

**Estado do Paraná**  
**Secretaria Especial da**  
**Ciência, Tecnologia e**  
**Desenvolvimento**  
**Econômico**



**BOLETIM ESTATÍSTICO**  
**DA PRODUÇÃO MINERAL**  
**PARANÁ - 1988**

**MINEROPAR**

Minerais do Paraná S.A.

**1990**

BOLETIM ESTATÍSTICO DA PRODUÇÃO MINERAL DO PARANÁ - 1988

CURITIBA  
1990

MINEROPAR - Minerais do Paraná S/A Gerencia de Fomento e Economia Mineral.

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**BOLETIM ESTATÍSTICO DA PRODUÇÃO MINERAL  
PARANÁ - 1988**

**GERENCIA DE FOMENTO E ECONOMIA MINERAL  
Economista Noé Vieira dos Santos**

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## **APRESENTAÇÃO**

A MINEROPAR - Minerais do Paraná S/A, apresenta nesta publicação os dados estatístico da produção mineral do Estado no ano de 1988, onde oferece informações estatísticas por substância, município produtor, arrecadação, valor da produção e empresas produtoras procurando, desta forma, facilitar a consulta do usuário.

Contém ainda esta publicação uma síntese interpretativa dos dados nela constantes, esclarecendo inclusive na introdução algumas informações que possam parecer conflitantes.

O objetivo da publicação é atender a orientação do Secretário Especial da Ciência, Tecnologia e Desenvolvimento Econômico - Paulo Roberto Pereira de Souza, no sentido de que a Empresa forneça ao público dados que possam vir a ser utilizados pela sociedade.

A Minerais do Paraná S.A. agradece o apoio recebido do DNPM - Departamento Nacional da Produção Mineral, 2º Distrito - Residência de Curitiba e da CRE - Coordenação da Receita do Estado que tornou possível esta publicação.

Mário Lessa Sobrinho

Diretor Presidente

## **INTRODUÇÃO**

A elaboração do Boletim Estatístico da Produção Mineral - PARANÁ 1988 seguiu a mesma metodologia na execução do anterior, referente a 1987. Portanto, visando colaborar com a interpretação mais concisa dos dados apresentados, são feitas algumas considerações:

- . os recolhimentos adicionais efetuados junto com a produção mensal das empresas, apesar de fazerem parte do presente levantamento, são inexpressivos, originando um acréscimo inferior a 1% (um por cento) no valor total do IUM arrecadado;

- . a produção de basalto, gnaiss, gabro, migmatito e parte da produção de granito, corresponde a rochas utilizadas para brita;

- . a água subterrânea declarada, refere-se ao consumo de algumas indústrias de bebidas que em 1988 procederam o recolhimento do IUM;

- . algumas substâncias apesar do maior valor de produção em relação a outras, apresentam o valor do IUM menor. Tal fato deve-se à isenção do imposto que sofrem certos produtos minerais dependendo de sua destinação;

- . o IUM referente ao ouro é de apenas 1% (um por cento) sobre o valor de venda, enquanto para as demais substâncias corresponde a 15% (quinze por cento);

- . a empresa OUROPAR - Distribuidora Paranaense de Metais que aparece como uma das principais empresas, não é produtora e sim compradora de ouro.

