

## ANNEX L

### ECONOMIC AND FINANCIAL EVALUATION

## ANNEX L

### ECONOMIC AND FINANCIAL EVALUATION

#### List of Table

##### Basic Evaluation Criteria

Table L-1	Estimation of Standard Conversion Factor	L-1
Table L-2	Estimation of Shadow Exchange Rate	L-1
Table L-3	Trial Calculation of SER (sample)	L-2
Table L-3-1	Trial Calculation of SER	L-2
Table L-3-2	Value and Tariff Rate of Main Import Goods	L-2
Table L-3-3	Value and Tariff Rate of Main Export Goods	L-2
Table L-3-4	Main 10 Import Goods in 1378	L-3
Table L-3-5	Main 10 Export Goods in 137	L-3
Table L-3-6	Value of Import and Export, by Sections and Chapters of Custom Tariff: 1378	L-4
Table L-4	Price Trends of Islamic Republic of Iran (1369-1378)	L-7
Table L-4-1	Consumer Price Index in Iran (1376=100)	L-7
Table L-4-2	Producer Price Index in Iran (1376=100)	L-7
Table L-4-3	Producer Price Index in Iran (continued) (1376=100)	L-8
Table L-4-4	Wholesale Price Index in Iran (1376=100)	L-8
Table L-5	Estimation of Future Price Trend of Islamic republic of Iran	L-9
Table L-6	Bank Profit Rates of Islamic republic of Iran	L-10
Table L-7	Unemployment Rate in Master Plan Study Area: Based on 1996 Census	L-11

##### Project Cost

Table L-8-1-1	Disaster Prevention Facility for Vastegan	L-12
Table L-8-1-2	Disaster Prevention Facility for Chaman-Goli Bazoft	L-16
Table L-8-1-3	Disaster Prevention Facility for Sarbaz	L-22
Table L-8-1-4	Disaster Prevention Facility for Tangsorkh	L-26
Table L-8-1-5	Disaster Prevention Facility for Zeras	L-31
Table L-8-1-6	Summary for Disaster Prevention Facility	L-36
Table L-8-2	Vegetation Protection	L-37
Table L-8-3	Orchard Terracing (Vastegan)	L-40
Table L-8-4	Soil Erosion Protection (Chaman-Goli Bazoft, Sarbaz, Tangsorkh, Zeras)	L-41
Table L-8-5-1	Community Development for Vastega	L-44
Table L-8-5-2	Community Development for Chaman-Goli Bazoft	L-49

TableL-8-5-3	Community Development for Sarbaz-----	L-54
TableL-8-5-4	Community Development for Tangsorkh -----	L-59
TableL-8-5-5	Community Development for Zeras -----	L-63

#### Operation and Maintenance Cost

TableL-8-6-1	Disaster Prevention Facility for Vastegan-----	L-67
Table L-8-6-2	Disaster Prevention Facility for Chaman-Goli Bazoft-----	L-68
Table L-8-6-3	Disaster Prevention Facility for Sarbaz-----	L-70
Table L-8-6-4	Disaster Prevention Facility for Tangsorkh -----	L-71
Table L-8-6-5	Disaster Prevention Facility for Zeras -----	L-72
Table L-8-7	Vegetation Protection -----	L-73
Table L-8-8	Orchard Terracing (Vastegan)-----	L-75
Table L-8-9	Soil Erosion Protection (Chaman-Goli Bazoft, Sarbaz, Tangsorkh, Zeras)---	L-76
TableL-8-10-1	Community Development for Vastegan-----	L-78
TableL-8-10-2	Community Development for Chaman-Goli Bazoft -----	L-82
TableL-8-10-3	Community Development for Sarbaz -----	L-87
TableL-8-10-4	Community Development for Tangsorkh-----	L-92
TableL-8-10-5	Community Development for Zeras-----	L-95

#### Household Economy

Table L-9	Sample Survey of Household Economy -----	L-98
Table L-10	Net Value of Fish Farm -----	L-100
Table L-11	Desired More Income -----	L-101
Table L-12	Problems for Villagers -----	L-105

#### Project Benefit

Table L-13	Estimated Amount of Annual Damages -----	L-106
Table L-13-1	Estimated Amount of Damages (Flood Probability = 1/25) -----	L-107
Table L-13-2	Assumed Amount of Damages (Flood Probability =1/25) -----	L-108
Table L-14-1	Vastegan - Rangeland Vegetation Improvement (per year)-----	L-109
Table L-14-2	Bazoft - Rangeland Vegetation Improvement (per year) -----	L-109
Table L-14-3	Bazoft – Forest Vegetation Recovery (per year)-----	L-109
Table L-14-4	Sarbaz – Rangeland Vegetation Improvement (per year)-----	L-109
Table L-14-5	Tang Sorkh - Rangeland Vegetation Improvement (per year) -----	L-110
Table L-14-6	Tang Sorkh – Forest Vegetation Recovery (per year)-----	L-110
Table L-14-7	Zeras – Rangeland Vegetation Improvement (per year) -----	L-110
Table L-15-1	Value of Output for Implementation of Rural Water Supply in Vastegan -----	L-111

Table L-15-2 Value of Output for Implementation of Rural Water Supply in Bazoft-----	L-111
Table L-15-3 Value of Output for Implementation of Rural Water Supply in Sarbaz-----	L-111
Table L-15-4 Value of Output for Implementation of Rural Water Supply in TangSorkh----	L-111
Table L-15-4 Value of Output for Implementation of Rural Water Supply in Zeras -----	L-111
Table L-16-1 Annual Agricultural Benefits-----	L-112
Table L-16-2 Estimated Net Income Per Hectare (Wheat)-----	L-113
Table L-16-3 Estimated Net Income Per Hectare (Barley) -----	L-113
Table L-16-4 Estimated Net Income Per Hectare (Vegetable and Beans) -----	L-114
Table L-16-5 Estimated Net Income Per Hectare (Sugar beet, Irrigated Alfalfa) -----	L-114
Table L-16-6 Estimated Net Income Per Hectare (Rainfed Alfalfa)-----	L-115
Table L-16-7 Estimated Net Income Per Hectare (Apple and Grape)-----	L-115
Table L-16-8 Estimated Net Income Per Hectare (Almond and Walnuts)-----	L-116
Table L-16-9 Price Structure of Wheat -----	L-117
Table L-16-10 Price Structure of Barley-----	L-117
Table L-16-11 Price Structure of Sugar Beets (Raw Sugar) -----	L-118
Table L-16-12 Price Structure of Urea (NPK:46,0,0) -----	L-118
Table L-16-13 Price Structure of Potassium Chloride (Muriate of Potash) -----	L-119
Table L-16-14 Price Structure of Triple Super Phosphate (NPK:0,46, 0) -----	L-119
Table L-16-15 Price Structure of Ammonium Phosphate (NPK:11,50,0)-----	L-120
Table L-16-16 Price Structure of Ammonium Nitrate (NPK:34,0,0)-----	L-120
Table L-16-17 Financial and Economic Price of Agricultural Products -----	L-121
Table L-16-18 Summary of Field Survey (Agriculture, Livestock) -----	L-122
Table L-17-1 Estimated Total Expenditure of Transportation -----	L-123
Table L-17-2 Estimated Distance and Amount of Transportation -----	L-124
Table L-17-3 Estimated Number of Transportation-----	L-125
Table L-17-4 Estimated Number of Transportation (Person)-----	L-126
Table L-17-5 Estimated Total Expenditure of Transportation (Without Project) -----	L-127
Table L-17-6 Estimated Total Expenditure of Transportation (With Project)-----	L-128
Table L-18-1 Value of Output (K4-1-9 Vastegan)-----	L-129
Table L-18-2 Value of Output (K5-19a Chaman Goli-Bazoft)-----	L-129
Table L-18-3 Value of Output (K7-0-19-1 Sarbaz) -----	L-129
Table L-18-4 Value of Output (K7-48 Tang Sorkh)-----	L-130
Table L-18-5 Value of Output (K8-28 Zeras)-----	L-130
Table L-18-6 Value of Output for Handicraft Facility -----	L-131
Table L-18-7 Value of Output for Multi Purpose Training Facility-----	L-131
Table L-18-8 Value of Output for Milk Processing Facility -----	L-131
Table L-18-9 Value of Output for Collection and Distribution for Milk -----	L-131

Table L-18-10 Value of Output for Fish Culture Promotion-----	L-131
Table L-18-11 Value of Output for Apple Collecting and Grading Facility (Large) -----	L-132
Table L-18-12 Value of Output for Apple Collecting and Grading Facility (Small) -----	L-132
Table L-18-13 Value of Output for Horticultural Crops Collecting and Grading Facility----	L-132

#### **Financial and Economic Analysis**

Table L-19 Result of Financial and Economic Analysis (K4-1-9 Vastegan) -----	L-133
Table L-20 Result of Financial and Economic Analysis (K5-19a Chaman Goli-Bazoft) ----	L-152
Table L-21 Result of Financial and Economic Analysis (K7-0-19-1 Sarbaz)-----	L-173
Table L-22 Result of Financial and Economic Analysis (K7-48 Tang Sorkh) -----	L-193
Table L-23 Result of Financial and Economic Analysis (K8-28 Zeras) -----	L-209

Table L-1 Estimation of Standard Conversion Factor

Item	Year					Total
	1374	1375	1376	1377	1378	
	(1995/96)	(1996/97)	(1997/98)	(1997/98)	(1998/99)	
Export Value (Oil & gas) (Mil. US\$)	15,103	19,271	15,471	9,933	16,270	-
Export Value (Other) (Mil. US\$)	3,257	3,120	2,910	3,185	3,456	-
Oil National Rate*	(1747.5)	(1751.72)	(1752.5)	(1752.5)	(1752.5)	-
Non oil Export Rate*	(2896.7)	(3007.5)	(3007.5)	(5395.42)	(7906.88)	-
① Export Value (billion Rls.)	35,827	43,141	35,865	34,592	55,839	205,264
② Import Value (FOB, billion Rls.)	19,631	23,938	24,354	24,893	22,202	115,018
Import Value (FOB, Mil. US\$)	12,774	14,989	14,123	14,286	13,511	-
③ Export Duties (billion Rls.)	0	0	0	0	0	0
④ Import Taxes (billion Rls.)	1,250	2,934	4,289	4,432	5,805	18,710
⑤ = ① + ②	55,458	67,079	60,219	59,485	78,041	320,282
⑥ = ⑤ - ③ + ④	56,708	70,013	64,508	63,917	83,846	338,992
⑦ SCF = ⑤ / ⑥	0.98	0.96	0.93	0.93	0.93	0.94

Source: "Iran Statistical Year Book 1378 (Mar. 1999 - Mar. 2000)", Statistical Center of Iran.

"Economic Trends No. 16-1st Otr, 1378", "No. 21-2nd Otr. 1379", Central Bank of Iran

Note: Export Value are converted from US\$ to Rials with applying oil national exchange rate and non oil export rate.

Import taxes comprise customs duties, commercial profit tax, and others.

Table L-2 Estimation of Shadow Exchange Rate

Year		Oil Notional Rate ①	Non-oil Export Rate	Free Market Rate ②	SER (①+②) / 2
1374	1995/96	1747.50	2896.70	2808.00	
1375	1996/97	1,751.72	3,007.50	4,445.55	
1376	1997/98	1,752.50	3,007.50	4,781.50	
1377	1998/99	1,752.50	5,395.42	6,468.36	4,110
1378	1999/00	1,752.50	7,906.88	8,657.68	5,205
1379	2000/01 (1st Quarterly)	1,752.50	8,181.40	8,416.75	5,085
1379	2000/01 (2nd Quarterly)	1,752.50	8,164.79	8,230.58	4,992
1379	2000/01 (3rd Quarterly)	1,752.50	8,038.34	8,101.85	4,927
1380	2001/4/17	1,752.50	7,918.00	8,020.00	4,886
Average (From 1998/99 to 2001)		1,750	7,600	7,980	4,900

Source: Central Bank of Iran

**Table L-3 Trial Calculation of SER (sample)**

**Table L-3-1 Trial Calculation of SER**

	Value (million Rls.)	Average Tariff ①	Weight ②	Average ①×②
Import	17,900,960	57.05	0.822	46.9
Export (-)	3,872,201	0.00	0.178	0.0
Total	21,773,160		1.000	46.9

1. Official Exchange Rate (Oil national rate) = 1,750  
Shadow Exchange Rate =  $1,750 + 821 = \underline{\underline{2,571}}$
2. Official Exchange Rate (Non-oil export rate) = 7,600  
Shadow Exchange Rate =  $7,600 + 3565 = \underline{\underline{11,165}}$
3. Average (1., 2.)  $\underline{\underline{6,868}}$

**Table L-3-2 Value and Tariff Rate of Main Imports Goods**

Main Items	Value (million Rls.)						Tariff (%) ①	Weight ②	Average ①×②×100
	1374	1375	1376	1377	1378	Average			
Machinery and Mechanical appliances (Section 16)	4,945,839	5,454,934	6,710,064	8,410,756	6,844,491	6,473,217	80%	0.36	28.93
Vegetable products (Section 2)	1,853,090	2,769,637	3,091,623	1,716,277	2,632,956	2,412,717	0%	0.13	0.00
Base metal and articles (Section 15)	2,238,035	3,457,611	2,767,768	2,966,692	2,508,906	2,787,802	15%	0.16	2.34
Vehicles, aircraft (Section 17)	825,669	1,147,710	1,653,768	2,388,589	1,539,520	1,511,051	220%	0.08	18.57
Animal and vegetable fats and oil (Section 3)	882,519	1,057,053	785,392	1,179,919	916,731	964,323	0%	0.05	0.00
Plastics and articles thereof (Section 7)	936,750	1,193,994	1,162,159	1,016,711	950,749	1,052,073	110%	0.06	6.46
Products of chemical or allied industries (Section 6)	2,634,496	2,737,395	2,752,312	2,556,883	2,817,800	2,699,777	5%	0.15	0.75
Total	14,316,398	17,818,334	18,923,086	20,235,827	18,211,153	17,900,960	—	1.00	57.05

**Table L-3-3 Value and Tariff Rate of Main Exports Goods**

Main Items	Value (million Rls.)						Tariff ①	Weight ②	Average ①×②×100
	1374	1375	1376	1377	1378	Average			
Textiles and textile articles (Section 11)	2,043,723	1,551,167	1,452,601	1,189,306	1,503,751	1,548,110	0%	0.40	0.00
Mineral products (Section 5)	438,251	427,367	573,833	1,029,555	1,178,850	729,571	0%	0.19	0.00
Vegetable products (Section 2)	123,300	114,373	100,233	103,318	125,264	113,298	0%	0.03	0.00
Base metal and articles (Section 15)	535,288	270,591	508,928	344,129	609,638	453,715	0%	0.12	0.00
Products of chemical or allied industries (Section 6)	427,066	472,281	551,240	469,296	372,352	458,447	0%	0.12	0.00
Plastics and articles thereof (Section 7)	127,351	200,071	179,226	208,170	195,941	182,152	0%	0.05	0.00
Prepared foodstuffs, beverages (Section 4)	354,174	441,180	455,801	334,162	349,227	386,909	0%	0.10	0.00
Total	4,049,153	3,477,030	3,821,862	3,677,936	4,335,023	3,872,201	—	1.00	0.00

