

Chapter-I

Introduction, Objectives, Scope and Coverage

Introduction

The programme of Census of Mining & Quarrying Industries (CMQI) was initiated in 1962-63. So far 22 reports have been published. The present report is the 23rd of the series and covers mining establishments including those holding leases/licenses for crude oil, natural gas, coal and other minerals in all the provinces of Pakistan. This report presents data for all minerals at national and provincial levels.

Mining in Pakistan has considerable potential but its contribution to Gross Domestic Product (GDP) was only 2 % in 2004-05 at current prices. This is largely because of complex and non-renewable character of the mineral resources found in Pakistan. The complicated and lengthy nature of operations and the heavy cost involved in the exploration process and risky results makes mining a highly intricate and demanding task.

Most operations require intensive investigation work, considerable capital, advanced skills and high risks before any stage of profitability can be reached. Foreign companies of various countries are involved in the exploration and production of oil and gas.

Objectives

1. The main objective of the CMQI is to commensurate mining and quarrying activities in terms of gross output, gross value added, employment and employment cost.
2. To obtain production data and the input structure.

Scope

The CMQI 2004-05 covered establishments engaged in mining and quarrying activities relating to extraction of minerals and fossil fuels whether solid, liquid or gas, both in the private and public sectors in all the provinces and federal capital Islamabad has been included in Punjab for the statistical purpose. The Northern Areas, Federally Administered Tribal Areas and Azad Jammu and Kashmir were, however, out of the scope of this census.

Coverage

The list of mining establishments of all minerals (Mining Directories/Census Frame) except crude oil and natural gas that existed during the year 2004-2005 was obtained from the provincial Directorates of Mines & Mineral Developments located at Lahore, Karachi, Peshawar and Quetta respectively. The list of establishments of crude oil and natural gas that existed during the year 2004-2005 was obtained from the Directorate General of Petroleum Concessions, Ministry of Petroleum and Natural Resources, Islamabad.

The CMQI data was collected through FBS field staff and the Census questionnaires were supplied to all the concerned Regional/Field Offices so that FBS field staff could manage to collect the requisite data from the mining establishments and pass on the same to FBS, Islamabad. According to the original mining directories, there were 2,476 mining establishments in Pakistan. Out of this, 275 mining establishments were found either closed/cancelled during the year under report. Census returns were collected for 1,478 establishments. The overall coverage was 67 % which has a share of about 96 % in the total production value of mining sector. However, according to relevant data from the Provincial Directorates of Mineral Development the remaining 33 % establishments not covered under the Census have only about 4 % share in the total production value. Consequently it does not have significant effect on overall results of CMQI. Therefore, it is sufficient for deriving Input Output ratio.

Coverage of Census of Mining and Quarrying Industries

Regions	Total Establishments	Closed	Revised Frame	Responded	Non-response	Coverage (%)
Pakistan	2,476	275	2,201	1,478	723	67
Punjab	752	94	658	429	229	65
Sindh	319	26	293	232	61	79
NWFP	825	63	762	519	243	68
Balochistan	580	92	488	298	190	61

Data Gaps

Attempts were made to gather mining statistics pertaining to Gross Fixed Capital Formation but most of the respondents did not provide this information. However, mining establishments provided annual production data but majority of the respondents did not furnish quarterly data on production, production value, intermediate cost, employment cost, etc. Furthermore, the annual minerals production series from 1999-00 to 2004-05 have been added in this report (Table 7-11).

Chapter-II

Concepts and Definitions

1. Prospecting License (PL)

A prospecting license is a license for a mineral over the area specified there-in provided the applicant is considered fit, which is granted under Mining Concession Rules, 1986, initially for a period of two years but not exceeding five years.

2. Mining Lease (ML)

The licensing authority may grant mining lease in accordance with the Mining Concession Rules, 1986, for a mineral over the land specified therein provided the applicant is considered fit. The initial term of lease shall not exceed 30 years.

3. Employees

Employees mean all persons whether part-time or full-time, who work primarily at the mine site and oil or gas fields. Contract labour and unpaid family workers are excluded.

4. Average Daily Employment

It means the employment worked out by averaging the number of employees on the pay roll of last day of each month of the financial year and dividing it by the number of months the establishments carried out operation.

5. Employment Cost

It means wages and salaries paid plus cash and non-cash benefits provided to employees as remuneration for their work. It also includes payments made to contract labour.

6. Intermediate Cost

It includes the cost of fuel, electricity & materials consumed. Payments for repairs & maintenance and payments made to others for work done on establishment's material are also included.

7. [Miscellaneous Cost](#)

It includes cost of printing & stationary, postage, telegraph & telephone charges, water charges, payments of business insurance premium, and freight/transportation charges etc.

8. [Gross Value of Production](#)

It means value of minerals sold at market price plus value of stock in hand at the end of the year minus value of stock of minerals at the beginning of the year plus receipts for work done for others during the year 2004-05.

