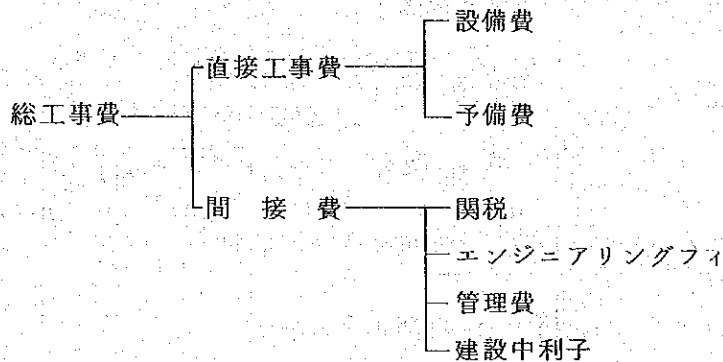


第 2 章 起業工事費概算

2-1 一般事項

工事費は下記の区分により組み立てた。



又、工事費の見積りは外貨所要分と内貨所要分とに分けて行なった。前者に属するものは輸入機械装置、電気機器、資材および5年分の予備品、それらの海上輸送料、外国人技術者の給与等であり、後者に属するものは、WAPDAおよびPMDCの職員、労働者の給与、賃金およびセメント、骨材等パキスタン国内で調達し得る工事に用資材、工事に用機械、ならびに輸入資機材の関税および国内輸送費等である。またパキスタン政府の方針により海上輸送保険料は内貨部分に計上した。

工事費は外貨、内貨部分に分けており、次の条件で見積った。

(1) 外貨、内貨所要分の見積り条件は次の通りとした。

1) 外貨所要分：1980年6月現在の日本国内における価格を基準とした。(C & Fベース)

2) 内貨所要分：1980年6月現在のパキスタン国内価格を参考基準とした。

(2) 通貨の交換レートは次のとおりとした。

$$1 \text{ US\$} = 10 \text{ Rs}$$

$$1 \text{ US\$} = 220 \text{ YEN}$$

$$1 \text{ Rs} = 22 \text{ YEN}$$

(3) 関税

関税についてはC & F価格の40%を考慮した。

(4) 予備費

予備費は止むを得ざる設計変更および価格見積り時に考慮されなかった項目に引き当てるものとし、土木、建築工事、電気機器代、据え付け工事費の5%を見込んだ。

CAPITAL COST

TOTAL OF MINE AND POWER STATION

(000,000's) RUPEES

| Description | Mine | | | Power Station | | | Total | | |
|--|------------------|----------------|-------|------------------|----------------|-------|------------------|----------------|-------|
| | Foreign currency | Local currency | Total | Foreign currency | Local currency | Total | Foreign currency | Local currency | Total |
| Purchase, Installation & Erection of Equipment | 1,131 | 350 | 1,481 | 2,405 | 1,065 | 3,470 | 3,536 | 1,415 | 4,951 |
| Contingency | 56 | 18 | 74 | 121 | 53 | 174 | 177 | 71 | 248 |
| Direct Cost | 1,187 | 386 | 1,555 | 2,526 | 1,118 | 3,644 | 3,713 | 1,486 | 5,199 |
| Import Duty | - | 452 | 452 | - | 905 | 905 | - | 1,357 | 1,357 |
| Engineering Fee | 58 | 19 | 77 | 147 | 35 | 182 | 205 | 54 | 259 |
| Administration Cost | - | 62 | 62 | - | 146 | 146 | - | 208 | 208 |
| Indirect Cost | 58 | 533 | 591 | 147 | 1,086 | 1,233 | 205 | 1,619 | 1,824 |
| Total | 1,245 | 901 | 2,146 | 2,673 | 2,204 | 4,877 | 2,918 | 3,105 | 7,023 |
| Interest During Construction | F.C. - | 188 | 376 | - | 620 | 1,348 | - | 808 | 1,724 |
| | L.C. - | 188 | | - | 728 | | - | 916 | |
| Grand Total | 1,245 | 1,277 | 2,522 | 2,673 | 3,552 | 6,225 | 3,918 | 4,829 | 8,747 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

(5) 管理費

管理費はWAPDA および PMDC が本プロジェクトを推進するために必要な本店経費、建設所経費および関連経費として直接工事費の 4 % を見込んだ。

(6) エンジニアリングフィー

コンサルタント業務に必要な人件費、技術料、諸経費、旅費および通信費等の費用として直接工事費の 5 % を計上した。なお、この費用には WAPDA および PMDC の職員が見積り書評価業務として外国に滞在する費用も含めた。

(7) 建設中利子

建設中利子は工事工程および支払条件を考慮し、外貨分 8.75 %、内貨分 12.5 % としして算出した。

(8) その他

次の費用は本見積りから除いてある。

- 土地購入費、あらゆる種類の補償費
- コロニー内の社宅、ゲストハウス、モスク、リクレーション設備等一切
- エンジニアリングフィーに対する税金、外国人エンジニアの所得税
- エスカレーション

起業工事費の詳細は Table 2-1 から 2-16 に示すとおりであるが、これを主要項目毎の内、外貨別に総括すると次の頁の表のとおりである。

2-2 炭 鉱 開 発

建設期間を 1983 年から 1985 年までとして工事費を見積った。PMDC の P.C-1 フォーム (1976 年 2 月 12 日) に基づいて見積った工事費は次の通りに分類される。

(1) 生産設備

生産設備には整地、道路建設、生産用建築物、機械電気設備および据え付け費、プレリミナリ・エクスペンスならびに建設・開発のための費用が含まれる。

プレリミナリ・エクスペンスには試すい関係の費用および外国人技術者の指導料等を計上した。

建設開発費には坑内掘進費、露天掘はく土費とこれらに関する資機材、電力費等が含まれる。

(2) 補助施設

補助施設には事務所およびそれに付随する施設が含まれる。

(3) サービス施設

サービス施設には起業工事のための人件費が含まれる。

ESTIMATED CAPITAL COST
(000,000's) Rupees

| Description | Foreign currency | Local currency | Total |
|------------------------------|---------------------|-------------------|------------|
| Production Facilities | 1,022 | 222 | 1,244 |
| Ancillary Facilities | 3 | 20 | 23 |
| Service Welfare Facilities | - | 23 | 23 |
| Sub-Total | 1,025 | 265 | 1,290 |
| Railway Facilities | 106 | 85 | 191 |
| Contingency | 56 | 18 | 74 |
| Sub-Total | 162 | 103 | 265 |
| Direct Cost Total | 1,187 | 368 | 1,555 |
| Import Duty | - | 452 | 452 |
| Engineering Fee | 58 | 19 | 77 |
| Administration Cost | - | 62 | 62 |
| Indirect Cost Total | 58 | 533 | 591 |
| Total | 1,245 | 901 | 2,146 |
| Interest During Construction | F.C. L.C. | - 188 | 188 376 |
| Grand Total | 1,245 | 1,277 | 2,522 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No. escalation.

ESTIMATED CAPITAL COST OF MINE

(000,000's) Rupees

| Description | Foreign currency | Local currency | Total |
|---------------------------------|---------------------|-------------------|-------|
| Production Facilities | 1,022 | 630 | 1,652 |
| Ancillary Facilities | 3 | 20 | 23 |
| Service & Welfare Facilities | - | 24 | 24 |
| Total | 1,025 | 674 | 1,699 |

Freight, taxes and duty included.
Contingency in direct cost not included.
The estimates reflect 1980 June price levels.
No escalation.

ESTIMATED CAPITAL COST BY FACILITIES

(000'000's) Rupees

| Description | Foreign currency | Local currency | Total |
|--------------------|---------------------|-------------------|-------|
| Underground Mine | 85 | 49 | 134 |
| Open Pit | 803 | 493 | 1,296 |
| Surface Facilities | 71 | 80 | 151 |
| Preparation Plant | 66 | 52 | 118 |
| Sub-Total | 1,025 | 674 | 1,699 |

Freight, taxes and duty included.
Contingency in direct cost not included.
The estimates reflect 1980 June price levels.
No escalation.

(4) 鉄道建設費

鉄道建設費には軌道建設費、機関車・貨車等の購入費および石炭の積み降し設備が含まれる。

本見積りには1981年および1982年の詳細探査、詳細試すいの費用は含まず、またエスカレーションも考慮されていない。

以上の条件で起業工事費を見積ったが、詳細はTable 2-1から2-12に示すとおりである。

又、主要項目毎の内・外貨別、山元関係をPMDCのPC-1フォームに基づいて主要項目毎、部門別に総括すると各々次頁以下の表のとおりである。

2-3 石炭火力発電所

工事費の見積り範囲は石炭火力発電所設備を建設するために必要な費用とした。

施工工程に従い300 MWユニットは1987年3月に完成するものとして1980年6月現在での価格を算定した。

工事費見積りには次のものを含めた。

- ・建設工事に必要なキャンプ(業者の事務所、住居、食堂、売店)建設、工事用道路等
- ・試運転に必要な燃料費および化学薬品代

本計画の概算工事費はTable 2-13に示すとおりである。

また年度別所要資金の見積りはインプルメンテーション スケジュールをもとに下記の条件で行った。

(1) 土木および建築工事 出来高払い

(2) 機器代(C & F)

- ・契約時 C & F 価格の10%
- ・船積み時 C & F 価格の80%
- ・試運転完了時 C & F 価格の10%

(3) 据え付け工事 出来高払い

(4) 予備費 直接工事費の年度別支出額に比例して見積った。

(5) 管理費 工事着工後は直接工事費の年度別支出額に比例して見積った。

以上の条件で見積った年度別工事費はTable 2-14に示すとおりである。

TABLE 2-1
CAPITAL COST
TOTAL OF MINE AND RAILWAY
(000,000's) Rupees

| Year Item | TOTAL | | 1981 | | 1982 | | 1983 | | 1984 | | 1985 | |
|------------------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| | Foreign | Local | Foreign | Local | Foreign | Local | Foreign | Local | Foreign | Local | Foreign | Local |
| Mine | 1,025 | 265 | - | - | - | - | 530 | 71 | 271 | 102 | 224 | 92 |
| Railway | 106 | 85 | - | - | - | - | - | 49 | 17 | 33 | 89 | 3 |
| Contingency | 56 | 18 | - | - | - | - | 27 | 6 | 15 | 7 | 14 | 5 |
| Direct Sub-total | 1,187 | 368 | - | - | - | - | 557 | 126 | 303 | 142 | 327 | 100 |
| Import Duty | - | 452 | - | - | - | - | - | 212 | - | 114 | - | 126 |
| Engineering Fee | 58 | 19 | 11 | 3 | 14 | 3 | 12 | 4 | 12 | 6 | 12 | 3 |
| Administration | - | 62 | - | 4 | 6 | 6 | - | 16 | - | 17 | - | 19 |
| Indirect Sub-total | 58 | 533 | 11 | 7 | 20 | 9 | 12 | 232 | 12 | 137 | 12 | 148 |
| Total | 1,245 | 901 | 11 | 7 | 20 | 9 | 569 | 358 | 315 | 279 | 339 | 248 |
| Interest during Construction | - | 376 | - | 2 | 2 | 2 | - | 52 | - | 129 | - | 191 |
| GRAND TOTAL | 1,245 | 1,277 | 11 | 9 | 22 | 11 | 569 | 410 | 315 | 408 | 339 | 439 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-2
CAPITAL COST
SUMMARY
(000's) RUPEES