Table L-3-4 Main 10 Import Goods in 1378

Order	Sections of Custom Tariffs	Chapters of Custom Tariffs	Goods	Imports Value (mil. Rials)	Custom Duties (%)	Commercial Profit Tax (%)	Remarks
1	16	84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	5,240,166	0~15	2~150	
2	2	10	Cereals	2,314,177	0	0	Durum wheat
3	16	85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles	1,604,325	0~15	5~200	
4	15	72	Iron and steel	1,551,001	0~2	5~30	
5	17	87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof	1,247,050	0~25	20~400	
6	3	15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable	916,731	0	0	Soya-bean oil
7	7	39	Plastics and articles thereof	701,936	0~15	5~200	
8	6	29	Organic chemicals	662,174	0	5	
9	6	38	Miscellaneous chemical products	642,318	0~15	5~60	
10	15	73	Articles of iron or steel	565,378	10	5~200	

Source: "Iran Statistical Yearbook 1378 (March 1999 - March 2000)" Statistical Center of Iran  
 "Regulation of Export and Import, 1380" Institute of Trade Study and Research

Table L-3-5 Main 10 Export Goods in 1378

Order	Sections of Custom Tariffs	Chapters of Custom Tariffs	Goods	Imports Value (mil. Rials)	Custom Duty (%)	Commercial Profit Tax (%)	Remarks
1	11	57	Carpets and other textile floor coverings	1,287,166	20	250	
2	5	27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	1,011,062	5	5~50	
3	2	08	Edible fruit and nuts; peel of citrus fruit or melons	847,289	10	170	Pistachios
4	15	72	Iron and steel	332,893	0~2	5~30	
5	6	29	Organic chemicals	172,555	0	5	
6	15	74	Copper and articles thereof	159,481	0~15	5~160	
7	7	39	Plastics and articles thereof	140,002	0~15	5~200	
8	4	19	Preparations of cereals, flower, starch or milk, pastrycooks' products	123,884	10	105	Pasta (containing eggs)
9	4	20	Preparations of vegetables, fruit, nuts or other parts of plants	118,349	10	110	Fruit (Grape, Apple)
10	5	25	Salt, sulphur, earths and stone, plastering materials, lime and cement	104,205	5~10	5~100	

Source: "Iran Statistical Yearbook 1378 (March 1999 - March 2000)" Statistical Center of Iran  
 "Regulation of Export and Import, 1380" Institute of Trade Study and Research



Table L-3-6 Value of Imports and Exports, by Sections and Chapters of customs Tariffs: 1378

				(mil. Rials)	
Sections of Custom Tariffs	Chapters of Custom Tariffs	Goods	Imports Value	Exports Value	
1	01	Live animals	4,316	688	
	02	Meat and edible meat offals	140,149	2,618	
	03	Fish and crustaceans, molluscs and other aquatic	6,230	26,876	
	04	Dairy produce; birds eggs; natural honey; edible products of animal origin not elsewhere specified or included	65,459	37,711	
	05	Products of animal origin, not elsewhere specified or	3,766	57,373	
2	06	Live tree and other plants; bulbs, Roots and the like; cut flowers and ornamental foliage	15	2,413	
	07	Edible vegetables and certain roots and tubers	5,816	60,578	
	08	Edible fruit and nuts; peel of citrus fruit or melons	5,025	847,289	
	09	Coffee, tea, mate and spices	97,866	103,738	
	10	Cereals	2,314,177	2,221	
	11	Products of the milling industry; malt; starches; inulin; wheat gluten	462	291	
	12	Oil seeds and oleaginous fruits; miscellaneous grains; seeds and fruit, industrial or medicinal plants; straw and fodder	205,214	12,019	
	13	Lac; gums, resins and other vegetable saps and extracts	4,342	11,913	
	14	Vegetable planting materials; vegetable products not elsewhere specified or included	41	10,009	
3	15	Animal or vegetable fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes	916,731	8,981	
4	16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	0	46,921	
	17	Sugars and sugar confectionery	492,804	28,417	
	18	Cocoa and cocoa preparations	9,547	4,787	
	19	Preparations of cereals, flower, starch or milk, pastrycooks' products	154	123,884	
	20	Preparations of vegetables, fruit, nuts or other parts of plants	78	118,349	
	21	Miscellaneous edible preparations	7,644	10,924	
	22	Beverages, spirits and vinegar	2	6,139	
	23	Residues and waste from the food industries; prepared animal fodder	273,893	1,345	
	24	Tobacco and manufactured tobacco substitutes	9,973	8,462	
5	25	Salt, sulphur, earths and stone, plastering materials, lime and cement	122,409	104,205	
	26	Ores, slag and ash	116,254	63,582	
	27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes	357,933	1,011,062	
6	28	Inorganic chemicals; organic or inorganic compounds of precious metals; or rare- earth metals, or radioactive elements or of isotopes	332,941	52,216	
	29	Organic chemicals	662,174	172,555	
	30	Pharmaceutical products	495,954	10,610	
	31	Fertilizers	240,758	6,703	
	32	Tanning or dyeing extracts; tannins and their derivatives; dyes; pigments and other colouring matter; paints and varnishes; nutty and other mastics; inks	225,110	11,365	
	33	Essential oils and resinoids, perfumery, cosmetic or toilet preparations	38,672	16,641	
	34	Soap, organic surface active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing or scouring preparations, candles and similar articles, modelling pastes, dental waxes and dental preparations with a basis of plaster	62,939	52,860	
	35	Albuminoidal substances; modified starches, glues, enzymes	30,542	8,894	
	36	Explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	0	0	
	37	Photographic or cinematographic goods	86,393	43	

Table L-3-6 Value of Imports and Exports, by Sections and Chapters of customs Tariffs: 1378

				(mil. Rials)	
Sections of Custom Tariffs	Chapters of Custom Tariffs	Goods	Imports Value	Exports Value	
	38	Miscellaneous chemical products	642,318	40,466	
7	39	Plastics and articles thereof	701,936	140,002	
	40	Rubber and articles thereof	248,813	55,939	
8	41	Raw hides and skins (other than furskins) and leather	1,220	97,438	
	42	Articles of leather; saddlery and harness; travel goods, handbags and similar containers, articles of animal gut (other than silk-worm gut)	159	2,216	
	43	Furskins and artificial fur; manufactures thereof	8	3	
9	44	Wood and articles of wood; wood charcoal	61,007	7,313	
	45	Cork and articles of cork	524	76	
	46	Manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork	39	3,028	
10	47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or paperboard	45,652	1,424	
	48	Paper and paperboard; articles of paper pulp, of paper or of paperboard	512,238	5,664	
	49	Printed books, newspapers; pictures and other products of the printing industry; manuscripts, typescripts and plans	23,500	792	
11	50	Silk	146	213	
	51	Wool, fine or coarse animal hair; horsehair yarn and woven fabrics of paper yarn	55,159	21,148	
	52	Cotton	25,245	26,151	
	53	Other vegetable textile fibres; paper yarn and woven fabrics of paper yarn	76,127	21	
	54	Man-made filaments	176,578	6,923	
	55	Man-made staple fibres	349,767	8,556	
	56	Wadding, felt and nonwovens; special yarns; twine, cordage, ropes and cables and articles thereof	7,416	2,868	
	57	Carpets and other textile floor coverings	228	1,287,166	
	58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	920	15,496	
	59	Impregnated, coated, covered or laminated textile fabrics of a kind suitable for industrial use	154,838	873	
	60	Knitted or crocheted fabrics	1,454	168	
	61	Articles of apparel and clothing accessories, knitted or	29	71,690	
	62	Articles of apparel and clothing accessories, not knitted or crocheted	4	43,493	
	63	Other made up textile articles; sets; worn clothing and worn textile articles; trunks	1,679	18,984	
12	64	Footwear, gaiters and the like; parts of such articles	271	74,915	
	65	Headgear and parts thereof	2	918	
	66	Umbrellas, sun umbrellas, walking-sticks, seat-sticks, whips, riding-crops and parts thereof	64	4	
	67	Prepared feathers and down and articles made of feathers or of down; articles of feathers; articles of human hair	0	15	
13	68	Articles of stone, plaster, cement, asbestos, mica or similar materials	32,112	33,525	
	69	Ceramic products	64,465	40,792	
	70	Glass and glassware	111,922	19,602	
14	71	natural or cultural pearls, precious or semi-precious stones, precious metals, metals clad with precious metal and articles thereof; imitation jewellery; coin	111,002	11,035	
15	72	Iron and steel	1,551,001	332,893	
	73	Articles of iron or steel	565,378	52,215	
	74	Copper and articles thereof	22,547	159,481	
	75	Nickel and articles thereof	21,197	0	
	76	Aluminium and articles thereof	146,446	51,805	

Table L-3-6 Value of Imports and Exports, by Sections and Chapters of customs Tariffs: 1378

			(mil. Rials)	
Sections of Custom Tariffs	Chapters of Custom Tariffs	Goods	Imports Value	Exports Value
	78	Lead and articles thereof	1,953	105
	79	Zinc and articles thereof	18,288	4,715
	80	Tin and articles thereof	6,974	0
	81	Other base materials; cements; articles thereof	12,410	4
	82	Tools, implements, cutlery, spoons and forks, of base metal; parts thereof of base metal	121,645	1,453
	83	Miscellaneous articles of base metal	41,067	6,969
16	84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	5,240,166	41,845
	85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such	1,604,325	20,260
17	86	Railway or tramway locomotives, rolling-stock and parts thereof; railway or tramway track fixtures and fittings and parts thereof; mechanical (including electro-mechanical) traffic signalling equipment of all kinds	168,803	5,631
	87	Vehicles other than railway or tramway rolling-stock, and parts and accessories thereof	1,247,050	88,698
	88	Aircraft, spacecraft, and parts thereof	96,974	0
	89	Ships, boats and floating structures	26,693	38
18	90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof	481,834	6,739
	91	Clock and watches and parts thereof	11,085	1,087
	92	Musical instruments; parts and accessories of such articles	320	3
19	93	Arms and ammunition; parts and accessories thereof	0	0
20	94	Furniture; bedding, mattresses, mattress supports, cushions and similar stuffed furnishings; lamps and lighting fittings, not elsewhere specified or included; illuminated signs, illuminated nameplates and like; prefabricated buildings	2,322	27,121
	95	Toys, games and sports requisites; parts and accessories	735	4,553
	96	Miscellaneous manufactured articles	29,594	2,873
21	97	Works of art, collections' pieces and antiques	2	195
Not specified and not stated			40,336	7,948
Total			22,201,765	5,900,225

Source: "Iran Statistical Yearbook 1378 (March 1999 - March 2000)" Statistical Center of Iran

Table L-4 Price Trend of Islamic Republic of Iran (1369-1378)

Table L-4-1 Consumer Price Index in Iran (1376=100)

Period		General	Food, Beverages & Tobacco	Clothing & Footwear	Housing, Water, Fuel & Power	Household Furnishings & Operation	Transportation & Communication	Medical Care	Recreation, Reading & Education	Miscellaneous Goods & Services
1369	1990/91	18.6	17.6	20.5	20.4	24.6	18.2	10.9	19.1	18.1
1370	1991/92	22.4	21.9	23.0	24.4	26.2	24.4	14.2	20.6	20.9
1371	1992/93	27.9	29.2	25.2	30.7	29.4	29.8	22.0	23.1	23.8
1372	1993/94	34.3	34.7	29.2	36.5	35.6	34.2	31.4	30.2	32.6
1373	1994/95	46.3	47.6	40.6	44.0	50.7	52.1	44.2	44.8	47.1
1374	1995/96	69.2	76.3	65.6	56.8	78.6	75.4	58.7	72.6	69.2
1375	1996/97	85.2	87.8	88.4	76.7	93.0	87.7	78.9	91.3	91.3
1376	1997/98	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1377	1998/99	115.6	124.5	105.3	120.8	106.8	114.7	122.2	107.1	113.5
1378	1999/2000	131.0	152.7	112.1	143.4	12.8	146.0	152.0	126.9	137.5

Source: Economic Reserch department, Central Bank of Iran

Table L-4-2 Producer Price Index in Iran (1376=100)

Period		General	Agriculture, Animal Husbandly & Forestry	Fhishary	Mining & Quarrying	Manufacturing	Electricity, Gas & Water Supply	Rearing of Motor Vehicles	Hotels & Restaurants	Transport, Storage & Communications
1369	1990/91	18.0	18.6	-	16.7	16.8	8.8	-	15.1	14.1
1370	1991/92	22.1	22.9	-	27.0	21.0	11.0	-	19.3	18.6
1371	1992/93	28.2	29.2	-	34.9	26.8	19.0	-	26.0	24.7
1372	1993/94	34.9	35.8	-	36.9	33.7	24.6	-	33.7	32.2
1373	1994/95	46.4	46.9	-	41.3	46.3	45.4	-	44.6	45.5
1374	1995/96	68.5	74.1	-	65.8	69.8	55.9	-	64.9	65.8
1375	1996/97	86.5	87.8	-	90.0	90.1	66.9	-	84.9	84.2
1376	1997/98	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1377	1998/99	118.7	122.6	128.0	122.8	117.0	131.4	121.1	125.7	115.3
1378	1999/2000	145.9	152.7	152.5	130.5	145.7	166.8	146.9	156.7	138.1

Source: Economic Reserch department, Central Bank of Iran

Table L-4-3 Producer Price Index in Iran (Continued) (1376=100)

Period		General	Major Groups					Agriculture, Animal Husbandry & Forestry & Fishary	Industries and Mines	Services
			Financial Intermediation	Real Estate, rending & Business Activities	Education	Health and Social Work	Other Community, Social & Personal			
1369	1990/91	18.0	60.2	20.6	15.5	10.3	-	18.6	16.4	20.8
1370	1991/92	22.1	61.9	24.4	19.8	14.3	-	22.9	20.5	24.6
1371	1992/93	28.2	69.0	30.3	28.2	20.4	-	29.2	26.4	30.8
1372	1993/94	34.9	77.0	36.4	41.2	27.5	-	35.8	33.3	37.6
1373	1994/95	46.4	77.4	44.4	58.1	38.0	-	46.9	46.2	46.3
1374	1995/96	68.5	99.2	56.8	74.1	53.5	-	74.1	69.1	61.6
1375	1996/97	86.5	99.6	76.5	94.5	76.1	-	87.8	89.0	80.0
1376	1997/98	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1377	1998/99	118.7	100.2	119.3	110.4	122.7	118.0	122.7	117.7	117.2
1378	1999/2000	145.9	120.1	139.2	132.0	153.6	141.8	152.7	146.2	139.7

Source: Economic Research department, Central Bank of Iran

Table L-4-4 Wholesale Price Index in Iran (1376=100)

