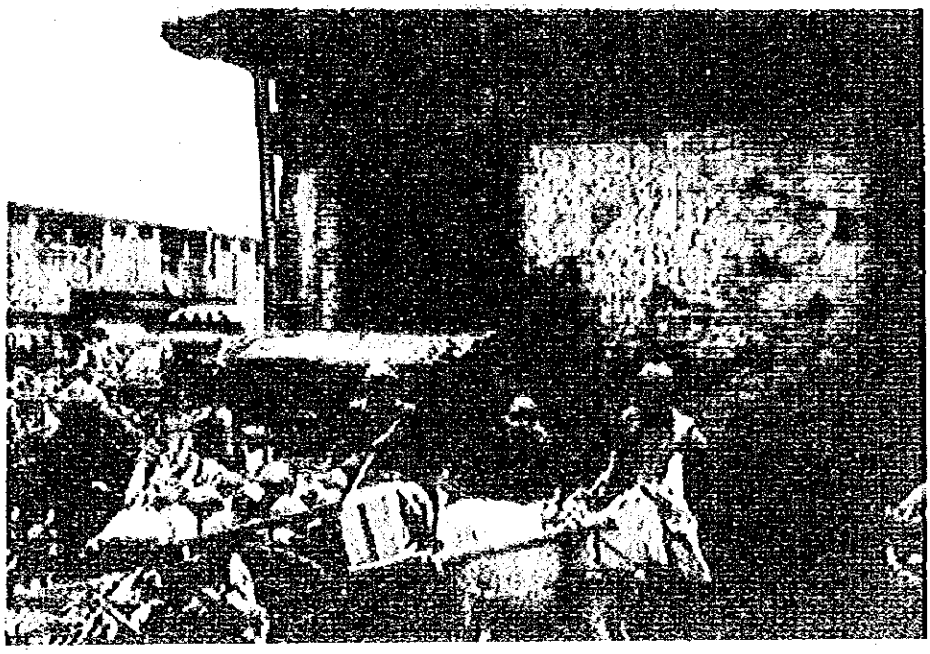
Annex F
Agro-economy



ANNEX F

AGRO-ECONOMY

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ANNEX F AGRO-ECONOMY

F.1 OVERVIEW

The importance of agriculture in Balochistan is well realized the higher potential existing in agriculture compared to other sectors. Generally, the province is well known for its delicious variety of deciduous fruits. The share of agriculture in provincial GDP is close to 50 % with the significance of employing 70 % of the population. The share of agriculture, livestock and fishery sub-sectors to the total agricultural products in Balochistan is about 54%, 37% and 9%, respectively.

Balochistan, the largest province has a wide scattered area of 34.7 million ha. Of which, cultivated area and cropped area are only 1.7 million ha and 0.9 million ha, respectively. While, the larger area of 4.7 million ha remains cultivable waste. Such less cultivated area is basically for the reasons of lack of water resources and quite low speed of land reclamation.

The province is not self sufficient in food. The production of wheat, pulses, oilseeds and vegetables particularly lags behind its rapidly increasing demand. Recently a big change is occurring in cultivation trend in form of switching from crops and vegetables towards fruits in area of karezes where the discharge of water is declining and tubewells and open wells emerging. Fruits are providing to be giving comparatively higher returns in such areas.

The deciduous fruit production is a rapidly growing activity in the economy of the Study Area. The orchard land extends in the rural area, where tribal or religious leaders traditionally have a role to play in the decision making and settlement of disputes. Education level of the farmers is so low that they do not easily accept new knowledge and technology. Generally, they only follow the activity producing their individual profit in near future. The farmers have opened orchard land for their profits without care for sustainable use of water and land resources. The farm management as well as marketing practices has been left behind for the decades.

All of marketing systems, post-harvest facilities and agricultural credit services is not sufficient in capacity and still traditional in operation in the Study Area. The post-harvest losses and physical losses during trading is considerably large, but most of the farmers or rural societies are not aware of their invisible losses so far.

F.2 AGRO-ECONOMIC CONDITIONS IN THE STUDY AREA

F.2.1 Outline of Agriculture

The Study Area can be defined as fruits and vegetables exporter as well as cereal crops importer. The staple food of the people is wheat flour in the area. The farm land serves 118,600 ton of wheat and barley for 1,778,100 inhabitants. The cereal production per capita comes to 66.5 kg/year, which equals to a half of national average of 135 kg/year. Only Kalat district is close to national average of unit cereal production. The demand of food crop seems to be higher than 135 kg, because Pakistan used to import wheat flour from international market. The big deficit of cereal in the area is procured from the outside.

Per Capita Cereal Production in the Study Area

	Population (person)	Production of Wheat and Barley (ton/year)	Per Capita Cereal Production (kg/person/year)
Study Area	1,778,100	118,636	66.5
Quetta District	676,900	6,734	9.9
Pishin District	584,400	51,070	87.4
Kalat District	516,800	60,467	117.0

Notes: Population: Estimates as of 1995 by the JICA Study Team.
Production: Five-year average from 1990/91 - 1994/95.
"Pishin District" includes Pishin and Qila Abdullah districts, as well as "Kalat District" includes Mastung and Kalat districts.
Source: Population Census.
Agricultural Statistics of Balochistan.

The fruits and vegetables are substantial sources of cash income for the farmers. The shares of cropped areas of major commodity groups are shown in the following table. In the Study Area, cereal crops are grown in 51% of total cropped area, which is smaller than national average of 56%. The shares of orchard and vegetable farm are about 18% and 24%, respectively. The area ratio of orchard is 7.5 times to national average of 2.4%. Since the area has no cotton and sugarcane, the area ratio of vegetable also seems to be much higher than other areas.

Share of Cropped Areas of Major Agricultural Commodity Groups

(Unit: %)

	Cereal	Fruits	Vegetables	Fodder
Study Area	50.8	18.1	24.3	6.8
Quetta District	28.7	42.5	25.3	3.6
Pishin District	53.9	22.7	21.2	2.1
Kalat District	52.2	10.7	26.9	10.2

Notes: Cropped area: Five-year average from 1990/91 - 1994/95.
"Pishin District" includes Pishin and Qila Abdullah districts, as well as "Kalat District" includes Mastung and Kalat districts.
Source: Agricultural Statistics of Balochistan.

As a result, there exists great marketable surplus of fruits and vegetables in the area. Asian Development Bank estimated the amount of the surplus based on the statistical data, as shown in the following table. Pishin Lora Basin, overlapping with the Study Area, produces about 460,000 ton of tradable agricultural commodities a year. Commodity group of fruits is dominant amounting to 262,000 ton or 57% of the total surplus. The vegetable group follows it at 185,000 ton a year. Pishin sub-basin is a leading area to export fruits, and Pishin and Quetta sub-basins are a major vegetable export area.

Estimated Marketable Surplus by Basin and Sub-Basin

(Unit: ton/year)

Basin/ Sub-Basin	Fruits Melons	Vegetables Onion Potatoes	Other Crops	Total
Pishin Lora Basin	261,963	184,644	13,739	460,345
Mastung Sub-Basin	6,124	15,291	1,459	22,874
Mangocher Sub-Basin	3,080	7,279	562	10,921
Pishin Sub-Basin	143,197	46,430	3,375	193,002
Quetta Sub-Basin	46,421	47,523	3,568	97,512
Other Sub-Basins	63,140	68,121	4,775	136,037

Notes: Other crops include all crops excluding fruits, melons, vegetables, onion, potatoes, wheat, paddy, sugarcane, and fodder.
Source: Balochistan Groundwater Resource Reassessment, ADB, 1996

As of 1992-93, the average household income and expenditure was Rs. 34,776 and Rs. 31,788 in Balochistan, respectively. The both were only 80 % of the national average. Regarding income source of rural people, crop production and livestock generates 26 % and 9 % of the total income, respectively. In the consumption expenditure, the share of food, beverage and tobacco is as high as 56 % (refer to Table F.2.1.1 and F.2.1.2).

F.2.2 Farm Labor

The number of all households in the Study Area was 132,000 reported by the Agricultural Census in 1990. The agricultural households approximately amounted to 65,000, which consisted of 17,000 livestock holders and 48,000 farm households. In the farm households, the shares of owner, owner-cum-tenant and tenant households were about 86%, 8% and 5%, respectively. Almost one half of the farm households operated only 1.0 to 5.0 ha of agricultural land.

The population density to the cropped area was calculated at 6.34 person/ha in the Study area, based on the 1990 Census (refer to Table F.2.2.1). The population of farm households per unit cropped area amounted to 2.56 person/ha. The labor force for farming, which was defined as family workers and permanent hired workers engaged in agricultural work on their holdings, was 0.51 person/ha to cropped area. Quetta district has much higher population density, but average labor intensity to farm land. Kalat district shows lower densities of all population, agricultural population and agricultural workers to cropped area. Quetta and Pishin districts tend to the labor intensive agriculture, compared with Kalat district.

Agricultural Population Per Cropped Area

(Unit: person/ha)

	All Population	Agricultural Population	Agricultural Worker
Study Area	6.34	2.56	0.51
Quetta District	16.44	2.51	0.51
Pishin District	5.85	3.74	0.64
Kalat District	2.48	1.81	0.17

Notes: "Pishin District" includes Pishin and Qila Abdullah districts, as well as "Kalat District" includes Mastung and Kalat districts.
"Agricultural Worker" indicates family workers engaged in agricultural work on their holdings and permanent hired workers engaged in agricultural work on their holdings.

Source: 1990 Census of Agriculture, Vol. II Part-4 Baluchistan.

F.2.3 Agricultural Credit Services

The farmers generally need some external monetary budget for farming, purchasing machinery, installing tubewells, and so on. According to Census of Agriculture in 1990, the number of farm households under debt was 95,813 or 39% of total farm households in Balochistan province. The share of the farm households under debt was almost constant with increasing of farm size, but the share was sensitive to the type of land ownership; e.g., 37% for land owners and 48% for owner-cum-tenants and tenants. The owner-cum-tenant and tenant farmers might show higher intention to credit services on their farm or life. In the Study Area, the share of farmers under debt was low as only 21% in total 5 districts (refer to Table F.2.3.1).

As of 1990, the total amount of debt in Balochistan was Rs. 3,342 million, of which Rs. 2,395 million or 72% was for farm households. The institutional source supplied less than 20% of the loan amount. The non-institutional source, such as family or individuals of the same tribal group or from money lenders, played greater role in Rs.884/acre in Balochistan and Rs.713/acre in the Study Area, according to the 1990 Census. The average debt amount per household was Rs.9,862 in Balochistan and Rs.7,146 in the Study Area. Taking farm size into account, the smaller farmers' group rent higher amount per area but lower amount per household.

The institutional agricultural loans are distributed to farmers through 3 major channels. First, Agricultural Development Bank of Pakistan (ADBP) under State Bank of Pakistan provides agricultural loans to individual farmers as their request. ADBP has at least one branch office in each district of the Study Area. The loans can be divided into production loan, development loan, short-, medium- and long-term loans. The predominant types of loans in Balochistan are development loan and long tern loan which are mainly used to purchase farm machinery and to install tubewell (refer to Table 2.3.2).

Second channel is Balochistan Cooperative Bank Ltd. which provides agricultural loan to the cooperative societies. The bank was established in Quetta in 1971. Since the establishment of Federal Bank of Cooperatives in 1978, the provincial bank has been funded by the federal bank. The two types of loans are generally advanced. One is short term loan for the purchase of seeds, fertilizer and pesticides to be recovered within a year. The maximum loan amount is Rs. 1.5 million with 14 % mark-up for each cooperative society. Another is medium term loan for installation of tubewells and purchase of tractors with repayment period of 5 to 10 years. The upper limit of loan is Rs. 1.5 million with 16 % mark-up per society. The members of farmers' associations share the farm inputs and equipment under their own responsibility and then they return the loan amount from their farm outputs. The amount of agricultural credit provided by Balochistan Cooperative Bank ranges Rs. 10 to 15 million in the province.

Finally, commercial banks also supply agricultural loans, as short term production loans, to individual farmers. This loan is returnable at the end of the crop. The loans by the three channels amount to about Rs. 300 million in Balochistan province or Rs. 400/ha of cropped area. This amount is so small as to make the farmers apply the advanced farming technologies to their farms.

F.2.4 Marketing of Farm Products

In agricultural marketing system, the public sector plays of fair price control, price support and regulation of marketing activities. In this area, only wheat and some authorized commodities is procured by Pakistan Agricultural Storage and Supplies Corporation at the support prices under control by Provincial Food Department. While, the private sector primarily acts as functionaries in various stages of marketing of common farm products.

Most of deciduous fruit crops and some kinds of vegetables are marketed through some functionaries, while cereal crops such as wheat are consumed or sold in the local market. Specially deciduous fruits such as Apples, Apricots and Grapes are exported to other provinces in Pakistan. The quantitative marketing direction of the fruits are roughly expected as follows.

Apple:	Quetta (25%), Karachi (25%), Lahore (40%), Islamabad (10%)
Apricot:	Quetta (50%), Karachi (20%), Lahore (20%), Islamabad (10%)
Grapes:	Quetta (50%), Karachi (20%), Lahore (20%), Islamabad (10%)

In harvest time of the fruits, a large amount of fruits is exported to other provinces. After several months of storage there, the fruits are re-imported to Balochistan during the higher price season, because the capacity of cold storage in Balochistan is very limited.

Typical stream of the fruit is as follows:

Farmers -->
Pre-harvest Contractor (Commissioner) -->
Wholesaler -->
Retailer -->
Consumers

Most farmers make contract with so-called "Pre-harvest Contractors" at the blooming of fruits or before harvesting. The pre-harvest contractors, who are generally local people, manage the orchards by their own expenses up to the harvest and market of fruits. The analysis of fruits price structure shows more than 30 % of the wholesale prices are occupied by the pre-harvest contractor, as shown in Fig. F.2.4.1

F.2.5 Marketing of Farm Inputs

Private sector plays great roles in distribution of farm inputs such as seeds, fertilizer and agro-chemicals. Fertilizer is marketed by fertilizer manufacturers through their appointed dealers, while pesticides are marketed by manufacturers/formulators and importers through their appointed dealers. The dealers generally handle fertilizer, pesticides, and traditional and HYV

seeds. The dealers normally combine the function of input dealers as well as wholesalers and commission agents for the agricultural products.

The dealers normally supply these inputs to farmers on credit, along with some cash advances to meet consumption needs. The borrowers are obliged to sell their produce through the dealer/commission agent against a pre-determined rate, or commission charged on the sale proceeds sold on their behalf.

Five public and private organizations supply fertilizer in Balochistan. In the year of 1994-95, National Fertilizer Marketing Limited offered several kinds of fertilizer at 58% of total amount of 69,000 ton in the province. Fauji Fertilizer Company also supplied 30% of fertilizer. Agriculture Department was also a supplier of inputs, selling 8% of fertilizer. Supply amount of other 2 organizations, Engro Chemical Pakistan Limited and Dawood Corporation Limited was small.

F.2.6 Post-Harvest and Marketing Facilities

The physical post-harvest facilities, such as transportation, cold storage warehousing, processing and packing are not sufficient in Balochistan. Traditional practices of post-harvest are common, even though Department of Agriculture of Balochistan and international agencies have experimented and disseminated post-harvest technologies.

A cold storage facility for fruits and vegetables is available at Quetta, although the storage capacity of the private facility is very limited to production volume of fruits in the province. There were two private cold storage facilities in Quetta city. The Quetta Cold Storage, which was established in 1967, has closed because of high operation and maintenance cost compared with the charge on storage of Rs. 20 /crate/month for fruits and vegetables. Another Safina Cold Storage was established in 1983 with a financial assistance of Industrial Development Bank of Pakistan. The capacity is 20,000 crates for its three rooms kept their temperature at 5 - 7 C. This cold storage is operated for multi-purpose but the temperature of each storage room is controlled at the same level. The monthly charge for apple is Rs. 20 /crate and it for eggs is Rs. 18 /crate.

The Government of Balochistan insists installation of cold store for fruit and vegetable under productivity enhancement program. The public storage will have a capacity of 600 tons and be located in Loralai outside the Study area. The facilities have been completely furnished then it will be operated by the public sector.

The FAO supported project of Outreach and Transfer of Fruit Technology in Balochistan is on-going. One of the objectives is improvement of harvesting, handling, marketing, storage, transportation of deciduous fruit in order to minimize pre and post harvest losses and improve quality and availability of fruit to the consumers. Its activity includes a) drying of fruits, b) development of modern fruit boxes, and c) development of marketing information system in relation to fruit marketing.

There is only a public-controlled wholesale market at Quetta city in Balochistan. The handling capacity is limited and the facilities of the market are old-fashioned. The wholesale market is subjected to shift to a new wholesale market on the outskirts of Quetta, which is under construction in Fruit and Vegetable Marketing Project Balochistan supported by ADB, UNDP and Government of Balochistan. The new market will be furnished with 255 big shops and 55 small shops in its land of 15 ha.

Besides, another wholesale market is planned to be established at Dera Murad Jamali of Nasirabad supported by ADB, but it is outside the Study area.

F.2.7 Livestock Economy

In Balochistan, livestock is one of the most important economic sub-sector, which provide about 16 % of the provincial GDP. The province has wide vegetated rangelands in semi-arid climate, while crop area is very limited due to low water resources. Therefore, the sub-sector of livestock provides 85 % motive power and farm yard manure to crop sub-sector and coordinates the use of family labor along with other advantage.

In the 5 study districts, sheep and goats are dominant animals amounting to 1.14 million and 1.39 million heads, respectively. The population of cattle and buffaloes is 72,000 and 10,000, respectively.

Assuming unit requirement of feed is 0.9 kg/day for small animals and 6.0 kg/day for large animals[1], the fodder demand of animals, excluding nomad-held animals, comes to 680,000 ton per annum at least. While, the 5 districts produce 230,000 ton of fodder crops a year. When straws of wheat and barley count into feed, total amount of feed is tentatively estimated at 350,000 ton in total. Roughly speaking, more than half of livestock feed is fulfilled by natural

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[1]Animals can be described as sheep unit based on feed requirement, such as: Sheep=1.00, Goats=0.83, Cattle=5.00, Buffaloes=7.70, Camels=10.00, Hourse=6.60, Donkeys=3.00 sheep unit.

vegetation of rangelands. The feed is commonly exported from other warmer areas, especially in winter season.

The marketing practices of livestock is much less developed compared to the marketing of other crops. The marketing channel of livestock can be generally classified into the following 4 main routes.

a) Marketing through buying agents
(Producer -> Buying agent -> Agent -> Wholesaler -> Retailer/Factory -> Consumer)

b) Marketing through wholesalers
(Producer -> Wholesaler -> Retailer/Consumer)

c) Marketing through retailer
(Producer -> Retailer -> Consumer)

d) Marketing through open market
(Producer -> Consumer)

Open market, the most primitive marketing system, is most popular in the area. The open livestock markets are held once a week on a fixed day. The markets in close area are usually held on a different weekday to ensure buyers and sellers to visit several markets in a week. Daily livestock market is available only in Quetta area. The rural market is normally is a simple open air space with no facilities available. The common location of the market is at a distance from settlement area, usually on a hilltop. Only one livestock market in Quetta adjoins a slaughterhouse.