9. [Census Value Added](#)

It means the difference between gross value of minerals production and intermediate cost of the mining establishments covered in the CMQI.

10. [Value Added / Contribution to GDP](#)

It is computed as under:-

$$\text{Value added} = \text{Census Value Added} - \text{Misc. Cost}$$

Chapter-III

Findings

Production Series

The production series cover the Mineral Production for the years 1999-00 to 2004-05. Table-2 (page-2) shows that in terms of value of production the contribution of Gas sector was about 66 % Crude Oil 27 %, Coal 2 %, Lime Stone 0.6 %, Rock Salt 0.3 % and rest of minerals 4 %. The Oil and Gas sub-sector together contributed about 93 % of the gross value of production in the year 2004-05.

Employment and Employment Cost

The Average daily employment was 86,729 persons during the year 2004-05. The total employment cost including both regular and contract labor was rupees 8,699 million during the year under reference. A comparative picture of the number of persons employed in the mining sector and their respective employment cost incurred during the year 2004-05 is given below.

Type of Minerals	Average Daily Employment (No)	Employment Cost (Million Rs.)
All Minerals	86,729	8,699
Coal	24,159	1,577
Crude Oil	10,951	1,560
Lime Stone	9,316	590
Natural Gas	18,195	3,901
Rock Salt	4,227	203
Others	19,881	868

Source 1: Table-2, P.2 of CMQI, 2004-05

Intermediate Cost, Miscellaneous Cost and Indirect Taxes

The intermediate and miscellaneous costs were recorded as rupees 5,098 million and 2,658 million respectively during the year 2004-05 (Table-17).

Indirect taxes amounting to rupees 22,693 million were paid to the government by the mining establishments covered in this census i. e 2004-05 (Table-17).

A comparative picture of intermediate and miscellaneous cost incurred in the extraction of various minerals and indirect taxes paid during the year 2004-05 is given below:

(Million Rs)

Type of Minerals	Intermediate Cost	Miscellaneous Cost	Indirect Taxes
All Minerals	5,098	2,658	22,693
Coal	518	140	86
Crude Oil	1,530	938	5,216
Lime Stone	267	54	84
Natural Gas	2,306	1,287	17,001
Rock Salt	55	21	28
Others	422	218	278

Source: Table-17, P.15

Gross Value of Production, Census Value Added and Contribution to GDP

Gross value of production and census value added of all minerals covered in 2004-05 amounted to Rs. 170,472 million and 165,374 million respectively while contribution to GDP stood at Rs. 162,715 million in the year under report. A table showing the comparative picture of gross value of production, value added and contribution to GDP by various minerals during the year 2004-05 is given below:

(Million Rs)

Type of Minerals	Gross Value of Production	Census Value Added	Contribution to GDP
All Minerals	170,472	165,374	162,715
Coal	4,171	3,653	3,514
Crude Oil	47,244	45,714	44,775
Lime Stone	1,213	946	892
Natural Gas	111,261	108,955	107,668
Rock Salt	509	454	434
Others	6,074	5,652	5,432

Source: Table-2, P.2

Statistical Tables

Table-1: Mining Statistics at a Glance.

(Value in '000' Rs)

PAKISTAN					
Minerals	Gross Value of Production	Intermediate Cost	Census Value Added	Miscellaneous Cost	Indirect Taxes
All Minerals	170,471,728	5,097,776	165,373,952	2,657,857	22,692,926
Coal	4,171,155	517,748	3,653,407	139,671	85,536
Crude Oil	47,244,170	1,530,424	45,713,746	937,850	5,216,326
Lime Stone	1,212,668	266,747	945,921	54,255	84,382
Natural Gas	111,260,979	2,305,990	108,954,989	1,286,769	17,001,229
Rock Salt	509,295	54,980	454,315	20,595	28,336
Others	6,073,461	421,887	5,651,574	218,717	277,117
PUNJAB					
All Minerals	29,145,524	1,040,037	28,105,487	1,045,988	2,940,125
Coal	746,952	102,768	644,184	45,356	18,326
Crude Oil	20,145,615	465,195	19,680,420	515,298	1,418,914
Lime Stone	447,395	210,378	237,017	14,557	54,678
Natural Gas	6,686,265	182,630	6,503,635	436,782	1,388,059
Rock Salt	483,160	50,318	432,842	18,265	27,156
Others	636,137	28,748	607,389	15,730	32,992
SINDH					
All Minerals	93,996,016	2,143,508	91,852,508	1,070,027	11,356,201
Coal	560,948	76,310	484,638	32,967	23,987
Crude Oil	24,577,614	856,968	23,720,646	258,003	3,119,278
Lime Stone	218,259	9,675	208,584	7,975	12,947
Natural Gas	68,155,917	1,158,826	66,997,091	697,389	8,195,880
Others	483,278	41,729	441,549	73,693	4,109
NWFP					
All Minerals	5,511,482	474,514	5,036,968	293,474	1,303,916
Coal	401,891	59,130	342,761	4,876	2,076
Crude Oil	2,520,941	208,261	2,312,680	164,549	678,134
Lime Stone	414,546	42,118	372,428	24,038	14,790
Natural Gas	853,549	70,564	782,985	55,761	571,467
Rock Salt	26,135	4,662	21,473	2,330	1,180
Others	1,294,420	89,779	1,204,641	41,920	36,269
BALUCHISTAN					
All Minerals	41,818,706	1,439,717	40,378,989	248,368	7,092,684
Coal	2,461,364	279,540	2,181,824	56,472	41,147
Lime Stone	132,468	4,576	127,892	7,685	1,967
Natural Gas	35,565,248	893,970	34,671,278	96,837	6,845,823
Others	3,659,626	261,631	3,397,995	87,374	203,747