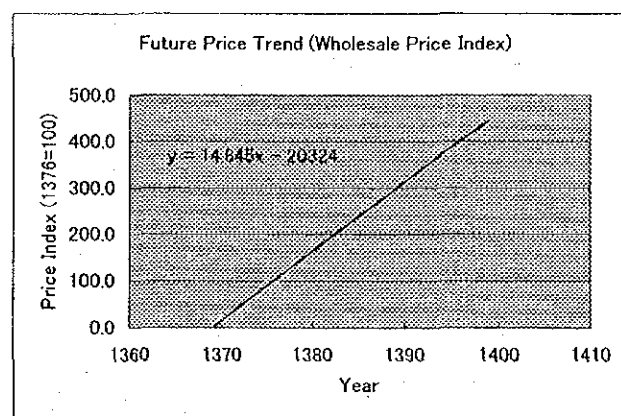
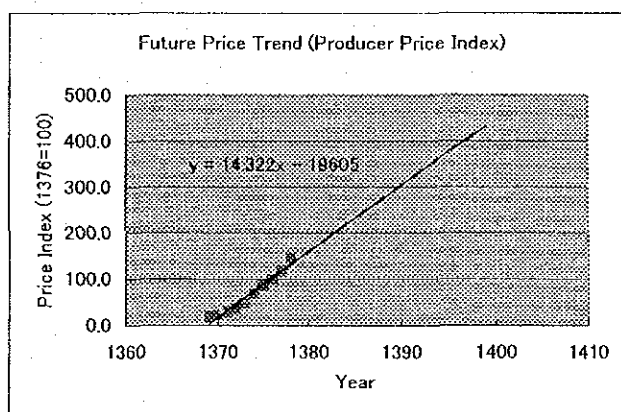
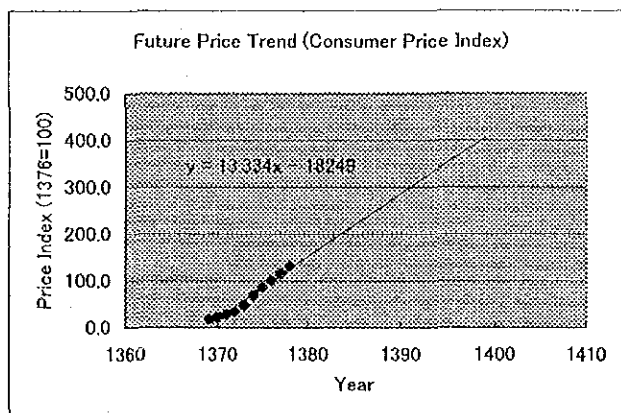
Table E 1.4. Wholesale Price Index in Iran (1970=100)

Period		General	Major Groups			Selected Main Groups						
			Domestical Consumed Goods	Imported Goods	Exported Goods	Food	Beverages & Tobacco	Non-fuel Industrial Materials	Fossil, Fuel Derivatives	Chemical Pertochemical Products	Industrial Products Raw Materials	Machinery Vehicles
1369	1990/91	15.1	15.5	13.4	21.3	18.8	19.7	20.4	12.9	9.9	16.7	10.4
1370	1991/92	19.1	19.6	16.2	32.5	22.2	23.7	25.7	18.4	12.1	20.8	13.5
1371	1992/93	25.5	26.5	22.5	34.7	27.8	26.7	30.5	23.5	18.6	27.8	20.9
1372	1993/94	31.9	33.6	28.7	37.0	32.8	36.5	36.8	31.3	37.3	33.6	27.6
1373	1994/95	45.4	46.9	42.2	52.8	44.9	51.3	59.3	46.2	53.4	38.0	39.6
1374	1995/96	72.7	72.0	72.5	81.6	74.6	73.3	90.4	61.9	72.1	75.3	66.4
1375	1996/97	91.0	89.1	93.6	92.8	86.8	89.3	100.7	83.1	87.7	100.0	85.5
1376	1997/98	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1377	1998/99	119.7	118.7	110.0	121.9	126.4	118.6	113.0	139.5	114.4	106.5	112.7
1378	1999/2000	144.9	145.8	134.2	195.9	155.4	150.6	134.5	216.8	148.6	131.4	135.9

Source: Economic Research department, Central Bank of Iran

Table L-5 Estimation of Future Price Trend of Islamic Republic of Iran (1990 - 2020)  
Price Index in Iran (1376=100)

Period		Consumer Price Index	Producer Price Index	Wholesale Price Index
1369	1990/91	18.6	18.0	15.1
1370	1991/92	22.4	22.1	19.1
1371	1992/93	27.9	28.2	25.5
1372	1993/94	34.3	34.9	31.9
1373	1994/95	46.3	46.4	45.4
1374	1995/96	69.2	68.5	72.7
1375	1996/97	85.2	86.5	91.0
1376	1997/98	100.0	100.0	100.0
1377	1998/99	115.6	118.7	119.7
1378	1999/00	131.0	145.9	144.9
1379	2000/01	138.6	145.0	147.3
1380	2001/02	151.9	159.4	162.1
1381	2002/03	165.3	173.7	176.9
1382	2003/04	178.6	188.0	191.8
1383	2004/05	191.9	202.3	206.6
1384	2005/06	205.3	216.6	221.5
1385	2006/07	218.6	231.0	236.3
1386	2007/08	231.9	245.3	251.2
1387	2008/09	245.3	259.6	266.0
1388	2009/10	258.6	273.9	280.9
1389	2010/11	271.9	288.3	295.7
1390	2011/12	285.3	302.6	310.5
1391	2012/13	298.6	316.9	325.4
1392	2013/14	311.9	331.2	340.2
1393	2014/15	325.3	345.5	355.1
1394	2015/16	338.6	359.9	369.9
1395	2016/17	351.9	374.2	384.8
1396	2017/18	365.3	388.5	399.6
1397	2018/19	378.6	402.8	414.5
1398	2019/20	391.9	417.2	429.3
1399	2020/21	405.3	431.5	444.2



Note: Original data of price index from 1369 to 1378 (1376=100), Economic Research Department, Central Bank of Iran is used in this anal  
Data from 1379 to 1399 are estimated by regression analysis.

Table L-6 Bank Profit Rates of Islamic Republic of Iran

(% per annum)

Year		Term-investment Deposit Rates					Expected Rate of Profit on Facilities				
		Short-term	One-year	Two-year	Three-year	Five-year	Manufacturing & Mining	Construction & Housing	Agriculture	Trade & services	Export *
1375	1996/97	8	14	15	16	18.5	17-19	15-16	13-16	22-25	18
1376	1997/98	8	14	15	16	18.5	17-19	15-16	13-16	22-25	18
1377	1998/99	8	14	15	16	18.5	17-19	15-16	13-16	22-25	18
1378	1999/00	8	14	15	16	18.5	17-19	15-16	13-16	22-25	18
1379	2000/01 (Provisional)	8	14	15	16	18.5	17-19	15-16	13-16	22-25	18

Source: Central Bank of Iran

\* The Expected profit rate on export facilities is the minimum profit rate for services sector. However, the government pays 4 percent to bank as subsidy.

Table L-7 Unemployment Rate in Master Plan Study Area: Based on 1996 Census

Sub-Basin	Province	Township	District	Rural District	Village	Total Population	Population 10 years of age and over	Active Population	Number of Employed	Unemployed (seeking work)	Unemployment Rate (%)
K4-1-9	Chaharmahal va Bakhtiari	Boroujen	Gandoman	Gandoman	Vastigan	765	553	283	280	3	1
					Nasir abad	509	363	174	171	3	2
					Konrak-up	1,008	709	370	366	4	1
					Konrak-down	324	240	100	100	-	-
					Morchegan	971	716	370	367	3	1
Total						3,577	2,581	1,297	1,284	13	1
K5-19a	Chaharmahal va Bakhtiari	Farsan	Bazoft	Bazoft	Upper Taberak	230	147	58	58	-	-
					Lower Taberak	364	242	94	91	3	3
					Cham ghaleh bala	464	294	140	130	10	7
					Artak	159	106	36	34	2	6
Total						1,217	789	328	313	15	5
K7-0-19-1	Esfahan	Semiron	Padena	Upper Padena	Noor abad	200	137	50	37	13	26
					Sar baze	212	147	50	43	7	14
					Kahan Gon	659	469	160	156	4	3
					Dehe bozorg	203	135	39	39	-	-
					Tale Mohammad	336	229	78	74	4	5
Total						1,610	1,117	377	349	28	7
K7-48	Kohgiluyeh va Boyerahmad	Yasuj	Central	Tangsorkh	Tange surkh	484	378	128	109	19	15
					Deh toil	-	-	-	-	-	-
					Cheshmeh chenar	-	-	-	-	-	-
					Hassan abad	66	47	20	19	1	5
Total						607	469	166	143	23	14
K8-28	Khuzestan	Izeh	Deh dez	Donbaleh rode	Zeras	72	53	14	14	-	-
					Bardkol	27	18	4	4	-	-
					Ghalansark bala	-	-	no inhabitant			
					She belitak	-	-	-	-	-	-
					Sarguf	13	10	1	1	-	-
					Lir siiab	299	192	48	47	1	2
					Dareh zang	498	344	118	117	1	1
					Gerdliidan	155	94	28	27	1	4
					Chamzark	-	-	no inhabitant			
					Dehno	133	78	22	22	-	-
					Bade lon	167	115	38	38	-	-
					Dehdez	46	30	12	12	-	-
					Ab surakh	235	146	40	36	4	10
Total						1,645	1,080	325	318	7	2
Grand Total						8,656	6,036	2,493	2,407	86	3

Source: Rural Reserch Center



TableL-8-1-1 Disaster Prevention Facility for Vastegan

Vastegan TM		Main check dam		
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				1,162,077,840
1. Preparatory Works (10% of Item2)				105,643,440
2. Civil Works				1,056,434,400
a. Excavation				53,371,400
-Gravel, Soil	2,805	cu m	7,000	19,635,000
-Weathered Rock	1,748	cu m	19,300	33,736,400
-Rock		cu m	24,900	0
b. Concrete				696,077,200
-Plain Concrete	1,428	cu m	109,200	155,937,600
-Rubble Concrete	5,808	cu m	81,900	475,675,200
-Wet Masonry	1,771	sq m	36,400	64,464,400
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap	634	cu m	15,600	9,890,400
e. Concrete Block		cu m	120,000	0
f. Gabion	1582	cu m	76,500	121,023,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		176,072,400
II. Administration Cost (5% of Total of Item I)				58,103,892
III. Engineering Cost (10% of Item I)				116,207,784
IV. Physical Contingency (20% of I + II + III)				267,277,903
V. Total(I + II + III + IV) Rounded Total				1,603,667,419 1,603,700,000

Vastegan T1		Main check dam		
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				271,594,488
1. Preparatory Works (10% of Item2)				24,690,408
2. Civil Works				246,904,080
a. Excavation				8,470,000
-Gravel, Soil	1,210	cu m	7,000	8,470,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				122,859,100
-Plain Concrete	687	cu m	109,200	75,020,400
-Rubble Concrete	325	cu m	81,900	26,617,500
-Wet Masonry	583	sq m	36,400	21,221,200
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap	323	cu m	15,600	5,038,800
e. Concrete Block		cu m	120,000	0
f. Gabion	907	cu m	76,500	69,385,500
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		41,150,680
II. Administration Cost (5% of Total of Item I)				13,579,724
III. Engineering Cost (10% of Item I)				27,159,449
IV. Physical Contingency (20% of I + II + III)				62,466,732
V. Total(I + II + III + IV) Rounded Total				374,800,393 374,800,000

Vastegan T2		Main check dam		
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				400,133,712
1. Preparatory Works (10% of Item2)				36,375,792
2. Civil Works				363,757,920
a.Excavation				9,989,000
-Gravel,Soil	1,427	cu m	7,000	9,989,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b.Concrete				150,204,600
-Plain Concrete	953	cu m	109,200	104,067,600
-Rubble Concrete	242	cu m	81,900	19,819,800
-Wet Masonry	723	sq m	36,400	26,317,200
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	375	cu m	15,600	5,850,000
e.Concrete Block		cu m	120,000	0
f.Gabion	1792	cu m	76,500	137,088,000
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		60,626,320
II. Administration Cost (5% of Total of Item I )				20,006,686
III .Engineering Cost (10% of Item I )				40,013,371
IV. Physical Contingency (20% of I + II + III)				92,030,754
V. Total( I + II + III + IV) Rounded Total				552,184,523 552,200,000

Vastegan T3		Main check dam		
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				289,894,176
1. Preparatory Works (10% of Item2)				26,354,016
2. Civil Works				263,540,160
a.Excavation				6,818,000
-Gravel,Soil	974	cu m	7,000	6,818,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b.Concrete				108,745,000
-Plain Concrete	677	cu m	109,200	73,928,400
-Rubble Concrete	178	cu m	81,900	14,578,200
-Wet Masonry	556	sq m	36,400	20,238,400
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	148	cu m	15,600	2,308,800
e.Concrete Block		cu m	120,000	0
f.Gabion	1330	cu m	76,500	101,745,000
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		43,923,360
II. Administration Cost (5% of Total of Item I )				14,494,709
III .Engineering Cost (10% of Item I )				28,989,418
IV. Physical Contingency (20% of I + II + III)				66,675,660
V. Total( I + II + III + IV) Rounded Total				400,053,963 400,100,000

### Vastegan Check Dam Total

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				2,123,700,216
1. Preparatory Works (10% of Item2)				193,063,656
2. Civil Works				1,930,636,560
a. Excavation				78,648,400
-Gravel, Soil	6,416	cu m	7,000	44,912,000
-Weathered Rock	1,748	cu m	19,300	33,736,400
-Rock		cu m	24,900	0
b. Concrete				1,077,885,900
-Plain Concrete	3,745	cu m	109,200	408,954,000
-Rubble Concrete	6,553	cu m	81,900	536,690,700
-Wet Masonry	3,633	sq m	36,400	132,241,200
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap	1,480	cu m	15,600	23,088,000
e. Concrete Block		cu m	120,000	0
f. Gabion	5611	cu m	76,500	429,241,500
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		321,772,760
II. Administration Cost (5% of Total of Item I)				106,185,011
III. Engineering Cost (10% of Item I)				212,370,022
IV. Physical Contingency (20% of I + II + III)				488,451,050
V. Total (I + II + III + IV)				2,930,706,298
Rounded Total				2,930,700,000

### Vastegan River Improvement

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				3,754,106,400
1. Preparatory Works (10% of Item2)				341,282,400
2. Civil Works				3,412,824,000
a. Excavation				174,020,000
-Gravel, Soil	79,100	cu m	2,200	174,020,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion		cu m	76,500	0
g. Embankment	102,000	cu m	25,000	2,550,000,000
h. Bridge	1	l.s.	120,000,000	120,000,000
i. Miscellaneous (20% of a to g)		l.s.		568,804,000
II. Administration Cost (5% of Total of Item I)				187,705,320
III. Engineering Cost (10% of Item I)				375,410,640
IV. Physical Contingency (20% of I + II + III)				863,444,472
V. Total (I + II + III + IV)				5,180,666,832
Rounded Total				5,180,700,000

### Vastegan Channel Work

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				4,740,687,600
1. Preparatory Works (10% of Item2)				430,971,600
2. Civil Works				4,309,716,000
a. Excavation				917,000,000
-Gravel, Soil	131,000	cu m	7,000	917,000,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				1,399,580,000
-Plain Concrete	2,200	cu m	109,200	240,240,000
-Rubble Concrete	11,800	cu m	81,900	966,420,000
-Wet Masonry	5,300	sq m	36,400	192,920,000
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap	8,000	cu m	15,600	124,800,000
e. Concrete Block		cu m	120,000	0
f. Gabion	6,700	cu m	76,500	512,550,000
g. Embankment	25,500	cu m	25,000	637,500,000
h. Miscellaneous (20% of a to g)		l.s.		718,286,000
II. Administration Cost (5% of Total of Item I)				237,034,380
III. Engineering Cost (10% of Item I)				474,068,760
IV. Physical Contingency (20% of I + II + III)				1,090,358,148
V. Total (I + II + III + IV)				6,542,148,888
Rounded Total				6,542,100,000