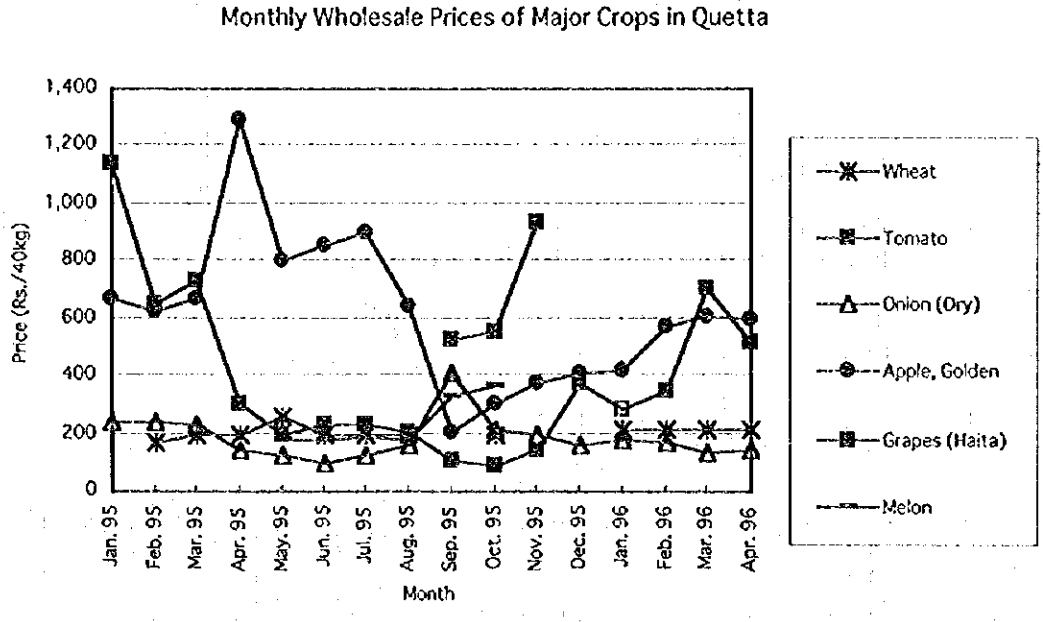
F.3 PRICES

F.3.1 Prices of Agricultural Products

All agricultural products except wheat and some others are marketed under free market prices in the Study Area. Wheat is subjected to a support price which is fixed at much lower price than free market price by Agricultural Prices Commission, a federal government authority.

The wholesale prices of agricultural commodities at Quetta are reported monthly by Department of Agriculture. The seasonal price fluctuation of fruits and vegetables are very significant, as shown in the following chart. The prices of them are much higher in the off-season. For example, wholesale price of golden apples rises to about Rs. 1,000 per 40 kg during off-season, while the price is only Rs. 200 per 40 kg during harvesting season of September to October. On the other hand, wheat and potatoes show relatively stable price trend because

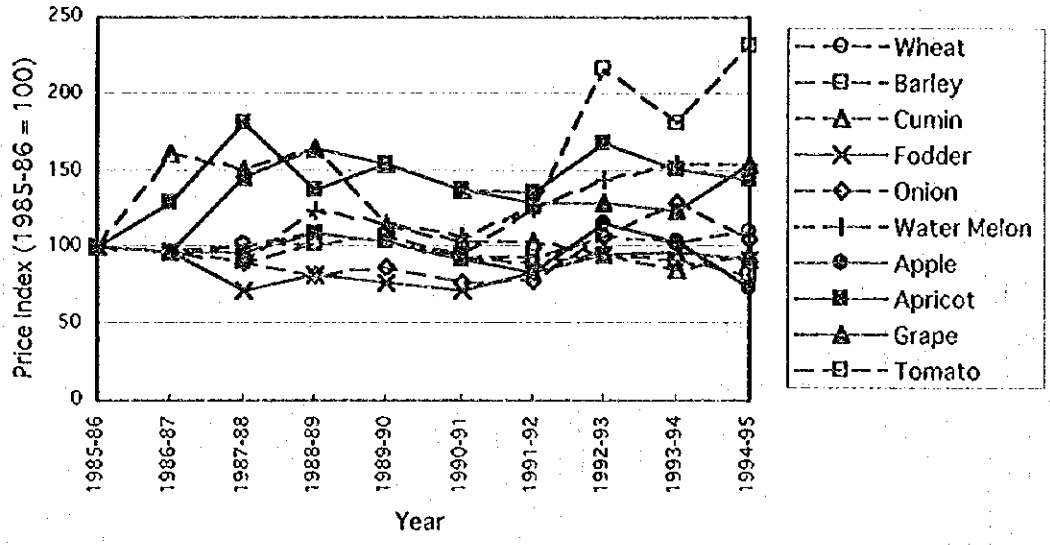
storage of them is easier bioligically, technically and economically (refer to Table F.3.1.1 and Fig. F.3.1.1 to F.3.1.4).



Source: Review of Price Trends of Agricultural Commodities in Balochistan, Agriculture Department

The annual average prices at Quetta wholesale market is studied for 10 years from 1985-86 to 1994-95. The price level is adjusted to 1994-95 price using a deflator of general Wholesale Price Index of Pakistan (refer to Table F.3.1.2). The price index for the 10 major crops in the beneficiary areas are shown in the following chart (refer tp Fig. 3.1.5).

Price Index of Major Agricultural Commodities
at Quetta at Constant Price



Note: The prices are at Quetta wholesale market prices converted to 1994-95 prices
Source: Agricultural Statistics in Balochistan.

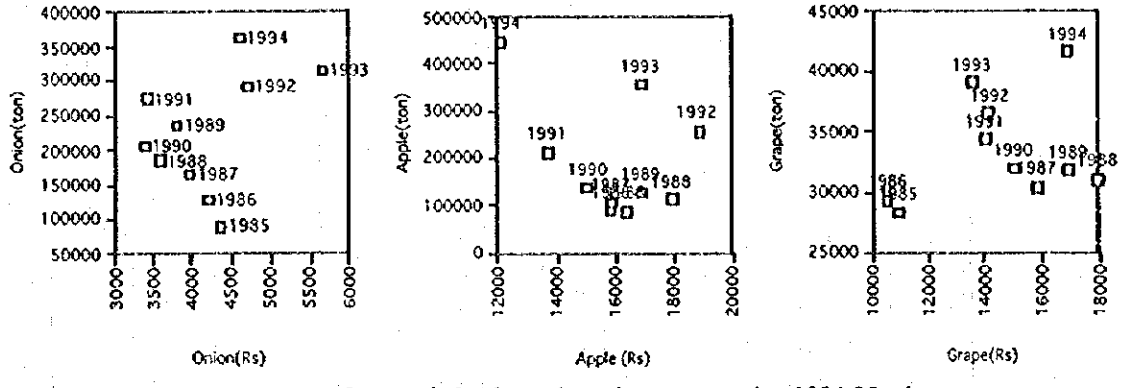
The average wholesale prices are calculated at 1994-95 price and 1995-96 average prices are estimated by the general WPI, as shown in the following table.

(Unit: Rs./ton)

Crop	10-year average price (at 1994-95 price)	1995-96 price (estimate)
Wheat	4,467	4,950
Barley	4,717	5,230
Cumin	39,230	43,480
Fodder	724	800
Onion	4,311	4,780
Watermelon	2,650	2,940
Apple	16,119	17,870
Apricot	9,399	10,420
Grape	14,359	15,910
Tomato	6,088	6,750

Note The prices are at Quetta wholesale market prices.
The prices of each year are converted to 1994-95 prices using the general WPI.
Source: Agricultural Statistics in Balochistan.

The prices generally stand on the balance of demand and supply. For the representative 4 crops, the relationship between the adjusted prices and production volume within Balochistan is illustrated below. The prices of vegetables and fruits are commonly going down upon the production increasing, as they are traded at open market prices.



Note The prices are at Quetta wholesale market prices converted to 1994-95 prices
Production amount in Balochistan.
Source: Agricultural Statistics in Balochistan.

On the contrary, wheat does not show such trend, because the government intervenes its trading. Pakistan Agricultural Services and Storage Corporation (PASSCO) procures wheat at the support price fixed by the federal government, then distributes at the price including a procurement cost. The support price of wheat is Rs. 4,325/ton as of 1996, and some Rs. 700-1,000/ton of marketing costs will be added on it at market.

F.3.2 Production Costs

Production costs of crops will be used for economic benefits of irrigation water as well as farm-based financial analyses. The studied production costs for dominant crops in the beneficiary areas consist of; seed or seedling, fertilizer, farm chemicals, irrigation water charge, machinery costs and labor costs.

Unit labor cost for farming works is Rs.50-100/manday depend upon work load. Machinery cost for land preparation by tractor is Rs.100/hr in average. The average 1994-95 prices and recent 1996 market prices of major fertilizer are as follows.

(Unit: Rs./bag or Rs./50kg)

	1994-95 price	Recent price
Urea	290	336
DAP	556	567
TSP	418	415
NPK (10:20:20)	564	567
SOP	300	537

Source: Agriculture Department, Balochistan

The input prices together with information of input amount made budgetary analysis of major crop productions. The results are shown in Table F.3.2.1.

In addition, the provincial government has recently issued "Agriculture Income Tax Amended Ordinance 1996". The announced tax rates are Rs.300, 200 and 25/acre for orchard, vegetables and wheat, respectively. For vegetables and wheat lands, only farmers holding more than 25 acres will be charged. The area of "Sailaba" or "Khushkaba" will be exception of agriculture tax.

F.3.3 Marketing Costs

Marketing costs of major agricultural products in the Study Area is studied in order to estimate their farmgate prices from wholesale prices. The marketing costs from farm to wholesale market consist of the following items:

Transport and holding cost
Containers and packing
Commission charge
Octroi (municipal tax)

Transportation cost by truck is Rs.1,000/truck for Mastung-Quetta (45km) and Rs.8000-10,000/truck for Quetta-Lahore (900km) in the latest season. The unit cost derived from the rates at Rs.20/km/truck for a short distance and Rs.10/km/truck for a long distance. The average loading capacity of truck is 450crate/truck, which is equivalent to 11,250kg in case of 25kg-crate of apples. As the average net weight of apple is 18kg/crate, the transportation cost of apples is eventually estimated at Rs.2.47/km/ton for a short distance and Rs.1.23/km/ton for a long distance.

Holding cost is Rs.1/crate for loading at a farm area, and Rs.1/crate for unloading at a market place. Container of potatoes and onion is gunny bag with a capacity of 90-100kg, which is provided at Rs.25/bag. Labour charge for packing is Rs.5/bag. In case of tomatoes, a 25kg-

crate at Rs.10/crate is used with a labor cost of Rs.10/crate. For apples, additional cost of packing material is required at Rs.10/crate. Commission charge is 10% of a wholesale price for each commodity. Octroi, a municipal tax of Quetta is 3% of a wholesale price.

As a conclusion, farm gate prices can be estimated, as shown in Table F.3.3.1.

F.4 FARM ECONOMY IN THE STUDY AREA

F.4.1 Cropping Pattern

The farm household survey which was conducted by the JICA Study Team under sub-contract under the phase I and II field survey period provided the primary data on the farm economic condition in the beneficiary areas. The 131 sample farmers offered applicable answer to the farm economic analysis (refer to Fig. F.4.1.1 and F.4.1.2). The following matrix table shows the number of sample farmers by gross cropped area and copping pattern.

Number of Farmers by Cropped Area and Cropping Pattern

(Nos.)

Cropping Pattern	Gross Cropped Area (ha)					Total
	A<2	2<=A<5	5<=A<10	10<=A<25	25<=A	
Fruit Growers	19	23	3	10	4	59
Food Grain Producers	4	10	1	5	5	25
Mixed Cultivators	9	19	9	7	3	47
Total	32	52	13	22	12	131

Source: Farm Household Survey by the JICA Study Team

Regarding to the cropped area, its mode was 2 to 5 ha among the sample farmers. About two third farmers lives by the less than 5 ha cropped area. Share of large farmers cropped more than 25 ha is less than 10 % in number. Cropping pattern can classify them into three groups of fruit growers, food grain producers and mixed cultivators. The number of fruit growers, who cropped deciduous fruit trees on 50 % or more of their total cropped area, was 59 households or 45% of total. The food grain producers, who cultivated wheat and barley on 67% or more area amounted for 25 households or 19% of total. The rest 47 farmers were mixed cultivators cropping fruits, cereals, vegetables, spices and so on. The most small farmers were classified into the fruit growers or mixed cultivators due to higher profitability of fruits and vegetables.

There are two categories of agriculture, subsistence agriculture and marketing agriculture, in the Study Area. Subsistence farmers assuming with annual agricultural income less than Rs. 25,000 are at about 33%, while remaining majority perform marketing agriculture.

F.4.2 Labor Input

The JICA Study Team also surveyed the labor input in the farm land within the beneficiary areas of the study DADs. The average labor input of the 150 farmers surveyed is 592 manday/household/year. More than a half of labor input is acquired by outside of the household. The unit labor input to gross cropped area is 62 manday/ha/year in average, although it widely ranges from 20 to 300 manday/ha/year by the various farming styles (refer to Fig. F.4.2.1).

Labor Input to Farm Land in the Beneficiary Area

	Family Labor	Hired Labor	Total
Number of Labor (person/household)	1.9	3.5	5.4
Labor Input (manday/household/year)	258	334	592
Labor Input Per Cropped Area (manday/ha/year)	27	35	62

Note: Number of sample farmers is 150.
Source: Farm household survey conducted by the JICA Study Team

F.4.3 Farm Income

The farm income, which was defined as net income from annual and perennial crops on farm lands, was Rs.168,000/year/household in average of 131 sample farmers, although the farm income significantly varied by cropped area and cropping pattern, as shown in the following table. The larger farmers generally earned more profits of their products. Considering cropping pattern, the average farm income was Rs.260,000 for fruit growers, Rs.26,000 for food grain producers and Rs.168,000 for mixed cultivators. The small fruit growers as well as mixed cultivators could make larger profit than average food grain producers.

Average Farm Income by Cropped Area and Cropping Pattern

(Rs./year/household)

Cropping Pattern	Gross Cropped Area (ha)					Average
	A<2	2<=A<5	5<=A<10	10<=A<25	25<=A	
Fruit Growers	50,000	200,000	300,000	491,000	990,000	260,000
Food Grain Producers	7,000	12,000	70,000	18,000	69,000	26,000
Mixed Cultivators	27,000	80,000	50,000	148,000	930,000	128,000
Average	38,000	120,000	109,000	274,000	591,000	168,000

Source: Farm Household Survey by the JICA Study Team

The farm economic condition of individual farmers significantly differed from others. The following chart shows the relationship with gross cropped area and farm income of the individual farmers involved in this study. It was clear that the fruit growers could get higher income than other types of farmers, because the dots of fruit growers took higher positions. The food crop producers could not achieve higher income even larger area cropped. Mixed cultivators stood on a middle situation between them (refer to Fig. F.4.2.1).

Table F.2.1.1
Annual Household Income by Source and Income Group in Balochistan

(Unit: Rs./year)

Area	Total	Wages and Salaries	Self Employment			Other Income
			Farming Crop Production	Farming Livestock	Other Activities	
Balochistan						
All Areas						
All Groups	34,776	14,032	7,696	2,890	4,775	5,383
<=1000	8,088	1,784	1,160	2,251	132	2,761
1000-1500	15,480	4,076	4,091	3,063	862	3,387
1500-2000	21,276	10,802	3,264	1,906	2,074	3,230
2000-2500	27,288	14,959	3,299	1,763	3,711	3,556
2500-3000	32,964	17,329	4,579	2,522	4,335	4,200
3000-3500	39,432	20,233	6,463	3,135	3,017	6,585
3500-4000	45,780	22,290	9,609	1,579	4,216	8,085
4000-5000	53,532	19,122	21,113	5,160	8,940	-803
5000-6000	65,976	20,340	18,242	4,275	13,749	9,369
6000-7000	77,064	17,524	26,911	1,426	18,742	12,461
7000<	117,816	27,392	36,641	10,922	21,619	21,242
Urban Areas						
All Groups	52,356	28,084	895	1,361	15,995	6,021
<=1000	7,692	4,581	95	490	1,152	1,373
1000-1500	15,624	14,088	0	223	2,800	-1,487
1500-2000	21,756	16,696	376	50	4,158	476
2000-2500	27,768	23,403	175	22	2,482	1,686
2500-3000	33,528	24,073	714	50	4,369	4,322
3000-3500	39,384	24,123	0	130	10,677	4,454
3500-4000	45,876	31,636	289	211	6,602	7,138
4000-5000	54,192	27,405	802	206	22,555	3,224
5000-6000	66,492	30,653	3,258	379	25,560	6,643
6000-7000	76,956	27,142	3,348	31	38,293	8,142
7000<	128,292	55,833	872	9,301	42,234	20,052
Rural Areas						
All Groups	32,652	12,333	8,522	3,076	3,419	5,303
<=1000	8,112	1,610	1,226	2,361	68	2,847
1000-1500	15,468	3,813	4,195	3,137	812	3,511
1500-2000	21,252	10,479	3,422	2,010	1,959	3,381
2000-2500	27,228	14,090	3,654	1,960	3,850	3,673
2500-3000	32,892	16,505	5,046	2,822	4,329	4,190
3000-3500	39,444	19,757	7,258	3,507	2,071	6,851
3500-4000	45,768	20,916	10,980	1,780	3,863	8,229
4000-5000	53,388	17,330	18,995	5,584	5,990	5,488
5000-6000	65,772	16,088	24,428	5,887	8,886	10,484
6000-7000	77,100	14,024	35,489	1,928	11,619	14,040
7000<	113,184	14,838	52,438	11,647	12,507	21,754
Pakistan						
All Areas	43,080	14,337	3,899	6,001	7,940	10,904
Urban Areas	59,712	27,671	358	1,517	15,722	14,444
Rural Areas	36,840	9,332	5,228	7,685	5,021	9,575

Source :

Table F.2.1.2
Annual Household Consumption Enpenditure by Income Group in Balochistan

(Unit: Rs./year)

Area	Total	Food, Beverage and Tobacco	Apparel, Textile and Footwear	House Rental	Fuel and Lighting	Other Consumption Expenditure
Balochistan						
All Areas						
All Groups	31,788	17,680	2,184	4,345	2,661	4,918
<=1000	23,232	14,260	1,550	2,335	2,086	3,002
1000-1500	22,512	12,877	1,481	3,062	2,028	3,064
1500-2000	23,124	13,155	1,341	3,050	2,456	3,122
2000-2500	25,680	14,365	1,618	3,377	2,386	3,934
2500-3000	28,308	15,731	2,146	3,793	2,324	4,314
3000-3500	37,368	21,165	2,791	5,351	2,986	5,075
3500-4000	40,788	21,793	3,202	6,693	2,982	6,118
4000-5000	39,168	21,914	2,855	5,217	3,208	5,973
5000-6000	50,448	26,183	3,950	6,715	3,774	9,827
6000-7000	60,372	32,673	4,057	9,074	4,196	10,372
7000<	74,100	38,954	4,898	10,478	4,424	15,346
Urban Areas						
All Groups	45,624	23,766	3,399	6,415	3,203	8,842
<=1000	28,464	14,730	2,388	3,660	2,098	5,587
1000-1500	18,780	10,402	1,386	3,133	1,653	2,207
1500-2000	22,368	12,761	1,843	3,382	2,232	2,150
2000-2500	28,356	15,712	2,155	4,151	2,441	3,896
2500-3000	32,880	17,785	2,436	5,507	2,752	4,399
3000-3500	40,536	22,226	3,101	5,022	3,085	7,102
3500-4000	43,968	22,002	2,590	8,002	2,625	8,750
4000-5000	48,204	26,093	3,630	6,903	3,538	8,040
5000-6000	59,124	30,886	4,582	7,219	4,411	12,026
6000-7000	64,152	33,872	4,766	7,551	4,022	13,940
7000<	87,600	41,811	6,517	11,721	4,774	22,776
Rural Areas						
All Groups	30,108	16,942	2,035	4,095	2,592	4,444
<=1000	22,908	14,230	1,496	2,252	2,085	2,845
1000-1500	22,608	12,941	1,483	3,059	2,037	3,088
1500-2000	23,160	13,173	1,313	3,032	2,467	3,175
2000-2500	25,368	14,209	1,558	3,288	2,377	3,937
2500-3000	27,744	15,476	2,111	3,585	2,269	4,303
3000-3500	36,984	21,040	2,752	5,392	2,974	4,826
3500-4000	40,308	21,754	3,289	6,498	3,031	5,736
4000-5000	37,212	21,010	2,687	4,849	3,137	5,530
5000-6000	46,884	24,248	3,690	6,512	3,512	8,922
6000-7000	58,992	32,233	3,793	9,627	4,259	9,079
7000<	68,136	37,693	4,177	9,921	4,265	12,081
Pakistan						
All Areas	41,820	20,287	3,538	5,913	2,572	9,510
Urban Areas	54,504	23,290	4,224	10,290	2,932	13,768
Rural Areas	37,056	19,158	3,283	4,269	2,435	7,911

Source :

Table F.2.2.1
Workers and Cropped Areas in the Study Area (1/2)

