

## Annex E

### Agriculture



## **ANNEX E**

### **AGRICULTURE**

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## ANNEX E AGRICULTURE

### E.1 FARM SIZE DISTRIBUTION AND LAND TENURE

According to the Agricultural Census in 1990, total farm area, total cultivated area, total number of farms and average acreage of the farms are 357,619ha, 209,239ha, 47,931, and 7.5ha, respectively in the Study Area. The census also shows merely 8% of large scale farmers with more than 20ha farms occupy some 42% of the total farm area. On the other hand, about 60% of the total number of farms is held by small farmers with less than 5ha farms, while these farmers cultivate only 19% of the total farm area.

Size of Farm	< 1ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	> 20 ha	Total
Number of Farms	5,508	23,496	8,942	6,036	3,949	47,931
( % )	11.5	49.0	18.7	12.6	8.2	100
Cultivated Area (ha)	2,517	44,102	37,400	46,421	78,799	209,239
( % )	1.2	21.1	17.9	22.2	37.6	100
Farm Area ( ha )	3,053	64,452	62,763	77,908	149,443	357,619
( % )	0.9	18.0	17.6	21.8	41.8	100
Average ( ha / Farm )	0.6	2.7	7.0	12.9	37.8	7.5

Source : Agricultural Census 1990, Agricultural Census Organization.

Table E.1 and Table E.2 show the detail of the distribution of farm area in the province and the Study area.

Three different land tenure systems exist in the area as follows.

- 1) **Owner Occupier**  
Owner occupiers are farmers who have their own land and cultivate it by themselves, mostly using family labor and occasionally engaging casual or daily wage labor.
- 2) **Owner-cum-tenant**  
This category includes small farm owners who cultivate their own lands, and also lease other owners' land on a share basis.
- 3) **Tenant**  
Tenants are further divided into two categories, occupancy tenant (Lathband Bazgar) and tenant at will (Tab-e-Marzi), and they are described below.

#### Occupancy Tenant (Lathband Bazgar)

A tenant who has permanent and hereditary occupancy rights based on the Tenancy Act. Under the agreement, the tenant bears all expenses, such as labors and other agricultural inputs. The owner gets 1/6 share of crop production. The tenant can not be deprived from the land.

#### Tenant at will (Tab-e-Marzi)

A tenant who has not any permanent rights and can be ejected at any time from the land that he cultivates. The owner is responsible to provide all necessary inputs and production costs. The tenant works on the land and receives a fixed share (1/3 share of crop production). Generally, medium and large farmers engage tenant-at-will.

According to the Agricultural Census, number of owners, owner-cum-tenants and tenants are 86.3%, 8.4% and 5.3%, respectively in the area.

LAND TENURE	Owner	Owner-cum-Tenant	Tenant	Total
Number of Farms	41,380	4,021	2,534	47,931
(%)	86.3	8.4	5.3	
Farm Area (ha)	291,709	52,550	13,551	357,619
(%)	81.5	14.7	3.8	

Source : Agricultural Census 1990, Agricultural Census Organization.

The land tenure classification of farms in the Study area in detail is indicated from the Table E.3 to Table E.6.

## E.2 LAND USE

The present land use in the Study Area is summarized as follows. Figures are the average taken from the Agricultural Statistics for the years 1990/91 to 1994/95.

DISTRICT	Quetta	Pishin	Kalat	TOTAL
Geographical Area	265,287	1,111,159	1,251,733	2,628,179
Reported Area (1)=(2)+(3)	<u>132,857</u>	<u>265,514</u>	<u>956,332</u>	<u>1,361,703</u>
Cultivated Area (2)	<u>38,559</u>	<u>96,015</u>	<u>125,495</u>	<u>260,069</u>
Irrigated Area	10,746	34,591	45,638	90,975
Un-irrigated Area	598	13,786	17,206	31,590
Current Fallow	27,215	47,638	62,651	137,504
Un-cultivated Area (3)	<u>101,288</u>	<u>169,485</u>	<u>830,079</u>	<u>1,100,852</u>
Cultivable Waste	40,347	14,270	191,789	246,406
Forest	39,088	73,065	63,181	175,334
N.A. for Cultivation	21,853	82,150	575,109	679,112

Source : Agricultural Statistics 1990/91 - 1994/95, Department of Agriculture, Balochistan.

("Pishin" includes Qila Abdullah District, and "Kalat" includes Mastung District.)

The table shows cultivated area covers 9.9% (260,069 ha) of the total area. Among the cultivated area, some 47% (122,565 ha) is under cultivation, while the rest of 53% remains fallow land. The yearly data of the land use in the Study area (1990/91-1994/95) are shown in Table E.7.

Remarkable change in the cultivated area is increasing the extent of the irrigated area during these 5 years in the Study Area. The area irrigated was 71,083ha in 1990/91, which increased by 46% and reached to 105,946ha in 1994/95. Tremendous increase occurred especially in Kalat district, where the irrigated area increased by 54% in these 5 years, followed by Pishin (47%) and Quetta (35%) districts. This increase is mainly due to the expansion of fruits

growing area, which was increased by 120%, from 13,575ha (1990/91) to 29,890ha (1994/95). Historical change in the expansion of the irrigated area is shown as follows;

District	1974/75 (ha)	1979/80 (ha)	1984/85 (ha)	1989/90 (ha)	1994/95 (ha)
Quetta	6,889 (100)	8,087 (117)	7,738 (112)	8,718 (127)	12,138 (176)
Pishin	12,534 (100)	18,986 (151)	22,853 (182)	26,224 (209)	40,730 (325)
Kalat	11,204 (100)	14,737 (132)	25,569 (228)	33,674 (301)	53,078 (474)
Total	30,627 (100)	41,810 (137)	56,160 (183)	68,616 (224)	105,946 (346)

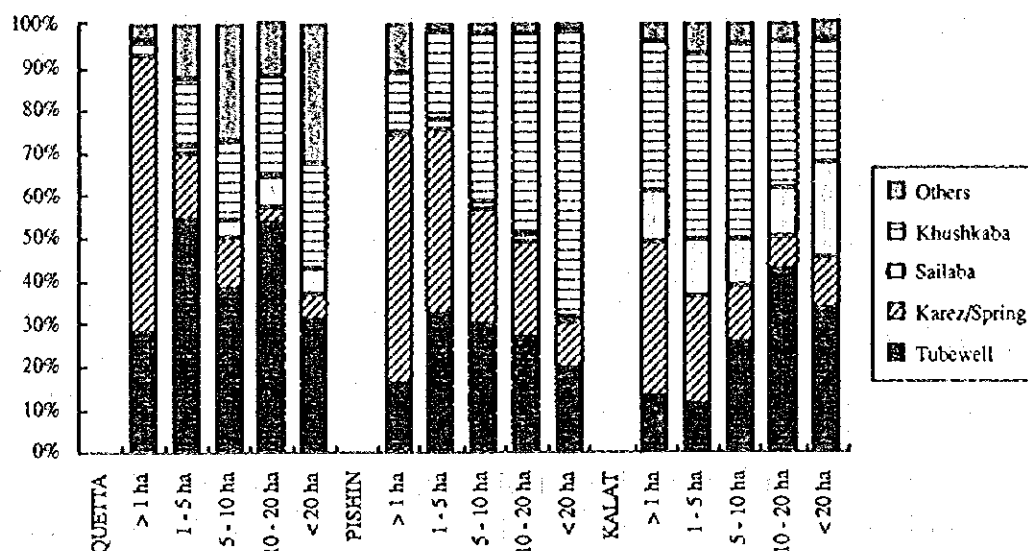
Source : Agricultural Statistics, Agriculture Department of Balochistan.

Share of different irrigation status by size of farm is shown as follows. The table shows that small farmers with less than 1ha farms have the highest share of irrigated area, where is mainly irrigated by karez followed by tubewells. Larger farmers tend to have higher share of un-irrigated area, where is sailaba or khushkaba area.

Farm Size	< 1ha	1 - 5ha	5 - 10ha	10 - 20ha	> 20ha	Total
<b>Quetta</b>						
Tubewell	45 (27)	849 (54)	576 (38)	1,439 (54)	2,482 (31)	5,391
Karez/Spring	107 (64)	239 (16)	(12)	100 (4)	455 (6)	1,083
Sailaba	1 (0.6)	32 (2)	67 (4)	194 (7)	500 (6)	794
Khushkaba	6 (3)	245 (16)	276 (18)	632 (24)	2,019 (25)	3,178
Others	6 (3)	193 (12)	419 (28)	324 (13)	2,520 (31)	3,531
<b>Pishin</b>						
Tubewell	198 (16)	6,360 (32)	3,897 (30)	3,111 (26)	4,954 (26)	18,520
Karez/Spring	713 (57)	8,528 (43)	3,506 (27)	2,629 (22)	2,715 (22)	18,091
Sailaba	11 (1)	347 (2)	279 (2)	232 (2)	309 (1)	1,177
Khushkaba	166 (13)	3,967 (20)	5,075 (39)	5,504 (47)	17,091 (67)	31,803
Others	146 (11)	477 (2)	367 (3)	300 (2)	407 (1)	1,700
<b>Kalat</b>						
Tubewell	145 (13)	2,575 (11)	5,698 (25)	13,533 (42)	14,844 (33)	36,794
Karez/Spring	403 (36)	5,707 (25)	3,103 (13)	2,395 (8)	5,567 (13)	17,176
Sailaba	135 (12)	2,979 (13)	10,445 (11)	3,688 (12)	10,202 (23)	19,446
Khushkaba	387 (35)	9,888 (43)	10,445 (46)	10,955 (34)	13,067 (29)	44,742
Others	49 (4)	1,712 (8)	1,067 (4)	1,385 (5)	1,596 (4)	5,809

Source : Agricultural Census 1990, Agricultural Census Organization.





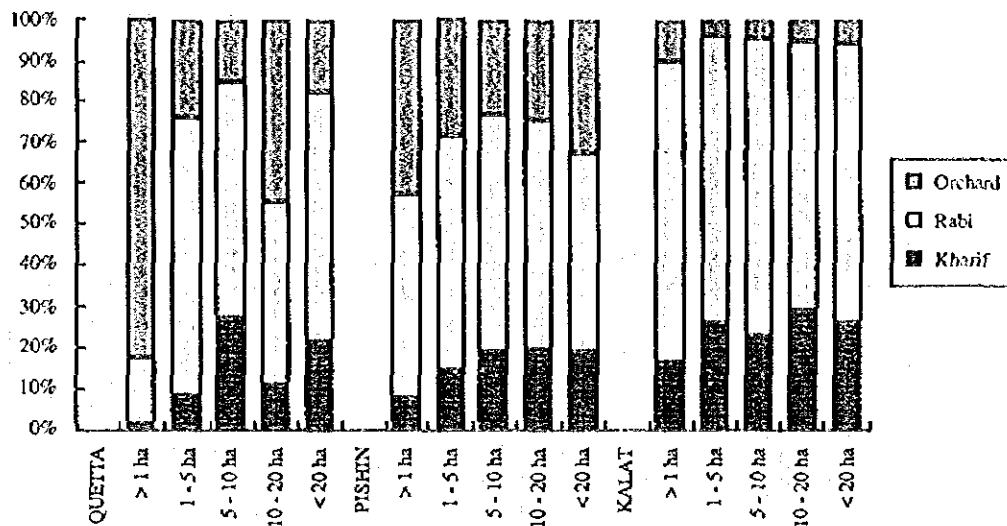
Share of Different Irrigation Status by Size of Farm

### E.3 CROPS AND CROPPING PATTERN

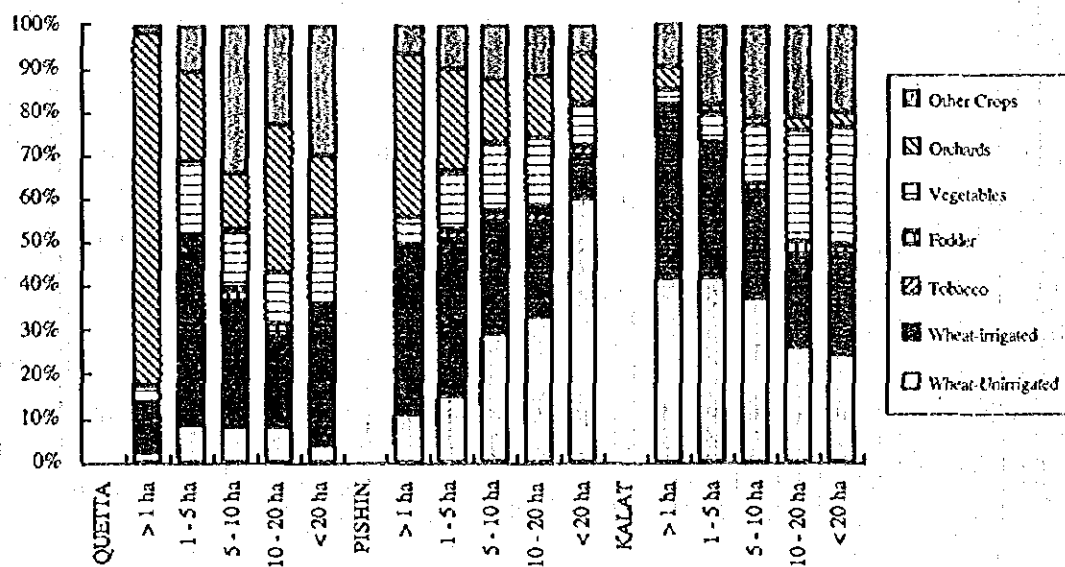
The cropping calendar in the Study Area is divided into two characteristic crop seasons, Rabi (winter) and Kharif (summer). Cropped lands consist of irrigated area and un-irrigated area. The sources of irrigation are tubewell, well, karez and others. The un-irrigated area is depending upon unreliable water resource, unpredictable rainfall and flood water.

The most important cash crops in the Study Area are fruit crops such as apple, apricot and grapes, which are only grown in the irrigated area. Major irrigated winter crops are wheat, cumin, vegetables and fodder. Summer crops include sorghum, maize, onion, potato, other vegetables and melon in the irrigated area. On the other hand, wheat, barley and cumin are important winter crops in the un-irrigated area. Un-irrigated summer crops are only melon and some fodder.

Following figures show the share of different crops in total cropped area by size of farm and the share of cropped area by crop season and by size of farm. The data is based on 1990 Agricultural Census. It is clear that orchard is most dominant in small farmers with less than 1ha farms in Quetta and Pishin Districts, and larger farmers have higher share of vegetable cropped area. In addition, wheat, both irrigated and un-irrigated, is important crop especially in Pishin and Kalat Districts. It is notable that large scale vegetable production (mainly onion and potato) is prevailing in Kalat District.



Share of Cropped Area by Crop Season and by Size of Farm



Share of Different Crops in Total Cropped Area by Size of Farm

The present cropping calendar for major crops in the area is shown as follows;

CROP	SOWING	HARVESTING
<b>RABI CROPS</b>		
Wheat	October - December	May - June
Barley	October - December	May - June
Cumin	February	May
Vegetables	October - January	May - June
Fodder		
Alfalfa	November - February	May (1st harvest)
Berseem	October - November	December - May
<b>KHARIF CROPS</b>		
Fruits		
Apple	February - March	September - November
Apricot	February - March	May - July
Grape	February - March	September - October
Onion	February	September - October
Potato	April - May	August
Vegetables	April - May	June - July
Melon	April	June - August
Fodder		
Maize	April - May	July - September
Sorghum	May	June - July
Millet	May	August
Tobacco	April - May	September

Source : Agriculture Department of Balochistan.

Crop rotation is recommended by the Agriculture Department such as wheat-fallow-wheat, wheat-fallow-vegetables, or onion-cumin-tomato, and some farmers have been practicing the rotation. However, the availability of irrigation water is one of the largest limiting factors to the ideal crop rotation. Wheat, fodder and vegetables are inter-cropped with orchard especially in non-bearing orchard gardens.

The annual cropping area and overall cropping intensity in the Study Area are summarized as below and present cropping pattern is shown in Fig. E.1 - E.4.

Crop	Irrigated Area		Un-irrigated Area		Total	
	(ha)	(%)	(ha)	(%)	(ha)	(%)
<b>RABI CROPS</b>						
Wheat	33,219	35.6	22,655	12.7	55,874	20.6
Barley	3,837	4.1	2,498	1.4	6,335	2.3
Cumin	3,419	3.7	3,149	1.8	6,568	2.4
Vegetables	1,008	1.1	3	0.0	1,011	0.4
Fodder	4,400	4.7	1,970	1.1	6,370	2.3
Sub-total (1)	45,883	49.2	30,275	17.0	76,158	28.1
<b>KHARIF CROPS</b>						
Fruits	22,147	23.7	0	0.0	22,147	8.2
Onion	7,342	7.9	0	0.0	7,342	2.7
Potato	4,171	4.5	0	0.0	4,171	1.5
Vegetables	3,575	3.8	0	0.0	3,575	1.3
Melon	4,452	4.8	1,036	0.6	5,488	2.0
Fodder	1,709	1.8	230	0.1	1,939	0.7
Tobacco	1,647	1.8	0	0.0	1,647	0.6
Others	48	0.1	47	0.1	95	
Sub-total (2)	45,091	48.3	1,313	0.8	46,404	17.1
Total (1+2)	90,975	97.5	31,590	17.8	122,565	45.1
Total Cultivated Area	93,323		178,170		271,493	

Source : Agricultural Statistics, Agriculture Department of Balochistan.

(Figures are the average of 5 years data from 1990/91 to 1994/95.)

The detail data of the cropped area by district and by year (1990/91-1994/95) are shown in Table E.8, E.10, E.12, E.14 and E.16. Furthermore, the detailed cropping intensity in the Study area is tabulated from Table E.24 to Table E.27.