*E S T A T Í S T I C A S*

IMPOSTO ÚNICO SOBRE MINERAIS - ARRECADACÃO NACIONAL - 1986/1988

Cz\$ 1000.00

| ESTADO DA FEDERAÇÃO | POSICÃO |    |    | 1986          | %      | 1987          | %      | 1988          | %      |
|---------------------|---------|----|----|---------------|--------|---------------|--------|---------------|--------|
|                     | 86      | 87 | 88 | VALOR<br>Cz\$ |        | VALOR<br>Cz\$ |        | VALOR<br>Cz\$ |        |
| MINAS GERAIS        | 1       | 1  | 1  | 1430174.37    | 43.80  | 2914418.06    | 37.92  | 20415419.08   | 36.55  |
| SÃO PAULO           | 2       | 2  | 2  | 275911.05     | 8.45   | 869470.00     | 11.31  | 6030658.71    | 10.80  |
| PARÁ                | 5       | 3  | 3  | 220796.25     | 6.76   | 700552.39     | 9.12   | 5502698.94    | 9.85   |
| BAHIA               | 3       | 4  | 4  | 252140.68     | 7.72   | 588104.40     | 7.65   | 5222101.41    | 9.35   |
| SANTA CATARINA      | 6       | 5  | 5  | 191395.43     | 5.86   | 457931.42     | 5.96   | 3710674.89    | 6.64   |
| RONDÔNIA            | 9       | 13 | 6  | 77920.93      | 2.39   | 103086.30     | 1.34   | 2239702.27    | 4.01   |
| GOIÁS               | 7       | 6  | 7  | 126543.38     | 3.88   | 404732.98     | 5.27   | 2071338.36    | 3.71   |
| RIO GRANDE DO SUL   | 8       | 8  | 8  | 100605.51     | 3.08   | 238248.75     | 3.10   | 1693375.12    | 3.03   |
| AMAZONAS            | 4       | 7  | 9  | 230697.82     | 7.07   | 322151.58     | 4.19   | 1392935.01    | 2.49   |
| RIO GRANDE DO NORTE | 10      | 9  | 10 | 67173.55      | 2.06   | 226475.91     | 2.95   | 1313930.47    | 2.35   |
| RIO DE JANEIRO      | 11      | 10 | 11 | 57768.31      | 1.77   | 184455.13     | 2.40   | 1255853.82    | 2.25   |
| PARANÁ              | 12      | 11 | 12 | 48449.17      | 1.48   | 142757.16     | 1.86   | 1084298.43    | 1.94   |
| AMAPÁ               | 13      | 12 | 13 | 44213.78      | 1.35   | 105393.78     | 1.37   | 759994.63     | 1.36   |
| SUB TOTAL.....      |         |    |    | 3123790.23    | 95.66  | 7257777.86    | 94.44  | 52692981.14   | 94.33  |
| OUTROS.....         |         |    |    | 141568.34     | 4.34   | 427536.75     | 5.56   | 3166409.28    | 5.67   |
| TOTAL BRASIL.....   |         |    |    | 3265358.57    | 100.00 | 7685314.61    | 100.00 | 55859390.42   | 100.00 |

