AGRICULTURE

Agriculture continues to be the single largest sector, a dominant driving force for growth and the main source of livelihood for 66 percent of the country's population. It accounts for 20.9 percent of the GDP and employs 43.4 percent of the total work force. As such agriculture is at the center of the national economic policies and has been designated by the Government as the engine of national economic growth and poverty reduction. Agriculture contributes to growth as a supplier of raw materials to industry as well as a market for industrial products and also contributes substantially to Pakistan's exports earnings. Thus any improvements in agriculture will not only help country's economic growth to rise at a faster rate but will also benefit a large segment of the country's population.

The agriculture growth has experienced mixed trends over the last six year. The country witnessed unprecedented drought during the first two years of the decade i.e. (2000-01 and 2001-02) which resulted in contraction of agricultural value added. Hence agriculture registered negative growth in these two years. In the following years (2002-03 to 2004-05), relatively better availability of irrigation water had a positive impact on overall agricultural growth and this sector exhibited modest to strong recovery. The performance of agriculture remained weak during 2005-06 because its crops sector particularly major crops could not perform up to the expectations (Table 2.1). Growth in the agriculture sector registered a sharp recovery in 2006-07 and grew by 5.0 percent as against the preceding year's growth of 1.6 percent. Major crops posted strong recovery from negative 4.1 percent last year to positive 7.6 percent, mainly due to higher production of wheat and sugarcane. Wheat production of 23.5 million tons is highest ever in the country's history, registered an increase of 10.5 percent over last year. Sugarcane production likewise improved by 22.6 percent over last year to 54.8 million tons, both being record high production.

Table 2.1: Agriculture Growth (Percent)

Year	Agriculture	Major Crops	Minor Crops
2000-01	-2.2	-9.9	-3.2
2001-02	-0.1	-2.5	-3.7
2002-03	4.1	6.9	0.4
2003-04	2.3	1.9	4
2004-05	6.7	17.8	3
2005-06	1.6	-4.1	0.4
2006-07 (P)	5.0	7.6	1.1

P= Provisional. *Source: Federal Bureau of Statistics*

Cotton production at 13 million bales remained mostly unchanged in comparison to 13.02 million bales of last year. Rice production at 5.4 million tons was marginally less than 5.5 million tons produced last year. Despite the lower yield, higher demand abroad for Pakistan Basmati rice and high international prices are expected to surpass the last year's export earning from Basmati Rice. Amongst the other major crops, gram crop, exhibited an impressive growth of 75.4 percent in 2006-07 due to the increase in intervention price of the crop and good rains in "*Thal*" area where the gram crop is mainly concentrated. Minor crops registered a weak growth of 1.1 percent while it was 0.4 percent last year. However, amongst the minor crops, production of potato increased by 67.2 percent, mung and masoor pulses improved by 21.5 percent and 17.9 percent respectively. Livestock registered a strong growth of 4.30 percent over the last year's impressive growth of 7.5 percent due to increase in the livestock and poultry products. Fishery performed positively at 4.2 percent though the previous year's growth stood at 20.5 percent. Forestry has decreased by 3.8

percent in 2006-07 while it had decreased by 43.7 percent last year.

Pakistan's agricultural output is closely linked to 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 29.4 percent (2001-02). However, it remained less by 2.6 percent in 2005-06 against the normal availability. Relatively speaking, Rabi season faced more shortage of water than Kharif during these periods.

Table: 2.2 Actual Surface Water Availability (million Acre Feet MAF)

Period	Kharif	%age incr / decr. Over the Avg.	Rabi	%age incr / decr. Over the Avg.	Total
Average system usage	67.1	-	36.4	-	103.5
2001-02	54.7	-18.4	18.4	-49.5	73.1
2002-03	62.8	-6.4	25.0	-31.3	87.8
2003-04	65.9	-1.8	31.5	-13.5	97.4
2004-05	59.1	-11.9	23.1	-36.5	82.2
2005-06	70.8	5.5	30.1	-17.3	100.9
2006-07	63.1	-6.0	31.2	-14.3	94.3

Source: Ministry of Food and Agriculture.

During the current fiscal year (2006-07), the availability of water for Kharif 2006 (for the crops such as rice, sugarcane and cotton) has been 6.0 percent less than the normal supplies and 10.8 percent less 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 2007 was estimated at 31.2 MAF, which was 14.3 percent less than the normal availability, and 3.7 percent more than last year's Rabi. Sufficient water supplies coupled with timely winter rains in Rabi season had a good impact on Rabi crops particularly on gram, masoor and wheat as production of these crops increased by 75.4, 17.9 and 10.5 percent, respectively.

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 88.7 percent of the value added in the major crops. The value added in major crops accounts for 36.3 percent of the value added in overall agriculture. Thus, the four major crops (wheat, rice, cotton, and sugarcane), on average, contribute 32.2 percent to the value added in overall agriculture. The minor crops account for 11.7 percent of the value added in overall agriculture. Livestock contributes 49.6 percent to agricultural value added – much more than the combined contribution of major and minor crops (48%).

a) Major Crops:

i) Cotton:

Pakistan is one of the largest cotton producing and consuming countries in the world. Under the WTO post quota scenario, the country appears to have the potential of becoming a leading force in the worldwide cotton and textile market place. There is also growing realization in the country that future gains in value added from cotton are only possible through qualitative improvement in raw cotton. Cotton accounts for 8.6 percent of the value added in agriculture and about 1.9 percent in GDP.

World Cotton Situation

According to the International Cotton Advisory Committee, the world cotton production in 2006-07 is estimated at 116.3 million bales, up by 3 percent over last year's 113.31 million bales. World cotton area remained stable in 2006-07 at 34 million hectares, while the world average yield rose to 744 kilograms per hectare, close to the record of 747 kilograms per hectare reached in 2004-05. The cotton prices (A Index) in the international markets

in 2006-07 has averaged 58.5 cents per pound, or slightly higher than the same period last season.

Table 2.3: Production of Major Crops (000 Tons)

Year	Cotton (000 bales)	Sugarcane	Rice	Maize	Wheat
2002-03	10211	52056	4478	1737	19183
	(-3.8)	(-8.3)	(-15.3)	(-4.4)	(5.2)
2003-04	10048	53419	4848	1897	19500
	(-1.6)	(2.6)	(8.3)	(9.2)	(1.6)
2004-05	14265	47244	5025	2797	21612
	(42.0)	(-11.6)	(3.6)	(47.4)	(10.8)
2005-06	13019	44666	5547	3110	21277
	(-8.7)	(-5.5)	(10.4)	(11.2)	(-1.6)
2006-07 (P)	13000	54752	5438	2968	23520
	(-0.1)	(22.6)	(-2.0)	(-4.5)	(10.5)

P: Provisional. (July-March) *Source: Ministry of Food, Agriculture & Livestock, Federal Bureau of Statistics.*
**: Figures in parentheses are growth rates*

The world cotton production in 2007-08 is forecast at 115.8 million bales down by 0.4 percent of 116.3 million bales in 2006-07. Production in China is expected to decline slightly and it is expected to increase in India to record 18.3 million bales. Production in the United States is likely to fall by 10 percent. Whereas production target of cotton in Pakistan for the year 2007-08 is estimated as 14.14 million bales.

Domestic Cotton Situation

Cotton accounts for 8.6 percent of the value added in agriculture and about 1.8 percent to GDP. The crop was sown on the area of 3075 thousand hectares, 0.9 percent less than last year (3103 thousand hectares). The production of cotton is provisionally estimated at 13.0 million bales for 2006-07, lower by 0.1 percent over the last year's production of 13.019 million bales. Lower production was attributed primarily to the 11 percent decline in area sown in Sindh due to excessive rains and floods. The crop yield in some areas was also affected by the cotton leaf curl virus and mealy bug. Other factors responsible for the decline in cotton production include excessive rain, delayed sowing and late wheat harvesting which resulted in decline in area under the crop. The following measures were taken to provide support to the cotton production system in the country in 2006-07

1. Government provided a subsidy of Rs 200/- per bag of 50 kgs of phosphate and potash fertilizers to encourage balanced use of fertilizers.
2. Electronic media was used for quick technology transfer among the grower community.
3. Availability of agricultural credit was considerably improved to Rs 160 billion in 2006-07, which was 23% higher than the actual disbursement of 2005-06.

