



# AGRICULTURE

Notwithstanding its declining share in GDP, agriculture is still the single largest sector, contributing 21 percent to GDP and employing 44 percent of the workforce. More than two-third's of Pakistan's population lives in rural areas and their livelihood continues to revolve around agriculture and allied activities. Like in other developing countries, poverty in Pakistan is largely a rural phenomenon; therefore, development of agriculture will be a principal vehicle for alleviating rural poverty. Empirical evidence suggests that higher growth in agriculture on a sustained basis had a lasting impact on poverty reduction in Asia in the 1970s and the 1980's<sup>1</sup>. In later decades the impact of agriculture on poverty reduction became weaker as the Asian countries in general, and South Asia in particular, began to witness productivity gains stagnating on account of structural issues, including limited investment in research and extension services. The recent global food crises, while creating difficulties for net food importing countries, is equally providing opportunities for developing countries like Pakistan to get their acts together and benefit from the current situation by giving more serious attention to agriculture.

For Pakistan, the notion of food security should move beyond a relatively static focus on food availability. Higher agricultural growth, particularly emanating from the crop sector, will provide food security by increasing supply, stabilizing prices, and raising incomes of poor-farm households. To benefit from the current global food crises, Pakistan needs to change its policy-orientation from the current practice of

focusing exclusively on price and move towards yield enhancement and address, structural issues such as poor crop management skills of farmers; use of cheaper seeds; lack of agricultural infrastructure and higher post-harvest losses; limited research as well as the gap between available research and practical applications; and inadequate funding for research and development. Agriculture will continue to acquire the highest priority from the government for its role in poverty reduction as well as from a food security point of view.

The emerging economies have become more affluent as they have sustained higher economic growth in recent years. Such affluence is impacting the consumption patterns of households including a dietary change towards higher quality food such as meat and dairy products. As a result, the production of these items is rising globally. In Pakistan however, the livestock and dairy sectors have received little or no attention by the successive governments in the past despite the fact that it accounts for 52 percent of agriculture, 11 percent of GDP and affects the lives of 30-35 million people in rural areas. In order to achieve higher sustained growth in agricultural value added, it is absolutely necessary to give due attention to the livestock and dairy sector to achieve multiple objectives, such as, the objectives of attaining food security and poverty reduction.

The growth performance of agriculture over the last six years has been of a volatile nature - ranging from 1.5 percent to 6.5 percent (see Table 2.1). The volatility in agricultural growth is mainly caused by crop sector which is associated with the vagaries of mother nature, pest attacks, adulterated pesticides etc. Such volatility is detrimental to income growth of farmers and hamper government efforts to reduce poverty.

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<sup>1</sup> "See *Economic and Social Survey of Asia and the Pacific 2008*", **UNESCAP**, February 2008; pp.122

**Table 2.1: Agriculture Growth (Percent)**

Year	Agriculture	Major Crops	Minor Crops
2002-03	4.1	6.8	1.9
2003-04	2.4	1.7	3.9
2004-05	6.5	17.7	1.5
2005-06	6.3	-3.9	0.4
2006-07	3.7	8.3	-1.3
2007-08 (P)	1.5	-3.0	4.9
<b>Average</b>	<b>4.1</b>	<b>4.6</b>	<b>1.9</b>

*P= Provisional Source: Federal Bureau of Statistics*

Agriculture performed poorly in 2007-08, growing at 1.5 percent against the target of 4.8 percent. The poor performance of agriculture can be attributed to an equally poor performance of major crops and forestry, registering negative growth of 3.0 percent and 8.5 percent, respectively. Livestock, minor crops and fishing have been the saving grace as these sectors have performed reasonably well to compensate the performance of major crops and forestry to arrive at 1.5 percent growth in agriculture this year. Major crops, accounting for 34 percent of agriculture and 7.1 percent of GDP, suffered on account of poor showing of wheat and cotton and less than satisfactory performance of rice crop. Sugarcane and maize being other two major crops, performed impressively in 2007-08.

The cotton crop suffered for a variety of reasons including heavy rainfall in May 2007 causing poor germination in Punjab, high temperature during August and September 2007 causing more shedding of fruit parts and pest attack, especially dangerous mealy bug infestation. Consequently, cotton production declined to 11.7 million bales this year from 12.9 million bales last year - thus registering a negative growth of 9.3 percent. The wheat crop was adversely affected by the shortage of irrigation water by 23.3 percent over normal

supplies during Rabi and inordinate spike in prices of DAP fertilizer. Accordingly, production of wheat declined to 21.7 million tons - from 23.3 million tons last year, thus registering a decline of 6.6 percent. In sheer contrast, the two other major crops performed better with sugarcane recording highest ever production level of 63.9 million tons — 16.8 percent higher than last year. The production of rice witnessed a modest growth of 2.3 percent and stood at 5.6 million tons.

Minor crops accounting for 12 percent in agriculture value added posted a growth of 4.9 percent against the negative growth of 1.3 percent last year. The performance of livestock accounting for 52.2 percent of agricultural value added, was satisfactory at 3.8 percent. The performance of fisheries has been impressive as it grew by 11 percent in 2007-08 because inland fish catch has increased by 11.1 percent while the output of marine fishing grew by 11.5 percent during 2007-08. Forestry followed the traditional negative growth pattern for the fifth year in a row. This small sector with only one percent stake in the overall value - addition in agriculture, registered negative growth of 8.5 percent in 2007-08 as the turnout of production of timber and firewood during the year declined by 9.3 percent.

Pakistan's agricultural output is closely linked with the supply of irrigation water. As shown in Table 2.2, against the normal surface water availability at canal heads of 103.5 million-acre feet (MAF), the overall (both for Kharif and Rabi) water availability has been less in the range of 5.9 percent (2003-04) to 20.6 percent (2004-05). However, it remained less by 2.5 percent in 2005-06 against the normal availability. Relatively speaking, Rabi season faced more shortage of water than Kharif during 2007-08.

**Table 2.2: Actual Surface Water Availability**

Period	(Million Acre Feet)			
	Kharif	Rabi	Total	%age incr/decr. Over the Avg.
Average system usage	67.1	36.4	103.5	-
2002-03	62.8	25.0	87.8	- 15.2
2003-04	65.9	31.5	97.4	- 5.9
2004-05	59.1	23.1	82.2	- 20.6
2005-06	70.8	30.1	100.9	- 2.5
2006-07	63.1	31.2	94.3	- 8.9
2007-08	70.8	27.9	98.7	- 4.6

*Source: IRSA*

During the current fiscal year (2007-08), the availability of water for Kharif 2007 (for the crops such as rice, sugarcane and cotton) has been 5.5 percent more than the normal supplies and 12.2 percent more than last year's Kharif (see Table 2.2). The water availability during Rabi season (for major crop such as wheat), as on end-March 2008 was, however, estimated at 27.9 MAF, which was 23.4 percent less than the normal availability, and 10.5 percent less than last year's Rabi, adversely affecting the wheat crop, production of which has decreased by 6.6 percent over the last year.

### I. Crop Situation

There are two principal crop seasons in Pakistan, namely the "Kharif", the sowing season of which begins in April-June and harvesting during

October-December; and the "Rabi", which begins in October-December and ends in April-May. Rice, sugarcane, cotton, maize, mong, mash, bajra and jowar are "Kharif" crops while wheat, gram, lentil (masoor), tobacco, rapeseed, barley and mustard are "Rabi" crops. Major crops, such as, wheat, rice, cotton and sugarcane account for 88.9 percent of the value added in the major crops. The value added in major crops accounts for 33.9 percent of the value added in overall agriculture. Thus, the four major crops (wheat, rice, cotton, and sugarcane), on average, contribute 30.2 percent to the value added in overall agriculture and 6.3 percent to GDP. The minor crops account for 11.4 percent of the value added in overall agriculture. Livestock contributes 52.2 percent to agricultural value added – much more than the combined contribution of major and minor crops (45.3%).

**Table 2.3: Production of Major Crops (000 Tons)**

Year	Cotton (000 bales)	Sugarcane	Rice	Maize	Wheat
2003-04	10048 (-1.6)	53419 (2.6)	4848 (8.3)	1897 (9.2)	19500 (1.6)
2004-05	14265 (42.0)	47244 (-11.6)	5025 (3.6)	2797 (47.4)	21612 (10.8)
2005-06	13019 (-8.7)	44666 (-5.5)	5547 (10.4)	3110 (11.2)	21277 (-1.6)
2006-07	12856 (-1.2)	54742 (22.6)	5438 (-2.0)	3088 (-0.7)	23295 (9.5)
2007-08 (P)	11655 (-9.3)	63920 (16.8)	5563 (2.3)	3313 (7.3)	21749 (-6.6)

*Source: Ministry of Food, agriculture & Livestock*

#### a) Major Crops:

##### i) Cotton:

Pakistan's economy is mainly dependent on cotton and textile sector. It is, however, realized that under the WTO post - quota scenario a larger crop would pay the real dividends only when its quality matches the spinners' demand at home and abroad. All the stakeholders are, therefore, being motivated to play their due role in transforming the cotton pricing and marketing system from subjective assessment to objective valuation of seed cotton and lint through adoption of cotton standardization and grading mechanism already developed and introduced by the government.

World cotton production is estimated at 118.8 million bales in 2007-08 - 3 percent lower than last

year because of the decline in world area by 1.2 million hectares to 33.6 million hectares. In 2007-08, production is estimated to decline in the USA (12%), China (3%), Pakistan (9.3) and Turkey (12%). Production in 2007-08 is estimated to increase in India by 11.1 percent and in Brazil by 5 percent. According to the cotlook the price of cotton averaged 69 cents per pound during the first half of 2007-08, 11 cents higher than the same period last year.

World cotton area is projected to remain, by and large, stable in 2008-09 at 33.9 million hectares. World cotton yield is expected to show a rising trend in 2008-09 and is projected to be 794 kilograms per hectare. As a result, world cotton production in 2008-9 is expected to increase by 5.0 million bales to 123.8 million bales. However,

world mill use is projected to increase further to 124.6 million bales thereby exceeding the production. Accordingly, the end stock is expected to decline.

Three Asian countries (China, India and Pakistan) are expected to produce more than half (59%) of the global cotton production in 2008-09. Similarly these three countries are also likely to account for about 68 percent of the world cotton consumption.

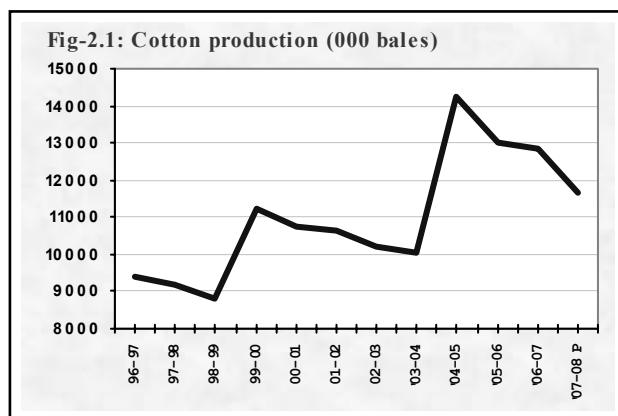
### Review of Domestic Cotton Situation

Cotton is the important non-food cash crop and a significant source of foreign exchange earnings. Cotton accounts for 7.5 percent of the value added in agriculture and about 1.6 percent to GDP. The crop was sown on the area of 3054 thousand hectares, 0.6 percent less than last year (3072 thousand hectares). The production is estimated at 11.7 million bales for 2007-08, less by 9.3 percent over the last year's production of 12.9 million bales. Several factors are responsible for the lower production of cotton this year. Firstly, the cotton area sown in the Punjab Province in this season was less by 2.5 percent compared with last year, mainly due to shifting of area to sugarcane. At the same time, the plant population per acre was 15 percent short, whereas average weight of boll was also less by about 2 percent. Secondly, the cotton area sown in Sindh was 6 percent higher than the last year. The average plant population and the weight of boll was however comparatively better than the Punjab. Thirdly, heavy rainfall in Punjab in May 2007 caused poor germination. Fourthly, high temperature during August and September 2007 caused more shedding of fruiting parts /bolls. Fifthly, the Mealy Bug infestation was heavy and widespread. Repeated sprayings by the growers for the control of Mealy Bug depressed the plant activity resulting in lower boll weight. Sixthly, Cotton Leave Curl Virus infestation was also comparatively more than last year. Finally, it is also apprehended that the unapproved and generation old cottonseeds purchased by the growers from private sources in the name of Bt. cotton had adversely affected the production of this crop.