Fonte: SIPRON/DNPM

**VALOR DA PRODUÇÃO MINERAL - Classe/Substância**

| CLASSE/SUBSTANCIA             | QUANTIDADES | UNID MED | VALOR DA PRODUCAO<br>Cz\$ | % S/TOTAL<br>da PRODUCAO | VALOR DO IUM<br>Cz\$ | % S/TOTAL do<br>IUM ARREC. |
|-------------------------------|-------------|----------|---------------------------|--------------------------|----------------------|----------------------------|
| <b>ENERGETICOS</b>            |             |          |                           |                          |                      |                            |
| CARVÃO                        | 251122.47   | T        | 1632829265.03             | 22.47                    | 220319104.40         | 20.32                      |
| Subtotal                      |             |          | 1632829265.03             | 22.47                    | 220319104.40         | 20.32                      |
| <b>METAIS PRECIOSOS</b>       |             |          |                           |                          |                      |                            |
| OURD                          | 18435.25    | G        | 55340352.30               | 0.76                     | 618648.73            | 0.06                       |
| PRATA                         | 2901.52     | KG       | 10138770.11               | 0.14                     | 2000815.48           | 0.18                       |
| Subtotal                      |             |          | 65479122.41               | 0.90                     | 2619464.21           | 0.24                       |
| <b>METÁLICOS</b>              |             |          |                           |                          |                      |                            |
| CHUMBO                        | 8100.98     | T        | 116827537.33              | 1.61                     | 17524135.42          | 1.62                       |
| PIRITA                        | 21800.00    | T        | 21.80                     | 0.00                     | 3.27                 | 0.00                       |
| Subtotal                      |             |          | 116827559.13              | 1.61                     | 17524138.69          | 1.62                       |
| <b>NÃO METÁLICOS</b>          |             |          |                           |                          |                      |                            |
| ÁGUA MINERAL                  | 30152172.94 | L        | 171950315.50              | 2.37                     | 25841151.72          | 2.38                       |
| ÁGUA SUBTERRÂNEA              | 55200489.39 | L        | 17102711.52               | 0.24                     | 2744643.09           | 0.25                       |
| AREIA                         | 1861679.72  | M3       | 477165513.00              | 6.57                     | 76185406.45          | 7.03                       |
| ARENITO                       | 4012.14     | T        | 3241467.50                | 0.04                     | 510079.35            | 0.05                       |
| ARGILA                        | 754507.00   | T        | 202385393.11              | 2.78                     | 35830862.27          | 3.30                       |
| ARGILA REFR                   | 3610.32     | T        | 11825251.04               | 0.16                     | 1852843.22           | 0.17                       |
| ARGILA BRANCA                 | 228542.89   | T        | 157221293.24              | 2.16                     | 23048591.10          | 2.13                       |
| BASALTO                       | 647171.29   | M3       | 267759296.73              | 3.68                     | 38489154.45          | 3.55                       |
| CALCÁRIO                      | 3862497.51  | T        | 2405018522.71             | 33.09                    | 379414650.62         | 34.99                      |
| CASCALHO                      | 330.00      | M3       | 66000.00                  | 0.00                     | 9900.00              | 0.00                       |
| CAULIM                        | 29290.02    | T        | 138542153.41              | 1.91                     | 20708501.42          | 1.92                       |
| DIABÁSIO                      | 43719.91    | M3       | 61293625.88               | 0.84                     | 9267024.62           | 0.85                       |
| DOLOMITO                      | 1006608.48  | T        | 323819691.34              | 4.46                     | 51492179.54          | 4.75                       |
| FELDSPATO                     | 684.00      | T        | 3291129.30                | 0.05                     | 493669.34            | 0.05                       |
| FILITO                        | 22163.37    | T        | 8478084.00                | 0.12                     | 1232844.14           | 0.11                       |
| FLUORITA                      | 13828.85    | T        | 302383294.48              | 4.16                     | 45358493.25          | 4.18                       |
| GABRO                         | 7900.50     | M3       | 8373854.00                | 0.12                     | 1256078.10           | 0.12                       |
| GNAISSE                       | 92543.62    | M3       | 67003450.41               | 0.92                     | 6500363.94           | 0.60                       |
| GRANITO                       | 238292.70   | T        | 258045069.07              | 3.55                     | 39240057.59          | 3.62                       |
| MARMORE                       | 96433.68    | M3       | 5260672.53                | 0.07                     | 812317.46            | 0.07                       |
| HIGHATITO                     | 110456.03   | M3       | 46829851.90               | 0.64                     | 7079155.27           | 0.65                       |
| QUARTZITO                     | 49644.70    | T        | 41579462.21               | 0.57                     | 7265221.82           | 0.67                       |
| SEIXO ROLADO                  | 16.00       | M3       | 16000.00                  | 0.00                     | 2400.00              | 0.00                       |
| SERICITA                      | 13660.20    | T        | 3647530.00                | 0.05                     | 547130.00            | 0.05                       |
| SILTITO                       | 1656.00     | M2       | 13800.00                  | 0.00                     | 2119.50              | 0.00                       |
| TALCO                         | 318083.48   | T        | 469743821.16              | 6.46                     | 68563649.66          | 6.32                       |
| Subtotal                      |             |          | 5452057254.04             | 75.02                    | 843828487.92         | 77.82                      |
| <b>..T O T A I S.....Cz\$</b> |             |          |                           |                          |                      |                            |
|                               |             |          | 7267193200.61             | 100.00                   | 1084291195.22        | 100.00                     |