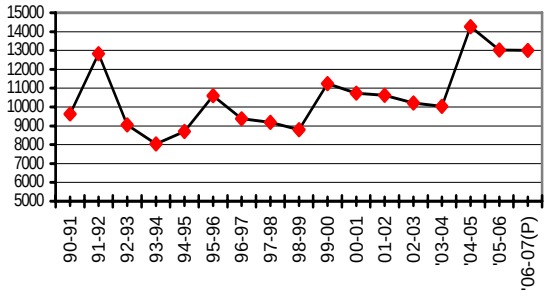
The government had fixed the seed cotton intervention price of 2006-07 season at Rs 1,025/- per 40 kgs as against Rs 975/- fixed in 2005-06. The seed cotton market prices however remained above the intervention price since early in the season. The prices during the season, at times, even crossed Rs 1,400 per 40 kgs in some markets. The government's action plan calls for a cotton production target of 14.14 million bales in 2007-08, thereby supporting cotton growers for higher yield and income and also facilitate the textile industry through adequate supply of high quality cotton for value addition. Area, production and yield of cotton for the last five years are given in Table 2.4 and Fig.1.

Table 2.4: Area, Production and Yield of Cotton

Year	Area		Production		Yield	
	(000 Hectare)	% Change	(000 Bales)	% Change	(Kgs/Hec)	% Change
2002-03	2794	-10.3	10211	-3.8	622	7.4
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 (P)	3075	-0.9	13000	-0.1	712	-0.3

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

Fig-1: Cotton production (000 bales)



Cotton Vision 2015

As for the future, cotton production prospects are bright to meet the future needs of the domestic textile sector as well as the international market. The government is, therefore, determined to accelerate the cotton research and development process required for a quantum jump in cotton production as well as the qualitative improvement, matching the spinners' requirements. At the same time, it also intends to facilitate all the stakeholders, particularly the growing community through a package of fiscal, technological, administrative and legislative measures. Accordingly, the Ministry of Food, Agriculture & Livestock has prepared a long term Cotton Vision for sustained growth in cotton sector and the possible improvement in the quality of raw cotton with following envisaged targets by 2015:

1. Cotton Production — 20.7 Million Bales
2. Cotton Yield / hectare — 1,060 Kgs
3. Mill Consumption of Cotton — 20.1 Million Bales
4. Exportable Cotton Surplus — 0.6 Mln Bales
5. Improved Yarn Recovery Rate through Clean / contamination free cotton production — 92% (from current average of 84%)

The higher production of cleaner cotton would thus result in the following advantages.

1. Assured supply of cleaner, uniform graded and contamination free cotton to the domestic textile industry.
2. Higher recovery rate, hence more yarn,
3. Improve reputation of Pakistan's cotton and its products in the world market.
4. Substantial additional foreign exchange earning through better unit values.

ii) Rice:

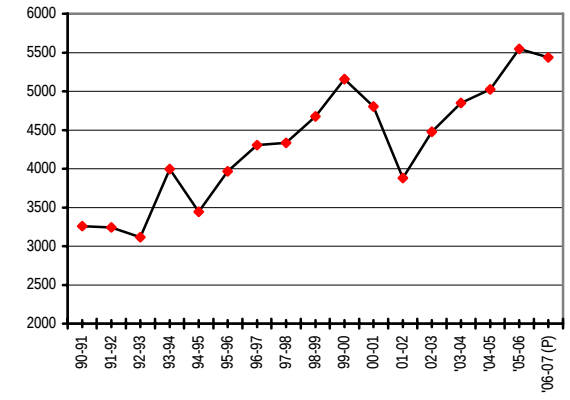
Rice is high valued cash crop and is also a major export item. It accounts for 5.7 percent of the total value added in agriculture and 1.2 percent to GDP. Area and production target of rice for the year 2006-07 were set at 2575 thousand hectares and 5693 thousand tons, respectively. Area sown for rice is estimated at 2581 thousand hectares, 0.2 percent higher than the target and 1.5 percent lower than last year. The size of the crop is estimated at 5438 thousand tons (5.438 million tons), 2.0 percent lower than last year and 4.5 percent lower than the original target. The lower production is due to heavy rains in lower part of Sindh and in Punjab at the time of maturity logging phenomenon, which affected the production of rice, especially Basmati varieties and shifting of area to sugarcane crop because of better prices offered by the millers for sugarcane crop last year. Area, production and yield of rice for the last five years are given in Table 2.5 and Fig 2

Table 2.5: Area, Production and Yield of Rice

Year	Area		Production		Yield	
	(000 Hectare	% Change	(000 Tons)	% Change	(Kgs/Hec.)	% Change
2002-03	2225	5.2	4478	-15.3	2013	0.6
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 (P)	2581	-1.5	5438	-2.0	2107	-0.4

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

Fig-2: Rice production (000 Tons)



iii) Sugarcane

Sugarcane crop is highly water-intensive and an important crop. Sugar production in the country mostly depends on this crop, though a small quantity of sugar is also produced from sugar beet. Its share in value added of agriculture and GDP are 3.5 percent and 0.7 percent, respectively. For 2006-07, the area under sugarcane crop was targeted at 1005 thousand hectares as against 907 thousand hectares of last year. However, sugarcane has been sown in the area of 1029 thousand hectares, 2.4 percent higher than target and 13.5 percent higher than last year. Sugarcane production for the year 2006-07 is estimated at 54.8 million tons against 44.7 million tons last year. This indicates an improvement of 22.6 percent over the production of last year.

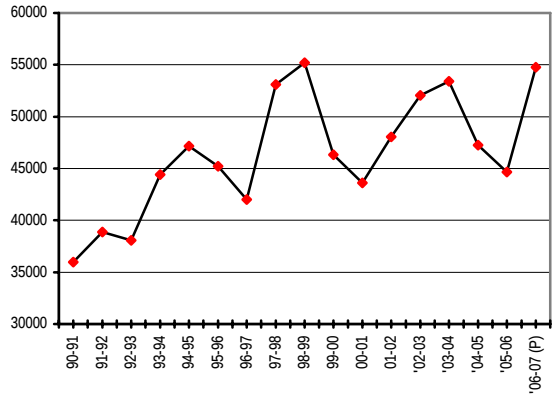
The higher sugarcane production is the result of increase in area, timely rains, judicious application of fertilizer, improvement in cultural practice, better management and attractive prices offered by the millers. The area, production and yield per hectare for the last five years are given in Table 2.6 (see also Fig. 3)

Table 2.6: Area, Production and Yield of Sugarcane

Year	Area		Production		Yield	
	(000 Hectare	% Change	(000 Tons)	% Change	(Kgs/Hec.)	% Change
2002-03	1100	10	52056	-8.3	47324	-1.5
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 (P)	1029	13.5	54752	22.6	53209	8.0

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

Fig-3: Sugarcane Production (000 Tons)



iv) Wheat:

Wheat is the main staple diet of country's population and largest grain crop of the country. It contributes 14.4 percent to the value added in agriculture and 3.0 percent to GDP. Area and production target of wheat for the year 2006-07 were set at 8459 thousand hectares and 22.5 million tons, respectively. Wheat was cultivated on an area of 8494 thousand hectares, showing 1.0 percent increase over last year and 0.4 percent increase over the target. The size of the wheat crop is, however provisionally estimated at 23.52 million tons – highest wheat production in the country's history, which is 10.5 percent higher than last year and 4.5 percent higher than the target. Higher production is due to following reasons:

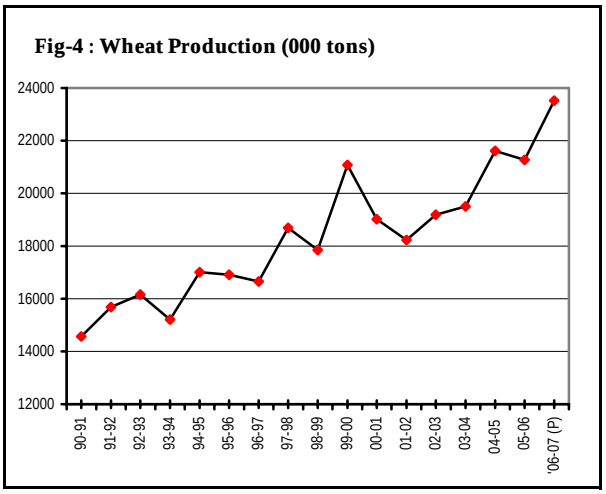
- The certified wheat seed availability was 50,000 tons more than last year to 217,000 tons.
- The urea fertilizer availability for Rabi crop was 4.714 million tons, which was more than the area requirements of 2.9 million tons for Rabi. Moreover, subsidy was extended to phosphatic and potassic fertilizers. The price of 50 kg bag of these fertilizers were reduced by Rs 250 and further to Rs 400 per bag to promote balanced use of fertilizers. The higher use of phosphatic and potassic fertilizers helped increase yield per hectare of wheat. It is important to note that yield per hectare increased by 9.9 percent to 2769 kg/hectare in 2006-07 as compared with 2519 Kg/hectare last year.
- The water availability for Rabi was 31.2 Million Acre Feet. This was an improvement of 3.7% over the last year Rabi water use of 30.1 Million Acre Feet.
- Government during the last two years placed over 25 herbicides on the generic list. This measure helped in reducing the herbicides prices upto 30 to 40 percent, therefore, use of herbicides for the crop increased.
- Last year the agricultural credit disbursement to farmers was Rs 130 billion. This year credit availability has been increased to Rs 160 billion. The banks were also instructed to focus on small and medium scale growers for credit disbursement.
- This year (2006-07), three new high yielding wheat varieties namely Sehar-2006, Shafaq-2006 and Fareed-2006 were released which contributed towards achieving higher production.