Table-2: Summary Statistics by Type of Minerals - Pakistan

(Value in '000' Rs)

Type of Minerals	Average Daily Employment (Nos)	Employment Cost	Gross Value of Production	Intermediate Cost	Census Value Added	Contribution to GDP
1	2	3	4	5	6	7
All Minerals	86,729	8,699,281	170,471,728	5,097,776	165,373,952	162,715,095
Barytes	504	23,520	191,758	17,983	173,775	147,040
Bauxite	26	1,415	306	12	294	149
Bentonite	302	4,380	9,334	806	8,528	6,749
Chalk	148	12,530	91,526	3,952	87,574	84,476
China Clay	151	4,501	18,591	5,112	13,479	13,254
Chromite	582	25,329	70,690	1,205	69,485	64,423
Coal	24,159	1,577,496	4,171,155	517,748	3,653,407	3,513,736
Crude Oil	10,951	1,560,422	47,244,170	1,530,424	45,713,746	44,775,896
Copper Ore	1,195	148,583	2,934,312	232,984	2,701,328	2,647,705
Dolomite	997	35,514	154,763	27,626	127,137	123,359
Feld Spar	157	15,415	31,345	2,612	28,733	24,406
Fire Clay	189	16,284	25,565	243	25,322	24,536
Fuller Earth	507	1,935	6,118	206	5,912	5,872
Granite	84	5,104	38,788	1,427	37,361	36,619
Gypsum	1,425	64,577	351,758	11,190	340,568	334,322
Lake Salt/ Sea Salt	174	7,340	7,628	360	7,268	6,733
Laterite	970	12,709	25,170	2,077	23,093	20,954
Lime Stone	9,316	590,269	1,212,668	266,747	945,921	891,666
Magnesite	28	2,072	6,041	1,498	4,543	4,396
Marble	7,827	315,552	1,371,811	48,042	1,323,769	1,245,988
Natural Gas	18,195	3,900,506	111,260,979	2,305,990	108,954,989	107,668,220
Ocher	64	2,628	473	81	392	365
Phosphate	278	13,684	13,374	1,446	11,928	8,118
Quartz	47	1,432	8,490	538	7,952	7,716
Rock Salt	4,227	203,457	509,295	54,980	454,315	433,720
Shale Clay	1,440	10,841	15,418	3,694	11,724	9,432
Silica Sand	2,700	91,156	367,664	31,327	336,337	321,279
Slate Stone	210	10,112	104,132	7,652	96,480	95,042
Soap Stone	515	21,735	50,716	11,826	38,890	31,026
Sulphur	316	14,835	126,786	5,974	120,812	120,294
Surpentine	45	3,948	50,904	2,014	48,890	48,604

Table-3: Summary Statistics by Type of Minerals- Punjab

(Value in '000' Rs)

Type of Minerals	Average Daily Employment (Nos)	Employment Cost	Gross Value of Production	Intermediate Cost	Census Value Added	Contribution to GDP
1	2	3	4	5	6	7
All Minerals	22,456	1,725,551	29,145,524	1,040,037	28,105,487	27,058,499
Bauxite	26	1,415	306	12	294	149
Bentonite	274	2,460	5,348	276	5,072	3,613
Coal	5,680	442,650	746,952	102,768	644,184	598,828
Crude Oil	3,792	570,456	20,145,615	465,195	19,680,420	19,164,122
Dolomite	245	5,870	16,978	490	16,488	16,028
Fire Clay	189	16,284	25,565	243	25,322	24,536
Gypsum	973	46,730	312,812	3,992	308,820	306,052
Lime Stone	4,176	359,784	447,395	210,378	237,017	222,460
Natural Gas	1,798	36,931	6,686,265	182,630	6,503,635	6,066,853
Ocher	64	2,628	473	81	392	365
Rock Salt	3,851	187,562	483,160	50,318	432,842	414,577
Silica Sand	1,072	37,946	147,869	17,680	130,189	120,622
Sulphur	316	1,4835	126,786	5,974	120,812	120,294

Table-4: Summary Statistics by Type of Minerals-Sindh

(Value in '000' Rs)