| Description | 1983 | | | | | 1984 | | | | | 1985 | | | | | Total | | | | | |
|---------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|---------|---------|---------|-----------|---------|---------|---------|-----------|--|
| | Foreign | Local | | | Total | Foreign | Local | | | Total | Foreign | Local | | | Total | Foreign | Local | | | Total | |
| | | Direct | Tax | Total | | | Direct | Tax | Total | | | Direct | Tax | Total | | | Direct | Tax | Total | | |
| (MINE) | | | | | | | | | | | | | | | | | | | | | |
| A. PRODUCTION FACILITIES | | | | | | | | | | | | | | | | | | | | | |
| Land & Improvement | - | 279 | - | 279 | - | - | - | - | - | - | - | - | - | - | - | 279 | - | 279 | 279 | | |
| Buildings | - | 7,914 | - | 7,914 | 7,914 | 3,935 | 22,612 | 1,612 | 24,224 | 28,159 | 2,047 | 8,195 | 818 | 9,013 | 11,060 | 5,982 | 38,721 | 2,430 | 41,151 | 47,133 | |
| Machinery & Equipment | 444,216 | 16,363 | 182,129 | 198,492 | 642,708 | 181,771 | 6,223 | 74,503 | 80,726 | 262,497 | 131,088 | 8,382 | 53,727 | 62,109 | 193,197 | 757,075 | 30,968 | 310,359 | 341,327 | 1,098,402 | |
| Electrical Equipment | 25,945 | 673 | 10,637 | 11,310 | 37,255 | 6,078 | 118 | 2,490 | 2,608 | 8,686 | 8,633 | 1,369 | 3,538 | 4,907 | 13,540 | 40,656 | 2,160 | 16,665 | 18,825 | 59,481 | |
| Preliminary Expense | 13,398 | 1,022 | - | 1,022 | 14,420 | 9,400 | 166 | - | 166 | 9,566 | 5,529 | 166 | - | 166 | 5,695 | 28,327 | 1,354 | - | 1,354 | 29,681 | |
| Construction & Development | 46,064 | 33,375 | 18,886 | 52,261 | 98,325 | 67,722 | 51,350 | 27,766 | 79,116 | 146,838 | 76,575 | 63,637 | 31,395 | 95,032 | 171,607 | 190,361 | 148,362 | 78,047 | 226,409 | 416,770 | |
| SUB-TOTAL | 529,623 | 59,626 | 211,652 | 271,278 | 800,901 | 268,906 | 80,469 | 106,371 | 186,840 | 455,746 | 223,872 | 81,749 | 89,478 | 171,227 | 395,099 | 1,022,401 | 221,844 | 407,501 | 629,345 | 1,651,746 | |
| B. ANCILLARY FACILITIES | 846 | 6,430 | 347 | 6,777 | 7,623 | 2,279 | 12,687 | 934 | 13,621 | 15,900 | 220 | 455 | 90 | 545 | 765 | 3,345 | 19,572 | 1,371 | 20,943 | 24,288 | |
| C. SERVICE & WELFARE | - | 5,268 | - | 5,268 | 5,268 | - | 8,184 | - | 8,184 | 8,184 | - | 9,482 | - | 9,482 | 9,482 | - | 22,934 | - | 22,934 | 22,934 | |
| TOTAL | 530,469 | 71,324 | 211,999 | 283,323 | 813,792 | 271,185 | 101,340 | 107,305 | 208,645 | 479,830 | 224,092 | 91,686 | 89,568 | 181,254 | 405,346 | 1,025,746 | 264,350 | 408,872 | 673,222 | 1,698,968 | |
| (RAILWAY) | | | | | | | | | | | | | | | | | | | | | |
| Road (Track) | - | 49,160 | - | 49,160 | 49,160 | 17,400 | 33,080 | 7,134 | 40,214 | 57,614 | - | - | - | - | - | 17,400 | 82,240 | 7,134 | 89,374 | 106,774 | |
| Building | - | - | - | - | - | - | - | - | - | - | 840 | 1,091 | 344 | 1,435 | 2,275 | 840 | 1,091 | 344 | 1,435 | 2,275 | |
| Machinery & Equipment | - | - | - | - | - | - | - | - | - | - | 78,323 | 1,484 | 32,112 | 33,596 | 111,919 | 78,323 | 1,484 | 32,112 | 33,596 | 111,919 | |
| Electrical Equipment | - | - | - | - | - | - | - | - | - | - | 9,371 | 173 | 3,842 | 4,015 | 13,386 | 9,371 | 173 | 3,842 | 4,015 | 13,386 | |
| TOTAL | - | 49,160 | - | 49,160 | 49,160 | 17,400 | 33,080 | 7,134 | 40,214 | 57,614 | 88,534 | 2,748 | 36,298 | 39,046 | 127,580 | 105,934 | 84,988 | 43,432 | 128,420 | 234,354 | |
| GRAND TOTAL | 530,469 | 120,484 | 211,999 | 332,483 | 862,952 | 288,585 | 134,420 | 114,439 | 248,859 | 537,444 | 312,626 | 94,434 | 125,866 | 220,300 | 532,926 | 1,131,680 | 349,338 | 452,304 | 801,642 | 1,933,322 | |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-3
CAPITAL COST
SUMMARY
(000's) RUPEES

Sheet 1

| Description | 1983 | | 1984 | | 1985 | | TOTAL | |
|---|----------------|----------------|----------------|------------------|----------------|------------------|------------------|------------------|
| | Foreign | Local | Foreign | Local | Foreign | Local | Foreign | Local |
| A. Production Facilities | | | | | | | | |
| 1) Land and improvement | - | 279 | - | - | - | - | - | 279 |
| ii) Buildings:- | | | | | | | | |
| a) Factory buildings | | | | | | | | |
| Surface Facilities | - | 1,134 | 1,036 | 1,036 | - | - | - | 2,170 |
| Preparation plant | - | - | 3,935 | 14,194 | 2,047 | 9,013 | 5,982 | 23,207 |
| Sub-Total | - | 1,134 | 3,935 | 15,230 | 2,047 | 9,013 | 5,982 | 25,377 |
| b) Road | - | 6,780 | - | - | - | - | - | 6,780 |
| c) Water supply | - | - | 8,994 | 8,994 | - | - | - | 8,994 |
| Total | - | 7,914 | 3,935 | 24,224 | 2,047 | 9,013 | 5,982 | 41,151 |
| iii) Machinery & Equipment | | | | | | | | |
| Underground mine | - | - | 7,222 | 3,096 | 66,404 | 28,813 | 73,626 | 31,709 |
| Open pit | 421,263 | 187,948 | 148,115 | 66,293 | 41,410 | 18,762 | 610,788 | 273,003 |
| Surface facilities | 22,953 | 10,544 | 3,356 | 1,485 | - | - | 26,309 | 12,029 |
| Preparation plant | - | - | 23,078 | 9,852 | 23,274 | 14,734 | 46,352 | 24,586 |
| Sub-Total | 444,216 | 198,492 | 181,771 | 80,726 | 131,088 | 62,109 | 757,075 | 341,327 |
| iv) Electrical equipment | | | | | | | | |
| Surface facilities | 25,945 | 11,310 | 4,205 | 1,808 | 6,759 | 2,913 | 36,909 | 16,031 |
| Preparation plant | - | - | 1,873 | 800 | 1,874 | 1,994 | 3,747 | 2,794 |
| Sub-Total | 25,945 | 11,310 | 6,078 | 2,608 | 8,633 | 4,907 | 40,656 | 18,825 |
| v) Preliminary expenses | | | | | | | | |
| Underground mine | - | - | 865 | - | 865 | - | 1,730 | - |
| Open pit | 9,510 | - | 2,463 | - | 446 | - | 12,419 | - |
| Surface facilities | 2,892 | 1,022 | 275 | 166 | 396 | 166 | 3,563 | 4,917 |
| Preparation plant | 996 | - | 5,797 | - | 3,822 | - | 10,615 | - |
| Sub-Total | 13,398 | 1,022 | 9,400 | 166 | 5,529 | 166 | 28,327 | 1,354 |
| vi) Construction & Development | | | | | | | | |
| Underground mine | - | 90 | 5,622 | 5,199 | 4,596 | 7,131 | 10,218 | 12,420 |
| Open pit | 46,064 | 52,065 | 61,914 | 73,116 | 71,584 | 85,544 | 179,562 | 210,725 |
| Surface facilities | - | 106 | 186 | 801 | 395 | 1,417 | 581 | 2,324 |
| Preparation plant | - | - | - | - | - | 940 | - | 940 |
| Sub-Total | 46,064 | 52,261 | 67,722 | 79,116 | 76,575 | 95,032 | 190,361 | 226,409 |
| Total | 490,424 | 269,887 | 255,141 | 1,000,132 | 255,141 | 1,000,132 | 1,000,132 | 1,000,132 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2 - 3

(continued)

Sheet 2

| Description | 1983 | | | 1984 | | | 1985 | | | TOTAL | | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|---------|-----------|
| | Foreign | Local | Total | Foreign | Local | Total | Foreign | Local | Total | Foreign | Local | Total |
| | | | | | | | | | | | | |
| TOTAL | 529,623 | 271,276 | 800,901 | 268,906 | 186,840 | 455,746 | 223,872 | 171,227 | 395,099 | 1,022,401 | 629,345 | 1,651,746 |
| B. Ancillary Facilities | | | | | | | | | | | | |
| I) Office building, ware house, etc. | - | 6,133 | 6,133 | - | 7,237 | 7,237 | - | 100 | 100 | - | 13,470 | 13,470 |
| II) Furniture & fixtures | | | | | | | | | | | | |
| III) Transport for use within the factory for supplies and marketing | 846 | 644 | 1,490 | 2,200 | 6,050 | 8,250 | 220 | 145 | 365 | 2,420 | 6,195 | 8,615 |
| Total | 846 | 6,777 | 7,623 | 2,279 | 13,621 | 15,900 | 220 | 545 | 765 | 3,345 | 20,943 | 24,288 |
| C. Service and Welfare Facilities | | | | | | | | | | | | |
| I) Buildings | | | | | | | | | | | | |
| II) Contingency | | | | | | | | | | | | |
| III) Deferred revenue expenditure | | | | | | | | | | | | |
| Underground | - | 28 | 28 | - | 1,663 | 1,663 | - | 2,174 | 2,174 | - | 3,865 | 3,865 |
| Open pits | - | 2,904 | 2,904 | - | 3,428 | 3,428 | - | 3,428 | 3,428 | - | 9,760 | 9,760 |
| Surface facilities | - | 2,336 | 2,336 | - | 3,059 | 3,059 | - | 3,559 | 3,559 | - | 8,954 | 8,954 |
| Preparation plant | - | - | - | - | - | - | - | 270 | 270 | - | 270 | 270 |
| Absenteesm | - | - | - | - | 34 | 34 | - | 51 | 51 | - | 85 | 85 |
| Total | - | 5,268 | 5,268 | - | 8,184 | 8,184 | - | 9,482 | 9,482 | - | 22,934 | 22,934 |
| Grand-Total | 530,469 | 283,323 | 813,792 | 271,185 | 208,645 | 479,830 | 224,092 | 161,254 | 405,346 | 1,025,746 | 673,222 | 1,698,968 |
| CLASSIFICATION OF CAPITAL COST | | | | | | | | | | | | |
| Underground mine | - | 118 | 118 | 13,709 | 9,992 | 23,701 | 71,865 | 37,969 | 109,834 | 85,574 | 48,079 | 133,653 |
| Open pit | 476,837 | 242,917 | 719,754 | 212,492 | 142,837 | 355,329 | 113,440 | 107,734 | 221,174 | 802,769 | 493,488 | 1,296,257 |
| Surface facilities | 52,636 | 40,288 | 92,924 | 10,301 | 30,970 | 41,271 | 7,770 | 8,600 | 16,370 | 70,707 | 79,858 | 150,565 |
| Preparation plant | 996 | - | 996 | 34,683 | 24,846 | 59,529 | 31,017 | 26,951 | 57,968 | 66,696 | 51,797 | 118,493 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2 - 4
CAPITAL COST
UNDERGROUND MINE
(000's) RUPEES