The area, production and yield for the last five years are given in Table 2.7 (see also Fig-4).

Table 2.7: Area, Production and Yield of Wheat

Year	Area		Production		Yield	
	(000 hectares)	% Change	(000 tons)	% Change	(Kgs/Hec.)	% Changes
2002-03	8034	-0.3	19183	5.2	2388	5.6
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 (P)	8494	1.0	23520	10.5	2769	9.9

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



v) Other Major Crops

The production of gram, jawar, tobacco and bajra have increased by 75.4 percent, 17.6 percent, 11.5 percent and 7.7 percent, respectively. The gram area and production target for the year 2006-07 was set at 1051.1 thousand hectares and 706.5 thousand tons respectively. In order to achieve the target, Government fixed intervention price of gram at Rs 750/- per 40 kg to encourage farmers to bring more area under gram and increase its production. The government also conducted media campaign to boost growth and productivity. The ECC in its meeting of April, 10, 2007 further increased the intervention price of gram to Rs 850/- per 40 kg to support small farmers. The production was estimated at 842 thousand tons from an area of 1073 thousand hectare. This indicates improvement of 75.4 percent over the last year production of 480 thousand tons primarily due to good rains in "*Thal*" area where the gram is mainly grown. The production of rapeseed & mustard, barley and maize decreased by 13.4 percent, 5.7 percent and 4.5 percent respectively. The details are given in Table 2.8.

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

Crops	2005-06		2006-07(P)		% Change In production
	Area (000 hectares)	Production (000 tons)	Area (000 hectares)	Production (000 tons)	
KHARIF					
Maize	1042	3110	1026	2968	-4.5
Bajra	441	221	504	238	7.7
Jawar	254	153	292	180	17.6
RABI					
Gram	1029	480	1073	842	75.4
Barley	90	88	93	83	-5.7
Rapeseed & Mustard	217	172	253	149	-13.4
Tobacco	56	113	62	126	11.5

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. The total availability of edible oils in 2005-06 was 2.905 million tons. Local production stood at 0.793 million tons which accounts for 27 percent of total availability while the remaining 73 percent was made available through imports. During 2006-07 (July to March) local production of edible oil is provisionally estimated at 0.855 million tons. During this period, 2.201 million tons of edible oil was imported and 0.349 million tons edible oil was recovered from imported oilseeds. The total availability of edible oil from all sources amounted to 3.405 million tons during July-March 2006-07 (provisional estimates). The production of oilseed crops during 2005-06 and 2006-07 is given in the Table 2.9.

Table 2.9: Area and Production of Major Oilseed Crops

Crops	2005-06			2006-07 (P)		
	Area	Production		Area	Production	
	(000 Acres)	Seed (000 Tons)	Oil (000 Tons)	(000 Acres)	Seed (000 Tons)	Oil (000 Tons)
Cottonseed	7660	3796	456	7599	3890	478
Rapeseed / Mustard	578	188	59	628	204	63
Sunflower	875	612	220	937	656	249
Canola	323	162	58	359	180	65
Total Oil			793			855

P: Provisional *Source: Pakistan Oilseed Development Board*

ii) Other Minor Crops:

The production of two pulses namely mung and masoor were higher by 21.5 percent and 17.9 percent, respectively during 2006-07. However, production of mash decreased by 3.6 percent. The main reason for decline in production of mash as compared to last year has been the shortfall of area dedicated to the crop, which declined by 4.6 percent. The production of potato was significantly higher by 67.2 percent and stood at 2622.3 thousand tons while it was 1568 thousand tons last year. However, the production of onion decreased by 14.3 percent mainly due to 16.5 percent reduction in crop area. The production of chillies is decreased by 49.6 as 32.4 percent area of the crop decreased due to excessive rains in Sindh. Chillies crop is mainly concentrated in Sindh particularly in Tharparkar areas where due to un-timely rains, the production was short compared to last year. Moreover, post harvest losses are higher in case of chillies crop. In order to solve this problem, MINFAL have conducted efforts to bring together public, private sector, farmers and exporters to chalk out comprehensive plan to control these post harvest losses of chilies crop. Area and production of minor crops are given in Table 2.10.

Table-2.10 : Area and Production of Minor Crops

Crops	2005-06		2006-07(P)		%Change In Production
	Area (000 hectares)	Production (000 tons)	Area (000 hectares)	Production (000 tons)	
Masoor	33.9	17.9	38.3	21.1	17.9
Mung	208.5	113.9	216.9	138.4	21.5
Mash	34.6	16.5	33.0	15.9	-3.6
Potato	117.4	1568.0	131.9	2622.3	67.2
Onion	148.7	2055.7	124.1	1760.9	-14.3
Chillies	64.6	122.9	43.7	61.9	-49.6

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

II. Farm Inputs

i) Fertilizer:

Fertilizer is a crucial basic input for modern agriculture where natural soil nutrients are supplemented by artificial nutrients in order to boost yield. Balanced and efficient use of fertilizer improves the quality of crops, increase the nutrient value and increases plant resistance to diseases and climatic changes. In Pakistan, there was very limited use of fertilizer during the 50's and 60's. In order to promote the use of fertilizer, the government offered various incentives, which ultimately resulted in the excessive demand for fertilizer. For meeting this demand, the production was increased gradually and new plants were set up. The fertilizer use for agricultural purpose is increasing in Pakistan and use of fertilizer has gained momentum due to 1) introduction of high yielding varieties of wheat, rice and cotton, 2) expansion in cultivated areas, especially of wheat

and 3) public sector support in terms of subsidies, credit and support prices.

The Government has taken several significant steps to boost agricultural production over the last five years. Awareness campaigns were launched through the electronic and print media to reach the farming community with packages of improved technology, cultural practices and input usage for major crops of wheat, cotton and rice and for livestock production. A landmark decision in September 2006 was taken to extend subsidy thus far available only to urea fertilizer to phosphatic and potassic fertilizers as well. As a result, the price of a 50 Kg bag of these fertilizers were reduced by Rs 250 which encouraged a more balanced use of key fertilizer (urea, phosphatic, potassic fertilizers). Following the steep increases in international prices of phosphatic and potassic fertilizers, the Government in March, 2007 increased the relief in price of these fertilizers from Rs 250 to Rs 400 per bag. The fertilizer initiative was also complemented by substantially increased agricultural credit disbursement from Rs 130 billion in 2005-06 and to Rs 160 billion in 2006-07.

The domestic production of fertilizer during the first nine months (July-March, 2006-07) of the current fiscal year was up by only 0.2 percent. On the other hand, the import of fertilizer decreased by 44.6 percent; hence, the total availability of fertilizer decreased by 14.1 percent during July-March, 2006-07.The off- take of fertilizer was therefore, also lower by 5.6 percent (see Table 2.11). The reasons for reduction in import and offtake of fertilizers were that the year 2006-07 started with a handsome balance of 495 thousand tons nutrients against only 214 thousand NPK tons in year 2005-06. Thus a large carryover stock of fertilizer reduced the import requirements. The offtake pattern of nutrients has changed in the country because of subsidy factor on phosphatic and potassic fertilizers. Nitrogen offtake has decreased by 12.0 percent while that of phosphate and potash increased by 14.2 and 63.6 percent, respectively during July-March 2006-07. However, the share of phosphate and potash is low as compared to nitrogen in total offtake, so the overall offtake reduced. Moreover, erratic rainfall pattern in the Kharif 2006 also negatively affected the offtake.