#### E.4 CROP YIELD AND PRODUCTION

Average unit yield of major crops is calculated based on the Agricultural Statistics. The unit yield of the crops in the Study Area is summarized as follows;

( Unit : ton / ha )			
Crop	Irrigated	Un-irrigated	Average
<b>RABI CROPS</b>			
Wheat	2.51	1.13	1.95
Barley	1.77	1.22	1.50
Cumin	0.66	0.46	0.56
Vegetables	15.96	-	15.90
Fodder	22.58	11.02	19.01
<b>KHARRIF CROPS</b>			
Fruits	10.97	-	10.97
Apple	15.50	-	15.50
Apricot	18.78	-	18.78
Grape	11.07	-	11.07
Onion	21.92	-	21.92
Potato	15.37	-	15.37
Vegetables	13.83	-	13.83
Melon	17.91	10.22	16.46
Fodder	56.40	20.02	52.09
Tobacco	1.69	-	1.69

Source : Agricultural Statistics, Agriculture Department of Balochistan.

The detail data of the crop production and crop yield by district and by year (1990/91-1994/95) are shown in Table E.9, E.11, E.13, E.15, E.17 and E.18. In addition, the detail data of the area, production and yield of all fruits grown in the Study area are given in Table E.19 to Table E.23.

On the other hand, results of yield trial of major crops of the area are shown as below. Those figures are obtained in experimental stations such as Agriculture Research Institute (ARI) and Deciduous Fruit Development Centre (DFDC), and are expected as maximum yields in the area.

Crop	Variety	Yield (ton/ha)	Source	Remarks
Wheat	PAK-81	5.3	ARI	Variety Trial; NPK=145-85-0 kg/ha
	Zarghoon-79	5.5		- do -
	K.Noor	5.9		- do -
	Sarhad-87	6.2		- do -
	Zamindar-80	6.4		- do -
Onion	Local Pink	35.8	ARI	Fertilizer Trial; NPK=150-100-100 kg/ha
		30.7		- do -
		29.6		Fertilizer Trial; NPK=100-50-0 kg/ha
		26.7		- do -
	Local	36.0		Spacing Trial; NPK=150-75-75 kg/ha
	Local	41.1		Weed Control; NPK=150-75-75 kg/ha
Potato	Local	39.1	ARI	Fertilizer Trial; NPK=175-125-125 kg/ha
		35.9		- do -
		26.8		Fertilizer Trial; NPK=125-75-0 kg/ha
		24.6		- do -
	Patrones	17.4	ARI	Variety Trial
		16.5		- do -
	8/9 (fresh)	80.6	ARI	Fertilizer Trial; NPK=30-100-0 kg/ha
		19.5		Fertilizer Trial; NPK=60-150-0 kg/ha
		74.6		Fertilizer Trial; NPK=30-100-0 kg/ha
		19.1		Fertilizer Trial; NPK=30-30-0 kg/ha
Lucerne	8/9 (fresh)	40.0	ARI	Variety Trial
		46.3		- do -
	Sunder (fresh)	30.0	DFDC	Variety Trial
		35.0		- do -
		45.0		- do -
Apple	Red Delicious	30.0	DFDC	Variety Trial
	Katja	35.0		- do -
Apricot	Golden Delicious	45.0	DFDC	Variety Trial
	Charmaghg	20.0		- do -
Grape	Sardai	15.0	DFDC	Variety Trial
	Kishimish	20.0		- do -
Grape	Haita	15.0	DFDC	Variety Trial
	Haita	15.0		- do -

Annual crop production of major crops in the Study Area is calculated based on the 5 years average from 1990/91 to 1994/95, and shown as below;

District	Quetta		Pishin		Kalat		( Unit : ton )	
	Irr.	Un-irri.	Irr.	Un-irri.	Irr.	Un-irri.	TOTAL	
							Irr.	Un-irri.
<b>RABI CROPS</b>								
Wheat	5,774	642	34,800	13,526	42,690	11,204	83,264	25,372
Barley	318	-	1,738	1,006	4,498	2,075	6,554	3,081
Cumin	83	-	547	175	1,621	1,289	2,251	1,465
Vegetables	4,602	-	5,649	-	5,853	2	16,104	2
Fodder	4,100	-	8,694	-	86,562	21,726	99,356	21,726
<b>KHARIF CROPS</b>								
Fruits	60,208	-	113,140	-	68,251	-	241,599	-
Apple	30,007	-	62,265	-	34,648	-	126,920	-
Apricot	8,411	-	19,811	-	9,140	-	37,362	-
Grape	8,711	-	15,564	-	4,261	-	28,536	-
Onion	6,318	-	5,040	-	150,266	-	161,624	-
Potato	1,132	-	27,088	-	35,558	-	63,778	-
Vegetables	16,452	-	21,502	-	11,528	-	49,482	-
Melon	10,842	136	62,162	4,750	6,700	5,708	79,704	10,594
Fodder	15,656	-	29,198	1,176	51,544	3,410	96,398	4,586
Tobacco	-	-	2,784	-	-	-	2,784	-

Source : Agricultural Statistics, Agriculture Department of Balochistan.

("Pishin" includes Qila Abdullah District, and "Kalat" includes Mastung District.)

## E.5 FARMING PRACTICE AND FARM INPUTS

The present cultivated lands are closely related to topographic and soil conditions along with availability of water. According to the Agricultural Statistics in 1994/95, some 74% (90,975ha) of the cropped area is irrigated, and the rest of 26% (31,590ha) remains un-irrigated in the Study Area. The extent of un-irrigated area, however, varies depend upon availability of water from year to year. Major sources of irrigation are tubewells (89%), karez & spring (9%), and wells (1%) in the irrigated area.

There are two types of farming system in the un-irrigated area, Khushkaba and Sailaba. Khushkaba is a rainfed agriculture system, in which the field receives moisture directly from rainfall or from localized run off. Sailaba is a flood water irrigation system, which is based on the diverted torrent water into bunded fields. Average yields are low under these systems, and often fields are not planted due to water deficiency. Khushkaba is more dominant than Sailaba in the Study Area, although it is difficult to differentiate areas covered by these two systems so far.

Major characteristics of agricultural production in the Study Area is described district-wise as follows;

### Quetta District

Major irrigated crops of the area are orchard, wheat and Kharif vegetables. Total cropped area is less comparing to other districts in the Study Area. Most of the cropped area is irrigated, which is also major characteristics of the area, although other districts have huge acreage of un-irrigated land (mainly Khushkaba land).

#### Pishin and Qila Abdullah Districts

Wheat is dominant in the area, followed by orchard as irrigated crops. Tobacco is also grown in the area. Most important rainfed crop is wheat, which acreage is almost same as the irrigated wheat.

#### Kalat and Mastung Districts

Farmers do grow orchard in the area as well, however, most important cash crops of the area are onion and wheat. Fodder is also important reflecting larger number of livestock population in the area. Un-irrigated crops are wheat, barley, cumin and melon.

The irrigation status of farms, share of different crops, and irrigation status of cropped area by crop season are shown from Table E.31 to Table E.39 by size of farm and by district.

Fertilizer application can increase the yield of many crops, although the farmers are applying fertilizers mostly to the high value crops such as fruits and some vegetables. The fertilizer amount used is usually lower than the recommended doses. Fertilizer are not used in the un-irrigated area. Plant protection is also an important measure to enhance crop yields. At present the farmers use pesticides preferably on orchards and vegetables, while seed treatment, mechanical and manual weed control measures are undertaken on a very minor scale. Recommended dosage of farm inputs and labor requirement are shown as follows.



ITEM	UNIT	(Per ha)						
		WHEAT	APPLE	ONION	POTATO	MELON	CUMIN	
	Irr.	Un-irri.						
<b>A. FARM INPUT</b>								
1. Seeds	kg	100 - 125	87.5	-	15 - 20	2500-	5 - 6	15
					3250			
2. FYM / Compost	ton	12.5 - 25	12.5	25	25	-	-	-
	kg/plant							
3. Fertilizer								
- Urea (N = 46%)	kg	115	30	5kg NPK	115	180	75	30
- TSP (P = 46%)	kg	115	57.5	- do -	115	180	75	57.5
- SOP (K = 50%)	kg	62.5	-	- do -	62.5	62.5	-	-
4. Agro-Chemicals								
- Insecticide	kg	seed treatment		4-6	2	4	4	seed
				sprays	sprays	sprays	treatment	
- Pesticide	litter	- do -	- do -	- do -	- do -	- do -	- do -	- do -
<b>B. MACHINERY AND ANIMAL POWER REQUIREMENT</b>								
- Land Preparation	hours	17.5	10.0	10.0	10.0	10.0	10.0	7.5
- Drill for Sowing	hours	2.5	2.5					
- Threshing by Tractor	hours	5.0	5.0					
<b>C. LABOUR</b>								
1. Land Preparation	man-day	15	-	20	25	37.5	37.5	15
2. Nursery / Sowing	man-day	-	-	50	5	-	-	-
3. T. planting / Sowing	man-day	5	5	10	5	25	5	5
4. Fertilizer Application	man-day	5	-	5	5	5	-	-
5. Weeding	man-day	5	-	50	150	150	25	50
6. Water Management	man-day	30	-	45	120	100	30	15
7. Harvesting	man-day	25	25	50	100	100	75	50
8. Threshing, others	man-day	15	15	-	-	-	-	15

NOTE: FYM = Farm Yard Manure,

The consumption of chemical fertilizer, plant protection operation, and number of machinery by district in the Study area is shown in Table E.28, E.29 and E.30. According to the agricultural census (1990), the use of fertilizers, manures, insecticides, factors and draught animals by size of farm in the Study area is reported as shown in Table E.41 and E.42.

## E.6 LIVESTOCK

Balochistan is the largest province of Pakistan in area, which mainly consists of mountainous ranges, plains and deserts. The province receives very little rainfall and majority of the area consists of sparsely vegetated rangelands. Therefore livestock raising is very important and the province is rich in livestock resources. According to the livestock census of 1986, it maintains 11.1 million heads of sheep and 7.3 million goats and these figures represents 48% and 24% of the national population, respectively. There are 1.2 million cattle, 6.0 million poultry and 0.75 million other livestock. The population of livestock in the Study Area is shown as below;

District	Quetta	Pishin	Kalat
Cattle	5,715	55,988	24,742
Buffalo	5,015	4,305	213
Sheep	90,272	749,702	1,219,872
Goat	47,083	560,636	638,6923
Camel	1,608	7,398	27,007
Horse	151	3,152	129
Donkey	2,143	27,419	23,291
Mule	66	1,154	40
Poultry	279,222	373,708	246,866

Source : Agricultural Census 1990, Agricultural Census Organization.

("Pishin" includes Killa Abdulla District, and "Kalat" includes Mastung District.)

Being an arid province and having traditionally range based livestock population, sheep and goat are more important. The Harnai, Bivragh, Baloch and Rakhshani are famous sheep breeds of the province and are reared for mutton and carpet wool production. The famous Bhagnari cattle are kept in the Kachhi plains. They are popular in the country for pulling heavy loads and tilling hardest soils. Red Sindhi cattle are found in Lasbella District, and are one of the best milk breed of the country capable of thriving well in hot and arid climate conditions and processing export potentials. In recent years, Frisian cattle have been successfully introduced in the colder areas to increase the milk production of non-discript native dairy cattle with cross-breeding by imported exotic cattle and semen. Commercial poultry production in the province has been successfully introduced by provision of demonstration units in various districts of the province. Rural poultry is being up-graded by introduction of exotic rural chicken.

Livestock management, especially that of small ruminants is one of the major economic activities in the area. The three main raising systems of sheep and goats are sedentary, transhumant and nomadic types. Transhumants and nomads move to warmer areas of southern Balochistan, Sind and Punjab in winter. They return to uplands of Balochistan and Afghanistan in summer. It is estimated that small stock mainly depends on rangelands for their food. However, forage crops such as lucerne and sorghum and crop residues are also important feed resources. According to the farmers in the area, even weeds on crop land do play an significant role as "fodder".

The agricultural census conducted in 1990 reported the number of livestock by type of household, number of cattle & buffaloes by size of herd, number of sheep & goats by size of herd, and fodder & fodders area by size of farm as shown in Table E.43, E.44, E.45 and E.46 respectively.

## **E.7 ORGANIZATION SET UP OF THE CONCERNING DEPARTMENTS IN BALOCHISTAN**

The organization charts of the major departments concerned to the agricultural sector of this feasibility study are as shown from Fig. E.6 to E.10.

## **E.8 FARMERS' ASSOCIATIONS**

### **(1) Agricultural cooperative**

The most common farmers' associations are agricultural cooperatives. In Pakistan, agricultural cooperatives are established and registered based on the Cooperative Societies Act, 1925. A cooperative can be organized by a group of more than 10 farmers who shall be above the 18 years old and live in same town or village.

The objective of the cooperative is to encourage thrift, self-help and cooperation among the persons of limited means so as to improve their social and economic conditions. Cooperatives are financed by the Provincial Cooperative Bank that is funded by the Federal Cooperative Bank. Provincial Cooperative Department executes the motivation, survey, organization, registration, etc., of cooperatives and periodical audit and inspection of the registered cooperatives.

At present, there are 608 agricultural cooperatives and 203 non-agricultural cooperatives in Balochistan, out of which 303 agricultural cooperatives and 93 non-agricultural cooperatives are located in the five districts including the Study Area. Most popular type of agricultural cooperative is multi-purpose cooperative followed by cooperative for tubewell and credit cooperative. Besides these, there are the cooperatives established based on Integral Rural Development Programme, development cooperative, marketing cooperative, etc. (see Table E.47 and Table E.48) The agricultural cooperatives in the beneficial area of the proposed delay action dams are shown in Table E.49.

However average number of member ship per cooperative is only 23 that is very small compared to total number of farm households, and share capital and working capital are also very limited respectively. There are no cooperative unions in the province. Except big societies, cooperative staffs are usually unsalaried. Though it is presumed that 80% of existing cooperatives are presently active, generally the existing cooperatives have been established in village size, most of the cooperatives are organized only by a part of farmers in a village, and incline to function only as the loan receiving organization.

Provincial Cooperative Department is considering that all farmers in rural agricultural communities should be the members of any agricultural cooperatives, and more vicces and training facilities should be provided to their staff to train rural farmers for organizing agricultural cooperatives.

## **(2) Water users' association**

Another major farmers' organization is the Water Users' Association (WUA). Formerly there have been traditional groups of water users in several irrigated areas. In these areas tribal custom is still so prevailing that the head of such a group is usually occupied by the person who constructed the irrigation facilities, his successor or the big land owner. He and or his assistants operate and maintain the facilities, collect the irrigation fee when occasion demands. However, these informal water users' groups have not been managed and made active well because of their weak organizations.

In 1981, the 'Balochistan Water Users' Associations Ordinance' was enforced. In this Ordinance, the association generally aims the operation and maintenance and rehabilitation of the watercourse, the improvement of water supply from surface or groundwater, and the improvement of on-farm water management. At least 51% of the irrigators on a watercourse can organize a WUA based on the Ordinance. The WUA is to be managed democratically under the executives elected by the members.

After that, several irrigation projects assisted by foreign agencies started and these project donors requested to the beneficiaries to establish the modern WUA based on the Ordinance for better operation and maintenance of the constructed facilities. Thus, the new WUAs have been established with those projects. For instance, 39 schemes of the Balochistan Minor Irrigation and Agricultural Development Projects assisted by IDA (World Bank) or KFW (Germany) have been handed over to the new established WUAs. Besides, with the several On-Farm Management Schemes, new WUAs have also been formulated. In case of OECF assisted On Farm Water Manegement Project, 168 WUAs have been registered by the beneficial farmers in Balochistan from 1992 to 1995 (Out of which 55 WUAs are in Kalat District). However, in the beneficial areas of proposed delay action dams, where the traditional karez irrigation system is declining and instead private tubewell irrigation is increasing, the formal WUAs have not yet organized.

## **(3) Participatory approach in watershed management or rangeland management**

In the Study Area, the activity of farmers' association seems generally to be insufficient. Very few agricultural cooperatives were found in all beneficial areas of the proposed delay action dams. However, there is an interesting project with participatory approach practiced by the

government under the assistance of the FAO and UNDP. This project mainly aims to develop participatory based watershed rehabilitation and management plans and undertake watershed rehabilitation works in northern part of Balochistan.

Through this project, continuous training has been conducted at the village level, and local communities have been actively involved in all stages of watershed rehabilitation. This project includes not only the construction of small size of check dams, flood protection dikes, water stock ponds, etc. by farmers, but also the training for women in topics, community members and village specialist on fruit orchard management, fodder production, etc. Up to 1995, a total of 30 village organizations and 13 women associations have been established in the 7 districts for this project. In the Study Area, following number of the organization has been established:

District	Village organizations	Women associations
Quetta	3	2
Qila Abdullah	2	1
Pishin	7	2
Mastung	6	4

One of the sites of this project is located at the watershed area of the Ghazlona (Arambi) proposed delay action dam and the watershed of the Kad Kocha proposed delay action dam is one of the project sites to be implemented in near future. At the same Kad Kocha site, a rangeland management project is going to start synthetically assisted by UNDP and FAO also by means of participatory approach.

#### (4) Non-government organization (NGO) in Balochistan

In Balochistan the biggest and most active NGO is the Balochistan Rural Support Programme (BRSP). This organization aims to improve the quality of life of the disadvantaged rural population in Balochistan, presently funded by the governments of Pakistan and Germany. Now their activity covers 7 regions, 13 districts of the province, including 4 districts (Pishin, Quetta, Mastung and Kalat) out of our Study Area. It has about 170 of staffs including several technical staffs and social staffs to establish village organizations, women's organizations, etc., and provides several services packaged to self-help of villagers. Currently BRSP's offering programmes are composed of the integrated services for Income Generation, Rural Finance, Human Resource Development, Infrastructure, Health Education and Formal and Informal Education. Up to now, more than four hundred's village organizations have been established by this NGO. Besides there are some NGOs acting in Balochistan, like SPO, TERAQEE, IUCN, SHAJAR, TVO, etc., though those are smaller compared with BRSP. (see Table E.50)

## **E.9                    AGRICULTURAL PROFILE OF BENEFICIAL AREA**

At the same time of the carrying out of the socio-environment and farm household survey in the ten beneficial areas out of the proposed delay action dams, the village-wise information concerned to agricultural production in each beneficial area was collected. This information is summarized in Table E.40 and Figure E. 5.