| Description | 1983 | | 1984 | | 1985 | | TOTAL | |
|--------------------------------|---------|-------|---------|-------|---------|--------|---------|--------|
| | Foreign | Local | Foreign | Local | Foreign | Local | Foreign | Local |
| | Total | Total | Total | Total | Total | Total | Total | Total |
| A. Production Facilities | - | - | - | - | - | - | - | - |
| iii) Machinery Equipment | - | - | - | - | - | - | - | - |
| Coal-mining machinery | - | - | 1,640 | 704 | 25,774 | 11,075 | 25,774 | 11,075 |
| Road heading machinery | - | - | 3,440 | 1,470 | 672 | 290 | 2,312 | 994 |
| Transportation machinery | - | - | 54 | 23 | 32,477 | 13,989 | 35,917 | 15,459 |
| Drainage machinery | - | - | 713 | 305 | 393 | 168 | 447 | 191 |
| Ventilation machinery | - | - | 411 | 181 | 2,833 | 1,240 | 3,546 | 1,545 |
| Air & Water machinery | - | - | 964 | 113 | 2,233 | 983 | 2,644 | 1,164 |
| Other machinery | - | - | 7,222 | 3,096 | 2,022 | 868 | 2,986 | 1,281 |
| Total | - | - | 865 | - | 66,404 | 28,613 | 73,626 | 31,709 |
| v) Preliminary Expense | - | - | - | - | 865 | - | 1,730 | - |
| vi) Construction & Development | - | - | - | - | - | - | - | - |
| Arch-support | - | - | 2,713 | 1,159 | 1,889 | 808 | 4,602 | 1,967 |
| L-Beam | - | - | 34 | 14 | 745 | 319 | 779 | 333 |
| Rails | - | - | 1,753 | 749 | 805 | 343 | 2,558 | 1,092 |
| Pipes | - | - | 516 | 219 | 429 | 182 | 945 | 401 |
| Timber | - | - | - | 28 | - | 90 | - | 118 |
| Explosives | - | - | - | 277 | - | 239 | - | 516 |
| Detonator (M.S.D.) | - | - | 513 | 219 | 442 | 189 | 955 | 408 |
| Ventilation tube | - | - | 33 | 13 | 51 | 21 | 84 | 34 |
| Oils | - | - | - | 1,745 | - | 2,245 | - | 3,990 |
| Rock dust | - | - | - | 50 | - | 100 | - | 150 |
| Concrete | - | - | - | 28 | - | 67 | - | 95 |
| Others | - | - | 60 | 31 | 92 | 44 | 152 | 75 |
| Sub-Total | - | - | 5,622 | 4,532 | 4,453 | 4,647 | 10,075 | 9,179 |
| Machinery maintenance | - | - | - | - | 143 | 140 | 143 | 140 |
| Portal | - | 90 | - | 220 | - | - | - | 310 |
| Power | - | - | - | 447 | - | 2,344 | - | 2,791 |
| Sub-Total | - | 90 | - | 667 | 143 | 2,484 | 143 | 3,241 |
| Total | - | 90 | 5,622 | 5,199 | 10,821 | 4,596 | 11,727 | 12,420 |
| | - | 90 | - | - | - | - | 10,218 | 22,638 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-5
CAPITAL COST
OPEN PIT
(000's) RUPEES

| Description | 1983 | | 1984 | | 1985 | | TOTAL | |
|---------------------------------------|---------|---------|---------|--------|---------|--------|---------|---------|
| | Foreign | Local | Foreign | Local | Foreign | Local | Foreign | Total |
| | | | | | | | Local | Total |
| A. Production Facilities | | | | | | | | |
| iii) Machinery & Equipment | | | | | | | | |
| Mining Machinery | 304,180 | 137,766 | 110,245 | 50,122 | 30,520 | 14,111 | 444,945 | 202,001 |
| Service Vehicles and Equipment | 7,709 | 3,434 | 62 | 27 | 144 | 62 | 7,915 | 3,523 |
| Spare parts | 109,374 | 46,745 | 37,808 | 16,144 | 10,746 | 4,589 | 157,928 | 67,479 |
| Total | 421,263 | 187,948 | 148,115 | 66,293 | 41,410 | 18,762 | 610,768 | 273,003 |
| v.) Preliminary Expense | 9,510 | - | 2,463 | - | 446 | - | 12,419 | - |
| vi) Construction Development | | | | | | | | |
| Parts supply | 15,991 | 6,828 | 23,835 | 10,177 | 27,784 | 11,864 | 67,610 | 28,869 |
| Truck Tyre | 6,889 | 2,942 | 10,897 | 4,653 | 12,914 | 5,514 | 30,700 | 13,109 |
| Explosives | 23,184 | 9,899 | 27,182 | 11,607 | 30,886 | 13,188 | 81,252 | 34,694 |
| Repair Material | - | 3,198 | - | 4,767 | - | 5,557 | - | 13,522 |
| Electric power | - | 1,054 | - | 1,608 | - | 1,788 | - | 4,450 |
| Fuel & Oil | - | 28,144 | - | 40,304 | - | 47,633 | - | 116,081 |
| Total | 46,064 | 52,065 | 61,914 | 73,116 | 71,584 | 83,544 | 179,562 | 210,725 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-6
CAPITAL COST
SURFACE FACILITIES
(000's) RUPEES

Sheet 1

| Description | 1983 | | | 1984 | | | 1985 | | | TOTAL | | |
|-----------------------------------|---------|-------|-------|---------|-------|-------|---------|-------|-------|---------|-------|-------|
| | Foreign | Local | Total | Foreign | Local | Total | Foreign | Local | Total | Foreign | Local | Total |
| | | | | | | | | | | | | |
| A. Production Facilities | | | | | | | | | | | | |
| 1) Land & Improvement | | | | | | | | | | | | |
| Earth work for building | - | 204 | 204 | - | - | - | - | - | - | - | 204 | 204 |
| Earth work for road | - | 75 | 75 | - | - | - | - | - | - | - | 75 | 75 |
| Total | - | 279 | 279 | - | - | - | - | - | - | - | 279 | 279 |
| II) Buildings | | | | | | | | | | | | |
| a) Factory buildings | | | | | | | | | | | | |
| Substations power house | - | 1,134 | 1,134 | - | - | - | - | - | - | - | 1,134 | 1,134 |
| Compressor, fan & others | - | - | - | - | 1,036 | - | - | - | - | - | 1,036 | 1,036 |
| Total | - | 1,134 | 1,134 | - | 1,036 | - | - | - | - | - | 2,170 | 2,170 |
| b) Roads | | | | | | | | | | | | |
| Coal haulage | - | 2,160 | 2,160 | - | - | - | - | - | - | - | 2,160 | 2,160 |
| Others | - | 4,620 | 4,620 | - | - | - | - | - | - | - | 4,620 | 4,620 |
| Total | - | 6,780 | 6,780 | - | - | - | - | - | - | - | 6,780 | 6,780 |
| c) Water supply facilities | | | | | | | | | | | | |
| Water intake facilities | - | - | - | - | 574 | 574 | - | - | - | - | 574 | 574 |
| Water purification facilities | - | - | - | - | 4,616 | 4,616 | - | - | - | - | 4,616 | 4,616 |
| Water distribution | - | - | - | - | 3,804 | 3,804 | - | - | - | - | 3,804 | 3,804 |
| Total | - | - | - | - | 8,994 | 8,994 | - | - | - | - | 8,994 | 8,994 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No. escalation.

TABLE 2-6
CAPITAL COST
SURFACE FACILITIES
(000's) RUPEES (continued)

Sheet 2

| Description | 1983 | | 1984 | | 1985 | | TOTAL | |
|--|---------|--------|---------|-------|---------|-------|---------|--------|
| | Foreign | Local | Foreign | Local | Foreign | Local | Foreign | Local |
| | Total | Total | Total | Total | Total | Total | Total | Total |
| <u>III) Machinery & Equipment</u> | | | | | | | | |
| Water Supply Equipment | - | - | 1,200 | 553 | - | - | 1,200 | 553 |
| Pipe lines | 12,690 | 6,033 | - | - | - | - | 12,690 | 6,033 |
| Machine repair shop | 2,760 | 1,230 | - | - | - | - | 2,760 | 1,230 |
| Heavy vehicle repair shop | 6,263 | 2,750 | - | - | - | - | 6,263 | 2,750 |
| Power house machinery | 540 | 232 | 2,156 | 932 | - | - | 2,696 | 1,164 |
| Electrical repair shop | 700 | 299 | - | - | - | - | 700 | 299 |
| Total | 22,953 | 10,544 | 3,356 | 1,485 | - | - | 26,309 | 12,029 |
| <u>IV) Electrical Equipment & Installation</u> | | | | | | | | |
| <u>a) Surface Power Distribution</u> | | | | | | | | |
| Overhead line | 3,565 | 1,616 | - | - | - | - | 3,565 | 1,616 |
| Mine substation | 7,978 | 3,462 | - | - | - | - | 7,978 | 3,462 |
| Lighting & others | 720 | 319 | 117 | 55 | - | - | 837 | 374 |
| Spare parts | 442 | 190 | - | - | - | - | 442 | 190 |
| Total | 12,705 | 5,587 | 117 | 55 | - | - | 12,822 | 5,642 |
| <u>b) Open pits</u> | | | | | | | | |
| Overhead line | 2,310 | 1,032 | - | - | - | - | 2,310 | 1,032 |
| Substation | 4,720 | 2,026 | - | - | - | - | 4,720 | 2,026 |
| Mobile switching station | 700 | 304 | - | - | - | - | 700 | 304 |
| Cable | 5,306 | 2,274 | - | - | - | - | 5,306 | 2,274 |
| Spare parts | 204 | 87 | - | - | - | - | 204 | 87 |
| Total | 13,240 | 5,723 | - | - | - | - | 13,240 | 5,723 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-6
CAPITAL COST
SURFACE FACILITIES
(000's) RUPEES

(continued)

Sheet 3

| Description | 1983 | | 1984 | | 1985 | | TOTAL | |
|--|---------|--------|---------|-------|---------|-------|---------|--------|
| | Foreign | Local | Foreign | Local | Foreign | Local | Foreign | Local |
| | Total | Total | Total | Total | Total | Total | Total | Total |
| c) <u>Underground Mine</u> | | | | | | | | |
| 3.3kV line switch, etc. | | | 2,216 | 952 | 2,792 | 1,198 | 5,008 | 2,150 |
| Air circuit breaker, etc. | | | 649 | 277 | 566 | 244 | 1,215 | 521 |
| Cable and others | | | 751 | 321 | 1,411 | 602 | 2,162 | 923 |
| Spare parts | | | 472 | 203 | 568 | 243 | 1,040 | 446 |
| Total | - | - | 4,088 | 1,753 | 5,337 | 2,287 | 9,425 | 4,040 |
| d) <u>Communication</u> | | | | | | | | |
| Telephone system | | | - | - | 609 | 269 | 609 | 269 |
| Inductive radio | | | - | - | 476 | 205 | 476 | 205 |
| Wireless | | | - | - | 270 | 124 | 270 | 124 |
| Spare parts, etc. | | | - | - | 67 | 28 | 67 | 28 |
| Total | - | - | - | - | 1,422 | 626 | 1,422 | 626 |
| Grand Total | 25,945 | 11,310 | 4,205 | 1,808 | 6,759 | 2,913 | 36,909 | 16,031 |
| v) <u>Preliminary Expense</u> | | | | | | | | |
| Drilling machine & spare parts | 2,200 | 1,022 | 200 | 166 | 200 | 166 | 2,600 | 1,354 |
| Installation of substation, etc. | 692 | - | 75 | - | 196 | - | 983 | - |
| Total | 2,892 | 1,022 | 275 | 166 | 396 | 166 | 3,583 | 1,354 |
| vii) <u>Construction & development</u> | | | | | | | | |
| Spare parts | - | - | 186 | 218 | 395 | 311 | 581 | 529 |
| Fuel & oil | - | 106 | - | 210 | - | 390 | - | 706 |
| Power cable | - | - | - | 213 | - | 336 | - | 549 |
| Machine maintenance | - | - | 160 | 160 | 395 | 380 | - | 540 |
| Total | - | 106 | 186 | 801 | 987 | 1,417 | 581 | 2,324 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-6
CAPITAL COST
SURFACE FACILITIES
(000's) RUPEES