### Cotton Prices

Cotton prices this season in the country remained significantly higher than last year. The seed cotton prices during the season so far has averaged at Rs 1,422 per 40 Kgs, as against last year 's average price of Rs 1,171/-. In other words farmers received, on average, 21.4 percent higher prices this year. Similar trend was noticed in lint cotton prices. Cotton prices in the world market have also remained significantly higher than last year. It is important to note that the government had previously been fixing the seed cotton intervention price and entering the market through the Trading Corporation of Pakistan only when the seed cotton market price fell below the intervention price. Such a necessity was felt in 2004-05 when the government had to purchase 1.6 million bales. The growers had availed better prices in 2005-06 and 2006-07 seasons. For the current season (2007-08) the government did not fix any intervention price for seed cotton, but the market prices remained firm this year.

Area, production and yield of cotton for the last five years are given in Table 2.4 and Fig. 2.1.



The proposed actions to be undertaken by various stakeholders for a collaborative approach to achieve the cotton area and production target of 3.2 million hectares and 14 million bales, respectively for next season (2008-09) are summarized as follows:

**Table 2.4: Area, Production and Yield of Cotton**

Year	Area		Production		Yield	
	(000 Hectare)	% Change	(000 Bales)	% Change	(Kgs/Hec)	% Change
2003-04	2989	7.0	10048	-1.6	572	-8.0
2004-05	3193	6.8	14265	42.0	760	32.9
2005-06	3103	-3.0	13019	-8.7	714	-10.3
2006-07	3075	-0.9	12856	-1.2	711	-0.4
2007-08 (P)	3054	-0.6	11655	-9.4	649	-8.7

*P=Provisional (July-March) Source: Ministry of Food, Agriculture & Livestock, Federal Bureau of Statistics.*

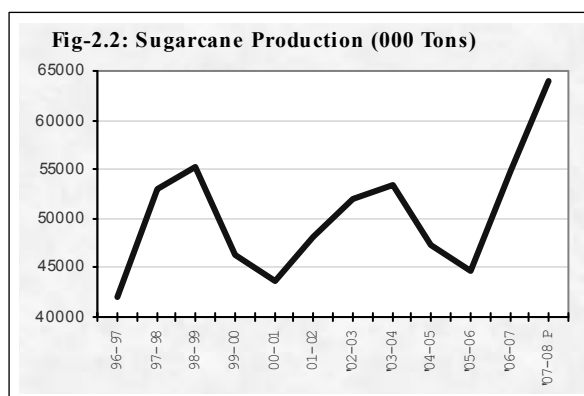
- i) Arrangement to be made for availability of 63,000 metric tons of certified seeds of approved cotton varieties.
- ii) Late sowing to be discouraged.
- iii) Plant population to be increased to 18,000 – 20,000 plants per acre through higher seed rate and timely re-sowing, if so needed.
- iv) Subsidy on phosphate and potash fertilizers may continue for encouraging the balanced use of fertilizers.
- v) Growers to be encouraged to also add micro-nutrients to the soil for retention of larger number of flowers and bolls.
- vi) Availability of adequate and insect specific pesticides to be ensured through out the crop growth and development period, particularly for mealy bug and white fly.
- vii) Special campaign to be launched by the Provincial Agriculture Departments through print and electronic media to forewarn and guide the growers on mealy bug infestation and control measures.

## ii) Sugarcane:

Sugarcane is an important cash crop of Pakistan. It is mainly grown for sugar and sugar - related production. It is an important source of income and employment for the farming community of the country. It also forms essential item for industries

like sugar, chipboard, and paper. Its share in value added of agriculture and GDP are 4.5 percent and 0.9 percent, respectively. For 2007-08, the area under sugarcane crop was targeted at 1039 thousand hectares as against 1029 thousand hectares of last year. However, sugarcane has been sown in the area of 1241 thousand hectares, 20.6 percent higher than last year. Sugarcane production for the year 2007-08 is estimated at 63.9 million tons -the highest ever in the country's history against 54.7 million tons last year. This indicates significant improvement of 16.8 percent over the production of last year.

The main reasons of higher sugarcane production are high prices of sugarcane received by the grower last year, encouraging them to increase area under production, judicious application of fertilizer, improvement in cultural practice and non-significant attack of pests and diseases. The area, production and yield per hectare for the last five years are given in Table 2.5 (see also Fig. 2.2)



**Table 2.5: Area, Production and Yield of Sugarcane**

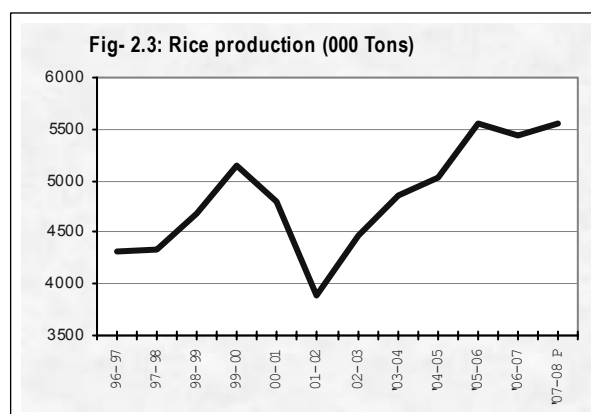
Year	Area		Production		Yield	
	(000 Hectare)	% Change	(000 Tons)	% Change	(Kgs/Hec.)	% Change
2003-04	1074	-2.4	53419	2.6	49738	5.1
2004-05	966	-11.8	47244	-11.6	48906	-3.8
2005-06	907	-6.1	44666	-5.5	49246	0.7
2006-07	1029	13.5	54742	22.6	53199	8.0
2007-08 (P)	1241	20.6	63920	16.8	51507	-3.2

*P: Provisional. (July-March) Source: Ministry of Food, Agriculture and Livestock, Federal Bureau of Statistics.*

**iii) Rice:**

Rice is the third largest crop after wheat and cotton. Rice is highly valued cash crop and is also major export item. It accounts for 5.5 percent of value added in agriculture and 1.1 percent in GDP. Pakistan grows enough high quality rice to meet both domestic demand and for exports. Area and production target of rice for the year 2007-08 were set at 2594 thousand hectares and 5720 thousand tons, respectively. Area sown for rice is estimated at 2515 thousand hectares, 3 percent less than the target and 2.5 percent lower than last year. The size of the crop is estimated at 5563 thousand tons 2.3 percent higher than last year but 2.7 percent lower than the target. Increase in rice production by 2.3 percent during 2007-08 mainly resulted from improvement in yield. The area under rice crop this year was less by 2.5 percent, but the yield has improved by 4.9 percent at national level while it has increased by 7.2 percent in Punjab and by 3.9

percent in Sindh due to favourable weather condition and no attack of pest and diseases. Area, production and yield of rice for the last five years are given in Table 2.6 and Fig 2.3.

**Table 2.6: Area, Production and Yield of Rice**

Year	Area		Production		Yield	
	(000 Hectare)	% Change	(000 Tons)	% Change	(Kgs/Hec.)	% Change
2003-04	2461	10.6	4848	8.3	1970	-2.1
2004-05	2519	2.3	5025	3.6	1995	1.2
2005-06	2621	4.0	5547	10.4	2116	6.1
2006-07	2581	-1.5	5438	-2.0	2107	-0.4
2007-08 (P)	2515	-2.5	5563	2.3	2211	4.9

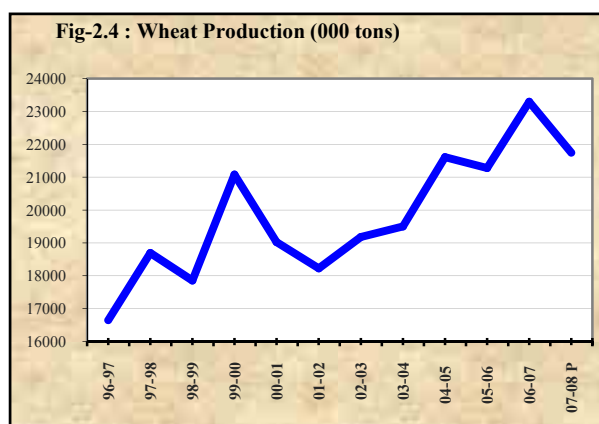
*P: Provisional. (July-March) Source: Ministry of Food, Agriculture and Livestock, Federal Bureau of Statistics.*

**iv) Wheat:**

Wheat is a staple food item of Pakistani people, therefore, it is grown in almost every part of the country. It contributes 12.7 percent to the value added in agriculture and 2.6 percent to GDP. Area and production target of wheat for the year 2007-08 were set at 8578 thousand hectares and 24

million tons, respectively. Wheat was cultivated on an area of 8414 thousand hectares, showing 1.9 percent decrease over last year's area of 8578 thousand hectares. The size of the wheat crop is provisionally estimated at 21.75 million tons, 6.6 percent less than last year and 9.4 percent less than the target for this year. There are several reasons

for the decline in wheat production this year. Firstly, as a result of delayed start of sugar crushing season and late cotton picking by the growers, the area sown under wheat crop declined by 2 percent. Secondly, the higher prices of DAP (Rs 850 to Rs 3000 per 40 Kgs) discouraged farmers to use more phasphatic fertilizer, thus affecting yield of the crop. Thirdly, shortage of irrigation water by 23.3 percent over normal supplies during Rabi season affected wheat crop. Finally, the incidence of severe frost on early sown crop caused damage in some areas of Punjab and NWFP.

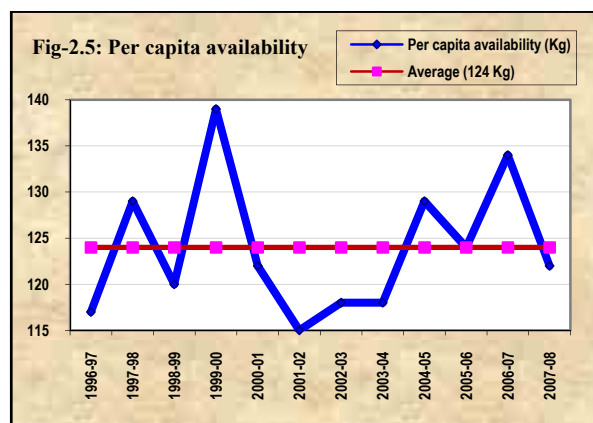


### Wheat situation 2007-08

The outgoing fiscal year also witnessed the worst ever wheat crisis in the country's history. Pakistan produced a bumper wheat crop of 23.3 million tons. The news about the bumper wheat crop started pouring, in April 2007, resulting in a decline in wheat prices. To prevent the wheat price falling before the harvesting of crop, the government allowed exports of 0.5 million ton of wheat in April 2007. Wheat prices started moving upward sharply in the international market sometime during June 2007, touching all time high at over \$500 per ton. Prices of wheat in neighbouring countries were also very high compared with the price prevailing in the domestic market. Consequently, the price differential encouraged unscrupulous elements to enter into hoarding and smuggling, causing domestic price to surge at unprecedented level. The government, in its attempt to stabilize wheat prices, took various measures including: banning of export of wheat,

imposition of 35 percent regulatory duty on export of wheat to Afghanistan; early release (September 2007) of wheat to flour mills; monitoring and controlling flour prices through Magistrates; beefing up of anti-smuggling measures through the establishment of Federal Food Committee, sale of wheat flour at subsidized rates through the outlets of the Utility Stores Corporation (USC), the State Bank of Pakistan sending instructions to the Commercial Banks for not rolling over the financing facility of wheat given to private sector beyond January 31, 2008, and import of 1.7 million tons of wheat to augment supplies.

The wheat produced in 2007-08 will be consumed in 2008-09. To achieve procurement target of 5.0 million tons, the government increased the minimum guaranteed price further from Rs 510 to 625 per 40 kg on March 29, 2008. The higher prices offered to farmers this year would encourage them to grow more wheat in coming years. This can only be achieved if government changes its emphasis from price to yield enhancement. Although the production of wheat is rising over the years, however, when viewed in relation to per capita availability, its performance has been dismal at best (see Figs 2.4 and 2.5). In other words, wheat production has been rising, on average, in relation to the size of population, but exhibited a fluctuating trend along the per capita availability of 124 kg. During the last 12 years, per capita availability of wheat was less than 124 kg in 8 years and only 4 years that it remained above the required level.



**Table 2.7: Area, Production and Yield of Wheat**

Year	Area		Production		Yield	
	(000 hectares)	% Change	(000 tons)	% Change	(Kgs/Hec.)	% Changes
2003-04	8216	2.3	19500	1.6	2375	-0.5
2004-05	8358	1.7	21612	10.8	2568	8.1
2005-06	8448	1.1	21277	-1.6	2519	-1.9
2006-07	8578	1.0	23295	9.5	2716	7.8
2007-08 (P)	8414	-1.9	21749	-6.6	2585	-4.8

*P= Provisional. (July-March) Source: Ministry of Food, Agriculture & Livestock, Federal Bureau of Statistics*

**v) Other Major Crops**

The production of bajra, rapeseed & mustard, maize and barley have increased by 28.1 percent, 27.8 percent, 7.3 percent and 5.4 percent,

respectively. The production of tobacco, jawar and gram decreased by 7.8 percent, 5.6 percent and 1.8 percent respectively as the area of these crops decreased by 11.8, 3.8 and 0.6 percent. The details are given in Table 2.8.

