

5 Mining and Quarrying



Introduction

Survey of mines-related activities and continuous dissemination of its results began by the then Ministry of Industries and Mines in the year 1333. Related statistics were published annually in the attachment of the publication "Statistics on Manufacturing Activities" until the year 1339, but they have appeared in a separate publication ever since under the title of "Statistics on Mineral Activities of Iran". The first census of mines of the country was carried out in the month of Azar in the year 1342 by the Ministry of Economy. Statistical Bureau of the Ministry of Economy gathered and published statistics on mines-related activities annually from the year 1342 to the year 1353, using statistics from nationwide mines registers and records. The second census of authorized mines of the country was conducted by the cooperation of the SCI and the Ministry of Industries and Mines in the year 1353. The SCI used to conduct a survey of a selected number of mines annually from the year 1353 to the year 1357. This economic sector suffered from a lack of statistics during the year 1357 to the year 1363, because in the interim neither statistical surveys were implemented nor comprehensive registers were available. The SCI conducted a survey of mines, covered by the public sector in the years 1364 and 1365, and also carried out the third census of mines of the country in the year 1366. Survey of mines has been conducted every year from the year 1367 to the year 1385 except for the years 1370 and 1384.

The data presented in this chapter are from the aforementioned censuses and surveys as well as data from the mineral cooperatives companies reported by the Ministry of Cooperatives, Labor and Social Welfare .

It should be noted that:

(1) in the survey of the operating mines of the country, statistics on oil and gas, radioactive materials, and clay were not collected. However, due to the special importance of oil and gas statistics, the related information is separately presented in chapter 6.

(2) in the survey of operating mines, sand and gravel mines are enumerated by a sample survey, and other mines by a census.

(3) the ISIC Rev.3 is followed with appropriate modifications for the classification of activities in this sector.

Definitions and concepts

Mine: collection of (cost-effective) mineral deposits, machinery, and facilities established for exploring, equipping, and exploiting and dressing of minerals. Dressing refers to all physical and chemical operations for separating some of waste materials from ores or separating ores from one another.

Operating mine: any mine with exploitation license from the Ministry of Industries and Mines (for mines other than sand and gravel) or from municipalities and governors offices (for sand and gravel) that has been under extraction (in some cases with dressing activities) for at least 30 successive or non successive days to produce marketable ores during the year of the enumeration.

Private management: management exercised by individuals or private institutions.

Public management: management exercised by the ministries, government organizations, Islamic Revolution Foundations, banks, municipalities and other public institutions.

Workers: all the individuals working full-time or part-time in mine-related activities inside or outside of the mine. The employed persons are divided into two groups: production line workers (skilled and unskilled) and other workers (administrative, financial and service) according to their duties.

Production line skilled workers: employed persons capable of performing a part of technical activities related to production line due to their know-how and experience. Engineers, technicians, craftsmen, foremen, skilled labourers, fitters, and drivers, are some examples.

Production line unskilled workers: persons working in production line whose jobs do not require any specific training or experience; such as labourers and porters.

Other workers (administrative, financial and service): employed persons engaged in clerical, administrative, financial and services activities in mines or their central offices but not engaged directly in extraction and production activities.

In presentation of statistics on employed persons, it is noteworthy that the method of "average number of employed persons" has been employed in the calculation.

Compensation of employees: see Chapter 4, Definitions and concepts.

Mineral production: all minerals obtained from a series of extraction activities which make them marketable. It should be mentioned that in some mining activities, minerals are supplied to the market without undergoing dressing process, whereas in others, minerals are supplied to the market after a series of physical and/or chemical treatments for separating some of the waste from ores, separating ores from one another, or increasing fineness of raw material. In addition, in one industry, several minerals may be produced. For example, copper ore mining activity includes minerals of copper ore and copper and molybdenum concentrates production.

Value of products: value of extracted ores and value of saleable mineral waste products at producer's prices; that is, the price of sale to customers at the mine.

Capital formation (changes in the value of capital goods): see Chapter 4, Definitions and concepts.

Value added: value of receipts (outputs) less the value of payments (inputs).

Value of receipts (outputs): value of mineral products, value of saleable mineral waste products, manufacture and major repairs of capital goods by mine workers and other receipts of the mine including receipts from contracts, minor repairs of buildings and office equipment, minor repairs of machinery, laboratory, etc.

Value of payments (inputs): value of purchased materials and non-durable tools and instruments, fuel consumed, water and electricity, and other payments including payments on contracts, minor repairs of building and office equipment, minor repairs of machinery, laboratory, etc.

Cooperative: see Chapter 4, Definitions and concepts.

Mines cooperative: a cooperative company engaged in excavation, exploitation, and sales of minerals obtained from operating mines

Selected information

On the basis of the country's operating mines survey results in the year 1390, there were 5246 operating mines. The results show that a total of 84528 persons were working in these mines and the number of workers increased by 3.98 percent in contrast to the year 1389.

In the year 1390, the value of mines products amounted to 65442 billion rials. Iron ore, copper ore and decorative stones with 27277, 15442 and 5392 bln. rials had the highest annual production value respectively.

In the year 1390, the value added of the nation's operating mine amounted to 47830 bln rials. Iron ore, copper ore, and decorative stones with 18292, 12431 and 4426 bln rials had the highest value added, respectively. These three accounted for more than 73% of the sector's total value added.

Moreover, Kerman, Yazd and East Azerbaijan with 20196, 9625 and 2232 bln rials had the highest value added of the country's operating mines among the provinces,.

In the year 1390, out of the total 6149 bln. rials of fresh investments, over 48% relates to machinery, durable tools and administrative equipment and 6.7% goes to the construction and land.