### Vastegan Check Dam (P.P.)

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				393,030,000
1. Preparatory Works (10% of Item2)				35,730,000
2. Civil Works				357,300,000
a. Excavation				14,700,000
-Gravel, Soil	2,100	cu m	7,000	14,700,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	3,700	cu m	76,500	283,050,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		59,550,000
II. Administration Cost (5% of Total of Item I)				19,651,500
III. Engineering Cost				0
IV. Physical Contingency (20% of I + II + III)				82,536,300
V. Total (I + II + III + IV)				495,217,800
Rounded Total				495,200,000

Table L-8-1-2 Disaster Prevention Facility for Chaman-Goli Bazoft

Bazoft T1 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				138,500,340
1. Preparatory Works (10% of Item 2)				12,590,940
2. Civil Works				125,909,400
a. Excavation				4,564,000
-Gravel, Soil	652	cu m	7,000	4,564,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				60,469,500
-Plain Concrete	332	cu m	109,200	36,254,400
-Rubble Concrete	161	cu m	81,900	13,185,900
-Wet Masonry	303	sq m	36,400	11,029,200
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	115	cu m	15,600	1,794,000
e. Concrete Block		cu m	120,000	0
f. Gabion	498	cu m	76,500	38,097,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		20,984,900
II. Administration Cost (5% of Total of Item I)				6,925,017
III. Engineering Cost (10% of Item I)				13,850,034
IV. Physical Contingency (20% of I+II+III)				31,855,078
V. Total (I+II+III+IV)				191,130,469
Rounded Total				191,100,000

Bazoft T2 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				1,505,623,284
1. Preparatory Works (10% of Item 2)				136,874,844
2. Civil Works				1,368,748,440
a. Excavation				88,796,500
-Gravel, Soil	4,992	cu m	7,000	34,944,000
-Weathered Rock	2,002	cu m	19,300	38,638,600
-Rock	611	cu m	24,900	15,213,900
b. Concrete				581,972,300
-Plain Concrete	2,439	cu m	109,200	266,338,800
-Rubble Concrete	2,741	cu m	81,900	224,487,900
-Wet Masonry	2,504	sq m	36,400	91,145,600
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	1,404	cu m	15,600	21,902,400
e. Concrete Block	198	cu m	120,000	23,760,000
f. Gabion	5,545	cu m	76,500	424,192,500
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		228,124,740
II. Administration Cost (5% of Total of Item I)				75,281,164
III. Engineering Cost (10% of Item I)				150,562,328
IV. Physical Contingency (20% of I+II+III)				346,293,355
V. Total (I+II+III+IV)				2,077,760,132
Rounded Total				2,077,800,000

Bazoft T3		Main check dam		
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				252,376,608
1. Preparatory Works (10% of Item2)				22,943,328
2. Civil Works				229,433,280
a.Excavation				10,352,200
-Gravel,Soil	751	cu m	7,000	5,257,000
-Weathered Rock	264	cu m	19,300	5,095,200
-Rock		cu m	24,900	0
b.Concrete				91,518,700
-Plain Concrete	433	cu m	109,200	47,283,600
-Rubble Concrete	377	cu m	81,900	30,876,300
-Wet Masonry	367	sq m	36,400	13,358,800
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	160	cu m	15,600	2,496,000
e.Concrete Block		cu m	120,000	0
f.Gabion	1,135	cu m	76,500	86,827,500
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		38,238,880
II. Administration Cost (5% of Total of Item I)				12,618,830
III. Engineering Cost (10% of Item I)				25,237,661
IV. Physical Contingency (20% of I+II+III)				58,046,620
V. Total( I+II+III+IV)				348,279,719
Rounded Total				348,300,000

Bazoft T4		Main check dam		
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				34,827,144
1. Preparatory Works (10% of Item2)				3,166,104
2. Civil Works				31,661,040
a.Excavation				1,197,000
-Gravel,Soil	171	cu m	7,000	1,197,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b.Concrete				15,078,700
-Plain Concrete	86	cu m	109,200	9,391,200
-Rubble Concrete	37	cu m	81,900	3,030,300
-Wet Masonry	73	sq m	36,400	2,657,200
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	35	cu m	15,600	546,000
e.Concrete Block		cu m	120,000	0
f.Gabion	125	cu m	76,500	9,562,500
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		5,276,840
II. Administration Cost (5% of Total of Item I)				1,741,357
III. Engineering Cost (10% of Item I)				3,482,714
IV. Physical Contingency (20% of I+II+III)				8,010,243
V. Total( I+II+III+IV)				48,061,459
Rounded Total				48,100,000

		Bazoft T5	Main check dam	
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				34,827,144
1. Preparatory Works (10% of Item2)				3,166,104
2. Civil Works				31,661,040
a.Excavation				1,197,000
-Gravel,Soil	171	cu m	7,000	1,197,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b.Concrete				15,078,700
-Plain Concrete	86	cu m	109,200	9,391,200
-Rubble Concrete	37	cu m	81,900	3,030,300
-Wet Masonry	73	sq m	36,400	2,657,200
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	35	cu m	15,600	546,000
e.Concrete Block		cu m	120,000	0
f.Gabion	125	cu m	76,500	9,562,500
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		5,276,840
II. Administration Cost (5% of Total of Item I)				1,741,357
III .Engineering Cost (10% of Item I)				3,482,714
IV. Physical Contingency (20% of I+II+III)				8,010,243
V. Total(I+II+III+IV)				48,061,459
Rounded Total				48,100,000

Bazoft Check Dam Total				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				1,966,154,520
1. Preparatory Works (10% of Item2)				178,741,320
2. Civil Works				1,787,413,200
a.Excavation				106,106,700
-Gravel,Soil	6,737	cu m	7,000	47,159,000
-Weathered Rock	2,266	cu m	19,300	43,733,800
-Rock	611	cu m	24,900	15,213,900
b.Concrete				764,117,900
-Plain Concrete	3,376	cu m	109,200	368,659,200
-Rubble Concrete	3,353	cu m	81,900	274,610,700
-Wet Masonry	3,320	sq m	36,400	120,848,000
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	1,749	cu m	15,600	27,284,400
e.Concrete Block	198	cu m	120,000	23,760,000
f.Gabion	7,428	cu m	76,500	568,242,000
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		297,902,200
II. Administration Cost (5% of Total of Item I)				98,307,726
III .Engineering Cost (10% of Item I)				196,615,452
IV. Physical Contingency (20% of I+II+III)				452,215,540
V. Total( I+II+III+IV)				2,713,293,238
Rounded Total				2,713,300,000

### Bazoft Bank Protection (P. Participation)

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				943,740,600
1. Preparatory Works (10% of Item2)				85,794,600
2. Civil Works				857,946,000
a. Excavation				14,175,000
-Gravel, Soil	2,025	cu m	7,000	14,175,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfill	400	cu m	30,700	12,280,000
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	9000	cu m	76,500	688,500,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		142,991,000
<b>II. Administration Cost</b> (5% of Total of Item I)				47,187,030
<b>III. Engineering Cost</b>				0
<b>IV. Physical Contingency</b> (20% of I + II + III)				198,185,526
<b>V. Total (I + II + III + IV)</b> Rounded Total				1,189,113,156 1,189,100,000

### Bazoft River Improvement

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				942,359,748
1. Preparatory Works (10% of Item2)				85,669,068
2. Civil Works				856,690,680
a. Excavation				33,229,000
-Gravel, Soil	4,747	cu m	7,000	33,229,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				535,707,900
-Plain Concrete	2,969	cu m	109,200	324,214,800
-Rubble Concrete	2,345	cu m	81,900	192,055,500
-Wet Masonry	534	sq m	36,400	19,437,600
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	4,370	cu m	15,600	68,172,000
e. Concrete Block	640	cu m	120,000	76,800,000
f. Gabion		cu m	76,500	0
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		142,781,780
<b>II. Administration Cost</b> (5% of Total of Item I)				47,117,987
<b>III. Engineering Cost</b> (10% of Item I)				94,235,975
<b>IV. Physical Contingency</b> (20% of I + II + III)				216,742,742
<b>V. Total (I + II + III + IV)</b> Rounded Total				1,300,456,452 1,300,500,000



### Bazoft Rockfall Protection

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				72,219,840
1. Preparatory Works (10% of Item2)				6,565,440
2. Civil Works				65,654,400
a. Excavation				1,750,000
-Gravel, Soil	250	cu m	7,000	1,750,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				52,962,000
-Plain Concrete	19	cu m	109,200	2,074,800
-Rubble Concrete	496	cu m	81,900	40,622,400
-Wet Masonry	282	sq m	36,400	10,264,800
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion		cu m	76,500	0
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		10,942,400
II. Administration Cost (5% of Total of Item I)				3,610,992
III. Engineering Cost (10% of Item I)				7,221,984
IV. Physical Contingency (20% of I + II + III)				16,610,563
V. Total (I + II + III + IV)				99,663,379
Rounded Total				99,700,000

### Bazoft Land Slide Protection

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				178,491,192
1. Preparatory Works (10% of Item2)				16,226,472
2. Civil Works				162,264,720
a. Excavation				13,132,000
-Gravel, Soil	1,876	cu m	7,000	13,132,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				83,456,100
-Plain Concrete		cu m	109,200	0
-Rubble Concrete	1,019	cu m	81,900	83,456,100
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	505	cu m	76,500	38,632,500
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		27,044,120
II. Administration Cost (5% of Total of Item I)				8,924,560
III. Engineering Cost (10% of Item I)				17,849,119
IV. Physical Contingency (20% of I + II + III)				41,052,974
V. Total (I + II + III + IV)				246,317,845
Rounded Total				246,300,000

Bazoft Check Dam (P. Participation)

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				443,520,000
1. Preparatory Works (10% of Item 2)				40,320,000
2. Civil Works				403,200,000
a. Excavation				14,700,000
-Gravel, Soil	2,100	cu m	7,000	14,700,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	4200	cu m	76,500	321,300,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		67,200,000
II. Administration Cost (5% of Total of Item I)				22,176,000
III. Engineering Cost (10% of Item I)				0
IV. Physical Contingency (20% of I + II + III)				93,139,200
V. Total (I + II + III + IV)				558,835,200
Rounded Total				558,800,000

Table L-8-1-3 Disaster Prevention Facility for Sarbaz

Sarbaz TM Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				1,362,688,404
1. Preparatory Works (10% of Item 2)				123,880,764
2. Civil Works				1,238,807,640
a. Excavation				63,085,000
-Gravel, Soil	5,290	cu m	7,000	37,030,000
-Weathered Rock	1,350	cu m	19,300	26,055,000
-Rock		cu m	24,900	0
b. Concrete				618,836,400
-Plain Concrete	2,756	cu m	109,200	300,955,200
-Rubble Concrete	2,728	cu m	81,900	223,423,200
-Wet Masonry	2,595	sq m	36,400	94,458,000
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	1,388	cu m	15,600	21,652,800
e. Concrete Block	198	cu m	120,000	23,760,000
f. Gabion	3,987	cu m	76,500	305,005,500
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		206,467,940
II. Administration Cost (5% of Total of Item I)				68,134,420
III. Engineering Cost (10% of Item I)				136,268,840
IV. Physical Contingency (20% of I + II + III)				313,418,333
V. Total (I + II + III + IV)				1,880,509,998
Rounded Total				1,880,500,000

Sarbaz T1 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				763,502,256
1. Preparatory Works (10% of Item 2)				69,409,296
2. Civil Works				694,092,960
a. Excavation				23,807,000
-Gravel, Soil	3,401	cu m	7,000	23,807,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				286,495,300
-Plain Concrete	1,809	cu m	109,200	197,542,800
-Rubble Concrete	471	cu m	81,900	38,574,900
-Wet Masonry	1,384	sq m	36,400	50,377,600
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	685	cu m	15,600	10,686,000
e. Concrete Block		cu m	120,000	0
f. Gabion	3,365	cu m	76,500	257,422,500
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		115,682,160
II. Administration Cost (5% of Total of Item I)				38,175,113
III. Engineering Cost (10% of Item I)				76,350,226
IV. Physical Contingency (20% of I + II + III)				175,605,519
V. Total (I + II + III + IV)				1,053,633,113
Rounded Total				1,053,600,000

Sarbaz T2 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				405,967,716
1. Preparatory Works (10% of Item2)				36,906,156
2. Civil Works				369,061,560
a. Excavation				11,179,000
-Gravel, Soil	1,597	cu m	7,000	11,179,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				157,457,300
-Plain Concrete	927	cu m	109,200	101,228,400
-Rubble Concrete	343	cu m	81,900	28,091,700
-Wet Masonry	773	sq m	36,400	28,137,200
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	225	cu m	15,600	3,510,000
e. Concrete Block		cu m	120,000	0
f. Gabion	1,770	cu m	76,500	135,405,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		61,510,260
II. Administration Cost (5% of Total of Item I)				20,298,386
III. Engineering Cost (10% of Item I)				40,596,772
IV. Physical Contingency (20% of I + II + III)				93,372,575
V. Total (I + II + III + IV) Rounded Total				560,235,448 560,200,000

Sarbaz T3 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				295,652,016
1. Preparatory Works (10% of Item2)				26,877,456
2. Civil Works				268,774,560
a. Excavation				8,330,000
-Gravel, Soil	1,190	cu m	7,000	8,330,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				116,279,800
-Plain Concrete	704	cu m	109,200	76,876,800
-Rubble Concrete	226	cu m	81,900	18,509,400
-Wet Masonry	574	sq m	36,400	20,893,600
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	240	cu m	15,600	3,744,000
e. Concrete Block		cu m	120,000	0
f. Gabion	1,250	cu m	76,500	95,625,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		44,795,760
II. Administration Cost (5% of Total of Item I)				14,782,601
III. Engineering Cost (10% of Item I)				29,565,202
IV. Physical Contingency (20% of I + II + III)				67,999,964
V. Total (I + II + III + IV) Rounded Total				407,999,782 408,000,000

### Sarbaz Check Dam Total

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				2,827,810,392
1. Preparatory Works (10% of Item2)				257,073,672
2. Civil Works				2,570,736,720
a. Excavation				106,401,000
-Gravel, Soil	11,478	cu m	7,000	80,346,000
-Weathered Rock	1,350	cu m	19,300	26,055,000
-Rock		cu m	24,900	0
b. Concrete				1,179,068,800
-Plain Concrete	6,196	cu m	109,200	676,603,200
-Rubble Concrete	3,768	cu m	81,900	308,599,200
-Wet Masonry	5,326	sq m	36,400	193,866,400
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	2,538	cu m	15,600	39,592,800
e. Concrete Block	198	cu m	120,000	23,760,000
f. Gabion	10,372	cu m	76,500	793,458,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		428,456,120
<b>II. Administration Cost</b> (5% of Total of Item I)				141,390,520
<b>III. Engineering Cost</b> (10% of Item I)				282,781,039
<b>IV. Physical Contingency</b> (20% of I + II + III)				650,396,390
<b>V. Total (I + II + III + IV)</b>				3,902,378,341
Rounded Total				3,902,400,000