	Number of Households	Number of Household Members	Permanent Hired Workers Engaged in Agricultural Work on Their Holdings	Number of Family Workers Engaged in Agricultural Work on Their Holdings (Total)	Number of Family Workers Engaged in Agricultural Work on Their Holdings (Full Time)	Number of Family Workers Engaged in Agricultural Work on Their Holdings (Part Time)	Family Members Engaged in Work of Their Households Only (Mainly Agriculture)	Family Members Engaged in Work of Their Households Only (Mainly Non-Agriculture)	Family Members Engaged in Work of Their Households/ Agency Only (Mainly Agriculture)	Family Members Engaged in Work of Their Households/ Agency Only (Mainly Non-Agriculture)	Family Workers Economically Inactive
Baluchistan Province											
All Households	476,331	3,900,800					582,900	216,100	71,400	371,400	959,000
Non Agri. Households	145,247	1,064,100					0	81,200	15,200	185,800	342,400
Agricultural Households	331,084	2,836,600	23,686	582,870	357,076	225,794	582,900	134,900	56,200	185,800	616,600
Livestock Holders	88,217	700,700	924	116,885	31,758	85,127	116,900	39,500	18,000	73,100	146,300
Farm Households	242,867	2,136,000	22,762	465,988	325,318	140,670	466,000	95,400	38,200	112,500	470,300
<1.0acre	3,209	25,800	30	3,308	2,044	1,264	3,300	900	600	2,800	6,000
1.0-2.5	24,462	195,000	733	34,803	23,602	11,201	34,800	9,700	3,500	15,800	42,900
2.5-5.0	26,326	212,800	716	42,657	29,450	13,207	42,700	10,500	5,000	13,200	46,300
5.0-7.5	31,854	257,600	1,473	56,449	39,411	17,038	56,500	11,600	4,800	13,400	55,300
7.5-12.5	52,401	432,100	2,314	100,971	72,414	28,557	101,000	17,900	8,000	20,000	90,900
12.5-25.0	48,862	441,800	2,878	100,969	71,696	29,273	100,900	19,900	7,400	18,900	95,400
25.0-50.0	31,609	311,200	4,511	68,339	46,740	21,599	68,400	13,900	5,200	14,900	70,700
50.0-150.0	19,681	205,200	5,741	44,826	30,440	14,386	44,800	8,800	2,800	11,000	49,500
150.0 and above	4,463	54,500	4,366	13,666	9,521	4,145	13,600	2,200	900	2,500	13,900
Quetta District											
All Households	61,754	543,100					7,000	38,600	1,700	86,700	193,100
Non Agri. Households	56,045	483,500					0	35,200	1,100	80,800	175,300
Agricultural Households	5,709	59,700	2,295	7,284	3,800	3,484	7,000	3,400	600	5,900	17,800
Livestock Holders	2,570	26,500	6	2,871	666	2,205	2,900	2,000	500	2,700	7,900
Farm Households	3,139	33,100	2,289	4,413	3,134	1,279	4,100	1,400	100	3,200	9,900
<1.0acre	713	6,600	2	350	270	80	400	200	0	900	1,800
1.0-2.5	343	4,000	153	360	243	117	300	100	0	500	1,300
2.5-5.0	358	3,400	21	359	263	96	300	200	0	300	1,100
5.0-7.5	293	2,700	57	439	330	109	400	100	0	200	900
7.5-12.5	490	3,500	80	579	480	99	500	100	0	300	1,100
12.5-25.0	357	3,600	104	621	432	189	600	200	0	300	1,000
25.0-50.0	326	3,700	525	688	468	220	600	200	100	200	1,100
50.0-150.0	247	3,800	971	745	423	322	700	200	0	400	900
150.0 and above	102	1,800	376	272	225	47	300	100	0	100	700
Pishin District											
All Households	35,262	400,900					50,900	44,000	10,000	23,100	87,000
Non Agri. Households	6,663	57,600					0	9,000	1,700	6,300	14,700
Agricultural Households	28,599	343,400	2,356	50,732	32,506	18,226	50,900	35,000	8,300	16,800	72,300
Livestock Holders	7,719	84,100	13	9,391	3,230	6,161	9,400	8,700	2,900	7,200	17,800
Farm Households	20,880	259,300	2,343	41,381	29,276	12,105	41,500	26,300	5,400	9,600	54,500
<1.0acre	48	500	0	78	52	26	100	100	0	0	100
1.0-2.5	2,299	21,400	103	3,516	2,614	902	3,500	2,000	700	1,100	4,200
2.5-5.0	3,192	33,200	151	5,597	4,224	1,373	5,600	3,300	1,400	1,500	6,400
5.0-7.5	3,860	43,700	235	7,454	5,310	2,144	7,500	3,800	1,000	1,500	8,700
7.5-12.5	4,921	51,500	490	8,512	6,096	2,416	8,500	5,000	900	1,900	10,700
12.5-25.0	3,738	52,500	412	7,747	5,142	2,605	7,800	6,100	800	1,800	10,800
25.0-50.0	1,988	32,400	393	4,735	3,187	1,548	4,700	3,500	400	1,000	7,100
50.0-150.0	1,272	20,500	337	3,185	2,237	948	3,200	2,100	200	700	5,300
150.0 and above	162	3,600	222	557	414	143	600	400	0	100	1,200
Kalat District											
All Households	34,984	274,300					52,900	7,900	4,900	17,300	68,300
Non Agri. Households	4,607	31,300					0	1,500	900	5,400	10,600
Agricultural Households	30,377	243,000	3,144	52,929	36,683	16,246	52,900	6,400	4,000	11,900	57,700
Livestock Holders	6,441	43,300	183	8,194	2,871	5,323	8,200	1,700	900	4,000	9,100
Farm Households	23,936	199,700	2,961	44,735	33,812	10,923	44,700	4,700	3,100	7,900	48,600
<1.0acre	25	200	0	23	3	20	0	0	0	0	100
1.0-2.5	2,083	14,100	51	2,827	2,017	810	2,800	200	100	1,200	3,200
2.5-5.0	2,388	17,700	42	3,780	2,831	949	3,800	700	400	800	4,000
5.0-7.5	3,684	27,300	108	6,195	4,717	1,478	6,200	800	600	1,000	6,700
7.5-12.5	5,003	39,000	315	8,953	6,769	2,184	9,000	800	600	1,200	9,100
12.5-25.0	4,849	41,900	485	9,281	7,267	2,014	9,300	700	800	1,300	10,400
25.0-50.0	3,723	34,900	774	8,020	5,876	2,144	8,000	800	500	1,400	8,200
50.0-150.0	1,896	20,600	815	4,630	3,476	1,154	4,600	600	100	900	5,600
150.0 and above	279	4,000	371	1,026	856	170	1,000	100	0	100	1,300
Study Area											
All Households	132,000	1,218,300					110,800	90,500	16,600	137,100	348,400
Non Agri. Households	67,315	572,400					0	45,700	3,700	92,500	200,600
Agricultural Households	64,685	646,100	7,795	110,945	72,989	37,956	110,800	44,800	12,900	34,600	147,800
Livestock Holders	16,730	153,900	202	20,455	6,767	13,689	20,500	12,400	4,300	13,900	34,800
Farm Households	47,955	492,100	7,593	90,529	66,222	24,307	90,300	32,400	8,600	20,700	113,000
<1.0acre	786	7,300	2	451	325	126	500	300	0	900	2,000
1.0-2.5	4,731	39,500	307	6,703	4,874	1,829	6,600	2,300	800	2,800	8,700
2.5-5.0	5,938	54,300	214	9,736	7,318	2,418	9,700	4,200	1,800	2,600	11,500
5.0-7.5	7,837	73,700	400	14,083	10,357	3,731	14,100	4,700	1,600	2,700	16,300
7.5-12.5	9,724	94,000	885	18,044	13,345	4,699	18,000	5,900	1,500	3,400	20,900
12.5-25.0	8,944	93,000	1,001	17,649	12,841	4,808	17,700	7,000	1,600	3,400	22,200
25.0-50.0	6,037	71,000	1,692	13,443	9,531	3,912	13,300	4,500	1,000	2,600	16,400
50.0-150.0	3,415	44,900	2,123	8,560	6,135	2,424	8,500	2,900	300	2,000	11,800
150.0 and above	543	9,400	969	1,855	1,495	360	1,900	600	0	300	3,200

Note: Pishin district includes Pishin and Qila Abdullah districts, as well as Kalat district includes Kalat and Mastung district.
Source: 1990 Census of Agriculture, Vol. II Part-4 Baluchistan

Table F.2.2.1
Workers and Cropped Areas in the Study Area (2/2)

	Cropped Area, Total (acre)	Croppped Area, Irrigated (acre)	Kharif Crops Area, Total (acre)	Kharif Crops Area, Irrigated (acre)	Rabi Crops Area, Total (acre)	Rabi Crops Area, Irrigated (acre)	Orchard Area, Total (acre)	Orchard Area, Irrigated (acre)
Balochistan Province								
All Households								
Non Agri. Households								
Agricultural Households								
Livestock Holders								
Farm Households	2,709,871	1,604,588	932,695	511,628	1,674,139	994,364	103,046	98,586
<1.0acre	969	944	158	153	417	395	392	392
1.0-2.5	31,091	23,891	6,547	4,992	18,785	13,194	5,756	5,704
2.5-5.0	67,137	48,348	15,389	10,943	44,495	30,208	7,261	7,200
5.0-7.5	126,487	86,989	33,369	24,459	82,628	52,185	10,485	10,350
7.5-12.5	378,018	265,793	123,366	91,936	239,646	158,339	16,007	15,516
12.5-25.0	558,886	366,486	185,887	125,463	358,980	225,622	16,040	15,378
25.0-50.0	515,420	294,245	176,718	94,402	321,455	183,589	17,253	16,253
50.0-150.0	545,380	266,285	177,956	82,498	348,025	165,887	19,398	17,895
150.0 and above	486,483	251,627	213,325	76,782	262,708	164,945	10,454	9,896
Quetta District								
All Households								
Non Agri. Households								
Agricultural Households								
Livestock Holders								
Farm Households	33,026	27,213	8,244	4,820	18,291	15,698	6,491	6,491
<1.0acre	111	110	0	0	4	3	107	107
1.0-2.5	304	295	3	3	74	65	227	227
2.5-5.0	562	522	45	42	293	255	224	224
5.0-7.5	995	905	68	56	728	650	200	200
7.5-12.5	2,210	1,853	236	152	1,612	1,338	362	362
12.5-25.0	3,779	3,194	1,091	858	2,188	1,835	500	500
25.0-50.0	6,402	4,904	1,287	494	2,939	2,214	2,195	2,195
50.0-150.0	6,684	6,030	1,702	1,348	2,949	2,649	2,033	2,033
150.0 and above	11,979	9,400	3,832	1,867	7,504	6,889	643	643
Pishin District								
All Households								
Non Agri. Households								
Agricultural Households								
Livestock Holders								
Farm Households	171,321	97,976	21,559	16,281	121,683	59,749	28,074	27,944
<1.0acre	17	17	0	0	7	7	9	9
1.0-2.5	3,069	2,661	214	195	1,715	1,330	1,139	1,136
2.5-5.0	8,347	6,978	841	782	4,964	3,661	2,542	2,534
5.0-7.5	14,799	12,121	1,783	1,631	9,413	6,890	3,601	3,600
7.5-12.5	25,296	20,114	3,660	3,086	16,445	11,876	5,191	5,152
12.5-25.0	31,718	19,952	4,767	3,685	22,199	11,522	4,751	4,745
25.0-50.0	28,171	15,428	4,677	2,992	19,544	8,558	3,950	3,878
50.0-150.0	43,446	14,720	4,558	2,929	34,421	7,335	4,456	4,456
150.0 and above	16,458	5,985	1,049	931	12,975	2,570	2,435	2,434
Kalat District								
All Households								
Non Agri. Households								
Agricultural Households								
Livestock Holders								
Farm Households	276,234	155,322	54,956	40,268	213,211	107,126	8,069	7,930
<1.0acre	13	13	0	0	1	1	11	11
1.0-2.5	2,774	1,542	265	255	2,357	1,134	152	152
2.5-5.0	6,445	3,769	676	633	5,635	3,002	135	135
5.0-7.5	14,783	7,131	2,052	1,731	12,432	5,100	300	300
7.5-12.5	33,151	14,931	5,239	4,118	27,372	9,974	540	540
12.5-25.0	52,300	25,503	7,574	5,685	43,591	18,692	1,136	1,126
25.0-50.0	69,048	44,690	14,160	12,923	52,576	29,486	2,312	2,282
50.0-150.0	64,443	38,704	12,252	10,625	49,721	25,628	2,470	2,452
150.0 and above	33,277	19,539	12,738	4,288	19,526	14,109	1,013	932
Study Area								
All Households								
Non Agri. Households								
Agricultural Households								
Livestock Holders								
Farm Households	450,581	280,511	84,759	61,369	353,185	176,773	42,634	42,365
<1.0acre	141	140	0	0	12	11	127	127
1.0-2.5	6,147	4,498	482	453	4,146	2,529	1,518	1,515
2.5-5.0	15,354	11,269	1,562	1,457	10,892	6,918	2,901	2,893
5.0-7.5	30,577	20,157	3,903	3,418	22,573	12,640	4,101	4,100
7.5-12.5	60,657	36,598	9,135	7,358	45,429	23,188	6,093	6,054
12.5-25.0	87,797	48,649	13,432	10,228	67,978	32,049	6,387	6,371
25.0-50.0	103,621	65,022	20,104	16,409	75,059	40,258	8,457	8,355
50.0-150.0	114,573	59,454	18,522	14,902	87,091	35,612	8,959	8,941
150.0 and above	61,714	34,724	17,619	7,146	40,005	23,568	4,091	4,009

Note: Pishin district includes Pishin and Qila Abdullah districts, as well as Kalat district includes Kalat and Mastung district.
Source: 1990 Census of Agriculture, Vol. II Part 4 Baluchistan

Table F.2.3.1
Debt Status in the Study Area (1/3)

	Number of Households, All Households, Total	Number of Households, All Households, Under Debt	%	Number of Households under Debt, Owner Households, Total	Number of Households under Debt, Owner Households, Under Debt	%	Number of Households under Debt, Owner-Cum-Tenant Households, Total	Number of Households under Debt, Owner-Cum-Tenant Households, Under Debt	%	Number of Households under Debt, Tenant Households, Total	Number of Households under Debt, Tenant Households, Under Debt	%
Balochistan Province												
All Households	476,305	145,094	30%									
Non Agri. Households	145,247	21,121	15%									
Agricultural Households	331,058	123,973	37%									
Livestock Holders	88,217	28,160	32%									
Farm Households	242,841	95,813	39%	196,086	73,193	37%	11,936	5,746	48%	34,833	16,867	48%
<1.0acre	3,203	1,101	34%	3,104	1,090	35%	9	6	67%	95	5	5%
1.0-2.5	24,462	9,241	38%	23,626	8,816	37%	138	113	82%	695	312	45%
2.5-5.0	26,325	10,167	39%	23,931	9,105	38%	294	135	46%	2,097	928	44%
5.0-7.5	31,853	12,350	39%	27,187	9,905	36%	1,036	382	37%	3,630	2,066	57%
7.5-12.5	52,400	21,643	41%	33,392	14,672	37%	1,895	958	51%	11,114	6,014	54%
12.5-25.0	48,858	19,650	40%	35,024	13,084	37%	3,263	1,612	49%	10,572	4,951	47%
25.0-50.0	31,607	12,176	39%	23,705	8,819	37%	2,986	1,395	47%	4,922	1,962	40%
50.0-150.0	19,675	7,561	38%	16,139	6,058	38%	2,029	987	49%	1,514	509	34%
150.0 and above	4,452	1,924	43%	3,975	1,644	41%	286	158	55%	193	120	62%
Quetta District												
All Households	61,745	4,706	8%									
Non Agri. Households	56,045	3,706	7%									
Agricultural Households	5,701	1,000	18%									
Livestock Holders	2,570	322	13%									
Farm Households	3,131	678	22%	3,043	627	21%	27	16	59%	61	34	56%
<1.0acre	713	5	1%	713	5	1%	0	0		0	0	
1.0-2.5	343	73	21%	342	73	21%	0	0		1	0	0%
2.5-5.0	358	119	33%	349	113	32%	3	0	0%	7	7	100%
5.0-7.5	293	50	17%	273	38	14%	1	0	0%	19	12	63%
7.5-12.5	399	107	27%	381	103	27%	2	0	0%	15	3	20%
12.5-25.0	357	135	38%	344	123	36%	5	5	100%	8	7	88%
25.0-50.0	325	92	28%	311	85	27%	3	1	33%	11	5	45%
50.0-150.0	244	76	31%	233	67	29%	11	9	82%	0	0	
150.0 and above	99	21	21%	97	20	21%	2	1	50%	0	0	
Pishin District												
All Households	35,262	4,761	14%									
Non Agri. Households	6,663	316	5%									
Agricultural Households	28,599	4,465	16%									
Livestock Holders	7,719	477	6%									
Farm Households	20,880	3,988	19%	20,080	3,847	19%	234	80	34%	567	60	11%
<1.0acre	46	18	38%	47	18	38%	0	0		1	0	0%
1.0-2.5	2,299	649	28%	2,299	649	28%	0	0		0	0	
2.5-5.0	3,192	536	17%	3,166	530	17%	4	0	0%	22	6	27%
5.0-7.5	3,860	647	17%	3,776	644	17%	2	0	0%	83	3	4%
7.5-12.5	4,321	830	19%	4,139	800	19%	37	14	38%	144	16	11%
12.5-25.0	3,736	651	17%	3,456	617	18%	83	20	24%	198	13	7%
25.0-50.0	1,988	397	20%	1,864	364	20%	44	17	39%	81	16	20%
50.0-150.0	1,272	237	19%	1,178	203	17%	57	28	49%	38	6	16%
150.0 and above	162	23	14%	155	22	14%	7	1	14%	0	0	
Kalat District												
All Households	34,978	7,718	22%									
Non Agri. Households	4,607	712	15%									
Agricultural Households	30,371	7,006	23%									
Livestock Holders	6,441	1,648	26%									
Farm Households	23,930	5,358	22%	18,287	3,474	19%	3,760	1,214	32%	1,906	670	35%
<1.0acre	25	0	0%	23	0	0%	0	0		3	0	0%
1.0-2.5	2,089	368	18%	1,827	247	14%	0	0		262	121	46%
2.5-5.0	2,387	496	21%	2,055	396	19%	40	10	25%	291	91	31%
5.0-7.5	3,683	775	21%	2,730	532	19%	462	72	16%	492	171	35%
7.5-12.5	5,003	1,168	23%	3,991	895	22%	668	167	25%	344	106	31%
12.5-25.0	4,849	1,029	21%	3,836	665	17%	781	263	34%	232	101	44%
25.0-50.0	3,723	941	25%	2,957	445	15%	1,155	435	38%	211	61	29%
50.0-150.0	1,895	496	26%	1,236	257	21%	591	221	37%	69	17	25%
150.0 and above	277	85	31%	212	37	17%	63	46	73%	2	2	100%
Study Area												
All Households	131,986	17,205	13%									
Non Agri. Households	67,315	4,734	7%									
Agricultural Households	64,671	12,471	19%									
Livestock Holders	16,730	2,447	15%									
Farm Households	47,941	10,024	21%	41,390	7,948	19%	4,021	1,310	33%	2,534	766	30%
<1.0acre	786	23	3%	783	23	3%	0	0		4	0	0%
1.0-2.5	4,731	1,090	23%	4,468	969	22%	0	0		263	121	46%
2.5-5.0	5,937	1,151	19%	5,570	1,039	19%	47	10	21%	320	104	33%
5.0-7.5	7,636	1,472	19%	6,779	1,214	18%	465	72	15%	594	186	31%
7.5-12.5	9,723	2,105	22%	8,511	1,798	21%	707	181	26%	503	125	25%
12.5-25.0	8,943	1,815	20%	7,636	1,405	18%	869	288	33%	438	121	28%
25.0-50.0	6,036	1,430	24%	4,532	894	20%	1,202	453	38%	303	82	27%
50.0-150.0	3,411	809	24%	2,647	527	20%	659	258	39%	107	23	21%
150.0 and above	536	129	24%	464	79	17%	72	48	67%	2	2	100%