5. 1. NUMBER OF MINES, WORKERS, COMPENSATION OF EMPLOYEES AND VALUE OF PRODUCTION IN OPERATING MINES⁽¹⁾ BY OSTAN (mln rials)

Year and Ostan	Number of mines			Number of workers				Compensation of employees	Value of production ⁽³⁾
	Total	Type of management		Total ⁽²⁾	Production line		Other (administrative, financial and service)		
		Private	Public		Skilled	Unskilled			
1375	2704	2137	567	53046	23259	16372	13415	480155	1941600
1380.....	2892	2548	344	55560	28013	14939	12608	899382	5675787
1385.....	3582	3301	281	60062	31107	16146	12810	2307840	22642408
1386.....	3799	3550	247	66250	35375	18010	12867	3325650	30647053
1387.....	4116	3870	246	75458	40031	21146	14281	4348255	35567776
1388.....	4426	4181	245	76854	41229	19297	16328	5518477	35586170
1389	4974	4756	218	81293	46336	17357	17599	6403153	50147576
1390.....	5246	5036	209	84528	45159	21280	18089	7316839	65442497
East Azarbayejan	231	222	9	4361	1965	1516	880	238119	2886564
West Azarbayejan.....	377	362	15	2745	1280	505	960	145106	859997
Ardebil	99	99	0	720	369	162	189	36870	155488
Esfahan	414	405	10	6484	3790	1135	1559	517565	2368256
Alborz.....	30	30	0	478	214	154	110	36926	180949
Ilam.....	43	41	3	545	269	183	93	25423	142639
Bushehr.....	190	183	6	1550	714	338	498	84259	427767
Tehran.....	118	115	3	2725	1131	1025	569	221352	1366492
Chaharmahal& Bakhtiyari	100	96	4	460	304	0	156	20439	222730
South Khorasan.....	152	146	7	1965	1237	395	333	155789	749302
Khorasan-e-Razavi..	477	468	9	4280	2175	1188	916	297254	2194642
North Khorasan.....	70	60	10	1091	746	266	79	41956	363785
Khuzestan	160	160	0	1855	994	497	364	117627	712136
Zanjan	149	148	1	1516	873	381	262	104376	1108077
Semnan.....	279	272	7	3628	2426	605	597	236287	647196
Sistan&Baluchestan	125	122	3	1365	714	476	175	91748	472107
Fars	195	187	8	3812	2329	839	644	244852	1120093
Qazvin	134	127	7	712	411	189	112	44938	175674
Qom	75	73	2	980	431	295	254	73504	367070
Kordestan	141	132	9	1017	553	193	272	66264	964034
Kerman	266	254	12	14437	7773	3331	3333	2077415	25895094
Kermanshah	143	138	5	1132	576	340	216	73494	367661
Kohgiluyeh&Boyerahmad ...	118	99	19	830	409	267	153	47200	183190
Golestan	94	84	9	2154	1148	631	374	186237	555917
Gilan	47	43	5	1216	615	388	213	76924	233419
Lorestan.....	154	149	5	1428	888	326	215	93000	690778
Mazandaran	102	91	11	2697	1513	702	483	209438	569978
Markazi	273	262	11	2770	1683	503	584	236323	2580588
Hormozgan	66	66	0	1122	560	385	178	72506	496106
Hamedan	165	156	9	1091	626	223	242	56606	323069
Yazd	257	245	12	13359	6444	3839	3077	1387040	16061700

1. Statistics for sand and gravel mines obtained from sample surveys were generalized to the total country and caused some differences between the total and sum of parts in some cases.

2. Excluding the workers of mines whose extraction activities were entrusted to others under a contract, in the year 1386 and before.

3. Including the value of mineral and other products

Source: Statistical Centre of Iran.

5.2. NUMBER OF MINES, WORKERS, COMPENSATION OF EMPLOYEES AND VALUE OF PRODUCTION IN OPERATING MINES⁽¹⁾ BY TYPE OF ACTIVITY, THE YEAR 1390
(mln.rials)

Activity	Number of mines			Number of workers			Compensation of employees	Value of production	
	Total	Type of management		Total	Production line				
		Private	Public		Skilled	Unskilled			Other (administrative, financial and service)
Total	5246	5036	209	84528	45159	21280	18089	7316839	65442497
Mining of coal	116	105	11	10749	5504	3067	2177	957043	2180822
Mining of iron ore	112	103	9	14394	7609	3414	3370	1799605	27277137
Mining of lead and zinc	24	20	4	1666	881	502	283	169551	1524035
Mining of gold ore	4	2	2	291	173	58	60	30058	138088
Mining of copper ore.....	26	24	2	6973	3725	1823	1426	923891	15442228
Mining of chromite	44	44	0	1682	714	701	268	244497	1159852
Mining of manganese....	25	24	1	546	194	209	143	47720	213050
Mining of bauxite.....	9	7	2	580	469	77	33	20674	220154
Mining of cobalt, antimony and titanium.....	1	0	1	7	4	0	3	689	2800
Mining of gravel and sand	1623	1514	109	15013	7526	3947	3540	906385	4347035
Mining of decorative stones	822	815	6	11644	6785	2676	2182	876122	5392055
Mining of rubble stone..	744	726	18	4953	2660	1150	1144	252814	1297833
Mining of ballast	6	4	2	91	50	18	23	10066	35428
Mining of lime stone	669	641	28	7668	4539	1535	1594	563015	3506766
Mining of gypsum.....	275	271	4	2028	1098	446	485	119047	654609
Mining of kaolin and fireclay	194	194	0	1526	742	449	335	91513	464923
Mining of dolomite	30	29	1	213	127	33	53	13973	82230
Mining of bentonite's and fuller's earth	38	38	0	227	125	53	49	10434	42421
Mining of magnesite and whiting	22	22	0	241	127	69	45	18665	70630
Mining of sodium sulphate	12	12	0	123	38	14	72	8669	45370
Mining of barite , limonite and ferrous oxide	67	65	2	600	248	237	114	35146	139921
Mining of fluorine.....	19	19	0	280	141	102	37	14802	94388
Mining of strontium sulphate& boron.....	6	6	0	49	32	10	8	3644	22089
Mining of orpiment phosphate & iodine	3	1	2	305	223	37	45	37362	190526
Mining of salt	75	74	1	704	363	194	147	43481	224582
Mining of silica	101	100	1	729	417	175	137	46002	359019
Mining of ores slag	95	93	2	712	406	117	189	44288	178277
Mining of feldspar.....	55	55	0	249	134	58	57	12163	65794
Mining of talcum.....	11	11	0	68	31	23	14	3444	11749
Mining of shell & mica .	10	9	1	70	26	24	20	2982	10951
Other precious and semi-precious stones.....	8	8	0	146	49	62	35	9093	47733

