# **CHAPTER THREE**

# AGRICULTURE

In 1383, production of farming crops, livestock and fisheries products went up, while that of horticultural produce fell down. With the implementation of government support policies for agricultural crops, various production inputs such as improved seeds, chemical fertilizers, and pesticides were provided to farmers.

The guaranteed purchasing price of most agricultural crops increased between 5.9 to 23.8 percent. The guaranteed price of wheat, in tandem with the implementation of project for increasing the output of this product, resulted in self-sufficiency in wheat production, which in turn helped wheat imports to halt. Thus, the government succeeded to purchase 11.2 million tons of wheat from farmers in 1383, indicating 6.7 percent growth compared with the previous year.

# Water Resources

According to the data released by the Ministry of Energy, average rainfall in 1382/83 farming year<sup>(1)</sup> was 242.7 millimeters, showing 2 percent decline as compared with the previous farming year, and 3 percent decrease as compared with the long-term average (35 years).

In order to expand water resources for agriculture sector, 19 reserve dams were utilized and the water reserve capacity increased by 2,116.3 million cubic meters in 1383. In this year, through expansion and improvement of main and secondary networks of national projects for water resources, a total of 142 thousand hectares of land were covered by irrigation and drainage networks.

# Production

## **Farming Crops**

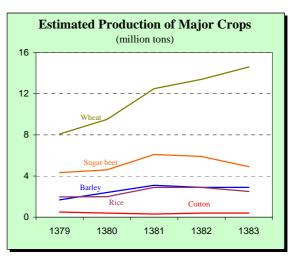
According to the data released by the Ministry of Agriculture Jihad, production of farming crops in an area of 12.4 million hectares of land amounted to 64 million tons in the farming year 1382/83, showing 2.1 percent rise in the amount of production, and 1.6 percent increase in the area under cultivation, as compared with the previous farming year. Out of total farming products, 88.3 percent (56.5 million tons) were produced in irrigated land and the remaining were rainfed crops, with no significant change compared to the previous farming year. Horticultural produce in an area of 2,008.7 thousand hectares of land amounted to 13 million tons, showing 6 percent rise in the area under cultivation and 5.8 percent decline in the amount of production, as compared with the previous farming year.

Grain production (wheat, barley, rice and corn) increased by 5 percent as compared with the previous farming year to reach 21,977 thousand tons. This figure was 1,792 thousand tons less than the amount envisaged in the  $3^{rd}$  Plan for this year and indicates a realization of 92.5 percent of  $3^{rd}$  Plan target for grain production.

<sup>(1)</sup> Second half of 1382 and first half of 1383

YIELD OF MAJOR FARMING CROPS (kilogram-hectare)

	1382	1383	Percentage change
Wheat	2,097	2,206	5.2
Barley	1,926	1,838	-4.6
Rice (paddy)	4,766	4,160	-12.7
Corn	6,720	7,029	4.6
Cotton	2,514	2,515	0
Sugar beet	33,331	31,513	-5.5
Sugar cane	94,473	96,902	2.6
Tea (green)	6,839	4,323	-36.8
Oil seeds	1,604	1,771	10.4
Tobacco	1,571	1,182	-24.8
Pulses	662	715	8.1
Potatoes	24,341	24,201	-0.6
Onions	34,217	33,896	-0.9
Pistachio	753	566	-24.8



Source: Ministry of Agriculture Jihad

# ESTIMATED PRODUCTION AND AREA UNDER CULTIVATION OF MAJOR FARMING CROPS

			(thousand hectare	es-thousand tons)			
	1382		138	1383		Percentage change	
	Area	Production	Area	Production	Area	Production	
Wheat	6,409	13,440	6,605	14,568	3.1	8.4	
Barley	1,510	2,908	1,600	2,940	6.0	1.1	
Rice (paddy)	615	2,931	611	2,542	-0.7	-13.3	
Corn	246	1,653	274	1,926	11.4	16.5	
Cotton	140	352	167	420	19.3	19.3	
Sugar beet	178	5,933	156	4,916	-12.4	-17.1	
Sugar cane	55	5,196	61	5,911	10.9	13.8	
Tea (green)	31	212	31	134	0	-36.8	
Oil seeds	245	393	227	402	-7.3	2.3	
Tobacco	14	22	11	13	-21.4	-40.9	
Pulses	1,014	671	930	665	-8.3	-0.9	
Potatoes	173	4,211	184	4,454	6.4	5.8	
Onions	46	1,574	48	1,627	4.3	3.4	
Pistachio	312	235	327	185	4.8	-21.3	