### Sarbaz Bank Protection (P. Participation)

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				4,262,346,000
1. Preparatory Works (10% of Item2)				387,486,000
2. Civil Works				3,874,860,000
a. Excavation				404,250,000
-Gravel, Soil	57,750	cu m	7,000	404,250,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	19,250	cu m	15,600	300,300,000
e. Concrete Block		cu m	120,000	0
f. Gabion	33,000	cu m	76,500	2,524,500,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		645,810,000
<b>II. Administration Cost</b> (5% of Total of Item I)				213,117,300
<b>III. Engineering Cost</b>				0
<b>IV. Physical Contingency</b> (20% of I + II + III)				895,092,660
<b>V. Total (I + II + III + IV)</b>				5,370,555,960
Rounded Total				5,370,600,000

### Sarbaz Land Slide Protection

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				778,862,700
1. Preparatory Works (10% of Item 2)				70,805,700
2. Civil Works				708,057,000
a. Excavation				48,846,000
-Gravel, Soil	6,978	cu m	7,000	48,846,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				261,670,500
-Plain Concrete		cu m	109,200	0
-Rubble Concrete	3,195	cu m	81,900	261,670,500
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	3654	cu m	76,500	279,531,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		118,009,500
II. Administration Cost (5% of Total of Item I)				38,943,135
III. Engineering Cost (10% of Item I)				77,886,270
IV. Physical Contingency (20% of I + II + III)				179,138,421
V. Total (I + II + III + IV) Rounded Total				1,074,830,526 1,074,800,000

### Sarbaz Check Dam (P. Participation)

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				471,636,000
1. Preparatory Works (10% of Item 2)				42,876,000
2. Civil Works				428,760,000
a. Excavation				17,640,000
-Gravel, Soil	2,520	cu m	7,000	17,640,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	4,440	cu m	76,500	339,660,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		71,460,000
II. Administration Cost (5% of Total of Item I)				23,581,800
III. Engineering Cost				0
IV. Physical Contingency (20% of I + II + III)				99,043,560
V. Total (I + II + III + IV) Rounded Total				594,261,360 594,300,000

Table L-8-1-4 Disaster Prevention Facility for Tangsorkh

Tangsorkh TM Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				1,039,636,488
1. Preparatory Works (10% of Item 2)				94,512,408
2. Civil Works				945,124,080
a. Excavation				55,924,600
-Gravel, Soil	1,877	cu m	7,000	13,139,000
-Weathered Rock	968	cu m	19,300	18,682,400
-Rock	968	cu m	24,900	24,103,200
b. Concrete				427,363,300
-Plain Concrete	1,603	cu m	109,200	175,047,600
-Rubble Concrete	2,367	cu m	81,900	193,857,300
-Wet Masonry	1,606	sq m	36,400	58,458,400
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	730	cu m	15,600	11,388,000
e. Concrete Block	135	cu m	120,000	16,200,000
f. Gabion	2,055	cu m	76,500	157,207,500
g. Embankment		cu m	25,000	0
h. Road Relocation	1	l.s.	119,520,000	119,520,000
i. Miscellaneous (20% of a to g)		l.s.		157,520,680
<b>II. Administration Cost (5% of Total of Item I)</b>				51,981,824
<b>III. Engineering Cost (10% of Item I)</b>				103,963,649
<b>IV. Physical Contingency (20% of I + II + III)</b>				239,116,392
<b>V. Total (I + II + III + IV)</b>				1,434,698,353
Rounded Total				1,434,700,000

Tangsorkh T1 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				19,375,884
1. Preparatory Works (10% of Item 2)				1,761,444
2. Civil Works				17,614,440
a. Excavation				1,322,000
-Gravel, Soil	51	cu m	7,000	357,000
-Weathered Rock	50	cu m	19,300	965,000
-Rock		cu m	24,900	0
b. Concrete				8,526,700
-Plain Concrete	47	cu m	109,200	5,132,400
-Rubble Concrete	25	cu m	81,900	2,047,500
-Wet Masonry	37	sq m	36,400	1,346,800
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	35	cu m	15,600	546,000
e. Concrete Block		cu m	120,000	0
f. Gabion	56	cu m	76,500	4,284,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		2,935,740
<b>II. Administration Cost (5% of Total of Item I)</b>				968,794
<b>III. Engineering Cost (10% of Item I)</b>				1,937,588
<b>IV. Physical Contingency (20% of I + II + III)</b>				4,456,453
<b>V. Total (I + II + III + IV)</b>				26,738,720
Rounded Total				26,700,000

Tangesorkh T2 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				40,487,700
1. Preparatory Works (10% of Item2)				3,680,700
2. Civil Works				36,807,000
a. Excavation				2,314,400
-Gravel, Soil	88	cu m	7,000	616,000
-Weathered Rock	88	cu m	19,300	1,698,400
-Rock		cu m	24,900	0
b. Concrete				19,164,600
-Plain Concrete	98	cu m	109,200	10,701,600
-Rubble Concrete	62	cu m	81,900	5,077,800
-Wet Masonry	93	sq m	36,400	3,385,200
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap	45	cu m	15,600	702,000
e. Concrete Block		cu m	120,000	0
f. Gabion	111	cu m	76,500	8,491,500
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		6,134,500
II. Administration Cost (5% of Total of Item I)				2,024,385
III. Engineering Cost (10% of Item I)				4,048,770
IV. Physical Contingency (20% of I+II+III)				9,312,171
V. Total(I+II+III+IV) Rounded Total				55,873,026 55,900,000

Tangesorkh T3 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				44,603,064
1. Preparatory Works (10% of Item2)				4,054,824
2. Civil Works				40,548,240
a. Excavation				980,000
-Gravel, Soil	140	cu m	7,000	980,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				19,719,700
-Plain Concrete	112	cu m	109,200	12,230,400
-Rubble Concrete	47	cu m	81,900	3,849,300
-Wet Masonry	100	sq m	36,400	3,640,000
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap	30	cu m	15,600	468,000
e. Concrete Block		cu m	120,000	0
f. Gabion	165	cu m	76,500	12,622,500
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		6,758,040
II. Administration Cost (5% of Total of Item I)				2,230,153
III. Engineering Cost (10% of Item I)				4,460,306
IV. Physical Contingency (20% of I+II+III)				10,258,705
V. Total(I+II+III+IV) Rounded Total				61,552,228 61,600,000



Tangesorkh T4 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				15,743,640
1. Preparatory Works (10% of Item2)				1,431,240
2. Civil Works				14,312,400
a.Excavation				658,000
-Gravel,Soil	94	cu m	7,000	658,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b.Concrete				7,052,500
-Plain Concrete	40	cu m	109,200	4,368,000
-Rubble Concrete	19	cu m	81,900	1,556,100
-Wet Masonry	31	sq m	36,400	1,128,400
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	30	cu m	15,600	468,000
e.Concrete Block		cu m	120,000	0
f.Gabion	49	cu m	76,500	3,748,500
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		2,385,400
II. Administration Cost (5% of Total of Item I)				787,182
III .Engineering Cost (10% of Item I)				1,574,364
IV. Physical Contingency (20% of I+II+III)				3,621,037
V. Total(I + II + III + IV) Rounded Total				21,726,223 21,700,000

Tangesorkh T5 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				221,404,128
1. Preparatory Works (10% of Item2)				20,127,648
2. Civil Works				201,276,480
a.Excavation				5,873,000
-Gravel,Soil	839	cu m	7,000	5,873,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b.Concrete				96,769,400
-Plain Concrete	566	cu m	109,200	61,807,200
-Rubble Concrete	218	cu m	81,900	17,854,200
-Wet Masonry	470	sq m	36,400	17,108,000
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	210	cu m	15,600	3,276,000
e.Concrete Block		cu m	120,000	0
f.Gabion	808	cu m	76,500	61,812,000
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		33,546,080
II. Administration Cost (5% of Total of Item I)				11,070,206
III .Engineering Cost (10% of Item I)				22,140,413
IV. Physical Contingency (20% of I+II+III)				50,922,949
V. Total(I + II + III + IV) Rounded Total				305,537,697 305,500,000

Tangesorkh T6 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				95,709,636
1. Preparatory Works (10% of Item2)				8,700,876
2. Civil Works				87,008,760
a.Excavation				2,198,000
-Gravel,Soil	314	cu m	7,000	2,198,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b.Concrete				39,839,800
-Plain Concrete	240	cu m	109,200	26,208,000
-Rubble Concrete	78	cu m	81,900	6,388,200
-Wet Masonry	199	sq m	36,400	7,243,600
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	75	cu m	15,600	1,170,000
e.Concrete Block		cu m	120,000	0
f.Gabion	383	cu m	76,500	29,299,500
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		14,501,460
II. Administration Cost (5% of Total of Item I)				4,785,482
III. Engineering Cost (10% of Item I)				9,570,964
IV. Physical Contingency (20% of I+II+III)				22,013,216
V. Total(I+II+III+IV)				132,079,298
Rounded Total				132,100,000

Tangesorkh Check Dam Total				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				1,476,960,540
1. Preparatory Works (10% of Item2)				134,269,140
2. Civil Works				1,342,691,400
a.Excavation				69,270,000
-Gravel,Soil	3,403	cu m	7,000	23,821,000
-Weathered Rock	1,106	cu m	19,300	21,345,800
-Rock	968	cu m	24,900	24,103,200
b.Concrete				618,436,000
-Plain Concrete	2,706	cu m	109,200	295,495,200
-Rubble Concrete	2,816	cu m	81,900	230,630,400
-Wet Masonry	2,536	sq m	36,400	92,310,400
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	1,155	cu m	15,600	18,018,000
e.Concrete Block	135	cu m	120,000	16,200,000
f.Gabion	3,627	cu m	76,500	277,465,500
g.Embankment		cu m	25,000	0
h.Road Relocation	1	l.s.	119,520,000	119,520,000
i.Miscellaneous (20% of a to g)		l.s.		223,781,900
II. Administration Cost (5% of Total of Item I)				73,848,027
III. Engineering Cost (10% of Item I)				147,696,054
IV. Physical Contingency (20% of I+II+III)				339,700,924
V. Total(I+II+III+IV)				2,038,205,545
Rounded Total				2,038,200,000

Tangesorkh Check Dam (P. Participation)				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				190,080,000
1. Preparatory Works (10% of Item 2)				17,280,000
2. Civil Works				172,800,000
a. Excavation				6,300,000
-Gravel, Soil	900	cu m	7,000	6,300,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	1,800	cu m	76,500	137,700,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		28,800,000
II. Administration Cost (5% of Total of Item I)				9,504,000
III. Engineering Cost				0
IV. Physical Contingency (20% of I + II + III)				39,916,800
V. Total (I + II + III + IV)				239,500,800
Rounded Total				239,500,000

Table L-8-1-5 Disaster Prevention Facility for Zeras

Zeras T1 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				242,024,904
1. Preparatory Works (10% of Item 2)				22,002,264
2. Civil Works				220,022,640
a. Excavation				9,100,000
-Gravel, Soil	1,300	cu m	7,000	9,100,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				99,663,200
-Plain Concrete	546	cu m	109,200	59,623,200
-Rubble Concrete	272	cu m	81,900	22,276,800
-Wet Masonry	488	sq m	36,400	17,763,200
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	260	cu m	15,600	4,056,000
e. Concrete Block		cu m	120,000	0
f. Gabion	922	cu m	76,500	70,533,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		36,670,440
II. Administration Cost (5% of Total of Item I)				12,101,245
III. Engineering Cost (10% of Item I)				24,202,490
IV. Physical Contingency (20% of I + II + III)				55,665,728
V. Total (I + II + III + IV) Rounded Total				333,994,368 334,000,000

Zeras T2 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				120,256,884
1. Preparatory Works (10% of Item 2)				10,932,444
2. Civil Works				109,324,440
a. Excavation				4,501,000
-Gravel, Soil	643	cu m	7,000	4,501,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				23,632,700
-Plain Concrete	84	cu m	109,200	9,172,800
-Rubble Concrete	129	cu m	81,900	10,565,100
-Wet Masonry	107	sq m	36,400	3,894,800
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap	35	cu m	15,600	546,000
e. Concrete Block		cu m	120,000	0
f. Gabion	816	cu m	76,500	62,424,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		18,220,740
II. Administration Cost (5% of Total of Item I)				6,012,844
III. Engineering Cost (10% of Item I)				12,025,688
IV. Physical Contingency (20% of I + II + III)				27,659,083
V. Total (I + II + III + IV) Rounded Total				165,954,500 166,000,000

Zeras T4 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				23,059,080
1. Preparatory Works (10% of Item2)				2,096,280
2. Civil Works				20,962,800
a.Excavation				945,000
-Gravel,Soil	135	cu m	7,000	945,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b.Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap		cu m	15,600	0
e.Concrete Block		cu m	120,000	0
f.Gabion	216	cu m	76,500	16,524,000
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		3,493,800
II. Administration Cost (5% of Total of Item I)				1,152,954
III. Engineering Cost (10% of Item I)				2,305,908
IV. Physical Contingency (20% of I + II + III)				5,303,588
V. Total( I + II + III + IV)				31,821,530
Rounded Total				31,800,000

Zeras T5 Main check dam				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				74,850,600
1. Preparatory Works (10% of Item2)				6,804,600
2. Civil Works				68,046,000
a.Excavation				2,751,000
-Gravel,Soil	393	cu m	7,000	2,751,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b.Concrete				33,351,500
-Plain Concrete	167	cu m	109,200	18,236,400
-Rubble Concrete	113	cu m	81,900	9,254,700
-Wet Masonry	161	sq m	36,400	5,860,400
c.Free Draining Backfil		cu m	30,700	0
d.Boulder Riprap	80	cu m	15,600	1,248,000
e.Concrete Block		cu m	120,000	0
f.Gabion	253	cu m	76,500	19,354,500
g.Embankment		cu m	25,000	0
h.Miscellaneous (20% of a to g)		l.s.		11,341,000
II. Administration Cost (5% of Total of Item I)				3,742,530
III. Engineering Cost (10% of Item I)				7,485,060
IV. Physical Contingency (20% of I + II + III)				17,215,638
V. Total( I + II + III + IV)				103,293,828
Rounded Total				103,300,000

Zeras T6		Main check dam		
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				29,420,820
1. Preparatory Works (10% of Item2)				2,674,620
2. Civil Works				26,746,200
a. Excavation				945,000
-Gravel, Soil	135	cu m	7,000	945,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	279	cu m	76,500	21,343,500
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		4,457,700
II. Administration Cost (5% of Total of Item I)				1,471,041
III. Engineering Cost (10% of Item I)				2,942,082
IV. Physical Contingency (20% of I + II + III)				6,766,789
V. Total( I + II + III + IV) Rounded Total				40,600,732 40,600,000

Zeras Check Dam Total				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				489,612,288
1. Preparatory Works (10% of Item2)				44,510,208
2. Civil Works				445,102,080
a. Excavation				18,242,000
-Gravel, Soil	2,606	cu m	7,000	18,242,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				156,647,400
-Plain Concrete	797	cu m	109,200	87,032,400
-Rubble Concrete	514	cu m	81,900	42,096,600
-Wet Masonry	756	sq m	36,400	27,518,400
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap	375	cu m	15,600	5,850,000
e. Concrete Block		cu m	120,000	0
f. Gabion	2,486	cu m	76,500	190,179,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		74,183,680
II. Administration Cost (5% of Total of Item I)				24,480,614
III. Engineering Cost (10% of Item I)				48,961,229
IV. Physical Contingency (20% of I + II + III)				112,610,826
V. Total( I + II + III + IV) Rounded Total				675,664,957 675,700,000