Type of Minerals	Average Daily Employment (Nos)	Employment Cost	Gross Value of Production	Intermediate Cost	Census Value Added	Contribution to GDP
1	2	3	4	5	6	7
All Minerals	29,863	4,259,210	93,996,016	2,143,508	91,852,508	90,782,481
Chalk	148	12,530	91,526	3,952	87,574	84,476
China clay	127	3,226	8,806	592	8,214	8,058
Coal	7,469	298,146	560,948	76,310	484,638	451,671
Crude Oil	6,945	978,628	24,577,614	856,968	23,720,646	23,462,643
Dolomite	607	24,468	94,982	18,450	76,532	73,865
Fuller Earth	507	1,935	6,118	206	5,912	5,872
Lake Salt	174	7,340	7,628	360	7,268	6,733
Laterite	784	1,993	5,896	710	5,186	4,476
Lime Stone	954	13,986	218,259	9,675	208,584	200,609
Marble	389	58,732	85,960	3,414	82,546	21,033
Natural Gas	10,045	2,807,435	68,155,917	1,158,826	66,997,091	66,299,702
Shale Clay	360	6,265	9,582	2,667	6,915	5,820
Silica Sand	1,354	44,526	172,780	11,378	161,402	157,523

Table-5: Summary Statistics by Type of Minerals-NWFP

(Value in '000' Rs)

Type of Minerals	Average Daily Employment (Nos)	Employment Cost	Gross Value of Production	Intermediate Cost	Census Value Added	Contribution to GDP
1	2	3	4	5	6	7
All Minerals	13,278	519,523	5,511,482	474,514	5,036,968	4,743,494
Barytes	46	1,964	6,842	1,285	5,557	5,537
Bentonite	28	1,920	3,986	530	3,456	3,136
China Clay	24	1,275	9,785	4,520	5,265	5,196
Chromite	70	1,872	7,930	420	7,510	7,476
Coal	1,826	48,384	401,891	59,130	342,761	337,885
Crude Oil	214	11,338	2,520,941	208,261	2,312,680	2,148,131
Dolomite	145	5,176	42,803	8,686	34,117	33,466
Feld Spar	157	15,415	31,345	2,612	28,733	24,406
Granite	38	2,625	26,103	1,140	24,963	24,425
Gypsum	452	17,847	38,946	7,198	31,748	28,270
Laterite	186	10,716	19,274	1,367	17,907	16,478
Lime Stone	2,930	118,643	414,546	42,118	372,428	348,390
Magnesite	28	2,072	6,041	1,498	4,543	4,396
Marble	5,241	194,510	864,384	35,145	829,239	814,565
Natural Gas	103	9,168	853,549	70,564	782,985	727,224
Phosphate	278	13,684	13,374	1,446	11,928	8,118
Quartz	47	1,432	8,490	538	7,952	7,716
Rock Salt	376	15,895	26,135	4,662	21,473	19,143
Shal Clay	80	4,576	5,836	1,027	4,809	3,612
Silica Sand	274	8,684	47,015	2,269	44,746	43,134
Slat-Stone	210	10,112	104,132	7,652	96,480	95,042
Soap Stone	515	21,735	50,716	11,826	38,890	31,026
Surpentine	10	480	7,418	620	6,798	6,722

Table-6: Summary Statistics by Type of Minerals-Balochistan

(Value in '000' Rs)

Type of Minerals	Average Daily Employment (Nos)	Employment Cost	Gross Value Of Production	Intermediate Cost	Census Value Added	Contribution to GDP
1	2	3	4	5	6	7
All Minerals	21,132	2,194,997	41,818,706	1,439,717	40,378,989	40,130,621
Barytes	458	21,556	184,916	16,698	168,218	141,503
Chromite	512	23,457	62,760	785	61,975	56,947
Coal	9,184	788,316	2,461,364	279,540	2,181,824	2,125,352
Copper ore	1,195	148,583	2,934,312	232,984	2,701,328	2,647,705
Granite	46	2,479	12,685	287	12,398	12,194
Lime stone	1,256	97,856	132,468	4,576	127,892	120,207
Marble	2,197	62,310	421,467	9,483	411,984	410,390
Natural gas	6,249	1,046,972	35,565,248	893,970	34,671,278	34,574,441
Surpentine	35	3,468	43,486	1,394	42,092	41,882