**Table 2.8: Area and Production of Other Major Kharif and Rabi Crops**

Crops	2006-07		2007-08(P)		% Change In production
	Area (000 hectares)	Production (000 tons)	Area (000 hectares)	Production (000 tons)	
<b>KHARIF</b>					
Maize	1017	3088	1015	3313	7.3
Bajra	504	238	531	305	28.1
Jawar	292	180	281	170	-5.6
<b>RABI</b>					
Gram	1052	838	1046	823	-1.8
Barley	94	93	92	98	5.4
Rapeseed & Mustard	256	212	228	271	27.8
Tobacco	51	103	45	95	-7.8

*P=Provisional (July-March), Source: Ministry of Food, Agriculture & Livestock; Federal Bureau of Statistics.*

**b) Minor Crops****i) Oilseeds**

The major oilseed crops include cottonseed, rapeseed/mustard, sunflower and canola etc. These crops are grouped in two categories viz. conventional and non-conventional oilseed crops. Rapeseed-mustard, groundnut and sesame are conventional crops and are being grown in the country for a long period. Sunflower, soybean and safflower are non-conventional crops. There are also some oilseed crops, which are mainly used for industrial purposes, such as linseed and castor. The main source of local edible oil production is cottonseed and sunflower.

The total availability of edible oils in 2006-07 was 2.796 million tons. Local production stood at 0.857 million tons which accounts for 28 percent of total availability. The remaining 72 percent was made available through imports. During 2007-08, local production of edible oil is provisionally estimated at 0.833 million tons. During July – March, 1.385 million tons of edible oil was imported and 0.163 million tons edible oil is estimated to have been recovered from imported oilseeds. The total availability of edible oil from all sources amounted to 2.381 million tons during July – March, 2007-08. The production of oilseed crops during 2006-07 and 2007-08 is given in Table 2.9.



**Table 2.9: Area and Production of Major Oilseed Crops**

Crops	2006-07			2007-08 (P)		
	Area	Production		Area	Production	
	(000 Acres)	Seed (000 Tons)	Oil (000 Tons)	(000 Acres)	Seed (000 Tons)	Oil (000 Tons)
Cottonseed	7599	3980	478	7547	3568	428
Rapeseed/ Mustard	628	188	63	576	172	58
Sunflower	945	662	251	1124	696	264
Canola	359	180	65	402	218	83
Total Oil			857			833

*P: Provisional**Source: Pakistan Oilseed Development Board*

Due to the surge in the prices of palm oil in international markets, local prices of ghee and edible oil have also witnessed unprecedented rise. In this regard, All Pakistan Solvent Extractor's Association (APSEA) increased procurement price of sunflower and canola from Rs 830 to Rs 1600 and from Rs 750 to Rs 1225 per 40/Kg, respectively. Therefore, the area under sunflower and canola crops in 2007-08 has increased from 1304 thousand acres last year to 1526 thousand acres showing an increase of 17 percent. The price increase has provided an opportunity to the farmers to bring more area under oilseed crops to raise their income and make agriculture commercially

viable.

**ii) Other Minor Crops:**

The production of all the crops increased except potato which declined by 3.8 percent. The production of all the pulses i.e. mung, masoor and mash increased by 28.4 percent, 13.8 percent and 8.8 percent, respectively. The production of chillies and onion increased by 96.1 percent and 13.8 percent, respectively. The foremost reason for this increase of chillies crop this year is due to decrease in production by 43.4 percent and in area by 32.4 percent last year. Area and production of minor crops are given in Table 2.10.

**Table-2.10 : Area and Production of Minor Crops**

Crops	2006-07		2007-08(P)		%Change In Production
	Area (000 hectares)	Production (000 tons)	Area (000 hectares)	Production (000 tons)	
Masoor	38.3	21.0	35.0	23.9	13.8
Mung	216.9	138.4	247.4	177.7	28.4
Mash	33.0	15.9	34.6	17.3	8.8
Potato	131.9	2581.5	248.6	2483.7	-3.8
Onion	124.1	1816.4	152.1	2067.6	13.8
Chillies	43.7	69.9	44.6	137.1	96.1

*P=Provisional (July-March)**Source: Ministry of Food, Agriculture and Livestock.  
Federal Bureau of Statistics***II. Farm Inputs****i) Fertilizer:**

Fertilizer is one of the key inputs to agricultural production. Balanced usage of fertilizer helps in increasing crop yield from 30 to 60 percent in different regions of the country. Almost the entire available soil in the country is nutrient deficient. To overcome the problem of nutrient deficiency, use of nutrient fertilizer has become vital for

achieving the higher agricultural production. However, the main impediment in exploring the full potential of the soil has remained below par due to imbalances in fertilizer usage especially, in terms of over application of nitrogenous fertilizer compared to phosphatic fertilizer. Realizing the importance of balanced nutrition, the prices of 50 Kg bag of these fertilizers were reduced by Rs 250 for encouraging a more balanced use of key fertilizers (nitrogenous, phosphatic, potassic

fertilizers) in 2006. Following the steep increases in international prices of phosphatic and potassic fertilizers, the Government in July 2007, further increased the relief in price from Rs 400 to Rs 470 per bag.

The domestic production of fertilizers during the first nine months (July 2007 to March 2008) of the current fiscal year was less by 2.2 percent. On the other hand, the import of fertilizer in nutrient tons increased by 27.4 percent, hence, the total

availability of fertilizer increased by 3.9 percent during July 2007 to March 2008. Total off-take of fertilizer remained flat (0.5 percent) mainly because offtake pattern of nutrients also changed as nitrogen offtake increased by 11.4 percent while that of phosphate and potash decreased by 25.3 and 33.3 percent, respectively during July 2007 to March 2008. Increased international prices of phosphatic and potash fertilizers overshadowed the subsidy effect and eventually offtake could not increase and remained at almost last year's level.

**Table 2.11: Production and Off-take of Fertilizer** ('000' N/tons)

Year	Domestic Production	% Change	Import	% Change	Total	% Change	Off-take	% Change
2003-04	2539	9.7	764	-0.3	3303	7.2	3222	6.7
2004-05	2718	7.1	785	2.7	3503	6.1	3694	14.6
2005-06	2832	4.2	1268	61.5	4100	17.0	3804	3.0
2006-07	2747	-3.0	796	-37.2	3543	-13.6	3672	-3.5
2006-07(Jul-March)	2135	-	555	-	2690	-	2826	-
2007-08 (Jul-March) P	2087	-2.2	707	27.4	2794	3.9	2839	0.5

P : Provisional

Source: National Fertilizer Development Centre

### Improved Seed:

It is generally accepted that high quality seed is the most effective input for improving productivity. Seed is an important component in agriculture productivity system. Seed has the unique position among various agricultural inputs because the effectiveness of all other inputs mainly depends on the potential of seeds. Seed is a high technology product and is an innovation most readily adapted. Improving access to good quality seed is a critical requirement for sustainable agricultural growth and food security. Effective use of improved seed can result in higher agricultural production and increase net incomes of farming families, which has a positive impact on rural poverty. Hence, availability of quality seed of improved varieties is essential to yield the targets specified by the government for a particular year.

The Federal Seed Certification and Registration Department (FSC&RD) is an attached department of Ministry of Food, Agriculture & Livestock (MINFAL) and is engaged in providing seed certification coverage to public and private sector seed companies of Pakistan alongwith seed quality control services through its 30 seed testing

laboratories and monitoring of seed quality in the market as well.

In addition to field crops, certification scheme has been initiated in fruit plants and NWFP Province has a lead in establishing germplasm units of temperate, tropical and sub-tropical fruits. Similar scheme will be replicated in Punjab and Sindh for citrus and mango etc. Seed Industry of Pakistan is comprised of both formal and informal sectors. There are four public sector organizations and more than 600 national seed companies and about four multinational companies. The public and national seed companies deal with the seeds of varieties from public sector research institutes where as multinationals deals with hybrids of maize, sunflower, canola, fodders and forages and vegetables.

During July-March 2007-08, about 231.67 thousand tones of improved seed of various kharif/rabi/spring/winter season crops was distributed. The procurement and distribution of seeds of various Kharif crops (cotton, paddy, maize, mungbean etc) is under progress.

**iii) Mechanization:**

Mechanization as a tool for modernization of agriculture has been well recognized. Mechanization generates greater cropping intensity and as such improves productivity. It also results in considerable saving of fodder and feed through a reduction in bullock population. Thus a transition from subsistence farming to commercial farming can only be achieved through the transfer of the latest, most efficient and cost effective technology to the farming system. The efficient use of scarce agriculture resources and accelerated agriculture mechanization is, therefore, vital and demand

comprehensive strategic planning for the future.

The demand for tractors has increased significantly. In order to meet tractor's demand, Federal Government allowed import of new and used tractors in CBU at zero tariffs. Other interventions including use of laser land levelers, ridge and broad bed farming are being encouraged in the country through provision of incentives to the farmers. On the average, an increase of about 9 percent in the prices of locally manufactured tractors compared to last year has been recorded (See Table 2.12).

Tractor Model	2006-07	2007-08	% Change
MF-240 (50-H.P)	339,000	370,000	9
MF-260 (60 H.P)	429,000	462,000	8
MF-375S (78 H.P)	539,000	564,000	5
MF-385 (85 H.P)	639,000	704,000	10
MF-385 (4wd)-85 HP	995,000	1,020,000	3
NH-FIAT-480 (55-H.P)	320,000	367,000	15
NH-FAIT-GHAZI(65 HP)	349,000	399,000	14
NH-FIAT-640 (75-H.P)	459,000	510,000	11
NH-FAIT-640-S (85)	469,000	550,000	17
NH 55-56 (55-HP)	410,000	430,000	5
NH 60-56 (65-HP)	439,000	460,000	5
UNIVERSALU-640(65 HP)	436,800	439,000	1
UNIVERSAL U-530 (53-HP)	320,000	359,000	12

*Source: Ministry of Food, Agriculture and Livestock.*

**iv) Plant Protection**

Plant protection is an important factor amongst the agricultural inputs. In this regard, the Department of Plant Protection (DPP) provides facilities, such as, Locust Survey and Control, Aerial Pest Control and Pesticide Registration and Testing.

Pakistan remained free from gregarious desert locust activity. However, nature solitary adult locust population ranging from 1-3/h was observed in four localities in uthal area of Balochistan. The Department carried out regular field crop surveys and aerial spray operation on date palms against Dubas bug in Panjgur on an area of 12,400 acres during the said period. Federal Pesticides Testing and Reference Laboratory analysed 571 samples of the pesticides during July-March (2007-08).

**v) Irrigation:**

Efficient irrigation system is a pre-requisite for higher agricultural production since it helps increase the crop intensity. Despite the existence of good irrigation canal network in the Pakistan, it still suffers from wastage of a large amount of water in the irrigation process.

**Table 2.13: Rainfall Recorded During 2007-08 (In Millimeter)**

	Monsoon Rainfall (Jul-Sep) 2007	Winter Rainfall (Jan-Mar) 2008
Normal	137.5	70.5
Actual	125.0	49.3
Shortage (-)/excess (+)	-12.5	-21.2
% Shortage (-)/excess (+)	-9.1	-30.0

*Source: Pakistan Meteorological Department*

During the monsoon season (July-September, 2007) the normal rainfall is 137.5 mm while the actual rainfall received stood at 125.00 mm, indicating a decrease of 9.1 percent. Likewise, during the winter (January to March 2008), the actual rainfall received was 49.3 mm while the normal rainfall during this period has been 70.5 mm, indicating a decrease of 30 percent over the normal rainfall. The details are in Table 2.13.

The canal head withdrawals in Kharif 2007 (April-September) have increased by 12.0 percent and stood at 70.78 Million Acre Feet (MAF), as compared to 63.10 MAF during the same period last year. During the Rabi season 2007-08 (October-March), the canal head withdrawals decreased by 10.5 percent, as it remained at 27.93 MAF compared to 31.18 MAF during the same period last year. Province-wise details are given in Table 2.14.