### Zeras Check Dam (P. Participation )

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				190,080,000
1. Preparatory Works (10% of Item2)				17,280,000
2. Civil Works				172,800,000
a. Excavation				6,300,000
-Gravel, Soil	900	cu m	7,000	6,300,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	1,800	cu m	76,500	137,700,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		28,800,000
<b>II. Administration Cost</b> (5% of Total of Item I)				9,504,000
<b>III. Engineering Cost</b>				0
<b>IV. Physical Contingency</b> (20% of I + II + III)				39,916,800
<b>V. Total (I + II + III + IV)</b>				239,500,800
Rounded Total				239,500,000

### Zeras Relocation Area

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				2,072,400,000
1. Preparatory Works (10% of Item2)				188,400,000
2. Civil Works				1,884,000,000
a. Excavation				1,570,000,000
-Gravel, Soil	500,000	cu m	3,140	1,570,000,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				0
-Plain Concrete		cu m	109,200	0
-Rubble Concrete		cu m	81,900	0
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfil		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion		cu m	76,500	0
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		314,000,000
<b>II. Administration Cost</b> (5% of Total of Item I)				103,620,000
<b>III. Engineering Cost</b> (10% of Item I)				207,240,000
<b>IV. Physical Contingency</b> (20% of I + II + III)				476,652,000
<b>V. Total (I + II + III + IV)</b>				2,859,912,000
Rounded Total				2,859,900,000

# Zeras Land Slide Protection

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				43,798,920
1. Preparatory Works (10% of Item 2)				3,981,720
2. Civil Works				39,817,200
a. Excavation				3,220,000
-Gravel, Soil	460	cu m	7,000	3,220,000
-Weathered Rock		cu m	19,300	0
-Rock		cu m	24,900	0
b. Concrete				20,475,000
-Plain Concrete		cu m	109,200	0
-Rubble Concrete	250	cu m	81,900	20,475,000
-Wet Masonry		sq m	36,400	0
c. Free Draining Backfill		cu m	30,700	0
d. Boulder Riprap		cu m	15,600	0
e. Concrete Block		cu m	120,000	0
f. Gabion	124	cu m	76,500	9,486,000
g. Embankment		cu m	25,000	0
h. Miscellaneous (20% of a to g)		l.s.		6,636,200
<b>II. Administration Cost</b> (5% of Total of Item I)				2,189,946
<b>III. Engineering Cost</b> (10% of Item I)				4,379,892
<b>IV. Physical Contingency</b> (20% of I + II + III)				10,073,752
<b>V. Total (I + II + III + IV)</b>				60,442,510
Rounded Total				60,400,000



Table L-8-1-6 Summary for Disaster Prevention Facility

(unit: million rials)

M/P Area	Project Type	Facility	Location	Description of Facility	Project Cost
Vastegan	Public Works	Main check dam	TM	Type A ; 3Nos, Type C ; 4Nos	1,603.7
			T1	Type C ; 6Nos	374.8
			T2	Type C ; 5Nos	552.2
			T3	Type C ; 4Nos	400.0
				Main check dam - Total	2,930.7
		River Treatment	TM	Dike (Embankment), H = 2.0 m, L = 6.3 km	8,720.7
	P. Participation	Check Dam	T2, T3	Public Works - Total	14,582.1
				Type D ; 10Nos	495.2
				Vastegan - Total	15,077.3
Chaman-Goli Bazoft	Public Works	Main check dam	T1	Type C ; 3Nos	191.1
			T2	Type A ; 1No, Type B ; 1No, Type C ; 11Nos, Type D ; 3Nos	2,077.7
			T3	Type C ; 3Nos	348.3
			T4	Type C ; 1No	48.1
			T5	Type C ; 1No	48.1
				Main check dam - Total	2,713.3
		River Treatment	T2	Ground sill ; 2Nos, Spur Dikes (L=250m)	1,300.5
		Landslide Protection	6 Sites	17,100 m <sup>2</sup>	246.3
		Rockfall Protection		Kachooz	99.7
				Public Works - Total	8,720.7
	P. Participation	Check Dam		Type D ; 14Nos	558.8
				Right Bank of Bazoft, near Feriak (L=500m)	1,189.1
		Riverbank Protection		P. Participation - Total	1,747.9
				Chaman-Goli Bazoft - Total	10,468.6
Sarbaz	Public Works	Main check dam	TM	Type B ; 1No, Type C ; 13 Nos,	1,880.5
			T1	Type C ; 10 Nos	1,053.6
			T2	Type C ; 6 Nos	560.3
			T3	Type C ; 4 Nos	408.0
				Main check dam - Total	3,902.4
		Landslide Protection	9 Sites	223,600 m <sup>2</sup>	1,074.8
	P. Participation	Check Dam	TM	Public Works - Total	4,977.2
				Type D ; 12 Nos	594.3
				Lower Reaches of Lee Sorkh River (L=5.5 km)	5,370.6
		River Treatment	TM	P. Participation - Total	5,964.9
				Sarbaz - Total	10,942.1
Tangsorkh	Public Works	Main check dam	TM	Type B ; 1No, Type C ; 8 Nos,	1,434.7
			T1	Type C ; 1No	26.7
			T2	Type C ; 1No	55.9
			T3	Type C ; 1No	61.6
			T4	Type C ; 1No	21.7
			T5	Type C ; 5 Nos	305.5
			T6	Type C ; 2 Nos	132.1
				Main check dam - Total	2,038.2
	P. Participation	Check Dam	TM, T3	Type D ; 6 Nos	239.5
				Tangsorkh - Total	2,277.7
Zeras	Public Works	Main check dam	T1	Type C ; 7 Nos, Type D ; 1No	334.0
			T2	Type C ; 1No, Type D ; 3Nos	166.0
			T4	Type D ; 1No	31.8
			T5	Type C ; 2 Nos	103.3
			T6	Type D ; 1No	40.6
				Main check dam - Total	675.7
		Landslide Protection	4 Sites	4,200 m <sup>2</sup>	60.4
		Resettlement	2 Areas	Bardkal, Lir Siya Shapouri & Zeras	2,859.9
	P. Participation	Check Dam	T1-3, T4, T6	Public Works - Total	3,596.0
				Type D ; 6 Nos	239.5
				Zeras - Total	3,835.5

Table L-8-2 Vegetation Protection

Vastegan-Construction Cost (Seed Production Plot, Water Points for Livestock)				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				13,190,562
1. Preparately Works (10 % of Item2)				1,199,142
2. Civil Works				11,991,420
a.Fence	800	sq.m	1,200	960,000
b.Grass seed	28	kg	1,300	36,400
c.Plain concrete	20	cu.m	109,200	2,145,780
d.Reinforced Bar	1.38	ton	4,221,500	5,825,670
e.PVC pipe $\phi$ 13	1,250	m	820	1,025,000
f.Miscellaneous (20 % of a to e)		l.s.		1,998,570
<b>II. Administration Cost</b> (5% of Total of Item I)				659,528
<b>III .Engineering Cost</b> (10% of Item I)				659,528
<b>IV. Physical Contingency</b> (20% of I + II + III)				2,901,924
<b>II. Total (I + II + III + IV)</b>				11,991,420
Rounded Total				12,000,000

Chaman Goli-Bazoft-Construction Cost (Seed Production Plot, Water Points for Livestock)

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
<b>I. Construction Base Cost</b>				12,974,082
1. Preparately Works (10 % of Item2)				1,179,462
2. Civil Works				11,794,620
a.Fence	800	sq.m	1,200	960,000
b.Grass seed	28	kg	1,300	36,400
c.Plain concrete	20	cu.m	109,200	2,145,780
d.Reinforced Bar	1.38	ton	4,221,500	5,825,670
e.PVC pipe $\phi$ 13	1,050	m	820	861,000
f.Miscellaneous (20 % of a to e)		l.s.		1,965,770
<b>II. Administration Cost</b> (5% of Total of Item I)				648,704
<b>III .Engineering Cost</b> (10% of Item I)				648,704
<b>IV. Physical Contingency</b> (20% of I + II + III)				2,854,298
<b>II. Total (I + II + III + IV)</b>				11,794,620
Rounded Total				11,800,000

Sarbaz-Construction Cost (Seed Production Plot, Water Points for Livestock)				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				18,105,556
1. Preparately Works (10 % of Item2)				1,645,960
2. Civil Works				16,459,596
a.Fence	800	sq.m	1,200	960,000
b.Grass seed	28	kg	1,300	36,400
c.Plain concrete	26	cu.m	109,200	2,839,200
d.Reinforced Bar	1.82	ton	4,221,500	7,683,130
e.PVC pipe $\phi$ 13	2,680	m	820	2,197,600
f.Miscellaneous (20 % of a to e)		l.s.		2,743,266
II. Administration Cost (5% of Total of Item I)				905,278
III .Engineering Cost (10% of Item I)				905,278
IV. Physical Contingency (20% of I + II + III)				3,983,222
II. Total (I +II + III + IV)				16,459,596
Rounded Total				16,500,000

Tangsorkh-Construction Cost (Seed Production Plot, Water Points for Livestock)				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				9,180,026
1. Preparately Works (10 % of Item2)				834,548
2. Civil Works				8,345,478
a.Fence	800	sq.m	1,200	960,000
b.Grass seed	28	kg	1,300	36,400
c.Plain concrete	13	cu.m	109,200	1,419,600
d.Reinforced Bar	0.91	ton	4,221,500	3,841,565
e.PVC pipe $\phi$ 13	850	m	820	697,000
f.Miscellaneous (20 % of a to e)		l.s.		1,390,913
II. Administration Cost (5% of Total of Item I)				459,001
III .Engineering Cost (10% of Item I)				459,001
IV. Physical Contingency (20% of I + II + III)				2,019,606
II. Total (I +II + III + IV)				8,345,478
Rounded Total				8,300,000

Zeras-Construction Cost (Seed Production Plot, Water Points for Livestock)					
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)	
I. Construction Base Cost				12,318,636	
1. Preparately Works (10 % of Item2)				1,119,876	
2. Civil Works				11,198,760	
a.Plain concrete	20	cu.m	109,200	2,184,000	
b.Reinforced Bar	1.40	ton	4,221,500	5,910,100	
c.PVC pipe $\phi$ 13	1,510	m	820	1,238,200	
d.Miscellaneous (20 % of a to c)		l.s.		1,866,460	
II. Administration Cost (5% of Total of Item I )				615,932	
III .Engineering Cost (10% of Item I )				615,932	
IV. Physical Contingency (20% of I + II + III)				2,710,100	
II. Total (I +II + III + IV)				11,198,760	
Rounded Total				11,200,000	

Table L-8-3 Orchard Terracing (Vastegan)

**Project Cost of Orchard Terrace**

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)	Remarks
I. Construction Base Cost				864,054,695	
1. Preparatory Works (10% of Item 2)				78,550,427	
2. Civil Works				785,504,268	
a. Excavation					
- Gravel, Soil	37,852 m <sup>3</sup>		7,000	264,964,000	
b. Concrete					
- Concrete	646.5 m <sup>3</sup>		109,200	70,597,800	
- Reinforce	45.26 t		4,221,500	191,065,090	
c. Distribution Ditch					
- Gravel	2,800 m <sup>3</sup>		27,500	77,000,000	
- Vinyl sheet	14,000 m		1,000	14,000,000	
d. Nursery					
- Apple trees	16,800 trees		2,000	33,600,000	
- Planting	42 ha		80,000	3,360,000	
e. Miscellaneous (20% of a. & d.)					
		I.s.		130,917,378	
II. Administration Cost (5% of Total of Item I)				43,202,735	
III. Engineering Cost (0% of Total of Item I)				0	
IV. Physical Contingency (20% of I+II+III)				181,451,486	
Total (I+II+III+IV)				1,088,708,916	
Rounded Total				1,088,709,000	

Table L-8-4 Soil Erosion Protection (Chaman Goli-Bazoft, Sarbaz, Tangsorkh, Zeras)

**Project Cost of Soil Erosion Protection Project (Chaman Goli-Bazoft)**

Project Area	798 ha				
Contour Space	25 m				
Contour Length	319,200 m				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)	Remarks
I. Construction Base Cost				695,217,600	
1. Preparatory Works (10% of Item 2)				63,201,600	
2. Civil Works				632,016,000	
a. Contour Bund (0.30m <sup>2</sup> H 0.4m Type) - Gravel, Soil	319,200 m		1,650	526,680,000	
c. Miscellaneous (20% of a..)			l.s.	105,336,000	
II. Administration Cost (5% of Total of Item I)				34,760,880	
III. Engineering Cost (0% of Total of Item I)				0	
IV. Physical Contingency (20% of I+II+III)				145,995,696	
Total (I+II+III+IV)				875,974,176	
Rounded Total				875,974,000	

**Project Cost of Soil Erosion Protection Project (Sarbaz)**

Project Area	162 ha				
Contour Space	20 m				
Contour Length	81,000 m				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)	Remarks
I. Construction Base Cost				176,418,000	
1. Preparatory Works (10% of Item 2)				16,038,000	
2. Civil Works				160,380,000	
a. Contour Bund (0.30m <sup>2</sup> H 0.4m Type) - Gravel, Soil	81,000 m		1,650	133,650,000	
c. Miscellaneous (20% of a..)			l.s.	26,730,000	
II. Administration Cost (5% of Total of Item I)				8,820,900	
III. Engineering Cost (0% of Total of Item I)				0	
IV. Physical Contingency (20% of I+II+III)				37,047,780	
Total (I+II+III+IV)				222,286,680	
Rounded Total				222,287,000	

### Project Cost of Soil Erosion Protection Project (Tangsorkh)

Protect Area	44	ha				
Contour Space	20	m				
Contour Length	22,000	m				

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)	Remarks
I. Construction Base Cost				47,916,000	
1. Preparatory Works (10% of Item 2)				4,356,000	
2. Civil Works				43,560,000	
a. Contour Bund (0.30m <sup>2</sup> H 0.4m Type)					
- Gravel, Soil	22,000	m	1,650	36,300,000	
c. Miscellaneous (20% of a..)			l.s.	7,260,000	
II. Administration Cost (5% of Total of Item I)				2,395,800	
III. Engineering Cost (0% of Total of Item I)				0	
IV. Physical Contingency (20% of I+II+III)				10,062,360	
Total (I+II+III+IV)				60,374,160	
Rounded Total				60,374,000	

### Project Cost of Soil Erosion Protection Project (Zeras)

Protect Area	1724	ha				
Contour Space	20	m				
Contour Length	862,000	m				

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)	Remarks
I. Construction Base Cost				1,877,436,000	
1. Preparatory Works (10% of Item 2)				170,676,000	
2. Civil Works				1,706,760,000	
a. Contour Bund (0.30m <sup>2</sup> H 0.4m Type)					
- Gravel, Soil	862,000	m	1,650	1,422,300,000	
c. Miscellaneous (20% of a..)			l.s.	284,460,000	
II. Administration Cost (5% of Total of Item I)				93,871,800	
III. Engineering Cost (0% of Total of Item I)				0	
IV. Physical Contingency (20% of I+II+III)				394,261,560	
Total (I+II+III+IV)				2,365,569,360	
Rounded Total				2,365,569,000	