**Table E.1 Farm Area Distribution in Balochistan Province**

	Number of Farms (%)		Farm Area (ha) (%)		Cultivated Area (ha) (%)		Average (ha/farm)
less than 1 ha	27,658	11.4	16,520	0.7	11,471	1.0	0.6
1 - 5 ha	110,566	45.5	313,734	13.6	217,430	18.9	2.8
5 - 10 ha	48,851	20.1	342,732	14.8	226,162	19.7	7.0
10 - 20 ha	31,597	13.0	409,489	17.7	226,591	19.8	13.0
more than 20 ha	24,113	9.9	1,229,426	53.2	466,855	40.6	51.0
<b>TOTAL</b>	<b>242,785</b>	<b>100</b>	<b>2,311,902</b>	<b>100</b>	<b>1,148,509</b>	<b>100</b>	<b>9.5</b>

**Table E.2 Farm Area Distribution in the Study Area**

		Number of Farms (%)		Farm Area (ha) (%)		Cultivated Area (ha) (%)		Average (ha/farm)
less than 1 ha	Pishin	2,338	11.2	1,612	1.2	1,234	1.7	0.7
	Quetta	1,056	33.7	94	0.3	165	1.2	0.1
	Kalat	2,114	8.8	1,348	0.7	1,118	0.9	0.6
1 - 5 ha	Pishin	11,373	54.5	30,274	23.2	19,681	27.6	2.7
	Quetta	1,050	33.5	2,704	8.9	1,559	11.2	2.6
	Kalat	11,073	46.3	31,473	16.0	22,862	18.4	2.8
5 - 10 ha	Pishin	3,738	17.9	25,952	19.9	13,123	18.4	6.9
	Quetta	357	11.4	2,610	8.6	1,522	10.9	7.3
	Kalat	4,847	20.3	34,201	17.4	22,755	18.4	7.1
10 - 20 ha	Pishin	1,988	9.5	24,798	19.0	11,777	16.5	12.5
	Quetta	325	10.4	4,362	14.4	2,688	19.2	13.4
	Kalat	3,723	15.6	48,749	24.8	31,956	25.8	13.1
more than 20 ha	Pishin	1,434	6.9	48,040	36.8	25,477	35.7	33.5
	Quetta	343	11.0	20,474	67.7	8,046	57.6	59.7
	Kalat	2,172	9.1	80,929	41.1	45,276	36.5	37.3
<b>SUB-TOTAL</b>	Pishin	20,871	100	130,676	100	71,292	100	6.3
	Quetta	3,131	100	30,243	100	13,979	100	9.7
	Kalat	23,929	100	196,700	100	123,968	100	8.2
<b>TOTAL</b>		<b>47,931</b>		<b>357,619</b>		<b>209,239</b>		

Source : Agricultural Census 1990, Agricultural Census Organization.

**Table E.3 Land Tenure Classification of Farms in the Study Area**

		Number of Farms (%)		Farm Area (ha) (%)		Average (ha/farm)
less than 1 ha	Owner	5,242	12.7	3,070	1.1	0.6
	O/T	0	0.0	0	0.0	-
	Tenant	267	10.5	175	1.3	0.7
1 - 5 ha	Owner	20,860	50.4	56,750	19.5	2.7
	O/T	1,219	30.3	3,953	7.5	3.2
	Tenant	1,417	55.9	3,748	27.7	2.6
5 - 10 ha	Owner	7,635	18.5	53,520	18.3	7.0
	O/T	869	21.6	6,074	11.6	7.0
	Tenant	438	17.3	3,169	23.4	7.2
10 - 20 ha	Owner	4,532	11.0	57,657	19.8	12.7
	O/T	1,202	29.9	16,410	31.2	13.7
	Tenant	303	12.0	3,841	28.3	12.7
more than 20 ha	Owner	3,111	7.5	120,711	41.4	38.8
	O/T	731	18.2	26,114	49.7	35.7
	Tenant	109	4.3	2,618	19.3	24.0
TOTAL	Owner	41,380	86.3	291,709	81.5	7.0
	O/T	4,021	8.4	52,550	14.7	13.1
	Tenant	2,534	5.3	13,551	3.8	5.3
		47,935		357,810		

**Table E.4 Land Tenure Classification of Farms in Quetta District**

		Number of Farms (%)		Farm Area (ha) (%)		Average (ha/farm)
less than 1 ha	Owner	1,055	34.7	286	1.0	0.3
	O/T	0	0.0	0	0.0	-
	Tenant	1	1.6	1	0.2	0.8
1 - 5 ha	Owner	1,003	33.0	2,568	8.8	2.6
	O/T	6	22.2	16	2.0	2.7
	Tenant	41	67.2	119	36.2	2.9
5 - 10 ha	Owner	344	11.3	2,509	8.6	7.3
	O/T	5	18.5	44	5.4	8.7
	Tenant	8	13.1	57	17.2	7.1
10 - 20 ha	Owner	311	10.2	4,167	14.2	13.4
	O/T	3	11.1	42	5.2	14.0
	Tenant	11	18.0	153	46.4	13.9
more than 20 ha	Owner	330	10.8	19,771	67.5	59.9
	O/T	13	48.1	703	87.4	54.1
	Tenant	0	0.0	0	0.0	-
TOTAL	Owner	3,043	100	29,301	100	9.6
	O/T	27	100	804	100	29.8
	Tenant	61	100	330	100	5.4

Source : Agricultural Census 1990, Agricultural Census Organization.



**Table E.5 Land Tenure Classification of Farms in Pishin District**

		Number of Farms (%)		Farm Area (ha) (%)		Average (ha/farm)
less than 1 ha	Owner	2,337	11.6	1,611	1.3	0.7
	O/T	0	0.0	0	0.0	-
	Tenant	1	0.2	0	0.0	0.4
1 - 5 ha	Owner	11,081	55.2	29,308	23.9	2.6
	O/T	43	18.4	167	4.4	3.9
	Tenant	249	43.9	800	19.3	3.2
5 - 10 ha	Owner	3,456	17.2	23,980	19.5	6.9
	O/T	83	35.5	580	15.2	7.0
	Tenant	198	34.9	1,392	33.6	7.0
10 - 20 ha	Owner	1,864	9.3	23,187	18.9	12.4
	O/T	44	18.8	590	15.4	13.4
	Tenant	81	14.3	1,020	24.7	12.6
more than 20 ha	Owner	1,333	6.6	44,627	36.4	33.5
	O/T	64	27.4	2,488	65.0	38.9
	Tenant	38	6.7	926	22.4	24.4
TOTAL	Owner	20,071	100	122,713	100	6.1
	O/T	234	100	3,825	100	16.3
	Tenant	567	100	4,138	100	7.3

**Table E.6 Land Tenure Classification of Farms in Kalat District**

		Number of Farms (%)		Farm Area (ha) (%)		Average (ha/farm)
less than 1 ha	Owner	1,850	10.1	1,174	0.8	0.6
	O/T	0	0.0	0	0.0	-
	Tenant	265	13.9	174	1.9	0.7
1 - 5 ha	Owner	8,776	48.0	24,874	17.8	2.8
	O/T	1,170	31.1	3,770	7.9	3.2
	Tenant	1,127	59.1	2,830	31.2	2.5
5 - 10 ha	Owner	3,835	21.0	27,031	19.4	7.0
	O/T	781	20.8	5,450	11.4	7.0
	Tenant	232	12.2	1,720	18.9	7.4
10 - 20 ha	Owner	2,357	12.9	30,303	21.7	12.9
	O/T	1,155	30.7	15,778	32.9	13.7
	Tenant	211	11.1	2,668	29.4	12.6
more than 20 ha	Owner	1,448	7.9	56,313	40.3	38.9
	O/T	654	17.4	22,924	47.8	35.1
	Tenant	71	3.7	1,692	18.6	23.8
TOTAL	Owner	18,266	100	139,695	100	7.6
	O/T	3,760	100	47,921	100	12.7
	Tenant	1,906	100	9,083	100	4.8

Source : Agricultural Census 1990, Agricultural Census Organization.

Table E.7 Land Use in the Study Area

(Unit : ha)

Geographical Area	CULTIVATED AREA				CROPPED AREA				UN-CULTIVATED AREA			
	TOTAL (4 + 9)	Reported Area (3)	(5 + 6)	Current (5)	Fallow (6)	Net sown (6)	Total (6 + 8)	Area Sown more than one (8)	Total (9)	Culturable Waste (10)	Forest (11)	Not available for Cultivation (12)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
QUETTA												
1990/91	265,287	139,875	36,831	27,241	9,590	9,640	50	103,044	42,103	39,088	21,853	
1991/92	265,287	139,885	37,841	27,254	10,587	10,647	60	102,044	41,103	39,088	21,853	
1992/93	265,287	139,825	38,756	27,415	11,341	11,441	100	101,069	40,128	39,088	21,853	
1993/94	265,287	139,825	39,658	27,164	12,494	12,594	100	100,167	39,226	39,088	21,853	
1994/95	265,287	139,825	39,709	26,997	12,712	12,812	100	100,116	39,175	39,088	21,853	
AVERAGE	265,287	139,847	38,559	27,214	11,345	11,427	82	101,288	40,347	39,088	21,853	
PISHIN												
1990/91	1,111,159	265,540	93,212	49,880	43,332	43,402	70	172,328	17,113	73,065	82,150	
1991/92	1,111,159	265,550	94,522	47,851	46,671	46,751	80	171,028	15,813	73,065	82,150	
1992/93	1,111,159	265,470	95,808	46,636	49,172	49,322	150	169,662	14,447	73,065	82,150	
1993/94	1,111,159	265,470	97,537	46,529	51,008	51,158	150	167,933	12,718	73,065	82,150	
1994/95	1,111,159	265,470	98,994	47,287	51,707	51,857	150	166,476	11,261	73,065	82,150	
AVERAGE	1,111,159	265,500	96,015	47,637	48,378	48,498	120	169,485	14,270	73,065	82,150	
KALAT												
1990/91	1,251,733	955,647	123,330	71,344	51,986	52,106	120	832,317	194,027	63,181	575,109	
1991/92	1,251,733	955,657	124,440	67,954	56,486	56,616	130	831,217	192,927	63,181	575,109	
1992/93	1,251,733	955,527	125,487	57,528	67,959	68,059	100	830,040	191,750	63,181	575,109	
1993/94	1,251,733	955,512	126,533	62,257	64,276	64,376	100	828,979	190,689	63,181	575,109	
1994/95	1,251,733	955,527	127,685	54,171	73,514	73,614	100	827,842	189,552	63,181	575,109	
AVERAGE	1,251,733	955,574	125,495	62,651	62,844	62,954	110	830,079	191,789	63,181	575,109	
TOTAL												
1990/91	2,628,179	1,361,062	253,373	148,465	104,908	105,148	240	1,107,689	253,243	175,334	679,112	
1991/92	2,628,179	1,361,092	256,803	143,059	113,744	114,014	270	1,104,289	249,843	175,334	679,112	
1992/93	2,628,179	1,360,822	260,051	131,579	128,472	128,822	350	1,100,771	246,325	175,334	679,112	
1993/94	2,628,179	1,360,807	263,728	135,950	127,778	128,128	350	1,097,079	242,633	175,334	679,112	
1994/95	2,628,179	1,360,822	266,388	128,455	137,933	138,283	350	1,094,434	239,988	175,334	679,112	
AVERAGE	2,628,179	1,360,921	260,069	137,502	122,567	122,879	312	1,100,852	246,406	175,334	679,112	

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

NOTE : "Pishin" includes Qila Abdullah District, and "Kalat" includes Mastung district.

Table E.8 Area of Major Crops Grown in Quetta District

Table 13: Area of Major Crops Grown in Qadwa District						
CROPS	Irrigated Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	2,060	2,280	2,270	2,857	2,950	2,483
Barley	171	180	180	186	190	181
Cumin	142	145	142	146	206	156
Vegetables	258	271	276	287	300	278
Fodder	241	145	149	154	160	170
<b>TOTAL RABI CROPS</b>	<b>2,872</b>	<b>3,021</b>	<b>3,017</b>	<b>3,630</b>	<b>3,806</b>	<b>3,269</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	3,512	4,294	4,977	5,605	5,696	4,817
Onion	376	380	384	397	421	392
Potato	85	81	80	77	73	79
Vegetables	1,245	1,286	1,290	1,314	1,298	1,287
Melons	651	672	672	714	603	662
Chillies	0	0	0	0	0	0
Fodder	239	241	241	241	241	241
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>6,108</b>	<b>6,954</b>	<b>7,644</b>	<b>8,348</b>	<b>8,332</b>	<b>7,477</b>
<b>GRAND TOTAL</b>	<b>8,980</b>	<b>9,975</b>	<b>10,661</b>	<b>11,978</b>	<b>12,138</b>	<b>10,746</b>
<b>Un-Irrigated Area ( ha )</b>						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
<b>RABI CROPS</b>						
Wheat	610	600	660	516	550	587
Barley	0	0	0	0	0	0
Cumin	0	0	0	0	4	1
Vegetables	0	0	0	0	0	0
Fodder	0	0	0	0	0	0
<b>TOTAL RABI CROPS</b>	<b>610</b>	<b>600</b>	<b>660</b>	<b>516</b>	<b>554</b>	<b>588</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	0	0	0	0	0	0
Onion	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Vegetables	0	0	0	0	0	0
Melons	0	12	20	0	20	10
Chillies	0	0	0	0	0	0
Fodder	0	0	0	0	0	0
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>0</b>	<b>12</b>	<b>20</b>	<b>0</b>	<b>20</b>	<b>10</b>
<b>GRAND TOTAL</b>	<b>610</b>	<b>612</b>	<b>680</b>	<b>516</b>	<b>574</b>	<b>598</b>
<b>Total Area ( ha )</b>						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
<b>RABI CROPS</b>						
Wheat	2,670	2,880	2,930	3,373	3,500	3,071
Barley	171	180	180	186	190	181
Cumin	142	145	142	146	210	157
Vegetables	258	271	276	287	300	278
Fodder	241	145	149	154	160	170
<b>TOTAL RABI CROPS</b>	<b>3,482</b>	<b>3,621</b>	<b>3,677</b>	<b>4,146</b>	<b>4,360</b>	<b>3,857</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	3,512	4,294	4,977	5,605	5,696	4,817
Onion	376	380	384	397	421	392
Potato	85	81	80	77	73	79
Vegetables	1,245	1,286	1,290	1,314	1,298	1,287
Melons	651	684	692	714	623	673
Chillies	0	0	0	0	0	0
Fodder	239	241	241	241	241	241
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>6,108</b>	<b>6,966</b>	<b>7,664</b>	<b>8,348</b>	<b>8,352</b>	<b>7,488</b>
<b>GRAND TOTAL</b>	<b>9,590</b>	<b>10,587</b>	<b>11,341</b>	<b>12,494</b>	<b>12,712</b>	<b>11,345</b>

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.9 Production of Major Crops Grown in Quetta District

Table 1.5 Production of Major Crops Grown in Quana District						
CROPS	Irrigated Area ( ton )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	4,600	5,320	5,160	6,740	7,050	5,774
Barley	290	310	320	330	340	318
Cumin	70	72	70	80	125	83
Vegetables	4,140	4,400	4,560	4,820	5,090	4,602
Fodder	5,800	3,500	3,600	3,730	3,870	4,100
<b>TOTAL RABI CROPS</b>	<b>14,900</b>	<b>13,602</b>	<b>13,710</b>	<b>15,700</b>	<b>16,475</b>	<b>14,877</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	42,480	52,555	61,044	68,608	76,352	60,208
Onion	5,320	5,380	6,530	6,760	7,600	6,318
Potato	1,190	1,140	1,130	1,100	1,100	1,132
Vegetables	15,720	16,300	16,450	16,930	16,860	16,452
Melons	10,600	11,100	11,020	11,720	9,770	10,842
Chillies	0	0	0	0	0	0
Fodder	15,500	15,630	15,700	15,700	15,750	15,656
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>90,810</b>	<b>102,105</b>	<b>111,874</b>	<b>120,818</b>	<b>127,432</b>	<b>110,608</b>
<b>GRAND TOTAL</b>	<b>105,710</b>	<b>115,707</b>	<b>125,584</b>	<b>136,518</b>	<b>143,907</b>	<b>125,485</b>
<b>Un-Irrigated Area ( ton )</b>						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
<b>RABI CROPS</b>						
Wheat	610	660	730	600	610	642
Barley	0	0	0	0	0	0
Cumin	0	0	0	0	2	0
Vegetables	0	0	0	0	0	0
Fodder	0	0	0	0	0	0
<b>TOTAL RABI CROPS</b>	<b>610</b>	<b>660</b>	<b>730</b>	<b>600</b>	<b>612</b>	<b>642</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	0	0	0	0	0	0
Onion	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Vegetables	0	0	0	0	0	0
Melons	0	150	260	0	270	136
Chillies	0	0	0	0	0	0
Fodder	0	0	0	0	0	0
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>0</b>	<b>150</b>	<b>260</b>	<b>0</b>	<b>270</b>	<b>136</b>
<b>GRAND TOTAL</b>	<b>610</b>	<b>810</b>	<b>990</b>	<b>600</b>	<b>882</b>	<b>778</b>
<b>Total Area ( ton )</b>						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
<b>RABI CROPS</b>						
Wheat	5,210	5,980	5,890	7,340	7,660	6,416
Barley	290	310	320	330	340	318
Cumin	70	72	70	80	127	84
Vegetables	4,140	4,400	4,560	4,820	5,090	4,602
Fodder	5,800	3,500	3,600	3,730	3,870	4,100
<b>TOTAL RABI CROPS</b>	<b>15,510</b>	<b>14,262</b>	<b>14,440</b>	<b>16,300</b>	<b>17,087</b>	<b>15,520</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	42,480	52,555	61,044	68,608	76,352	60,208
Onion	5,320	5,380	6,530	6,760	7,600	6,318
Potato	1,190	1,140	1,130	1,100	1,100	1,132
Vegetables	15,720	16,300	16,450	16,930	16,860	16,452
Melons	10,600	11,250	11,280	11,720	10,040	10,978
Chillies	0	0	0	0	0	0
Fodder	15,500	15,630	15,700	15,700	15,750	15,656
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>90,810</b>	<b>102,255</b>	<b>112,134</b>	<b>120,818</b>	<b>127,702</b>	<b>110,744</b>
<b>GRAND TOTAL</b>	<b>106,320</b>	<b>116,517</b>	<b>126,574</b>	<b>137,118</b>	<b>144,789</b>	<b>126,264</b>