Provinces	Kharif (Apr-Sep) 2006	Kharif (Apr -Sep) 2007	% Change in Kharif 2007 over 2006	Rabi (Oct-Mar) 2006-07	Rabi (Oct -Mar) 2007-08	% Change in Rabi 2007-08 Over 2006-07
Punjab	34.92	37.66	8.0	16.28	15.25	-6.0
Sindh	25.10	30.29	21.0	13.76	11.21	-19.0
Baluchistan	2.03	1.75	-14.0	0.73	0.78	7.0
NWFP (CRBC)	1.06	1.08	2.0	0.42	0.70	68.0
<b>Total</b>	<b>63.10</b>	<b>70.78</b>	<b>12.0</b>	<b>31.18</b>	<b>27.93</b>	<b>-10.5</b>

*Source: Indus River System Authority.*

In order to alleviate water scarcity, the government has given top priority to the development of water resources in order to uplift the agro-economy. About 71.00 billion development budget is being expended in water sector to achieve the objectives through augmentation and conservation means i.e. by construction of medium and large dams and by efficient utilization of irrigation water, restoring the productivity of agricultural land through control of water logging, salinity and floods. Water conservation is being ensured through rehabilitation remodeling of irrigation system and lining of canals. Integrated programme approach is being adopted like “National Program for Watercourses Improvement in Pakistan and Flood Protection Programme”. Following major objective were achieved or planned to be achieved by adopting the above-mentioned strategies in water sector during the year 2007-08.

- Fast track implementation of 3 mega canals projects namely; Kachhi Canal in Balochistan, Raineer Canal in Sindh and Greater Thal Canal in Punjab for irrigating 2.864 million acres.
- Substantial completion of Mangla Dam Raising Project for additional storage of 2.9 MAF and additional power of 120 MW.

- On time completion of Mirani Dam Project in Balochistan to provide water for 33,200 acres.
- Completion of Sabakzai Dam in Balochistan to irrigate 6,875 acres.
- Substantial completion of Satpara Dam in Northern Areas for irrigation of 15,536 acres and 15.8 MW power generation.
- Continued work on Gomal Zam Dam Project in Tribal/NWFP area despite the law & order situation.
- Launching of Kurram Tangi Dam Project in NWFP.
- Detailed design of Diamer Basha Dam near completion.
- Fast track implementation of National Program for Improvement of Water Courses in Pakistan for 86000 watercourses to save about 8 MAF water.
- Launching of Water Conservation project through High Efficiency Irrigation System (drip and sprinkler) in Pakistan to upgrade irrigation in 291,000 acres.

- In drainage sector fast track implementation of RBOD-I, II & III Project to protect and reclaim 4.90 million acres of irrigated land.

**Table 2.15: Water Sector Projects under Implementation**

Projects	Location	Cost (US\$m)	Total App.cost (Rs. M)	Live Storage (MAF)	Area Under Irrigation (Acres)	Completion Date
Gomal Zam Dam	NWFP	211	12,829	1.14	163,086	Oct., 2010
Greater Thal Canal *	Punjab	501	30,467	-	1534,000	Dec. 2008, Phase-I
Rainee Canal *	Sindh	229	18,862	-	412,000	March 2009 Phase-I
Kachhi Canal *	Balochistan	538	31,204	-	713,000	Dec., 2008 Phase-I
Sabakzai Dam	Balochistan	26	1,577	0.02	6,680	Dec., 2008
Raising of Mangla Dam (30 ft)	AJ&K	1030	62,553	2.90	Through out Pakistan	June, 2008
Satpara Dam Multi-purpose	Skardu	35	2,090	0.05	15,536	Dec., 2008
Diamer Basha Dam Project	N.A & NWFP	6,500	Cost not Yet final	6.40	Feasibility in progress	Feasibility in progress
Kurram Tangi Dam	NWFP	283	17,205	0.83	362,380	2010-11 Works on main dam not yet started

Source: Water Resources Section, Planning & Development Division

\* Date of completion for all three canals is for Phase-I, whereas cost is reflected for total project

#### vi) Agricultural Credit:

Agricultural credit provides financial resources to the farming community particularly for purchase of primary inputs like fertilizer, seed, pesticides, machinery, equipments etc. Government considers it as an important instrument for achieving higher production and attaches high priority to ensure its timely availability to the farmers. Credit requirements of the farming community have shown an increasing trend over the year. In order to cope with the increasing demand for agricultural credit, institutional credit to farmers is being provided through Zarai Taraqati Bank Limited (ZTBL), Commercial Banks, Punjab Provincial Cooperative Bank Ltd (PPCBL) and Domestic Private Banks. The Government has allocated Rs 200 billion for agriculture credit disbursements for the year 2007-08 which is 25 percent higher than the allocation of the preceding year i.e. Rs 160 billion. Out of the total credit target of Rs 200 billion, Rs 96.5 billion were allocated to commercial banks, Rs 60 billion to ZTBL, Rs 8

billion to Punjab Provincial Cooperative Bank Ltd., and Rs 35.5 billion to Domestic Private Commercial Banks. The agricultural loans extended to the farming community during July-March, 2007-08 are discussed below:

#### a) Production and Development Loans

Agricultural loans amounting to Rs. 138.6 billion were disbursed during (July-March, 2007-08) as against Rs.111.2 billion during the corresponding period last year, thereby registering an increase of 24.6 percent. The share of ZTBL in supply of total agricultural credit by institutions decreased and was 28.6 percent during (July-March, 2007-08) However, the share of Commercial Banks has surpassed the share of ZTBL; it was 47 percent of the total agricultural credit disbursed during July-March 2007-08. While the share of PPCBL has also decreased as it stood at 2.8 percent in supply of total agricultural credit by institutions. The share of domestic private bank has increased; as it was 21.6 percent of the total agricultural credit

disbursed during July-March, 2007-08. Supply of agricultural credit by various institutions since 2003-04 to 2007-08 (July-March) is given in Table 2.16.

Year	ZTBL	Commercial Banks	PPCBL	Domestic Private Banks	Total	
					Rs. Million	%Change
2003-04	29933.07	33247.45	7563.54	2701.80	73445.86	24.6
2004-05	37408.84	51309.78	7607.47	12406.82	108732.91	48.0
2005-06	47594.14	67967.40	5889.49	16023.38	137474.40	26.4
2006-07	56473.05	80393.19	7988.06	23976.16	168830.46	22.8
<b>2006-07(July-March)</b>	<b>40881.42</b>	<b>48962.19</b>	<b>5269.57</b>	<b>16081.99</b>	<b>111195.17</b>	-
<b>2007-08(July-March)</b>	<b>39561.17</b>	<b>65124.83</b>	<b>3935.16</b>	<b>29975.57</b>	<b>138596.72</b>	<b>24.6</b>

Source: State Bank of Pakistan.

### b) Zarkhaiz Scheme (one Window Operation)

ZTBL continued its expeditious delivery of credit to farmers with special reference to subsistence and small farmers through One Window Operations. This programme has established its importance by witnessing tremendous strength in timely channeling of production loans to small farmers, which contributed significantly towards increasing farm production. The programme is conducted by the Bank in coordination with the officials of Provincial Revenue Department and Pakistan Post Office once a week on Monday for Rabi crops during the period from October to January and for Kharif crops from April to September each year. Under "One Window Operation" loans are processed on the spot and sanctioned in the branches within 3 days.

### c) Sada Bahar Scheme/Revolving Finance Scheme:

For providing timely input loans for crops and working capital for dairy, poultry and fisheries, the Bank has launched Sada Bahar Scheme (SBS). Assessment for inputs requirements for the whole year is made at the time of first application. The amount so assessed is treated as Revolving Limit. For repeat loan, fresh investigation/appraisal is not necessary. The Managers are authorized to sanction such loan within their loan sanctioning powers and renew the same even if previously it was sanctioned by the higher authority. During (July 2007– March 2008), an amount of Rs 33473.514 million was disbursed inclusive of Rs 8187.698 million disbursed under One Window Operations.

### d) Crop Maximization Project:

Ministry of Food, Agriculture & livestock (MINFAL) launched an integrated development programme entitled "Crop Maximization Project (CMP)" in 15 districts of the country. The project aimed at providing inputs for crops through Revolving Fund for the financial assistance of the farmers in the project area. Under an agreement, the MINFAL will provide funds to the tune of Rs 299.893 million to ZTBL for onward lending to the project farmers to meet the input requirements for various crops and ZTBL will revolve these funds up till 30<sup>th</sup> June 2014.

### New Schemes/Initiatives

#### a) White Revolution

Under the White Revolution Scheme, two Strategic Partnership Agreements have been executed between ZTBL and M/S Nestle Pakistan Limited and M/s Pakistan Dairy Development Company. Under this participatory approach, dairy sector would be modernized with a view to increase milk supply, mitigate poverty and improve the living standard of the rural population. The Bank has earmarked funds to the tune of Rs. 5,000 million for financing of 50,000 animals (buffaloes and imported cows) during the five years period (2007-2011).

M/s. Nestle Pakistan would help to select and identify good clients for the Bank to improve quality breed of foreign and local dairy animals. Technical guidance would be provided to the farmers through Nestle Veterinary Doctors. The Company would purchase milk through its network

and make weekly payment of milk sale to the Bank for the adjustment of loan. M/s Pakistan Dairy Development Company will also help the Bank in the selection of clients and processing of loan cases. Initially the scheme will be for modernization of 5000 farms during 5 years period involving Rs 700 million. Under the scheme 1000 farms would be covered on yearly basis. There would be maximum loan limit of Rs 1 million per borrower/party.

#### **b) Sairab Pakistan Scheme**

Water plays vital role in improving per acre yield. Increase in water supply being a key input is required to raise cropping intensity and enhance the income of the farmers. Since inception, ZTBL has financed over 144,478 tube wells by disbursing over Rs 14,713 million. For raising irrigated area to accelerate the economic growth and to facilitate the farmers, ZTBL will also provide loans to farmers for installation of tubewells/turbines.

#### **c) Red Meat Financing Scheme**

In line with the policy of Government for accelerated development of livestock sector, the bank has announced a Red Meat Financing Scheme for fattening/rearing of sheep/goat. This scheme will address the credit need of livestock farmers especially the small farmers. Initially the scheme is implemented in Multan, Faisalabad, Dera Ghazi Khan, Dera Ismail Khan, Bhakkar, Nawabshah, Dadu, Sukkur, Peshawar, Lasbella, Loralai and Khuzdar Districts branches having good potential and repayment culture. The loans are advanced @ Rs 5000/- per Sheep/Goat, RS 3500/- for Teddy Goat and Rs 1200/- per Kid (Sheep/Goat). Rearing expenses are borne by the borrowers from their own resources.

### **III. Forestry**

Forests are an essential part of our economy through their significant role in land conservation, regulation of flow of water for irrigation and power generation, reduction of sedimentation in water channels and reservoirs and maintenance of ecological balance. Forestry is also essential for maintaining a sustained supply of wood and wood

products. Pakistan is a land of great diversity, which has yielded a variety of vegetation, however, only 5.01 percent of total land area is under forest ranking it under Low Forest Cover Countries. Of this total forest area, commercial forest is just one-third (32.8%) and the rest (67.2%) is under protection forests performing soil conservation, watershed protection and climatic functions. Forests include State-owned forests, communal forests and privately owned forests. Major forest types existing in Pakistan are temperate and subtropical conifer forests, scrub forests, riverine forests irrigated plantation, liner plantations (roadside, canal-side), and mangrove forests. Besides, a significant proportion of private farmlands are under tree cover. Existing forest resources are under pressure to meet the fuelwood and timber needs of rising population and wood-based industries including housing, sports, matches, boat making and furniture industries.

Priority of Forestry Sector is reflected in MTDF (2005-10) wherein Government of Pakistan has allocated ample financial resources. The target is to increase forest cover from 5.01 to 6.0 percent by 2015. Recently mega forestry projects amounting Rs 12 billion have been approved by ECNEC that shall be implemented by all the Provincial Governments including Azad Jammu Kashmir and Northern Areas. The Provincial Governments are implementing these projects with the involvement of all stakeholders including farmers, local communities, forest owners, civil society organizations and private sector companies

During the year 2007-08 forests have contributed 74 thousand cubic meters of timber and 206 thousand cubic meters of firewood as compared to 100 thousand cubic meters timber and 225 thousand cubic meters firewood in 2006-07. In order to enhance tree cover in the country, tree planting campaigns are held each year. During the tree planting campaign, all the Government Departments, Private Organizations, Defence Organizations and NGOs are involved in planting activities. During spring and monsoon season year 2007, 95.14 million saplings (spring 61.48 million and monsoon 33.66 million) were planted.

#### IV. Livestock and Poultry

##### a) Livestock

As a result of strong economic growth achieved in recent year, the per capita income of the people have also increased. As people become more affluent, they have not only been consuming more food but shifting their diet towards higher quality food product such as meat and dairy products. Accordingly the demand for high quality food such as meat and dairy products are rising and putting pressure on the prices of these commodities. In a changed environment, there is an ample scope to provide boost to the livestock and dairy sector. Unfortunately, these sectors have received little or no attention by the successive governments in the past. It is important to note that livestock accounts for 52.2 percent of agricultural value added, contributes 11 percent to GDP and affects the lives of 30 – 35 million people in rural areas. It is highly labour intensive and if proper attention is given to this sector, it will not only absorb more rural workforce but also help alleviate rural poverty in Pakistan. In order to achieve higher sustained growth in agriculture, it is absolutely necessary for the government to give more attention to livestock and dairy sector because it is not immune to the mother nature.