(continued)

Sheet 4

| Description | 1993 | | | 1984 | | | 1985 | | | TOTAL | | |
|---|---------|-------|-------|---------|--------|--------|---------|-------|-------|---------|--------|--------|
| | Foreign | Local | Total | Foreign | Local | Total | Foreign | Local | Total | Foreign | Local | Total |
| | | | | | | | | | | | | |
| <u>B. Ancillary Facilities</u> | | | | | | | | | | | | |
| <u>i) Office Building, warehouse, etc.</u> | | | | | | | | | | | | |
| Office buildings | - | - | - | 5,382 | 5,382 | 5,382 | - | - | - | - | 5,382 | 5,382 |
| Workshop, stores, etc. | - | 4,550 | 4,550 | 1,755 | 1,755 | 1,755 | - | - | - | - | 6,305 | 6,305 |
| Explosive store | - | 209 | 209 | - | - | - | - | - | - | - | 209 | 209 |
| Oil storage and others | - | 1,374 | 1,374 | 100 | 100 | 100 | - | - | - | - | 1,474 | 1,474 |
| Maintenance | - | - | - | - | - | - | - | 100 | 100 | 100 | 100 | 100 |
| Total | - | 6,133 | 6,133 | 7,237 | 7,237 | 7,237 | - | 100 | 100 | - | 13,470 | 13,470 |
| <u>ii) Furniture & fixture</u> | | | | | | | | | | | | |
| Micro computer | - | - | - | 2,200 | 3,940 | 3,140 | 220 | 94 | 314 | 2,420 | 1,034 | 3,454 |
| Office | - | - | - | - | 1,606 | 1,606 | - | 16 | 16 | - | 1,622 | 1,622 |
| Rest house & canteen | - | - | - | - | 876 | 876 | - | 9 | 9 | - | 885 | 885 |
| Hospital & others | - | - | - | - | 2,628 | 2,628 | - | 26 | 26 | - | 2,654 | 2,654 |
| Total | - | - | - | 2,200 | 6,050 | 6,250 | 220 | 145 | 365 | 2,420 | 6,195 | 8,615 |
| <u>iii) Transport for use within the factory for supplies & marketing</u> | | | | | | | | | | | | |
| Staff & personal cars | 846 | 401 | 1,247 | - | 42 | 42 | - | 42 | 42 | 846 | 485 | 1,331 |
| Ambulance | - | - | - | 79 | 38 | 117 | - | 4 | 4 | 79 | 42 | 121 |
| Fuel | - | 243 | 243 | - | 254 | 254 | - | 254 | 254 | - | 751 | 751 |
| Total | 846 | 644 | 1,490 | 79 | 334 | 413 | - | 300 | 300 | 925 | 1,278 | 2,203 |
| Grand Total | 846 | 6,777 | 7,623 | 2,279 | 13,621 | 15,900 | 220 | 545 | 765 | 3,345 | 20,943 | 24,288 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-7
CAPITAL COST
PREPARATION PLANT
(000's) RUPEES

| Description | 1983 | | | 1984 | | | 1985 | | | TOTAL | | | |
|--------------------------------|---------|-------|-------|---------|-------|-------|---------|-------|-------|---------|-------|---|--------|
| | Foreign | Local | | Freight | Local | | Freight | Local | | Freight | Local | | Total |
| | | Total | Total | | Total | Total | | Total | Total | | | | |
| A. Production Facilities | - | - | - | - | - | - | - | - | - | - | - | - | - |
| ii) Buildings | - | - | - | - | - | - | - | - | - | - | - | - | - |
| a) Factory building | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Building & utility | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Foundation | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Temporary work | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - |
| iii) Machinery & equipment | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Raw coal receiving & storage | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Raw coal treatment | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Clean coal storage | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Clean coal loading | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Other equipment | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Spare parts | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - |
| iv) Electrical equipment | - | - | - | - | - | - | - | - | - | - | - | - | - |
| v) Preliminary expense | 996 | - | - | 996 | - | - | 5,797 | - | - | 3,822 | - | - | 10,615 |
| vi) Construction & development | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Maintenance | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Materials | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Electric power | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Total | - | - | - | - | - | - | - | - | - | - | - | - | - |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-8
CAPITAL COST
RAILWAY
(000's) RUPEES

| Description | 1993 | | | 1984 | | | 1985 | | | TOTAL | |
|--|-----------------------------|--------|--------|---------|--------|--------|---------|--------|---------|---------|---------|
| | Foreign | Local | Total | Foreign | Local | Total | Foreign | Local | Total | Local | Total |
| | <u>Ancillary Facilities</u> | | | | | | | | | | |
| Check & repair shop | | | | | | | | | | 975 | 975 |
| Worker house | | | | | | | | | | 100 | 100 |
| Oil tanks | | | | | | | 840 | 360 | 1,200 | 360 | 1,200 |
| Total | | | - | | | | 840 | 1,435 | 2,275 | 1,435 | 2,275 |
| <u>Rail & Others</u> | | | | | | | | | | | |
| Earth work | | 52 | 52 | | | | | | | | 52 |
| Grand level work, etc. | | 49,108 | 49,108 | | | | | | | | 49,108 |
| Rail and installation | | | | 17,400 | 40,214 | 57,614 | | | | | 57,614 |
| Total | | 49,160 | 49,160 | 17,400 | 40,214 | 57,614 | | | | 17,400 | 89,374 |
| <u>Machinery & Equipment</u> | | | | | | | | | | | |
| Diesel locomotives | | | | | | | 30,000 | 12,855 | 42,855 | 30,000 | 42,855 |
| Wagon & passenger cars | | | | | | | 38,310 | 16,433 | 54,743 | 38,310 | 54,743 |
| Belt feeder, etc. | | | | | | | 10,013 | 4,308 | 14,321 | 10,013 | 14,321 |
| Total | | | | | | | 78,323 | 33,596 | 111,919 | 78,323 | 111,919 |
| <u>Electrical equipment & Signal equipment, etc.</u> | | | | | | | | | | | |
| GRAND TOTAL | | 49,160 | 49,160 | 17,400 | 40,214 | 57,614 | 86,534 | 39,046 | 127,580 | 105,934 | 234,354 |

Freight, taxes and duty included.
The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-9

CAPITAL COST
SALARIES AND WAGES
(000'S) RUPEES

(Local Currency)

| Section | Description | Year | | | |
|-------------------|-------------|-------|-------|-------|--------|
| | | 1983 | 1984 | 1985 | Total |
| Underground Mine | Officers | 16 | 522 | 606 | 1,144 |
| | Workers | 12 | 1,141 | 1,568 | 2,721 |
| | Sub-Total | 28 | 1,663 | 2,174 | 3,865 |
| Open Pit | Officers | 82 | 936 | 936 | 2,724 |
| | Workers | 2,052 | 2,492 | 2,492 | 7,036 |
| | Sub-Total | 2,904 | 3,428 | 3,428 | 9,760 |
| Administration | Officers | 1,450 | 1,691 | 1,807 | 4,948 |
| | Workers | 886 | 1,368 | 1,752 | 4,006 |
| | Sub-Total | 2,336 | 3,059 | 3,559 | 8,954 |
| Preparation Plant | Officers | - | - | 126 | 126 |
| | Workers | - | - | 144 | 144 |
| | Sub-Total | - | - | 270 | 270 |
| Total | Officers | 2,318 | 3,149 | 3,475 | 8,942 |
| | Workers | 2,950 | 5,001 | 5,956 | 13,907 |
| | Total | 5,268 | 8,150 | 9,431 | 22,849 |

The estimates reflect 1980 June price levels.
No escalation.

TABLE 2-10
CAPITAL COST
SALARIES
(000'S) RUPEES

(Local Currency)

Sheet 1

| Section | Description | Salary * | Year | | | Total |
|------------------|---------------------------------|----------|------|------|------|-------|
| | | | 1983 | 1984 | 1985 | |
| Underground Mine | Mine Manager | 3,620 | 11 | 43 | 43 | 97 |
| | Deputy Mine Manager | 3,055 | - | 73 | 73 | 146 |
| | Assistnat Mining Engineer | 2,545 | - | 92 | 92 | 184 |
| | Longwall Face Foremen | 1,155 | - | - | - | - |
| | Pillar Splitting Foremen | 1,155 | - | - | - | - |
| | Road Heading Foremen | 1,155 | 3 | 83 | 167 | 253 |
| | Ventilation Foremen | 1,155 | - | 14 | 14 | 28 |
| | Road Maintenance Foremen | 1,155 | - | 56 | 56 | 112 |
| | Haulage Foremen | 1,155 | - | 42 | 42 | 84 |
| | Electrical & Mechanical Foremen | 1,155 | - | 97 | 97 | 194 |
| | Safetylamp Room Foremen | 1,155 | - | 14 | 14 | 28 |
| | Office Clerks | 645 | 2 | 8 | 8 | 18 |
| | Total | | | 16 | 522 | 606 |
| West Open Pit | Mine Manager | 3,620 | 43 | 43 | 43 | 129 |
| | Deputy Mine Manager | 3,055 | 73 | 73 | 73 | 219 |
| | Assistnat Mining Engineer | 2,545 | 92 | 92 | 92 | 276 |
| | Stripping Foremen | 1,155 | 42 | 42 | 42 | 126 |
| | Bankshooting Foremen | 1,155 | 28 | 28 | 28 | 84 |
| | Partings & Coal Loading Foremen | 1,155 | - | 28 | 28 | 56 |
| | Haulage Foremen | 1,155 | 28 | 42 | 42 | 112 |
| | Road Grading Foremen | 1,155 | 14 | 14 | 14 | 42 |
| | Reclamation Foremen | 1,155 | 14 | 14 | 14 | 42 |
| | Electrical Foremen | 1,155 | 42 | 42 | 42 | 126 |
| | Mechanical Foremen | 1,155 | 42 | 42 | 42 | 126 |
| | Office Clerks | 645 | 8 | 8 | 8 | 24 |
| | Sub-Total | | | 426 | 468 | 468 |
| East Open Pit | Mine Manager | 3,620 | 43 | 43 | 43 | 129 |
| | Deputy Mine Manager | 3,055 | 73 | 73 | 73 | 219 |
| | Assistnat Mining Engineer | 2,545 | 92 | 92 | 92 | 276 |
| | Stripping Foremen | 1,155 | 42 | 42 | 42 | 126 |
| | Bankshooting Foremen | 1,155 | 28 | 28 | 28 | 84 |
| | Partings & Coal Loading Foremen | 1,155 | - | 28 | 28 | 56 |
| | Haulage Foremen | 1,155 | 28 | 42 | 42 | 112 |
| | Road Grading Foremen | 1,155 | 14 | 14 | 14 | 42 |
| | Reclamation Foremen | 1,155 | 14 | 14 | 14 | 42 |
| | Electrical Foremen | 1,155 | 42 | 42 | 42 | 126 |
| | Mechanical Foremen | 1,155 | 42 | 42 | 42 | 126 |
| | Office Clerks | 645 | 8 | 8 | 8 | 24 |
| | Sub-Total | | | 426 | 468 | 468 |
| Total | | | 852 | 936 | 936 | 2,724 |

The estimates reflect 1980 June price levels. * Rs/man/month
No escalation.