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

Year	Domestic Production	% Change	Import	% Change	Total	% Change	Off-take	% Change
2002-03	2315	1.3	766	22.4	3081	5.8	3020	3.1
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	61.4	4100	17.1	3804	3.0
2005-06(July-March)	2132	-	1002	-	3134	-	2991	-
2006-07 P(July-March)	2136	0.2	555	-44.6	2691	-14.1	2825	-5.6

Source: National Fertilizer Development Centre

ii) Improved Seed:

Improvement in seed quality and varieties is the key to enhancing agricultural productivity. The use of quality seeds can result in 20 to 30 percent improvement in productivity of various crops. Seed has the unique position among the various agricultural inputs because the effectiveness of all other inputs mainly depend on the potential of seeds. In order to increase volume of agricultural production, the availability of quality seed of improved varieties is essential. Further, since improved seed is neutral to the size of the farm and therefore, its advantage is equally realized by the large as well as small farmers. The Federal Seed Certification & Registration Department regulates quality during the flow of seed from the breeder to the growers. The Government has committed financial resources to the tune of Rs 836 million with a view to strengthening and improving the seed sector related infrastructure and services and setting up to 15 new seed testing laboratories all over the country. The Central Seed Testing Laboratory, Islamabad is being upgraded

to achieve excellence and attain international accreditation. Provisions have been made for registration, certification and quality control of food plant nurseries and vegetable seed production. A programme has been started to locally produce hybrid and other high-tech seeds of vegetable crops. Services of internationally renowned scientists have been hired to work on evolution of high yielding, disease resistant and temperature tolerant wheat varieties. A major initiative is to venture into the production and marketing of BT cotton seed under secure bio-safety arrangements.

To provide certified crop seeds to the growers from the public sector, the Seed Corporation in the Punjab and Sindh and the Departments of Agriculture in Balochistan and NWFP have been entrusted the task of seed production, processing and marketing. In the private sector, 639 registered seed companies including four multi-national have been allowed certified seed production, processing and marketing. During July-March 2006-07, 74.8 thousand tons of improved seed was procured and 24.9 thousand tons of improved seed was distributed. The figures for 2006-07 (as on 28-4-2007) are provisional since Rabi crops seed has not yet been procured while Kharif crops seed 2007 is under distribution.

iii) Mechanization:

Pakistan's food security and agriculture surpluses for export at competitive prices require efficient development and utilization of agricultural resources. Cost of production of various crops are not competitive due to low productivity, which is a result of inefficient farming practices. In consideration of the role of machinery in modern farm operations, the use of machinery has been encouraged through increasing the provision of credit availability by commercial banks. The demand for tractors has outstripped local production. Time lag in delivery of tractors is reportedly 4-11 months. Supply demand gap of 20,000 – 25,000 tractors per annum has been noted in the country against the existing production capacity of manufacturing units. In order to meet tractor's demand, Federal Government allowed import of new and used tractors in CBU at zero tariffs. Other measures including use of laser land levelers, ridge and broad bed farming are being encouraged in the country. No increase in prices of locally manufactures tractors as compared to last year has been reported, (see Table 2.12).

Table 2.12: Price of Locally Manufactured Tractors *(In Rs.)*

Tractor Model	2005-06	2006-07	% Change
MF-240 (50-H.P)	339,000	339,000	0.0
MF-260 (60 H.P)	429,000	429,000	0.0
MF-375S (78 H.P)	539,000	539,000	0.0
MF-385 (85 H.P)	639,000	639,000	0.0
FIAT-480 (55-H.P)	320,000	320,000	0.0
FIAT-640 (75-H.P)	459,000	459,000	0.0
UNIVERSAL U-640(65 HP)	436,800	436,800	0.0
UNIVERSAL U-530(53-HP)	320,000	320,000	0.0

Source: Ministry of Food, Agriculture and Livestock.

iv) Plant Protection:

Plant protection measures help in increasing per hectare yield by protecting crops from damages. Without effective protection against the attack of pests and diseases, the beneficial outcome of other inputs may not be realized either. 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. The private sector also carries out plant protection activities such as ground sprays. Pakistan remained free from locust activity during July-March, 2006-07. However, scattered mature solitary locust population ranging from 1-100 hectare were observed in 123 localities of Cholistan, Nara, Turbat, Pasni and Uthal deserts. The DPP did not receive any urgent demand from the provincial government for aerial spraying nor any locust emergent situation occurred. Regular

field crops survey were carried out during July-March 2006-07.

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 2006-07 *(In Millimeter)*

	Monsoon Rainfall (Jul-Sep) 2006	Winter Rainfall (Jan-Mar) 2007
Normal	137.5	70.5
Actual	174.9	111.2
Shortage (-) / excess (+)	+ 37.4	+ 40.7
% Shortage (-) / excess (+)	+ 27.2%	+ 57.7%

Source: Pakistan Meteorological Department

During the monsoon season (July-September, 2006) the normal rainfall is137.5 mm while the actual rainfall received stood at 174.9 mm, indicating an increase of 27.2 percent. Likewise, during winter (January to March 2007), the actual rainfall received was 112.2 mm while the normal rainfall during this period has been 70.5 mm, indicating an increase of 57.7 percent over the normal rainfall. The details are in Table 2.13. Due to winter rainfalls, the provincial indents for Rabi 2006-07 were fully met. It is estimated that water situation for Kharif 2007 (April-September) is encouraging. Anticipated provincial allocation shares stand at 76 Million Acre Feet (MAF) which are 20.4 percent higher than last year's allocation of 63.10 million.

The canal head withdrawals in Kharif 2006 (April-September) have decrease by 10.8 percent and stood at 63.10 Million Acre Feet (MAF), as compared to 70.75 MAF during the same period last year. During the Rabi season 2006-07 (October-March), the canal head withdrawals increased by 3.7 percent, as it remained at 31.18 MAF compared to 30.06 MAF during the same period last year. Province-wise details are given in Table 2.14.

Table 2.14: Canal Head Withdrawals (Below Rim Station) *Million Acre Feet (MAF)*

Provinces	Kharif (Apr-Sep) 2005	Kharif (Apr -Sep) 2006	% Change in Kharif 2006 over 2005	Rabi (Oct-Mar) 2005-06	Rabi (Oct –Mar) 2006-07	% Change in Rabi 2006-07 Over 2005-06
Punjab	36.43	34.92	-4.11	16.40	16.28	-0.7
Sindh	31.18	25.10	-19.5	12.13	13.76	12.7
Baluchistan	2.16	2.03	-6.0	0.89	0.73	-18.0
NWFP (CRBC)	0.98	1.06	8.2	0.64	0.42	-34.4
Total	70.75	63.10	-10.8	30.06	31.18	3.7

Source: Indus River System Authority.

The critical issue in water sector is to overcome the scarcity of water through augmentation and conservation. Some measures which can be used to address these issues include: construction of medium and large dams, efficient utilization of irrigation water, restoring the productivity of agricultural land through control of water logging, salinity and floods, managing quantity and quality of drainage effluent in an environmentally safe manner and managing ground water. The strategies being adopted to achieve these objectives are stated below:

a. Augmentation of water supplies by Implementing of high priority projects like Raising of Mangla Dam, Gomal Zam, Mirani Dam, Sat Para Dam, Sabakzai Dam, Kurram Tangi Dam, Diamer Basha Dam, Kala Bagh,

Akhori Dam, Munda Dam and other small and medium reservoirs.

b. Efficient use of stored water through construction / extension of new irrigation canals and improvement in the existing Irrigation System which includes Greater Thal Canal, Rainee Canal, Kachhi Canal, Extension of Pat Feeder Canal, Khirther Canal and construction of 43 minors in Balochsitan, Irrigation system Rehabilitation Programme in Punjab, Sindh & NWFP, Modernization of Barrages in Punjab and Lining of Irrigation Channels in Punjab, Sindh and NWFP.

c. Implementation of the National Drainage Strategy aiming at adoption of effective management measures to reduce effluent generated at source and to dispose off the generated effluent outside the Indus Basin preferably to the sea in an environmentally safe manner. RBOD-I, II & III are being constructed to drain the effluent generated from water logged areas directly into the sea.

d. Ground water table monitoring is being undertaken, 150 delay action dams are being constructed to recharge groundwater in Balochistan & NWFP.

e. On farm drainage system is being constructed by the Farmer's Organizations (FO).

f. An integrated programme approach is being adopted and programmes like National Drainage Programme, On-farm Water Management and Flood Control Programme are being implemented.

g. Water conservation is being ensured through rehabilitation, remodeling and lining of canals and National Program for watercourses Improvement in Pakistan.

h. Institutional reforms will be introduced by all irrigation and drainage related agencies dealing with the planning, designing and monitoring & evaluation to make them more effective and responsive.

i. Watershed management through satellite imagery will be undertaken, while watershed forestry projects are under implementation in the catchments of Mangle and Tarbela.

j. Telemetering and flow gauging systems will be supplied to ensure equitable distribution of water.

k. Priority will be given to the completion of ongoing schemes at advance stage of construction. Major water sector projects under implementation are given in the Table 2.15.