1. Statistics for some mines, obtained from sample surveys were generalized to the total country and caused differences between the total and sum of parts in some cases.
Source: Statistical Centre of Iran.

5. 3. QUANTITY OF MINERALS PRODUCTION IN OPERATING MINES⁽¹⁾ BY TYPE OF ACTIVITY
(1000 tons)

Activity	1375	1380	1385	1386	1387	1388	1389	1390
Total.....	66961	92649	138334	160920	178905	203328	224943	360688
	⁽²⁾ 55428	⁽²⁾ 47775	⁽²⁾ 77394	⁽²⁾ 70260	⁽²⁾ 70708	⁽²⁾ 73691	⁽²⁾ 82986	⁽⁹⁾ x
Mining of coal	1211	1380	2413	2565	2636	2181	2324	2327
Mining of iron ore	5236	11441	20648	24738	28474	27617	30992	35843
Mining of lead and zinc.....	322	579	1072	677	571	626	1436	955
Mining of gold ore	152	352	742	803	668	1256	1178	1077
Mining of copper ore	370	453	790	852	1115	1031	1580	2094
Mining of chromite	322	174	269	139	269	275	394	440
Mining of manganese	83	140	94	103	116	126	125	227
Mining of bauxite	230	65	1395	1257	715	522	687	847
Mining of cobalt.....	0	0	0	0	⁽³⁾ 4	⁽³⁾ 4	⊙	7
Mining of antimony	×	0	0	1	⊙	⊙	1	×
Mining of titanium.....	×	×	4	4	⊙	⊙	×	×
Mining of gravel and sand.	⁽²⁾ 53869	⁽²⁾ 46147	⁽²⁾ 76102	⁽²⁾ 68488	⁽²⁾ 68708	⁽²⁾ 71321	⁽²⁾ 80241	126386
Mining of decorative stones...	6120	10325	9908	11143	13104	13839	15738	14327
Mining of rubble stone	7683	9359	16441	21373	16265	20456	21990	25622
Mining of ballast	⁽²⁾ 959	⁽²⁾ 802	⁽²⁾ 394	⁽²⁾ 788	⁽²⁾ 686	⁽²⁾ 626	⁽²⁾ 398	525
Mining of lime stone	31961	43498	62959	72768	89926	107373	114639	115269
Mining of gypsum	7696	8347	11878	13379	12566	13616	13672	15353
Mining of kaolin and fireclay	1437	1660	2716	2655	4685	4326	9355	6943
Mining of dolomite	219	281	514	698	696	1132	1251	968

**5.3. QUANTITY OF MINERALS PRODUCTION IN OPERATING MINES BY TYPE OF
ACTIVIT (continued) (1000 tons)**

Activity	1375	1380	1385	1386	1387	1388	1389	1390
Mining of bentonite and fullers's earth	85	175	186	254	376	387	355	422
Mining of magnesite and whiting	111	115	189	112	116	131	136	173
Mining of sodium sulphate	464	369	280	633	738	679	858	1225
Mining of barite	159	238	226	245	⁽⁴⁾ 227	365	320	407
Mining of limonite and ferrous oxide	28	76	//	2	∅	∅	12	×
Mining of fluorine	19	34	63	73	66	71	76	58
Mining of strontium sulphate	8	0	17	0	⁽⁵⁾ 22	⁽⁵⁾ 16	15	76
Mining of boron	3	3	2	2	∅	∅	1	×
Mining of orpiment	//	//	//	0	⁽⁶⁾ 62	⁽⁶⁾ 61	×	98
Mining of alum	×	1	0	0	×	×	×	0
Mining of phosphate	10	33	67	53	∅	∅	62	×
Mining of salt	1411	1538	2618	2755	2301	2816	3257	2776
Mining of silica	1244	1687	2252	2909	2508	3643	3637	3133
Mining of ores slag	⁽²⁾ 600	⁽²⁾ 826	⁽²⁾ 898	⁽²⁾ 983	⁽²⁾ 1314	⁽²⁾ 1743	⁽²⁾ 2145	2270
Mining of feldspar	122	157	418	524	505	637	648	670
Mining of talcum	27	66	69	91	90	67	79	80
Mining of asbestos	2	4	0	0	×	×	×	×
Mining of sea shell	219	96	99	110	⁽⁷⁾ 83	⁽⁷⁾ 70	68	89
Mining of mica	5	5	2	2	∅	∅	3	×
Mining of turquoise	//	//	//	0	∅	∅	0	3
Mining of opal	×	×	//	0	∅	∅	0	×
Other precious and semi-precious stones....	×	×	×	1	⁽⁸⁾ 2	⁽⁸⁾ 4	5	×

1. Statistics for some mines, obtained from sample surveys, were generalized to the total country and caused differences between the total and sum of parts in some cases

2. In thousand cubic meters.

3. Including antimony and titanium production

4. Including limonite and ferrous oxide production.

5. Including boron production.

6. Including phosphate and iodine production.

7. Including mica production.

8. Including turquoise and opal production.

9. Since the year 1390, the above statistics were collected in thousand tons.

Source: Statistical Centre of Iran.