TABLE 2-10
CAPITAL COST
SALARIES
(000'S) RUPEES

(Continued)

Sheet 2

| Section | Description | Salary * | Year | | | |
|------------------------------------|---------------------------------|----------|-------|------|------|-------|
| | | | 1983 | 1984 | 1985 | Total |
| <u>Management</u> | General Manager | 5,650 | 68 | 68 | 68 | 204 |
| | Deputy General Manager | 5,090 | 122 | 122 | 122 | 366 |
| | Clerks/Typist | 645 | 23 | 23 | 23 | 69 |
| | Sub-Total | | 213 | 213 | 213 | 639 |
| <u>General Affairs</u> | Manager | 3,620 | 43 | 43 | 43 | 129 |
| | Deputy Manager | 2,715 | 33 | 33 | 33 | 99 |
| | Clerks/Typist | 590 | 7 | 7 | 14 | 28 |
| | Deputy Manager Security | 2,715 | 33 | 33 | 33 | 99 |
| | Security Inspectors | 1,130 | 41 | 41 | 41 | 123 |
| | Clerks | 565 | 7 | 7 | 7 | 21 |
| | Pesh Imams | 645 | 8 | 8 | 15 | 31 |
| Sub-Total | | 172 | 172 | 186 | 530 | |
| <u>Accounting</u> | Accountant | 3,055 | 37 | 37 | 37 | 111 |
| | Assistant Accountant | 1,630 | 20 | 20 | 20 | 60 |
| | Account Assistants | 1,155 | 14 | 14 | 14 | 42 |
| | Cashier | 1,155 | 14 | 14 | 14 | 42 |
| | Clerks | 565 | 7 | 7 | 7 | 21 |
| | Deputy Manager Store | 2,545 | 31 | 31 | 31 | 93 |
| | Store Keepers | 1,155 | 14 | 42 | 42 | 98 |
| | Sub-Total | | 137 | 165 | 165 | 467 |
| <u>Labour & Social Welfare</u> | Manager | 3,620 | 43 | 43 | 43 | 129 |
| | Deputy Manager Labour | 2,715 | 33 | 33 | 33 | 99 |
| | Supervisors, Employ | 930 | 11 | 11 | 11 | 33 |
| | Supervisors, Control | 930 | - | 34 | 34 | 68 |
| | Deputy Manager, Fairprice Shop | 1,630 | - | - | 20 | 20 |
| | Sales Supervisors | 860 | - | - | 10 | 10 |
| | Account Assistant | 860 | - | - | 10 | 10 |
| | Clerk/Cashier | 590 | - | - | 7 | 7 |
| | Office Clerk | 565 | 7 | 7 | 7 | 21 |
| | Sub-Total | | 94 | 128 | 175 | 397 |
| | <u>Civil & Water Supply</u> | Manager | 3,620 | 43 | 43 | 43 |
| Assistant Civil Engineer | | 2,715 | 33 | 33 | 33 | 99 |
| Overseer, Civil | | 1,630 | 20 | 20 | 20 | 60 |
| Assistant Surveyor | | 1,155 | 14 | 14 | 14 | 42 |
| Deputy Manager Water Supply | | 1,155 | 33 | 33 | 33 | 99 |
| Water Supply Foremen | | 1,115 | 14 | 14 | 14 | 42 |
| Office Clerk | | 565 | 7 | 7 | 7 | 21 |
| Sub-Total | | | 164 | 164 | 164 | 492 |
| <u>Electrical & Mechanical</u> | Manager | 3,620 | 43 | 43 | 43 | 129 |
| | Assistant Engineers | 2,715 | 66 | 66 | 66 | 198 |
| | General Foreman, Work Shop | 2,715 | 33 | 33 | 33 | 99 |
| | Electrical & Mechanical Foremen | 1,155 | 28 | 56 | 56 | 140 |
| | Work Shop Foremen | 1,155 | 14 | 28 | 28 | 70 |
| | Office Clerk | 565 | 7 | 7 | 7 | 21 |
| | Sub-Total | | 191 | 233 | 233 | 657 |

The estimates reflect 1980 June price levels.
No escalation.

* Rs/man/month

TABLE 2-10

CAPITAL COST
SALARIES
(000'S RUPEES)

(Continued)

Sheet 3

| Section | Description | Salary* | Year | | | |
|---|---------------------------------|---------|-------|-------|-------|-------|
| | | | 1983 | 1984 | 1985 | Total |
| <u>System</u> | Manager | 3,620 | - | 43 | 43 | 86 |
| | Analyst/Clerk | 645 | - | 8 | 8 | 16 |
| | Sub-Total | | - | 51 | 51 | 102 |
| <u>Training</u> | Manager | 3,620 | 43 | 43 | 43 | 129 |
| | Trainer | 1,155 | 28 | 28 | 83 | 139 |
| | Office Clerk | 565 | 7 | 7 | 7 | 21 |
| | Sub-Total | | 78 | 78 | 78 | 289 |
| <u>Planning</u> | Manager | 3,620 | 43 | 43 | 43 | 129 |
| | Assistant Engineer | 2,715 | 65 | 65 | 65 | 195 |
| | Junior Engineer | 1,155 | 42 | 42 | 42 | 126 |
| | Explosive Foreman | 1,155 | 14 | 14 | 14 | 42 |
| | Geologist | 3,055 | 37 | 37 | 37 | 111 |
| | Assistant Geologists | 1,155 | 28 | 28 | 28 | 84 |
| | Drilling Foremen | 1,155 | 28 | 28 | 28 | 84 |
| | Surveyor | 2,545 | 31 | 31 | 31 | 93 |
| | Assistant Surveyor | 1,155 | 42 | 42 | 42 | 126 |
| | Office Clerk | 565 | 7 | 7 | 7 | 21 |
| | Sub-Total | | 337 | 337 | 337 | 1,011 |
| <u>Safety</u> | Manager | 3,620 | 43 | 43 | 43 | 129 |
| | Safety Crew | 1,155 | 14 | 14 | 14 | 42 |
| | Office Clerk | 565 | 7 | 7 | 7 | 21 |
| | Sub-Total | | 64 | 64 | 64 | 192 |
| <u>Medical</u> | Medical Officer | 3,645 | - | 44 | 44 | 88 |
| | Assistant Medical Officers | 2,850 | - | 34 | 34 | 68 |
| | Lady Assistant Medical Officers | 3,645 | - | - | - | - |
| | Office Clerk | 645 | - | 8 | 8 | 16 |
| | Sub-Total | | - | 86 | 86 | 172 |
| | Total | | 1,450 | 1,691 | 1,807 | 4,948 |
| <u>Coal Preparation & Transport</u> | Manager | 3,620 | - | - | 43 | 43 |
| | General Foreman, Plant | 2,545 | - | - | 31 | 31 |
| | Plant Foremen | 1,155 | - | - | - | - |
| | Deputy Manager, Transport | 2,545 | - | - | 31 | 31 |
| | Transport Foremen | 1,155 | - | - | 14 | 14 |
| | Office Clerk | 565 | - | - | 7 | 7 |
| | Total | | - | - | 126 | 126 |
| | Grand Total | | 2,318 | 3,149 | 3,475 | 8,942 |

The estimates reflect 1980 June price levels. * Rs/man/month
No escalation.

TABLE 2-11
CAPITAL COST
WAGES
(000'S) RUPEES

Sheet 1

| Section | Description | Wage | Year | | | | |
|--------------------------------|---------------------------------------|-------------------|------|-------|-------|-------|-------|
| | | | 1983 | 1984 | 1985 | Total | |
| Underground Mine | Longwall Face Workers | * | - | - | - | - | |
| | Pillar Splitting Workers | * | - | - | - | - | |
| | Road Heading Workers | * | 12 | 274 | 547 | 833 | |
| | Ventilation Workers | * | - | 32 | 32 | 64 | |
| | Maintenance Workers | * | - | 58 | 212 | 270 | |
| | Haulage Workers | * | - | 240 | 240 | 480 | |
| | Electrical & Mechanical Foremen | * | - | 114 | 114 | 228 | |
| | Machine Operators | * | - | 140 | 140 | 280 | |
| | Safetylamp Room Workers | * | - | 70 | 70 | 140 | |
| | Electrical & Mechanical Store Workers | * | - | 53 | 53 | 106 | |
| | Office Workers | * | - | 160 | 160 | 320 | |
| | Total | | 12 | 1,141 | 1,568 | 2,721 | |
| West Open Pit | Stripping Workers | * | 173 | 173 | 173 | 519 | |
| | Bankshooting Workers | * | 145 | 145 | 145 | 435 | |
| | Parting & Coal Loading Workers | * | - | 128 | 128 | 256 | |
| | Haulage Workers | * | 304 | 417 | 417 | 1,138 | |
| | Road Grading Workers | * | 70 | 70 | 70 | 210 | |
| | Reclamation Workers | * | 73 | 73 | 73 | 219 | |
| | Electrical Workers | * | 42 | 42 | 42 | 126 | |
| | Mechanical Workers | * | 42 | 42 | 42 | 126 | |
| | Office Workers | * | 207 | 207 | 207 | 621 | |
| | | Sub-Total | | 1,056 | 1,297 | 1,297 | 3,650 |
| | East Open Pit | Stripping Workers | * | 173 | 173 | 173 | 519 |
| Bankshooting Workers | | * | 145 | 145 | 145 | 435 | |
| Parting & Coal Loading Workers | | * | - | 115 | 115 | 230 | |
| Haulage Workers | | * | 256 | 340 | 340 | 936 | |
| Road Grading Workers | | * | 64 | 64 | 64 | 192 | |
| Reclamation Workers | | * | 67 | 67 | 67 | 201 | |
| Electrical Workers | | * | 42 | 42 | 42 | 126 | |
| Mechanical Workers | | * | 42 | 42 | 42 | 126 | |
| Office Workers | | * | 207 | 207 | 207 | 621 | |
| | | Sub-Total | | 996 | 1,195 | 1,195 | 3,386 |
| | | Total | | 2,052 | 2,492 | 2,492 | 7,036 |

The estimates reflect 1980 June price levels. * shown in operating cost
No escalation.