### Project Cost of Gully Protection (Chaman Goli-Bazoft)

Project Area = (included in contour bund protection area)

Gully length = 1,500m (10 gullies x 150m) Spacing = 20m Check dams = 75 dams

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)	Remarks
I. Construction Base Cost				44,053,680	
1. Preparatory Works (10% of Item 2)				4,004,880	
2. Civil Works				40,048,800	
a. Check dam					
- Rock	653 m <sup>3</sup>		48,000	31,344,000	8.7m <sup>3</sup> /dam x 75 = 653m <sup>3</sup>
- Litter	203 m <sup>3</sup>		10,000	2,030,000	2.7m <sup>3</sup> /dam x 75 = 203m <sup>3</sup>
b. Miscellaneous (20% of a.)			I.s.	6,674,800	
II. Administration Cost (5% of Total of Item I)				2,202,684	
III. Engineering Cost (10% of Total of Item I)				4,405,368	
IV. Physical Contingency (20% of I+II+III)				10,132,346	
Total (I+II+III+IV)				60,794,078	
Rounded Total				60,794,000	

### Project Cost of Gully Protection (Zeras)

Project Area = 293 ha (Farmland 5-13%, 13-20% slope area)

Gully length = 2,800m (Slope: 5-13%) Spacing = 30m Check dams = 93 dams

Gully length = 7,850m (Slope: 13-20%) Spacing = 20m Check dams = 393 dams

Total check dams = 486 dams

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)	Remarks
I. Construction Base Cost				285,204,480	
1. Preparatory Works (10% of Item 2)				25,927,680	
2. Civil Works				259,276,800	
a. Check dam					
- Rock	4,228 m <sup>3</sup>		48,000	202,944,000	8.7m <sup>3</sup> /dam x 486dams = 4,228m <sup>3</sup>
- Litter	1,312 m <sup>3</sup>		10,000	13,120,000	2.7m <sup>3</sup> /dam x 486 = 1,312m <sup>3</sup>
b. Miscellaneous (20% of a.)			I.s.	43,212,800	
II. Administration Cost (5% of Total of Item I)				14,260,224	
III. Engineering Cost (10% of Total of Item I)				28,520,448	
IV. Physical Contingency (20% of I+II+III)				65,597,030	
Total (I+II+III+IV)				393,582,182	
Rounded Total				393,582,000	



Table L-8-5-1 Community Development for Vastegan

Vastegan-Groundwater Monitoring System				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				1,852,229,280
1. Preparatory Works (10% of Item2)				168,384,480
2. Construction of Well				1,683,844,800
a. Drilling of Well	240	m	1,080,000	259,200,000
b. Installation of Riser	240	m	1,287,000	308,880,000
c. Installation of Screen Pipe	4	nos.	123,200,000	492,800,000
d. Installation of Casing	24	m	1,322,000	31,728,000
e. Finishing of Well	4	nos.	27,600,000	110,400,000
f. Test	4	nos.	19,687,000	78,748,000
g. Water Level Gauge	4	nos.	362,000	1,448,000
h. Computer & Printer	1	nos.	80,000,000	80,000,000
i. Softwares	1	LS.	40,000,000	40,000,000
j. Miscellaneous (20% of a to g)	1	LS.		280,640,800
II. Administration Cost (5% of Total of Item I)				92,611,464
III. Engineering Cost (10% of Item I)				185,222,928
IV. Physical Contingency (20% of I+II+III)				426,012,734
V. Total(I+II+III+IV)				2,556,076,406
Rounded Total				2,556,100,000

Vastegan-Irrigation Canal				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				110,510,400
1. Preparatory Works (10% of Item2)				10,046,400
2. Civil Works				223,735,505
Gela Left Bank Canal				100,464,000
- PVC Pipe	2,300	m	36,400	83,720,000
- Miscellaneous (20 % of Above Item)				16,744,000
Gela Right Bank Canal				123,271,505
- Plain Concrete	289.0	cu.m	109,200	31,558,800
- Reinforced Bar	20.2	ton	4,221,500	85,400,945
- Miscellaneous (20 % of Above Item)				6,311,760
II. Administration Cost (5% of Total of Item I)				12,243,103
III. Engineering Cost (10% of Item I)				11,051,040
IV. Physical Contingency (20% of I+II+III)				26,760,909
V. Total(I+II+III+IV)				160,565,452
Rounded Total				160,600,000

### Vastegan-Rural Water Supply

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				112,792,997
1. Preparatory Works (10% of Item2)				10,253,909
2. Civil Works				
Distribution Tank & Pipeline				102,539,088
- Excavation	362	cu.m	7,000	2,534,000
- Backfilling	142	cu.m	7,900	1,121,800
- Plain Concrete	168	cu.m	109,200	18,345,600
- Reinforced Bar	11.8	ton	4,221,500	49,644,840
- PVC pipe $\phi$ 50	600	m	6,330	3,798,000
- PVC pipe $\phi$ 75	1,500	m	6,670	10,005,000
- Miscellaneous (20 % of Above Item)				17,089,848
II. Administration Cost (5% of Total of Item I)				4,380,714
III. Engineering Cost (10% of Item I)				11,279,300
IV. Physical Contingency (20% of I+II+III)				25,690,602
V. Total( I+II+III+IV) Rounded Total				154,143,613 154,100,000

### Vastegan-Rural Road of Vastegan

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				616,572,000
1. Preparatory Works (10% of Item2)				56,052,000
2. Civil Works				560,520,000
- Embankment	22,500	cu.m	25,000	0
- Road Bed	5,400	cu.m	0	0
- Gravel Pavement	27,000	sq.m	17,300	467,100,000
- Miscellaneous (20 % of Above Item)				93,420,000
II. Administration Cost (5% of Total of Item I)				30,828,600
III. Engineering Cost (10% of Item I)				61,657,200
IV. Physical Contingency (20% of I+II+III)				141,811,560
V. Total( I+II+III+IV) Rounded Total				850,869,360 850,900,000

Vastegan-Farm Road				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				4,146,912,000
1. Preparatory Works (10% of Item2)				376,992,000
2. Civil Works				3,769,920,000
- Land Leveling	1,428,000	sq.m	2,200	3,141,600,000
- Miscellaneous (20 % of Above Item)				628,320,000
II. Administration Cost (5% of Total of Item I )				207,345,600
III. Physical Contingency (20% of I +II)				870,851,520
IV. Total( I +II +III)				5,225,109,120
Rounded Total				5,225,100,000

### Vastegan - Handicraft Facility

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				8,000,000
1. Horizontal weaving machine (Steel, 2m x 3m)	5	Unit	800,000 Rls.	4,000,000
2. Vertical weaving machine (Steel, 2m x 3m)	5	Unit	800,000 Rls.	4,000,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				14,168,000
V. Total( I + II + III + IV)				85,008,000
Rounded Total				85,000,000
		Number of Village	4	340,000,000

### Vastegan - Multi-purpose Training Facility

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				5,500,000
1. Table (Wood, 1,800x1,200x800mm)	10	Unit	400,000 Rls.	4,000,000
2. Chair (Wood)	30	Unit	50,000 Rls.	1,500,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				13,668,000
V. Total( I + II + III + IV)				82,008,000
Rounded Total				82,000,000
		Number of Village	4	328,000,000

### Vastegan – Milk Processing Facility

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				74,400,000
1. Table (Wood, 1,800x900x800mm)	2	Unit	300,000 Rls.	600,000
2. Chair (Wood)	4	Unit	50,000 Rls.	200,000
3. Vehicle (Pick-up)	1	Unit	70,000,000 Rls.	70,000,000
4. Milk Tank (Plastic, 50 litre)	40	Piece	40,000 Rls.	1,600,000
5. Mixing Machine (Steel, for kashk)	2	Unit	1,000,000 Rls.	2,000,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				27,448,000
V. Total (I + II + III + IV)				164,688,000
Rounded Total				164,700,000
		Number of Village	2	329,400,000

### Vastegan – Collection and Distribution Facility for Milk

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				494,800,000
1. Table (Wood, 1,800x900x800mm)	2	Unit	300,000 Rls.	600,000
2. Chair (Wood)	4	Unit	50,000 Rls.	200,000
3. Vehicle (Pick-up)	2	Unit	70,000,000 Rls.	140,000,000
4. Milk Tank (Plastic, 50 litre)	100	Piece	40,000 Rls.	4,000,000
5. Sterilizer (Stainless, electric operation)	1	Unit	50,000,000 Rls.	50,000,000
6. Bulk Cooler (Stainless, electric operation)	1	Unit	300,000,000 Rls.	300,000,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				111,528,000
V. Total (I + II + III + IV)				669,168,000
Rounded Total				669,200,000
		Number of Village	1	669,200,000

Table L-8-5-2 Community Development for Chaman-Goli Bazoft

Chaman Goli-Bazoft-Irrigation Canal				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				213,954,972
1. Preparatory Works (10% of Item 2)				19,450,452
2. Civil Works				821,525,670
Gusaleh Bar Left Bank Canal				194,504,520
- Plain Concrete	456.0	cu.m	109,200	49,795,200
- Reinforced Bar	31.9	ton	4,221,500	134,750,280
- Miscellaneous (20 % of Above Item)				9,959,040
Gusaleh Bar Right Bank Canal				537,446,700
- Plain Concrete	1,260.0	cu.m	109,200	137,592,000
- Reinforced Bar	88.2	ton	4,221,500	372,336,300
- Miscellaneous (20 % of Above Item)				27,518,400
Kachooz Canal				89,574,450
- Plain Concrete	210.0	cu.m	109,200	22,932,000
- Reinforced Bar	14.7	ton	4,221,500	62,056,050
- Miscellaneous (20 % of Above Item)				4,586,400
II. Administration Cost (5 % of Item I)				37,617,615
III. Engineering Cost (10 % of Item I)				21,395,497
IV. Physical Contingency (20 % of I+II+III)				54,593,617
V. Total (I + II + III + IV)				327,561,701
Rounded Total				327,600,000

Chaman Goli-Bazoft-Rural Water Supply				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				256,463,678
1. Preparatory Works (10% of Item 2)				23,314,880
2. Civil Works				233,148,798
Distribution Tank				233,148,798
- Excavation	640	cu.m	7,000	4,480,000
- Backfilling	279	cu.m	7,900	2,204,100
- Plain Concrete	293	cu.m	109,200	31,995,600
- Reinforced Bar	20.5	ton	4,221,500	86,582,965
- PVC pipe $\phi$ 50	1,100	m	6,330	6,963,000
- PVC pipe $\phi$ 75	4,300	m	6,670	28,681,000
- PVC pipe $\phi$ 125	3,900	m	8,560	33,384,000
- Miscellaneous (20 % of Above Item)				38,858,133
II. Administration Cost (5 % of Item I)				8,095,835
III. Engineering Cost (10 % of Item I)				25,646,368
IV. Physical Contingency (20 % of I+II+III)				58,041,176
V. Total (I + II + III + IV)				348,247,057
Rounded Total				348,200,000

### Chaman Goli-Bazoft-Rural Road

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				980,496,000
1. Preparatory Works (10% of Item 2)				89,136,000
2. Civil Works				891,360,000
- Land Levelling	24,000	sq.m	2,200	52,800,000
- Asphalt Pavement	18,000	sq.m	32,500	585,000,000
- Bridge	1	L.S.	126,000,000	126,000,000
- Miscellaneous (20 % of Above Item)				127,560,000
II. Administration Cost (5 % of Item I)				49,024,800
III. Engineering Cost (10 % of Item I)				98,049,600
IV. Physical Contingency (20 % of I+II+III)				225,514,080
V. Total( I + II + III + IV)				1,353,084,480
Rounded Total				1,353,100,000

### Chaman Goli-Bazoft-Farm Road

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				1,324,224,000
1. Preparatory Works (10% of Item 2)				120,384,000
2. Civil Works				1,203,840,000
- Land Leveling	456,000	sq.m	2,200	1,003,200,000
- Miscellaneous (20 % of Above Item)				200,640,000
II. Administration Cost (5 % of Item I)				66,211,200
IV. Physical Contingency (20 % of I+II+III)				278,087,040
V. Total( I + II + III + IV)				1,668,522,240
Rounded Total				1,668,500,000

### Chaman Goli-Bazoft – Handicraft Facility

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
<b>I . Construction Base Cost</b>				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
<b>II . Equipment</b>				8,000,000
1. Horizontal weaving machine (Steel, 2m x 3m)	5	Unit	800,000 Rls.	4,000,000
2. Vertical weaving machine (Steel, 2m x 3m)	5	Unit	800,000 Rls.	4,000,000
<b>III . Land Acquisition</b>				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
<b>IV. Physical Contingency</b> (20% of I + II + III)				14,168,000
<b>V. Total( I + II + III + IV)</b>				85,008,000
Rounded Total				85,000,000
		Number of Village	1	85,000,000

### Chaman Goli-Bazoft – Multi-purpose Training Facility

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
<b>I . Construction Base Cost</b>				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
<b>II . Equipment</b>				5,500,000
1. Table (Wood, 1,800x1,200x800mm)	10	Unit	400,000 Rls.	4,000,000
2. Chair (Wood)	30	Unit	50,000 Rls.	1,500,000
<b>III . Land Acquisition</b>				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
<b>IV. Physical Contingency</b> (20% of I + II + III)				13,668,000
<b>V. Total( I + II + III + IV)</b>				82,008,000
Rounded Total				82,000,000
		Number of Village	7	574,000,000



### Chaman Goli-Bazoft – Milk Processing Facility

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				74,400,000
1. Table (Wood, 1,800x900x800mm)	2	Unit	300,000 Rls.	600,000
2. Chair (Wood)	4	Unit	50,000 Rls.	200,000
3. Vehicle (Pick-up)	1	Unit	70,000,000 Rls.	70,000,000
4. Milk Tank (Plastic, 50 litre)	40	Piece	40,000 Rls.	1,600,000
5. Mixing Machine (Steel, for kashk)	2	Unit	1,000,000 Rls.	2,000,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				27,448,000
V. Total( I + II + III + IV)				164,688,000
Rounded Total				164,700,000
		Number of Village	4	658,800,000

### Chaman Goli-Bazoft – Collection and Distribution Facility for Milk

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				494,800,000
1. Table (Wood, 1,800x900x800mm)	2	Unit	300,000 Rls.	600,000
2. Chair (Wood)	4	Unit	50,000 Rls.	200,000
3. Vehicle (Pick-up)	2	Unit	70,000,000 Rls.	140,000,000
4. Milk Tank (Plastic, 50 litre)	100	Piece	40,000 Rls.	4,000,000
5. Sterilizer (Stainless, electric operation)	1	Unit	50,000,000 Rls.	50,000,000
6. Bulk Cooler (Stainless, electric operation)	1	Unit	300,000,000 Rls.	300,000,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				111,528,000
V. Total( I + II + III + IV)				669,168,000
Rounded Total				669,200,000
		Number of Village	1	669,200,000