5. 4. VALUE OF MINERALS PRODUCTION IN OPERATING MINES BY TYPE OF ACTIVITY (mln rials)

Activity	1375	1380	1385	1386	1387	1388	1389	1390
Total	1941600	5675787	22642408	30647053	35567776	35586170	50147576	65442497
Mining of coal	357943	570566	1077642	1427715	1937905	1649041	1808708	2180822
Mining of iron ore	231205	947000	5483754	9576836	12942090	11125450	17321420	27277137
Mining of lead and zinc	92546	195458	1855364	1784373	629212	735735	1200521	1524035
Mining of gold ore	3042	9415	113156	195740	167949	219709	215820	138088
Mining of copper ore	269038	1145592	7500248	8449079	8639421	9167938	13400520	15442228
Mining of chromite	80024	70388	297223	244018	407529	395224	851529	1159852
Mining of manganese.....	9344	31023	51383	84811	129941	122647	121374	213050
Mining of bauxite	13194	4253	153928	127506	137812	107891	173306	220154
Mining of cobalt.....	0	0	0	0	⁽¹⁾ 6309	⁽¹⁾ 6184	3300	2800
Mining of antimony	×	0	0	5250	⊖	⊖	⊖	×
Mining of titanium.....	×	×	4800	4960	⊖	⊖	⊖	×
Mining of gravel and sand...	277148	543928	1548204	2147538	2393425	2783149	3288391	4347035
Mining of decorative stones	238796	1013763	1916393	3050306	3847756	4169838	5344709	5392055
Mining of rubble stone.....	57910	309179	487803	737096	634662	954698	959031	1297833
Mining of ballast.....	8457	17147	19448	45283	46507	65214	45160	35428
Mining of lime stone	124664	363066	1079502	1516897	2023836	2305669	3234097	3506766
Mining of gypsum	37036	87085	236511	277459	336973	412816	510808	654609
Mining of kaolin and fireclay	36169	98729	236033	201866	395615	288648	437908	464923
Mining of dolomite	6493	14337	29395	52929	43748	65697	93419	82230
Mining of bentonite and fuller's earth	1490	7123	12382	19321	31837	45474	37087	42421
Mining of magnesite and whiting	10716	21069	46722	32098	38143	52238	58698	70630
Mining of sodium sulphate.....	7729	7622	14306	46499	67828	62821	19358	45370
Mining of barite ...	8351	24215	39997	66128	⁽²⁾ 69023	⁽²⁾ 86653	⁽²⁾ 97241	⁽²⁾ 139921
Mining of limonite and ferrous oxide	2317	6181	41	500	⊖	⊖	⊖	⊖
Mining of fluorine	4448	11118	53959	58485	56526	94959	81750	94388
Mining of strontium sulphate	380	0	1932	0	⁽³⁾ 7552	⁽³⁾ 1937	⁽³⁾ 7410	22089
Mining of boron	2235	2312	3328	3180	⊖	⊖	⊖	⊖
Mining of orpiment.....	144	879	180	560	⁽⁴⁾ 116851	⁽⁴⁾ 78127	⁽⁴⁾ 95376	⁽⁴⁾ 190526

**5. 4. VALUE OF MINERALS PRODUCTION IN OPERATING MINES BY TYPE OF
ACTIVITY (continued)**

Activity	(mln rials)							
	1375	1380	1385	1386	1387	1388	1389	1390
Mining of alum	×	144	0	0	×	×	×	×
Mining of phosphate	600	39484	31018	25153	⊖	⊖	⊖	⊖
Mining of iodine.....	×	×	×	×	⊖	⊖	⊖	⊖
Mining of salt	26390	38076	109273	159849	134040	212121	236712	224582
Mining of silica	18314	49152	148891	189067	177793	216142	236691	359019
Mining of ores slag	3672	10147	24926	37928	70668	69320	122238	178277
Mining of feldspar	3158	9474	32814	35761	36936	50997	109955	65794
Mining of talcum	1635	11491	6959	8671	6639	7349	8022	11749
Mining of asbestos	1978	3450	0	0	×	×	×	×
Mining of sea shell	3415	7674	12786	18570	⁽⁵⁾ 21049	⁽⁵⁾ 18220	⁽⁵⁾ 11906	⁽⁵⁾ 10951
Mining of mica	1294	4293	4405	5152	⊖	⊖	⊖	⊖
Mining of turquoise	325	954	7625	10000	⊖	⊖	⊖	×
Mining of opal	×	×	78	0	⊖	⊖	⊖	×
Other precious and semi-precious stones.....	×	×	×	470	⁽⁶⁾ 12200	⁽⁶⁾ 14264	⁽⁶⁾ 15110	⁽⁶⁾ 47733