(Continued)

TABLE 2-11
CAPITAL COST
WAGES
(000'S) RUPEES

Sheet 2

| Section | Description | Wage * | Year | | | Total |
|---|---------------------------------|--------|------|------|------|-------|
| | | | 1983 | 1984 | 1985 | |
| Underground Mine | <u>Longwall Face Workers</u> | | | | | |
| | Chief Workers | *2 | 645 | - | - | - |
| | Miners | *2 | 530 | - | - | - |
| | Prop Drawers | *2 | 590 | - | - | - |
| | Stablenen | *2 | 590 | - | - | - |
| | Prop Checkers | *2 | 530 | - | - | - |
| | Packers | *2 | 530 | - | - | - |
| | Pullbackmen | *2 | 530 | - | - | - |
| | Face Maintenance man | | 530 | - | - | - |
| | Shot Firers | *3 | 545 | - | - | - |
| | Sub-Total | | | - | - | - |
| | <u>Pillar Splitting Workers</u> | | | | | |
| | Miners | *3 | 530 | - | - | - |
| | Shot Firers | *3 | 545 | - | - | - |
| | Sub-Total | | | - | - | - |
| <u>Road Heading Workers</u> | | | | | | |
| Miners | *3 | 530 | 8 | 192 | 384 | 584 |
| Loader | *3 | 590 | 2 | 43 | 85 | 130 |
| Shot Firers | *3 | 545 | 2 | 39 | 78 | 119 |
| Sub-Total | | | 12 | 274 | 547 | 883 |
| <u>Ventilation Workers</u> | | | | | | |
| Bratticemen | | 530 | - | 32 | 32 | 64 |
| Flyash Packer | | 530 | - | - | - | - |
| Gas Patrol | | 530 | - | - | - | - |
| Sub-Total | | | - | 32 | 32 | 64 |
| <u>Entry Maintenance Workers</u> | | | | | | |
| Panel Maintenance | | 530 | - | 19 | 19 | 38 |
| Track Maintenance | | 530 | - | 32 | 64 | 96 |
| Gate Maintenance (include rock duster) | | 530 | - | - | 109 | 109 |
| Shot Firers | | 545 | - | 7 | 20 | 27 |
| Sub-Total | | | - | 58 | 212 | 270 |

The estimates reflect 1980 June price levels.
No escalation.

* Rs/man/month

Note: *2: Two Shifts
*3: Three Shifts

TABLE 2-11

CAPITAL COST
WAGES
(000'S) RUPEES

Sheet 3

(Continued)

| Section | Description | Wage* | Year | | | Total |
|--|--|-------|------|-------|-------|-------|
| | | | 1983 | 1984 | 1985 | |
| Underground Mine | <u>Haulage Workers</u> | | | | | |
| | Surface Workers | | | | | |
| | Diesel Locomotive Driver | 590 | - | 21 | 21 | 42 |
| | Shunters | 545 | - | 20 | 20 | 40 |
| | Tippler Men | 590 | - | 14 | 14 | 28 |
| | Tippler Helpers | 530 | - | 38 | 38 | 76 |
| | Underground Workers | | | | | |
| | Battery Locomotive Drivers | 590 | - | 42 | 42 | 84 |
| | Shunters Battery Locomotive | 545 | - | 39 | 39 | 78 |
| | Shunters Pit Mouth | 545 | - | 33 | 33 | 66 |
| | Shunters Pit Bottom | 545 | - | 33 | 33 | 66 |
| | Shunters Junction & Each Panel | 530 | - | - | - | - |
| | Sub-Total | | - | 240 | 240 | 480 |
| | <u>Electrical & Mechanical Workers</u> | | | | | |
| | Electricians | 645 | - | 31 | 31 | 62 |
| | Electricians Apprentices | 530 | - | 26 | 26 | 52 |
| | Mechanics | 645 | - | 31 | 31 | 62 |
| | Mechanics Apprentices | 530 | - | 26 | 26 | 52 |
| | Sub-Total | | - | 114 | 114 | 228 |
| | <u>Machine Operators</u> | | | | | |
| | Surface Workers | | | | | |
| | Air Compressor Operators | 590 | - | 21 | 21 | 42 |
| | Air Compressor Helpers | 530 | - | 19 | 19 | 38 |
| | Main Slope Hoist Operators | 590 | - | 21 | 21 | 42 |
| | Underground Workers | | | | | |
| | Chain Conveyor Operators | 590 | - | 14 | 14 | 28 |
| B.L. Battery Charger | 590 | - | 21 | 21 | 42 | |
| B.L. Battery Charger Assistant | 530 | - | 25 | 25 | 50 | |
| Sub-Total | | - | 140 | 140 | 280 | |
| <u>Safetylamp Room Workers</u> | | | | | | |
| Safetylamp Issuers | 530 | - | 19 | 19 | 38 | |
| Safetylamp Workers | 530 | - | 19 | 19 | 38 | |
| Gas Detector Supervisor | 930 | - | 11 | 11 | 22 | |
| Gas Detector Repair Men | 590 | - | 21 | 21 | 42 | |
| Sub-Total | | - | 70 | 70 | 140 | |
| <u>Electrical & Mechanical Store Workers</u> | | | | | | |
| Issuers | 530 | - | 19 | 19 | 38 | |
| Supervisors | 930 | - | 34 | 34 | 68 | |
| Sub-Total | | - | 53 | 53 | 106 | |
| <u>Office Workers</u> | | | | | | |
| Junior Clerks | 530 | - | 58 | 58 | 116 | |
| Office Attendants/Oilermen | 530 | - | 64 | 64 | 128 | |
| Checkmen | 530 | - | 38 | 38 | 76 | |
| Sub-Total | | - | 160 | 160 | 320 | |
| Total | | | | | | |
| | | | - | 1,141 | 1,568 | 2,721 |

The estimates reflect 1980 June price levels. * Rs/man/month
No escalation.

TABLE 2-11

CAPITAL COST
WAGES
(000'S) RUPEES

(Continued)

Sheet 4

| Section | Description | Wage * | Year | | | Total |
|----------------------------|-------------------------------------|--------|------|------|-------|-------|
| | | | 1983 | 1984 | 1985 | |
| West Open Pit | <u>Stripping</u> | | | | | |
| | Shovel Operator 11.5 m ³ | 645 | 46 | 46 | 46 | 138 |
| | Helpers | 530 | 38 | 38 | 38 | 114 |
| | Oilers | 590 | 43 | 43 | 43 | 129 |
| | Groundmen | 645 | 46 | 46 | 46 | 138 |
| | Sub-Total | | 173 | 173 | 173 | 519 |
| | <u>Bankshooting</u> | | | | | |
| | Drillers 9.7/8" | 645 | 31 | 31 | 31 | 93 |
| | Helpers | 530 | 51 | 51 | 51 | 153 |
| | Dozer Operators | 645 | 31 | 31 | 31 | 93 |
| | Shooters | 530 | 32 | 32 | 32 | 96 |
| | Sub-Total | | 145 | 145 | 145 | 435 |
| | <u>Parting Coal Loading</u> | | | | | |
| | Drillers 80 m/m | 645 | - | 15 | 15 | 30 |
| | Helpers | 530 | - | 26 | 26 | 52 |
| | Dozer Operators | 645 | - | 15 | 15 | 30 |
| | Scraper Operators | 645 | - | 31 | 31 | 62 |
| | Hydraulic Exvator Operators | 645 | - | 15 | 15 | 30 |
| | Shooters | 530 | - | 26 | 26 | 52 |
| | Sub-Total | | - | 128 | 128 | 256 |
| <u>Haulage</u> | | | | | | |
| Truck Drivers 120 t | 645 | 186 | 231 | 231 | 648 | |
| Truck Drivers 46 t | 645 | 15 | 77 | 77 | 169 | |
| Greasemen | 530 | 26 | 32 | 32 | 90 | |
| Machinist & Welders Helper | 530 | 26 | 26 | 26 | 78 | |
| Crossing Watchmen | 530 | 38 | 38 | 38 | 114 | |
| Motor Patrols | 530 | 13 | 13 | 13 | 29 | |
| Sub-Total | | 304 | 417 | 417 | 1,138 | |
| <u>Road Grading</u> | | | | | | |
| Grader Operators | 645 | 15 | 15 | 15 | 45 | |
| Dozer Operators | 645 | 15 | 15 | 15 | 45 | |
| Sprinkler | 645 | 8 | 8 | 8 | 24 | |
| General Workers | 530 | 32 | 32 | 32 | 96 | |
| Sub-Total | | 70 | 70 | 70 | 210 | |

The estimates reflect 1980 June price levels. * Rs/man/month
No escalation.

TABEL 2-11

CAPITAL COST
WAGES
(000'S) RUPEES

Sheet 5

(Continued)

| Section | Description | Wage* | Year | | | Total |
|---------------|---------------------------|-------|--------------|--------------|--------------|--------------|
| | | | 1983 | 1984 | 1985 | |
| West Open Pit | <u>Reclamation</u> | | | | | |
| | Dozer Operators | 645 | 15 | 15 | 15 | 45 |
| | Scraper Operator | 645 | 8 | 8 | 8 | 24 |
| | Crusher Operators | 645 | 15 | 15 | 15 | 45 |
| | Front End Loaders | 645 | 8 | 8 | 8 | 24 |
| | Trucks 46 t | 645 | 8 | 8 | 8 | 24 |
| | General Workers | 530 | 19 | 19 | 19 | 57 |
| | Sub-Total | | 73 | 73 | 73 | 219 |
| | <u>Electrical Workers</u> | | | | | |
| | Electricians | 645 | 23 | 23 | 23 | 69 |
| | Helpers | 530 | 19 | 19 | 19 | 57 |
| | Sub-Total | | 42 | 42 | 42 | 126 |
| | <u>Mechanical Workers</u> | | | | | |
| | Mechanics | 645 | 23 | 23 | 23 | 69 |
| | Helpers | 530 | 19 | 19 | 19 | 57 |
| | Sub-Total | | 42 | 42 | 42 | 126 |
| | <u>Office Clerk</u> | | | | | |
| | Junior Clerks | 530 | 83 | 83 | 83 | 249 |
| | Attendants | 530 | 26 | 26 | 26 | 78 |
| | Time Keepers | 590 | 21 | 21 | 21 | 63 |
| Apprentices | 530 | 77 | 77 | 77 | 231 | |
| Sub-Total | | 207 | 207 | 207 | 621 | |
| Total | | | 1,056 | 1,297 | 1,297 | 3,650 |

The estimates reflect 1980 June price levels. * Rs/man/month
No escalation.

TABLE 2-11
CAPITAL COST
WAGES
(000'S) RUPEES

(Continued)

Sheet 6

| Section | Description | Wage* | Year | | | | |
|------------------------------|-----------------------------|---------------------|------|------|------|-------|-----|
| | | | 1983 | 1984 | 1985 | Total | |
| East Open Pit | <u>Stripping</u> | | | | | | |
| | Shovel Operators | 11.5 m ³ | 645 | 46 | 46 | 46 | 138 |
| | Operators Helpers | " | 530 | 38 | 38 | 38 | 114 |
| | Oilers | " | 590 | 43 | 43 | 43 | 129 |
| | Groundmen | " | 645 | 46 | 46 | 46 | 138 |
| | Sub-Total | | | 173 | 173 | 173 | 519 |
| | <u>Bankshooting</u> | | | | | | |
| | Drillers | 9 7/8" | 645 | 31 | 31 | 31 | 93 |
| | Helpers | " | 530 | 51 | 51 | 51 | 153 |
| | Dozer Operators | | 645 | 31 | 31 | 31 | 93 |
| | Shooters | | 530 | 32 | 32 | 32 | 96 |
| | Sub-Total | | | 145 | 145 | 145 | 435 |
| | <u>Parting Coal Loading</u> | | | | | | |
| | Drilling | 80 m/m | 645 | - | 15 | 15 | 30 |
| | Helpers | " | 530 | - | 13 | 13 | 26 |
| Dozer Operators | | 645 | - | 15 | 15 | 30 | |
| Scraper Operators | | 645 | - | 31 | 31 | 62 | |
| Hydraulic Exvator Operators | | 645 | - | 15 | 15 | 30 | |
| Shooters | | 530 | - | 26 | 26 | 52 | |
| Sub-Total | | | - | 115 | 115 | 230 | |
| <u>Haulage</u> | | | | | | | |
| Truck Drivers | 120 t | 645 | 139 | 185 | 185 | 509 | |
| Truck Drivers | 46 t | 645 | 15 | 46 | 46 | 107 | |
| Greasemen | | 530 | 25 | 32 | 32 | 89 | |
| Machinist & Welder's Helpers | | 530 | 26 | 26 | 26 | 78 | |
| Crossing Watchmen | | 530 | 38 | 38 | 38 | 114 | |
| Motor Patrols | | 530 | 13 | 13 | 13 | 39 | |
| Sub-Total | | | 256 | 340 | 340 | 936 | |

The estimates reflect 1980 June price levels.
No escalation.