Realizing its importance to rural poverty reduction, the government has started giving some attention only during the last two years. It is in this perspective that livestock development policy and poultry development policy have been put in place. Both policies are aimed at developing livestock and dairy sector by the private sector, the job of the

government is to provide enabling environment. Accordingly, a full autonomous private sector led Livestock and Dairy Development Board and Pakistan Dairy Development Company have been established. These companies are serving as a platform for investment in this sector. Apart from provincial Government programs, the federal government has substantially increased public sector investment in livestock sector and has initiated projects to the tune of Rs 7.1 billion for strengthening livestock services for improving disease control; milk and meat production; breed animal husbandry and management practices; in the county. The livestock population for the last three years is given below:

**Table 2.17: Livestock Production (Million No)**

Species	2005-06*	2006-07#	2007-08#
Cattle	29.6	30.7	31.8
Buffaloes	27.3	28.2	29.0
Sheep	26.5	26.8	27.1
Goat	53.8	55.2	56.7
Camels	0.9	0.9	1.0
Horses	0.3	0.3	0.3
Asses	4.3	4.3	4.4
Mules	0.2	0.2	0.2

*Source: MINFAL (Livestock Wing)*

Notes:

\* Actual Figures of Livestock Census 2006

# Estimated Figure based on inter census growth rate of Livestock Census 1996 & 2006

The major products of livestock is milk and meat, the production of which for last three years is given below:

**Table No 2.18: Milk and Meat Production**

Species	Units	2005-06*	2006-07**	2007-08**
<b>Milk (Gross Production)</b>	000 tons	39,596	40,872	42,199
Cow	“	13,407	13,913	14,437
Buffalo	“	24,723	25,465	26,239
Sheep#	“	34	35	35
Goat	“	664	682	700
Camel#	“	767	77	787
<b>Milk (Human Consumption)@</b>	000 tons	31,970	32,996	34,064
Cow	“	10,726	11,130	11,550
Buffalo	“	19,779	20,372	20,991
Sheep	“	34	35	35
Goat	“	664	682	700
Camel	“	767	777	787
<b>Meat &amp;</b>	000 tons	2,515	2,618	2,727



**Table No 2.18: Milk and Meat Production**

Species	Units	2005-06*	2006-07**	2007-08**
Beef	“	1,449	1,498	1,549
Mutton	“	554	566	578
Poultry meat	“	512	554	601

*Source: MINFAL (Livestock Wing)*

Note:

\* The figures for milk and meat production for the year 2005-06 were calculated using the livestock population reported in livestock census 2006 and then by applying production parameters.

\*\* The figures for milk and meat production for the year 2006-07 and 2007-08 were calculated by applying production parameters to the projected population of 2006-07 and 2007-08 based on the inter census growth rate of livestock census 1996-2006

# The figures for the milk production for the year 2005-06, 2006-07 and 2007-08 were calculated after adding the production of milk from camel and sheep to the figures reported in the livestock census 2006.

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

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

The production of other livestock products for the last three years is given below:

**Table No. 2.18: Livestock Products Production**

Species	Units	2005-06*	2006-07**	2007-08**
<b>Eggs</b>	Million No's	9,712	10,197	10,712
<b>Hides</b>	000 No's	11,418	11,803	12,202
Cattle	“	5,602	5,813	6,032
Buffalo	“	5,723	5,895	6,074
Camels	“	94	95	96
<b>Skins</b>	000 No's	43,353	44,325	45,325
Sheep skin	“	10,016	10,131	10,251
Goat skin	“	20,722	21,283	21,860
<u>Fancy skin</u>	“	<u>12,616</u>	<u>12,910</u>	<u>13,215</u>
Lamb skin	“	2,975	3,009	3,045
Kid skin	“	9,641	9,901	10,170
<b>Wood</b>	000 tons	40.10	40.57	41.05
<b>Hair</b>	“	20.31	20.85	21.41
Edible Offal's	“	300	308	317
Blood	“	51.45	52.74	54.07
Guts	000 No's	43,795	44,777	45,788
Casings	“	12,160	12,568	12,992
Horns & Hooves	000 tons	42.81	44.06	45.36
Bones	“	633.48	652.51	672.24
Fats	“	203.28	209.18	215.30
Dung	“	894	921	949
Urine	“	277	285	293
Head & Trotters	“	186.49	191.66	197.02
Ducks, Drakes & Ducklings	“	0.70	0.67	0.67

*Source: MINFAL (Livestock Wing)*

Note:

\* The figures for livestock products for the year 2005-06 were calculated using the livestock population reported in livestock census 2006 and by applying production parameters.

\*\* The figures for livestock product for the years 2006-07 and 2007-08 were calculated by applying production parameters to the projected population of 2006-07 and 2007-08

## B) Poultry

Poultry sector is one of the most vibrant segments of agriculture sector of Pakistan. This sector

generates employment (direct/indirect) and income for about 1.5 million people. Poultry meat contributes 19 percent of the total meat production in the country. The current investment in Poultry

Industry is about Rs 200 billion. Poultry sector has shown a growth of 8-10 percent annually.

This sector has faced a tough challenge on account of Avian Influenza (AI) outbreak in the country. The re-occurrence of Avian Influenza was reported on 3<sup>rd</sup> February 2007 in backyard poultry/zoo and commercial poultry in Rawalpindi/Islamabad, Peshawar, Abbottabad, Mansehra, Kamalia, Summundari and Karachi areas. There have been 72 (27 commercial flocks and 45 backyard poultry and game birds) recorded cases of H5NI till March 2008, involving approximately 176.1 thousand commercial poultry (broiler/layer) apart from game birds and backyard poultry. Zero tolerance policy was adopted and flocks were destroyed under the supervision of state veterinarians and district administration. Apart from projects already under implementation regarding Avian Influenza, Ministry, Food, Agriculture & Livestock has intimated a project

titled “National Programs for the Control and Preservation of Avian Influenza” at a total cost of Rs 1180.142 million. The project is of three years duration and will be implemented through out Pakistan including AJK, FATA and FANA. The proposed project objectives include improving and scaling up avian influenza surveillance, reporting and diagnostic at federal and provincial district levels. Strengthening disease control, outbreak containment and eradication of highly pathogenic avian influenza (HPAI), compensation to farmers, increase awareness among the farmers, consumers, veterinarians and other stake holders regarding AI, vaccine development, improving veterinary services to enforce national animal disease control measures.

The production of domestic/rural & commercial and rural poultry and products for last three years is given below:

**Table No. 2.19: Domestic/Rural & Commercial Poultry**

Type	Units	2005-06*	2006-07**	2007-08**
<b>Domestic Poultry</b>	<b>Million No's</b>	<b>72.95</b>	<b>74.02</b>	<b>75.11</b>
Cocks	“	8.61	8.84	9.08
Hens	“	34.23	34.84	35.47
Chicken	“	30.12	30.34	30.57
Eggs	“	3423	3484	3547
Meat	000 Tons	94.67	96.54	98.45
<b>Duck, Drake &amp; Ducking</b>	<b>Million No's</b>	<b>0.70</b>	<b>0.67</b>	<b>0.67</b>
Eggs	“	31.14	29.85	29.85
Meat	000 Tons	0.95	0.91	0.91
<b>Commercial Poultry</b>				
Layers	Million No's	23.20	24.82	26.56
Broilers	“	337.00	370.70	407.77
Breeding Stock	“	6.90	7.25	7.61
Day old chicks	“	352.00	387.20	425.92
Eggs	“	6258	6682	7136
Meat	000 Tons	416.55	456.95	501.30
<b>Total Poultry</b>				
Day old chicks	Million No's	352.00	387.20	425.92
Poultry Birds	“	441	477	518
Eggs	“	9712	10197	10712
Poultry Meat	000 Tons	512	554	601

Source: MINFAL (Livestock Wing)

Notes:

\* The figures for the year 2005-06 are the actual livestock census 2006 figure except for the Layers (Farming) and Breeding Stock (Farming) which were calculated using the census and provincial figures to reflect the most upto date information.

\*\* The figure for the year 2006-07 and 2007-08 were statistically calculated using the figures of 2005-06

**C. Incentives to Promote Livestock**

Government has provided following incentives to increase livestock and poultry production in the country:

- ❖ Regulatory measures include allowing import of high yielding animals, semen and embryos for crossbreeding, expansion/improvement and modernization of laboratory facilities to diagnose and treat livestock diseases; introduction of mobile animal health service to provide diagnostic services at the door steps of farmers, duty free import of veterinary dairy and livestock machinery/equipment, not manufactured in the country.
- ❖ Government has allowed import of Incubators, Brooders, Evaporation cooling pads, cooling system, Grain storage silos for poultry, poultry equipments, milk and meat processing machinery/equipment (not manufactured locally), at zero percent custom duty. Private sector has imported milk and meat processing machinery/equipment worth of Rs 285 million during July-March, 2007-08.
- ❖ In order to reduce input costs in poultry production, poultry vaccines, feed additives, coccidiostats, Growth promoters premixes, Vitamin premixes, Fish feed, Zinc sulphate, Copper sulphate used in poultry feed has been zero-rated. Sales tax exemption has been allowed to un-cooked poultry meat; processed milk, yogurt, cheese flavored milk, and butter cream. In addition, poultry, vaccines, feed additives and coccidiostats used in poultry feed manufacturing have been allowed at zero percent custom duty.

Following new development projects have been launched in the country during 2005-06 to 2007-08.

- ❖ Livestock Production and Development project is of five years duration (2005 – 2010) and has total allocation of Rs 1520 million. It is assisting in the establishment of 2590 fattening farms (1040 beef and 1550 mutton), 08 Slaughterhouses and 20 butcheries in private sector.
- ❖ Milk Collection Processing and Dairy Production and Development Program Project is of five years duration (2005 – 2010) with a total cost of Rs 1588 million. More than 10,000 rural subsistence dairy farmers are likely to enter into the milk marketing chain due to project interventions, 15000 to 20000 additional breeding animals of better genetic potential for milk production will become available in the project area.
- ❖ Livestock Project is of 05 years duration (2005-2010) and initiated at a total cost of Rs 1992 million. It is aimed at enhancing the livestock productivity through the provision of livestock production and extension services at farmer's doorsteps, targeting 13 million rural poor in 1963 union councils in 80 districts of the country.
- ❖ Improving reproductive efficiency of cattle and buffaloes in stallholders production system Project is of five years duration (2007-2012) and has total cost Rs 495.15 million. The project aimed at establishment of Embryo Transfer Technology Centre, Semen Production and Processing center, Strengthening of Provincial Semen Production Units and Support of semen Production in private sector. The center will produce 5000 embryo per year for farm use and supply to others.
- ❖ Construction of Animal Quarantine Facilities at various places including Northern Area, Wahga Border, Lahore and Khokrapar project has total coat of Rs 300 million. It is of five years duration (2006-2011). The project is aimed at improving quarantine facilities and establishing new entry exit points to facilitate trade of animal and animal products.

**V. Fisheries**

The share of fisheries in GDP, though small, but it does contribute to the foreign exchange earnings through export besides providing proteins to the populace. The nutritional value of fish is very high, with a protein content, low cholesterol content and many useful dietary supplements. Government of Pakistan is taking a number of steps to improve fisheries sector. A number of initiatives are being taken by federal and provincial fisheries departments which include inter alia strengthening of extension services, introduction of new fishing

methodologies, development of value added products, enhancement of per capita consumption of fish, upgradaion of socio-economic conditions of the fishermen's community.

Marine Fisheries Department is executing following development projects

- i) "Reduction in Seafood Post Harvest Losses by Improvement of Fish Holds of Local Fishing Boats" which is aimed at to start a programme of post harvest losses through modification of

the fish holds of the local fishing boats to enhance the export earnings. Due to improvement in the fish holds, post harvest losses will be reduced substantially making available additional quality raw material for the processing plants.