PRINCIPAIS MUNICÍPIOS - 1988 - Valor da Produção

| ORDEN | MUNICÍPIO PRODUTOR      | VALOR DA PRODUÇÃO<br>Cz\$ | Z s/PRODUÇÃO | VALOR DO IUM<br>Cz\$ | Z s/IUM |
|-------|-------------------------|---------------------------|--------------|----------------------|---------|
| 01    | RIO BRANCO DO SUL       | 2084445241.51             | 28.68        | 333438900.96         | 30.75   |
| 02    | FIGUEIRA                | 1303139289.41             | 17.93        | 169834775.10         | 15.66   |
| 03    | CAMPO LARGO             | 751717174.91              | 10.34        | 103262974.79         | 9.52    |
| 04    | CERRO AZUL              | 340413306.08              | 4.68         | 51542994.97          | 4.75    |
| 05    | CASTRO                  | 336249813.95              | 4.63         | 49589131.49          | 4.57    |
| 06    | PONTA GROSSA            | 269091584.57              | 3.70         | 37580113.31          | 3.47    |
| 07    | SAPOPEMA                | 219142964.90              | 3.02         | 32871444.81          | 3.03    |
| 08    | SÃO JOSÉ DOS PINHAIS    | 162091935.36              | 2.23         | 23448418.38          | 2.16    |
| 09    | COLOMBO                 | 152342215.22              | 2.10         | 22581664.60          | 2.08    |
| 10    | TELEMACHO BORBA         | 151711660.19              | 2.09         | 22755129.19          | 2.10    |
| 11    | QUATRO BARRAS           | 146850623.55              | 2.02         | 22065239.13          | 2.03    |
| 12    | ALMIRANTE TAMANDARÉ     | 103463338.16              | 1.42         | 20067831.94          | 1.85    |
| 13    | CURITIBA                | 103227560.21              | 1.42         | 13524871.69          | 1.25    |
| 14    | ADRIANÓPOLIS            | 90820137.73               | 1.25         | 13623025.46          | 1.26    |
| 15    | MANDIRITUBA             | 82852120.75               | 1.14         | 12221725.16          | 1.13    |
| 16    | BALSA NOVA              | 79917273.02               | 1.10         | 9531017.06           | 0.88    |
| 17    | UNIÃO DA VITÓRIA        | 60245962.50               | 0.83         | 9036277.83           | 0.83    |
| 18    | ARAUCÁRIA               | 59145763.25               | 0.81         | 8851386.75           | 0.82    |
| 19    | BOCAIUVA DO SUL         | 45637729.33               | 0.63         | 6902469.52           | 0.64    |
| 20    | GUAIARA                 | 42990675.01               | 0.59         | 6453339.80           | 0.60    |
| 21    | LAPA                    | 41540756.34               | 0.57         | 6356298.94           | 0.59    |
| 22    | ALTONIA                 | 41265696.78               | 0.57         | 7844147.21           | 0.72    |
| 23    | CAMPO MOURÃO            | 38254132.40               | 0.53         | 3648119.86           | 0.34    |
| 24    | LONDRIANA               | 35412252.65               | 0.49         | 5402862.08           | 0.50    |
| 25    | JACAREZINHO             | 30083200.00               | 0.41         | 5339929.80           | 0.49    |
| 26    | CASCADEL                | 28533462.50               | 0.39         | 4256413.46           | 0.39    |
| 27    | IBIPORÁ                 | 28164917.00               | 0.39         | 4218599.88           | 0.39    |
| 28    | FOZ DO IGUAÇU           | 27905922.48               | 0.38         | 5827779.95           | 0.54    |
| 29    | PIRAQUARA               | 24652579.39               | 0.34         | 4600611.99           | 0.42    |
| 30    | MARILÉIA                | 20626411.50               | 0.28         | 3597213.73           | 0.33    |
| 31    | SÃO PEDRO DO PARANÁ     | 18494949.73               | 0.25         | 2797852.93           | 0.26    |
| 32    | JAPURA                  | 16969825.10               | 0.23         | 2622045.47           | 0.24    |
| 33    | GUARAPUAVA              | 16452143.06               | 0.23         | 2179802.40           | 0.20    |
| 34    | IRATI                   | 15942151.10               | 0.22         | 2388594.15           | 0.22    |
| 35    | ARAPONGAS               | 15636519.43               | 0.22         | 2390478.02           | 0.22    |
| 36    | MARECHAL CANDIDO RONDON | 15404131.06               | 0.21         | 2316234.62           | 0.21    |
| 37    | IMBITUBA                | 12746751.44               | 0.18         | 2944257.40           | 0.27    |
| 38    | MATELANDIA              | 12663930.66               | 0.17         | 1995528.70           | 0.18    |
| 39    | PORTO RICO              | 10752268.56               | 0.15         | 1656779.50           | 0.15    |
| 40    | DOUTOR CAMARGO          | 10295321.60               | 0.14         | 1558318.84           | 0.14    |
| 41    | MISSAL                  | 9231846.20                | 0.13         | 1385176.21           | 0.13    |
| 42    | IVAIPORA                | 8976254.00                | 0.12         | 1351223.85           | 0.12    |
| 43    | PARAÍSO DO NORTE        | 8928685.58                | 0.12         | 1499874.84           | 0.14    |
| 44    | APUCARANA               | 8752633.32                | 0.12         | 1314894.50           | 0.12    |
| 45    | TIJUCAS DO SUL          | 8747925.75                | 0.12         | 6236373.27           | 0.58    |
| 46    | GOIO-ÉRE                | 8373854.00                | 0.12         | 1256078.10           | 0.12    |
| 47    | PATO BRANCO             | 7816601.19                | 0.11         | 1815240.14           | 0.17    |