Table 2.15: Water Sector Projects under Implementation

Projects	Location	Cost (US$m)	Live Storage (MAF)	Area Under Irrigation (Acres)	Completion Date
Gomal Zam Dam	NWFP	211	1.14	163,086	Marchl, 2010
Greater Thal Canal *	Punjab	501	-	1534,000	June, 2008
Rainee Canal *	Sindh	229	-	412,000	Sept., 2008
Kachhi Canal *	Balochistan	538	-	713,000	Dec., 2008
Mirani Dam	Balochistan	96	0.15	33,200	Completed
Sabakzai Dam	Balochistan	26	0.02	6,680	Dec., 2007
Raising of Mangla Dam (30 ft)	AJ&K	1030	2.90	-	June, 2008
Satpara Dam	Skardu	35	0.05	15,536	June, 2008
Multipurpose Diamer Basha Dam Project	N.A & NWFP	6500	6.40	Feasibility in progress	Feasibility in progress
Kurram Tangi Dam	NWFP	283	0.83	362,380	2010-11

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

Water Sector will get added water supplies of 4.44 MAF during the period 2005-2010 to irrigate additional 2.9 million acres of land. This will help to achieve higher agriculture growth and alleviate rural poverty.

The government with the intention to address the impending threat of water shortages confronting the country has started a major water resource development program comprising construction of major water storages and improvement/augmentation of the water distribution network. To reduce the high water losses of around 25-30 percent during transmission, a mega project for Watercourse Improvement and Lining of canals was launched in 2004-05 at a cost of Rs 66.0 billion with the goal of improving lining of 87,000 watercourses over five years. During the first three years of the project, one-half of the targeted watercourses have been improved/lined throughout the country. An associated project costing Rs 16 billion has now been started to improve water usage efficiency through installation of drip, trickle and sprinkler irrigation systems in combination with introduction of the high value agronomic production. This program particularly benefits the water scarce arid regions with a possibility of high returns from high value horticultural, floral and other cash crops. The Federal and Provincial Governments will provide 80 percent of capital cost under this demand driven private sector led program. Further, 50 percent of the beneficiaries would be small farmers with land holdings of less than 12.5 acres producing under a cluster approach. Similar benefits would emerge from special regional programs for water optimization approved for Chaghi/Noshki districts of Balochistan, the Northern Areas and various urban areas. A National Research and Development Project for Spate Irrigation System in Rod Kohi Sailaba areas of NWFP, Punjab and Balochstan has kick started a possible larger initiative to support this major potential agricultural area outside the main Indus basin.

vi) Agricultural Credit:

Credit requirements of the farming sector have been increasing over the years mainly due to the rise in the use of fertilizer, pesticides and mechanization. In order to cope with the increasing demand for agricultural credit, institutional credit to farmers is being provided through Zarai Taraqiati Bank Limited (ZTBL), Commercial Banks, Punjab Provincial Cooperative Bank Ltd (PPCBL) and Domestic Private Banks. The Government has allocated Rs 160 billion for agriculture credit disbursements for the year 2006-07 which is 23.1 percent higher than the allocation of the preceding year i.e. Rs 130 billion. The allocations, however, are totally voluntary and indicative in nature as the mandatory allocations policy has been totally phased out and the allocations for commercial banks have also been made indicative. The elimination of mandatory credit allocations coupled with active involvement of commercial banks in agrifinance is a major milestone achieved towards mainstreaming of agrifinance in the country's financial system. The flow of necessary funding to the sector will now be ensured through conducive policy and regulatory environment, policy advocacy and promotional initiatives and monitoring of agri-disbursements and portfolio build-up plans. Out of the total credit target of Rs 160 billion, Rs 80 billion were allocated to commercial banks, Rs 48 billion to ZTBL, Rs 9 billion to Punjab Provincial Cooperative Bank Ltd., and Rs 23 billion to Domestic Private Commercial Banks. The agricultural loans extended to the farming community during July-March, 2006-07 are discussed below:

a) Production and Development Loans

Agricultural loans amounting to Rs. 104.8 billion were disbursed during (July-March, 2006-07) as against Rs.91.2 billion during the corresponding period last year, thereby registering an increase of 15 percent. The share of ZTBL in supply of total agricultural credit by institutions increased and was 32.9 percent during (July–March, 2006-07) while it was 31.8 percent during the same period last year. However, the share of Commercial Banks has surpassed the share of ZTBL; it was 46.8 percent of the total agricultural credit disbursed during July–March 2006-07. While the share of PPCBL has also slightly increased as it stood at 5 percent in supply of total agricultural credit by institutions. The share of domestic private bank has increased; it was 15.3 percent as compared with 12 percent in the corresponding period of last year. Supply of agricultural credit by various

institutions since 2001-02 to 2006–07 (July-March) is given in Table 2.16.

Table 2.16: Supply of Agricultural Credit by Institutions *(Rs. in million)*

Year	ZTBL	Commercial Banks	PPCBL	Domestic Private Banks	Total	
					Rs. Million	%Change
2001-02	29108.01	17486.12	5127.54	592.82	52314.49	17.1
2002-03	29270.17	22738.60	5485.39	1421.11	58915.27	12.6
2003-04	29933.07	33247.45	7563.54	2701.80	73445.86	24.7
2004-05	37408.84	51309.78	7607.47	12406.82	108732.91	48.0
2005-06	47594.14	67967.40	5889.40	16023.38	137474.32	26.4
2005-06 (July-March)	**29027.00**	**46973.00**	**4181.00**	**10980.00**	**91161.00**	**-**
2006-07 (July-March)	**34529.86**	**48962.19**	**5269.56**	**16081.99**	**104843.60**	**15.0**

Source: Ministry of Food, Agriculture and Livestock. State Bank of Pakistan.

b) Loan under One Window Operation:

ZTBL has launched a one-window operation to enhance credit facilities particularly to small farmers. This will facilitate to cater for purchase for inputs during peak sowing season of both Rabi and Kharif Crops with the collaboration of Provincial Governments, Revenue Officials and Postal Authorities. Agriculture Pass books are issued at the spot to intending new borrowers. Their land record is entered and loans are sanctioned at focal points whereas payments are released on the very next day from the concerned branch. During July-March, 2006-07, an amount of Rs 9.069 billion has been disbursed under this scheme.

c) Revolving Finance Scheme/Sada Bahar Scheme:

For providing timely input loans for crops and working capital for dairy, poultry and fisheries, the ZTBL launched Sada Bahar Scheme (SBS). Under this scheme credit requirements for inputs for the whole year is assessed and made available to the borrower. The Managers are authorized to sanction loan upto Rs. 0.5 million. During (July–March, 2006-07), ZTBL has disbursed loans of Rs. 30.912 billion under Revolving Finance Scheme (RFS) and Sada Bahar Scheme (SBS) as against Rs. 24.149 billion disbursed during corresponding period of last year, indicating an increase of 28 percent.

d) Credit to Women Program:

The major objective of this programme of ZTBL is to make credit more accessible to rural women through Female Mobile Credit Officers (FMCOs). Under Credit to Women Program, women can meet their credit needs through both Micro Credit & General Credit Scheme. Presently, 17 FMCOs are exclusively looking after credit needs of women in 17 branches of the Bank, whereas female borrowers may also obtain loan through male MCOs throughout the country. During (July–March, 2006-07) loans of Rs. 99.572 million have been disbursed under this programme.

e) Micro Credit Scheme:

Under the Micro Credit Scheme of the ZTBL, all the Mobile Credit Officer working in the branches process micro credit cases both for men and women to engage rural poor in income generating activities/cottages industries. Financing under this program is provided for 136 loanable items. All loans are recovered within 18 months of their advancement. During the period July–March, 2006-07 loans of Rs. 29.268 million were disbursed under this scheme.

f) Crop Maximization Project:

In order to augment the efforts of the Government to enhance productivity on sustainable basis, Ministry of Food, Agriculture and Livestock (MINFAL) and Zarai Taraqiati Bank Limited (ZTBL) has launched, "Crop Maximization Project". The project aims at assisting the farmers

to increase agriculture production. A total of 109 villages are being covered under this project. In the project villages, Village Organization (VOs) have been established which organize the farmers and assist them with the collaboration of Agricultural (extension) Staff in achieving the maximum productivity through proper use of inputs, water saving devices and modern agricultural technology. Farmers owning upto 25 acres land are entitled to receive loan from project credit line through Mobile Credit Officers. Under this project Rs 371.403 million have been disbursed during July–March, 2006-07.