1. Including antimony and titanium production value.

2. Including production value of limonite and ferrous oxide.

3. Including production value of boron.

4. Including production value of phosphate and iodine.

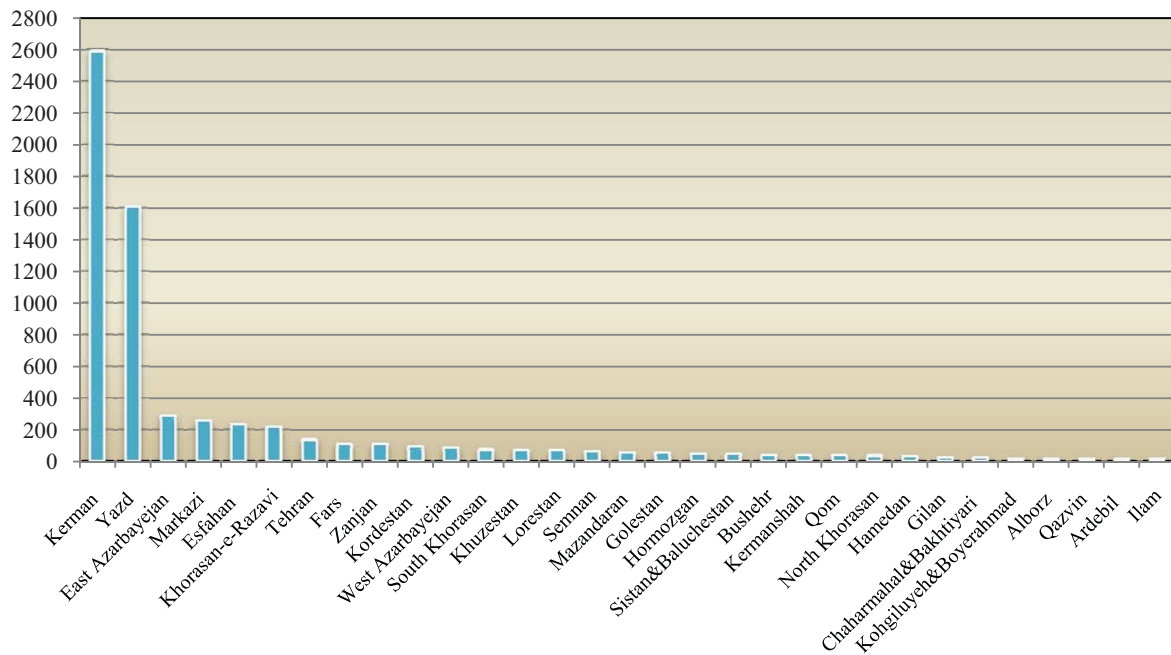
5. Including production value of mica.

6. Including production value of opal and turquoise.

Source: Statistical Centre of Iran.