Source: Ministry of Agriculture Jihad

# **Livestock and Fisheries Products**

On the basis of the data released by the Ministry of Agriculture Jihad, livestock products (red meat, poultry, milk and eggs) grew by 5.8 percent in 1383 and amounted to 9,312 thousand tons.

Fisheries output increased by 7.4 percent to 474.5 thousand tons as compared with the previous year. Out of this figure, 66.2 percent was produced from the Persian Gulf.

#### LIVESTOCK PRODUCTS

		(tl	nousand tons)
	1382	1383	Percentage change
Red meat	752	785	4.4
Milk	6,316	6,720	6.4
Poultry	1,104	1,152	4.3
Egg	629	655	4.1

Source: Ministry of Agriculture Jihad

# **PRODUCTION & EXPORT OF FISHERIES**

	(ton-million dollars)				
1382	1383	Percentage change			
441,871	474,500	7.4			
299,128	314,165	5.0			
32,533	35,775	10.0			
110,210	124,560	13.0			
87.4	85.2	-2.5			
20,647	20,329	-1.5			
	<b>441,871</b> 299,128 32,533 110,210 87.4	1382 1383   441,871 474,500   299,128 314,165   32,533 35,775   110,210 124,560   87.4 85.2			

Source: Ministry of Agriculture Jihad

# **Guaranteed Purchase of Agricultural Products**

To encourage farmers to produce basic agricultural crops, to establish equilibrium in the production system, and to maintain farmers' income level, the policy of guaranteed purchase of agricultural crops, which was started in 1368, continued in the review year. In 1383, the guaranteed purchasing price increased within the range of 5.9 to 23.8 percent (except for tea green leaf), which was less than the rate of inflation (15.2 percent) for this year. The guaranteed purchasing price of wheat reached Rls. 1,700 per kilo, up by 13.3 percent compared with the previous year.

Increase in the guaranteed purchasing price of wheat, along with the implementation of self-sufficiency plan in wheat production, caused the amount of wheat purchased from the farmers to surge to 11.2 million tons, up by 6.7 percent compared to the previous year.

GUARANTEED PURCHASING PRICE O	F
AGRICULTURAL CROPS	

		(rial	/kilogram)
	1382	1383	Percentage change
Wheat	1,500	1,700	13.3
Barley	1,120	1,250	11.6
Rice (Khazar, Fajr, Sahel variety)	5,160	5,500	6.6
Rice (Sefidrood variety)	4,485	4,750	5.9
Rice (Neda & Nemat variety)	4,300	4,600	7.0
Rice (Amol, Cheram, Yasouj variety)	3,600	3,850	6.9
Corn	1,220	1,350	10.7
Sugar beet	355	390	9.9
Sunflower	2,650	2,880	8.7
Soya	2,400	2,600	8.3
Tea (green leaf) (1)	1,656	2,050	23.8
Lentil	3,050	3,260	6.9
Kidney bean	2,650	2,840	7.2
Navy bean	2,920	3,120	6.8
Pinto bean	2,920	3,120	6.8
Pea	2,800	3,000	7.1
Potato (fall harvest)	620	670	8.1
Cotton (raw)	3,450	3,800	10.1
Colza	2,830	3,110	9.9
Onion (fall harvest)	480	515	7.3

Source: Ministry of Agriculture Jihad

 Guaranteed purchasing price of tea (green leaf) is the weight average of purchasing price of high quality, grade one and grade two green leaf.

## Subsidies

In 1383, the amount of subsidy paid on major agricultural products grew by 40.9 percent to reach Rls. 21,443.1 billion. The share of this subsidy out of total government subsidy payments declined by 0.9 percentage point from 78.7 percent in 1382 to 77.8 percent in the review year.

