMP) and Whey Powder (WP). Now the existing duty on import of powdered milk is 45 percent (import duty 20 percent and regulatory duty 25 percent).

Future Plans

The future plans will continue to focus on:

- i Inter-provincial coordination for development of livestock sector
- ii Coordination with private sector to promote value addition livestock industry and diversification of livestock products
- iii Control of Trans-boundary Animal Diseases (FMD, PPR, Zoonotic diseases) of trade and economic importance through provincial participation
- iv Bringing more investments in livestock sectors
- v Exploring new markets for export of meat and dairy products with focus on Global Halal Food Trade Market
- vi Under the “**Prime Minister’s Initiatives on Livestock Sector**”, it has been decided to initiate following Programs in all four provinces, ICT, AJK and Gilgit-Baltistan to alleviate poverty and augment the livelihood of poor in the country:
- vii Save the buffalo calf Program
- viii Calf fattening Program
- ix Backyard poultry Program

IV. Fisheries

Fisheries as a sub-sector of agriculture plays a significant role in the national economy and towards the food security of the country as it reduce the existing pressure on demand for mutton, beef and poultry.

Major Functions:

i) Quality Control and Export of Fish & Fishery Products:

i Fishery plays an important role in Pakistan's economy and is considered to be a source of livelihood for the coastal inhabitants. A part from marine fisheries, inland fisheries (based in rivers, lakes, ponds, dams etc.) is also very important activity throughout the country. Fisheries share in GDP although very little but it adds substantially to the national income through export earnings. During the year 2018-19 (July-March), a total of 130,830 metric tons of fish and fishery products were exported, earning value of US\$ 293.887 million (Rs. 39,245 million).

ii During 2018-19 (July-March), total marine and inland fish production was estimated at 575,000 metric tons out of which 390,000 metric tons was from marine waters and the remaining from catch from inland waters. Whereas the fish production for the period 2017-18 (July-March) was estimated to be 560,000 metric tons in which 380,000 metric tons was from marine and the remaining was produced by inland fishery sector.

iii During 2018-19 (July-March) a total of 130,830 metric tons of fish and fish preparation was exported. Pakistan's major buyers are China, Thailand, Malaysia, Hong Kong, South Korea, Egypt, Bangladesh, UK, Middle East, Sri Lanka, Japan, etc. and earned US\$ 293.887 million (Rs. 39,245 million). Whereas the export during 2017-18 (July-March) was 137,819 metric tons of fish and fishery products which earned US\$ 315 million (Rs. 34,031 million). The export of fish & fishery products has decreased by 5 percent in quantity term where as in value terms it also decreased by 7 percent but in rupee terms it increased by 15 percent during 2018-19 (July- March).

iv Quality seafood stocks were being depleting in Pakistani waters because of overfishing and use of destructive nets. Pakistan mostly exports to China at lower rates, while EU lifted ban from two factories only.

v The government is taking a number of steps to improve fisheries sector and its exports. Further numbers of initiatives are being taken by federal and provincial fisheries departments.

vi Export of Fish and Fishery Products to the European Union (EU) countries: Since resumption of export to the EU countries different consignment of fish, cuttle fish and shrimps sent from one company to the EU have been successfully cleared after 100% laboratory analysis at EU border. Export of seafood to EU countries is as under:

Table 2.24: Export of Fish and Fishery Products to European Union (EU) 2018-19 (P)

Commodity / Country	Fish		Cuttlefish		Shrimp		Total	
	Quantit y (MT)	Value US\$ (000)	Quantit y (MT)	Value US\$ (000)	Quantit y (MT)	Value US\$ (000)	Quantit y (MT)	Value US\$ (000)
Belgium	74	210	28	102	32	142	134	454
Cyprus	24	61	74	274	-	-	98	335
Spain	21	74	215	1,123	-	-	236	1,197
Italy	38	71	-	-	-	-	38	71
UK	148	901	-	-	29	159	177	1,060
Total	305	1,317	317	1,499	61	301	683	3,117

P: July-March

Source: Marine Fisheries Department of accreditation under ISO/IEC-17025 from Norwegian Accreditation (NA) body and Pakistan National Accreditation Council (PNAC).

ii) Deep Sea Fishing

During the period under reporting new deep sea fishing licensing policy 2018 has been approved by the Cabinet. Applications for licenses have been invited through print media in May, 2019 which are under process.

TED, and trials of TED by local fishermen. MFD is conducting training Program for fishermen about the use of Turtle Excluder Device (TED). 99 fishermen, including representatives of the other organizations participated in the training for using the TED. The primary purpose of TED is to reduce the mortality of sea turtles in fishing nets, (shrimp trawl net) and safeguarding the livelihood of the local fishermen.

The use of TED is mandatory required for export of shrimp to USA. The federal and provincial governments have assigned the task to the Maritime Security Agency for ensuring compliance of United State regulation about TED on all shrimp trawlers to ensure the export of shrimp to USA.

- Vision “To Promote Fisheries and Ensure Food Security Through Availability of Quality Products at Competitive Prices”
- The priorities for future development of fisheries sector includes the following strategies:
- Improving marketing infrastructure for fishermen along coast i.e. providing technical assistance/guidelines to stakeholders/provinces for improvement of landing sites/auction halls at different fish harbours
- Providing guidelines for up gradation of fishing boats according to international standards
- Increasing capability for fisheries planning and management based on the sound knowledge of the state of the fishery resources and exploitation of these resources
- Providing guideline/technical assistance for value addition and to promote aquaculture to boost fish production volume as well as value wise
- Upgrading, accreditation and strengthening the quality control laboratories of MFD by adding the new testing parameters for monitoring environmental contaminants in fish & fishery products to satisfy the requirements of importing countries

Conclusion

The agriculture growth is not consistent as observed over the decades. The rural transformation pace remained very slow resulted in problems like food insecurity, poverty, unemployment, illiteracy etc. It is very important that focus should remain on raising food production through efficient irrigation and innovative technology, agriculture diversification, agriculture support services, SME development in rural areas and creating small cities in rural areas. The present government’s resolve is to enhance productivity and value change development. More R&D

on seed varieties, improving resource use efficiency, promoting modern technologies, starting skill development Program to support rural enterprises is the need of time. Climate Smart Agriculture is an approach used worldwide focusing on enhancing agriculture productivity and incomes while simultaneously building resilience to climate vulnerability and changes.