- ii) The project “Stock Assessment survey programme through chartering of research vessel for Marine Fisheries Department” is aimed at chartering a suitable vessel for conducting stock assessment resource surveys in the coastal and offshore waters of Pakistan to strengthen Marine Fisheries Department by capacity building to conduct resource survey, stock assessment on regular basis and to develop management strategy for the fish exploitation and utilization.
- iii) Two other projects i.e. “Accreditation of quality control laboratories of Marine Fisheries Department” and “Establishment of an Integrated National Animal and Plant Health

Inspection Service” (NAPHIS) are also being implemented to provide improved quality control services to the seafood export industry. These two projects are aimed to get the laboratories of the Marine Fisheries Department accredited with international bodies and meet the requirements of ISO

During the period July-March 2007-08, the total marine and inland fish production was estimated to be 640,000 M. tons. Out of which share of marine fish is 390,000 M. tons and inland contributed is 250,000 M. tons. The production for the year 2006-07 was estimated to be 578,000 M. tons in which 353,000 M. tons was from marine and the remaining was 225,000 M. tons was produced by inland fishery sector. Main buyers of fish and fish preparations are Japan, USA Middle East, Sri Lanka, and China etc. Pakistan earned US\$ 188.5 million during July-March (2007-08) and over 100,000 M. tons of fish and fishery products were exported.



TABLE 2.1 (A)

## INDEX OF AGRICULTURAL PRODUCTION

Fiscal Year	1980-81 Base				1999-2000 Base			
	All major crops	Food crops	Fibre crops	Other crops	All major crops	Food crops	Fibre crops	Other crops
1991-92	143.7	122.5	305.9	120.5	-	-	-	-
1992-93	141.0	124.0	216.0	118.0	-	-	-	-
1993-94	155.0	123.6	191.8	137.5	-	-	-	-
1994-95	165.4	133.1	207.5	146.0	-	-	-	-
1995-96	163.3	137.0	252.8	140.1	-	-	-	-
1996-97	155.3	136.5	223.6	130.3	-	-	-	-
1997-98	186.2	150.2	219.1	164.5	-	-	-	-
1998-99	189.8	147.6	209.7	170.9	-	-	-	-
1999-00	178.4	167.7	268.2	143.7	100	100	100	100
2000-01	165.9	152.8	256.0	135.1	93	91	96	94
2001-02	172.1	142.9	253.2	148.7	97	85	94	104
2002-03	185.4	153.9	243.6	160.9	104	92	91	112
2003-04	190.7	159.6	239.7	165.1	107	95	89	115
2004-05	-	-	-	-	104	106	127	102
2005-06	-	-	-	-	101	107	116	96
2006-07	-	-	-	-	117	115	114	118
2007-08 P	-	-	-	-	127	111	104	138

P. Jul-Mar

Source: Federal Bureau of Statistics.

TABLE 2.1 (B)

## BASIC DATA ON AGRICULTURE

Fiscal Year	Crop- ped Area (million hectares)	Improved seed dis- tribution (000 Tonnes)	Water* Availa- bility (MAF)	Fertilizer off-take (000 N/T)	Credit disbursed (Rs million)
1990-91	21.82	83.27	119.62	1892.90	14,915.29
1991-92	21.72	65.93	122.05	1,884.00	14,479.31
1992-93	22.44	63.93	125.12	2,147.61	16,198.11
1993-94	21.87	63.27	128.01	2,146.50	15,674.05
1994-95	22.14	76.87	129.65	2,183.06	22,373.27
1995-96	22.59	145.10	130.85	2,515.05	19,187.31
1996-97	22.73	137.67	132.05	2,413.01	19,547.67
1997-98	23.04	130.50	122.15	2,646.00	33,392.30
1998-99	23.07	167.38	133.78	2,583.00	42,852.00
1999-00	22.74	194.30	133.28	2,833.50	39,687.60
2000-01	22.04	193.80	134.77	2,966.03	44,790.40
2001-02	22.12	191.57	134.63	2,929.00	52,446.30
2002-03	21.85	172.07	134.48	3,020.00	58,915.27
2003-04	22.94	178.77	134.78	3,222.00	73,445.86
2004-05	22.78	213.75	135.68	3,694.04	108,732.91
2005-06	23.13	305.11	137.78	3,804.19	137,474.31
2006-07	23.51	293.54	137.80	3,672.00	168,830.45
2007-08 P	23.51	231.67	138.10	2,839.00	138,596.72

.. not available

(Contd.)

P : Provisional, Jul-Mar

\* : At farm gate

TABLE 2.1 (C)

## BASIC DATA ON AGRICULTURE

Fiscal Year	Number of Tubewells (a)	Production of Tractors (Nos)	Production of meat (000 Tonnes)	Milk (Human Consumption) (000 Tonnes)	Fish Production (000 Tonnes)	Total Forest Production (000 cu.mtr.)
1990-91	339,840	13,841	1,581	15,481	483.0	1,072
1991-92	355,840	10,077	1,685	16,280	518.7	491
1992-93	374,099	16,628	1,872	17,120	553.1	691
1993-94	389,493	15,129	2,000	18,006	621.7	703
1994-95	463,463	17,063	2,114	18,966	558.1	684
1995-96	485,050	16,218	1,841	22,970	541.9	720
1996-97	489,601	10,121	1,908	23,580	555.5	557
1997-98	531,699	14,242	1,841	24,215	589.7	490
1998-99	531,692	26,885	1,906	24,876	597.0	383
1999-00	541,839	35,038	1,957	25,566	654.5	670
2000-01	545,569	32,553	2,015	26,284	629.0	736
2001-02	680,473	24,311	2,072	27,031	654.5	726
2002-03	762,902	27,101	2,132	27,811	562.0	823
2003-04	941,752	36,059	2,188	28,624	567.0	819
2004-05	954,842	42,035	2,271	29,438	574.0	576
2005-06	957,916	44,095	2,515	31,970	599.0	499
2006-07	983,312	54,431	2,618	32,996	578.0	325
2007-08 P	-	37,272	2,728	34,064	640.0	280

.. not available

P: Provisional (July-March)

(a) Public and private tubewells.

Source:

1. Federal Bureau of Statistics.

2. Ministry of Food, Agriculture and Livestock.

TABLE 2.2

## LAND UTILIZATION

Fiscal Year	Total Area	Reported Area	Forest Area	Not Avail- able for Cultivation	Cultivated Area				Area Sown more than once	Total Cropped Area (8+10)
					Culturable Waste	Current Fallow	Net Area Sown	Total Area Cultivated (7+8)		
1	2	3	4	5	6	7	8	9	10	11
1990-91	79.61	57.61	3.46	24.34	8.85	4.85	16.11	20.96	5.71	21.82
1991-92	79.61	57.87	3.47	24.48	8.86	4.87	16.19	21.06	5.53	21.72
1992-93	79.61	58.06	3.48	24.35	8.83	4.95	16.45	21.40	5.99	22.44
1993-94	79.61	58.13	3.45	24.43	8.74	5.29	16.22	21.51	5.65	21.87
1994-95	79.61	58.50	3.60	24.44	8.91	5.42	16.13	21.55	6.01	22.14
1995-96	79.61	58.51	3.61	24.35	8.87	5.18	16.49	21.68	6.10	22.59
1996-97	79.61	59.23	3.58	24.61	9.06	5.48	16.50	21.98	6.23	22.73
1997-98	79.61	59.32	3.60	24.61	9.15	5.48	16.48	21.96	6.56	23.04
1998-99	79.61	59.27	3.60	24.52	9.23	5.35	16.58	21.93	6.28	22.86
1999-00	79.61	59.28	3.78	24.45	9.09	5.67	16.29	21.96	6.45	22.74
2000-01	79.61	59.44	3.77	24.37	9.17	6.73	15.40	22.13	6.64	22.04
2001-02	79.61	59.33	3.80	24.31	8.95	6.60	15.67	22.27	6.45	22.12
2002-03	79.61	59.45	4.04	24.25	8.95	6.61	15.60	22.21	6.25	21.85
2003-04	79.61	59.46	4.01	24.23	9.10	6.23	15.89	22.12	7.05	22.94
2004-05	79.61	59.48	4.02	24.39	8.94	6.86	15.27	22.13	7.51	22.78
2005-06	79.61	57.22	4.03	22.88	8.12	6.47	15.58	22.05	7.55	23.13
2006-07	79.61	57.25	4.20	22.70	8.32	6.44	15.59	22.03	7.92	23.51
2007-08 P	79.61	57.25	4.20	22.70	8.32	6.44	15.59	22.03	7.92	23.51

P: Provisional

Source: Ministry of Food, Agriculture &amp; Livestock

## Note:

TOTAL AREA REPORTED is the total physical area of the villages/deh, tehsils or districts etc.

FOREST AREA is the area of any land administered as forest under any legal enactment dealing with forests. Any cultivated area which may exist within such forest is shown under heading cultivated area.

AREA NOT AVAILABLE FOR CULTIVATION is that uncultivated area of the farm which is under farm home steads, farm roads and other connected purposes and not available for cultivation.

CULTURABLE WASTE is that uncultivated farm area which is fit for cultivation but was not cropped during the year under reference nor in the year before that.

CURRENT FALLOW (ploughed but uncropped) is that area which is vacant during the year under reference but was sown at least once during the previous year

CULTIVATED AREA is that area which was sown at least during the year under reference or during the previous year.

Cultivated Area = Net Area sown + Current Fallow.

NET AREA SOWN is that area which is sown at least once during (Kharif & Rabi) the year under reference.

AREA SOWN MORE THAN ONCE is the difference between the total cropped area and the net area sown.

TOTAL CROPPED AREA means the aggregate area of crops raised in a farm during the year under reference including the area under fruit trees.



TABLE 2.3

## AREA UNDER IMPORTANT CROPS

(000 hectares)

Fiscal Year	Wheat	Rice	Bajra	Jowar	Maize	Barley	Total Food Grains	Gram	Sugar-cane	Rapeseed and Mustard	Sesamum	Cotton	Tobacco
1990-91	7,911	2,113	491	417	845	157	11,934	1,092	884	304	53	2,662	44
1991-92	7,878	2,097	313	383	848	149	11,667	997	896	287	70	2,836	54
1992-93	8,300	1,973	487	403	868	160	12,191	1,008	885	285	82	2,836	58
1993-94	8,034	2,187	303	365	879	151	11,919	1,045	963	269	73	2,805	57
1994-95	8,170	2,125	509	438	890	165	12,297	1,065	1,009	301	80	2,653	47
1995-96	8,376	2,162	407	418	939	171	12,473	1,119	963	320	90	2,997	46
1996-97	8,109	2,251	303	370	928	152	12,113	1,100	965	354	100	3,149	49
1997-98	8,355	2,317	460	390	933	163	12,618	1,102	1,056	340	96	2,960	53
1998-99	8,230	2,424	463	383	962	137	12,599	1,077	1,155	327	71	2,923	57
1999-00	8,463	2,515	313	357	962	124	12,734	972	1,010	321	72	2,983	56
2000-01	8,181	2,377	390	354	944	113	12,359	905	961	273	101	2,927	46
2001-02	8,058	2,114	417	358	942	111	12,000	934	1,000	269	136	3,116	49
2002-03	8,034	2,225	349	338	935	108	11,989	963	1,100	256	88	2,794	47
2003-04	8,216	2,461	539	392	947	102	12,657	982	1,074	259	60	2,989	46
2004-05	8,358	2,519	343	308	982	93	12,603	1,094	966	243	66	3,193	50
2005-06	8,448	2,621	441	254	1,042	90	12,896	1,029	907	217	82	3,103	56
2006-07	8,578	2,581	504	292	1,017	94	13,066	1,052	1,029	256	71	3,075	51
2007-08 P	8,414	2,515	531	281	1,015	92	12,848	1,046	1,241	228	76	3,054	45

Note 1 ha = 2.47 acres  
P Provisional (Jul-Mar).