The amount of subsidy paid on wheat, with 19.2 percent growth, reached Rls. 14,048.8 billion as compared with the previous year, constituting the lion's share of 51 percent of total subsidy payments. Basic goods i.e. rice, vegetable oil, sugar and cube sugar, with 13.2 percent share, and milk and milk products, with 8.2 percent share, stood in successive ranks.

			Percentage	Percentage Share (p		
	1382	1383	change	1382	1383	
Wheat	11,788.1	14,048.8	19.2	61.0	51	
Rice, vegetable oil, sugar & cube sugar	915.7	3,622.9	295.6	4.7	13.2	
Milk and milk products	1,314.3	2,257.5	71.8	6.8	8.2	
Meat	415.0	504.0	21.4	2.1	1.8	
Poultry and eggs	0	68.0	θ	0	0.2	
Pesticides, seed & chemical fertilizers	670.0	750.0	11.9	3.5	2.7	
Veterinary drugs	17.0	38.6	127.1	0.1	0.1	
Oil seeds	55.4	15	-72.9	0.3	0.1	
Export of agricultural crops	0	138.3	θ	0	0.5	
Losses of Cotton Fund	48.3	0	-100.0	0.2	0	
Total	15,223.8	21,443.1	40.9	78.7	77.8	
Total subsidy paid	19,322.8	27,538.4	42.5	100.0	100.0	

SUBSIDY PAID ON MAJOR AGE	RICULTURAL PRODUCTS &	z FOODSTUFFS	(billion rials)
---------------------------	-----------------------	--------------	-----------------

Source: Ministry of Economic Affairs and Finance, and Organization for Protection of Consumers and Producers

In the review year, in pursuance of the government policies aiming at price reform and optimal utilization of production inputs, price of the chemical fertilizers increased on average by 7 percent as compared with the previous year. Despite this increase, the amount of subsidy paid

by the government for the chemical fertilizers increased by 15.9 percent and reached Rls. 650 billion as compared with the previous year.

## **Government Investment**

## **Agriculture and Water Resources**

In 1383, the government payments for acquisition of non-financial national assets for the expansion of agriculture and water and natural resources, including research on agriculture and natural resources (excluding provincial expenditures), decreased by 6.6 percent and amounted to Rls. 11,831.6 billion as compared with the previous year. Credits paid for acquisition of non-financial assets for expansion of agriculture, natural resources and agricultural research amounted to Rls. 2,397.7 billion, showing 5.7 percent decline as compared with the previous year.

In the agricultural development chapter, different projects of renovation of irrigated lands absorbed the highest share of credits (44.7 percent). In the review year, national expenditures for acquisition of non-financial assets projects of natural resources were Rls. 634.1 billion, showing 14 percent decline as compared with the previous year. Various projects for planning affairs and management of forests received the lion's share of Rls. 168.4 billion, (26.6 percent) of total credits for acquisition of non-financial assets projects of natural resources.

National expenditures for acquisition of non-financial assets projects of water resources fell by 6.8 percent to Rls. 9,433.9 billion in 1383, indicating 74.1 percent realization as compared to the approved amount for this year.

#### CREDITS FOR ACQUISITION OF NON-FINANCIAL ASSETS FOR EXPANSION OF AGRICULTURE AND WATER RESOURCES (billion rials)

01 A	OF AGRICULTURE AND WATER RESOURCES				
			Percentage	Share (	percent)
	1382(1)	1383	change	1382	1383
Agriculture and natural resources (2)	2,541.4	2,397.7	-5.7	20.1	19.1
Water resources	10,125.5	9,433.9	-6.8	79.9	80.9
Total	12,666.9	11,831.6	-6.6	100.0	100.0

Source: Treasury General, Ministry of Economic Affairs and Finance

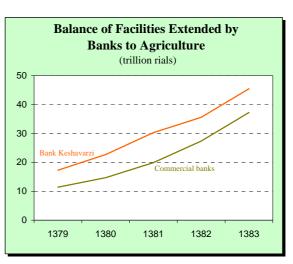
(1) Includes development expenditures out of Article 60, 3<sup>rd</sup> Plan Law in addition to the credits out of Note 21 of Budget Law.