|     |                           |            |      |            |      |
|-----|---------------------------|------------|------|------------|------|
| 48  | PALOTINA                  | 6894307.84 | 0.09 | 965524.34  | 0.09 |
| 49  | ORTIGUEIRA                | 6871541.78 | 0.09 | 1030653.67 | 0.10 |
| 50  | PARANAGUA                 | 6395690.12 | 0.09 | 1060535.70 | 0.10 |
| 51  | JATAIZINHO                | 6261940.00 | 0.09 | 1007710.86 | 0.09 |
| 52  | MARINGA                   | 5441742.95 | 0.07 | 882352.25  | 0.08 |
| 53  | CORNELIO PROCOPIO         | 5021350.00 | 0.07 | 755374.50  | 0.07 |
| 54  | SAD MATEUS DO SUL         | 5018281.00 | 0.07 | 925878.74  | 0.09 |
| 55  | SANTO ANTONIO DA PLATINA  | 4733953.97 | 0.07 | 283843.23  | 0.03 |
| 56  | JUSSARA                   | 4720460.00 | 0.06 | 708077.00  | 0.07 |
| 57  | MARILANDIA DO SUL         | 4387800.00 | 0.06 | 658170.00  | 0.06 |
| 58  | FRANCISCO BELTRAO         | 4205750.73 | 0.06 | 1286708.17 | 0.12 |
| 59  | PEABIRU                   | 4192080.00 | 0.06 | 629843.17  | 0.06 |
| 60  | AGUADOS DO SUL            | 4181437.30 | 0.06 | 627215.04  | 0.06 |
| 61  | FLORESTA                  | 4068230.00 | 0.06 | 614070.90  | 0.06 |
| 62  | PRANCHITA                 | 3908102.00 | 0.05 | 735917.63  | 0.07 |
| 63  | IVATUBA                   | 3855720.00 | 0.05 | 592835.77  | 0.05 |
| 64  | SANTA TEREZINHA DO ITAIPU | 3766154.00 | 0.05 | 564923.11  | 0.05 |
| 65  | CONTENDA                  | 3598275.80 | 0.05 | 494699.45  | 0.05 |
| 66  | ALTO PARANA               | 3387770.45 | 0.05 | 507565.54  | 0.05 |
| 67  | PRUDENTOPOLIS             | 3348928.55 | 0.05 | 649053.25  | 0.06 |
| 68  | MEDIANEIRA                | 2967535.46 | 0.04 | 475354.00  | 0.04 |
| 69  | RIBEIRAO CLARO            | 2548850.00 | 0.04 | 382328.00  | 0.04 |
| 70  | CURIUVA                   | 2352640.00 | 0.03 | 404692.60  | 0.04 |
| 71  | CAMPINA DA LAGOA          | 2304889.00 | 0.03 | 318643.77  | 0.03 |
| 72  | GRANDES RIOS              | 2282881.33 | 0.03 | 339643.47  | 0.03 |
| 73  | DURIZONA                  | 2199360.00 | 0.03 | 351697.86  | 0.03 |
| 74  | GUARANIACU                | 2061228.50 | 0.03 | 306484.27  | 0.03 |