* Rs/man/month

TABLE 2-11

CAPITAL COST
WAGES
(000'S) RUPEES

Sheet 7

(Continued)

| Section | Description | Wage* | Year | | | Total |
|---------------------|---------------------------|-------|------|-------|-------|-------|
| | | | 1983 | 1984 | 1985 | |
| East Open Pit | <u>Road Grading</u> | | | | | |
| | Grader Operators | 645 | 15 | 15 | 15 | 45 |
| | Dozer Operators | 645 | 15 | 15 | 15 | 45 |
| | Sprinklers | 645 | 8 | 8 | 8 | 24 |
| | General Workers | 530 | 26 | 26 | 26 | 78 |
| | Sub-Total | | 64 | 64 | 64 | 192 |
| | <u>Reclamation</u> | | | | | |
| | Dozer Operators | 645 | 15 | 15 | 15 | 45 |
| | Scraper Operators | 645 | 8 | 8 | 8 | 24 |
| | Crusher Operators | 645 | 15 | 15 | 15 | 45 |
| | Front End Loaders | 645 | 8 | 8 | 8 | 24 |
| | Trucks 46 t | 645 | 8 | 8 | 8 | 24 |
| | General Workers | 530 | 13 | 13 | 13 | 39 |
| | Sub-Total | | 67 | 67 | 67 | 201 |
| | <u>Electrical Workers</u> | | | | | |
| | Electricians | 645 | 23 | 23 | 23 | 69 |
| | Electricians Helpers | 530 | 19 | 19 | 19 | 57 |
| | Sub-Total | | 42 | 42 | 42 | 126 |
| | <u>Mechanical Workers</u> | | | | | |
| | Mechanics | 645 | 23 | 23 | 23 | 69 |
| | Mechanics Helpers | 530 | 19 | 19 | 19 | 57 |
| Sub-Total | | 42 | 42 | 42 | 126 | |
| <u>Office Clerk</u> | | | | | | |
| Junior Clerks | 530 | 83 | 83 | 83 | 249 | |
| Attendants | 530 | 26 | 26 | 26 | 78 | |
| Time Keepers | 590 | 21 | 21 | 21 | 63 | |
| Apprentices | 530 | 77 | 77 | 77 | 231 | |
| Sub-Total | | 207 | 207 | 207 | 621 | |
| Total | | | 996 | 1,195 | 1,195 | 3,386 |

The estimates reflect 1980 June price levels.
No escalation.

* Rs/man/month

TABLE 2-11

CAPITAL COST
WAGES
(000'S) RUPEES

(Continued)

Sheet 8

| Section | Description | Wage * | Year | | | Total |
|-------------------------|----------------------------|--------|------|------|------|-------|
| | | | 1983 | 1984 | 1985 | |
| Management | Office Attendants | 530 | 19 | 19 | 19 | 57 |
| General Affairs | Head Telephone Operator | 645 | - | - | - | - |
| | Telephone Operators | 590 | - | - | - | - |
| | Cooks | 545 | 7 | 7 | 7 | 21 |
| | Vehicle Drivers | 645 | 154 | 154 | 154 | 462 |
| | Security Guards | 530 | 19 | 19 | 19 | 57 |
| | Armed Guards | 530 | 19 | 19 | 19 | 57 |
| | Junior Clerks | 590 | 14 | 14 | 21 | 49 |
| | Watchmen | 545 | 20 | 59 | 78 | 157 |
| | Office Attendants | 530 | 19 | 38 | 51 | 108 |
| | Sub-Total | | | 252 | 310 | 349 |
| Accounting | Junior Clerks | 590 | 28 | 42 | 50 | 120 |
| | Office Attendants | 530 | 13 | 13 | 13 | 39 |
| | General Workers | 530 | 13 | 13 | 19 | 45 |
| | Sub-Total | | 54 | 68 | 82 | 204 |
| Labour & Social Welfare | Junior Clerks | 590 | 7 | 28 | 28 | 63 |
| | Salesmen | 545 | - | - | - | - |
| | Cooks | 545 | - | - | - | - |
| | Office Attendants | 530 | 13 | 13 | 13 | 39 |
| | General Workers | 530 | - | - | - | - |
| Sub-Total | | | 20 | 41 | 41 | 102 |
| Civil & Water Supply | Draftmen/Survey Assistants | 860 | 21 | 21 | 21 | 63 |
| | Civil Workers | 590 | 28 | 28 | 28 | 84 |
| | Carpenter Shop Workers | 590 | - | - | 21 | 21 |
| | Pump Station Workers | 590 | - | - | - | - |
| | Plumbers | 590 | - | - | 14 | 14 |
| | Sewage Station Workers | 590 | - | - | - | - |
| | Junior Clerks | 590 | 7 | 7 | 14 | 28 |
| | Office Attendants | 530 | 19 | 19 | 25 | 63 |
| | General Workers | 530 | 38 | 38 | 102 | 178 |
| | Sub-Total | | | 113 | 113 | 225 |
| Electrical & Mechanical | Electrical Workers | 645 | 8 | 15 | 31 | 54 |
| | Mechanical Workers | 645 | 8 | 15 | 31 | 54 |
| | Substation Workers | 590 | - | 21 | 42 | 63 |
| | Power House Workers | 590 | 21 | 42 | 42 | 105 |
| | Work Shop Workers | 590 | - | 142 | 212 | 354 |
| | Junior Clerk | 530 | 6 | 6 | 13 | 25 |
| | Office Attendants | 530 | 19 | 25 | 32 | 76 |
| | Sub-Total | | | 62 | 266 | 403 |

The estimates reflect 1980 June price levels.
No escalation.

* Rs/man/month

TABLE 2-11

CAPITAL COST
WAGES
(000'S) RUPEES

Sheet 9

(Continued)

| Section | Description | Wage* | Year | | | Total |
|-------------------|-------------------------|-------------------|-------|-------|-------|--------|
| | | | 1983 | 1984 | 1985 | |
| System | Key Punchers | 590 | - | 7 | 7 | 14 |
| | Junior Clerk | 530 | - | 6 | 6 | 12 |
| | Office Attendants | 530 | - | 6 | 6 | 12 |
| | Sub-Total | | - | 19 | 19 | 38 |
| Training | Training Assistants | 590 | 28 | 28 | 57 | 113 |
| | Junior Clerks | 530 | 13 | 13 | 13 | 39 |
| | Office Attendants | 530 | 19 | 19 | 19 | 57 |
| | Sub-Total | | 60 | 60 | 89 | 209 |
| Planning | Explosive Carriers | 530 | - | 58 | 58 | 116 |
| | Explosive Truck Drivers | 645 | - | 23 | 23 | 46 |
| | Drillers | 565 | 27 | 27 | 27 | 81 |
| | Draftmen | 790 | 29 | 29 | 29 | 87 |
| | Junior Clerks | 530 | 26 | 26 | 26 | 78 |
| | Drilling Helpers | 530 | 77 | 77 | 77 | 231 |
| | Survey Helpers | 530 | 77 | 77 | 77 | 231 |
| | Office Attendants | 530 | 32 | 32 | 32 | 96 |
| | Sub-Total | | 268 | 349 | 349 | 966 |
| | Safety | Safety Assistants | 530 | 13 | 13 | 13 |
| Junior Clerks | | 530 | 6 | 6 | 6 | 18 |
| Office Attendants | | 530 | 19 | 19 | 19 | 57 |
| Sub-Total | | | 38 | 38 | 38 | 114 |
| Medical | Head Nurse | 645 | - | 8 | 8 | 16 |
| | Nurses | 530 | - | 13 | 25 | 38 |
| | Health Visitor | 600 | - | - | - | - |
| | Midwives | 530 | - | - | - | - |
| | Head Compounder | 645 | - | 8 | 8 | 16 |
| | Compounders | 645 | - | 8 | 8 | 16 |
| | Sanitary Inspectors | 645 | - | - | - | - |
| | Junior Clerks | 530 | - | 6 | 6 | 12 |
| | First Aid Attendants | 645 | - | 8 | 23 | 31 |
| | Ambulance Driver | 645 | - | 8 | 8 | 16 |
| | Sweepers | 530 | - | 13 | 13 | 26 |
| | First Aid Helpers | 545 | - | 13 | 39 | 52 |
| | Cooks | 545 | - | - | - | - |
| | Sub-Total | | - | 85 | 138 | 223 |
| | | Total | | 886 | 1,368 | 1,752 |
| Coal Preparation | Patrols | 530 | - | - | 13 | 13 |
| | Control Control Men | 645 | - | - | 15 | 15 |
| | Other Plant Workers | 590 | - | - | - | - |
| | Transport Workers | 590 | - | - | 21 | 21 |
| | Junior Clerks | 530 | - | - | 25 | 25 |
| | Office Attendants | 530 | - | - | 25 | 25 |
| | Hand Pickers | 530 | - | - | - | - |
| | General Workers | 530 | - | - | 45 | 45 |
| | Total | | - | - | 144 | 144 |
| | Grand Total | | 2,950 | 5,001 | 5,956 | 13,907 |

The estimates
reflect 1980
June price levels

No escalation.

* Rs/man/month

TABLE 2-12
INTEREST DURING CONSTRUCTION
(000's) RUPEES

MINE

Foreign (8.75 %)

| Year | 1981 | 1982 | 1983 | 1984 | 1985 | Total |
|-----------|--------|--------|---------|---------|---------|---------|
| Principal | 10,000 | 10,000 | 567,000 | 295,000 | 244,000 | - |
| | 438 | 875 | 875 | 875 | 875 | 3,938 |
| | - | 438 | 875 | 875 | 875 | 3,063 |
| | - | - | 24,806 | 49,613 | 49,613 | 124,032 |
| | - | - | - | 12,906 | 25,813 | 38,719 |
| | - | - | - | - | 10,675 | 10,675 |
| TOTAL | 438 | 1,313 | 26,556 | 64,269 | 87,851 | 180,427 |

RAILWAY

Foreign (8.75 %)

| Year | 1981 | 1982 | 1983 | 1984 | 1985 | Total |
|-----------|-------|-------|-------|--------|--------|-------|
| Principal | 1,000 | 1,000 | 2,000 | 20,000 | 95,000 | - |
| | 44 | 88 | 88 | 88 | 88 | 396 |
| | - | 44 | 88 | 88 | 88 | 308 |
| | - | - | 88 | 175 | 175 | 438 |
| | - | - | - | 875 | 1,750 | 2,625 |
| | - | - | - | - | 4,156 | 4,156 |
| TOTAL | 44 | 132 | 264 | 1,226 | 6,257 | 7,923 |