III. Forestry

Forestry plays an important role in our country. Forests are important for protection of land and water resources particularly in prolonging the lives of dams, reservoirs and the irrigation network of canals. 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 5.0 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 protected forest, 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 plantations, liner plantations (roadside, canal-side), and mangrove forests. Besides, a significant proportion of private farmlands are under tree cover. Existing forest resources are under severe pressure to meet the fuel wood and timber needs of the country and wood-based industries including housing, sport, matches, boat making and furniture industries.

Under Millennium Development Goals of Forestry Sector, Pakistan is committed to increase forest cover from existing 5% to 7% by the year 2011 and to 6% by the year 2015. This implies bringing an additional 1.051 million hectares land area under forest. The Government has allocated Rs 9.67 billion in MTDF (2005-2010) for promoting forestry and biodiversity in the country. Forest Departments are undertaking short to medium term development projects under provincial and federal PSDP. The Government is promoting the concepts of social forestry, integrated participatory watershed management and biodiversity conservation in the shifting paradigm of sustainable forest management. During the last 13-14 years, area under farmland trees has significantly increased. On an average, 25 trees exist on each hectare of farmland (2003-04) against 20 trees / hectare in 1992. During the year 2006-07, forests have contributed 207 thousand cubic meters of timber and 159 thousand cubic meters of firewood as compared to 241 thousand cubic meters of timber and 163 thousand cubic meters of firewood in 2005-06. In order to motivate people to plant more trees and to highlight the importance of forest, tree planting campaigns are organized twice a year in spring and monsoon seasons. During spring and monsoon season year 2006 92.51 million saplings (spring 57.17 million and monsoon 35.34 million) were planted.

IV. Livestock and Poultry

a) Livestock

Livestock is an important component of Pakistan's population since 30 - 35 million rural population is involved in livestock raising. Average household holdings are 2-3 cattle / buffalo, 3-4 sheep / goats and 10-12 poultry per family which contribute 35 to 40 percent of their income. Government gives high priority to its development and is focused on private sector led development of livestock. Underpinning the importance of livestock the government instead of maintaining the previous practices of making livestock a part of the National Agriculture Policy has formulated an independent Livestock Development Policy, providing a framework for accelerated development of livestock. This policy not only addresses the need of the small livestock farmers for whom livestock is a supplementary income source but also includes measures to develop small and medium livestock enterprises and an incentive framework for setting up large livestock farms.

The Livestock Census 2006 carried out by the Agricultural Census Organization have been released. According to the Census, the share of livestock in agriculture growth has jumped from 25.3 percent in 1996 to 49.6 percent in 2006. The

higher growth in the livestock sector was mainly attributed to growth not only in the headcount of livestock, which is commercially important but also in the milk production. The details of the Census results are documented in Table 2.17.

Table 2.17 Comparative Status of Livestock Population between 1986-1996 & 1996-2006

Type of Animal	Livestock Population (in Million)			% Change Between	
	1986	1996	2006*	1986 &1996	1996 & 2006
Cattle	17.540	20.424	29.559	16	45
Buffaloes	15.705	20.273	27.335	29	35
Sheep	23.286	23.544	26.488	01	13
Goats	29.945	41.169	53.787	37	31
Camels	0.958	0.815	0.921	(-) 15	13
Horses	0.388	0.334	0.344	(-) 14	03
Mules	0.069	0.132	0.156	91	18
Asses	2.998	3.559	4.268	19	20
Total Animals	90.891	110.250	142.858	21	30

Source: Statistics Division (Agricultural Census Organization).

* Population figures are actual figures of Livestock Census 2006.

The population of cattle registered a significant increase of 45 percent in 2006 when compared with 1996 while it was 16 percent higher in 1996 over 1986. The other major animals which posted impressive increase include buffaloes and goats with 35 percent and 31 percent higher in 2006 over 1996. Likewise in case of goats and buffaloes, increased by 37 percent and 29 percent in 1996 over 1986. Number of other animals like asses, mules, sheep, camels and horses increased by 20 percent, 18 percent, 13 percent, 13 percent and 3 percent, respectively in 2006 when compared with 1996 and it was higher by 91 percent, 19 percent, 1.0 percent and lower by 15 percent and 14 percent for mules, asses, sheep camels and horses respectively in 1996 over 1986.

Table 2.18 Milk Production Per Annum between 1986-1996 & 1996-2006

Type of Animal	Gross Annual Production ** (Billion Liters)			% Change Between	
	1986	1996	2006	1986 & 1996	1996 & 2006
Cows	7.07	9.36	13.33	32.4	42.4
Buffaloes	14.82	18.90	25.04	27.5	32.5
Total	21.89	28.26	38.37	29.1	35.6
Goats	-	-	0.32	-	-

Source: Statistics Division (Agricultural Census Organization).

* Not covered in 1996

** Worked out by using average annual lactation length of 250,305 and 50 days for cows, buffaloes and goats, respectively.

Annual milk production of cows increased from 9.36 billion liters in 1996 to 13.33 billion liters in 2006, showing an impressive increase of 42.4 percent. Gross annual milk production of buffaloes jumped from 18.90 billion liters in 1996 to 25.04 billion liters in 2006, with growth pegged at 32.5 percent. Overall, the milk production increased by 35.6 percent in 2006 over 1996. The share of buffaloes in total milk production stood at 64.7 percent followed by cows 34.5 percent and goats by 0.8 percent in 2006. During 1996, the share of buffalos milk were 66.9 percent while it was 33.1 percent in case of cows.

Likewise, annual milk production of cows increased from 7.07 billion liters in 1986 to 9.36 billion liters in 1996 thereby depicting 32.4 percent rise. Milk production of buffaloes increased from 14.82 billion liters in 1986 to 18.90 billion liters in 1996 – 27.5 percent increase over 1986. Total milk production increased by 29.1 percent in 1996 when compared with 1986. In 1986 the share of buffaloes in total milk production stood at 67.7 percent while in case of cows, it was 32.3 percent.

Table 2.19 Compared Status of Animals Slaughtered Between 1986-1996 & 1996-2006

Type of Animal	Number of Animals Slaughtered (in Million)			% Change Between	
	1986	1996	2006	1986 & 1996	1996 & 2006
Cattle	1.67	2.18	3.56	30.5	63.3
Buffaloes	1.42	2.18	3.34	53.5	53.2
Sheep	4.35	4.44	4.73	2.1	6.5
Goats	6.50	7.84	11.00	20.6	40.3
Camels	0.02	0.05	0.02	150.0	-60.0
Total Animals	13.06	16.69	22.65	19.6	36.7

Source: Statistics Division (Agricultural Census Organization).

The total number of animals slaughtered in 1996 was 16.69 million while in 2006 it rose to 22.65 million, thereby registering an increase of 35.7 percent. Numbers of slaughtering cattle increased from 2.18 to 3.56 million (63.3%), buffaloes from 2.18 to 3.34 million (53.2%), sheep from 4.44 to 4.73 million (6.5%), goats from 7.84 to 11.0 million (40.3%), and camel from 0.05 to 0.02 million (-60%). It indicates that demand for beef and mutton has gone up substantially in the country.

The total number of animals slaughtered in 1986 was 13.96 million while in 1996 it rose upto 16.69 million thereby registering an increase of 19.6 percent. Numbers of slaughtering cattle increased from 1.67 to 2.18 million (30.5%), buffaloes from 1.42 to 2.18 million (53.5%), sheep from 4.35 to 4.44 million (2.1%), goats from 6.50 to 7.84 million (20.6%), and camel from 0.02 to 0.05 million (150%).