### Chaman Goli-Bazoft - Fish Culture Production

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
<b>I. Construction Base Cost</b>				3,523,500,000
1. Preparatory Works (10% of Item 2)			Included in Building Works	0
2. Building Works				3,523,500,000
a. Building (Brick)	50	m <sup>2</sup>	470,000 Rls.	23,500,000
b. Fish Pond (Concrete)	12,000	m <sup>2</sup>		3,500,000,000
c. Miscellaneous (20% of a to b)			Included in Building Works	0
<b>II. Equipment</b>				220,800,000
1. Table (Wood, 1,800x900x800mm)	2	Unit	300,000 Rls.	600,000
2. Chair (Wood)	4	Unit	50,000 Rls.	200,000
3. Vehicle (Pick-up)	1	Unit	70,000,000 Rls.	70,000,000
4. Equipment for Graging	1	Unit		150,000,000
<b>III. Land Acquisition</b>				50,000,000
	12,500	m <sup>2</sup>	4,000 Rls.	50,000,000
<b>IV. Physical Contingency (20% of I + II + III)</b>				758,860,000
<b>V. Total (I + II + III + IV)</b>				4,553,160,000
Rounded Total				4,553,200,000
		Number of Village	1	4,553,200,000

Table L-8-5-3 Community Development for Sarbaz

Sarbaz-Irrigation Canal				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				450,431,520
1. Preparatory Works (10% of Item 2)				40,948,320
2. Civil Works				753,278,470
Dangazloo-Kahangan Canal				409,483,200
- Plain Concrete	960.0	cu.m	109,200	104,832,000
- Reinforced Bar	67.2	ton	4,221,500	283,684,800
- Miscellaneous (20 % of Above Item)				20,966,400
Kahangan-Devergan Olya Canal				137,774,035
- Plain Concrete	323.0	cu.m	109,200	35,271,600
- Reinforced Bar	22.6	ton	4,221,500	95,448,115
- Miscellaneous (20 % of Above Item)				7,054,320
Dangazloo Left Bank Canal				206,021,235
- Plain Concrete	483.0	cu.m	109,200	52,743,600
- Reinforced Bar	33.8	ton	4,221,500	142,728,915
- Miscellaneous (20 % of Above Item)				10,548,720
Noor Abad-Sarbaz Canal				1,079,158,850
- Plain Concrete	2,530.0	cu.m	109,200	276,276,000
- Reinforced Bar	177.1	ton	4,221,500	747,627,650
- Miscellaneous (20 % of Above Item)				55,255,200
II. Administration Cost (5 % of Item I)				14,246,598
III. Engineering Cost (10 % of Item I)				45,043,152
IV. Physical Contingency (20 % of I+II+III)				101,944,254
V. Total (I + II + III + IV)				611,665,524
Rounded Total				611,700,000

Sarbaz-Rural Water Supply				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				318,947,310
1. Preparatory Works (10% of Item 2)				28,995,210
2. Civil Works				289,952,100
Distribution Tank				289,952,100
- Excavation	590	cu.m	7,000	4,130,000
- Backfilling	281	cu.m	7,900	2,219,900
- Plain Concrete	270	cu.m	109,200	29,484,000
- Reinforced Bar	18.9	ton	4,221,500	79,786,350
- PVC pipe $\phi$ 50	750	m	6,330	4,747,500
- PVC pipe $\phi$ 75	6,200	m	6,670	41,354,000
- PVC pipe $\phi$ 90	4,100	m	6,810	27,921,000
- PVC pipe $\phi$ 140	5,700	m	9,120	51,984,000
- Miscellaneous (20 % of Above Item)				48,325,350
II. Administration Cost (5 % of Item I)				8,086,285
III. Engineering Cost (10 % of Item I)				31,894,731
IV. Physical Contingency (20 % of I+II+III)				71,785,665
V. Total (I + II + III + IV)				430,713,991
Rounded Total				430,700,000

### Sarbaz-Rural Road

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				2,808,320,000
1. Preparatory Works (10% of Item 2)				255,120,000
2. Civil Works				2,551,200,000
- Land Levelling	80,000	sq.m	2,200	176,000,000
- Asphalt Pavement	60,000	sq.m	32,500	1,950,000,000
- Miscellaneous (20 % of Above Item)				425,200,000
II. Administration Cost (5 % of Item I)				140,316,000
III. Engineering Cost (10 % of Item I)				280,632,000
IV. Physical Contingency (20 % of I+II+III)				645,453,600
V. Total( I + II + III + IV)				3,872,721,600
Rounded Total				3,872,700,000

### Sarbaz-Farm Road

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				2,613,600,000
1. Preparatory Works (10% of Item 2)				237,600,000
2. Civil Works				2,376,000,000
- Land Leveling	900,000	sq.m	2,200	1,980,000,000
- Miscellaneous (20 % of Above Item)				396,000,000
II. Administration Cost (5 % of Item I)				130,680,000
III. Physical Contingency (20 % of I+II+III)				548,856,000
IV. Total( I + II + III)				3,293,136,000
Rounded Total				3,293,100,000

### Sarbaz – Handicraft Facility

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				8,000,000
1. Horizontal weaving machine (Steel, 2m x 3m)	5	Unit	800,000 Rls.	4,000,000
2. Vertical weaving machine (Steel, 2m x 3m)	5	Unit	800,000 Rls.	4,000,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				14,168,000
V. Total( I + II + III + IV)				85,008,000
Rounded Total				85,000,000
		Number of Village	1	85,000,000

### Sarbaz – Multi-purpose Training Facility

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				5,500,000
1. Table (Wood, 1,800x1,200x800mm)	10	Unit	400,000 Rls.	4,000,000
2. Chair (Wood)	30	Unit	50,000 Rls.	1,500,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				13,668,000
V. Total( I + II + III + IV)				82,008,000
Rounded Total				82,000,000
		Number of Village	8	656,000,000

### Sarbaz – Milk Processing Facility

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				74,400,000
1. Table (Wood, 1,800x900x800mm)	2	Unit	300,000 Rls.	600,000
2. Chair (Wood)	4	Unit	50,000 Rls.	200,000
3. Vehicle (Pick-up)	1	Unit	70,000,000 Rls.	70,000,000
4. Milk Tank (Plastic, 50 litre)	40	Piece	40,000 Rls.	1,600,000
5. Mixing Machine (Steel, for kashk)	2	Unit	1,000,000 Rls.	2,000,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				27,448,000
V. Total( I + II + III + IV)				164,688,000
Rounded Total				164,700,000
		Number of Village	4	658,800,000

### Sarbaz – Collection and Distribution Facility for Milk

Work Item	Qty	Unit	Financial	
			Unit Cost	Amount (Rial)
I. Construction Base Cost				62,040,000
1. Preparatory Works (10% of Item 2)				5,640,000
2. Building Works				56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000 Rls.	47,000,000
b. Miscellaneous (20% of a)				9,400,000
II. Equipment				494,800,000
1. Table (Wood, 1,800x900x800mm)	2	Unit	300,000 Rls.	600,000
2. Chair (Wood)	4	Unit	50,000 Rls.	200,000
3. Vehicle (Pick-up)	2	Unit	70,000,000 Rls.	140,000,000
4. Milk Tank (Plastic, 50 litre)	100	Piece	40,000 Rls.	4,000,000
5. Sterilizer (Stainless, electric operation)	1	Unit	50,000,000 Rls.	50,000,000
6. Bulk Cooler (Stainless, electric operation)	1	Unit	300,000,000 Rls.	300,000,000
III. Land Acquisition				800,000
	200	m <sup>2</sup>	4,000 Rls.	800,000
IV. Physical Contingency (20% of I + II + III)				111,528,000
V. Total( I + II + III + IV)				669,168,000
Rounded Total				669,200,000
		Number of Village	1	669,200,000

**Sarbaz – Apple Collecting & Grading Facility (Large)**

Work Item	Qty	Unit	Financial		Amount (Rial)
			Unit Cost		
<b>I. Construction Base Cost</b>					<b>124,080,000</b>
1. Preparatory Works (10% of Item 2)					11,280,000
2. Building Works					112,800,000
a. Building (Brick)	200	m <sup>2</sup>	470,000	Rls.	94,000,000
b. Miscellaneous (20% of a)					18,800,000
<b>II. Equipment</b>					<b>965,000,000</b>
1. Table (Wood, 1,800x1,200x800mm)	20	Unit	400,000	Rls.	8,000,000
2. Chair (Wood)	100	Unit	50,000	Rls.	5,000,000
3. Basket (Plastic)	200	Unit	20,000	Rls.	4,000,000
4. Water Tank (Steel, 1.0x1.0x1.0m)	10	Piece	300,000	Rls.	3,000,000
5. Drying Table (Steel, with fan)	10	Unit	500,000	Rls.	5,000,000
6. Roller conveyor (400mmx4m)	10	Unit	10,000	US\$	
Equivalent to US\$		8000R/\$	80,000,000	Rls.	800,000,000
7. Vehicle (Pick-up)	2	Unit	70,000,000	Rls.	140,000,000
<b>III. Land Acquisition</b>					<b>1,200,000</b>
	300	m <sup>2</sup>	4,000	Rls.	1,200,000
<b>IV. Physical Contingency (20% of I + II + III)</b>					<b>218,056,000</b>
<b>V. Total (I + II + III + IV)</b>					<b>1,308,336,000</b>
Rounded Total					<b>1,308,300,000</b>
		Number of Village	3		<b>3,924,900,000</b>

Table L-8-5-4 Community Development for Tangsorkh

Tangsorkh-Rural Water Supply				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				73,689,832
1. Preparatory Works (10% of Item 2)				6,699,076
2. Civil Works				
Distribution Tank				66,990,756
- Excavation	243	cu.m	7,000	1,701,000
- Backfilling	136	cu.m	7,900	1,074,400
- Plain Concrete	106	cu.m	109,200	11,575,200
- Reinforced Bar	7.4	ton	4,221,500	31,323,530
- PVC pipe $\phi$ 50	550	m	6,330	3,481,500
- PVC pipe $\phi$ 75	1,000	m	6,670	6,670,000
- Miscellaneous (20 % of Above Item)				11,165,126
II. Administration Cost (5% of Total of Item I)				2,788,243
III. Engineering Cost (10% of Item I)				7,368,983
IV. Physical Contingency (20% of I+II+III)				16,769,412
V. Total(I+II+III+IV)				100,616,470
Rounded Total				100,600,000

Tangsorkh-Rural Road				
Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				701,580,000
1. Preparatory Works (10% of Item 2)				63,780,000
2. Civil Works				637,800,000
- Land Levelling	20,000	sq.m	2,200	44,000,000
- Asphalt Pavement	15,000	sq.m	32,500	487,500,000
- Miscellaneous (20 % of Above Item)				106,300,000
II. Administration Cost (5% of Total of Item I)				35,079,000
III. Engineering Cost (10% of Item I)				70,158,000
IV. Physical Contingency (20% of I+II+III)				181,363,400
V. Total(I+II+III+IV)				968,180,400
Rounded Total				968,200,000



Tangsorkh-Farm Road

Work Item	Quantity	Unit	Unit Cost (Rial)	Amount (Rial)
I. Construction Base Cost				845,064,000
1. Preparatory Works (10% of Item2)				76,824,000
2. Civil Works				768,240,000
- Land Leveling	291,000	sq.m	2,200	640,200,000
- Miscellaneous (20 % of Above Item)				128,040,000
II. Administration Cost (5% of Total of Item I)				42,253,200
III. Physical Contingency (20% of I + II)				177,463,440
V. Total( I + II + III + IV)				1,064,780,640
Rounded Total				1,064,800,000

**Tang Sorkh - Multi-purpose Training Facility**

Work Item	Qty	Unit	Financial		Amount (Rial)
			Unit	Cost	
<b>I. Construction Base Cost</b>					62,040,000
1. Preparatory Works (10% of Item 2)					5,640,000
2. Building Works					56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000	Rls.	47,000,000
b. Miscellaneous (20% of a)					9,400,000
<b>II. Equipment</b>					5,500,000
1. Table (Wood, 1,800x1,200x800mm)	10	Unit	400,000	Rls.	4,000,000
2. Chair (Wood)	30	Unit	50,000	Rls.	1,500,000
<b>III. Land Acquisition</b>					800,000
	200	m <sup>2</sup>	4,000	Rls.	800,000
<b>IV. Physical Contingency</b> (20% of I + II + III)					13,668,000
<b>V. Total ( I + II + III + IV)</b>					82,008,000
Rounded Total					82,000,000
			Number of Village	1	82,000,000

**Tang Sorkh - Apple Collecting & Grading Facility (Small)**

Work Item	Qty	Unit	Financial		Amount (Rial)
			Unit	Cost	
<b>I. Construction Base Cost</b>					62,040,000
1. Preparatory Works (10% of Item 2)					5,640,000
2. Building Works					56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000	Rls.	47,000,000
b. Miscellaneous (20% of a)					9,400,000
<b>II. Equipment</b>					481,500,000
1. Table (Wood, 1,800x1,200x800mm)	10	Unit	400,000	Rls.	4,000,000
2. Chair (Wood)	30	Unit	50,000	Rls.	1,500,000
3. Basket (Plastic)	100	Piece	20,000	Rls.	2,000,000
4. Water Tank (Steel, 1.0x1.0x1.0m)	5	Piece	300,000	Rls.	1,500,000
5. Drying Table (Steel, with fan)	5	Unit	500,000	Rls.	2,500,000
6. Roller conveyor (400mmx4m)	5	Unit	10,000	US\$	
Equivalent to US\$	8000R/\$		80,000,000	Rls.	400,000,000
7. Vehicle (Pick-up)	1	Unit	70,000,000	Rls.	70,000,000
<b>III. Land Acquisition</b>					800,000
	200	m <sup>2</sup>	4,000	Rls.	800,000
<b>IV. Physical Contingency</b> (20% of I + II + III)					108,868,000
<b>V. Total ( I + II + III + IV)</b>					653,208,000
Rounded Total					653,200,000
			Number of Village	1	653,200,000

**Tang Sorkh – Horticultural Crops Collecting and Grading Facility**

Work Item	Qty	Unit	Financial		Amount (Rial)
			Unit Cost		
<b>I. Construction Base Cost</b>					<b>62,040,000</b>
1. Preparatory Works (10% of Item 2)					5,640,000
2. Building Works					56,400,000
a. Building (Brick)	100	m <sup>2</sup>	470,000	Rls.	47,000,000
b. Miscellaneous (20% of a)					9,400,000
<b>II. Equipment</b>					<b>148,000,000</b>
1. Table (Wood, 1,800x1,200x800mm)	10	Unit	400,000	Rls.	4,000,000
2. Chair (Wood)	30	Unit	50,000	Rls.	1,500,000
3. Basket (Plastic)	50	Piece	20,000	Rls.	1,000,000
4. Water Tank (Steel, 1.0x1.0x1.0m)	5	Piece	300,000	Rls.	1,500,000
5. Vehicle (Pick-up)	2	Unit	70,000,000	Rls.	140,000,000
<b>III. Land Acquisition</b>					<b>800,000</b>
	200	m <sup>2</sup>	4,000	Rls.	800,000
<b>IV. Physical Contingency</b> (20% of I + II + III)					<b>42,168,000</b>
<b>V. Total (I + II + III + IV)</b>					<b>253,008,000</b>
Rounded Total					<b>253,000,000</b>
		Number of Village	1		<b>253,000,000</b>