Table-7: Minerals Production at National Level-Pakistan

Type of Minerals	Unit	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
1	2	3	4	5	6	7	8
Barytes	Metric Tons	25,951	28,289	21,451	40,745	44,207	42,087
Bauxite	"	9,683	3,728	12,233	4,098	4,847	6,504
Bentonite	"	14,059	13,935	11,476	11,290	6,316	15,671
Chalk	"	8,094	9,722	7,881	7,733	7,735	8,146
China Clay	"	63,456	46,574	53,542	39,575	25,204	37,732
Chromite	"	33,317	21,683	24,185	30,657	28,529	46,359
Coal	"	3,255,440	3,285,748	3,511,842	3,609,338	3,300,066	3,367,021
CopperOre	"	-	-	-	10,000	3,750,608	3,991,923
Crude Oil	(000) BBLs	20,395	21,084	23,195	23,458	22,625	24,119
Dolomite	Metric Tons	347,583	352,687	312,886	340,864	297,419	199,653
Feld Spar	"	-	42,780	35,071	37,344	30,373	25,032
Fire Clay	"	139,076	158,441	174,429	120,243	192,728	253,501
Fuller Earth	"	19,378	12,961	15,521	14,723	13,986	17,001
Granite	"	4,709	9,072	8,548	6,425	9,982	6,153
Gypsum	"	365,463	399,097	401,740	424,107	467,065	552,496
Lake Salt/ Sea Salt	"	12,677	14,700	14,375	16,652	11,555	14,375
Laterite	"	40,886	44,339	44,852	63,438	83,197	71,784
Lime Stone	"	9,590,756	10,871,767	10,819,571	11,880,275	13,150,127	14,857,479
Magnesite	"	3,983	4,695	4,637	3,435	6,074	3,029
Marble	"	624,938	634,283	685,258	1,066,276	980,671	1,280,304
Natural Gas	MMCFT	818,342	875,433	923,758	992,589	1,202,752	1,344,953
Ocher	Metric Tons	4,793	4,691	5,064	6,733	7,861	18,686
Phosphate	"	5,208	2,385	1,362	2,562	4,614	2,687
Quartz	"	-	10,532	7,076	8,550	13,340	26,871
Red Oxide	"	-	16,910	26,345	23,225	11,146	11,544
Rock Salt	"	1,357,815	1,393,688	1,423,478	1,426,067	1,639,516	1,648,223
Shale Clay	"	1,698,726	2,038,443	1,764,471	1,759,682	1,934,366	1,550,444
Silica Sand	"	166,744	165,166	161,737	185,415	259,009	308,901
Slate Stone	"	221,819	133,127	161,142	250,356	252,771	298,776
Soap Stone	"	47,869	46,989	53,573	73,057	52,483	20,564
Sulphur	"	22,812	17,428	22,580	19,402	23,873	24,158
Surpentine	"	5,533	8,445	11,043	12,378	11,575	10,434

Source: Tables 8 to 11

Table-8: Minerals Production by Province-Punjab

Type of Minerals	Unit	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
1	2		3	4	5	6	7
Bauxite	Metric Tons	9,683	3,728	12,233	4,098	4,847	6,504
Bentonite	"	112,209	13,221	7,389	6,344	5,436	10,858
Coal	"	454,519	407,346	515,262	502,326	535,066	544,326
Crude Oil	(000) BBLs	7,660	7,383	7,848	8,112	8,405	8,481
Dolomite	M. Tons	43,754	33,843	48,858	43,423	55,219	38,995
Fire Clay	"	138,931	157,271	165,493	120,243	182,327	216,986
Gypsum	"	241,502	224,970	205,127	259,859	326,169	376,366
Lime Stone	"	5,200,404	5,108,467	5,123,456	5,338,606	6,081,068	8,196,611
Natural Gas	MMCFT	54,465	65,633	70,227	67,891	67,498	63,832
Ocher	M. Tons	4,793	4,691	5,064	6,733	7,861	18,686
Rock Salt	"	1,236,724	1,261,141	1,305,015	1,330,164	1,534,408	1,595,301
Silica Sand	"	90,637	75,910	83,228	87,358	144,864	170,287
Laterite	"	-	-	19,684	37,603	53,416	24,617
Sulphur	"	22,772	17,428	22,580	19,402	23,873	24,158

Source: Directorate of Mining Department, Punjab

Table-9: Minerals Production by Province-Sindh

Type of Minerals	Unit	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
1	2		3	4	5	6	7
Bentonite	Metric Tons	2,850	110	95	1,872	-	-
Chalk	"	8,094	9,722	7,881	7,733	7,735	8,146
China Clay	"	15,674	12,775	8,484	7,215	7,041	8,796
Coal	"	981,941	1,005,631	992,981	1,049,042	924,142	917,975
Crude Oil	(000) BBLs	12,735	13,701	15,346	15,345	14,220	14,557
Dolomite	Metric Tons	168,389	148,355	119,873	127,241	123,950	114,059
Fuller Earth	"	12,362	9,363	11,375	9,909	10,716	10,312
Granite	"	1,274	948	963	1,047	401	372
Lake Salt/Sea Slat	"	12,677	14,700	14,375	16,652	11,555	14,375
Laterite	"	15,071	17,865	10,692	3,845	2,020	8,997
Lime Stone	"	1,471,413	1,624,295	1,900,761	1,188,696	1,528,809	2,393,099
Marble	"	1,595	2,620	4,639	5,265	5,766	4,354
Natural Gas	MMCF	393,376	422,432	479,370	566,452	786,546	936,163
Shale Clay	"	390,236	392,803	488,983	411,661	264,258	300,535
Silica Sand	"	51,776	67,690	59,085	74,611	83,990	81,750