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.10 Area of Major Crops Grown in Pishin District

CROPS	Irrigated Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	11,300	12,300	12,330	13,080	13,100	12,422
Barley	780	815	822	827	850	819
Cumin	750	755	759	761	770	759
Vegetables	326	352	381	415	425	380
Fodder	378	382	393	389	390	386
<b>TOTAL RABI CROPS</b>	<b>13,534</b>	<b>14,604</b>	<b>14,685</b>	<b>15,472</b>	<b>15,535</b>	<b>14,766</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	6,104	7,928	9,457	15,571	15,924	10,997
Onion	162	185	321	325	289	256
Potato	1,468	1,508	1,512	1,514	1,497	1,500
Vegetables	1,039	1,407	1,582	1,622	1,827	1,495
Melons	3,335	3,342	3,355	3,375	3,398	3,361
Chillies	0	0	0	0	0	0
Fodder	555	560	565	573	590	569
Tobacco	1,520	1,685	1,680	1,678	1,670	1,647
<b>TOTAL KHARIF CROPS</b>	<b>14,183</b>	<b>16,615</b>	<b>18,472</b>	<b>24,658</b>	<b>25,195</b>	<b>19,825</b>
<b>GRAND TOTAL</b>	<b>27,717</b>	<b>31,219</b>	<b>33,157</b>	<b>40,130</b>	<b>40,730</b>	<b>34,591</b>

CROPS	Un-Irrigated Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	13,870	13,700	14,220	9,056	9,100	11,989
Barley	850	855	863	869	900	867
Cumin	400	400	407	412	420	408
Vegetables	0	0	0	0	0	0
Fodder	0	0	0	0	0	0
<b>TOTAL RABI CROPS</b>	<b>15,120</b>	<b>14,955</b>	<b>15,490</b>	<b>10,337</b>	<b>10,420</b>	<b>13,264</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	0	0	0	0	0	0
Onion	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Vegetables	0	0	0	0	0	0
Melons	430	428	453	468	477	451
Chillies	0	0	0	0	0	0
Fodder	65	69	72	73	73	70
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>495</b>	<b>497</b>	<b>525</b>	<b>541</b>	<b>550</b>	<b>522</b>
<b>GRAND TOTAL</b>	<b>15,615</b>	<b>15,452</b>	<b>16,015</b>	<b>10,878</b>	<b>10,970</b>	<b>13,786</b>

CROPS	Total Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>	<b>RABI CROPS</b>					
Wheat	25,170	26,000	26,550	22,136	22,200	24,411
Barley	1,630	1,670	1,685	1,696	1,750	1,686
Cumin	1,150	1,155	1,166	1,173	1,190	1,167
Vegetables	326	352	381	415	425	380
Fodder	378	382	393	389	390	386
<b>TOTAL RABI CROPS</b>	<b>28,654</b>	<b>29,559</b>	<b>30,175</b>	<b>25,809</b>	<b>25,955</b>	<b>28,030</b>
<b>KHARIF CROPS</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	6,104	7,928	9,457	15,571	15,924	10,997
Onion	162	185	321	325	289	256
Potato	1,468	1,508	1,512	1,514	1,497	1,500
Vegetables	1,039	1,407	1,582	1,622	1,827	1,495
Melons	3,765	3,770	3,808	3,843	3,875	3,812
Chillies	0	0	0	0	0	0
Fodder	620	629	637	646	663	639
Tobacco	1,520	1,685	1,680	1,678	1,670	1,647
<b>TOTAL KHARIF CROPS</b>	<b>14,678</b>	<b>17,112</b>	<b>18,997</b>	<b>25,199</b>	<b>25,745</b>	<b>20,346</b>
<b>GRAND TOTAL</b>	<b>43,332</b>	<b>46,671</b>	<b>49,172</b>	<b>51,008</b>	<b>51,700</b>	<b>48,377</b>

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.11 Production of Major Crops Grown in Pishin District

CROPS	Irrigated Area ( ton )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
RABI CROPS						
Wheat	34,060	35,740	32,540	35,660	36,000	34,800
Barley	1,600	1,700	1,750	1,770	1,870	1,738
Cumin	530	535	540	550	580	547
Vegetables	4,730	5,175	5,670	6,220	6,450	5,649
Fodder	8,400	8,520	8,800	8,750	9,000	8,694
TOTAL RABI CROPS	49,320	51,670	49,300	52,950	53,900	51,428
KHARIF CROPS						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	66,385	90,528	110,447	136,326	162,013	113,140
Onion	3,100	3,540	6,260	6,350	5,950	5,040
Potato	26,400	27,140	27,220	27,260	27,420	27,088
Vegetables	14,470	20,050	22,670	23,420	26,900	21,502
Melons	57,900	58,590	64,340	64,770	65,210	62,162
Chillies	0	0	0	0	0	0
Fodder	28,300	28,600	29,100	29,540	30,450	29,198
Tobacco	2,650	2,870	2,800	2,800	2,800	2,784
TOTAL KHARIF CROPS	199,205	231,318	262,837	290,466	320,743	260,914
GRAND TOTAL	248,525	282,988	312,137	343,416	374,643	312,342

CROPS	Un-Irrigated Area ( ton )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
RABI CROPS						
Wheat	15,110	14,880	16,190	10,620	10,830	13,526
Barley	900	1,000	1,020	1,030	1,080	1,006
Cumin	160	161	165	190	200	175
Vegetables	0	0	0	0	0	0
Fodder	0	0	0	0	0	0
TOTAL RABI CROPS	16,170	16,041	17,375	11,840	12,110	14,707
KHARIF CROPS						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	0	0	0	0	0	0
Onion	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Vegetables	0	0	0	0	0	0
Melons	4,420	4,520	4,780	4,970	5,060	4,750
Chillies	0	0	0	0	0	0
Fodder	1,000	1,100	1,200	1,220	1,360	1,176
Tobacco	0	0	0	0	0	0
TOTAL KHARIF CROPS	5,420	5,620	5,980	6,190	6,420	5,926
GRAND TOTAL	21,590	21,661	23,355	18,030	18,530	20,633

CROPS	Total Area ( ton )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
RABI CROPS						
Wheat	49,170	50,620	48,730	46,280	46,830	48,326
Barley	2,500	2,700	2,770	2,800	2,950	2,744
Cumin	690	696	705	740	780	722
Vegetables	4,730	5,175	5,670	6,220	6,450	5,649
Fodder	8,400	8,520	8,800	8,750	9,000	8,694
TOTAL RABI CROPS	65,490	67,711	66,675	64,790	66,010	66,135
KHARIF CROPS						
Rice	0	0	0	0	0	0
Jowar	0	0	0	0	0	0
Fruits	66,385	90,528	110,447	136,326	162,013	113,140
Onion	3,100	3,540	6,260	6,350	5,950	5,040
Potato	26,400	27,140	27,220	27,260	27,420	27,088
Vegetables	14,470	20,050	22,670	23,420	26,900	21,502
Melons	62,320	63,110	69,120	69,740	70,270	66,912
Chillies	0	0	0	0	0	0
Fodder	29,300	29,700	30,300	30,760	31,810	30,374
Tobacco	2,650	2,870	2,800	2,800	2,800	2,784
TOTAL KHARIF CROPS	204,625	236,938	268,817	296,656	327,163	266,840
GRAND TOTAL	270,115	304,649	335,492	361,446	393,173	332,975

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

**Table E.12 Area of Major Crops Grown in Mastung District**

Irrigated Area ( ha )						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
RABI CROPS						
Wheat	-	-	12,700	13,800	10,820	12,440
Barley	-	-	3,790	3,400	3,500	3,563
Cumin	-	-	2,510	2,500	2,800	2,603
Vegetables	-	-	122	127	141	130
Fodder	-	-	2,200	2,260	1,900	2,120
TOTAL RABI CROPS	-	-	21,322	22,037	19,161	20,857
KHARIF CROPS						
Rice	-	-	0	0	0	0
Jowar	-	-	0	20	25	15
Fruits	-	-	3,338	3,620	3,891	3,616
Onion	-	-	3,325	3,661	4,170	3,719
Potato	-	-	880	890	262	677
Vegetables	-	-	484	432	557	491
Melons	-	-	254	210	180	215
Chillies	-	-	11	9	10	10
Fodder	-	-	603	530	570	568
Tobacco	-	-	0	0	0	0
TOTAL KHARIF CROPS	-	-	8,895	9,372	9,665	9,311
GRAND TOTAL	-	-	30,217	31,459	28,826	30,167

Un-Irrigated Area ( ha )						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
RABI CROPS						
Wheat	-	-	6,500	1,700	8,430	5,543
Barley	-	-	1,630	1,500	1,500	1,543
Cumin	-	-	1,400	1,500	1,500	1,467
Vegetables	-	-	0	0	17	6
Fodder	-	-	1,150	1,100	1,700	1,317
TOTAL RABI CROPS	-	-	10,680	5,800	13,147	9,876
KHARIF CROPS						
Rice	-	-	0	0	0	0
Jowar	-	-	0	50	45	32
Fruits	-	-	0	0	0	0
Onion	-	-	0	0	0	0
Potato	-	-	0	0	0	0
Vegetables	-	-	0	0	0	0
Melons	-	-	353	290	214	286
Chillies	-	-	0	0	0	0
Fodder	-	-	70	50	45	55
Tobacco	-	-	0	0	0	0
TOTAL KHARIF CROPS	-	-	423	390	304	372
GRAND TOTAL	-	-	11,103	6,190	13,451	10,248

Total Area ( ha )						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
RABI CROPS						
Wheat	-	-	19,200	15,500	19,250	17,983
Barley	-	-	5,420	4,900	5,000	5,107
Cumin	-	-	3,910	4,000	4,300	4,070
Vegetables	-	-	122	127	158	136
Fodder	-	-	3,350	3,360	3,600	3,437
TOTAL RABI CROPS	-	-	32,002	27,887	32,308	30,732
KHARIF CROPS						
Rice	-	-	0	0	0	0
Jowar	-	-	0	70	70	47
Fruits	-	-	3,338	3,620	3,891	3,616
Onion	-	-	3,325	3,661	4,170	3,719
Potato	-	-	880	890	262	677
Vegetables	-	-	484	432	557	491
Melons	-	-	607	500	394	500
Chillies	-	-	11	9	10	10
Fodder	-	-	673	580	615	623
Tobacco	-	-	0	0	0	0
TOTAL KHARIF CROPS	-	-	9,318	9,762	9,969	9,683
GRAND TOTAL	-	-	41,320	37,649	42,277	40,415

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.13 Production of Major Crops Grown in Mastung District

Irrigated Area ( ton )						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
<b>RABI CROPS</b>						
Wheat	-	-	29,600	32,950	28,370	30,307
Barley	-	-	6,000	5,390	5,600	5,663
Cumin	-	-	1,600	1,610	1,850	1,687
Vegetables	-	-	1,970	2,100	2,275	2,115
Fodder	-	-	49,540	50,900	42,940	47,793
<b>TOTAL RABI CROPS</b>	-	-	<b>88,710</b>	<b>92,950</b>	<b>81,035</b>	<b>87,565</b>
<b>KHARIF CROPS</b>						
Rice	-	-	0	0	0	0
Jowar	-	-	0	20	35	18
Fruits	-	-	34,527	34,468	34,083	34,359
Onion	-	-	73,500	81,000	98,000	84,167
Potato	-	-	12,350	12,500	3,700	9,517
Vegetables	-	-	6,980	6,340	8,120	7,147
Melons	-	-	4,120	3,450	2,950	3,507
Chillies	-	-	17	14	15	15
Fodder	-	-	36,800	32,600	35,230	34,877
Tobacco	-	-	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	-	-	<b>168,294</b>	<b>170,392</b>	<b>182,133</b>	<b>173,606</b>
<b>GRAND TOTAL</b>	-	-	<b>257,004</b>	<b>263,342</b>	<b>263,168</b>	<b>261,171</b>

CROPS	Un-Irrigated Area ( ton )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
RABI CROPS						
Wheat	-	-	7,250	2,000	9,790	6,347
Barley	-	-	2,130	1,960	1,980	2,023
Cumin	-	-	646	700	750	699
Vegetables	-	-	0	0	11	4
Fodder	-	-	12,660	12,350	19,200	14,737
TOTAL RABI CROPS			22,686	17,010	31,731	23,809
KHARIF CROPS						
Rice	-	-	0	0	0	0
Jowar	-	-	0	25	35	20
Fruits	-	-	0	0	0	0
Onion	-	-	0	0	0	0
Potato	-	-	0	0	0	0
Vegetables	-	-	0	0	0	0
Melons	-	-	3,510	2,910	2,210	2,877
Chillies	-	-	0	0	0	0
Fodder	-	-	1,600	1,150	1,050	1,267
Tobacco	-	-	0	0	0	0
TOTAL KHARIF CROPS			5,110	4,085	3,295	4,163
GRAND TOTAL			27,796	21,095	35,026	27,972

CROPS	Total Area ( ton )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	-	-	36,850	34,950	38,160	36,653
Barley	-	-	8,130	7,350	7,580	7,687
Cumin	-	-	2,246	2,310	2,600	2,385
Vegetables	-	-	1,970	2,100	2,286	2,119
Fodder	-	-	62,200	63,250	62,140	62,530
<b>TOTAL RABI CROPS</b>			<b>111,396</b>	<b>109,960</b>	<b>112,766</b>	<b>111,374</b>
<b>KHARIF CROPS</b>						
Rice	-	-	0	0	0	0
Jowar	-	-	0	45	70	38
Fruits	-	-	34,527	34,468	34,083	34,359
Onion	-	-	73,500	81,000	98,000	84,167
Potato	-	-	12,350	12,500	3,700	9,517
Vegetables	-	-	6,980	6,340	8,120	7,147
Melons	-	-	7,630	6,360	5,160	6,383
Chillies	-	-	17	14	15	15
Fodder	-	-	38,400	33,750	36,280	36,143
Tobacco	-	-	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	-	-	<b>173,404</b>	<b>174,477</b>	<b>185,428</b>	<b>177,770</b>
<b>GRAND TOTAL</b>	-	-	<b>284,800</b>	<b>284,437</b>	<b>298,194</b>	<b>289,144</b>

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.



Table E.14 Area of Major Crops Grown in Kalat District

CROPS	Irrigated Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	14,800	15,300	7,000	8,550	8,600	10,850
Barley	240	245	828	1,084	1,100	699
Cumin	560	550	1,198	1,200	1,200	942
Vegetables	511	531	75	119	125	272
Fodder	3,700	3,860	1,750	1,750	1,800	2,572
<b>TOTAL RABI CROPS</b>	<b>19,811</b>	<b>20,486</b>	<b>10,851</b>	<b>12,703</b>	<b>12,825</b>	<b>15,335</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	4	7	2
Jowar	0	0	0	22	30	10
Fruits	3,959	5,599	2,595	4,285	4,379	4,163
Onion	4,500	6,800	3,100	3,721	4,195	4,463
Potato	3,900	2,100	1,440	1,480	2,006	2,185
Vegetables	823	818	298	273	280	498
Melons	493	503	188	158	160	300
Chillies	38	35	14	10	10	21
Fodder	862	870	377	322	360	558
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>14,575</b>	<b>16,725</b>	<b>8,012</b>	<b>10,275</b>	<b>11,427</b>	<b>12,203</b>
<b>GRAND TOTAL</b>	<b>34,386</b>	<b>37,211</b>	<b>18,863</b>	<b>22,978</b>	<b>24,252</b>	<b>27,538</b>

CROPS	Un-Irrigated Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	11,500	13,100	4,500	664	4,000	6,753
Barley	970	1,050	719	385	400	705
Cumin	2,400	2,450	1,452	1,500	1,500	1,860
Vegetables	0	0	0	0	0	0
Fodder	1,900	1,860	720	720	700	1,180
<b>TOTAL RABI CROPS</b>	<b>16,770</b>	<b>18,460</b>	<b>7,391</b>	<b>3,269</b>	<b>6,600</b>	<b>10,498</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	70	70	28
Fruits	0	0	0	0	0	0
Onion	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Vegetables	0	0	0	0	0	0
Melons	630	615	295	240	240	404
Chillies	0	0	0	0	0	0
Fodder	200	200	90	70	75	127
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>830</b>	<b>815</b>	<b>385</b>	<b>380</b>	<b>385</b>	<b>559</b>
<b>GRAND TOTAL</b>	<b>17,600</b>	<b>19,275</b>	<b>7,776</b>	<b>3,649</b>	<b>6,985</b>	<b>11,057</b>

CROPS	Total Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	26,300	28,400	11,500	9,214	12,600	17,603
Barley	1,210	1,295	1,547	1,469	1,500	1,404
Cumin	2,960	3,000	2,650	2,700	2,700	2,802
Vegetables	511	531	75	119	125	272
Fodder	5,600	5,720	2,470	2,470	2,500	3,752
<b>TOTAL RABI CROPS</b>	<b>36,581</b>	<b>38,946</b>	<b>18,242</b>	<b>15,972</b>	<b>19,425</b>	<b>25,833</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Rice	0	0	0	4	7	2
Jowar	0	0	0	92	100	38
Fruits	3,959	5,599	2,595	4,285	4,379	4,163
Onion	4,500	6,800	3,100	3,721	4,195	4,463
Potato	3,900	2,100	1,440	1,480	2,006	2,185
Vegetables	823	818	298	273	280	498
Melons	1,123	1,118	483	398	400	704
Chillies	38	35	14	10	10	21
Fodder	1,062	1,070	467	392	435	685
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>15,405</b>	<b>17,540</b>	<b>8,397</b>	<b>10,655</b>	<b>11,812</b>	<b>12,762</b>
<b>GRAND TOTAL</b>	<b>51,986</b>	<b>56,486</b>	<b>26,639</b>	<b>26,627</b>	<b>31,237</b>	<b>38,595</b>

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.15 Production of Major Crops Grown in Kalat District