Local (12.5 %)

| Year | 1981 | 1982 | 1983 | 1984 | 1985 | Total |
|-----------|-------|-------|---------|---------|---------|---------|
| Principal | 6,000 | 8,000 | 303,000 | 234,000 | 207,000 | - |
| | 375 | 750 | 750 | 750 | 750 | 3,375 |
| | - | 500 | 1,000 | 1,000 | 1,000 | 3,500 |
| | - | - | 18,938 | 37,875 | 37,875 | 94,688 |
| | - | - | - | 14,625 | 29,250 | 43,875 |
| | - | - | - | - | 12,938 | 12,938 |
| TOTAL | 375 | 1,250 | 20,688 | 54,250 | 81,813 | 158,376 |

Local (12.5 %)

| Year | 1981 | 1982 | 1983 | 1984 | 1985 | Total |
|-----------|-------|-------|--------|--------|--------|--------|
| Principal | 1,000 | 1,000 | 55,000 | 45,000 | 41,000 | - |
| | 63 | 125 | 125 | 125 | 125 | 563 |
| | - | 63 | 125 | 125 | 125 | 438 |
| | - | - | 3,438 | 6,875 | 6,875 | 17,188 |
| | - | - | - | 2,813 | 5,625 | 8,438 |
| | - | - | - | - | 2,563 | 2,563 |
| TOTAL | 63 | 188 | 3,688 | 9,938 | 15,313 | 29,190 |

TABLE 2-13 CONSTRUCTION COST FOR LAKHRA COAL FIRED
THERMAL POWER STATION (300 MW. x 1 UNIT)

(Unit: Rupees in million)

| Item | Foreign Currency | Local Currency | Total |
|--|---------------------|-------------------|-------|
| 1. Equipment | 1,727 | - | 1,727 |
| 2. Civil Works | 295 | 300 | 595 |
| 3. Architectural Works | 144 | 266 | 410 |
| 4. F.G.D. Plant (Gypsum Recovery Process) | 109 | 84 | 193 |
| 5. Installation | 130 | 415 | 545 |
| Sub-total | 2,405 | 1,065 | 3,470 |
| 6. Contingency (5% of Sub-total) | 121 | 53 | 174 |
| 7. Import Duty (40% of C&F Price) | - | 905 | 905 |
| 8. Engineering Fee (5% of direct cost) | 147 | 35 | 182 |
| 9. Administration (4% of direct cost) | - | 146 | 146 |
| Indirect Cost | 147 | 1,086 | 1,233 |
| Total | 2,673 | 2,204 | 4,877 |
| 10. Interest during Construction | - | 1,348 | 1,348 |
| Grand Total | 2,673 | 3,552 | 6,225 |

Interest during construction F.C. 8.75% L.C. 12.5%

TABLE 2-14. ANNUAL EXPENDITURE REQUIREMENTS (300 MW x 1 UNIT)

(Unit: Rupees in Million)

| Item | 1981 | | | 1982 | | | 1983 | | | 1984 | | | 1985 | | | 1986 | | | 1987 | | |
|--|-------|-------|-------|------|------|-------|------|------|-------|-------|------|-------|-------|-------|-------|------|------|-------|------|------|-------|
| | F.C. | L.C. | Total | F.C. | L.C. | Total | F.C. | L.C. | Total | F.C. | L.C. | Total | F.C. | L.C. | Total | F.C. | L.C. | Total | F.C. | L.C. | Total |
| 1. Civil & Structural Works | 439 | 566 | 1,005 | | | | 44 | 57 | 101 | 176 | 220 | 396 | 110 | 140 | 250 | 65 | 92 | 157 | 44 | 57 | 101 |
| 2. Mechanical, Electrical Equipment & Installation | 1,857 | 415 | 2,272 | 186 | 41 | 227 | 280 | 60 | 340 | 929 | 211 | 1,140 | 276 | 62 | 338 | 186 | 41 | 227 | | | |
| 3. F.G.D. Plant (Gypsum Recovery Process) | 109 | 84 | 193 | 11 | 8 | 19 | 16 | 14 | 30 | 55 | 42 | 97 | 16 | 12 | 28 | 11 | 8 | 19 | | | |
| SUB-TOTAL | 2,405 | 1,065 | 3,470 | 241 | 106 | 347 | 472 | 294 | 766 | 1,094 | 393 | 1,487 | 357 | 166 | 523 | 241 | 106 | 347 | | | |
| 4. Contingency (5% of Sub-total) | 121 | 53 | 174 | 12 | 5 | 17 | 26 | 14 | 40 | 53 | 21 | 74 | 18 | 8 | 26 | 12 | 5 | 17 | | | |
| DIRECT COST | 2,526 | 1,118 | 3,644 | 253 | 111 | 364 | 498 | 308 | 806 | 1,147 | 414 | 1,561 | 375 | 174 | 549 | 253 | 111 | 364 | | | |
| 5. Import Duty (40% of C&F Price) | - | 905 | 905 | - | 90 | 90 | - | 178 | 178 | - | 411 | 411 | - | 136 | 136 | - | 90 | 90 | | | |
| 6. Engineering Fee (5% of Direct Cost) | 147 | 35 | 182 | 30 | 6 | 36 | 44 | 11 | 55 | 17 | 4 | 21 | 17 | 4 | 21 | 17 | 4 | 21 | 5 | 2 | 7 |
| 7. Administration (% of Direct Cost) | - | 146 | 146 | - | 7 | 7 | - | 14 | 14 | - | 22 | 22 | - | 37 | 37 | - | 37 | 37 | - | 7 | 7 |
| INDIRECT COST | 147 | 1,086 | 1,233 | 30 | 13 | 43 | 44 | 25 | 69 | 17 | 204 | 221 | 17 | 452 | 469 | 17 | 177 | 194 | 5 | 99 | 104 |
| TOTAL | 2,673 | 2,204 | 4,877 | 30 | 13 | 43 | 44 | 25 | 69 | 270 | 497 | 515 | 1,164 | 866 | 2,030 | 392 | 351 | 743 | 258 | 210 | 468 |
| 8. Interest During Construction (F.C 8.75%, D.C 12.5%) | - | 1,348 | 1,348 | - | 2 | 2 | - | 8 | 8 | - | 118 | 118 | - | 277 | 277 | - | 421 | 421 | - | 485 | 485 |
| GRAND TOTAL | 2,673 | 3,552 | 6,225 | 30 | 15 | 45 | 44 | 33 | 77 | 270 | 264 | 515 | 1,164 | 1,143 | 2,307 | 392 | 772 | 1,164 | 258 | 695 | 953 |

1 Rs = 22 Yen 1 US\$ = 220 Yen

Exclude escalation
Price of June 1980

TABLE 2-15 CONSTRUCTION COST FOR LAKHRA COAL-FIRED
THERMAL POWER STATION (150 MW x 2 UNITS)

(Unit: Rupees in million)

| Item | Foreign Currency | Local Currency | Total |
|--|---------------------|-------------------|-------|
| 1. Equipment | 1,860 | - | 1,860 |
| 2. Civil Works | 320 | 320 | 640 |
| 3. Architectural Works | 150 | 290 | 440 |
| 4. F.G.D. Plant (Gypsum Recovery Process) | 120 | 92 | 212 |
| 5. Installation | 140 | 500 | 640 |
| Sub-total | 2,590 | 1,202 | 3,792 |
| 6. Contingency (5% of Sub-total) | 130 | 60 | 190 |
| 7. Import Duty (40% of C&F Price) | - | 980 | 980 |
| 8. Engineering Fee (5% of direct cost) | 159 | 40 | 199 |
| 9. Administration Fee (4% of direct cost) | - | 159 | 159 |
| Indirect Cost | 159 | 1,179 | 1,338 |
| Total | 2,879 | 2,441 | 5,320 |
| 10. Interest during Construction | - | 1,477 | 1,477 |
| Grand Total | 2,879 | 3,918 | 6,797 |

Interest during construction F.C. 8.75% L.C. 12.5%

TABLE 2-16. ANNUAL EXPENDITURE REQUIREMENTS (150 MW x 2 UNITS)

(Unit: Rupees in Million)

| Item | Year | | 1981 | | 1982 | | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | | | | | | | | | | |
|--|-------|-------|-------|------|------|-------|------|------|-------|------|------|-------|-------|------|-------|------|------|-------|-------|-----|-----|-------|-----|-----|-------|
| | F.C. | L.C. | Total | F.C. | L.C. | Total | F.C. | L.C. | Total | F.C. | L.C. | Total | F.C. | L.C. | Total | F.C. | L.C. | Total | | | | | | | |
| 1. Civil & Structural Works | 470 | 610 | 1,080 | | | | 47 | 61 | 108 | 188 | 244 | 432 | 118 | 152 | 270 | 70 | 92 | 162 | 47 | 61 | 108 | | | | |
| 2. Mechanical, Electrical Equipment & Installation | 2,000 | 500 | 2,500 | | | | 200 | 50 | 250 | 300 | 75 | 375 | 1,000 | 250 | 1,250 | 300 | 75 | 375 | 200 | 50 | 250 | | | | |
| 3. F.G.D. Plant (Gypsum-Recovery Process) | 120 | 92 | 212 | | | | 12 | 9 | 21 | 18 | 15 | 33 | 60 | 44 | 104 | 18 | 15 | 33 | 12 | 9 | 21 | | | | |
| SUB-TOTAL | 2,590 | 1,202 | 3,792 | | | | 259 | 120 | 379 | 506 | 334 | 840 | 1,178 | 446 | 1,624 | 388 | 182 | 570 | 259 | 120 | 379 | | | | |
| 4. Contingency (5% of sub-total) | 130 | 60 | 190 | | | | 13 | 6 | 19 | 26 | 16 | 42 | 59 | 23 | 82 | 19 | 9 | 28 | 13 | 6 | 19 | | | | |
| DIRECT COST | 2,720 | 1,262 | 3,982 | | | | 272 | 126 | 398 | 532 | 350 | 882 | 1,237 | 469 | 1,706 | 407 | 191 | 598 | 272 | 126 | 398 | | | | |
| 5. Import Duty (40% of C&F Price) | - | 980 | 980 | | | | - | 98 | 98 | - | 196 | 196 | - | 440 | 440 | - | 148 | 148 | - | 98 | 98 | | | | |
| 6. Engineering Fee (5% of Direct Cost) | 159 | 40 | 199 | | | | 32 | 8 | 40 | 48 | 12 | 60 | 18 | 5 | 23 | 19 | 4 | 23 | 5 | 2 | 7 | | | | |
| 7. Administration (4% of Direct Cost) | - | 159 | 159 | | | | - | 8 | 8 | - | 16 | 16 | - | 40 | 40 | - | 39 | 39 | - | 8 | 8 | | | | |
| INDIRECT COST | 159 | 1,179 | 1,338 | | | | 32 | 16 | 48 | 48 | 28 | 76 | 18 | 127 | 145 | 19 | 484 | 503 | 19 | 191 | 210 | 5 | 108 | 113 | |
| TOTAL | 2,879 | 2,441 | 5,320 | | | | 32 | 16 | 48 | 48 | 28 | 76 | 290 | 253 | 543 | 550 | 575 | 1,125 | 1,256 | 426 | 382 | 808 | 277 | 234 | 511 |
| 8. Interest During Construction (F.C 8.75%, D.C 12.5%) | - | 1,477 | 1,477 | | | | - | 2 | 2 | - | 9 | 9 | - | 364 | 364 | - | 461 | 461 | - | 531 | 531 | | | | |
| GRAND TOTAL | 2,879 | 3,918 | 6,797 | | | | 32 | 18 | 50 | 48 | 37 | 85 | 290 | 294 | 584 | 550 | 704 | 1,254 | 1,256 | 426 | 843 | 1,269 | 277 | 755 | 1,042 |

1 Rs = 22 Yen

1 US\$ = 220 Yen

Exclude escalation Price of June, 1980