Source: Directorate of Mining Department, Sindh

Table-10: Minerals Production by Province-NWFP

Type of Minerals	Unit	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
1	2		4	4	5	6	7
Barytes	Metric Tons	2,233	4,129	3,154	4,260	1,902	1,287
Bentonite	"	-	-	3,992	3,074	880	4,813
China Clay	"	47,782	33,790	45,018	32,360	18,033	25,606
Chromite	"	100	3,343	2,990	5,350	6,193	24,613
Coal	"	46,355	191,273	237,404	266,214	214,161	216,808
Crude Oil	(000) BBL	-	-	-	-	-	1,061
Dolomite	M Tons	133,927	169,558	143,725	169,823	117,885	46,361
Feld Spar	"	-	42,780	35,071	37,344	30,373	25,032
Granite	"	-	6,242	4,820	3,372	5,567	3,895
Gypsum	"	123,961	174,127	186,613	164,248	140,896	176,130
Laterite	"	25,815	26,474	14,476	21,990	27,761	38,170
Lime Stone	"	2,825,873	3,976,733	3,646,049	5,103,742	5,268,416	3,923,032
Magnesite	"	3,833	5,590	5,260	1,388	5,334	1,484
Marble	"	455,665	450,443	450,443	473,291	644,355	850,382
Natural Gas	MMCFT	-	-	-	-	-	8,465
Phosphate	M Tons "	5,208	2,385	1,362	2,562	4,614	2,687
Quartz	"	-	10,532	7,076	8,550	13,340	26,871
Red-Oxide	"	-	16,910	26,345	23,275	11,146	11,544
Rock Salt	"	121,091	132,547	118,463	95,903	150,108	52,922
Shale Clay	"	691,604	849,999	677,712	783,826	904,325	441,643
Silica Sand	"	24,331	21,566	19,424	23,446	30,155	56,864
Slate-Stone	Metric Tons	221,819	133,127	161,142	250,356	252,771	298,776
Soap Stone	"	47,869	46,989	53,573	73,057	52,483	20,564
Surpentine	"	795	4,818	6,513	7,183	9,210	8,111

Source: Director of Mining Department, NWFP

Table-11: Minerals Production by Province-Balochistan

Type of Minerals	Unit	1999-00	2000-01	2001-2002	2002-03	2003-04	2004-05
1	2		4	5		6	7
Barytes	Metric Tons	23,718	24,160	18,297	36,485	42,305	40,800
Chromite	"	33217	18,340	21,195	25,307	22,336	21,746
Coal	"	1,772,625	1,687,498	1,766,195	1,791,756	1,626,697	1,687,912
Copper Ore	"	-	-	-	10,000	3,750,608	3,991,923
Granite	"	3,435	3,882	2,765	2,005	4,014	1,886
Dolomite	"	1,513	933	430	377	365	238
Lime stone	"	930,661	162,272	144,305	229,231	271,834	344,737
Marble	"	167,308	180,657	207,278	258,173	329,965	423,627
Natural gas	MMCFT	370,501	387,367	374,161	358,246	348,708	336,493
Shale Clay	Metric Tons	616,886	795,641	597,776	563,595	765,783	808,266
Surpentine	"	4,738	3,627	4,530	5,195	2,365	2,323

Source: Directorate of Mining Department, Balochistan

Table-12: Employment and Employment Cost by type of Minerals - Pakistan

(Value in '000' Rs)

Type of Minerals	Average Daily Employment during the year (Nos).	Employment Cost during the year		
		Total	Wages and Salaries	Other Cash / Non-Cash Payments
1	2	3	4	5
All Minerals	86,729	8,699,281	7,901,166	798,115
Barytes	504	23,520	21,646	1,874
Bauxite	26	1,415	1,280	135
Bentonite	302	4,380	3,535	845
Chalk	148	12,530	12,365	165
China Clay	151	4,501	4,064	437
Chromite	582	25,329	22,976	2,353
Coal	24,159	1,577,496	1,424,394	153,102
Copper Ore	1,195	148,583	136,524	12,059
Crude Oil	10,951	1,560,422	1,393,662	166,760
Dolomite	997	35,514	25,094	10,420
Feld Spar	157	15,415	14,162	1,253
Fire Clay	189	16,284	11,881	4,403
Fuller Earth	507	1,935	1,685	250
Granite	84	5,104	4,303	801
Gypsum	1,425	64,577	53,294	11,283
Lake Salt/ Sea Salt	174	7,340	7,328	12
Laterite	970	12,709	11,480	1,229
Lime Stone	9,316	590,269	549,828	40,441
Magnesite	28	2,072	2,020	52
Marble	7,827	315,552	225,682	89,870
Natural Gas	18,195	3,900,506	3,648,801	251,705
Ocher	64	2,628	2,545	83
Phosphate	278	13,684	12,150	1,534
Quartz	47	1,432	1,305	127
Rock Salt	4,227	203,457	175,901	27,556
Shale Clay	440	10,841	8,980	1,861
Silica Sand	2,700	91,156	87,376	3,780
Slate Stone	210	10,112	6,348	3,764
Soap Stone	515	21,735	13,585	8,150
Sulphur	316	14,835	13,890	945
Serpentine	45	3,948	3,082	866