Table 1.15 Production of Major Crops Grown in Kharif District						
CROPS	Irrigated Area (ton)					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	33,600	35,220	16,700	17,900	18,110	24,506
Barley	360	380	1,300	1,700	1,760	1,100
Cumin	350	350	765	780	800	609
Vegetables	8,700	9,030	1,210	1,930	2,050	4,584
Fodder	83,100	86,850	39,400	39,400	40,680	57,886
<b>TOTAL RABI CROPS</b>	<b>126,110</b>	<b>132,830</b>	<b>59,375</b>	<b>61,710</b>	<b>63,400</b>	<b>88,685</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	5	10	3
Jowar	0	0	0	22	35	11
Fruits	39,290	60,348	25,681	46,903	65,923	47,629
Onion	99,350	150,130	68,500	82,350	98,500	99,766
Potato	50,700	29,400	20,200	20,770	28,170	29,848
Vegetables	11,800	11,820	4,360	4,040	4,180	7,240
Melons	7,190	7,520	3,070	2,580	2,620	4,596
Chillies	50	50	21	15	15	30
Fodder	45,500	46,140	21,600	18,750	21,100	30,618
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>253,880</b>	<b>305,408</b>	<b>143,432</b>	<b>175,435</b>	<b>220,553</b>	<b>219,742</b>
<b>GRAND TOTAL</b>	<b>379,990</b>	<b>438,238</b>	<b>202,807</b>	<b>237,145</b>	<b>283,953</b>	<b>308,427</b>
<b>Un-Irrigated Area (ton)</b>						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
<b>RABI CROPS</b>						
Wheat	12,170	14,460	4,950	760	4,640	7,396
Barley	970	1,350	940	505	540	861
Cumin	1,100	1,130	670	700	750	870
Vegetables	0	0	0	0	0	0
Fodder	20,330	20,460	7,930	7,930	7,770	12,884
<b>TOTAL RABI CROPS</b>	<b>34,570</b>	<b>37,400</b>	<b>14,490</b>	<b>9,895</b>	<b>13,700</b>	<b>22,011</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	35	50	17
Fruits	0	0	0	0	0	0
Onion	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Vegetables	0	0	0	0	0	0
Melons	5,970	5,970	3,010	2,470	2,490	3,982
Chillies	0	0	0	0	0	0
Fodder	4,000	4,000	2,000	1,560	1,690	2,650
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>9,970</b>	<b>9,970</b>	<b>5,010</b>	<b>4,065</b>	<b>4,230</b>	<b>6,649</b>
<b>GRAND TOTAL</b>	<b>44,540</b>	<b>47,370</b>	<b>19,500</b>	<b>13,960</b>	<b>17,930</b>	<b>28,660</b>
<b>Total Area (ton)</b>						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
<b>RABI CROPS</b>						
Wheat	45,770	50,680	21,650	18,660	22,750	31,902
Barley	1,330	1,730	2,240	2,205	2,300	1,961
Cumin	1,450	1,480	1,435	1,480	1,550	1,479
Vegetables	8,700	9,030	1,210	1,930	2,050	4,584
Fodder	103,430	107,310	47,330	47,330	48,450	70,770
<b>TOTAL RABI CROPS</b>	<b>160,680</b>	<b>170,230</b>	<b>73,865</b>	<b>71,605</b>	<b>77,100</b>	<b>110,696</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Rice	0	0	0	5	10	3
Jowar	0	0	0	57	85	28
Fruits	39,290	60,348	25,681	46,903	65,923	47,629
Onion	99,350	150,130	68,500	82,350	98,500	99,766
Potato	50,700	29,400	20,200	20,770	28,170	29,848
Vegetables	11,800	11,820	4,360	4,040	4,180	7,240
Melons	13,160	13,490	6,080	5,050	5,110	8,578
Chillies	50	50	21	15	15	30
Fodder	49,500	50,140	23,600	20,310	22,790	33,268
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>263,850</b>	<b>315,378</b>	<b>148,442</b>	<b>179,500</b>	<b>224,783</b>	<b>226,391</b>
<b>GRAND TOTAL</b>	<b>424,530</b>	<b>485,608</b>	<b>222,307</b>	<b>251,105</b>	<b>301,883</b>	<b>337,087</b>

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.16 Area of Major Crops Grown in the Study Area

CROPS	Irrigated Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	28,160	29,880	34,300	38,287	35,470	33,219
Barley	1,191	1,240	5,620	5,497	5,640	3,838
Cumin	1,452	1,450	4,609	4,607	4,976	3,419
Vegetables	1,095	1,154	854	948	991	1,008
Fodder	4,319	4,387	4,492	4,553	4,250	4,400
<b>TOTAL RABI CROPS</b>	<b>36,217</b>	<b>38,111</b>	<b>49,875</b>	<b>53,892</b>	<b>51,327</b>	<b>45,884</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	4	7	2
Jowar	0	0	0	42	55	19
Fruits	13,575	17,821	20,367	29,081	29,890	22,147
Onion	5,038	7,365	7,130	8,104	9,075	7,342
Potato	5,453	3,689	3,912	3,961	3,838	4,171
Vegetables	3,107	3,511	3,654	3,641	3,962	3,575
Melons	4,479	4,517	4,469	4,457	4,341	4,453
Chillies	38	35	25	19	20	27
Fodder	1,656	1,671	1,786	1,666	1,761	1,708
Tobacco	1,520	1,685	1,680	1,678	1,670	1,647
<b>TOTAL KHARIF CROPS</b>	<b>34,866</b>	<b>40,294</b>	<b>43,023</b>	<b>52,653</b>	<b>54,619</b>	<b>45,091</b>
<b>GRAND TOTAL</b>	<b>71,083</b>	<b>78,405</b>	<b>92,898</b>	<b>106,545</b>	<b>105,946</b>	<b>90,975</b>

CROPS	Un-Irrigated Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	25,980	27,400	25,880	11,936	22,080	22,655
Barley	1,820	1,905	3,212	2,754	2,800	2,498
Cumin	2,800	2,850	3,259	3,412	3,424	3,149
Vegetables	0	0	0	0	17	3
Fodder	1,900	1,860	1,870	1,820	2,400	1,970
<b>TOTAL RABI CROPS</b>	<b>32,500</b>	<b>34,015</b>	<b>34,221</b>	<b>19,922</b>	<b>30,721</b>	<b>30,276</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	120	115	47
Fruits	0	0	0	0	0	0
Onion	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Vegetables	0	0	0	0	0	0
Melons	1,060	1,055	1,121	998	951	1,037
Chillies	0	0	0	0	0	0
Fodder	265	269	232	193	193	230
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>1,325</b>	<b>1,324</b>	<b>1,353</b>	<b>1,311</b>	<b>1,259</b>	<b>1,314</b>
<b>GRAND TOTAL</b>	<b>33,825</b>	<b>35,339</b>	<b>35,574</b>	<b>21,233</b>	<b>31,980</b>	<b>31,590</b>

CROPS	Total Area ( ha )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	54,140	57,280	60,180	50,223	57,550	55,875
Barley	3,011	3,145	8,832	8,251	8,440	6,336
Cumin	4,252	4,300	7,868	8,019	8,400	6,568
Vegetables	1,095	1,154	854	948	1,008	1,012
Fodder	6,219	6,247	6,362	6,373	6,650	6,370
<b>TOTAL RABI CROPS</b>	<b>70,611</b>	<b>83,890</b>	<b>88,113</b>	<b>71,249</b>	<b>76,605</b>	<b>76,160</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	4	7	2
Jowar	0	0	0	162	170	66
Fruits	13,575	17,821	20,367	29,081	29,890	22,147
Onion	5,038	7,365	7,130	8,104	9,075	7,342
Potato	5,453	3,689	3,912	3,961	3,838	4,171
Vegetables	3,107	3,511	3,654	3,641	3,962	3,575
Melons	5,539	5,572	5,590	5,455	5,292	5,490
Chillies	38	35	25	19	20	27
Fodder	1,921	1,940	2,018	1,859	1,954	1,938
Tobacco	1,520	1,685	1,680	1,678	1,670	1,647
<b>TOTAL KHARIF CROPS</b>	<b>36,191</b>	<b>41,618</b>	<b>44,376</b>	<b>53,964</b>	<b>55,878</b>	<b>46,405</b>
<b>GRAND TOTAL</b>	<b>104,908</b>	<b>113,744</b>	<b>128,472</b>	<b>127,778</b>	<b>137,926</b>	<b>122,566</b>

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.17 Production of Major Crops Grown in the Study Area

CROPS	Irrigated Area ( ton )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	72,260	77,280	84,000	93,250	89,530	83,264
Barley	2,250	2,390	9,370	9,190	9,570	6,554
Cumin	950	957	2,975	3,020	3,355	2,251
Vegetables	17,570	18,605	13,410	15,070	15,865	16,104
Fodder	97,300	98,870	101,340	102,780	96,490	99,356
<b>TOTAL RABI CROPS</b>	<b>190,330</b>	<b>198,102</b>	<b>211,095</b>	<b>223,310</b>	<b>214,810</b>	<b>207,529</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	5	10	3
Jowar	0	0	0	42	70	22
Fruits	148,155	203,431	231,699	286,305	338,371	241,592
Onion	107,770	159,050	154,790	176,460	210,050	161,624
Potato	78,290	57,680	60,900	61,630	60,390	63,778
Vegetables	41,990	48,170	50,460	50,730	56,060	49,482
Melons	75,690	77,210	82,550	82,520	80,550	79,704
Chillies	50	50	38	29	30	39
Fodder	89,300	90,370	103,200	96,590	102,530	96,398
Tobacco	2,650	2,870	2,800	2,800	2,800	2,784
<b>TOTAL KHARIF CROPS</b>	<b>543,895</b>	<b>638,831</b>	<b>686,437</b>	<b>757,111</b>	<b>850,861</b>	<b>695,427</b>
<b>GRAND TOTAL</b>	<b>734,225</b>	<b>836,933</b>	<b>897,532</b>	<b>980,421</b>	<b>1,065,671</b>	<b>902,956</b>

CROPS	Un-Irrigated Area ( ton )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	27,890	30,000	29,120	13,980	25,870	25,372
Barley	1,870	2,350	4,090	3,495	3,600	3,081
Cumin	1,260	1,291	1,481	1,590	1,702	1,465
Vegetables	0	0	0	0	11	2
Fodder	20,330	20,460	20,590	20,280	26,970	21,726
<b>TOTAL RABI CROPS</b>	<b>51,350</b>	<b>54,101</b>	<b>55,281</b>	<b>39,345</b>	<b>58,153</b>	<b>51,646</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0	0	0
Jowar	0	0	0	60	85	29
Fruits	0	0	0	0	0	0
Onion	0	0	0	0	0	0
Potato	0	0	0	0	0	0
Vegetables	0	0	0	0	0	0
Melons	10,390	10,640	11,560	10,350	10,030	10,594
Chillies	0	0	0	0	0	0
Fodder	5,000	5,100	4,800	3,930	4,100	4,586
Tobacco	0	0	0	0	0	0
<b>TOTAL KHARIF CROPS</b>	<b>15,390</b>	<b>15,740</b>	<b>16,360</b>	<b>14,340</b>	<b>14,215</b>	<b>15,209</b>
<b>GRAND TOTAL</b>	<b>66,740</b>	<b>69,841</b>	<b>71,641</b>	<b>53,685</b>	<b>72,368</b>	<b>66,855</b>

CROPS	Total Area ( ton )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	100,150	107,280	113,120	107,230	115,400	108,636
Barley	4,120	4,740	13,460	12,685	13,170	9,635
Cumin	2,210	2,248	4,456	4,610	5,057	3,716
Vegetables	17,570	18,605	13,410	15,070	15,876	16,106
Fodder	117,630	119,330	121,930	123,060	123,460	121,082
<b>TOTAL RABI CROPS</b>	<b>241,680</b>	<b>252,203</b>	<b>266,376</b>	<b>262,655</b>	<b>272,963</b>	<b>259,175</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	5	10	3
Jowar	0	0	0	102	155	51
Fruits	148,155	203,431	231,699	286,305	338,371	241,592
Onion	107,770	159,050	154,790	176,460	210,050	161,624
Potato	78,290	57,680	60,900	61,630	60,390	63,778
Vegetables	41,990	48,170	50,460	50,730	56,060	49,482
Melons	86,080	87,850	94,110	92,870	90,580	90,298
Chillies	50	50	38	29	30	39
Fodder	94,300	95,470	108,000	100,520	106,630	100,984
Tobacco	2,650	2,870	2,800	2,800	2,800	2,784
<b>TOTAL KHARIF CROPS</b>	<b>559,285</b>	<b>654,571</b>	<b>702,797</b>	<b>771,451</b>	<b>865,076</b>	<b>710,636</b>
<b>GRAND TOTAL</b>	<b>800,965</b>	<b>906,774</b>	<b>969,173</b>	<b>1,034,106</b>	<b>1,138,039</b>	<b>969,811</b>

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.18 Yield of Major Crops Grown in the Study Area

Table 12b: Yield of Major Crops Grown in the Study Area						
CROPS	AVERAGE YIELD (ton / ha : Irrigated )					AVERAGE
	1990/91	1991/92	1992/93	1993/94	1994/95	
<b>RABI CROPS</b>						
Wheat	2.57	2.59	2.45	2.44	2.52	2.51
Barley	1.89	1.93	1.67	1.67	1.70	1.77
Cumin	0.65	0.66	0.65	0.66	0.67	0.66
Vegetables	16.05	16.12	15.70	15.90	16.01	15.96
Fodder	22.53	22.54	22.56	22.57	22.70	22.58
<b>KHARIF CROPS</b>						
Rice	-	-	-	1.25	1.43	1.34
Jowar	-	-	-	1.00	1.27	1.14
Fruits	10.91	11.42	11.38	9.85	11.32	10.97
Onion	21.39	21.60	21.71	21.77	23.15	21.92
Potato	14.36	15.64	15.57	15.56	15.73	15.37
Vegetables	13.51	13.72	13.81	13.93	14.15	13.83
Melons	16.90	17.09	18.47	18.51	18.56	17.91
Chillies	1.32	1.43	1.52	1.53	1.50	1.46
Fodder	53.93	54.08	57.78	57.98	58.22	56.40
Tobacco	1.74	1.70	1.67	1.67	1.68	1.69
<b>AVERAGE YIELD ( ton / ha : Un-Irrigated )</b>						
CROPS	1990/91	1991/92	1992/93	1993/94	1994/95	AVERAGE
<b>RABI CROPS</b>						
Wheat	1.07	1.09	1.13	1.17	1.17	1.13
Barley	1.03	1.23	1.27	1.27	1.29	1.22
Cumin	0.45	0.45	0.45	0.47	0.50	0.46
Vegetables	-	-	-	-	0.65	-
Fodder	10.70	11.00	11.01	11.14	11.24	11.02
<b>KHARIF CROPS</b>						
Rice	-	-	-	-	-	-
Jowar	-	-	-	0.50	0.74	0.62
Fruits	-	-	-	-	-	-
Onion	-	-	-	-	-	-
Potato	-	-	-	-	-	-
Vegetables	-	-	-	-	-	-
Melons	9.80	10.09	10.31	10.37	10.55	10.22
Chillies	-	-	-	-	-	-
Fodder	18.87	18.96	20.69	20.36	21.24	20.02
Tobacco	-	-	-	-	-	-
<b>AVERAGE YIELD ( ton / ha : TOTAL )</b>						
CROPS	90/91	91/92	92/93	1993/94	1994/95	AVERAGE
<b>RABI CROPS</b>						
Wheat	1,850	1,873	1,880	2,135	2,005	1,949
Barley	1,368	1,507	1,524	1,537	1,560	1,499
Cumin	520	523	566	575	602	557
Vegetables	16,046	16,122	15,703	15,897	15,750	15,903
Fodder	18,915	19,102	19,165	19,310	18,565	19,011
<b>KHARIF CROPS</b>						
Rice	0	0	0	1,250	1,429	536
Jowar	0	0	0	630	912	308
Fruits	10,914	11,415	11,376	9,845	11,321	10,974
Onion	21,391	21,595	21,710	21,774	23,146	21,923
Potato	14,357	15,636	15,567	15,559	15,735	15,371
Vegetables	13,515	13,720	13,810	13,933	14,149	13,825
Melons	15,541	15,766	16,835	17,025	17,116	16,457
Chillies	1,316	1,429	1,520	1,526	1,500	1,458
Fodder	49,089	49,211	53,518	54,072	54,570	52,092
Tobacco	1,743	1,703	1,667	1,669	1,677	1,692

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.19 Area, Production and Yield of all Fruits Grown In Quetta District

Fruit	1990/91					1991/92				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	97	0	97	400	4.12	98	0	98	404	4.12
APPLE	1,245	286	1,531	18,860	15.15	1,664	369	2,033	25,208	15.15
APRICOT	352	43	395	6,490	18.44	419	50	469	7,726	18.44
GRAPES	750	12	762	8,350	11.13	770	12	782	8,572	11.13
PEACH	291	41	332	4,120	14.16	346	50	396	4,899	14.16
PLUM	206	70	276	3,620	17.57	282	74	356	4,956	17.57
PEAR	38	0	38	400	10.53	38	0	38	400	10.53
POMEGRANATE	2	0	2	40	20.00	2	0	2	40	20.00
CHERRY	29	45	74	150	5.17	55	52	107	284	5.16
PISTACHIO	0	0	0	0	-	8	0	8	16	2.00
FIG	0	0	0	0	-	0	0	0	0	-
OTHER FRUITS	5	0	5	50	10.00	5	0	5	50	10.00
<b>TOTAL</b>	<b>3,015</b>	<b>497</b>	<b>3,512</b>	<b>42,480</b>		<b>3,687</b>	<b>607</b>	<b>4,294</b>	<b>52,555</b>	