Note: Pishin district includes Pishin and Qila Abdullah districts, as well as Kalat district includes Kalat and Mastung district.
Source: 1990 Census of Agriculture, Vol. II Part 4 Baluchistan

Table F.2.3.1
Debt Status in the Study Area (2/3)

	Amount of Debt, All Households, Total (Rs.'000)	Amount of Debt, All Households, Institutional (Rs.'000)	%	Amount of Debt, All Households, Non-Institutional (Rs.'000)	%	Amount of Debt, Owner Households, Total (Rs.'000)	%	Amount of Debt, Owner Households, Institutional (Rs.'000)	%	Amount of Debt, Owner Households, Non-Institutional (Rs.'000)	%	Amount of Debt, Owner-Cum-Tenant Households, Total (Rs.'000)	%	Amount of Debt, Owner-Cum-Tenant Households, Institutional (Rs.'000)	%
Balochistan Province															
All Households	3,341,940	560,757	17%	2,781,183	83%										
Non Agri. Households	493,444	62,506	13%	430,938	87%										
Agricultural Households	2,858,496	498,251	17%	2,360,245	83%										
Livestock Holders	463,397	43,904	9%	419,493	91%										
Farm Households	2,395,099	454,347	19%	1,940,752	81%	2,037,616	85%	417,439	20%	1,620,177	80%	136,328	6%	31,311	23%
<1.0acre	28,005	389	1%	27,616	99%	27,706	99%	389	1%	27,317	99%	103	0%	0	0%
1.0-2.5	199,613	10,004	5%	189,609	95%	195,372	98%	9,821	5%	185,551	95%	1,666	1%	32	2%
2.5-5.0	215,906	19,966	9%	195,940	91%	206,171	95%	19,801	10%	186,370	90%	1,762	1%	16	1%
5.0-7.5	259,308	33,422	13%	225,886	87%	230,196	89%	32,295	14%	197,901	86%	5,394	2%	812	15%
7.5-12.5	422,894	59,906	14%	362,988	86%	337,311	80%	57,846	17%	279,465	83%	17,595	4%	1,147	7%
12.5-25.0	425,130	60,084	14%	365,046	86%	331,147	78%	57,033	17%	274,114	83%	28,339	7%	2,541	9%
25.0-50.0	352,489	76,264	22%	276,225	78%	286,436	81%	69,032	24%	217,404	76%	28,245	8%	5,757	20%
50.0-150.0	334,008	112,755	34%	221,253	66%	288,412	86%	97,879	34%	190,533	66%	32,282	10%	12,952	40%
150.0 and above	157,746	81,557	52%	76,189	48%	134,665	85%	73,343	54%	61,322	46%	20,951	13%	8,054	38%
Quetta District															
All Households	197,693	43,175	22%	154,518	78%										
Non Agri. Households	168,726	39,569	23%	129,157	77%										
Agricultural Households	28,967	3,606	12%	25,361	88%										
Livestock Holders	6,331	0	0%	6,331	100%										
Farm Households	22,636	3,606	16%	19,030	84%	21,122	93%	3,540	17%	17,582	83%	719	3%	66	9%
<1.0acre	498	30	6%	468	94%	498	100%	30	6%	468	94%	0	0%	0	
1.0-2.5	1,097	267	24%	830	76%	1,097	100%	267	24%	830	76%	0	0%	0	
2.5-5.0	3,368	129	4%	3,239	96%	3,147	93%	129	4%	3,018	96%	0	0%	0	
5.0-7.5	993	8	1%	985	99%	768	77%	8	1%	760	99%	0	0%	0	
7.5-12.5	2,346	779	33%	1,567	67%	2,311	99%	779	34%	1,532	66%	0	0%	0	
12.5-25.0	3,874	0	0%	3,874	100%	3,751	97%	0	0%	3,751	100%	55	1%	0	0%
25.0-50.0	3,597	422	12%	3,175	88%	3,318	92%	422	13%	2,896	87%	33	1%	0	0%
50.0-150.0	3,275	303	9%	2,972	91%	3,153	96%	303	10%	2,850	90%	122	4%	0	0%
150.0 and above	3,588	1,668	46%	1,920	54%	3,079	86%	1,602	52%	1,477	48%	509	14%	66	13%
Pishin District															
All Households	178,766	37,909	21%	140,877	79%										
Non Agri. Households	6,887	263	4%	6,624	96%										
Agricultural Households	171,899	37,646	22%	134,253	78%										
Livestock Holders	9,562	1,419	15%	8,143	85%										
Farm Households	162,337	36,227	22%	126,110	78%	157,102	97%	34,845	22%	122,257	78%	3,431	2%	1,286	37%
<1.0acre	225	0	0%	225	100%	225	100%	0	0%	225	100%	0	0%	0	
1.0-2.5	13,845	1,577	11%	12,268	89%	13,845	100%	1,577	11%	12,268	89%	0	0%	0	
2.5-5.0	12,620	1,063	8%	11,557	92%	12,416	98%	1,063	9%	11,353	91%	0	0%	0	
5.0-7.5	24,233	904	4%	23,329	96%	24,146	100%	904	4%	23,242	96%	0	0%	0	
7.5-12.5	30,227	8,799	29%	21,428	71%	29,263	97%	8,780	30%	20,483	70%	760	3%	0	0%
12.5-25.0	35,636	9,246	26%	26,390	74%	34,946	98%	9,036	26%	25,910	74%	280	1%	140	50%
25.0-50.0	26,721	7,764	29%	18,957	71%	24,762	93%	6,849	28%	17,913	72%	1,564	6%	916	59%
50.0-150.0	15,617	5,008	32%	10,609	68%	14,926	92%	4,770	33%	9,556	67%	787	5%	230	29%
150.0 and above	3,213	1,866	58%	1,347	42%	3,173	99%	1,866	59%	1,307	41%	40	1%	0	0%
Kalat District															
All Households	199,145	53,385	27%	145,760	73%										
Non Agri. Households	13,206	2,675	20%	10,531	80%										
Agricultural Households	185,939	50,710	27%	135,229	73%										
Livestock Holders	28,230	11,107	39%	17,123	61%										
Farm Households	157,709	39,603	25%	118,106	75%	99,558	63%	24,698	25%	74,860	75%	40,921	26%	14,164	35%
<1.0acre	0	0		0		0		0		0		0		0	
1.0-2.5	2,845	200	7%	2,645	93%	2,143	75%	200	9%	1,943	91%	0	0%	0	
2.5-5.0	7,204	0	0%	7,204	100%	5,368	75%	0	0%	5,368	100%	150	2%	0	0%
5.0-7.5	17,116	2,990	17%	14,126	83%	10,518	61%	2,178	21%	8,340	79%	1,413	8%	812	57%
7.5-12.5	32,190	10,115	31%	22,075	69%	27,563	86%	9,802	36%	17,761	64%	2,839	9%	313	11%
12.5-25.0	25,565	3,362	13%	22,203	87%	13,743	54%	2,112	15%	11,631	85%	6,807	27%	1,250	18%
25.0-50.0	32,662	5,962	18%	26,700	82%	21,287	65%	3,708	17%	17,579	83%	9,010	28%	1,543	17%
50.0-150.0	24,147	8,818	37%	15,329	63%	13,994	58%	4,343	31%	9,651	69%	9,734	40%	4,475	46%
150.0 and above	15,980	8,156	51%	7,824	49%	4,942	31%	2,355	48%	2,587	52%	10,968	69%	5,771	53%
Study Area															
All Households	575,624	134,469	23%	441,155	77%										
Non Agri. Households	188,819	42,507	23%	146,312	77%										
Agricultural Households	386,805	91,962	24%	294,843	76%										
Livestock Holders	44,123	12,526	28%	31,597	72%										
Farm Households	342,682	79,436	23%	263,246	77%	277,782	81%	63,083	23%	214,699	77%	45,071	13%	15,516	34%
<1.0acre	723	30	4%	693	96%	723	100%	30	4%	693	96%	0	0%	0	
1.0-2.5	17,787	2,044	11%	15,743	89%	17,085	96%	2,044	12%	15,041	88%	0	0%	0	
2.5-5.0	23,192	1,192	5%	22,000	95%	20,931	90%	1,192	6%	19,739	94%	150	1%	0	0%
5.0-7.5	42,342	3,902	9%	38,440	91%	35,432	84%	3,090	9%	32,342	91%	1,413	3%	812	57%
7.5-12.5	64,763	19,693	30%	45,070	70%	59,137	91%	19,961	33%	39,776	67%	3,599	6%	313	9%
12.5-25.0	65,075	12,608	19%	52,467	81%	52,440	81%	11,148	21%	41,292	79%	7,142	11%	1,390	19%
25.0-50.0	62,980	14,148	22%	48,832	78%	49,367	78%	10,979	22%	38,388	78%	10,607	17%	2,459	23%
50.0-150.0	43,039	14,129	33%	28,910	67%	31,423	73%	9,416	30%	22,057	70%	10,643	25%	4,705	44%
150.0 and above	22,781	11,690	51%	11,091	49%	11,194	49%	5,823	52%	5,371	48%	11,517	51%	5,837	51%

Note: Pishin district includes Pishin and Qila Abdullah districts, as well as Kalat district includes Kalat and Mastung district.
Source: *1990 Census of Agriculture, Vol. II Part-4 Baluchistan*

Table F.2.3.1
Debt Status in the Study Area (3/3)

	Amount of Debt, Owner-Cum-Tenant Households, Non-Institutional (Rs.'000)	%	Amount of Debt, Tenant Households, Total (Rs.'000)	%	Amount of Debt, Tenant Households, Institutional (Rs.'000)	%	Amount of Debt, Tenant Households, Non-Institutional (Rs.'000)	%	Amount of Debt Per Cropped Area, Total (Rs./acre)	Amount of Debt Per Cropped Area, Institutional (Rs./acre)	Amount of Debt Per Cropped Area, Non-Institutional (Rs./acre)	Amount of Debt Per Household, Total (Rs./HH)	Amount of Debt Per Household, Institutional (Rs./HH)	Amount of Debt Per Household, Non-Institutional (Rs./HH)
Balochistan Province														
All Households														
Non Agri. Households														
Agricultural Households														
Livestock Holders														
Farm Households	105,017	77%	221,161	9%	5,598	3%	215,563	97%	884	168	716	9,862	1,871	7,991
<1.0acre	103	100%	196	1%	0	0%	196	100%	28,901	401	28,499	8,727	121	8,606
1.0-2.5	1,634	98%	2,574	1%	150	6%	2,424	94%	6,420	322	6,099	8,160	409	7,751
2.5-5.0	1,745	99%	7,973	4%	149	2%	7,824	98%	3,216	297	2,919	8,201	758	7,443
5.0-7.5	4,582	85%	23,715	9%	313	1%	23,402	99%	2,050	264	1,786	8,141	1,049	7,091
7.5-12.5	16,448	93%	67,993	16%	915	1%	67,078	99%	1,119	158	960	8,070	1,143	6,927
12.5-25.0	25,789	91%	65,652	15%	511	1%	65,141	99%	761	108	653	8,701	1,230	7,471
25.0-50.0	22,488	80%	37,809	11%	1,476	4%	36,333	96%	684	148	536	11,152	2,413	8,739
50.0-150.0	19,330	60%	13,319	4%	1,925	14%	11,394	86%	612	207	406	16,971	5,729	11,242
150.0 and above	12,897	62%	1,930	1%	159	8%	1,771	92%	324	168	157	35,345	18,274	17,071
Quetta District														
All Households														
Non Agri. Households														
Agricultural Households														
Livestock Holders														
Farm Households	653	91%	795	4%	0	0%	795	100%	685	109	576	7,211	1,149	6,062
<1.0acre	0		0	0%	0		0		4,486	270	4,216	698	42	656
1.0-2.5	0		0	0%	0		0		3,609	878	2,730	3,198	778	2,420
2.5-5.0	0		221	7%	0	0%	221	100%	5,993	230	5,763	9,408	360	9,047
5.0-7.5	0		225	23%	0	0%	225	100%	998	8	990	3,389	27	3,362
7.5-12.5	0		35	1%	0	0%	35	100%	1,062	352	709	5,866	1,948	3,918
12.5-25.0	55	100%	68	2%	0	0%	68	100%	1,025	0	1,025	10,852	0	10,852
25.0-50.0	33	100%	246	7%	0	0%	246	100%	562	66	496	11,034	1,294	9,739
50.0-150.0	122	100%	0	0%	0		0		490	45	445	13,259	1,227	12,032
150.0 and above	443	87%	0	0%	0		0		300	139	160	35,176	16,353	18,824
Pishin District														
All Households														
Non Agri. Households														
Agricultural Households														
Livestock Holders														
Farm Households	2,145	63%	1,809	1%	98	5%	1,711	95%	948	211	736	7,775	1,735	6,040
<1.0acre	0		0	0%	0		0		13,235	0	13,235	4,688	0	4,688
1.0-2.5	0		0	0%	0		0		4,511	514	3,997	6,022	686	5,336
2.5-5.0	0		205	2%	0	0%	205	100%	1,512	127	1,385	3,954	333	3,621
5.0-7.5	0		87	0%	0	0%	87	100%	1,637	61	1,576	6,278	234	6,044
7.5-12.5	760	100%	205	1%	19	9%	186	91%	1,195	349	847	8,995	2,036	4,959
12.5-25.0	140	50%	410	1%	70	17%	340	83%	1,124	292	832	9,533	2,474	7,059
25.0-50.0	648	41%	397	1%	0	0%	397	100%	949	276	673	13,441	3,905	9,536
50.0-150.0	557	71%	505	3%	9	2%	496	98%	959	115	244	12,278	3,937	8,340
150.0 and above	40	100%	0	0%	0		0		195	113	82	19,833	11,519	8,315
Kalat District														
All Households														
Non Agri. Households														
Agricultural Households														
Livestock Holders														
Farm Households	26,757	65%	17,229	11%	741	4%	16,488	96%	571	143	428	6,589	1,655	4,934
<1.0acre	0		0		0		0		0	0	0	0	0	0
1.0-2.5	0		702	25%	0	0%	702	100%	1,026	72	953	1,362	96	1,266
2.5-5.0	150	100%	1,685	23%	0	0%	1,685	100%	1,118	0	1,118	3,017	0	3,017
5.0-7.5	601	43%	5,185	30%	0	0%	5,185	100%	1,158	202	956	4,646	812	3,834
7.5-12.5	2,526	89%	1,788	6%	0	0%	1,788	100%	971	305	666	8,434	2,022	4,412
12.5-25.0	5,557	82%	5,015	20%	0	0%	5,015	100%	489	64	425	5,272	693	4,579
25.0-50.0	7,467	83%	2,365	7%	711	30%	1,654	70%	473	86	387	8,773	1,601	7,172
50.0-150.0	5,259	54%	419	2%	0	0%	419	100%	375	137	238	12,736	4,651	8,085
150.0 and above	5,197	47%	70	0%	30	43%	40	57%	480	245	235	57,276	29,233	28,043
Study Area														
All Households														
Non Agri. Households														
Agricultural Households														
Livestock Holders														
Farm Households	29,555	66%	19,833	6%	839	4%	18,994	96%	713	165	548	7,146	1,656	5,489
<1.0acre	0		0	0%	0		0		5,128	213	4,915	920	38	882
1.0-2.5	0		702	4%	0	0%	702	100%	2,894	333	2,561	3,760	432	3,328
2.5-5.0	150	100%	2,111	9%	0	0%	2,111	100%	1,510	78	1,433	3,906	201	3,705
5.0-7.5	601	43%	5,497	13%	0	0%	5,497	100%	1,385	128	1,257	5,403	498	4,905
7.5-12.5	3,286	91%	2,028	3%	19	1%	2,009	99%	1,068	325	743	6,660	2,025	4,635
12.5-25.0	5,752	81%	5,493	8%	70	1%	5,423	99%	741	144	598	7,276	1,410	5,866
25.0-50.0	8,148	77%	3,008	5%	711	24%	2,297	76%	608	137	471	10,432	2,344	8,089
50.0-150.0	5,933	56%	924	2%	9	1%	915	99%	376	129	252	12,603	4,137	8,466
150.0 and above	5,690	49%	70	0%	30	43%	40	57%	369	189	180	41,954	21,529	20,425

Note: Pishin district includes Pishin and Qila Abdullah districts, as well as Kalat district includes Kalat and Mastung district.
Source: 1990 Census of Agriculture, Vol. II Part-4 Baluchistan

Table F.2.3.2
Outline of Agricultural Development Bank of Pakistan

A. Summary of ADBP at Provincial Level in 1994-95 (Rs. million)

Description	Pakistan	Punjab	Sindh	NWFP	Balochistan	Others
Total Loan Portfolio	48,036	29,419	11,392	3,124	2,675	1,426
Total Credit Disbursed	14,576	9,980	3,049	713	623	211
General Credit Disbursed	14,139	9,678	2,942	707	623	189
Project Loan Disbursed	437	302	107	6	0	22
Kisan Banking	7,153	4,629	1,405	599	377	143
Loan to Subsistence Farmers	7,226	4,647	1,352	639	405	183
Tractor Financed	5,030	4,251	666	70	35	8
Awami Tractors	602	373	203	8	12	6
Total Recovery	9,810	7,595	1,226	546	249	194
Cumulative Recovery	90%	92%	89%	82%	68%	
No. of MCOs	1,376	729	315	193	87	52
No. of Regional Offices	51	21	12	9	6	3
No. of Branches	345	154	85	50	39	17
No. of Staff	8,611	3,003	1,638	943	491	2,536

B.1 Number of Branch Office at District Level in 1995-96

	District					Balochistan
	Qila Abdullah	Pishin	Quetta	Mastung	Kalat	Province
Number of Branch Offices	1	1	2	1	1	41

B.2 Condition of Agricultural Loan by Type in 1995-96

Type of Loan	Condition				
	Main Purpose	Loan Period	Max. Amount (Rs. '000)	Mark-up Rate	Remarks
Production Loan	Seasonal farm inputs	6 - 18 months	200/500	14%	
Development Loan	Machinery, Tubewell	5 - 10 years	500/1000	14%	
Medium Term Loan	Livestock, Tubewell	5 years	500/1000	14%	
Long Term Loan	Machinery, Tubewell	8 - 10 years	500/1000	14%	

B.3 Loan Distributed by ADBP in Balochistan Province (Rs. '000)

Type of Loan	Year					Remarks
	1991/92	1992/93	1993/94	1994/95	1995/96*	
Production Loan	31,608	38,629	25,081	76,640	46,924	
Development Loan	167,574	188,189	239,376	532,786	88,516	
Medium Term Loan	25,526	37,283	38,761	69,832	12,884	
Long Term Loan	142,048	150,906	200,615	462,254	75,632	

B.4 Loan Distributed by ADBP by District in 1995-96* (Rs. '000)

Type of Loan	District					Total
	Qila Abdullah	Pishin	Quetta	Mastung	Kalat	
Production Loan		75		155	989	1,219
Development Loan	1,657	5,240	4,291	12,247	3,514	26,949
Short Term Loan			5,569			5,569
Medium Term Loan			113	25	702	840
Long Term Loan	1,657	5,240	419	12,222	2,812	22,350

Remark: * shows tentative figures in 1995-96.