These improvements could be ascribed largely to the special attention and practical support extended by the Government to livestock farming in the form of policy interventions and major development investments in combination with promotion of greater private sector investment in livestock agribusiness. Improved livestock health services and promotional policies such as duty free import of livestock machinery helped in yielding better return to livestock farmers and placed the livestock sector on a robust growth trajectory. Growth targets for milk and meat production and livestock productivity are aligned with Medium-Term Development Framework (MTDF), which aims to a growth rate of 6-8 percent annually.

b) Poultry

Poultry sector continued to face challenges on account of avian influenza outbreaks in the country. The disease outbreak of 2006 in broiler, layer and breeder poultry farms affected 66 farms involving approximately 280,000 birds. The resurgence of disease in 2007 occurred in February 2007 in backyard poultry/zoo and commercial poultry in Rawalpindi, Islamabad, Abbottabad and Mansehra. So far there have been 26 recorded cases of H5N1 involving game birds (peacock, pheasants, pigeons, parakeet, wild crows, cranes, ducks peacock, partridge, parrots, chakor) and 40 backyard poultry and some commercial farms involving 33400 commercial poultry (broiler/layer). As part of our international obligation, the occurrence was notified and the National Contingency Plant was activated to increase surveillance for the disease. Reports of outbreaks in birds are continuing on-off yet no human case has been observed/reported. Ministry of Food, Agriculture and Livestock is monitoring the situation. In order to mitigate the losses due to Bird Flu, a sum of Rs 100 million have been disbursed in 2006 to Provincial Livestock Departments for compensation to the farmers affected with Bird Flu and to handle this outbreaks. For the current Bird Flu outbreak, MINFAL has arranged a supplementary grant of Rs 50 million for compensation of poultry birds destroyed on account of bird flu and to initiate Public Awareness Campaign.

A project amounting to Rs 40 million is under implementation to strengthen the Surveillance and Emergency Preparedness for Avian Influenza. The CDWP in its meeting held on 27th February 2007 has recommended an umbrella project amounting to Rs 1180.142 million to ECNEC for approval. In addition, Ministry is in negotiation with World Bank in order to seek assistance from World Bank Global Program (US$ 500 million) for Avian Influenza.

The production of commercial poultry and poultry products 2005-06 and 2006-07 is given in Table 2.20

Table 2.20:Production of Commercial Poultry and poultry products. *(Million Nos).*

Production	Units	2005-06	2006-07(E)
Day Old Chicks	Millions No's	386.5	401.0
Layers (Farming)	"	23.2	23.8
Broilers (Farming)	"	303.9	315.8
Breeding & Stock (Farming)	"	6.9	7.1
Poultry Meat	(000 Tons)	463.0	480.0
Eggs(Farming)	Million No's	5107.0	5222.0

E: Estimated Source: Ministry of Food, Agriculture & Livestock (Livestock Wing).

The production of rural poultry for 2005-06 and 2006-07 is given in Table 2.21.

Table 2.21: Rural Poultry *(Million Nos.)*

Production	2005-06	2006-07(E)
Day Old Chick	36.5	38.0
Cocks & Cockribs	12.1	13.1
Layers	36.5	37.8

E: Estimated Source: Ministry of Food, Agriculture & Livestock (Livestock Wing).

Because of the importance of livestock for rural economy, the Government is launching several initiatives, which are documented below:

- A new "Livestock Development Policy" has been approved by the Prime Minister in principle. It addresses legal framework and development strategies and action plan for farmers using livestock as supplementary source of income and development of small and medium enterprises (SME) and large businesses. The policy will bring radical changes in the current livestock production system and help in exploitation of potentials of livestock sector.
- Import of agro-based machinery equipment used in livestock sector, not manufactured locally, is allowed subject to certification from Ministry of Food, Agriculture and Livestock. In addition, poultry vaccines, feed additives, coccidiostats used in poultry feed manufacturing has been allowed at zero percent custom duty.
- Announcement of export poultry zones in poultry intensive areas of Karachi, Faisalabad and inclusion of livestock in Agriculture cooperative farming.
- Provision of veterinary health coverage by Livestock departments.
- Establishment of temporary quarantine station has been allowed in the private sector. Further more these facilities can be utilized by any other livestock importer.
- The PSDP project "Livestock Production and Development for Meat Production" envisages to provide full technical assistance and partial financial assistance (max 15%) for establishment of beef fattening farms, mutton fattening farms, slaughter houses in private sector, model butcheries in cities.
- The PSDP project "Milk Collection Processing and Dairy Production and Development Program" envisages providing subsidized livestock services to farmer's organizations for milk collection and marketing and production of genetically superior dairy animals.
- State Bank of Pakistan has issued guidelines for livestock financing to facilitate commercial banks and financial institutions for extending credit to livestock sector. Micro credit schemes for small livestock farmers through commercial banks have started.

- In the wake of Avian Influenza, 12 laboratories in different poultry concentrated areas have been established/equipped for surveillance diagnosis. A central laboratory at National Agriculture Research Centre, Islamabad has been especially developed to address Avian Influenza surveillance and monitoring.

V. Fisheries

Fishery plays an important role in Pakistan's economy and is considered to be an important source of livelihood for the coastal inhabitants. Apart from marine fisheries, inland fisheries (comprising rivers, lakes, ponds, dams etc) are very important source of animal protein. It is also considered to be the principal source of livelihood for the communities inhabitating at the long coasts of Sindh and Balochistan as well as along the major rivers, lakes and dams. It has been estimated that about 400,000 fishermen and their families are dependant upon the fisheries for their livelihood.

The Marine Fisheries Department (MFD) is responsible for promotion of fisheries, both marine and inland, with value addition, to optimize returns for fishermen and other stakeholders, realizing exports potential and supplement local protein intake. It also provides support and creates an enabling environment for enhancing commercial fisheries production. The MFD also implements effective quality control measures in the fisheries sector. The emphasis is to enhance production of fish and shellfish to reduce post-harvest losses to increase seafood export earnings, to improve quality control service and to upgrade the socio-economic conditions of the fishermen.

Fishery is an important but under exploited resource in the country. With a coastline 1050 kilometers long and major inland water-bodies fisheries contribution to the agricultural GDP has been as low as 1.3 percent. Domestic consumption of high protein fish at 1.9 kg per capita is amongst the lowest in the world. There is little aquaculture and bulk of the captured fisheries from the marine areas go into low value usages with exports ranging at static $ 150-200 million. The value of the present catch alone can be increased manifold with investment in improving fish harvesting and handling techniques, marketing and handling at fish harbor, processing of the fish and value addition. Realizing its untapped and latent potential the government has approved a Fisheries Policy that combines marine and inland capture fisheries production with coastal and inland aquaculture based on environmentally sound and sustainable production alongwith related processing and value addition that would enable a 10 percent annual growth of the sector and in the process enable the realization of $ 1.0 billion export earning by 2015. With assistance from the Norwegian Government and the Food and Agriculture Organization (FAQ) of the United Nations, deep-sea fish resources are being surveyed and charted. A project costing Rs 2.0 billion has been prepared to promote investments through public-private partnership, strengthen regulatory systems, promote coastal aquaculture, promote farm fisheries and trout and other cold water fisheries in the mountainous regions and improve marketing and processing of fish. The implementation of this project is being entrusted to a private sector led Fisheries Development Board being set up under the Companies Ordinance. To enforce quality control, laboratories of the Marine Fisheries Department have been upgraded and their international accreditation is at an advanced stage

During (July-Mach) 2006-07, a total of 87907 metric tons of fish and fishery products were estimated to be exported, earning US$ 135 million. During July-March 2006-07, the total marine and inland fish production is estimated to be 611,000 metric tons of which, 381,000 Metric tons is marine production and remaining 230,000 metric tons catch come from inland waters while during 2005-06, the total marine and inland fish production was 595,000 Metric tons. Out of which 366,000 Metric tons were marine production and 229,000 Metric tons were inland fish.

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	-	-	-	-
2000-01	165.9	152.8	256.0	135.1	93	91	96	94
2001-02	172.1	142.9	253.2	148.7	96	85	94	104
2002-03	185.4	153.9	243.6	160.9	103	92	91	112
2003-04	190.7	159.6	239.7	165.1	106	95	89	115
2004-05	-	-	-	-	105	106	127	102
2005-06	-	-	-	-	102	107	116	96
2006-07 P	-	-	-	-	117	115	114	118

P. Jul-Mar

Source: Federal Bureau of Statistics.

TABLE 2.1 (B)

BASIC DATA ON AGRICULTURE

Fiscal Year	Cropped Area (million hectares)	Improved seed distribution (000 Tonnes)	Water* Availability (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	253.87	137.78	3,804.19	137,474.32
2006-07 P	23.13	-	137.80	2,824.75	104,843.60

(Contd.)