Fruit	1992/93					1993/94				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	98	0	98	404	4.12	98	0	98	404	4.12
APPLE	1,998	445	2,443	30,268	15.15	2,341	511	2,852	35,464	15.15
APRICOT	481	57	538	8,888	18.44	493	63	556	9,090	18.44
GRAPES	784	24	808	8,728	11.13	798	33	831	8,884	11.13
PEACH	397	57	454	5,620	14.16	438	63	501	6,201	14.16
PLUM	352	84	436	6,185	17.57	422	96	518	7,416	17.57
PEAR	38	0	38	400	10.53	38	0	38	400	10.53
POMEGRANATE	2	0	2	40	20.00	2	0	2	40	20.00
CHERRY	90	57	147	465	5.17	133	63	196	688	5.17
PISTACHIO	8	0	8	16	2.00	8	0	8	16	2.00
FIG	0	0	0	0	-	0	0	0	0	-
OTHER FRUITS	5	0	5	50	10.00	5	0	5	5	1.00
<b>TOTAL</b>	<b>4,253</b>	<b>724</b>	<b>4,977</b>	<b>61,044</b>		<b>4,776</b>	<b>829</b>	<b>5,605</b>	<b>68,608</b>	

Fruit	1994/95					AVERAGE				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	98	0	98	404	4.12	98	0	98	403	4.12
APPLE	2,656	257	2,913	40,236	15.15	1,981	374	2,354	30,007	15.15
APRICOT	536	24	560	9,883	18.44	456	47	504	8,411	18.44
GRAPES	810	29	839	9,019	11.13	782	22	804	8,711	11.13
PEACH	479	26	505	6,782	14.16	390	47	438	5,524	14.16
PLUM	492	33	525	8,646	17.57	351	71	422	6,165	17.57
PEAR	38	0	38	400	10.53	38	0	38	400	10.53
POMEGRANATE	2	0	2	40	20.00	2	0	2	40	20.00
CHERRY	178	25	203	921	5.17	97	48	145	502	5.17
PISTACHIO	8	0	8	16	2.00	6	0	6	13	2.00
FIG	0	0	0	0	-	0	0	0	0	-
OTHER FRUITS	5	0	5	5	1.00	5	0	5	32	6.40
<b>TOTAL</b>	<b>5,302</b>	<b>394</b>	<b>5,696</b>	<b>76,352</b>		<b>4,207</b>	<b>610</b>	<b>4,817</b>	<b>60,208</b>	

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.20 Area, Production and Yield of all Fruits Grown in Pishin District

Fruit	1990/91					1991/92				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	119	10	129	470	3.95	137	10	147	541	3.95
APPLE	2,008	1,089	3,097	30,680	15.28	3,088	1,259	4,347	47,182	15.28
APRICOT	691	235	926	12,830	18.57	870	265	1,135	16,153	18.57
GRAPES	1,122	153	1,275	12,450	11.10	1,256	153	1,409	13,937	11.10
PEACH	133	0	133	1,890	14.21	160	43	203	2,274	14.21
PLUM	211	11	222	3,700	17.54	227	33	260	3,981	17.54
PEAR	4	0	4	40	10.00	4	0	4	40	10.00
POMEGRANATE	171	95	266	3,980	23.27	257	95	352	5,982	23.28
CHERRY	1	0	1	5	5.00	1	2	3	5	5.00
PISTACHIO	5	7	12	10	2.00	13	7	20	26	2.00
FIG	4	0	4	30	7.50	4	0	4	30	7.50
OTHER FRUITS	35	0	35	300	8.57	44	0	44	377	8.57
<b>TOTAL</b>	<b>4,504</b>	<b>1,600</b>	<b>6,104</b>	<b>66,385</b>		<b>6,061</b>	<b>1,867</b>	<b>7,928</b>	<b>90,528</b>	

Fruit	1992/93					1993/94				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	155	10	165	612	3.95	173	10	183	683	3.95
APPLE	3,943	1,384	5,327	60,245	15.28	5,091	1,662	6,753	77,785	15.28
APRICOT	1,026	289	1,315	19,050	18.57	1,259	380	1,639	23,376	18.57
GRAPES	1,394	216	1,610	15,468	11.10	1,547	4,171	5,718	17,166	11.10
PEACH	183	43	226	2,600	14.21	183	43	226	2,601	14.21
PLUM	228	53	281	3,998	17.54	221	151	372	3,875	17.53
PEAR	4	0	4	40	10.00	4	0	4	40	10.00
POMEGRANATE	343	107	450	7,980	23.27	444	145	589	10,330	23.27
CHERRY	1	2	3	5	5.00	1	2	3	5	5.00
PISTACHIO	21	7	28	42	2.00	29	7	36	58	2.00
FIG	4	0	4	30	7.50	4	0	4	30	7.50
OTHER FRUITS	44	0	44	377	8.57	44	0	44	377	8.57
<b>TOTAL</b>	<b>7,346</b>	<b>2,111</b>	<b>9,457</b>	<b>110,447</b>		<b>9,000</b>	<b>6,571</b>	<b>15,571</b>	<b>136,326</b>	

Fruit	1994/95					AVERAGE				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	181	5	186	715	3.95	153	9	162	604	3.95
APPLE	6,246	780	7,026	95,433	15.28	4,075	1,235	5,310	62,265	15.28
APRICOT	1,489	157	1,646	27,646	18.57	1,067	265	1,332	19,811	18.57
GRAPES	1,694	4,063	5,757	18,797	11.10	1,403	1,751	3,154	15,564	11.10
PEACH	176	59	235	2,501	14.21	167	38	205	2,373	14.21
PLUM	228	158	386	3,998	17.54	223	81	304	3,910	17.54
PEAR	4	0	4	40	10.00	4	0	4	40	10.00
POMEGRANATE	537	53	590	12,493	23.26	350	99	449	8,153	23.27
CHERRY	1	2	3	5	5.00	1	2	3	5	5.00
PISTACHIO	36	0	36	72	2.00	21	6	26	42	2.00
FIG	4	0	4	30	7.50	4	0	4	30	7.50
OTHER FRUITS	33	18	51	283	8.58	40	4	44	343	8.57
<b>TOTAL</b>	<b>10,629</b>	<b>5,295</b>	<b>15,924</b>	<b>162,013</b>		<b>7,508</b>	<b>3,489</b>	<b>10,997</b>	<b>113,140</b>	

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.21 Area, Production and Yield of all Fruits Grown in Mastung District

Fruit	1990/91					1991/92				
	Area (ha)			Production (ton)	Average Yield	Area (ha)			Production (ton)	Average Yield
	Bearing	Non-Bearing	TOTAL			Bearing	Non-Bearing	TOTAL		
ALMOND										
APPLE										
APRICOT										
GRAPES										
PEACH										
PLUM										
PEAR										
POMEGRANATE										
CHERRY										
PISTACHIO										
FIG										
OTHER FRUITS										
TOTAL										
(No data)										
Fruit	1992/93					1993/94				
	Area (ha)			Production (ton)	Average Yield	Area (ha)			Production (ton)	Average Yield
	Bearing	Non-Bearing	TOTAL			Bearing	Non-Bearing	TOTAL		
ALMOND	150	50	200	636	4.24	150	58	208	636	4.24
APPLE	900	543	1,443	14,605	16.23	900	663	1,563	14,605	16.23
APRICOT	250	101	351	4,903	19.61	250	122	372	4,903	19.61
GRAPES	312	25	337	3,394	10.88	312	37	349	3,394	10.88
PEACH	280	106	386	3,979	14.21	280	173	453	3,980	14.21
PLUM	310	145	455	5,494	17.72	310	197	507	5,494	17.72
PEAR	10	0	10	110	11.00	10	0	10	111	11.10
POMEGRANATE	1	0	1	2	2.00	1	0	1	2	2.00
CHERRY	4	4	8	20	5.00	4	6	10	20	5.00
PISTACHIO	12	5	17	48	4.00	12	5	17	5	0.42
FIG	0	0	0	0	-	0	0	0	0	-
OTHER FRUITS	130	0	130	1,318	10.14	130	0	130	1,318	10.14
TOTAL	2,359	979	3,338	34,509		2,359	1,261	3,620	34,468	
Fruit	1994/95					AVERAGE				
	Area (ha)			Production (ton)	Average Yield	Area (ha)			Production (ton)	Average Yield
	Bearing	Non-Bearing	TOTAL			Bearing	Non-Bearing	TOTAL		
ALMOND	150	60	210	636	4.24	150	56	206	636	4.24
APPLE	879	809	1,688	14,264	16.23	893	672	1,565	14,491	16.23
APRICOT	248	144	392	4,864	19.61	249	122	372	4,890	19.61
GRAPES	312	46	358	3,394	10.88	312	36	348	3,394	10.88
PEACH	280	248	528	3,980	14.21	280	176	456	3,980	14.21
PLUM	310	242	552	5,494	17.72	310	195	505	5,494	17.72
PEAR	10	0	10	111	11.10	10	0	10	111	11.07
POMEGRANATE	1	0	1	2	2.00	1	0	1	2	2.00
CHERRY	4	7	11	20	5.00	4	6	10	20	5.00
PISTACHIO	0	5	5	0	-	8	5	13	18	2.21
FIG	0	0	0	0	-	0	0	0	0	-
OTHER FRUITS	130	6	136	1,318	10.14	130	2	132	1,318	10.14
TOTAL	2,324	1,567	3,891	34,083		2,347	1,269	3,616	34,353	

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.



Table E.22 Area, Production and Yield of all Fruits Grown in Kalat District

Fruit	1990/91					1991/92				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	184	65	249	780	4.24	252	74	326	1,068	4.24
APPLE	1,008	803	1,811	16,360	16.23	1,767	913	2,680	28,678	16.23
APRICOT	284	132	416	5,570	19.61	421	164	585	8,257	19.61
GRAPES	364	9	373	3,960	10.88	392	9	401	4,265	10.88
PEACH	353	104	457	5,020	14.22	477	170	647	6,783	14.22
PLUM	319	114	433	5,660	17.74	521	186	707	9,244	17.74
PEAR	29	0	29	320	11.03	29	0	29	320	11.03
POMEGRANATE	1	1	2	20	20.00	2	1	3	40	20.00
CHERRY	8	6	14	40	5.00	13	7	20	65	5.00
PISTACHIO	25	6	31	100	4.00	42	15	57	168	4.00
FIG	0	0	0	0	-	0	0	0	0	-
OTHER FRUITS	144	0	144	1,460	10.14	144	0	144	1,460	10.14
<b>TOTAL</b>	<b>2,719</b>	<b>1,240</b>	<b>3,959</b>	<b>39,290</b>		<b>4,060</b>	<b>1,539</b>	<b>5,599</b>	<b>60,348</b>	

Fruit	1992/93					1993/94				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	100	37	137	424	4.24	189	37	226	801	4.24
APPLE	867	590	1,457	14,070	16.23	1,771	812	2,583	28,740	16.23
APRICOT	171	90	261	3,354	19.61	301	104	405	5,904	19.61
GRAPES	80	7	87	870	10.88	89	22	111	968	10.88
PEACH	197	95	292	2,800	14.21	301	137	438	4,278	14.21
PLUM	211	93	304	3,744	17.74	325	121	446	5,760	17.72
PEAR	19	0	19	210	11.05	19	0	19	210	11.05
POMEGRANATE	1	3	4	2	2.00	2	6	8	40	20.00
CHERRY	9	6	15	45	5.00	12	23	35	60	5.00
PISTACHIO	5	0	5	20	4.00	0	0	0	0	-
FIG	0	0	0	0	-	0	0	0	0	-
OTHER FRUITS	14	0	14	142	10.14	14	0	14	142	10.14
<b>TOTAL</b>	<b>1,674</b>	<b>921</b>	<b>2,595</b>	<b>25,681</b>		<b>3,023</b>	<b>1,262</b>	<b>4,285</b>	<b>46,903</b>	

Fruit	1994/95					AVERAGE				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	226	0	226	958	4.24	190	43	233	806	4.24
APPLE	2,583	27	2,610	41,917	16.23	1,599	629	2,228	25,953	16.23
APRICOT	405	3	408	7,943	19.61	316	99	415	6,206	19.61
GRAPES	98	13	111	1,066	10.88	205	12	217	2,226	10.88
PEACH	405	47	452	5,756	14.21	347	111	457	4,927	14.22
PLUM	439	55	494	7,781	17.72	363	114	477	6,438	17.73
PEAR	19	0	19	210	11.05	23	0	23	254	11.04
POMEGRANATE	3	5	8	60	20.00	2	3	5	32	18.00
CHERRY	18	19	37	90	5.00	12	12	24	60	5.00
PISTACHIO	0	0	0	0	-	14	4	19	58	4.00
FIG	0	0	0	0	-	0	0	0	0	-
OTHER FRUITS	14	0	14	142	10.14	66	0	66	669	10.14
<b>TOTAL</b>	<b>4,210</b>	<b>169</b>	<b>4,379</b>	<b>65,923</b>		<b>3,137</b>	<b>1,026</b>	<b>4,163</b>	<b>47,629</b>	

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.23 Area, Production and Yield of all Fruits Grown in the Study Area

Fruit	1990/91					1991/92				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	400	75	475	1,650	4.13	487	84	571	2,013	4.13
APPLE	4,261	2,178	6,439	65,900	15.47	6,519	2,541	9,060	101,068	15.50
APRICOT	1,327	410	1,737	24,890	18.76	1,710	479	2,189	32,136	18.79
GRAPES	2,236	174	2,410	24,760	11.07	2,418	174	2,592	26,774	11.07
PEACH	777	145	922	11,030	14.20	983	263	1,246	13,956	14.20
PLUM	736	195	931	12,980	17.64	1,030	293	1,323	18,181	17.65
PEAR	71	0	71	760	10.70	71	0	71	760	10.70
POMEGRANATE	174	96	270	4,040	23.22	261	96	357	6,062	23.23
CHERRY	38	51	89	195	5.13	69	61	130	354	5.13
PISTACHIO	30	13	43	110	3.67	63	22	85	210	3.33
FIG	4	0	4	40	10.00	4	0	4	72	18.00
OTHER FRUITS	184	0	184	1,810	9.84	193	0	193	1,887	9.78
<b>TOTAL</b>	<b>10,238</b>	<b>3,337</b>	<b>13,575</b>	<b>148,165</b>		<b>13,808</b>	<b>4,013</b>	<b>17,821</b>	<b>203,473</b>	

Fruit	1992/93					1993/94				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	503	97	600	2,076	4.13	610	105	715	2,524	4.14
APPLE	7,708	2,962	10,670	119,188	15.46	10,103	3,648	13,751	156,594	15.50
APRICOT	1,928	537	2,465	36,175	18.76	2,303	669	2,972	43,273	18.79
GRAPES	2,570	272	2,842	28,460	11.07	2,746	4,263	7,009	30,412	11.08
PEACH	1,057	301	1,358	14,999	14.19	1,202	416	1,618	17,060	14.19
PLUM	1,101	375	1,476	19,421	17.64	1,278	565	1,843	22,545	17.64
PEAR	71	0	71	760	10.70	71	0	71	761	10.72
POMEGRANATE	347	110	457	8,024	23.12	449	151	600	10,412	23.19
CHERRY	104	69	173	535	5.14	150	94	244	773	5.15
PISTACHIO	46	12	58	126	2.74	49	12	61	79	1.61
FIG	4	0	4	30	7.50	4	0	4	30	7.50
OTHER FRUITS	193	0	193	1,887	9.78	193	0	193	1,842	9.54
<b>TOTAL</b>	<b>15,632</b>	<b>4,735</b>	<b>20,367</b>	<b>231,681</b>		<b>19,158</b>	<b>9,923</b>	<b>29,081</b>	<b>286,305</b>	

Fruit	1994/95					AVERAGE				
	Area (ha)		Production (ton)	Average Yield		Area (ha)		Production (ton)	Average Yield	
	Bearing	Non-Bearing				Bearing	Non-Bearing			
ALMOND	655	65	720	2,713	4.14	531	85	616	2,195	4.13
APPLE	12,364	1,873	14,237	191,850	15.52	8,191	2,640	10,831	126,920	15.50
APRICOT	2,678	328	3,006	50,336	18.80	1,989	485	2,474	37,362	18.78
GRAPES	2,914	4,151	7,065	32,276	11.08	2,577	1,807	4,384	28,536	11.07
PEACH	1,340	380	1,720	19,019	14.19	1,072	301	1,373	15,213	14.19
PLUM	1,469	488	1,957	25,919	17.64	1,123	383	1,506	19,809	17.64
PEAR	71	0	71	761	10.72	71	0	71	760	10.71
POMEGRANATE	543	58	601	12,595	23.20	355	102	457	8,227	23.19
CHERRY	201	53	254	1,036	5.15	112	66	178	579	5.15
PISTACHIO	44	5	49	88	2.00	46	13	59	123	2.64
FIG	4	0	4	30	7.50	4	0	4	40	10.10
OTHER FRUITS	182	24	206	1,748	9.60	189	5	194	1,835	9.71
<b>TOTAL</b>	<b>22,465</b>	<b>7,425</b>	<b>29,890</b>	<b>338,371</b>		<b>16,260</b>	<b>5,887</b>	<b>22,147</b>	<b>241,599</b>	

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.24 Area and Cropping Intensity of Major Crops Grown in Quetta District

CROPS	1990/91			Cropping Intensity (%)		
	Cultivated Area (ha)					
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
<b>RABI CROPS</b>						
Wheat	2,060	610	2,670	22.4	2.3	7.4
Barley	171	0	171	1.9	0.0	0.5
Cumin	142	0	142	1.5	0.0	0.4
Vegetables	258	0	258	2.8	0.0	0.7
Fodder	241	0	241	2.6	0.0	0.7
<b>TOTAL RABI CROPS</b>	<b>2,872</b>	<b>610</b>	<b>3,482</b>	<b>31.2</b>	<b>2.3</b>	<b>9.6</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0.0	0.0	0.0
Jowar (Sorghum)	0	0	0	0.0	0.0	0.0
Fruits	3,512	0	3,512	38.1	0.0	9.7
Onion	376	0	376	4.1	0.0	1.0
Potato	85	0	85	0.9	0.0	0.2
Vegetables	1,245	0	1,245	13.5	0.0	3.4
Melons	651	0	651	7.1	0.00	1.8
Chillies	0	0	0	0.0	0.0	0.0
Fodder	239	0	239	2.6	0.0	0.7
Tobacco	0	0	0	0.0	0.0	0.0
<b>TOTAL KHARIF CROPS</b>	<b>6,108</b>	<b>0</b>	<b>6,108</b>	<b>66.3</b>	<b>0.0</b>	<b>16.8</b>
<b>GRAND TOTAL</b>	<b>8,980</b>	<b>610</b>	<b>9,590</b>	<b>97.5</b>	<b>2.3</b>	<b>26.4</b>
Current Fallow	-	-	26,706			
<b>CULTIVATED AREA</b>	<b>9,208</b>	<b>27,088</b>	<b>36,296</b>			