5. 1. VALUE OF MINERAL PRODUCTS OF OPERATING MINES BY OSTAN, THE YEAR 1390

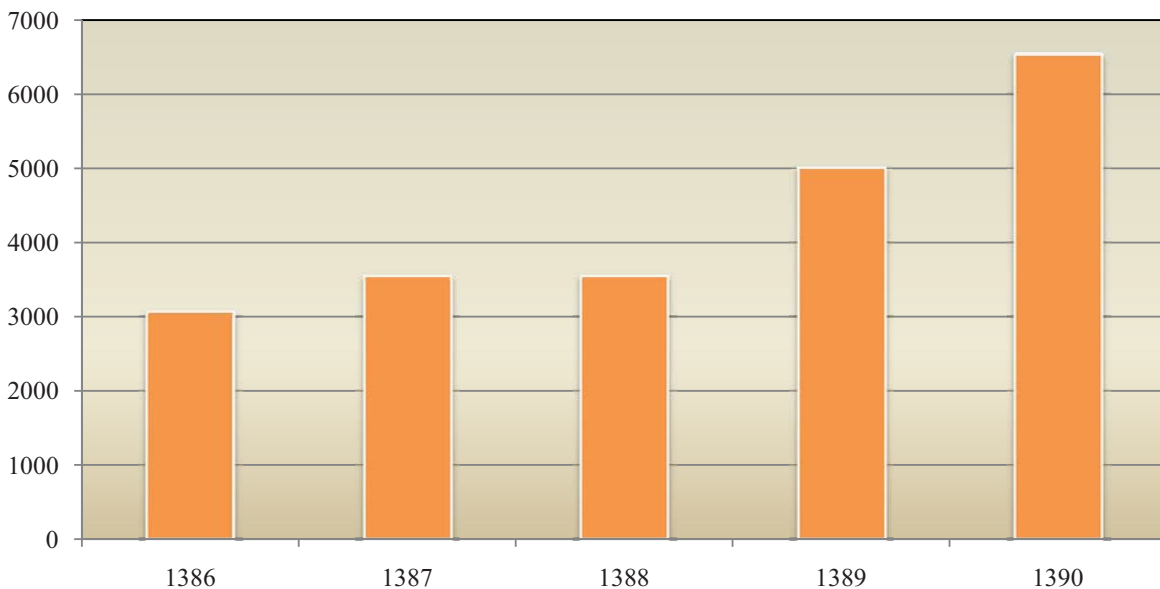
Billion rials



For data see Table 5. 1

5. 2. VALUE OF MINERAL PRODUCTION IN OPERATING MINES

Billion rials



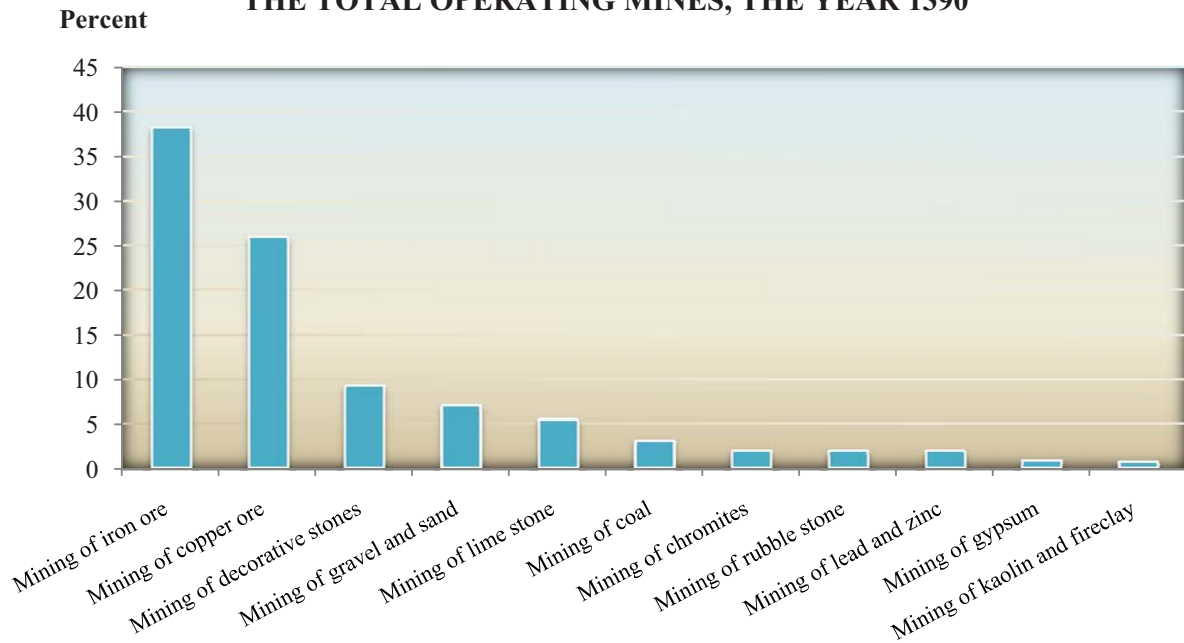
For data see Table 5. 4

5. 5. VALUE ADDED, INPUTS AND OUTPUTS VALUE OF OPERATING MINES BY OSTAN
(mln rials)

Year and Ostan	Value added	Payments (inputs)	Receipts(outputs)
1375.....	1421533	621369	2042902
1380.....	4618050	1254791	5872841
1385.....	16666060	6345035	23011095
1386.....	23732721	7597911	31330632
1387.....	27754400	8632025	36386424
1388.....	26662764	9926427	36589191
1389.....	38736873	12234125	50970998
1390.....	47826873	19100952	66927825
East Azerbayejan.....	2232427	677344	2909771
West Azarbayejan	688566	219432	907998
Ardebil	106508	60430	166938
Esfahan	1709751	768957	2478709
Alborz.....	157526	57331	214857
Ilam.....	97076	47513	144589
Bushehr	336278	114978	451257
Tehran.....	1200784	535363	1736147
Chaharmahal&Bakhtiyari	173846	55136	228982
South Khorasan	550830	222435	773264
Khorasan-e-Razavi	1666794	568990	2235784
North Khorasan	185337	179408	364745
Khuzestan	521060	207022	728082
Zanjan	673865	469609	1143474
Semnan.....	503358	178943	682302
Sistan&Baluchestan	372895	175152	548046
Fars.....	884342	280641	1164983
Qazvin	107660	76483	184143
Qom.....	273908	106098	380005
Kordestan.....	806380	192600	998981
Kerman.....	20195915	5851782	26047697
Kermanshah.....	254796	129506	384302
Kohgiluyeh&Boyerahmad	143807	56093	199900
Golestan.....	407359	201694	609052
Gilan	180515	66164	246679
Lorestan.....	567313	195432	762744
Mazandaran.....	408862	197838	606700
Markazi.....	2209496	415196	2624692
Hormozgan.....	352155	158341	510496
Hamedan	232555	105016	337571
Yazd	9624911	6530024	16154935

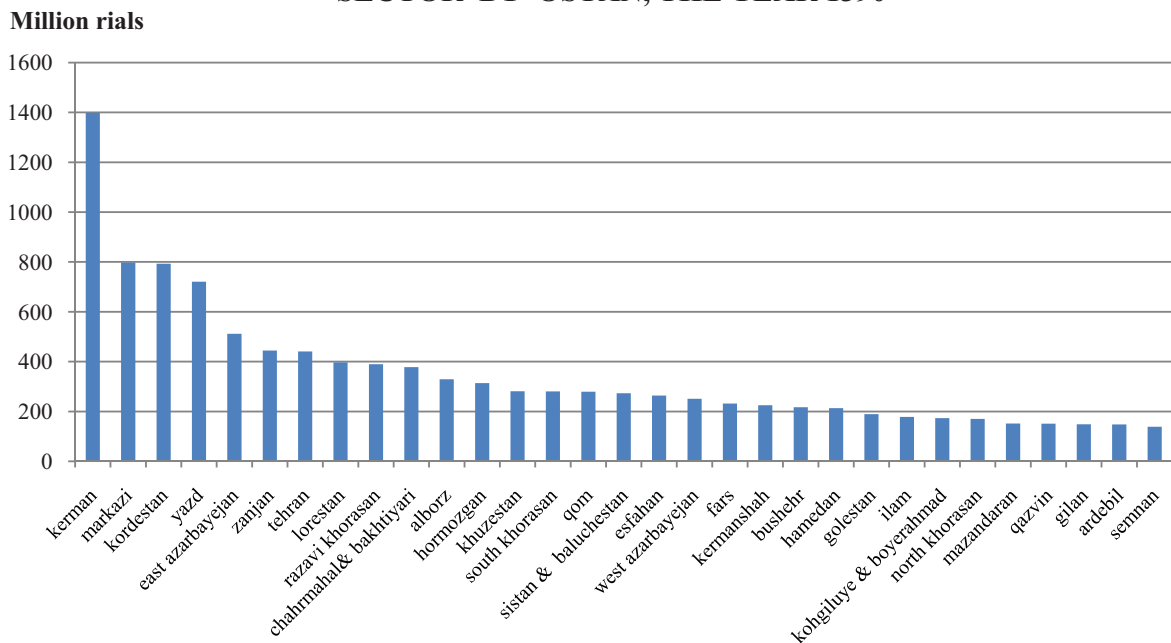
Source: Statistical Centre of Iran.