Source: Agricultural Development Bank of Pakistan, Quetta Regional Office

Table F.3.1.1
Monthly Average Wholesale Prices of Agricultural Commodities in Quetta

(Unit: Rs/40kg)

No.	Commodities	Jan. 95	Feb. 95	Mar. 95	Apr. 95	May. 95	Jun. 95	Jul. 95	Aug. 95	Sep. 95	Oct. 95	Nov. 95	Dec. 95	Jan. 96	Feb. 96	Mar. 96	Apr. 96
1	Wheat		170	200	200	260	200	200	200		200			216	215	216	216
2	Wheat Flour (Atta)		234	240	238	240	240	250	243		218			230	232	234	239
3	Maida		290	290	283	280	280	290	290		293			287	286	292	289
4	Suji		308	310	298	310	320	280	285		282			287	291	298	296
5	Rice, Basmati 385	511	498	494	572	530	490	540	547	570	565	570	580	580	599	617	631
6	Rice, IR-6	228	232	247	252	260	290	290	295	315	310	312	316	315	317	318	320
7	Maize		321	330	305	303	300	340	544		332			296	297	277	262
8	Gram, White (Kabli)	957	943	1,258	1,320	1,340	1,335	1,600	1,454	1,065	1,102	1,158	1,257	1,403	1,343	1,177	1,010
9	Gram (Split Washed)	687	663	609	877	880	880	800	803	820	756	750	680	658	661	1,190	1,195
10	Mash (Split Washed)	712	832	924	589	935	820	830	928	1,000	965	882	1,300	1,200	1,185	879	950
11	Lentil (Split Washed) Masor	628	609	600	632	662	560	860	831	840	1,020	712	950	772	847	662	702
12	Mung (Split Washed)	660	646	685	563	555	515	580	718	640	537	607	690	680	680	570	546
13	Rape & Mustard Oil		1,297	1,307	1,394	1,665	1,600	1,640	1,604	1,525	1,588			1,560	1,569	1,538	1,580
14	Chilies, Dry Whole		3,032	3,150	3,113	3,948	2,800	2,950	3,103	3,000	2,467			2,766	2,664	2,583	2,569
15	Turmeric (Haldi)		1,190	1,188	1,461	1,568	1,440	1,200	1,195		1,198			1,233	1,197	1,336	1,639
16	Cumin Seed (Zera) White		1,444	1,520	1,687	1,795	1,295	1,350	1,250	1,145	1,244			1,238	1,543	1,710	1,585
17	Cumin Seed (Zera) Black		3,574	3,687	4,036	4,224	4,060	3,050	3,298		3,937			3,227	3,470	4,070	3,961
18	Garlic	1,058	1,428	1,046	572	588	505	480	409	460	551		718	1,163	1,073	710	561
19	Beef with Bones		1,485	1,608	1,618	1,600	1,460	1,700	1,560		1,500			726	1,600	1,905	2,000
20	Mutton		2,665	2,845	2,818	2,800	2,800	2,900	3,020		3,100			3,100	3,137	3,200	3,250
21	Milk (Buffalo)	472	470	470	472	475	520	580	499	560	540	540	540	540	540	540	540
22	Broiler (Live) *	48	45	48	50	52	42	50	52	53	50	48	47	48	51	56	56
23	Eggs (Farm) **	682	600	547	612	592	410	552	539	470	542	687	762	726	641	569	612
24	Sugar, Refined		506	499	511	542	550	610	582		573			598	645	713	711
25	Gur		353	347	350	340	370	420	473		495			468	480	530	555
26	Pumpkin		212	220							151						
27	Lady Finger	686	539	687	736	358	285	540	293	125	309	435	570	670	907	1,170	808
28	Bitter Gourd			855	632	315	510	555	306	340	321	500		590	1,228	1,165	707
29	Bottle Gourd		246	250	277	225	160	112	125	210	300	297		205	218	214	332
30	Cucumber		588	403	280	305	210	200	134	245	165			538	606	439	295
31	Cabbage	214	200	200	243	345	195	303	354	300	168	223	289	212	129	152	178
32	Tomato	1,140	655	733	300	200	230	230	208	105	89	147	372	288	348	707	517
33	Carrot		74	109	162		360				124			135	162	165	238
34	Turnip without Leaves	112	58	151	128		100			160	114	90	105	138	145	131	177
35	Tinda		312	263	376	300	280				197					400	335
36	Radish		134	154	154	260	180				110			116	156	200	264
37	Cauliflower	216	149	201	303						240		334	242	274	277	449
38	Chilies (Shimla)		1,425	715	558	442	465				363				951	874	708
39	Spinach	141	113	84	80	77	80				105		151	186	191	71	99
40	Gawar Beans		533	548	392		694				246					458	446
41	Beet Root		142	258	371						125			222		222	
42	Brinjal		283	246	258	305	237				92			225	306	255	246
43	Arum (Arvi)		347	356	338		405				346			357	343	347	378
44	Luffa (Turai)				487	906	230				209						597
45	Green Chilies	1,261	2,128	1,324	630		380	400	279	275	372			543	1,097	1,543	629
46	Chilies, Red Grained		3,354	3,486	3,474		3,000	3,100	3,136							2,850	2,817
47	Coriander Leaves		268	212	102		345	273	206	145	137			242	168	157	230
48	Potatoes (White)	170	140	152	175	225	200	250	237	533	329	495	427	307	303	296	303
49	Potatoes (Red)	154	138	159	187	245	240	252	240	605	428	554	399	312	303	340	402
50	Onion (Dry)	239	239	231	146	122	95	124	157	410	210	196	184	172	169	134	143
51	Ginger	1,740	2,627	2,470	1,998	1,750	1,520	1,800	1,768	1,800	1,913	1,997	1,991	2,285	2,342	2,692	2,644
52	Sweat Lemon								244		320						
53	Lime		1,120	1,250	1,290				498		1,090				1,487	1,383	
54	Apple, Mashadi										252						
55	Apple, Golden	871	622	659	1,290	800	860	900	640	205	300	376	412	417	571	609	594
56	Apple, Red										711			952	1,110		
57	Apple, Amri										384			370	577		
58	Banana ***	147	121	127	197	208	135	150	164		144		157	192	189	183	252
59	Grapes (Sandu Khani)								711	590	706						
60	Grapes (Common)								506		555						
61	Grapes (Haita)									525	556	932					
62	Peaches								275	150							
63	Pomegranate (Kandhari)										427	546		634			
64	Pear										210						
65	Dates (Khajoor)	521	548	443	410	400	250	260	298	305	347	398	334	398	560	368	352
66	Persimmon										248						
67	Melon					180	177	185	176	330	367						
68	Water Melon					980	785		1,679		1,132						

Notes: * Prices are in Rs/kg
** Prices are in Rs/30kg
*** Prices are Rs/100dozens

Source: Review of Price Trends of Agricultural Commodities in Balochistan, 1995, Directorate of Agriculture-Balochistan

Table F.3.1.2
Annual Average Wholesale Prices of Agricultural Commodities in Quetta (At Current Prices)

No.	Commodities	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
Crops											
1	Wheat	2,000	2,000	2,250	2,500	2,750	2,750	3,000	3,750	4,000	4,841
2	Rice	5,000	5,000	6,000	6,000	6,000	6,000	6,250	7,000	12,800	13,855
3	Jowar	2,250	2,250	2,500	3,000	3,000	3,000	3,125	3,625	4,000	4,800
4	Barley	2,250	2,250	2,500	3,000	3,000	3,000	3,250	3,750	4,000	4,000
5	Maize	2,500	3,000	3,000	3,000	3,000	3,000	3,250	3,750	4,000	4,050
6	Gram	8,000	5,000	8,000	8,000	8,125	8,125	8,250	9,000	9,000	12,000
7	Matter Pulse	7,500	7,500	7,500	8,750	10,000	10,000	10,250	10,750	11,000	13,245
8	Masoor	10,000	8,750	10,000	11,250	11,250	11,250	11,250	12,000	15,250	16,895
9	Mung	7,500	7,000	7,500	10,000	11,250	11,250	11,250	12,000	14,800	16,085
10	Mash	8,000	8,750	10,000	11,250	11,250	11,250	11,250	12,000	14,400	21,922
11	Moth	8,000	8,000	8,000	8,125	8,125	8,125	8,250	9,000	9,000	13,500
12	Bajra	3,000	3,000	3,000	3,000	3,000	3,000	3,250	3,750	4,000	4,800
13	Rape/Mustard	5,000	5,000	5,000	5,000	5,625	5,625	5,750	6,250	6,250	7,500
14	Sesame	10,000	10,000	8,000	11,250	11,250	11,250	12,500	13,000	14,000	15,365
15	Caster Seed	5,000	5,000	5,000	5,000	6,250	6,300	6,250	7,000	7,000	10,000
16	Cumin	15,000	25,000	25,000	30,000	22,000	22,500	25,000	25,000	25,000	31,500
17	Fodder	375	375	300	375	375	390	500	625	700	750
18	Onion	2,000	2,000	2,000	2,000	2,250	2,250	2,500	3,750	5,000	4,610
19	Potato	2,000	2,250	2,500	2,500	2,500	2,500	2,500	3,500	4,000	6,545
20	Water Melon	1,000	1,000	1,000	1,500	1,500	1,550	2,000	2,500	3,000	3,373
21	Musk Melon	2,000	2,250	2,500	2,500	2,500	2,575	2,750	3,000	3,000	5,100
22	Sarda	2,000	2,500	2,500	3,000	3,125	3,150	3,250	3,750	4,000	5,000
23	Ganna	2,000	2,000	2,500	3,000	3,125	3,140	3,250	3,750	6,000	7,000
24	Cucumber	2,000	2,250	2,250	2,500	2,500	2,500	3,000	3,750	3,750	4,000
25	Chili	10,000	12,000	12,500	37,500	30,000	30,000	30,000	30,000	30,000	35,000
26	Corriander	8,750	10,000	10,000	12,500	12,500	12,700	12,750	13,000	4,700	5,625
27	Garlic	10,500	11,250	8,000	12,500	13,000	13,300	13,750	14,000	15,600	16,331
28	Guar Seed	3,000	3,125	3,000	3,125	2,000	2,050	2,250	2,500	2,500	3,750
29	Tobacco	5,000	6,250	6,250	7,500	10,000	10,000	11,250	11,750	11,750	15,000
30	Sugarcane	875	875	2,000	1,500	1,500	1,500	2,000	2,500	2,800	3,500
31	Cotton	6,250	7,500	7,500	7,750	10,000	10,000	11,250	11,750	12,000	15,000
Fruits											
1	Armond	22,500	33,993	24,383	40,000	37,250	40,500	56,250	62,500	62,500	67,500
2	Apple	7,500	7,500	8,000	10,000	10,000	10,000	10,000	15,000	15,000	12,140
3	Apricot	3,000	4,000	6,000	5,000	6,000	6,000	6,500	8,750	8,750	9,444
4	Cherry	22,500	25,000	40,000	45,000	50,000	50,000	60,000	62,500	62,500	65,000
5	Citrus	2,000	3,000	3,000	3,000	3,000	3,000	3,250	3,750	3,750	6,020
6	Dates	3,750	4,000	6,000	7,500	8,000	8,000	9,000	9,250	9,650	9,725
7	Fig	7,000	4,000	6,000	10,000	10,000	10,000	10,250	10,750	11,000	16,500
8	Grape	5,000	5,000	8,000	10,000	10,000	10,000	10,250	11,250	12,000	16,883
9	Guava	2,000	3,250	5,000	3,750	4,000	4,000	4,500	5,000	5,000	5,200
10	Loquat	3,000	4,250	5,000	5,000	10,000	10,300	10,500	11,250	11,250	16,875
11	Mango	5,000	6,000	8,000	8,000	8,000	8,000	9,000	9,500	11,250	14,625
12	Peach	3,000	4,000	6,000	7,500	7,500	7,500	7,750	8,250	8,250	9,300
13	Pear	3,000	4,000	6,000	8,000	8,000	8,000	8,000	8,750	8,750	6,400
14	Pistachio	35,000	40,000	60,000	60,000	60,000	60,500	62,500	90,000	100,000	10,000
15	Plum	3,000	3,250	6,000	6,000	6,000	6,000	6,500	7,000	7,000	6,867
16	Pomegranate	5,000	5,250	8,000	8,000	6,000	6,000	6,500	7,000	7,000	9,650
17	Papaya	5,000	6,250	7,000	8,000	8,000	8,000	8,500	9,000	9,000	13,500
18	Chikoo	10,000	8,750	9,000	10,000	10,000	10,500	10,750	11,250	12,000	18,000
19	Other Fruits	5,000	5,000	5,000	6,250	6,000	6,000	6,250	6,750	6,750	9,825
Vegetables											
1	Okra	3,750	3,750	3,750	3,750	4,500	4,550	5,000	6,000	6,950	6,100
2	Tinda	2,500	2,500	2,500	2,750	3,000	3,000	3,750	4,000	8,500	6,593
3	Brinjal	2,500	2,500	2,500	2,500	3,000	3,000	3,250	3,500	3,750	4,600
4	Bitter Gourd	4,000	3,750	3,750	4,000	5,000	5,050	5,500	5,850	15,000	11,300
5	Bottle Gourd	3,125	3,250	3,250	3,500	4,000	4,080	4,250	4,500	5,000	5,952
6	Pumpkin	3,125	3,250	3,250	3,250	3,750	3,800	4,000	4,250	4,250	4,112
7	Tomato	2,000	2,000	2,000	2,500	2,750	2,800	4,000	7,500	7,000	10,140
8	Luffa	2,500	2,500	2,500	3,000	3,500	3,600	3,750	4,250	10,000	8,250
9	Cabbage	4,000	3,750	3,750	3,750	4,250	4,280	4,500	5,000	3,750	6,425
10	Carrot	1,000	1,500	1,500	1,500	2,000	2,060	2,250	2,500	2,500	4,050
11	Cauliflower	3,750	3,750	3,750	3,750	4,000	4,020	4,250	4,750	4,750	7,750
12	Peas	4,000	4,000	4,000	4,500	5,500	5,550	6,000	7,500	7,500	7,500
13	Radish	1,000	1,500	1,500	1,500	2,000	2,060	2,250	2,500	2,500	3,575
14	Spinash	1,000	2,000	2,000	2,000	2,000	2,080	2,250	2,500	2,500	2,463
15	Turnip	1,000	1,500	1,500	1,500	2,000	2,050	2,250	2,500	3,000	2,904
16	Beet Root	2,000	1,500	1,500	1,500	2,000	2,000	2,500	3,000	3,000	4,342
17	Broad Bean (Baqla)	4,000	3,000	3,000	3,000	3,750	3,800	4,000	4,500	4,500	6,850
18	Other Vegetables	2,000	1,500	1,500	1,750	2,000	2,000	2,250	2,500	3,000	4,500

Source: Agricultural Statistics of Balochistan

Table F.3.1.2
Annual Average Wholesale Prices of Agricultural Commodities in Quetta (At 1994-95 Constant Prices)

No.	Commodities	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	Average	1995-96
Crops		(137.57)	(142.52)	(151.49)	(167.23)	(177.33)	(199.78)	(218.99)	(239.26)	(266.00)	(300.37)		
1	Wheat	4,367	4,215	4,461	4,490	4,658	4,135	4,115	4,708	4,517	4,841	4,467	4,950
2	Rice	10,917	10,538	11,897	10,777	10,163	9,021	8,573	8,788	14,454	13,855	11,281	12,500
3	Jowar	4,913	4,742	4,957	5,388	5,082	4,511	4,286	4,551	4,517	4,800	4,797	5,320
4	Barley	4,913	4,742	4,957	5,388	5,082	4,511	4,458	4,708	4,517	4,000	4,717	5,230
5	Maize	5,458	6,323	5,948	5,388	5,082	4,511	4,458	4,708	4,517	4,050	5,113	5,670
6	Gram	17,467	10,538	15,862	14,369	13,763	12,216	11,316	11,299	10,163	12,000	12,989	14,400
7	Matter Pulse	16,375	15,807	14,871	15,716	16,938	15,035	14,059	13,496	12,421	13,245	14,621	16,210
8	Masoor	21,834	18,441	19,828	20,207	19,056	16,914	15,431	15,065	17,220	16,895	18,301	20,280
9	Mung	16,375	14,753	14,871	17,961	19,056	16,914	15,431	15,065	16,712	16,085	16,092	17,840
10	Mash	17,467	18,441	19,828	20,207	19,056	16,914	15,431	15,065	16,261	21,922	18,263	20,240
11	Moth	17,467	16,861	15,862	14,594	13,763	12,216	11,316	11,299	10,163	13,500	13,995	15,510
12	Bajra	6,550	6,323	5,948	5,388	5,082	4,511	4,458	4,708	4,517	4,800	5,343	5,920
13	Rape/Mustard	10,917	10,538	9,914	8,981	9,528	8,457	7,887	7,846	7,058	7,500	8,901	9,870
14	Sesame	21,834	21,076	15,862	20,207	19,056	16,914	17,145	16,320	15,809	15,365	17,923	19,870
15	Caster Seed	10,917	10,538	9,914	8,981	10,587	9,472	8,573	8,788	7,904	10,000	9,564	10,600
16	Cumin	32,751	52,689	49,569	53,884	37,265	33,829	34,290	31,385	28,230	31,500	39,230	43,480
17	Fodder	819	790	595	674	635	586	686	785	790	750	724	800
18	Onion	4,367	4,215	3,966	3,592	3,811	3,383	3,429	4,708	5,646	4,610	4,311	4,780
19	Potato	4,367	4,742	4,957	4,490	4,235	3,759	3,429	4,394	4,517	6,545	4,721	5,230
20	Water Melon	2,183	2,108	1,983	2,694	2,541	2,330	2,743	3,139	3,388	3,373	2,650	2,940
21	Musk Melon	4,367	4,742	4,957	4,490	4,235	3,872	3,772	3,766	3,388	5,100	4,335	4,800
22	Sarda	4,367	5,269	4,957	5,388	5,293	4,736	4,458	4,708	4,517	5,000	4,868	5,400
23	Ganna	4,367	4,215	4,957	5,388	5,293	4,721	4,458	4,708	6,775	7,000	5,266	5,840
24	Cucumber	4,367	4,742	4,461	4,490	4,235	3,759	4,115	4,708	4,235	4,000	4,345	4,820
25	Chili	21,834	25,291	24,785	67,356	50,815	45,105	41,148	37,662	33,876	35,000	36,364	40,300
26	Corriander	19,105	21,076	19,828	22,452	21,173	19,094	17,488	16,320	5,307	5,625	16,101	17,850
27	Garlic	22,926	23,710	15,862	22,452	22,020	19,997	18,860	17,576	17,616	16,331	19,559	21,680
28	Guar Seed	6,550	6,586	5,948	5,613	3,388	3,082	3,086	3,139	2,823	3,750	4,686	5,190
29	Tobacco	10,917	13,172	12,392	13,471	16,938	15,035	15,431	14,751	13,268	15,000	13,501	14,960
30	Sugarcane	1,910	1,844	3,966	2,694	2,541	2,255	2,743	3,139	3,162	3,500	2,809	3,110
31	Cotton	13,646	15,807	14,871	13,920	16,938	15,035	15,431	14,751	13,551	15,000	14,573	16,150
Fruits													
1	Armond	49,126	71,642	48,346	71,846	63,096	60,692	77,153	78,463	70,576	67,500	64,799	71,820
2	Apple	16,375	15,807	15,862	17,961	16,938	15,035	13,716	18,831	16,938	12,140	16,119	17,870
3	Apricot	6,550	8,430	11,897	8,981	10,163	9,021	8,915	10,985	9,881	9,444	9,399	10,420
4	Cherry	49,126	52,689	79,311	80,827	84,692	75,175	82,297	78,463	70,576	65,000	68,896	76,360
5	Citrus	4,367	6,323	5,948	5,388	5,082	4,511	4,458	4,708	4,235	6,020	5,187	5,750
6	Dates	8,188	8,430	11,897	13,471	12,551	12,028	12,345	11,613	10,897	9,725	10,781	11,950
7	Fig	15,284	8,430	11,897	17,961	16,938	15,035	14,059	13,496	12,421	16,500	13,878	15,380
8	Grape	10,917	10,538	15,862	17,961	16,938	15,035	14,059	14,123	13,551	16,883	14,359	15,910
9	Guava	4,367	6,850	9,914	6,736	6,775	6,014	6,172	6,277	5,646	5,200	6,375	7,070
10	Loquat	6,550	8,957	9,914	8,981	16,938	15,486	14,402	14,123	12,704	16,875	11,699	12,970
11	Mango	10,917	12,645	15,862	14,369	13,551	12,028	12,345	11,926	12,704	14,625	13,135	14,560
12	Peach	6,550	8,430	11,897	13,471	12,704	11,276	10,630	10,557	9,316	9,300	10,075	11,170
13	Pear	6,550	8,430	11,897	14,369	13,551	12,028	10,973	10,985	9,881	6,400	10,057	11,160
14	Pistachio	76,419	84,303	118,966	107,769	101,631	90,962	85,726	112,987	112,921	10,000	89,291	98,970
15	Plum	6,550	6,850	11,897	10,777	10,163	9,021	8,915	8,788	7,904	6,867	8,582	9,510
16	Pomegranate	10,917	11,065	15,862	14,369	10,163	9,021	8,915	8,788	7,904	9,650	10,947	12,130
17	Papaya	10,917	13,172	13,879	14,369	13,551	12,028	11,659	11,299	10,163	13,500	12,416	13,760
18	Chikoo	21,834	18,441	17,845	17,961	16,938	15,787	14,745	14,123	13,551	18,000	17,193	19,060
19	Other Fruits	10,917	10,538	9,914	11,226	10,163	9,021	8,573	8,474	7,622	9,825	9,692	10,740
Vegetables													
1	Okra	8,188	7,903	7,435	6,736	7,622	6,841	6,858	7,532	7,848	6,100	7,323	8,120
2	Tinda	5,458	5,269	4,957	4,939	5,082	4,511	5,144	5,022	9,598	6,593	5,793	6,420
3	Brinjal	5,458	5,269	4,957	4,490	5,082	4,511	4,458	4,394	4,235	4,600	4,739	5,250
4	Bitter Gourd	8,734	7,903	7,435	7,185	8,469	7,593	7,544	7,344	16,938	11,300	9,304	10,310
5	Bottle Gourd	6,823	6,850	6,444	6,287	6,775	6,134	5,829	5,649	5,646	5,952	6,223	6,900
6	Pumpkin	6,823	6,850	6,444	5,837	6,352	5,713	5,486	5,336	4,799	4,112	5,739	6,360
7	Tomato	4,367	4,215	3,966	4,490	4,658	4,210	5,486	9,416	7,904	10,140	6,088	6,750
8	Luffa	5,458	5,269	4,957	5,388	5,928	5,413	5,144	5,336	11,292	8,250	6,420	7,120
9	Cabbage	8,734	7,903	7,435	6,736	7,199	6,435	6,172	6,277	4,235	6,425	6,772	7,510
10	Carrot	2,183	3,161	2,974	2,694	3,388	3,097	3,086	3,139	2,823	4,050	3,015	3,340
11	Cauliflower	8,188	7,903	7,435	6,736	6,775	6,044	5,829	5,963	5,364	7,750	6,923	7,670
12	Peas	8,734	8,430	7,931	8,083	9,316	8,344	8,230	9,416	8,469	7,500	8,363	9,270
13	Radish	2,183	3,161	2,974	2,694	3,388	3,097	3,086	3,139	2,823	3,575	2,956	3,280
14	Spinash	2,183	4,215	3,966	3,592	3,388	3,127	3,086	3,139	2,823	2,463	3,189	3,530
15	Turnip	2,183	3,161	2,974	2,694	3,388	3,082	3,086	3,139	3,388	2,904	2,941	3,260
16	Beet Root	4,367	3,161	2,974	2,694	3,388	3,007	3,429	3,766	3,388	4,342	3,462	3,840
17	Broad Bean (Baqla)	8,734	6,323	5,948	5,388	6,352	5,713	5,486	5,649	5,081	6,850	6,211	6,880
18	Other Vegetables	4,367	3,161	2,974	3,143	3,388	3,007	3,086	3,139	3,388	4,500	3,460	3,830