Source: 1. Ministry of Food, Agriculture and Livestock  
2. Federal Bureau of Statistics

TABLE 2.4

## PRODUCTION OF IMPORTANT CROPS

(000 tonnes)

Fiscal Year	Wheat	Rice	Bajra	Jowar	Maize	Barley	Total Food Grains	Gram	Sugar- cane	Rapeseed and Mustard	Sesa- mum	Cotton		Tob- acco
												(000 tonnes)	(000 Bales)	
1990-91	14,565	3,261	196	239	1,185	142	19,588	531	35,989	228	21.4	1,637	9,628	75
1991-92	15,684	3,243	139	225	1,203	140	20,634	513	38,865	220	28.7	2,181	12,822	97
1992-93	16,157	3,116	203	238	1,184	158	21,056	347	38,059	207	34.0	1,540	9,054	102
1993-94	15,213	3,995	138	212	1,213	146	20,917	411	44,427	197	32.3	1,368	8,041	100
1994-95	17,002	3,447	228	263	1,318	164	22,422	559	47,168	229	36.2	1,479	8,697	81
1995-96	16,907	3,966	162	255	1,504	174	22,968	680	45,230	255	39.5	1,802	10,595	80
1996-97	16,651	4,305	146	219	1,491	150	22,962	594	41,998	286	44.9	1,594	9,374	92
1997-98	18,694	4,333	211	231	1,517	174	25,160	767	53,104	292	42.5	1,562	9,184	99
1998-99	17,858	4,674	213	228	1,665	137	24,773	698	55,191	279	32.1	1,495	8,790	109
1999-00	21,079	5,156	156	220	1,652	118	28,380	565	46,333	297	35.4	1,912	11,240	108
2000-01	19,024	4,803	199	219	1,643	99	25,987	397	43,606	230	50.7	1,826	10,732	85
2001-02	18,226	3,882	216	222	1,664	100	24,311	362	48,042	221	69.6	1,805	10,613	94
2002-03	19,183	4,478	189	202	1,737	100	25,889	675	52,056	215	19.3	1,737	10,211	88
2003-04	19,500	4,848	274	238	1,897	98	26,855	611	53,419	221	25.0	1,709	10,048	86
2004-05	21,612	5,025	193	186	2,797	92	29,905	868	47,244	203	30.0	2,426	14,263	101
2005-06	21,277	5,547	221	153	3,110	88	30,396	480	44,666	172	35.0	2,215	13,019	113
2006-07	23,295	5,438	238	180	3,088	94	32,337	838	54,742	212	30.0	2,187	12,856	103
2007-08 P	21,749	5,563	305	170	3,313	98	31,198	823	63,920	271	33.0	1,982	11,655	95

P: Provisional (Jul-Mar)

Source: 1. Ministry of Food, Agriculture and Livestock.  
2. Federal Bureau of Statistics

TABLE 2.5

## YIELD PER HECTARE OF MAJOR AGRICULTURAL CROPS

Fiscal Year	(Kg/Hectare)					
	Wheat	Rice	Sugarcane	Maize	Gram	Cotton
1990-91	1,841	1,543	40,720	1,401	486	615
1991-92	1,990	1,546	43,371	1,419	514	769
1992-93	1,946	1,579	43,024	1,364	344	543
1993-94	1,893	1,826	46,144	1,380	393	488
1994-95	2,081	1,622	46,747	1,481	524	557
1995-96	2,018	1,835	46,968	1,602	607	601
1996-97	2,053	1,912	43,521	1,607	540	506
1997-98	2,238	1,870	50,288	1,626	696	528
1998-99	2,170	1,928	47,784	1,731	648	511
1999-00	2,491	2,050	45,874	1,717	581	641
2000-01	2,325	2,021	45,376	1,741	439	624
2001-02	2,262	1,836	48,042	1,766	388	579
2002-03	2,388	2,013	47,324	1,858	701	622
2003-04	2,375	1,970	49,738	2,003	622	572
2004-05	2,568	1,995	48,906	2,848	793	760
2005-06	2,519	2,116	49,246	2,985	467	714
2006-07	2,716	2,107	53,199	3,036	797	711
2007-08 P	2,585	2,212	51,507	3,264	796	649

P: Provisional

Source: Ministry of Food & Agriculture and Livestock  
Federal Bureau of Statistics.

TABLE 2.6

## PRODUCTION AND EXPORT OF FRUIT

Fiscal Year	Production of Important Fruit (000 tonnes)								Export	
	Citrus	Mango	Apple	Banana	Apricot	Almonds	Grapes	Guava	(000 tonnes)	Value (Mln. Rs)
1990-91	1,609	776	243	202	81	32	33	355	112	935
1991-92	1,630	787	295	44	109	38	36	373	125	966
1992-93	1,665	794	339	52	122	40	38	384	121	1,179
1993-94	1,849	839	442	53	153	45	40	402	127	1,324
1994-95	1,933	884	533	80	178	49	43	420	139	1,256
1995-96	1,960	908	554	82	191	49	72	442	135	1,487
1996-97	2,003	915	568	83	188	49	74	448	219	2,776
1997-98	2,037	917	573	94	189	49	74	455	202	2,793
1998-99	1,861	916	589	95	191	50	76	468	181	2,773
1999-00	1,943	938	377	125	120	32	40	494	240	4,130
2000-01	1,865	990	439	139	126	33	51	526	260	4,586
2001-02	1,830	1,037	367	150	125	26	53	538	290	5,097
2002-03	1,702	1,035	315	143	130	24	52	532	263	4,861
2003-04	1,760	1,056	334	175	211	24	51	550	354	5,912
2004-05	1,843	1,671	352	158	205	23	49	572	281	5,408
2005-06	2,458	1,754	351	164	197	23	49	552	455	7,508
2006-07	1,473	1,720	348	150	177	24	47	555	343	6,894
2007-08 P	1,450	1,750	346	151	160	23	44	563	282	7,313

P: Provisional (Jul-Mar)

Source: Ministry of Food, Agriculture and Livestock  
Federal Bureau of Statistics

TABLE 2.7  
CROPWISE COMPOSITION OF VALUE OF MAJOR AGRICULTURAL CROPS  
(AT CONSTANT FACTOR COST 1999-2000)

Fiscal Year/ Crops	(%age share)								
	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
<u>All Major Crops</u>	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
<u>Food Crops</u>	63.30	62.32	60.34	62.66	63.52	61.55	63.37	63.85	62.95
Rice	15.40	15.62	14.54	15.85	16.94	15.28	17.45	15.78	16.16
Wheat	41.30	40.39	39.48	39.26	38.98	37.58	38.23	39.27	37.46
Barley	0.20	0.20	0.21	0.19	0.19	0.15	0.15	0.15	0.16
Jowar	0.40	0.44	0.46	0.39	0.46	0.31	0.27	0.29	0.28
Bajra	0.30	0.45	0.50	0.41	0.59	0.36	0.42	0.43	0.56
Maize	2.80	3.10	3.21	3.13	3.32	4.14	4.70	4.42	4.82
Gram	2.80	2.11	1.95	3.41	3.05	3.73	2.14	3.51	3.51
<u>Fibre Crops</u>	24.00	24.89	25.26	22.98	22.06	27.21	25.58	23.65	22.11
Cotton	24.00	24.89	25.26	22.98	22.06	27.21	25.58	23.65	22.11
<u>Cash Crops</u>	11.00	11.27	12.63	12.95	13.00	9.95	9.75	11.20	13.44
Sugarcane	11.00	11.27	12.63	12.95	13.00	9.95	9.75	11.20	13.44
<u>Other Crops</u>	1.60	1.52	1.77	1.41	1.43	1.28	1.31	1.29	1.50
Sesamum	0.20	0.34	0.47	0.12	0.15	0.16	0.20	0.16	0.17
Rape Seed & mustard	0.80	0.70	0.75	0.81	0.81	0.65	0.57	0.67	0.89
Tobacco	0.60	0.84	0.55	0.48	0.46	0.47	0.54	0.46	0.44

Source: Federal Bureau of Statistics

TABLE 2.8

## CREDIT DISBURSED BY AGENCIES

Fiscal Year	(Rs million)					
	ZTBL a	Taccavi	Domestic Private Banks	PPCBL b	Commercial Banks	Total
1990-91	8,323.95	56.30		3,017.45	3,517.59	14,915.29
1991-92	6,996.44	56.80		3,247.01	4,179.56	14,479.31
1992-93	8,643.40	50.80		2,978.00	4,525.91	16,198.11
1993-94	8,989.26	..		2,621.49	4,063.30	15,674.05
1994-95	14,575.74	..		3,756.74	4,040.79	22,373.27
1995-96	10,339.27	..		3,803.38	5,044.66	19,187.31
1996-97	11,687.11	..		3,431.13	4,429.43	19,547.67
1997-98	22,353.60	..		4,928.93	6,109.70	33,392.30
1998-99	30,175.96	..		5,439.97	7,236.00	42,852.00
1999-00	24,423.89	..		5,951.23	9,312.50	39,687.60
2000-01	27,610.20	..		5,124.20	12,056.00	44,790.40
2001-02	29,108.01	..	592.82	5,127.54	17,486.12	52,314.49
2002-03	29,270.17	..	1,421.11	5,485.39	22,738.60	58,915.27
2003-04	29,933.07	..	2,701.80	7,563.54	33,247.45	73,445.86
2004-05	37,408.84	..	12,406.82	7,607.47	51,309.78	108,732.91
2005-06	47,594.14	..	16,023.38	5,889.40	67,967.40	137,474.31
2006-07	56,473.05	..	23,976.16	7,988.06	80,393.19	168,830.46
2007-08 P	39,561.17	..	29,975.57	3,935.16	65,124.83	138,596.72

.. not Available

P: Provisional(Jul-Mar)

b: Punjab Provincial Corperative Bank Ltd.

a: Zarai Taraqiate Bank Limited, formerly Agriculture Development Bank of Pakistan

Source : i) State Bank of Pakistan

ii) Ministry of Food, Agriculture &amp; Livestock

TABLE 2.9

## FERTILIZER OFFTAKE AND IMPORTS OF PESTICIDES

Fiscal Year	Fertilizer off-take (000 N/Tonnes)				Import of fertilizers 000 N/T	Import of Insecticides	
	N	P	K	Total		Quantity (Tonnes)	Value (Mln Rs)
1990-91	1,471.63	388.50	32.75	1,892.88	685.00	13,030.14	1,489.43
1991-92	1,462.60	398.02	23.30	1,883.92	632.00	15,258.30	1,945.98
1992-93	1,635.34	488.20	24.07	2,147.61	759.10	14,434.80	1,730.60
1993-94	1,659.36	464.24	23.17	2,146.77	903.00	12,100.40	1,706.30
1994-95	1,738.12	428.40	16.54	2,183.06	261.00	21,776.10	2,978.10
1995-96	1,990.90	494.45	29.70	2,515.00	581.00	30,479.00	5,080.70
1996-97	1,985.10	419.51	8.40	2,413.01	878.10	30,855.90	5,272.49
1997-98	2,075.00	551.00	20.00	2,646.00	714.00	29,224.90	4,801.19
1998-99	2,097.00	465.00	21.00	2,583.00	866.00	31,893.40	5,515.12
1999-00	2,217.80	597.16	18.50	2,833.50	662.80	26,123.90	4,691.71
2000-01	2,264.49	676.73	22.75	2,966.03	579.10	21,255.00	3,476.50
2001-02	2,285.30	624.54	18.75	2,928.60	625.70	31,783.20	5,320.49
2002-03	2,349.11	650.17	20.49	3,019.76	766.10	22,241.66	3,440.86
2003-04	2,526.73	673.46	21.79	3,221.98	764.10	41,406.36	7,156.66
2004-05	2,796.42	865.11	32.51	3,694.04	784.71	41,561.41	8,280.64
2005-06	2,926.62	850.53	27.04	3,804.19	1,268.31	33,953.90	6,804.02
2006-07	2,650.00	979.00	43.00	3,672.00	796.00	28,089.45	5,848.44
2007-08 P	2,222.00	593.00	24.00	2,839.00	707.00	18,034.00	4,323.00

P Provisional, (Jul-Mar)

Source: 1. Federal Bureau of Statistics.

2. National Fertilizer Development Centre.

TABLE 2.10

## AVERAGE RETAIL SALE PRICE OF FERTILIZERS

Fiscal Year	(Rs per bag of 50 Kgs/110lbs)							
	Urea (46% N)	AN/CAN (26% N)	AS (21% N)	NP (23:23)	SSP(G) (18%)	DAP (18:46)	SOP (50% K)	NPK (10:20:20)
1990-91	195.0	90.0	85.0	173.0	93.0	249.0	150.0	176.0
1991-92	195.0	95.0	90.0	173.0	93.0	272.0	150.0	176.0
1992-93	205.0	109.0	96.0	196.0	93.0	264.0	195.0	247.0
1993-94	210.1	..	125.3	202.6	95.8	269.0	195.0	247.0
1994-95	235.0	150.0	164.0	250.0	150.0	379.0	195.0	247.0
1995-96	267.0	172.0	172.0	320.0	183.0	479.0	331.0	..
1996-97	340.0	209.0	197.0	384.0	211.0	553.0	532.0	..
1997-98	341.0	223.6	232.5	396.6	200.0	564.6	540.0	..
1998-99	346.0	231.0	275.0	457.0	234.0	665.0	541.0	..
1999-00	327.0	231.0	286.0	464.0	298.0	649.0	543.0	..
2000-01	363.0	233.0	300.0	468.0	253.0	670.0	682.0	..
2001-02	394.0	268.0	308.0	519.0	280.0	710.0	765.0	..
2002-03	411.0	282.0	344.0	539.0	287.0	765.0	780.0	..
2003-04	420.0	208.0	373.0	622.0	329.0	913.0	809.0	..
2004-05	468.0	353.0	405.0	704.0	373.0	1,001.0	996.0	..
2005-06	509.0	395.0	744.0	710.0	407.0	1,079.0	1,170.0	..
2006-07	527.0	396.0	779.0	670.0	334.0	993.0	985.0	..
2007-08 P	561.0	431.0	803.0	1,079.0	478.0	1,599.0	1,270.0	..