5.3 RATIO OF VALUE ADDED OF SELECTED MINES TO THE TOTAL OPERATING MINES, THE YEAR 1390



For data see Table 5.6

5.4. PRODUCTIVITY OF LABOUR FORCE IN MINING SECTOR BY OSTAN, THE YEAR 1390



For data see Tables 5.1 and 5.5

5.6.VALUE ADDED, INPUTS AND OUTPUTS VALUE OF OPERATING MINES BY TYPE OF ACTIVITY, THE YEAR 1390
(mln rials)

Activity	Value added	Payments (inputs)	Receipts (outputs)
Total	47826873	19100952	66927825
Mining of coal	1505477	769484	2274961
Mining of iron ore	18291578	9117797	27409375
Mining of lead and zinc	933614	607326	1540940
Mining of gold ore	91651	59913	151563
Mining of copper ore	12430903	3064537	15495440
Mining of chromites	978358	191731	1170089
Mining of manganese	137972	91065	229037
Mining of bauxite	70392	150260	220652
Mining of cobalt, antimony and titanium.....	2719	117	2836
Mining of gravel and sand	3366585	1604271	4970856
Mining of decorative stones	4425618	1200346	5625964
Mining of rubble stone	967934	400778	1368712
Mining of ballast	27992	7627	35619
Mining of lime stone	2635870	998457	3634326
Mining of gypsum	425540	251895	677435
Mining of kaolin and fireclay	363112	115484	478595
Mining of dolomite	49284	35217	84501
Mining of bentonite and fuller's earth	29846	13957	43803
Mining of magnesite and whiting	51091	23991	75081
Mining of sodium sulphate	24350	21582	45932
Mining of barite, limonite and ferrous oxide	99420	45207	144628
Mining of fluorine	77239	17930	95169
Mining of strontium sulphate and boron.....	17305	5491	22796
Mining of orpiment , phosphate & iodine....	151294	45510	196804
Mining of salt	177481	55662	233142
Mining of silica	268802	97133	365935
Mining of ores slag	117033	75103	192136
Mining of feldspar	49258	21032	70290
Mining of talcum	7558	4657	12215
Mining of shell & mica	7408	3656	11064
Other precious and semi-precious stones.....	44191	3736	47927

Source: Statistical Centre of Iran.

5. 7. INVESTMENT (CHANGES IN THE VALUE OF CAPITAL GOODS) IN OPERATING MINES BY TYPE OF CAPITAL PROPERTIES AND OSTAN (mln rials)

Year and Ostan	Total investment	Machinery and stable equipment and administrative facilities	Vehicles	Building and equipment (without land)	Access road	Exploration and development	Computer software	Other
1375.....	294962	190265	17435	35261	9849	5755	-	36397
1380.....	667897	537418	40533	47788	26187	10327	1204	4439
1385.....	1737226	1328153	87357	99032	42720	174966	-620	5618
1386.....	2582948	2093378	172795	144132	56106	104101	2372	10064
1387.....	3302300	2297218	274103	393270	71629	250577	4177	11326
1388.....	3631020	2807301	171402	238032	136137	233012	3136	42000
1389.....	6340513	5459792	217754	332145	66188	216726	3116	44792
1390.....	6149346	2957585	251308	411553	124038	246425	3112	2155326
East Azarbayegan	103957	62645	4904	9945	7495	2	251	163
West Azarbayegan.....	189866	132201	30886	6393	5616	239	178	30
Ardebil	27528	13027	540	1514	2685	52	22	0
Esfahan.....	416443	337036	17750	26456	16361	6172	526	2636
Alborz.....	129657	63268	6127	8642	5852	19	932	0
Ilam	8709	10410	6033	293	0	0	0	0
Bushehr	125759	24973	11976	1771	14115	0	46	0
Tehran	472515	102979	175	501	263	0	36	0
Chaharmahal&Bakhtiyari	23301	17834	471	53	2487	0	0	0
South Khorasan.....	99446	60861	6458	3854	316	265	79	569
Khorasan-e-Razavi	152653	91074	12050	9077	4359	5391	160	831
North Khorasan.....	94301	18170	650	235	170	0	125	0
Khuzestan	73689	83039	1305	3383	5324	1122	14	0
Zanjan	328837	20110	9184	18822	22780	36000	2171	0
Semnan	57997	29311	10141	4285	1958	941	61	0
Sistan&Baluchestan.....	55727	47717	2966	4413	2318	0	138	0
Fars	106475	121108	19885	2977	120	72	100	2324
Qazvin	21079	37604	2850	1026	368	452	5	0
Qom	48441	44968	421	547	875	12026	13	483
Kordestan	86129	79817	2598	3018	1751	1583	43	532
Kerman	2139596	3029913	15697	59438	1913	14965	-2714	2127063
Kermanshah	88749	74691	6821	2676	4595	174	21	999
Kohgiluyeh&Boyerahmad.....	6409	31584	1441	1991	183	16	3	0
Golestan	55594	38411	5700	3560	40	0	39	114
Gilan	53047	79595	376	8890	39	0	274	0
Lorestan	139780	99615	1616	286	523	0	0	0
Mazandaran	86251	91878	3396	2514	2610	2813	51	12
Markazi	149896	133857	5919	7414	5299	641	283	0
Hormozgan	55367	51698	792	285	1860	0	2	1500
Hamedan	42829	37848	4824	5936	1067	109	-115	0
Yazd	709320	392548	57353	211361	10694	163371	369	18070

Source: Statistical Centre of Iran.