.. not available

P: Provisional, Jul-Mar

*: At farm gate

TABLE 2.1 (B-I)

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 Produc-tion (000 Tonnes)	Total Forest Pro-duction (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	44,095	2,271	29,438	574.0	576
2005-06	931,048	49,462	2,419	31,294	595.5	404
2006-07 P	957,916	39,405	2,578	33,230	611.0	366

.. 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

(Million hectares)

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	57.07	4.02	22.88	8.94	6.47	15.58	22.05	7.55	23.13
2006-07 P	79.61	57.07	4.02	22.88	8.12	6.47	15.58	22.05	7.55	23.13

P: Provisional

Source: Ministry of Food, Agriculture & 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 croped 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	Sesa-mum	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 P	8,494	2,581	504	292	1,026	93	12,990	1,073	1,029	253	71	3,075	62

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 ('000 tonnes)	Cotton (000 Bales)	Tobacco
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 P	23,520	5,438	238	180	2,968	83	32,427	842	54,752	149	30.0	2,212	13,000	126

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

(Kg/Hectare)

Fiscal Year	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 P	2,769	2,107	53,209	2,893	785	712

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	206	4,202
2005-06	2,458	1,754	351	164	197	23	49	552	262	5,394
2006-07 P	2,438	1,720	350	155	190	24	49	555	223	5,288

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)

(%age share)

Fiscal Year/ Crops	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07
All Major Crops	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Food Crops	63.30	62.32	60.34	62.66	63.52	61.55	63.28	64.00
Rice	15.40	15.62	14.54	15.85	16.94	15.28	17.30	15.75
Wheat	41.30	40.39	39.48	39.26	38.98	37.58	38.28	39.63
Barley	0.20	0.20	0.21	0.19	0.19	0.15	0.15	0.14
Jowar	0.40	0.44	0.46	0.39	0.46	0.31	0.27	0.29
Bajra	0.30	0.45	0.50	0.41	0.59	0.36	0.43	0.43
Maize	2.80	3.10	3.21	3.13	3.32	4.14	4.71	4.26
Gram	2.80	2.11	1.95	3.41	3.05	3.73	2.15	3.51
Fibre Crops	24.00	24.89	25.26	22.98	22.06	27.21	25.64	23.62
Cotton	24.00	24.89	25.26	22.98	22.06	27.21	25.64	23.62
Cash Crops	11.00	11.27	12.63	12.95	13.00	9.95	9.77	11.19
Sugarcane	11.00	11.27	12.63	12.95	13.00	9.95	9.77	11.19
Other Crops	1.60	1.52	1.77	1.41	1.43	1.28	1.31	1.19
Sesamum	0.20	0.34	0.47	0.12	0.15	0.16	0.20	0.16
Rape Seed & mustard	0.80	0.70	0.75	0.81	0.81	0.65	0.57	0.47
Tobacco	0.60	0.84	0.55	0.48	0.46	0.47	0.54	0.57

Source: Federal Bureau of Statistics

TABLE 2.8

CREDIT DISBURSED BY AGENCIES

(Rs million)

Fiscal Year	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	51,319.78	108,732.91
2005-06	47,594.14	..	16,023.38	5,889.40	67,967.40	137,474.32
2006-07 P	34,529.86	..	16,081.99	5,269.56	48,962.19	104,843.60

.. not Available

Source : i) State Bank of Pakistan

ii) Ministry of Food, Agriculture & Livestock

P: Provisional(Jul-Mar)

b: Punjab Provincial Corperative Bank Ltd.

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

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	22,242.00	3,420.93
2003-04	2,526.73	673.46	21.79	3,221.98	764.10	41,406.00	7,145.00
2004-05	2,796.42	865.11	32.51	3,694.04	784.71	33,968.00	6,303.00
2005-06	2,926.62	850.53	27.04	3,804.19	1,268.31	25,353.00	5,481.00
2006-07 P	1,994.36	794.15	36.24	2,824.75	555.08	20,394.00	4,443.00

P Provisional, (Jul-Mar)

Source: 1. Federal Bureau of Statistics.
2. National Fertilizer Development Centre.

TABLE 2.10

AVERAGE RETAIL SALE PRICE OF FERTILIZERS

(Rs per bag of 50 Kgs/110lbs)

Fiscal Year	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	..	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 P	527.0	396.0	776.0	650.0	329.0	957.0	998.0	..

.. 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 P	7.06	0.28	0.20	3.58	7.78	0.22	19.12

P: Provisional

Source: Ministry of Food, Agroculture and Livestock

TABLE 2.12(A)

PROCUREMENT/SUPPORT PRICES OF AGRICULTURAL COMMODITES

(Rs per 40 kg)

Fiscal Year	Wheat	Rice		Paddy		Sugarcane			
		Basmati 385	Irri-6 (F.A.Q)	Basmati 385	Irri-6 (F.A.Q)	NWFP	Punjab	Sind	Baluch-istan
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 P	425	..	..	..	306.00	65.00	60.00	67.00 +	..

FAQ Fair Average Quality (Contd.)

.. Not applicable

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

+ Fixed by respective Provincial Government

TABLE 2.12(B)

PROCUREMENT/SUPPORT PRICES OF AGRICULTURAL COMMODITES

(..Contd.) (Rs per 40 Kg)

	Cotton Lint				Seed Cotton (Phutti)					
Fiscal Year	Desi	AC-134, NT	B-557 149-F	Sarmast Qallan-dri Delta-pine MS-39-40	Desi	AC-134, NT	B-557 F-149 Niab-78	Sarmast Qallan-dri 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 P	..	..	..	..	..	..	1,025	..	..	..

.. not applicable

* Niab-78, CIM

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

TABLE 2.13

PROCUREMENT, RELEASES AND STOCKS OF WHEAT AND RICE

(000 tonnes)

Fiscal Year	Wheat(May-April)			Rice Procured		Stocks Balance (on 1st July)	
	Procure-ment	Releases	Stocks (on 1st May)	Basmati	Others	Basmati	Others
1990-91	4,412.4	5,608.0	1,508.0	142.7	673.8	719.3	117.5
1991-92	3,159.0	5,431.0	1,000.0	121.6	370.3	486.8	314.7
1992-93	3,249.0	5,143.0	505.0	500.5	454.0	285.2	540.5
1993-94	4,120.0	5,982.0	1,007.0	144.9	681.4	224.8	541.2
1994-95	3,644.0	5,999.0	776.0	284.0	..	236.4	848.5
1995-96	3,740.0	5,139.0	385.0	50.8	154.6	494.3	117.7
1996-97	3,448.0	5,987.0	456.0	..	..	159.4	187.9
1997-98	2,725.0	5,794.0	902.0	..	..	..	..
1998-99	3,984.0	6,165.0	981.0	..	..	..	..
1999-00	4,070.0	6,131.0	702.0	..	..	..	..
2000-01	8,582.0	5,537.0	3,552.0	..	..	..	..
2001-02	4,081.0	3,376.0	3,683.0	..	..	..	..
2002-03	4,045.0	5,130.0	992.0	..	..	..	..
2003-04	3,514.0	4,104.0	161.0	..	..	..	..
2004-05	3,450.0	4,500.0	350.0	..	..	..	..
2005-06	4,514.7	2,088.0	2,107.0	..	..	..	..
2006-07	5,000.0 T	5,985.4	499.1 *	..	..	..	..

.. not available

Source: Ministry of Food, Agriculture and Livestock.

* Stocks as on 1st May 2006.

T : Target

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	28.4	25.5	61.9	25.5	386.5		0.7	4.3	0.3	0.3
2006-07 *	27.3	29.6	53.8	26.5	401.0	P	0.9	4.3	0.3	0.2

Source: Livestock Division

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

P: Provisional

TABLE 2.15

LIVESTOCK PRODUCTS

(000 tonnes)

Fiscal Year	Milk @	Beef	Mutton	Poultry Meat	Wool	Hair	Bones	Fat	Blood	Eggs (Mln.Nos.)	Hides (Mln.Nos.)	Skins (Mln.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	31,294	1,174	782	463	40.7	23.2	384.0	143.5	49.0	9,057	9.1	45.2
2006-07 *	33,230	1,237	827	514	41.2	25.0	404.0	151.1	51.7	9,618	9.6	48.0

Source: Livestock Division

* : Production estimates may change after the reciept of Complete Livestock Census 2006 reports/figures.

@: Human Consumption