.. Not available  
P Provisional (Jul-Apr)  
AN/CAN Ammonium nitrate/calcium ammonium nitrate.  
ASN Ammonium super nitrate.  
AS Ammonium sulphate.  
NP Nitrophosphate.

Source: Federal Buearu of Statistics.  
National Fertilizer Dev. Centre.  
SSP: single super phosphate.  
DAP: Diammonium phosphate.  
SOP: Sulphate of potash.  
NPK: Nitrogen phosphate and potash.



TABLE 2.11

## AREA IRRIGATED BY DIFFERENT SOURCES

(Million hectares)

Fiscal Year	Canals	Wells	Canal Wells	Tubewells	Canal Tubewells	Others	Total
1990-91	7.89	0.13	0.08	2.56	5.87	0.22	16.75
1991-92	7.85	0.16	0.11	2.59	5.93	0.21	16.85
1992-93	7.91	0.18	0.10	2.67	6.23	0.24	17.33
1993-94	7.73	0.14	0.09	2.78	6.22	0.17	17.13
1994-95	7.51	0.17	0.10	2.83	6.41	0.18	17.20
1995-96	7.60	0.18	0.11	2.89	6.58	0.22	17.58
1996-97	7.81	0.18	0.11	2.88	6.61	0.26	17.85
1997-98	7.79	0.16	0.13	3.00	6.74	0.18	18.00
1998-99	7.67	0.17	0.09	2.98	6.88	0.16	17.95
1999-00	7.56	0.18	0.09	3.11	6.99	0.18	18.11
2000-01	6.98	0.16	0.10	3.19	7.22	0.17	17.82
2001-02	6.81	0.20	0.16	3.45	7.24	0.18	18.04
2002-03	7.06	0.21	0.17	3.37	7.21	0.20	18.22
2003-04	7.22	0.22	0.15	3.48	7.50	0.21	18.78
2004-05	7.00	0.25	0.19	3.46	7.70	0.24	18.84
2005-06	7.06	0.28	0.20	3.58	7.78	0.22	19.12
2006-07 P	6.80	0.68	0.22	3.88	7.78	2.26	19.62

P: Provisional

Source: Ministry of Food, Agriculture and Livestock

TABLE 2.12(A)

## PROCUREMENT/SUPPORT PRICES OF AGRICULTURAL COMMODITIES

Fiscal Year	(Rs per 40 kg)								
	Rice			Paddy		Sugarcane			
	Wheat	Basmati 385	Irri-6 (F.A.Q)	Basmati 385	Irri-6 (F.A.Q)	NWFP	Punjab	Sind	Baluchistan
1990-91	112	283.00	127.00	143.50	73.00	15.25	15.25	15.75	..
1991-92	124	308.00	140.00	155.00	78.00	16.75	16.75	17.75	17.00
1992-93	130	340.00	150.00	175.00	85.00	17.50	17.50	17.50	14.75
1993-94	160	360.00	157.00	185.00	90.00	18.00	18.00	18.25	18.25
1994-95	160	389.00	170.00	210.90	102.60	20.50	20.50	20.75	20.75
1995-96	173	419.80	183.00	222.00	112.00	21.50	21.50	21.75	21.75
1996-97**	240	461.78	210.45	255.30	128.80	24.00	24.00	24.50	24.50
1997-98	240	..	..	310.00	153.00	35.00	35.00	36.00	36.00
1998-99	240	..	..	330.00	175.00	35.00	35.00	36.00	36.00
1999-00	300	..	..	350.00	185.00	35.00	35.00	36.00	36.00
2000-01	300	..	..	385.00	205.00	35.00	36.00	36.00	36.00
2001-02	300	..	..	385.00	205.00	42.00	42.00	43.00	43.00
2002-03	300	..	..	385.00	205.00	42.00	40.00	43.00	43.00
2003-04	350	..	..	400.00	215.00	42.00	40.00	41.00	..
2004-05	400	..	..	415.00	230.00	42.00	40.00	43.00	43.00
2005-06	415	..	..	..	300.00	48.00	45.00	60.00	..
2006-07	425	..	..	..	310.00	48.00	45.00	58.00	..
2007-08 P	625	..	..	..	..	65.00	60.00	67.00	..

FAQ Fair Average Quality

.. Not applicable

\*\* Rs.240/- w.e.f. April 3, 1997.

(Contd.)

TABLE 2.12(B)

## PROCUREMENT/SUPPORT PRICES OF AGRICULTURAL COMMODITIES

(..Contd.)										(Rs per 40 Kg)	
		Cotton Lint			Seed Cotton (Phutti)						
Fiscal Year	Desi	AC-134, NT	B-557 149-F	Sarmast Qallandri Delta-pine MS-39-40	Desi	AC-134, NT	B-557 F-149 Niab-78	Sarmast Qallandri Delta-pine MS-39-40	Potato	Onion	
1990-91	550	615	645	690	220	235	245	260	55	52	
1991-92	662	685	715	745	255	270	280	290	65	60	
1992-93	695	..	770	* 800	275	..	300 *	310	67	65	
1993-94	726	..	801	* 831	290	..	315 *	325	77	78	
1994-95	795	..	986	* 1055	340	..	400 *	423	84	78	
1995-96	795	..	986	* 1055	340	..	400 *	423	84	85	
1996-97	..	..	..	..	440	..	500 *	540	115	100	
1997-98	..	..	..	..	440	..	500 *	620	145	112	
1998-99	..	..	..	..	..	..	825 *	..	145	140	
1999-00	..	..	..	..	..	..	725 *	..	145	..	
2000-01	..	..	..	..	..	..	725 *	..	145	..	
2001-02	..	..	..	..	..	..	780	..	..	..	
2002-03	..	..	..	..	..	..	800	..	..	..	
2003-04	..	..	..	..	..	..	850	..	..	..	
2004-05	..	..	..	..	..	..	925	..	..	..	
2005-06	..	..	..	..	..	..	976	..	..	..	
2006-07	..	..	..	..	..	..	1,025	..	..	..	
2007-08 P	..	..	..	..	..	..	..	..	..	..	

.. not applicable  
\* Niab-78, CIM

Source: Ministry of Food, Agriculture & Livestock (APCOM)

TABLE 2.13

## PROCUREMENT, RELEASES AND STOCKS OF WHEAT AND RICE

Fiscal Year	(000 tonnes)						
	Wheat(May-April)			Rice Procured		Stocks Balance (on 1st July)	
	Procurement	Releases	Stocks (on 1st May)	Basmati	Others	Basmati	Others
1990-91	3,159.0	5,608.0	1,508.0	142.7	673.8	719.3	117.5
1991-92	3,249.0	5,431.0	1,000.0	121.6	370.3	486.8	314.7
1992-93	4,120.0	5,143.0	505.0	500.5	454.0	285.2	540.5
1993-94	3,644.0	5,982.0	1,007.0	144.9	681.4	224.8	541.2
1994-95	3,740.0	5,999.0	776.0	284.0	..	236.4	848.5
1995-96	3,448.0	5,139.0	385.0	50.8	154.6	494.3	117.7
1996-97	2,725.0	5,987.0	456.0	..	..	159.4	187.9
1997-98	3,984.0	5,794.0	902.0	..	..	..	..
1998-99	4,070.0	6,165.0	981.0	..	..	..	..
1999-00	8,582.0	6,131.0	702.0	..	..	..	..
2000-01	4,081.0	5,537.0	3,552.0	..	..	..	..
2001-02	4,045.0	3,376.0	3,683.0	..	..	..	..
2002-03	3,514.0	5,130.0	992.0	..	..	..	..
2003-04	3,456.0	4,104.0	161.0	..	..	..	..
2004-05	3,939.0	4,500.0	350.0	..	..	..	..
2005-06	4,514.0	2,088.0	2,107.0	..	..	..	..
2006-07	4,422.0	5,985.4	499.1	..	..	..	..
2007-08 P	3,207.0 @	6,357.9	136.9 *	..	..	..	..

.. not available

\* as on 1st May, 2008

@ upto 13th May 2008

Source: Ministry of Food, Agriculture and Livestock.

TABLE 2.14

## LIVESTOCK POPULATION

(million numbers)									
Fiscal Year	Buffaloes	Cattle	Goats	Sheep	Poultry	Camels	Asses	Horses	Mules
1990-91	17.8	17.7	37.0	26.3	146.9	1.1	3.5	0.4	0.1
1991-92	18.3	17.7	38.7	27.4	156.2	1.1	3.8	0.5	0.1
1992-93	18.7	17.8	40.2	27.7	182.6	1.1	3.8	0.4	0.1
1993-94	19.2	17.8	42.0	28.3	250.0	1.1	3.9	0.4	0.1
1994-95	19.7	17.8	43.8	29.1	318.8	1.1	4.0	0.4	0.1
1995-96	20.3	20.4	41.2	23.5	350.0	0.8	3.6	0.3	0.1
1996-97	20.8	20.8	42.6	23.7	382.0	0.8	3.6	0.3	0.1
1997-98	21.4	21.2	44.2	23.8	276.0	0.8	3.2	0.3	0.1
1998-99	22.0	21.6	45.8	23.9	278.0	0.8	3.8	0.3	0.1
1999-00	22.7	22.0	47.4	24.1	282.0	0.8	3.8	0.3	0.2
2000-01	23.3	22.4	49.1	24.2	292.4	0.8	3.9	0.3	0.2
2001-02	24.0	22.8	50.9	24.4	330.0	0.8	3.9	0.3	0.2
2002-03	24.8	23.3	52.8	24.6	346.1	0.8	4.1	0.3	0.2
2003-04	25.5	23.8	54.7	24.7	352.6	0.7	4.1	0.3	0.2
2004-05	26.3	24.2	56.7	24.9	372.0	0.7	4.2	0.3	0.3
2005-06 *	27.3	29.6	53.8	26.5	433.8	0.9	4.3	0.3	0.2
2006-07 @	28.2	30.7	55.2	26.8	443.2	0.9	4.3	0.3	0.2
2007-08 @	29.0	31.8	56.7	27.1	510.1	1.0	4.4	0.3	0.2

Source: Livestock Division

\* : Population figures are actual figures of Livestock Census 2006.

@ : Estimated figures based on Inter census growth rate of livestock census 1996 &amp; 2006

TABLE 2.15

## LIVESTOCK PRODUCTS

Fiscal Year	Milk #	Beef	Mutton	Poultry Meat	Wool	Hair	Bones	Fat	Blood	(000 tonnes)		
										Eggs (Min.Nos.)	Hides (Min.Nos.)	Skins (Min.Nos.)
1990-91	15,481	765	665	151	48.1	7.9	259.0	101.8	40.1	4,490	5.9	32.7
1991-92	16,280	803	713	169	49.3	8.3	265.0	104.5	42.5	4,914	6.0	33.9
1992-93	17,120	844	763	265	50.5	8.1	271.0	107.2	45.1	5,164	6.1	36.0
1993-94	18,006	887	817	296	51.7	9.0	277.0	110.0	47.3	5,740	6.2	37.8
1994-95	18,986	931	875	308	53.1	9.4	283.0	113.0	50.7	5,927	6.3	39.3
1995-96	22,970	898	587	355	38.1	15.6	295.7	110.1	32.0	5,757	7.0	32.7
1996-97	23,580	919	602	387	38.3	16.2	302.3	112.6	32.8	6,015	7.1	34.5
1997-98	24,215	940	617	284	38.5	16.7	309.2	115.2	33.6	5,737	7.3	35.3
1998-99	24,876	963	633	310	38.7	17.3	316.3	117.8	34.4	8,261	7.5	36.3
1999-00	25,566	986	649	322	38.9	17.9	324.0	120.6	40.9	7,321	7.6	37.2
2000-01	26,284	1,010	666	339	39.2	18.6	331.4	123.5	41.8	7,505	7.8	38.2
2001-02	27,031	1,034	683	355	39.4	19.3	339.4	126.5	42.9	7,679	7.9	39.2
2002-03	27,811	1,060	702	370	39.7	19.9	347.6	129.7	44.0	7,860	8.2	40.3
2003-04	28,624	1,087	720	378	39.9	20.7	356.2	132.9	45.2	8,102	8.4	42.4
2004-05	29,438	1,115	739	384	40.0	20.7	365.1	136.3	45.2	8,529	8.4	42.6
2005-06 *	31,970	1,449	554	512	40.1	20.3	633.5	203.3	51.4	9,712	11.4	43.3
2006-07 @	32,996	1,498	566	554	40.6	20.8	652.5	209.2	52.7	10,197	11.8	44.3
2007-08 @	34,064	1,549	554	601	41.0	21.4	672.2	215.3	54.1	10,712	12.2	45.3

Source: Livestock Division

\* : Population figures are actual figures of Livestock Census 2006.

# : Human Consumption

@ : Estimated figures based on Inter census growth rate of livestock census 1996 &amp; 2006