CROPS	1994/95			Cropping Intensity (%)		
	Cultivated Area (ha)					
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
<b>RABI CROPS</b>						
Wheat	2,950	550	3,500	23.2	2.0	8.8
Barley	190	0	190	1.5	0.0	0.5
Cumin	206	4	210	1.6	0.0	0.5
Vegetables	300	0	300	2.4	0.0	0.8
Fodder	160	0	160	1.3	0.0	0.4
<b>TOTAL RABI CROPS</b>	<b>3,806</b>	<b>554</b>	<b>4,360</b>	<b>29.9</b>	<b>2.1</b>	<b>11.0</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0.0	0.0	0.0
Jowar (Sorghum)	0	0	0	0.0	0.0	0.0
Fruits	5,696	0	5,696	44.8	0.0	14.3
Onion	421	0	421	3.3	0.0	1.1
Potato	73	0	73	0.6	0.0	0.2
Vegetables	1,298	0	1,298	10.2	0.0	3.3
Melons	603	20	623	4.7	0.07	1.6
Chillies	0	0	0	0.0	0.0	0.0
Fodder	241	0	241	1.9	0.0	0.6
Tobacco	0	0	0	0.0	0.0	0.0
<b>TOTAL KHARIF CROPS</b>	<b>8,332</b>	<b>20</b>	<b>8,352</b>	<b>65.5</b>	<b>0.07</b>	<b>21.0</b>
<b>GRAND TOTAL</b>	<b>12,138</b>	<b>574</b>	<b>12,712</b>	<b>95.5</b>	<b>2.1</b>	<b>32.0</b>
Current Fallow	-	-	26,997			
<b>CULTIVATED AREA</b>	<b>12,712</b>	<b>26,997</b>	<b>39,709</b>			

CROPS	Average for the year 1991 - 1995			Cropping Intensity (%)		
	Cultivated Area (ha)					
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
<b>RABI CROPS</b>						
Wheat	2,483	587	3,070	22.8	2.1	8.0
Barley	181	0	181	1.7	0.0	0.5
Cumin	156	1	157	1.4	0.0	0.4
Vegetables	278	0	278	2.6	0.0	0.7
Fodder	170	0	170	1.6	0.0	0.4
<b>TOTAL RABI CROPS</b>	<b>3,268</b>	<b>588</b>	<b>3,856</b>	<b>30.0</b>	<b>2.1</b>	<b>10.0</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0.0	0.0	0.0
Jowar (Sorghum)	0	0	0	0.0	0.0	0.0
Fruits	4,817	0	4,817	44.3	0.0	12.5
Onion	392	0	392	3.6	0.0	1.0
Potato	79	0	79	0.7	0.0	0.2
Vegetables	1,287	0	1,287	11.8	0.0	3.3
Melons	662	10	672	6.1	0.04	1.7
Chillies	0	0	0	0.0	0.0	0.0
Fodder	241	0	241	2.2	0.0	0.6
Tobacco	0	0	0	0.0	0.0	0.0
<b>TOTAL KHARIF CROPS</b>	<b>7,478</b>	<b>10</b>	<b>7,488</b>	<b>68.7</b>	<b>0.04</b>	<b>19.4</b>
<b>GRAND TOTAL</b>	<b>10,746</b>	<b>598</b>	<b>11,344</b>	<b>98.7</b>	<b>2.2</b>	<b>29.4</b>
Current Fallow	-	-	27,314			
<b>CULTIVATED AREA</b>	<b>10,885</b>	<b>27,673</b>	<b>38,558</b>			

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.23 Area and Cropping Intensity of Major Crops Grown in Pishin District

CROPS	1990/91			Cropping Intensity (%)		
	Cultivated Area (ha)					
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
<b>RABI CROPS</b>						
Wheat	11,300	13,870	25,170	32.5	23.4	26.8
Barley	780	850	1,630	2.2	1.4	1.7
Cumin	750	400	1,150	2.2	0.7	1.2
Vegetables	326	0	326	0.9	0.0	0.3
Fodder	378	0	378	1.1	0.0	0.4
<b>TOTAL RABI CROPS</b>	<b>13,534</b>	<b>15,120</b>	<b>28,654</b>	<b>38.9</b>	<b>25.6</b>	<b>30.5</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0.0	0.0	0.0
Jowar (Sorghum)	0	0	0	0.0	0.0	0.0
Fruits	6,104	0	6,104	17.5	0.0	6.5
Onion	162	0	162	0.5	0.0	0.2
Potato	1,468	0	1,468	4.2	0.0	1.6
Vegetables	1,039	0	1,039	3.0	0.0	1.1
Melons	3,335	430	3,765	9.6	0.7	4.0
Chillies	0	0	0	0.0	0.0	0.0
Fodder	555	65	620	1.6	0.1	0.7
Tobacco	1,520	0	1,520	4.4	0.0	1.6
<b>TOTAL KHARIF CROPS</b>	<b>14,183</b>	<b>495</b>	<b>14,678</b>	<b>40.7</b>	<b>0.8</b>	<b>15.6</b>
<b>GRAND TOTAL</b>	<b>27,717</b>	<b>15,615</b>	<b>43,332</b>	<b>79.6</b>	<b>26.4</b>	<b>46.1</b>
Current Fallow	-	-	50,559			
<b>CULTIVATED AREA</b>	<b>34,820</b>	<b>59,171</b>	<b>93,991</b>			

CROPS	1994/95			Cropping Intensity (%)		
	Cultivated Area (ha)					
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
<b>RABI CROPS</b>						
Wheat	13,100	9,100	22,200	32.5	15.5	22.4
Barley	850	900	1,750	2.1	1.5	1.8
Cumin	770	420	1,190	1.9	0.7	1.2
Vegetables	425	0	425	1.1	0.0	0.4
Fodder	390	0	390	1.0	0.0	0.4
<b>TOTAL RABI CROPS</b>	<b>15,535</b>	<b>10,420</b>	<b>25,955</b>	<b>38.6</b>	<b>17.7</b>	<b>26.2</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0.0	0.0	0.0
Jowar (Sorghum)	0	0	0	0.0	0.0	0.0
Fruits	15,924	0	15,924	39.6	0.0	16.1
Onion	289	0	289	0.7	0.0	0.3
Potato	1,497	0	1,497	3.7	0.0	1.5
Vegetables	1,827	0	1,827	4.5	0.0	1.8
Melons	3,398	477	3,875	8.4	0.8	3.9
Chillies	0	0	0	0.0	0.0	0.0
Fodder	590	80	670	1.5	0.1	0.7
Tobacco	1,670	0	1,670	4.1	0.0	1.7
<b>TOTAL KHARIF CROPS</b>	<b>25,195</b>	<b>557</b>	<b>25,752</b>	<b>62.6</b>	<b>0.9</b>	<b>26.0</b>
<b>GRAND TOTAL</b>	<b>40,730</b>	<b>10,977</b>	<b>51,707</b>	<b>101.2</b>	<b>18.7</b>	<b>52.2</b>
Current Fallow	-	-	47,287			
<b>CULTIVATED AREA</b>	<b>40,734</b>	<b>58,740</b>	<b>98,994</b>			

CROPS	Average for the year 1991 -1995			Cropping Intensity (%)		
	Cultivated Area (ha)					
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
<b>RABI CROPS</b>						
Wheat	12,422	11,989	24,411	34.3	20.0	25.4
Barley	819	867	1,686	2.3	1.4	1.8
Cumin	759	408	1,167	2.1	0.7	1.2
Vegetables	380	0	380	1.0	0.0	0.4
Fodder	386	0	386	1.1	0.0	0.4
<b>TOTAL RABI CROPS</b>	<b>14,766</b>	<b>13,264</b>	<b>28,030</b>	<b>40.8</b>	<b>22.2</b>	<b>29.2</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0.0	0.0	0.0
Jowar (Sorghum)	0	0	0	0.0	0.0	0.0
Fruits	10,997	0	10,997	30.4	0.0	11.5
Onion	256	0	256	0.7	0.0	0.3
Potato	1,500	0	1,500	4.1	0.0	1.6
Vegetables	1,495	0	1,495	4.1	0.0	1.6
Melons	3,361	451	3,812	9.3	0.8	4.0
Chillies	0	0	0	0.0	0.0	0.0
Fodder	569	70	639	1.6	0.1	0.7
Tobacco	1,647	0	1,647	4.6	0.0	1.7
<b>TOTAL KHARIF CROPS</b>	<b>19,825</b>	<b>521</b>	<b>20,346</b>	<b>54.8</b>	<b>0.9</b>	<b>21.2</b>
<b>GRAND TOTAL</b>	<b>34,591</b>	<b>13,785</b>	<b>48,376</b>	<b>95.6</b>	<b>23.0</b>	<b>50.4</b>
Current Fallow	-	-	47,637			
<b>CULTIVATED AREA</b>	<b>36,194</b>	<b>59,819</b>	<b>96,013</b>			

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.26 Area and Cropping Intensity of Major Crops Grown in Kalat District

CROPS	1990/91			Cropping Intensity (%)		
	Cultivated Area (ha)					
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
<b>RABI CROPS</b>						
Wheat	14,800	11,500	26,300	37.5	13.7	21.3
Barley	240	970	1,210	0.6	1.2	1.0
Cumin	560	2,400	2,960	1.4	2.9	2.4
Vegetables	511	0	511	1.3	0.0	0.4
Fodder	3,700	1,900	5,600	9.4	2.3	4.5
<b>TOTAL RABI CROPS</b>	<b>19,811</b>	<b>16,770</b>	<b>36,581</b>	<b>50.2</b>	<b>19.9</b>	<b>29.6</b>
<b>KHARIF CROPS</b>						
Rice	0	0	0	0.0	0.0	0.0
Jowar (Sorghum)	0	0	0	0.0	0.0	0.0
Fruits	3,959	0	3,959	10.0	0.0	3.2
Onion	4,500	0	4,500	11.4	0.0	3.6
Potato	3,900	0	3,900	9.9	0.0	3.2
Vegetables	823	0	823	2.1	0.0	0.7
Melons	493	630	1,123	1.2	0.7	0.9
Chillies	38	0	38	0.1	0.0	0.0
Fodder	862	200	1,062	2.2	0.2	0.9
Tobacco	0	0	0	0.0	0.0	0.0
<b>TOTAL KHARIF CROPS</b>	<b>14,575</b>	<b>830</b>	<b>15,405</b>	<b>36.9</b>	<b>1.0</b>	<b>12.5</b>
<b>GRAND TOTAL</b>	<b>34,386</b>	<b>17,600</b>	<b>51,986</b>	<b>87.2</b>	<b>20.9</b>	<b>42.1</b>
Current Fallow	-	-	71,566			
<b>CULTIVATED AREA</b>	<b>39,450</b>	<b>84,102</b>	<b>123,552</b>			

CROPS	1994/95			Cropping Intensity (%)		
	Cultivated Area (ha)					
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
<b>RABI CROPS</b>						
Wheat	19,420	12,430	31,850	34.5	11.0	18.8
Barley	4,600	1,900	6,500	8.2	1.7	3.8
Cumin	4,000	3,000	7,000	7.1	2.6	4.1
Vegetables	260	0	260	0.5	0.0	0.2
Fodder	3,700	2,400	6,100	6.6	2.1	3.6
<b>TOTAL RABI CROPS</b>	<b>31,980</b>	<b>19,730</b>	<b>51,710</b>	<b>56.8</b>	<b>17.4</b>	<b>30.5</b>
<b>KHARIF CROPS</b>						
Rice	7	0	7	0.0	0.0	0.0
Jowar (Sorghum)	55	115	170	0.1	0.1	0.1
Fruits	8,270	0	8,270	14.7	0.0	4.9
Onion	8,365	0	8,365	14.9	0.0	4.9
Potato	2,268	0	2,268	4.0	0.0	1.3
Vegetables	460	0	460	0.8	0.0	0.3
Melons	340	454	794	0.6	0.4	0.5
Chillies	20	0	20	0.0	0.0	0.0
Fodder	930	120	1,050	1.7	0.1	0.6
Tobacco	0	0	0	0.0	0.0	0.0
<b>TOTAL KHARIF CROPS</b>	<b>20,715</b>	<b>689</b>	<b>21,404</b>	<b>36.8</b>	<b>0.6</b>	<b>12.6</b>
<b>GRAND TOTAL</b>	<b>52,695</b>	<b>20,419</b>	<b>73,114</b>	<b>93.6</b>	<b>18.0</b>	<b>43.1</b>
Current Fallow	-	-	95,448			
<b>CULTIVATED AREA</b>	<b>56,293</b>	<b>113,269</b>	<b>169,562</b>			

CROPS	Average for the year 1991 -1995			Cropping Intensity (%)		
	Cultivated Area (ha)					
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
<b>RABI CROPS</b>						
Wheat	18,314	10,079	28,393	39.6	12.7	22.6
Barley	2,837	1,631	4,468	6.1	2.1	3.6
Cumin	2,501	2,740	5,241	5.4	3.5	4.2
Vegetables	350	3	353	0.8	0.0	0.3
Fodder	3,844	1,970	5,814	8.3	2.5	4.6
<b>TOTAL RABI CROPS</b>	<b>27,849</b>	<b>16,423</b>	<b>44,272</b>	<b>60.2</b>	<b>20.7</b>	<b>35.3</b>
<b>KHARIF CROPS</b>						
Rice	2	0	2	0.0	0.0	0.0
Jowar (Sorghum)	19	47	66	0.0	0.1	0.1
Fruits	6,333	0	6,333	13.7	0.0	5.0
Onion	6,694	0	6,694	14.5	0.0	5.3
Potato	2,592	0	2,592	5.6	0.0	2.1
Vegetables	793	0	793	1.7	0.0	0.6
Melons	429	575	1,004	0.9	0.7	0.8
Chillies	27	0	27	0.1	0.0	0.0
Fodder	899	160	1,059	1.9	0.2	0.8
Tobacco	0	0	0	0.0	0.0	0.0
<b>TOTAL KHARIF CROPS</b>	<b>17,788</b>	<b>782</b>	<b>18,570</b>	<b>38.5</b>	<b>1.0</b>	<b>14.8</b>
<b>GRAND TOTAL</b>	<b>45,637</b>	<b>17,205</b>	<b>62,842</b>	<b>98.7</b>	<b>21.7</b>	<b>50.1</b>
Current Fallow	-	-	62,651			
<b>CULTIVATED AREA</b>	<b>46,244</b>	<b>79,249</b>	<b>125,493</b>			

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.27 Area and Cropping Intensity of Major Crops Grown in the Study Area

1990/91						
CROPS	Cultivated Area (ha)			Cropping Intensity (%)		
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
RABI CROPS						
Wheat	28,160	25,980	54,140	33.7	15.2	21.3
Barley	1,191	1,870	3,011	1.4	1.1	1.2
Cumin	1,452	2,800	4,252	1.7	1.6	1.7
Vegetables	1,095	0	1,095	1.3	0.0	0.4
Fodder	4,319	1,900	6,219	5.2	1.1	2.4
TOTAL RABI CROPS	36,217	32,500	68,717	43.4	19.1	27.1
KHARIF CROPS						
Rice	0	0	0	0.0	0.0	0.0
Jowar (Sorghum)	0	0	0	0.0	0.0	0.0
Fruits	13,575	0	13,575	16.3	0.0	5.3
Onion	5,038	0	5,038	6.0	0.0	2.0
Potato	5,453	0	5,453	6.5	0.0	2.1
Vegetables	3,107	0	3,107	3.7	0.0	1.2
Melons	4,479	1,060	5,539	5.4	0.6	2.2
Chillies	38	0	38	0.0	0.0	0.0
Fodder	1,656	265	1,921	2.0	0.2	0.8
Tobacco	1,520	0	1,520	1.8	0.0	0.6
TOTAL KHARIF CROPS	34,866	1,325	36,191	41.8	0.8	14.3
GRAND TOTAL	71,083	33,825	104,908	85.2	19.9	41.3
Current Fallow	-	-	148,931			
CULTIVATED AREA	83,478	170,361	253,839			

1994/95						
CROPS	Cultivated Area (ha)			Cropping Intensity (%)		
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
RABI CROPS						
Wheat	35,470	22,080	57,550	32.5	12.5	20.1
Barley	5,640	2,800	8,440	5.2	1.6	2.9
Cumin	4,976	3,424	8,400	4.6	1.9	2.9
Vegetables	985	0	985	0.9	0.0	0.3
Fodder	4,250	2,400	6,650	3.9	1.4	2.3
TOTAL RABI CROPS	51,321	30,704	82,025	47.0	17.3	28.6
KHARIF CROPS						
Rice	7	0	7	0.0	0.0	0.0
Jowar (Sorghum)	55	115	170	0.1	0.1	0.1
Fruits	29,890	0	29,890	27.4	0.0	10.4
Onion	9,075	0	9,075	8.3	0.0	3.2
Potato	3,838	0	3,838	3.5	0.0	1.3
Vegetables	3,585	0	3,585	3.3	0.0	1.3
Melons	4,341	951	5,292	4.0	0.5	1.8
Chillies	20	0	20	0.0	0.0	0.0
Fodder	1,761	200	1,961	1.6	0.1	0.7
Tobacco	1,670	0	1,670	1.5	0.0	0.6
TOTAL KHARIF CROPS	54,242	1,266	55,508	49.6	0.7	19.4
GRAND TOTAL	105,563	31,970	137,533	96.6	18.0	48.0
Current Fallow	-	-	145,931			
CULTIVATED AREA	109,259	171,205	286,464			