| 75  | CONGONHINHAS              | 2024315.70 | 0.03 | 306667.96  | 0.03 |
| 76  | INDIANOPOLIS              | 1999900.00 | 0.03 | 306133.80  | 0.03 |
| 77  | SAD CARLOS DO IVAI        | 1989000.00 | 0.03 | 301897.83  | 0.03 |
| 78  | SANTA INES                | 1982465.50 | 0.03 | 489204.09  | 0.05 |
| 79  | REBOUCAS                  | 1819910.00 | 0.03 | 272986.50  | 0.03 |
| 80  | SENDES                    | 1754849.00 | 0.02 | 282689.79  | 0.03 |
| 81  | SIQUEIRA CAMPOS           | 1629963.40 | 0.02 | 326282.20  | 0.03 |
| 82  | BANDEIRANTES              | 1580450.00 | 0.02 | 240348.37  | 0.02 |
| 83  | CORONEL VIVIDA            | 1567300.00 | 0.02 | 235095.00  | 0.02 |
| 84  | RIO NEGRO                 | 1494830.00 | 0.02 | 225828.65  | 0.02 |
| 85  | TERRA ROXA                | 1333368.60 | 0.02 | 202297.29  | 0.02 |
| 86  | QUEDAS DO IGUAU           | 1303042.17 | 0.02 | 367760.69  | 0.03 |
| 87  | ICARAIMA                  | 1264177.41 | 0.02 | 189626.56  | 0.02 |
| 88  | PORTO AMAZONAS            | 1263400.00 | 0.02 | 171133.50  | 0.02 |
| 89  | PIEN                      | 1220293.60 | 0.02 | 183044.00  | 0.02 |
| 90  | CHOPINZINHO               | 1132912.67 | 0.02 | 226422.02  | 0.02 |
| 91  | SANTANA DO ITARARE        | 1102912.50 | 0.02 | 172456.90  | 0.02 |
| 92  | ENGENHEIRO BELTRAO        | 1077393.02 | 0.01 | 161608.96  | 0.01 |
| 93  | QUERENCIA DO NORTE        | 1027280.50 | 0.01 | 155135.32  | 0.01 |
| 94  | REALIZA                   | 995218.90  | 0.01 | 135194.63  | 0.01 |
| 95  | SAD JERONIMO DA SERRA     | 956920.00  | 0.01 | 153799.70  | 0.01 |
| 96  | CORBELIA                  | 956200.00  | 0.01 | 128580.00  | 0.01 |
| 97  | ITAMBE                    | 928000.00  | 0.01 | 133059.78  | 0.01 |
| 98  | TOLEDO                    | 876357.66  | 0.01 | 134075.67  | 0.01 |
| 99  | ANTONINA                  | 874200.00  | 0.01 | 131130.00  | 0.01 |
| 100 | CIANDORTE                 | 838700.00  | 0.01 | 125805.00  | 0.01 |
| 101 | UMUARAMA                  | 833180.23  | 0.01 | 197132.60  | 0.02 |
| 102 | NOSSA SENHORA DAS GRACAS  | 804747.00  | 0.01 | 120512.55  | 0.01 |
| 103 | SAD MIGUEL DO IGUAU       | 768920.00  | 0.01 | 115705.95  | 0.01 |