Table-13: Employment and Employment Cost by type of Minerals- Punjab

(Value in '000' Rs)

Type of Minerals	Average Daily Employment during the year (Nos)	Employment Cost during the year		
		Total	Wages	Other Cash / Non-Cash Payments
1	2	3	4	5
All Minerals	22,456	1,725,551	1,526,124	199,427
Bauxite	26	1,415	1,280	135
Bentonite	274	2,460	1,793	667
Coal	5,680	442,650	407,864	34,786
Crude Oil	3,792	570,456	477,798	92,658
Dolomite	245	5,870	4,125	1,745
Fire Clay	189	16,284	11,881	4,403
Gypsum	973	46,730	36,976	9,754
Lime Stone	4,176	359,784	337,166	22,618
Natural Gas	1,798	36,931	32,776	4,155
Ocher	64	2,628	2,545	83
Rock Salt	3,851	187,562	160,822	26,740
Silica Sand	1,072	37,946	37,208	738
Sulphur	316	14,835	13,890	945

Table-14: Employment and Employment Cost by type of Minerals-Sindh

(Value in '000' Rs)

Type of Minerals	Average Daily Employment during the year (Nos)	Employment Cost during the year		
		Total	Wages and Salaries	Other Cash Non-Cash Payments
1	2	3	4	5
All Minerals	29,863	4,259,210	4,034,492	224,718
Chalk	148	12,530	12,365	165
China Clay	127	3,226	2,914	312
Coal	7,469	298,146	293,458	4,688
Crude Oil	6,945	978,628	906,268	72,360
Dolomite	607	24,468	16,612	7,856
Fuller Earth	507	1,935	1,685	250
Lake Salt/Sea Slat	174	7,340	7,328	12
Laterite	784	1,993	1,748	245
Lime Stone	954	13,986	7,205	7,681
Marble	389	58,732	57,078	1,654
Natural Gas	10,045	2,807,435	2,679,975	127,460
Shale Clay	360	6,265	5,126	1,139
Silica Sand	1,354	44,526	42,730	1,796

Table-15: Employment and Employment Cost by type of Minerals-NWFP

(Value in '000' Rs)

Type of Minerals	Average Daily Employment (Nos)	Employment Cost during the year		
		Total	Wages and Salaries	Other Cash / Non-Cash Payment
1	2	3	4	5
All Minerals	13,278	519,523	416,902	102,621
Barytes	46	1,964	1,812	152
Bentonite	28	1,920	1,742	178
China Clay	24	1,275	1,150	125
Chromite	70	1,872	1,132	740
Coal	1,826	48,384	47,220	1,164
Crude Oil	214	11,338	9,596	1,742
Dolomite	145	5,176	4,357	819
Feld Spar	157	15,415	14,162	1,253
Granite	38	2,625	1,915	710
Gypsum	452	17,847	16,318	1,529
Laterite	186	10,716	9,732	984
Lime Stone	2,930	118,643	117,075	1,568
Magnesite	28	2,072	2,020	52
Marble	5,241	194,510	119,754	74,756
Natural Gas	103	9,168	8,732	436
Phosphate	278	13,684	12,150	1,534
Quartz	47	1,432	1,305	127
Rock Salt	376	15,895	15,079	816
Shal Clay	80	4,576	3,854	722
Silica Sand	274	8,684	7,438	1,246
Slat-Stone	210	10,112	6,348	3,764
Soap Stone	515	21,735	13,585	8,150
Surpentine	10	480	426	54

Table-16: Employment and Employment Cost by type of Minerals-Balochistan

(Value in '000' Rs)

Type of Minerals	Average Daily Employment (Nos)	Employment Cost during the year		
		Total	Wages and Salaries	Other Cash / Non-Cash Payments
1	2	3	4	5
All Minerals	21,132	2,194,997	1,923,648	271,349
Barytes	458	21,556	19,834	1,722
Chromite	512	23,457	21,844	1,613
Coal	9,184	788,316	675,852	112,464
Copper Ore	1,195	148,583	136,524	12,059
Granite	46	2,479	2,388	91
Lime Stone	1,256	97,856	88,382	9,474
Marble	2,197	62,310	48,850	13,460
Natural gas	6,249	1,046,972	927,318	119,654
Surpentine	35	3,468	2,656	812

Table-17: Intermediate Cost, Misc. Cost and Indirect Taxes-Pakistan

(Value in '000' Rs)