(2) Includes development expenditures for research on agriculture and natural resources.

#### **Banking Facilities**

In 1383, the outstanding facilities extended by banks and credit institutions to public and non-public agriculture sectors increased by 30.4 percent to Rls. 85 trillion, of which 97.4 percent (Rls. 82.8 trillion) was related to the private sector facilities. Part of the increase in the outstanding facilities extended by banks to the agriculture sector was due to rescheduling of the farmers' debt resulted from losses related to the drought of the previous years.

At the end of 1383, the outstanding of facilities extended by Bank Keshavarzi to the



public and non-public agriculture sectors, grew by 26.9 percent to reach Rls. 46,980.6 billion.

Data drawn by Bank Keshavarzi indicate that Rls. 36,696.7 billion was paid by this bank to farmers, showing 27.6 percent rise as compared to the previous year.

OUTSTANDING FACILITIES EXTENDED BY BANKS AND CREDIT
<b>INSTITUTIONS TO NON-PUBLIC SECTOR (1)</b>

(billion rials)

(million rials)

11051		(Dimon mais)			
	Year-end		Percentage	Share (percent)	
	1382	1383	change	1382	1383
Commercial banks	27,383.2	37,242.5	36.0	43.5	45.0
Bank Keshavarzi	35,584.3	45,495.7	27.9	56.5	55.0
Private banks and credit institutions	7.4	25.6	245.9	0	0
Total	62,974.9	82,763.8	31.4	100.0	100.0

(1) Excludes profit and revenue receivables.

#### FACILITIES EXTENDED BY BANK KESHAVARZI BY TIME OF REPAYMENT (1)

			Percentage	Share (	percent)	
	1382	1383	change	1382	1383	
Short-term	17,610,511	23,938,025	35.9	77.0	74.3	
Medium-term	4,293,632	6,685,007	55.7	18.8	20.8	
Long-term	975,391	1,578,062	61.8	4.2	4.9	
Total	22,879,534	32,201,094	40.7	100.0	100.0	

(1) Excludes profit and revenue receivables.

# **Insurance Fund for Agricultural Products**

In the farming year of 1382/83, the Insurance Fund for Agricultural Products insured 5,318.7 thousand hectares of land under cultivation of farming and horticultural products against losses from natural disasters, up by 6.7 percent as compared with the previous year. Out of the mentioned area under cultivation, 1,490 thousand hectares were damaged for which a sum of Rls. 1,472.2 billion as compensation was paid by the Fund.

In the mentioned farming year, 4,137 thousand livestock, 289.7 million poultry and 3,423 hectares of fish and shrimp raising centers were covered by the Insurance Fund. Out of that, 244 thousand livestock, 17.5 million poultry and 280 hectares of aquaculture centers suffered losses and the Fund paid out Rls. 188 billion in compensation.

### INSURED FARMLANDS AND AMOUNT OF COMPENSATION

	Area of insured land (thousand hectares)		Area of damaged land (thousand hectares)		Compensation (million rials)	
	1382	1383	1382	1383	1382	1383
Wheat	3,933.9	4,059.4	890.0	1,065.6	322,486	473,316
Rice	214.7	250.8	70.9	78.1	90,069	131,452
Cotton	70.5	70.0	9.8	19.8	4,313	13,618
Sugar beet	203.7	166.0	26.7	8.9	33,426	10,850
Soya	30.7	47.5	1.4	5.6	463	4,315
Potatoes	35.4	58.4	7.2	16.3	10,343	42,417
Sunflower	2.1	6.0	0.5	0.7	503	435
Corn	76.1	94.6	16.5	19.9	17,998	25,473
Barley	155.3	206.7	36.3	96.1	11,594	29,329
Onions	1.7	3.2	0.1	0.1	290	427
Grapes	16.0	25.9	11.2	14.3	51,911	73,227
Apples	19.9	19.2	7.9	13.0	38,321	105,838
Citrus	3.8	7.2	0.4	1.9	2,746	3,346
Dates	38.6	57.8	24.0	29.5	48,866	118,551
Pomegranate	2.2	3.3	0.8	2.7	4,106	14,551
Tea	22.5	20.7	0	1.9	193	1,934
Pistachio	16.8	45.3	12.9	39.9	57,510	217,392
Almond	13.4	18.6	8.8	14.6	40,548	139,354
Colza	94.7	80.6	28.1	33.4	17,829	22,582
Others (1)	31.3	77.5	10.7	28.1	17,374	43,829
Total	4,983.3	5,318.7	1,164.2	1,490.4	770,889	1,472,236