|     |                        |           |      |           |      |
|-----|------------------------|-----------|------|-----------|------|
| 104 | SANTA IZABEL DO IVAI   | 765402.80 | 0.01 | 114810.42 | 0.01 |
| 105 | ROLANDIA               | 718946.00 | 0.01 | 192184.90 | 0.02 |
| 106 | GUARATUBA              | 705602.00 | 0.01 | 105840.30 | 0.01 |
| 107 | CENTENARIO DO SUL      | 701920.00 | 0.01 | 106319.17 | 0.01 |
| 108 | ANDIRA                 | 604893.00 | 0.01 | 103925.90 | 0.01 |
| 109 | MORRETES               | 511128.00 | 0.01 | 76837.50  | 0.01 |
| 110 | ITAPEJARA DO OESTE     | 477410.00 | 0.01 | 72399.00  | 0.01 |
| 111 | NOVA PRATA DO IGUAÇU   | 448006.20 | 0.01 | 67351.33  | 0.01 |
| 112 | GUAPOREMA              | 443292.00 | 0.01 | 72129.36  | 0.01 |
| 113 | TAPIRA                 | 412257.00 | 0.01 | 64474.65  | 0.01 |
| 114 | SARANDI                | 400000.00 | 0.01 | 62293.20  | 0.01 |
| 115 | LOANDA                 | 387660.00 | 0.01 | 58221.45  | 0.01 |
| 116 | SÃO PEDRO DO IVAI      | 375570.00 | 0.01 | 56335.50  | 0.01 |
| 117 | PORTO VITÓRIA          | 359500.00 | 0.00 | 53925.00  | 0.00 |
| 118 | NOVA SANTA ROSA        | 316932.00 | 0.00 | 47540.00  | 0.00 |
| 119 | QUITANDINHA            | 314420.00 | 0.00 | 47163.00  | 0.00 |
| 120 | BARRACÃO               | 280190.00 | 0.00 | 42137.40  | 0.00 |
| 121 | CAMBARÁ                | 252946.20 | 0.00 | 37941.83  | 0.00 |
| 122 | ALTO PIQUIRI           | 240600.00 | 0.00 | 36900.00  | 0.00 |
| 123 | AMPÉRE                 | 233438.00 | 0.00 | 96120.70  | 0.01 |
| 124 | NOVA CANTU             | 184200.00 | 0.00 | 27630.00  | 0.00 |
| 125 | SANTA IZABEL DO OESTE  | 153970.00 | 0.00 | 46970.30  | 0.00 |
| 126 | VITORINO               | 149700.00 | 0.00 | 22500.00  | 0.00 |
| 127 | SÃO JORGE DO OESTE     | 127149.00 | 0.00 | 19321.02  | 0.00 |
| 128 | PITANGA                | 107600.00 | 0.00 | 16140.00  | 0.00 |
| 129 | MARMELEIRO             | 106150.00 | 0.00 | 15922.50  | 0.00 |
| 130 | ARAPOTI                | 100954.00 | 0.00 | 21011.95  | 0.00 |
| 131 | PIRAÍ DO SUL           | 96200.00  | 0.00 | 14430.00  | 0.00 |
| 132 | CARLOPOLIS             | 92747.80  | 0.00 | 12412.17  | 0.00 |
| 133 | SANTA MARIANA          | 88529.20  | 0.00 | 13315.76  | 0.00 |
| 134 | RONDON                 | 87840.00  | 0.00 | 13176.00  | 0.00 |
| 135 | JARDIM OLINDA          | 86685.00  | 0.00 | 14130.00  | 0.00 |
| 136 | TRÊS BARRAS DO PARANÁ  | 85284.33  | 0.00 | 14012.15  | 0.00 |
| 137 | PARANAVAI              | 77540.00  | 0.00 | 11631.00  | 0.00 |
| 138 | PALMEIRA               | 42720.00  | 0.00 | 6408.00   | 0.00 |
| 139 | FRANCISCO ALVES        | 40840.25  | 0.00 | 1708.56   | 0.00 |
| 140 | VERA CRUZ DO OESTE     | 27560.00  | 0.00 | 4167.00   | 0.00 |
| 141 | MALLET                 | 20660.00  | 0.00 | 3151.11   | 0.00 |
| 142 | PORTO UNIÃO            | 20000.00  | 0.00 | 3000.00   | 0.00 |
| 143 | MANDAGUARI             | 16000.00  | 0.00 | 2400.00   | 0.00 |
| 144 | SANTA CECÍLIA DO PAVÃO | 13280.00  | 0.00 | 2934.24   | 0.00 |
| 145 | MANOEL RIBAS           | 9000.00   | 0.00 | 1350.00   | 0.00 |
| 146 | PEROLA DO OESTE        | 4680.00   | 0.00 | 702.00    | 0.00 |
| 147 | PLANALTO               | 2450.00   | 0.00 | 367.00    | 0.00 |
| 148 | DOIS VIZINHOS          | 2301.00   | 0.00 | 1277.69   | 0.00 |
| 149 | RIO AZUL               | 445.76    | 0.00 | 74.17     | 0.00 |
| 150 | ANTÔNIO OLINTO         | 0.00      | 0.00 | 751328.61 | 0.07 |