5. 8. INVESTMENT (CHANGES IN THE VALUE OF CAPITAL GOODS) IN OPERATING MINES BY TYPE OF CAPITAL PROPERTIES AND TYPE OF ACTIVITY, THE YEAR 1390
(mlnrrials)

Activity	Total investment	Machinery and stable equipment and administrative facilities	Vehicles	Building without land	Access road	Exploration and development	Computer software	Other
Total	6149346	2957585	251308	411553	124038	246425	3112	2155326
Mining of coal	181097	76466	16318	19909	1833	49768	494	16309
Mining of iron ore	2748779	180326	62828	173325	34494	167595	-574	2130786
Mining of lead and zinc	49713	33037	7464	7422	185	937	45	623
Mining of gold ore	21010	17255	3408	346	0	0	0	0
Mining of copper ore	115036	58232	-10673	67100	86	47	244	0
Mining of chromite	43307	34088	1962	6672	562	0	22	0
Mining of manganese	19692	4867	1908	478	99	11900	2	440
Mining of bauxite	83982	83522	441	6	14	0	0	0
Mining of cobalt, antimony and titanium.....	55	55	0	0	0	0	0	0
Mining of gravel and sand	1179608	1064880	64828	33965	13210	60	1748	918
Mining of decorative stones.....	722344	643192	26344	25727	18078	6479	418	2106
Mining of rubble stone.....	187621	148320	9610	5530	20623	1204	69	2265
Mining of ballast	1010	735	20	185	70	0	0	0
Mining of lime stone.....	439857	354919	44988	22405	13697	2193	346	1310
Mining of gypsum	60687	45266	4336	4286	6283	413	101	1
Mining of kaolin and fireclay..	45583	38583	3539	1595	1003	612	33	219
Mining of dolomite	5706	2485	1525	6	343	1319	0	29
Mining of bentonite and fuller's earth	4178	3459	429	122	83	84	0	0
Mining of magnesite and whiting	8759	7770	353	94	520	0	22	0
Mining of sodium sulphate	9386	5510	309	3567	0	0	0	0
Mining of barite, limonite and ferrous oxide	21662	16116	2981	1358	1081	98	23	5
Mining of fluorine	6735	5296	720	664	55	0	0	0
Mining of strontium sulphate..	1451	1265	67	63	56	0	0	0
Mining of orpiment phosphate & iodine	52855	19652	65	33138	0	0	0	0
Mining of salt	12524	9529	841	282	709	1121	43	0
Mining of silica	46884	40165	-1117	1297	6448	32	60	0
Mining of ores slag	56501	43965	6966	1288	4027	203	10	42
Mining of feldspar	16901	12358	755	688	458	2362	4	275
Mining of talcum	536	596	-99	39	0	0	0	0
Mining of shell & mica.....	5620	5440	181	0	0	0	0	0
Other precious and semi-precious stones.....	268	236	12	0	20	0	0	0

Source: Statistical Centre of Iran.

5. 9. GENERAL CHARACTERISTICS OF MINES COOPERATIVES AT THE END OF THE YEAR (mln rials)

Description	Number	Members	Workers	Capital
<i>Registered cooperatives⁽¹⁾</i>				
1375.....	1306	14022	8910	71572
1380.....	1691	21373	12146	106325
1385.....	1952	27271	15263	162032
1387.....	2146	32538	16859	189486
1388.....	2242	35288	18244	206103
1389.....	2303	32970	19000	185112
1390.....	2413	35997	21180	224856
1391.....	2534	70359	22337	273966
<i>Cooperatives under establishment</i>				
1375.....	20	182	82	2008
1380.....	56	972	342	3502
1385.....	137	2277	1251	20253
1387.....	251	3604	2182	36782
1388.....	316	5721	3317	50585
1389.....	219	4098	2292	9087
1390.....	252	5359	3514	16018
1391.....	332	6240	4277	33733
<i>Cooperatives in operation</i>				
1375.....	634	8231	5681	52365
1380.....	841	12029	7555	77835
1385.....	966	16074	9045	112456
1387.....	1042	19996	9636	123206
1388.....	1073	20630	9887	126010
1389.....	918	14021	8917	118580
1390.....	896	46355	8961	144001
1391.....	876	46459	8811	176791

5. 9. GENERAL CHARACTERISTICS OF MINES COOPERATIVES AT THE END OF THE YEAR (continued)
(mln rials)

Description	Number	Members	Workers	Capital
East Azarbayejan	35	534	356	3822
West Azarbayejan	8	88	84	7088
Ardebil	6	45	61	889
Esfahan	38	325	409	11023
Alborz	8	78	64	470
Ilam	2	21	33	13
Bushehr	29	228	215	15958
Tehran	56	1044	856	19314
Chaharmahal&Bakhtiari	5	35	34	968
South Khorasan	12	191	92	3203
Khorasan-e-Razavi	125	2041	1244	15605
North Khorasan	6	162	81	42
Khuzestan	11	94	139	238
Zanjan	19	401	251	3780
Semnan	37	305	386	10162
Sistan&Bluchestan	5	46	46	104
Fars	44	36165	474	32905
Qazvin	8	66	78	7317
Qom	12	98	90	1833
Kordestan	9	150	75	129
Kerman	61	554	450	9494
Kermanshah	17	124	124	322
Kohgiluyeh&Boyerahmad	14	120	112	747
Golestan	8	93	39	315
Gilan	13	101	114	487
Lorestan	124	1254	1030	3060
Mazandaran	45	1112	637	4219
Markazi	41	359	480	3279
Hormozgan	46	327	411	6307
Hamedan	6	42	100	1985
Yazd	26	256	246	11713

1. Including cooperatives in operation, out of operation and under establishment.

Source: Ministry of Cooperatives.