Source: Insurance Fund for Agricultural Products

(1) Includes pulses, sugar cane, safflower, cucumber, tomato, olive, walnut and saffron.

# **Export of Agricultural Products**

Based on the data released by the Customs, 1,200.5 thousand tons of different agricultural products, with a value of \$1,435.6 million, were exported in the review year. This amount indicates a decline of 35.2 and 13.7 percent in terms of weight and value respectively, compared to the year before. By and large, export of agricultural products, constituting 6.6 percent of weight and 21 percent of value of non-oil exports, posted a decline when compared with the same figures of the previous year (12 percent of weight and 27.8 percent of value of non-oil exports). Export of dried fruits enjoyed the highest share of 49.9 percent in total value of export of agricultural products, despite a reduction in its value. Pistachio enjoyed 38.2 percent of export value of agricultural products and 8.0 percent of the total value of non-oil exports.

EX	PORT OF A	AGRICULTU	(thousand dollars-ton) Percentage change			
	1382				1383	
	Value	Weight	Value	Weight	Value	Weight
Dried fruits	819,708	457,241	715,832	380,173	-12.7	-16.9
Vegetables	311,244	837,741	323,279	660,557	3.9	-21.2
Livestock products	198,989	83,886	290,502	95,097	46.0	13.4
Sea products	85,906	19,515	67,090	16,865	-21.9	-13.6
Agricultural processing industries products	247,239	454,891	38,913	47,792	-84.3	-89.5
Export of agricultural products	1,663,086	1,853,274	1,435,616	1,200,484	-13.7	-35.2
Total non-oil exports	5,972,162	15,467,587	6,847,303	18,077,078	14.7	16.9

Source: Foreign Trade Statistics, released by the Customs

#### **Import of Agricultural Products**

In the review year, 7,956.6 thousand tons of various agricultural products, valuing at \$3,106.8 million, were imported, indicating a decrease of 0.5 percent in weight and a rise of 17.2 percent in value. Import of the mentioned products comprised 23.1 percent of weight and 8.8 percent of the total value of imported goods, down by 26.6 and 10.0 percent in terms of weight and value, respectively. The unit value of the imported agricultural products was 390.5 dollars, indicating a growth of 17.8 percent (\$331.5), compared to the previous year. In comparison with the unit value of the exported agricultural products (33.3 percent), the mentioned growth rate indicates that terms of trade effect have improved.

	IMPORT OF AGRICULTURAL PRODUCTS				(thousand dollars-ton)	
	1382		1383		Percentage change	
	Value	Weight	Value	Weight	Value	Weight
Wheat	119,205	773,359	24,762	170,459	-79.2	-78.0
Barley	35,386	191,135	106,481	844,537	200.9	341.9
Rice	252,297	875,018	356,130	1,142,402	41.2	30.6
Tea	2	1	57,501	21,716		
Sugar and cube sugar	59,082	287,628	40,866	189,595	-30.8	-34.1
Vegetable oils	669,063	1,173,470	608,055	987,449	-9.1	-15.9
Animal oils	6,534	10,249	3,979	4,843	-39.1	-52.7
Red meat	58,475	34,340	96,661	52,132	65.3	51.8
Fish	34,492	38,754	11,181	11,334	-67.6	-70.8
Poultry	738	1,219	13,946	14,404		
Other agricultural products	1,415,087	4,608,709	1,787,203	4,517,775	26.3	-2.0
Import of agricultural products	2,650,363	7,993,882	3,106,765	7,956,646	17.2	-0.5
Total imports	26,597,738	30,105,858	35,388,555	34,448,499	33.1	14.4

Source: Foreign Trade Statistics