Source: Agricultural Statist

Table F.3.2.1
Crop Budget Per Hectare (1/5)
Wheat

Item	Description	Value, Market Price (Rs/ha)
Cost		
1. Land preparation		
a) Ploughing and leveling	5 hours rent of tractor, @ Rs 100/hr	500
b) Labor (Family)	2 man-day, @ Rs 50/man-day	100
c) Labor (Hired)	3 man-day, @ Rs 50/man-day	150
2. Seed		
a) Seed	110 kg/ha, @ Rs 4/kg	440
b) Labor (Family)	2 man-day, @ Rs 50/man-day	100
c) Labor (Hired)	2 man-day, @ Rs 50/man-day	100
3. Fertilizer		
a) Farm yard manure	5 truck load every 3 years, @ Rs 700/truck	1,170
b) Fertilizer application	2.5 Urea, @Rs336	840
	2 DAP, @Rs567	1,134
c) Labor (Family)	5 man-day, @ Rs 50	250
d) Labor (Hired)	0 man-day, @ Rs 50	0
4. Irrigation		
a) Labor (Family)	8 man-day, @ Rs 50	400
b) Labor (Hired)	10 man-day, @ Rs 50	500
5. Weeding, earthing, hoeing, etc.		
a) Labor (Family)	6 man-day, @ Rs 50	300
b) Labor (Hired)	6 man-day, @ Rs 50	0
6. Plant protection		
a) Chemicals		750
b) Labor (Family)	1 man-day, @ Rs 50	50
c) Labor (Hired)	0 man-day, @ Rs 50	0
7. Harvesting		
a) Labor (Family)	10 man-day, @ Rs 50	500
c) Labor (Hired)	15 man-day, @ Rs 50	750
b) Threshing	2500kg/ha * 3 kg/40kg, @ Rs 4/kg	750
8. Miscellaneous		800
Total Cost of Production		9,584
Gross Return		12,813
a) Seed	2500 kg/ha, @ Rs 4/kg	10,000
b) Wheat straw	3750 kg/ha, @ Rs 0.75/kg	2,813
Net Return		3,229

Source: Agriculture Department, Balochistan

Table F.3.2.1
Crop Budget Per Hectare (2/5)
Onion

Item	Description	Value, Market Price (Rs/ha)
Cost		
1. Land preparation		
a) Ploughing and leveling	5 hours, @Rs100/hour	500
b) Labor (Family)	7 man-day, @Rs50	350
c) Labor (Hired)	5 man-day, @Rs50/man-day	250
2. Seed		
a) Seed	30 kg, @200	6,000
b) Labor (Family)	2 man-day, @50	100
c) Labor (Hired)	0 man-day, @50	0
3. Fertilizer		
a) Farm yard manure	5 truck load every 3 years, @Rs700/truck	1,170
b) Fertilizer application	2.5 Urea, @Rs336	840
	2 DAP, @Rs567	1,134
c) Labor (Family)	5 man-day, @ Rs 50	250
d) Labor (Hired)	0 man-day, @ Rs 50	0
4. Irrigation		
a) Water fee	15 time, @Rs550	8,250
b) Labor (Family)	10 man-day, @Rs50	500
c) Labor (Hired)	20 man-day, @Rs50	1,000
5. Weeding, earthing, hoeing, etc.		
a) Labor (Family)	20 man-day, @Rs50	1,000
b) Labor (Hired)	30 man-day, @Rs50	1,500
6. Plant protection		
a) Chemicals		750
b) Labor (Family)	5 man-day, @Rs50	250
c) Labor (Hired)	3 man-day, @Rs50	150
7. Harvesting & Drying		
a) Labor (Family)	20 man-day, @50	1,000
c) Labor (Hired)	20 man-day, @50	1,000
8. Miscellaneous		3,000
Total Cost of Production		28,994
Gross Return	22000kg/ha, @Rs3.48/kg	76,560
Net Return		47,566

Source: Agriculture Department, Balochistan

Table F.3.2.1
Crop Budget Per Hectare (3/5)
Tomato

Item	Description	Value, Market Price (Rs/ha)
Cost		
1. Land preparation		
a) Ploughing and leveling	5 hours, @Rs100	500
b) Labor (Family)	6 man-day, @Rs50	300
c) Labor (Hired)	4 man-day, @Rs50	200
2. Seed		
a) Seed	1.5 kg, @Rs800	1,200
b) Labor (Family)	6 man-day, @Rs50	300
c) Labor (Hired)	6 man-day, @Rs50	300
3. Fertilizer		
a) Farm yard manure	2 truck load every 3 years, @Rs700	1,170
b) Fertilizer application	2.5 Urea, @Rs336	840
	2 DAP, @Rs567	1,134
c) Labor (Family)	6 man-day, @Rs50	300
d) Labor (Hired)	2 man-day, @Rs50	100
4. Irrigation		
a) Water fee	10 time, @Rs550	5,500
b) Labor (Family)	15 man-day, @Rs50	750
c) Labor (Hired)	20 man-day, @Rs50	1,000
5. Weeding, earthing, hoeing, etc.		
a) Labor (Family)	5 man-day, @Rs50	250
b) Labor (Hired)	0 man-day, @Rs50	0
6. Farming materials		
a) Sticking & Lope		5,000
7. Plant protection		
a) Chemicals		750
b) Labor (Family)	8 man-day, @Rs50	400
c) Labor (Hired)	0 man-day, @Rs50	0
8. Harvesting & packing		
a) Labor (Family)	30 man-day, @Rs50	1,500
c) Labor (Hired)	20 man-day, @Rs50	1,000
9. Miscellaneous		3,000
Total Cost of Production		25,494
Gross Return	15000kg/ha, @Rs5.1/kg	76,500
Net Return		51,006

Source: Agriculture Department, Balochistan

Table F.3.2.1
Crop Budget Per Hectare (4/5)
Fodder

Item	Description	Value, Market Price (Rs/ha)
Cost		
1. Land preparation		
a) Ploughing and leveling	5 hours, @Rs100/hour	500
b) Labor (Family)	2 man-day, @ Rs 50/man-day	100
c) Labor (Hired)	3 man-day, @ Rs 50/man-day	150
2. Seed		
a) Seed	100 kg, @Rs3/kg	300
b) Labor (Family)	2 man-day, @ Rs 50/man-day	100
c) Labor (Hired)	2 man-day, @ Rs 50/man-day	100
3. Fertilizer		
a) Farm yard manure	0 truck loads, @Rs700/truck	0
b) Fertilizer application	0 Urea, @Rs336	0
	0 DAP, @Rs567	0
c) Labor (Family)	0 man-day, @ Rs 50	0
d) Labor (Hired)	0 man-day, @ Rs 50	0
4. Irrigation		
a) Labor (Family)	5 man-day, @Rs50/man-day	250
b) Labor (Hired)	5 man-day, @Rs50/man-day	250
5. Weeding, earthing, hoeing, etc.		
a) Labor (Family)	0 man-day, @Rs50/man-day	0
b) Labor (Hired)	0 man-day, @Rs50/man-day	0
6. Plant protection		
a) Chemicals		0
b) Labor (Family)	0 man-day, @Rs50/man-day	0
c) Labor (Hired)	0 man-day, @Rs50/man-day	0
7. Harvesting		
a) Labor (Family)	10 man-day, @Rs50/man-day	500
c) Labor (Hired)	12 man-day, @Rs50/man-day	600
8. Miscellaneous		600
Total Cost of Production		3,450
Gross Return	Production 26000kg/ha, @0.42/kg	10,920
Net Return		7,470

Source: Agriculture Department, Balochistan

Table F.3.2.1
Crop Budget Per Hectare (5/5)

Apple

(Unit: Rs./ha)

Item	Description	1 year	2 year	3 year	4 year	5 year	6 year	7 year	8 year	9 year	10 year	11 year	12 year	13-40 year	Average, Market Price
Land Preparation		20,300	0	0	0	0	0	0	0	0	0	0	0	0	508
Ploughing	10 hours, @Rs210/hr	2,100													53
Pit Making															
Labor (Family)	10 mandays, @Rs100/md	1,000													25
Labor (Hired)	10 mandays, @Rs100/md	1,000													25
Tree Plantation	120 tree/ha, @Rs40/tree	4,800													120
Labor (Family)	10 mandays, @Rs100/md	900													23
Labor (Hired)	6 mandays, @Rs100/md	600													15
Farm Yard Manure	12 truck load, @Rs700/truc	8,400													210
Labor (Family)	9 mandays, @Rs100/md	900													23
Labor (Hired)	6 mandays, @Rs100/md	600													15
Fertilizer		0	1,798	1,798	3,595	3,595	3,595	3,595	3,595	3,595	3,595	3,595	3,595	3,595	3,415
DAP	3 bag, @Rs567/bag(50kg)		851	851	1,701	1,701	1,701	1,701	1,701	1,701	1,701	1,701	1,701	1,701	1,616
Urea	4 bag, @Rs336/bag		672	672	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,344	1,277
Transportation			25	25	50	50	50	50	50	50	50	50	50	50	48
Labor (Family)	5 mandays, @Rs100/md		250	250	500	500	500	500	500	500	500	500	500	500	475
Labor (Hired)	0 mandays, @Rs100/md														0
Irrigation		7,750	7,750	7,750	7,750	7,750	7,750	7,750	7,750	7,750	7,750	7,750	7,750	7,750	7,750
Water Charge	5 times, @Rs750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750
Labor (Family)	20 mandays, @Rs100/md	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Labor (Hired)	20 mandays, @Rs100/md	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Plant Protection		0	0	0	1,250	1,250	1,250	1,250	2,500	2,500	2,500	2,500	2,500	2,500	2,188
Chemicals	1500/year				750	750	750	750	1,500	1,500	1,500	1,500	1,500	1,500	1,313
Labor (Family)	10 mandays, @Rs100/md				500	500	500	500	1,000	1,000	1,000	1,000	1,000	1,000	875
Labor (Hired)	0 mandays, @Rs100/md														0
Training & Pruning		0	0	0	500	500	500	500	500	500	500	500	500	500	463
Labor (Family)	0 mandays, @Rs100/md				500	500	500	500	500	500	500	500	500	500	463
Labor (Hired)	5 mandays, @Rs100/md														0
Picking & Harvesting		0	0	0	0	0	0	0	2,500	3,000	3,500	4,000	4,500	5,000	3,938
Labor (Family)	20 mandays, @Rs100/md								2,000	2,000	2,000	2,000	2,000	2,000	1,650
Labor (Hired)	30 mandays, @Rs100/md								500	1,000	1,500	2,000	2,500	3,000	2,288
Miscellaneous		3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Total Cost of Production		31,050	12,548	12,548	16,095	16,095	16,095	16,095	19,845	20,345	20,845	21,345	21,845	22,345	21,260
Gross Return	@12.2 Rs/kg	0	0	0	0	0	0	0	61,000	85,400	122,000	158,600	176,900	189,100	147,488
Production (kg)		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*5,000*	*7,000*	*10,000*	*13,000*	*14,500*	*15,500*	
Net Return		-31,050	-12,548	-12,548	-16,095	-16,095	-16,095	-16,095	41,155	65,055	101,155	137,255	155,055	166,755	126,207

Source: Agriculture Department, Balochistan

Table F.3.3.1
Wholesale Price, Marketing Cost and Farm Gate Price (1/4)

Wholesale Price, Marketing Cost and Farmgate Price
Apple

Item	Description	Amount (Rs/ton)
Wholesale Price		**17,870**
Marketing Cost		**5,649**
Transport and Handling Cost		210
Transportation	Rs. 2.47/km/ton * 40km	99
Handling charge	Rs.2/crate, 18kg/crate	111
Container and Packing		2,222
Container	Rs.20/crate, 18kg/crate	1,111
Packing material	Rs.10/crate	556
Labor charge	Rs.10/crate	556
Commission Charge	10% of price	1,787
Octroi	3% of price	536
Miscellaneous	5% of price	894
Farmgate Price		**12,221**

Source: Agriculture Department, Balochistan

Apricot

Item	Description	Amount (Rs/ton)
Wholesale Price		**10,420**
Marketing Cost		**5,174**
Transport and Handling Cost		299
Transportation	Rs. 2.47/km/ton * 40km	99
Handling charge	Rs.2/crate, 10kg/crate	200
Container and Packing		3,000
Container	Rs.20/crate, 10kg/crate	2,000
Packing material		0
Labor charge	Rs.10/crate	1,000
Commission Charge	10% of price	1,042
Octroi	3% of price	313
Miscellaneous	5% of price	521
Farmgate Price		**5,246**

Source: Agriculture Department, Balochistan

Table F.3.3.1
Wholesale Price, Marketing Cost and Farm Gate Price (2/4)

Grape

Item	Description	Amount (Rs/ton)
Wholesale Price		**15,910**
Marketing Cost		**6,963**
Transport and Handling Cost		349
Transportation	Rs. 2.47/km/ton * 40km	99
Handling charge	Rs.2/crate, 8kg/crate	250
Container and Packing		3,750
Container	Rs.20/crate, 8kg/crate	2,500
Packing material		0
Labor charge	Rs.10/crate	1,250
Commission Charge	10% of price	1,591
Octroi	3% of price	477
Miscellaneous	5% of price	796
Farmgate Price		**8,947**

Source: Agriculture Department, Balochistan

Onion

Item	Description	Amount (Rs/ton)
Wholesale Price		**4,780**
Marketing Cost		**1,299**
Transport and Handling Cost		139
Transportation	Rs. 2.47/km/ton * 40km	99
Handling charge	Rs.4/Bag, 100kg/bag	40
Container and Packing		300
Container	Rs.25/bag, 100kg/bag	250
Packing material		0
Labor charge	Rs.5/bag	50
Commission Charge	10% of price	478
Octroi	3% of price	143
Miscellaneous	5% of price	239
Farmgate Price		**3,481**

Source: Agriculture Department, Balochistan

Table F.3.3.1
Wholesale Price, Marketing Cost and Farm Gate Price (3/4)

Melon (Watermelon)

Item	Description	Amount (Rs/ton)
Wholesale Price		**2,940**
Marketing Cost		**968**
Transport and Handling Cost		139
Transportation	Rs. 2.47/km/ton * 40km	99
Handling charge	Rs.4/Bag, 100kg/bag	40
Container and Packing		300
Container	Rs.25/bag, 100kg/bag	250
Packing material		0
Labor charge	Rs.5/bag	50
Commission Charge	10% of price	294
Octroi	3% of price	88
Miscellaneous	5% of price	147
Farmgate Price		**1,972**

Source: Agriculture Department, Balochistan

Tomato

Item	Description	Amount (Rs/ton)
Wholesale Price		**6,750**
Marketing Cost		**1,654**
Transport and Handling Cost		139
Transportation	Rs. 2.47/km/ton * 40km	99
Handling charge	Rs.4/Bag, 100kg/bag	40
Container and Packing		300
Container	Rs.25/bag, 100kg/bag	250
Packing material		0
Labor charge	Rs.5/bag	50
Commission Charge	10% of price	675
Octroi	3% of price	203
Miscellaneous	5% of price	338
Farmgate Price		**5,096**

Source: Agriculture Department, Balochistan

Table F.3.3.1
Wholesale Price, Marketing Cost and Farm Gate Price (4/4)
Cumin

Item	Description	Amount (Rs/ton)
Wholesale Price		**43,480**
Marketing Cost		**8,265**
Transport and Handling Cost		139
Transportation	Rs. 2.47/km/ton * 40km	99
Handling charge	Rs.4/Bag, 100kg/bag	40
Container and Packing		300
Container	Rs.25/bag, 100kg/bag	250
Packing material		0
Labor charge	Rs.5/bag	50
Commission Charge	10% of price	4,348
Octroi	3% of price	1,304
Miscellaneous	5% of price	2,174
Farmgate Price		**35,215**