Average for the year 1991 -1995						
CROPS	Cultivated Area (ha)			Cropping Intensity (%)		
	Irr.	Un-Irr.	TOTAL	Irr.	Un-Irr.	TOTAL
RABI CROPS						
Wheat	33,219	22,635	55,874	35.6	12.7	20.6
Barley	3,837	2,498	6,335	4.1	1.4	2.3
Cumin	3,419	3,149	6,568	3.7	1.8	2.4
Vegetables	1,008	3	1,011	1.1	0.0	0.4
Fodder	4,400	1,970	6,370	4.7	1.1	2.3
TOTAL RABI CROPS	45,883	30,275	76,158	49.2	17.0	28.1
KHARIF CROPS						
Rice	2	0	2	0.0	0.0	0.0
Jowar (Sorghum)	19	47	66	0.0	0.0	0.0
Fruits	22,147	0	22,147	23.7	0.0	8.2
Onion	7,342	0	7,342	7.9	0.0	2.7
Potato	4,171	0	4,171	4.5	0.0	1.5
Vegetables	3,575	0	3,575	3.8	0.0	1.3
Melons	4,452	1,036	5,488	4.8	0.6	2.0
Chillies	27	0	27	0.0	0.0	0.0
Fodder	1,709	230	1,939	1.8	0.1	0.7
Tobacco	1,647	0	1,647	1.8	0.0	0.6
TOTAL KHARIF CROPS	45,091	1,313	46,404	48.3	0.7	17.1
GRAND TOTAL	90,974	31,588	122,562	97.5	17.7	45.1
Current Fallow	-	-	148,931			
CULTIVATED AREA	93,323	178,170	271,493			

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

Table E.28 Consumption of Chemical Fertilizers in the Study Area

DISTRICT	N	P	K	N P K TOTAL	Urea	DAP	Nitro Phosphate	Chemical Fertilizer TOTAL
<b>QUETTA</b>								
1990/91	2,161	568	44	2,773	3,538	353	1,623	6,048
1991/92	4,746	1,521	64	6,331	8,554	2,185	2,062	14,273
1992/93	5,435	2,316	102	7,853	10,283	3,750	1,807	17,492
1993/94	4,675	1,931	157	6,763	8,630	2,982	1,822	15,011
1994/95	9,371	1,569	146	11,086	18,628	2,330	1,517	24,715
<b>AVERAGE</b>	<b>5,278</b>	<b>1,581</b>	<b>103</b>	<b>6,961</b>	<b>9,927</b>	<b>2,320</b>	<b>1,766</b>	<b>15,508</b>
<b>PISHIN</b>								
1990/91	1,182	261	7	1,450	1,893	167	792	3,295
1991/92	2,149	390	20	2,559	3,878	426	819	5,859
1992/93	1,989	535	22	2,546	2,780	729	812	5,165
1993/94	1,667	330	68	2,065	2,803	261	702	4,807
1994/95	3,255	588	6	3,849	5,715	538	1,440	11,206
<b>AVERAGE</b>	<b>2,048</b>	<b>421</b>	<b>25</b>	<b>2,494</b>	<b>3,414</b>	<b>424</b>	<b>913</b>	<b>6,066</b>
<b>KALAT</b>								
1990/91	508	57	8	573	1,010	63	117	1,231
1991/92	827	62	3	892	1,658	60	146	1,991
1992/93	860	100	5	965	1,720	94	180	2,140
1993/94	1,350	127	23	1,500	2,689	140	216	3,337
1994/95	1,265	116	18	1,399	2,708	128	51	3,091
<b>AVERAGE</b>	<b>962</b>	<b>92</b>	<b>11</b>	<b>1,066</b>	<b>1,957</b>	<b>97</b>	<b>142</b>	<b>2,358</b>
<b>TOTAL</b>								
1990/91	3,851	886	59	4,796	6,441	583	2,532	10,574
1991/92	7,722	1,973	87	9,782	14,090	2,671	3,027	22,123
1992/93	8,284	2,951	129	11,364	14,783	4,573	2,799	24,797
1993/94	7,692	2,388	248	10,328	14,122	3,383	2,740	23,155
1994/95	13,891	2,273	170	16,334	27,051	2,996	3,008	39,012
<b>AVERAGE</b>	<b>8,288</b>	<b>2,094</b>	<b>139</b>	<b>10,521</b>	<b>15,297</b>	<b>2,841</b>	<b>2,821</b>	<b>23,932</b>

Table E.29 Plant Protection Operation in the Study Area

DISTRICT	Aerial Spray (ha)		Ground Spray (ha)					Pesticides (ton)		
	Orchard		Orchard	Vegetables	Wheat	Potato	Onion		Melons	TOTAL
QUETTA										
1990/91	1,417		6,454	3,531	292	348	1,054	1,596	14,026	20.4
1991/92	3,239		2,689	1,746	55	56	82	34	4,672	0.9
1992/93	0		5,207	2,860	59	60	202	144	8,783	1.3
1993/94	2,666		847	796	32	66	224	120	2,207	0.3
1994/95	0		3,141	914	9	5	77	47	4,356	0.5
AVERAGE	1,464		3,668	1,969	89	107	328	388	6,809	4.7
PISHIN										
1990/91	3,522		353	123	0	0	3	56	600	2.1
1991/92	2,024		353	11	0	0	0	4	406	1.1
1992/93	14,715		104	44	0	0	0	5	426	1.2
1993/94	41,700		74	26	0	0	0	15	323	0.8
1994/95	0		58	19	0	0	0	4	129	0.4
AVERAGE	12,392		188	45	0	0	1	17	377	1.1
KALAT										
1990/91	2,429		1,134	260	0	70	238	21	3,490	7.8
1991/92	1,417		295	161	26	75	255	26	1,501	2.6
1992/93	7,292		769	114	300	250	300	0	3,067	3.9
1993/94	21,909		962	65	383	77	597	0	2,653	2.8
1994/95	0		1,452	284	528	357	574	364	4,438	5.1
AVERAGE	6,609		922	177	247	166	393	82	3,030	4.4
TOTAL										
1990/91	7,368		7,941	3,914	292	418	1,295	1,673	18,116	30.3
1991/92	6,680		3,337	1,918	81	131	337	64	6,579	4.6
1992/93	22,007		6,080	3,018	359	310	502	149	12,276	6.4
1993/94	66,275		1,883	887	415	143	821	135	5,183	3.9
1994/95	0		4,651	1,217	537	362	651	415	8,923	6.0
AVERAGE	20,466		4,778	2,191	337	273	721	487	10,215	10.2

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.



Table E.30 Number of Tractors, Threshers, Harvestors and Reapers in the Study Area

DISTRICT	Tractors			Threshers			Harvestors			Reapers		
	Govt.	Private	Total	Govt.	Private	Total	Govt.	Private	Total	Govt.	Private	Total
<b>QUETTA</b>												
1990/91	16	180	196	3	28	31	0	1	1	0	1	1
1991/92	17	190	207	3	32	35	0	0	0	0	0	0
1992/93	17	194	211	3	33	36	0	0	0	0	0	0
1993/94	17	201	218	3	37	40	0	0	0	0	0	0
1994/95	17	208	225	3	38	41	0	0	0	0	0	0
AVERAGE	17	195	211	3	34	37	0	0	0	0	0	0
<b>PISHIN</b>												
1990/91	20	958	978	3	70	73	0	1	1	0	0	0
1991/92	16	323	339	3	82	85	0	1	1	0	1	1
1992/93	19	343	362	7	96	103	0	1	1	0	1	1
1993/94	9	517	526	7	98	105	0	1	1	0	1	1
1994/95	19	527	546	7	104	111	0	1	1	0	1	1
AVERAGE	17	534	550	5	90	95	0	1	1	0	1	1
<b>KALAT</b>												
1990/91	40	295	335	4	40	44	0	0	0	0	0	0
1991/92	42	310	352	4	48	52	0	0	0	0	0	0
1992/93	11	422	433	5	127	132	2	0	2	0	0	0
1993/94	11	422	433	5	127	132	2	0	2	0	0	0
1994/95	11	422	433	5	127	132	2	0	2	0	0	0
AVERAGE	23	374	397	5	94	98	1	0	1	0	0	0
<b>TOTAL</b>												
1990/91	76	1,433	1,509	10	138	148	0	2	2	0	1	1
1991/92	75	823	898	10	162	172	0	1	1	0	1	1
1992/93	47	959	1,006	15	256	271	2	1	3	0	1	1
1993/94	37	1,140	1,177	15	262	277	2	1	3	0	1	1
1994/95	47	1,157	1,204	15	269	284	2	1	3	0	1	1
AVERAGE	56	1,102	1,159	13	217	230	1	1	2	0	1	1

Source : Agricultural Statistics of Balochistan, Agriculture Department, Balochistan.

TABLE E.31 Irrigation Status of Farms and Farm Area by Size of Farm in Quetta District

	Acreage (ha)					Share (%)				
	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha	TOTAL	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha < 20 ha
Cultivated Area (ha)	165	1,559	1,522	2,688	8,046	13,979				
Irrigated Area	158	1,282	1,178	1,862	5,526	10,006	96	82	77	69
Canal	0	38	118	72	601	828	0	2	8	3
Tubewell	45	849	576	1,439	2,482	5,391	27	54	38	54
Tank/Bandat	4	91	147	102	1,471	1,815	2	6	10	4
Spring/RodKohi	90	102	158	72	396	817	54	7	10	3
Karez	17	137	26	28	59	266	10	9	2	1
Others	2	64	154	150	518	888	1	4	10	6
Un-Irrigated Area	6	277	344	825	2,520	3,972	4	18	23	31
Sailaba	1	32	67	194	500	794	0	2	4	7
Barani	6	245	276	632	2,019	3,178	3	16	18	24
										25

TABLE E.32 Irrigation Status of Farms and Farm Area by Size of Farm in Pishin District

	Acreage (ha)					Share (%)				
	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha	TOTAL	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha < 20 ha
Cultivated Area (ha)	1,234	19,681	13,123	11,777	25,477	71,292				
Irrigated Area	1,058	15,367	7,770	6,040	8,077	38,312	86	78	59	51
Canal	0	59	8	36	79	183	0	0	0	0
Tubewell	198	6,360	3,897	3,111	4,954	18,520	16	32	30	26
Tank/Bandat	141	320	256	216	282	1,215	11	2	2	2
Spring/RodKohi	103	2,022	899	1,163	647	4,834	8	10	7	10
Karez	610	6,506	2,607	1,466	2,068	13,257	49	33	20	12
Others	5	98	103	48	46	302	0	0	1	0
Un-Irrigated Area	177	4,314	5,354	5,736	17,400	32,980	14	22	41	49
Sailaba	11	347	279	232	309	1,177	1	2	2	2
Barani	166	3,967	5,075	5,504	17,091	31,803	13	20	39	47
										67

TABLE E.33 Irrigation Status of Farms and Farm Area by Size of Farm in Kalat District

	Acreage (ha)						Share (%)				
	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha	TOTAL	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha
Cultivated Area (ha)	1,118	22,862	22,755	31,956	45,276	123,968					
Irrigated Area	597	9,994	9,868	17,313	22,006	59,778	53	44	43	54	49
Canal	0	30	22	300	354	706	0	0	0	1	1
Tubewell	145	2,575	5,698	13,533	14,844	36,794	13	11	25	42	33
Tank/Bandat	48	643	316	194	330	1,532	4	3	1	1	1
Spring/RodKohi	338	5,160	2,771	1,838	5,152	15,260	30	23	12	6	11
Karez	65	547	332	557	415	1,916	6	2	1	2	1
Others	1	1,039	729	891	912	3,571	0	5	3	3	2
Un-Irrigated Area	522	12,867	12,887	14,643	23,270	64,189	47	56	57	46	51
Sailaba	135	2,979	2,442	3,688	10,202	19,446	12	13	11	12	23
Barani	387	9,888	10,445	10,955	13,067	44,742	35	43	46	34	29

Source : Agricultural Census 1990, Agricultural Census Organization.

TABLE E.34 Share of Different Crops in Total Cropped Area by Size of Farm in Quetta District

Cropped Area (ha)	Acreage (ha)					Share (%)				
	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha	TOTAL	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha < 20 ha
Cropped Area (ha)	166	1,507	1,512	2,561	7,465	13,210				
Wheat	23	773	559	717	2,585	4,658	14	51	37	28
Wheat-Unirrigated	3	131	124	208	317	782	2	9	8	8
Wheat-irrigated	20	642	432	516	2,275	3,885	12	43	29	20
Maize	0	0	0	0	0	0	0	0	0	0
Jowar	0	35	151	51	1,007	1,245	0	2	10	2
Barley	4	96	151	256	624	1,130	2	6	10	10
Tobacco	0	0	0	0	0	0	0	0	0	0
Fodder	0	8	45	77	53	184	0	1	3	3
Vegetables	6	250	197	307	1,545	2,305	3	17	13	12
Orchards	134	311	197	871	1,042	2,554	81	21	13	34
Other Crops	0	33	215	276	601	1,125	0	2	14	11

TABLE E.35 Share of Different Crops in Total Cropped Area by Size of Farm in Fishin District

Cropped Area (ha)	Acreage (ha)					Share (%)				
	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha	TOTAL	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha < 20 ha
Cropped Area (ha)	1,234	19,377	12,687	11,268	23,962	68,528				
Wheat	603	9,782	6,851	6,198	16,731	40,165	49	50	54	55
Wheat-Unirrigated	138	2,887	3,724	3,776	14,390	24,915	11	15	29	34
Wheat-irrigated	471	6,911	3,190	2,386	2,287	15,244	38	36	25	21
Maize	0	0	0	113	174	286	0	0	0	1
Jowar	0	0	0	113	174	286	0	0	0	1
Barley	62	1,491	1,269	1,127	1,066	5,015	5	8	10	10
Tobacco	0	354	254	225	413	1,247	0	2	2	2
Fodder	0	33	127	113	174	447	0	0	1	1
Vegetables	86	2,714	1,903	1,803	2,372	8,878	7	14	15	16
Orchards	458	4,547	1,903	1,578	2,725	11,211	37	23	15	14
Other Crops	20	439	318	36	185	999	2	2	3	0

TABLE E.36 Share of Different Crops in Total Cropped Area by Size of Farm in Kalat District

Cropped Area (ha)	Acreage (ha)						Share (%)				
	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha	TOTAL	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha
	1,115	21,752	20,920	27,619	39,088	110,494					
Wheat	899	15,455	12,970	12,981	18,338	60,643	81	71	62	47	47
Wheat-Unirrigated	467	9,172	7,872	7,249	9,442	34,202	42	42	38	26	24
Wheat-irrigated	434	6,220	5,017	5,863	8,998	26,531	39	29	24	21	23
Maize	0	0	0	0	666	666	0	0	0	0	2
Jowar	11	878	837	276	524	2,526	1	4	4	1	1
Barley	11	1,869	2,301	2,762	3,376	10,319	1	9	11	10	9
Tobacco	0	0	0	0	0	0	0	0	0	0	0
Fodder	11	409	418	829	782	2,449	1	2	2	3	2
Vegetables	33	1,507	2,720	6,905	10,588	21,753	3	7	13	25	27
Orchards	60	435	418	829	1,430	3,172	5	2	2	3	4
Other Crops	88	1,262	1,336	2,907	3,282	8,876	8	6	6	11	8

Source : Agricultural Census 1990, Agricultural Census Organization.

TABLE E.37 Irrigation Status of Cropped Area by Crop Season and by Size of Farm in Quetta District

	Acreage (ha)					Share (%)				
	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha	TOTAL	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha < 20 ha
Cropped Area (ha)	166	1,507	1,512	2,560	7,465	13,210				
Irrigated Area (ha)	162	1,312	1,277	1,961	6,172	10,884	98	87	84	77 83
Kharif							1	8	27	10 21
Cropped area	1	140	436	507	2,214	3,298				
Irrigated Area	1	100	343	198	1,286	1,928	100	72	79	39 58
Rabi							17	68	57	45 62
Cropped area	31	1,053	875	1,176	4,181	7,316				
Irrigated Area	27	897	734	886	3,815	6,359	87	85	84	75 91
Orchard							82	24	16	45 17
Cropped area	134	314	200	878	1,070	2,596				
Irrigated Area	134	314	200	878	1,070	2,596	100	100	100	100 100

TABLE E.38 Irrigation Status of Cropped Area by Crop Season and by Size of Farm in Pishin District

	Acreage (ha)					Share (%)				
	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha	TOTAL	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha < 20 ha
Cropped Area (ha)	1,234	19,376	12,687	11,268	23,962	68,526				
Irrigated Area (ha)	1,071	15,685	7,981	6,171	8,282	39,190	87	81	63	55 35
Kharif							7	14	18	19 19
Cropped area	86	2,514	1,907	1,871	2,247	8,624				
Irrigated Area	78	2,200	1,474	1,197	1,564	6,512	91	88	77	64 70
Rabi							50	57	58	55 48
Cropped area	689	12,329	8,880	7,818	18,958	48,673				
Irrigated Area	535	8,971	4,609	3,423	3,962	21,500	78	73	52	44 21
Orchard							43	29	24	25 33
Cropped area	459	4,534	1,900	1,580	2,756	11,230				
Irrigated Area	458	4,514	1,898	1,551	2,756	11,178	100	100	100	98 100

TABLE E.39 Irrigation Status of Cropped Area by Crop Season and by Size of Farm in Kalat District

	Acreage (ha)					Share (%)				
	> 1 ha	1 - 5 ha	5 - 10 ha	10 - 20 ha	< 20 ha	TOTAL	> 1 ha	1 - 5 ha	5 - 10 ha	< 20 ha
Cropped Area (ha)	1,114	21,752	20,920	27,619	39,088	110,494				
Irrigated Area (ha)	621	10,213	10,201	17,876	23,218	62,130	56	47	49	59
Kharif							16	25	22	26
Cropped area	106	3,187	3,030	5,664	9,996	21,982				
Irrigated Area	102	2,593	2,274	5,169	5,969	16,107	96	81	75	60
Rabi							73	71	73	68
Cropped area	943	18,176	17,436	21,030	27,699	85,284				
Irrigated Area	454	7,230	7,477	11,794	15,895	42,850	48	40	43	57
Orchard							10	4	4	6
Cropped area	65	390	454	925	1,393	3,228				
Irrigated Area	65	390	450	913	1,354	3,172	100	100	99	97

Source : Agricultural Census 1990, Agricultural Census Organization.