Type of Minerals	Intermediate Cost	Misc. cost	Indirect Taxes
1	2	3	4
All Minerals	5,097,777	2,657,857	22,692,926
Barytes	17,983	26,735	6,088
Bauxite	12	145	54
Bentonite	806	1,779	877
Chalk	3,952	3,098	142
China Clay	5,112	225	953
Chromite	1,205	5,062	2,436
Coal	517,748	139,671	85,536
Crude Oil	1,530,425	937,850	5,216,326
Copper Ore	232,984	53,623	165,587
Dolomite	27,626	3,778	4,254
Feld Spar	2,612	4,327	1,524
Fire Clay	243	786	1,520
Fuller Earth	206	40	143
Granite	1,427	742	622
Gypsum	11,190	6,246	4,922
Lake Salt/ Sea Salt	360	535	108
Laterite	2,077	2,139	2,446
Lime Stone	266,747	54,255	84,382
Magnesite	1,498	147	81
Marble	48,042	77,781	48,463
Natural Gas	2,305,990	1,286,769	17,001,229
Ocher	81	27	327
Phosphate	1,446	3,810	1,046
Quartz	538	236	360
Rock Salt	54,980	20,595	28,336
Shale Clay	3,694	2,292	2,514
Silica Sand	31,327	15,058	3,281
Slate Stone	7,652	1,438	924
Soap Stone	11,826	7,864	758
Sulphur	5,974	518	27,560
Surpentine	2,014	286	127

Table-18: Intermediate Cost, Misc. Cost and Indirect Taxes-Punjab

(Value in '000' Rs)

Type of Minerals	Intermediate Cost	Misc. cost	Indirect Taxes
1	2	3	4
All Minerals	1,040,038	1,045,988	2,940,125
Bauxite	12	145	54
Bentonite	276	1,459	234
Coal	102,768	45,356	18,326
Crude Oil	465,196	515,298	1,418,914
Dolomite	490	460	785
Fire Clay	243	786	1,520
Gypsum	3,992	2,768	1,794
Lime Stone	210,378	14,557	54,678
Natural Gas	182,630	436,782	1,388,059
Ocher	81	27	327
Rock Salt	50,318	18,265	27,156
Silica Sand	17,680	9,567	718
Sulphur	5,974	518	27,560

Table-19: Intermediate Cost, Misc. Cost and Indirect Taxes-Sindh

(Value in '000' Rs)

Type of Minerals	Intermediate Cost	Misc. Cost	Indirect Taxes
1	2	3	4
All Minerals	2,143,508	1,070,027	11,356,201
Chalk	3,952	3,098	142
China Clay	592	156	278
Coal	76,310	32,967	23,987
Crude Oil	856,968	258,003	3,119,278
Dolomite	18,450	2,667	1,476
Fuller Earth	206	40	143
Lake Salt/Sea Slat	360	535	108
Laterite	710	710	464
Lime Stone	9,675	7,975	12,947
Marble	3,414	61,513	694
Natural Gas	1,158,826	697,389	8,195,880
Shale Clay	2,667	1,095	408
Silica Sand	11,378	3,879	396

Table-20: Intermediate Cost, Misc. Cost and Indirect Taxes- NWFP

(Value in '000' Rs)

Type of Minerals	Intermediate Cost	Misc. Cost	Indirect Taxes
1	2	3	4
All Minerals	474,514	293,474	1,303,916
Barytes	1,285	20	196
Bentonite	530	320	643
China Clay	4,520	69	675
Chromite	420	34	50
Coal	59,130	4,876	2,076
Crude Oil	208,261	164,549	678,134
Dolomite	8,686	651	1,993
Feld Spar	2,612	4,327	1,524
Granite	1,140	538	387
Gypsum	7,198	3,478	3,128
Laterite	1,367	1,429	1,982
Lime Stone	42,118	24,038	14,790
Magnesite	1,498	147	81
Marble	35,145	14,674	18,209
Natural Gas	70,564	55,761	571,467
Phosphate	1,446	3,810	1,046
Quartz	538	236	360
Rock Salt	4,662	2,330	1,180
Shal Clay	1,027	1,197	2,106
Silica Sand	2,269	1,612	2,167
Slat-Stone	7,652	1,438	924
Soap Stone	11,826	7,864	758
Surpentine	620	76	40

Table-21: Intermediate Cost, Misc. Cost and Indirect Taxes-Balochistan

(Value in '000' Rs)

Type of Minerals	Intermediate Cost	Misc. Cost	Indirect Taxes
1	2	3	4
All Minerals	1,439,717	248,368	7,092,684
Barytes	16,698	26,715	5,892
Chromite	785	5,028	2,386
Coal	279,540	56,472	41,147
Copper Ore	232,984	53,623	165,587
Granite	287	204	235
Lime Stone	4,576	7,685	1,967
Marble	9,483	1,594	29,560
Natural gas	893,970	96,837	6,845,823
Surpentine	1,394	210	87