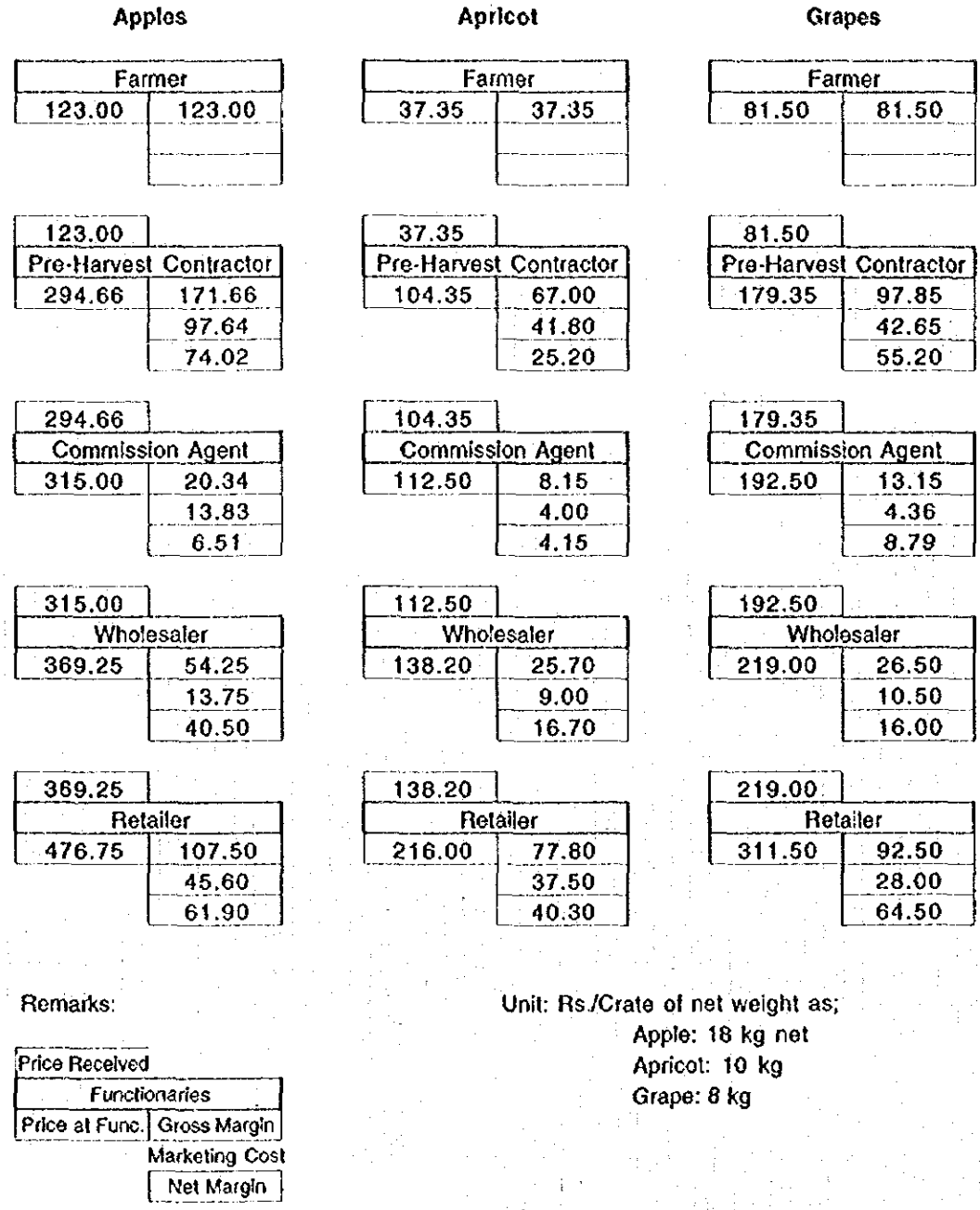
Source: Agriculture Department, Balochistan

Fodder

Item	Description	Amount (Rs/ton)
Wholesale Price		**800**
Marketing Cost		**383**
Transport and Handling Cost		139
Transportation	Rs. 2.47/km/ton * 40km	99
Handling charge	Rs.4/100kg	40
Container and Packing		100
Container	Rs.5/100kg	50
Packing material		0
Labor charge	Rs.5/100kg	50
Commission Charge	10% of price	80
Octroi	3% of price	24
Miscellaneous	5% of price	40
Farmgate Price		**417**

Source: Agriculture Department, Balochistan

Prices, Marketing Costs and Margins in Fruit Marketing Channel in Rupee/Crate



Remarks:

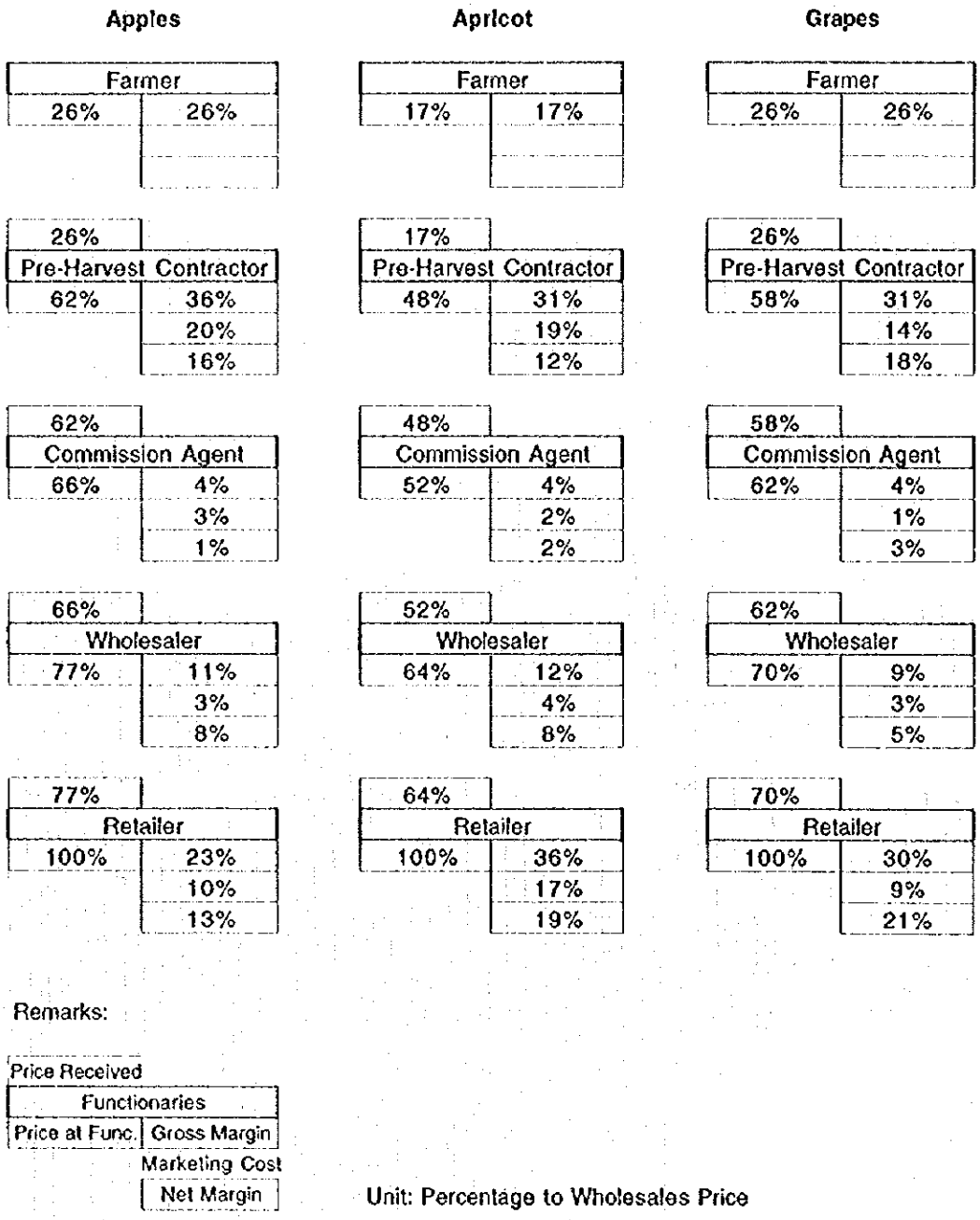
Price Received
Functionaries
Price at Func. | Gross Margin
Marketing Cost
Net Margin

Unit: Rs./Crate of net weight as;
Apple: 18 kg net
Apricot: 10 kg
Grape: 8 kg

Source: Outreach and Trasfer of Fruit Technology in Balochistan, Marketing Costs and Margins of Deciduous Fruits (Apples, Apricots & Grapes) in Balochistan, FAO & Department of Agriculture and Cooperative, 1994

Fig. F.2.4.1
Prices, Marketing Costs and Margins in Fruit Marketing Channel (In Rupee/Crate)

Prices, Marketing Costs and Margins in Fruit Marketing Channel in Percentage of Wholesale Price



Remarks:

Unit: Percentage to Wholesales Price

Source: Outreach and Trasfer of Fruit Technology in Balochistan, Marketing Costs and Margins of Decidduous Fruits (Apples, Apricots & Grapes) in Balochistan, FAO & Department of Agriculture and Cooperative, 1994

Fig. F.2.4.1
Prices, Marketing Costs and Margins in Fruit Marketing Channel (In Percentage of Wholesale Price)

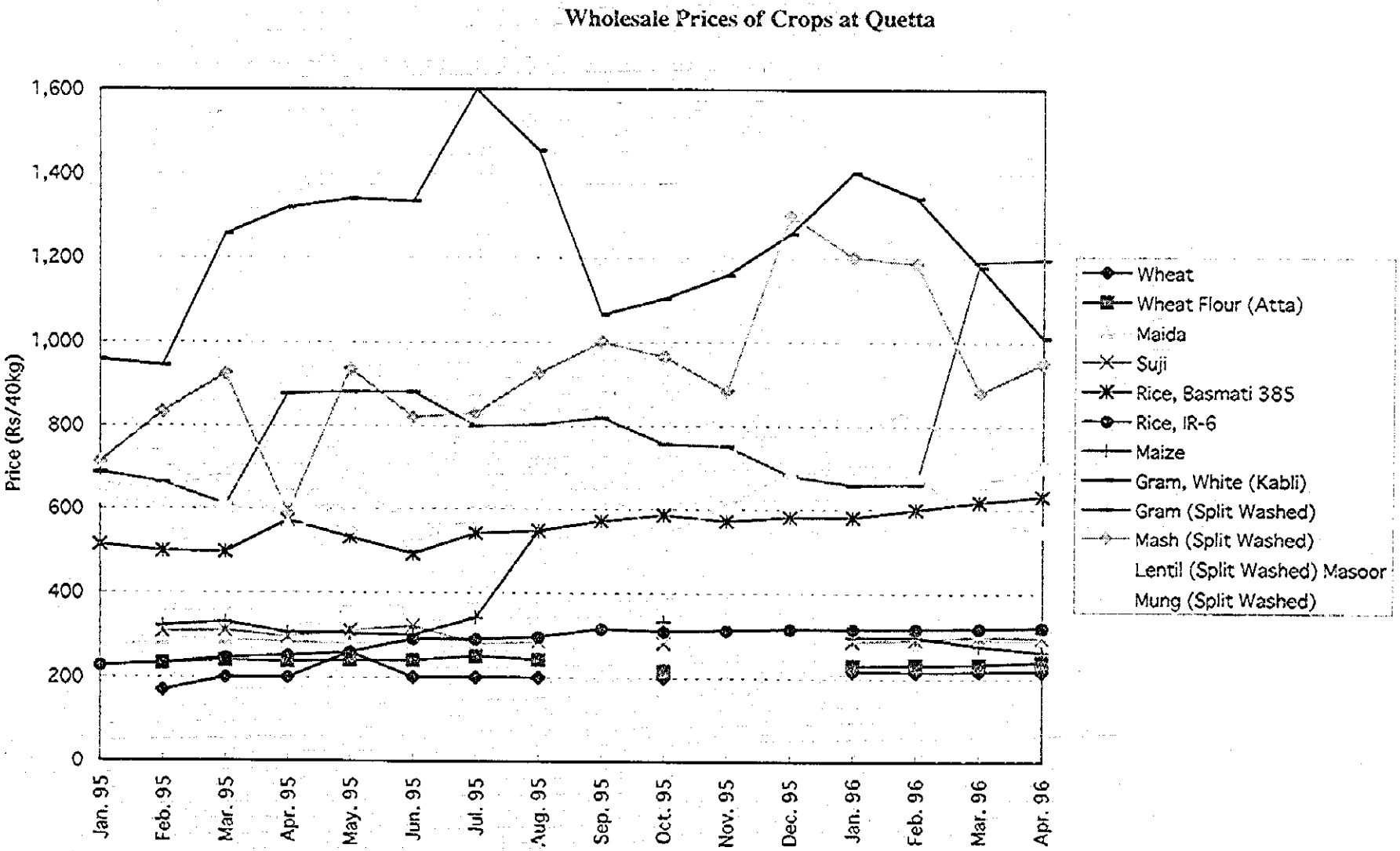


Fig. F.3.1.1
Wholesale Prices of Crops at Quetta

Wholesale Prices of Vegetables at Quetta

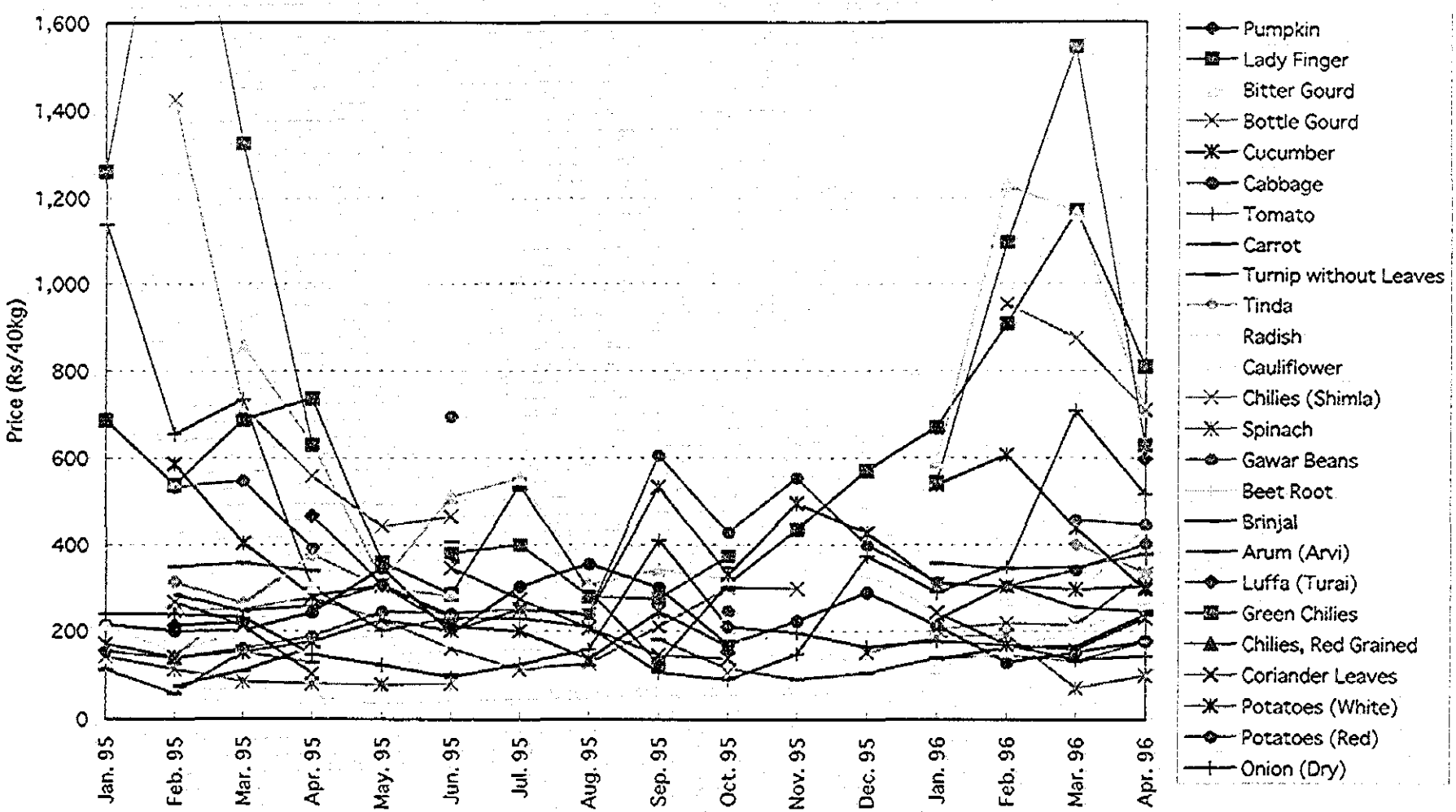


Fig. F.3.1.2
Wholesale Prices of Vegetables at Quetta

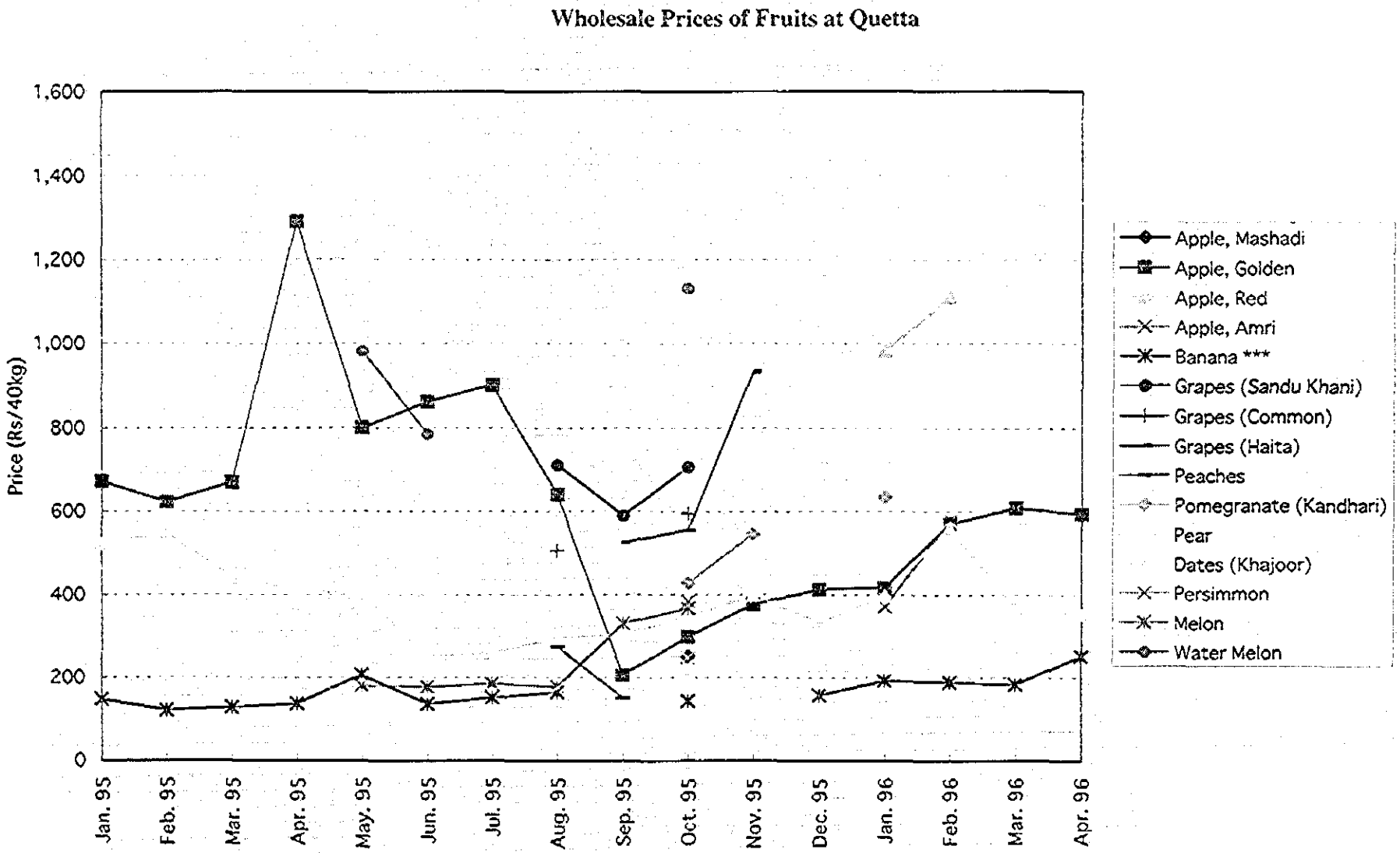


Fig. F.3.1.3
Wholesale Prices of Fruits at Quetta

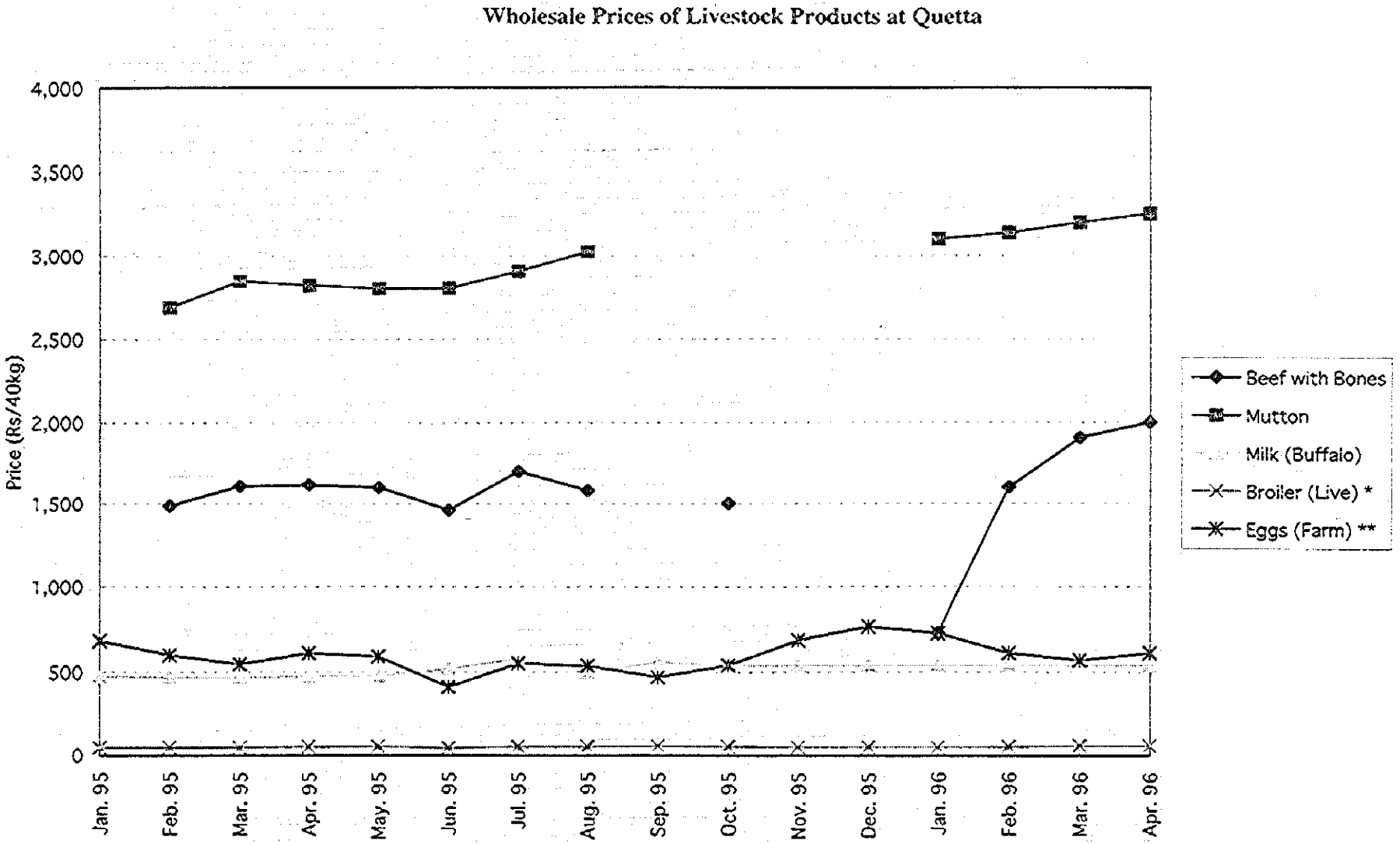
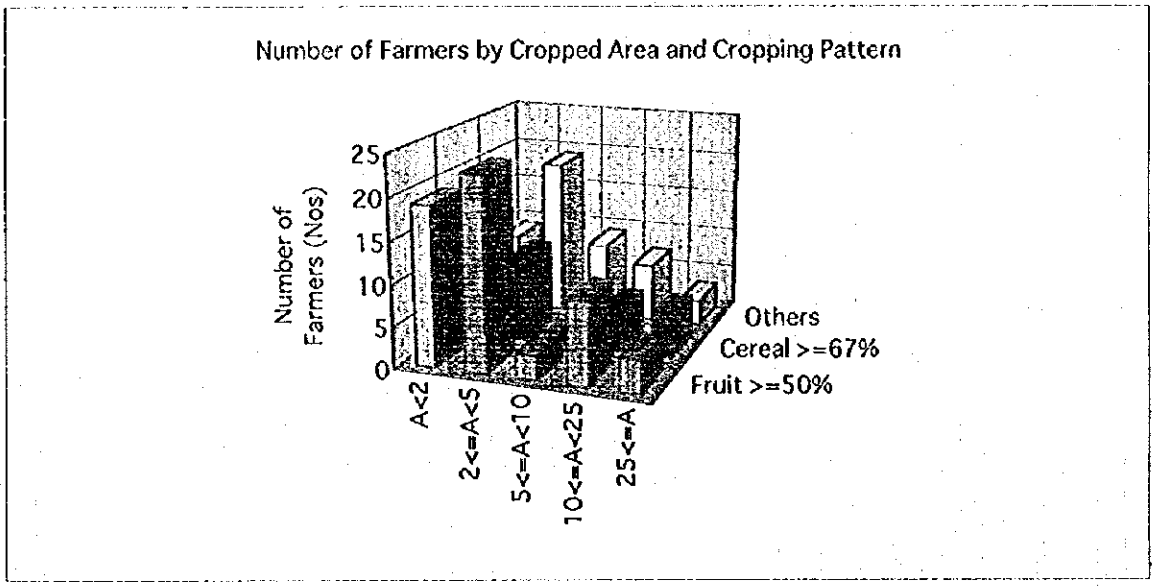


Fig. F.3.1.4
Wholesale Prices of Livestock Products at Quetta

Number of Farmers by Cropped Area and Cropping Pattern

(Nos)

Cropping Pattern	Gross Cropped Area (ha)					Total
	A<2	2<=A<5	5<=A<10	10<=A<25	25<=A	
Fruit >=50%	19	23	3	10	4	59
Cereal >=67%	4	10	1	5	5	25
Others	9	19	9	7	3	47
Total	32	52	13	22	12	131



Average Farm Income by Cropped Area and Cropping Pattern

(Rs./Year/Family)

Cropping Pattern	Gross Cropped Area (ha)					Average
	A<2	2<=A<5	5<=A<10	10<=A<25	25<=A	
Fruit >=50%	50,000	200,000	300,000	491,000	990,000	260,000
Cereal >=67%	7,000	12,000	70,000	18,000	69,000	26,000
Others	27,000	80,000	50,000	148,000	930,000	128,000
Average	38,000	120,000	109,000	274,000	591,000	168,000

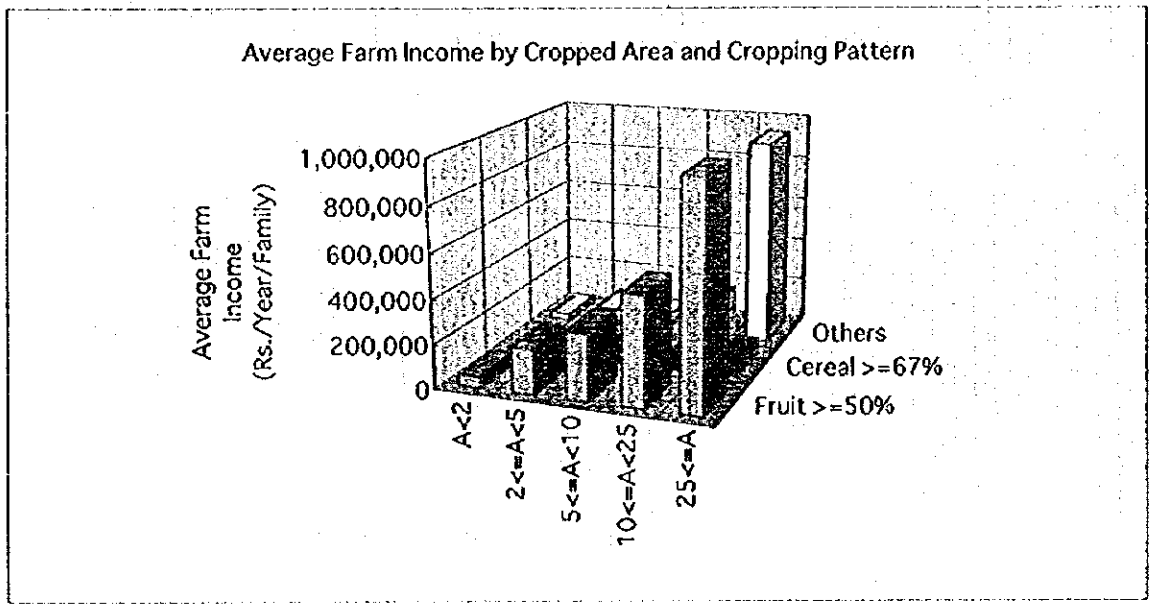
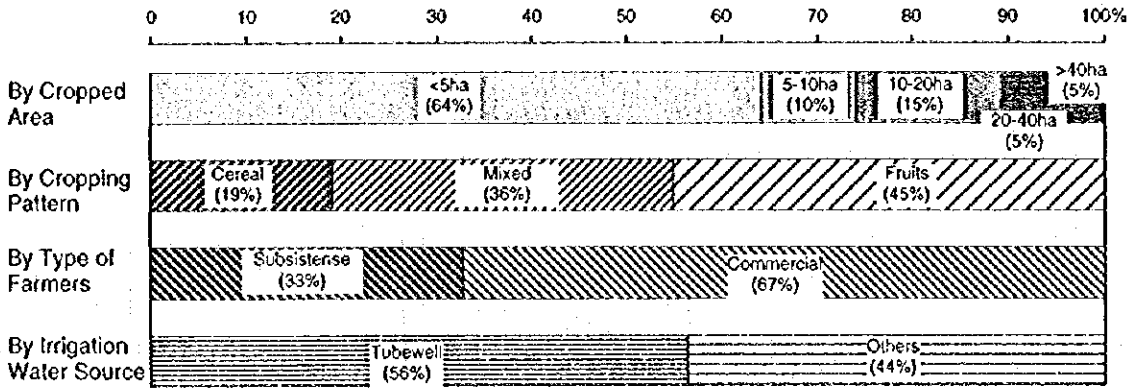
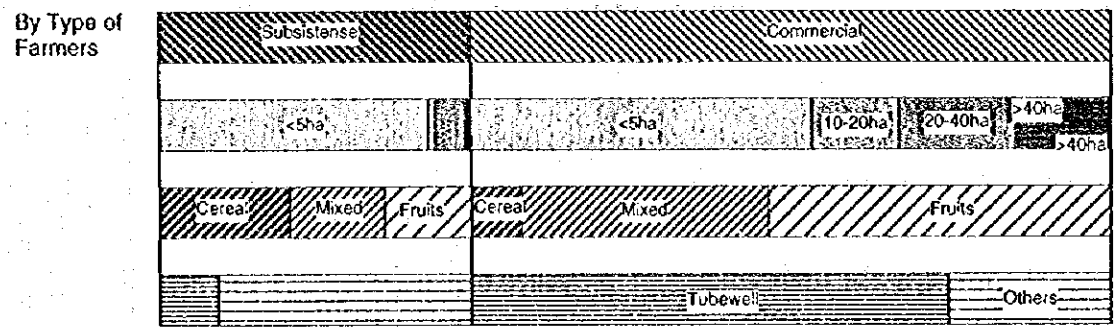


Fig. F.4.1.1
Farming Practice and Income of Farmers in the Study Area

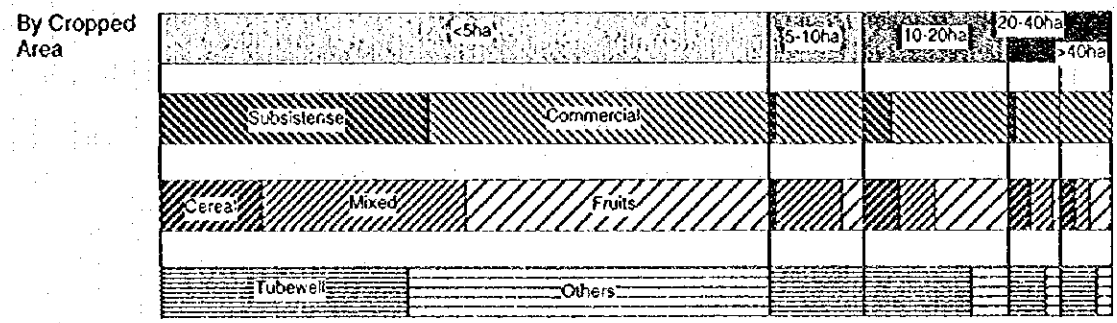
(1) General Classification of Farmers by Cropped Area, Cropping Pattern, Farmers' Type and Irrigation



(2) Sub-Classification of Farmers in Each Group by Farmers' Type



(3) Sub-Classification of Farmers in Each Group by Cropped Area



Note: 131 farmers of total 150 samples are applicable in this figure.
Commercial farmers are defined as those who earn more than Rs. 25,000/year as farm income.
Source: Farm Household Survey conducted by JICA Study Team

Fig. F.4.1.2
Classification of Farmers in the Study Area

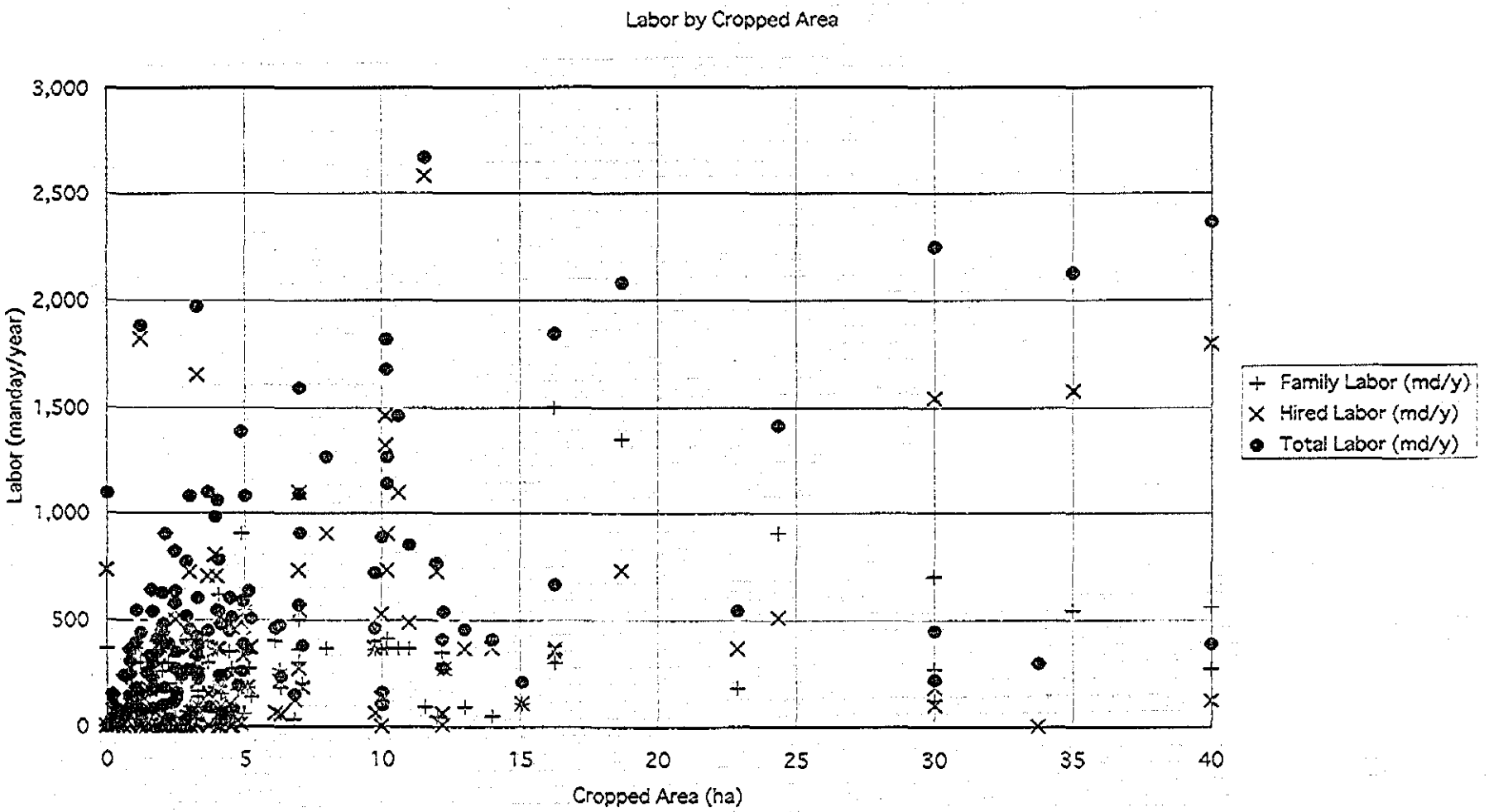


Fig. F.4.2.1
Labor Imput and Cropped Area in the Study Area

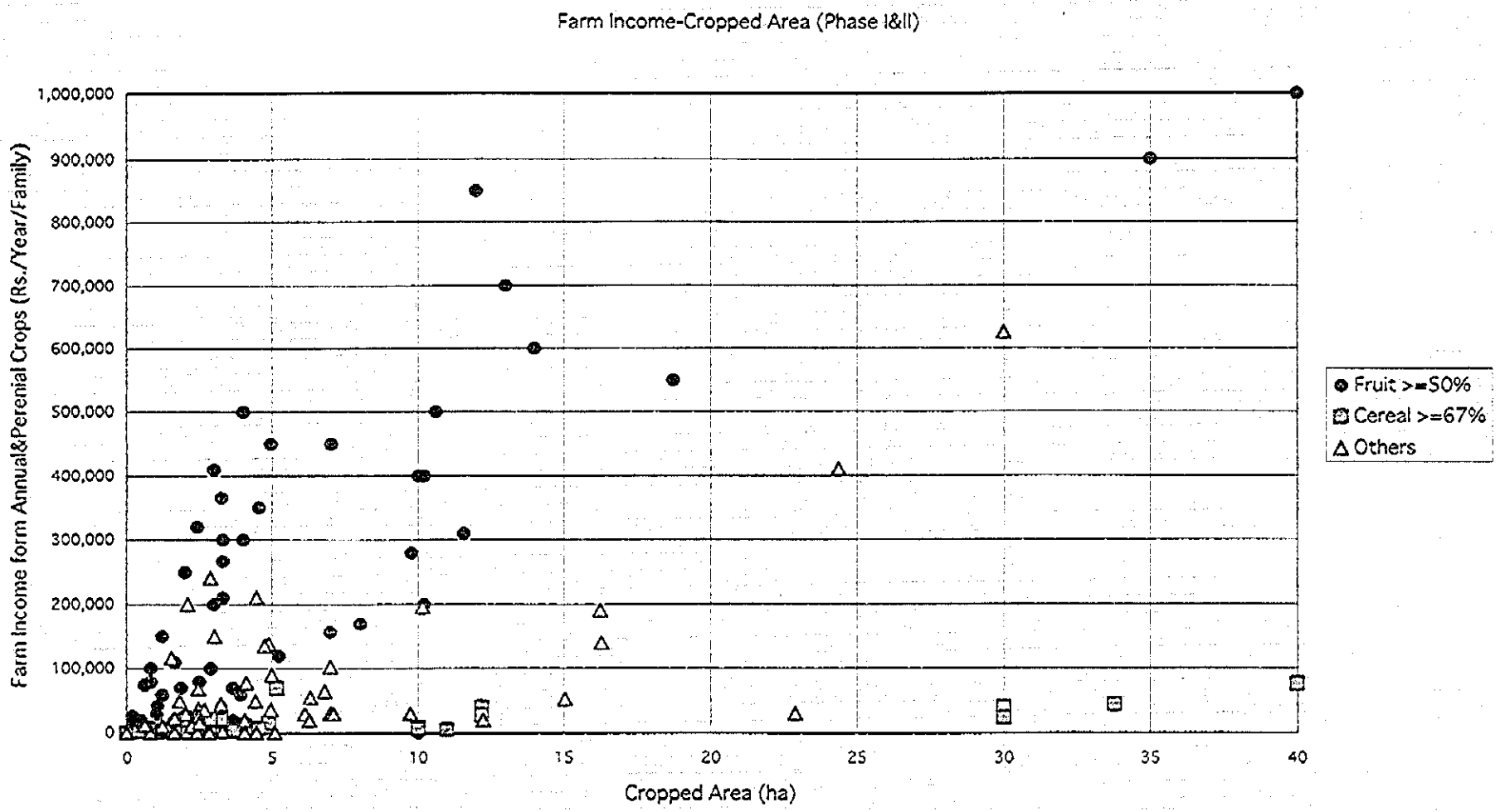


Fig. F.4.3.1
Farm Income and Cropped Area in the Study Area