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|                  |               |        |               |        |
|------------------|---------------|--------|---------------|--------|
| T O T A I S..... | 7267193200.61 | 100.00 | 1084291195.22 | 100.00 |
|------------------|---------------|--------|---------------|--------|

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Fonte: SIPROM/DNPM

PRINCIPAIS SUBSTÂNCIAS - 1988 - Valor da Produção

| ORDEN                | SUBSTÂNCIAS      | QUANTIDADES | UNID | MED | VALOR DA PRODUÇÃO |        | VALOR DO I U N |        |
|----------------------|------------------|-------------|------|-----|-------------------|--------|----------------|--------|
|                      |                  |             |      |     | Cz\$              | %      | Cz\$           | %      |
| 01                   | CALCARIO         | 3862497.51  | T    |     | 2405018522.71     | 33.09  | 379414650.62   | 34.99  |
| 02                   | CARVAO           | 251122.47   | T    |     | 1632829265.03     | 22.47  | 220319104.40   | 20.32  |
| 03                   | AREIA            | 1861679.72  | M3   |     | 477165513.00      | 6.57   | 76185406.45    | 7.03   |
| 04                   | TALCO            | 318083.48   | T    |     | 469743821.16      | 6.46   | 68563649.66    | 6.32   |
| 05                   | DOLOMITO         | 1006608.48  | T    |     | 323819691.34      | 4.46   | 51492179.54    | 4.75   |
| 06                   | FLUORITA         | 13828.85    | T    |     | 302383294.48      | 4.16   | 45358493.25    | 4.18   |
| 07                   | BASALTO          | 647171.29   | M3   |     | 267759296.73      | 3.68   | 38489154.45    | 3.55   |
| 08                   | GRANITO          | 268292.70   | T    |     | 258045069.07      | 3.55   | 39240057.59    | 3.62   |
| 09                   | ARGILA           | 754507.00   | T    |     | 202385393.11      | 2.78   | 35830862.27    | 3.30   |
| 10                   | AGUA MINERAL     | 30152172.94 | L    |     | 171950315.50      | 2.37   | 25841151.72    | 2.38   |
| 11                   | ARGILA BRANCA    | 228542.89   | T    |     | 157221293.24      | 2.16   | 23048591.10    | 2.13   |
| 12                   | CAULIM           | 29290.02    | T    |     | 138542153.41      | 1.91   | 20788501.42    | 1.92   |
| 13                   | CHUMBO           | 8100.98     | T    |     | 116827537.33      | 1.61   | 17524135.42    | 1.62   |
| 14                   | GNAISSE          | 92543.62    | M3   |     | 67003450.41       | 0.92   | 6500363.94     | 0.60   |
| 15                   | DIABASIO         | 43719.91    | M3   |     | 61293625.88       | 0.84   | 9267024.62     | 0.85   |
| 16                   | DURO             | 18435.25    | G    |     | 55340352.30       | 0.76   | 618648.73      | 0.06   |
| 17                   | MIGMATITO        | 110456.03   | M3   |     | 46829851.90       | 0.64   | 7079155.27     | 0.65   |
| 18                   | QUARTZITO        | 49644.70    | T    |     | 41579462.21       | 0.57   | 7265221.82     | 0.67   |
| 19                   | AGUA SUBTERRANEA | 55200409.39 | L    |     | 17102711.52       | 0.24   | 2744643.09     | 0.25   |
| 20                   | ARGILA REFR      | 3610.32     | T    |     | 11825251.04       | 0.16   | 1852843.22     | 0.17   |
| 21                   | PRATA            | 2901.52     | KG   |     | 10138770.11       | 0.14   | 2000815.48     | 0.18   |
| 22                   | FILITO           | 22163.37    | T    |     | 8478084.00        | 0.12   | 1232844.14     | 0.11   |
| 23                   | GABRO            | 7900.50     | M3   |     | 8373854.00        | 0.12   | 1256078.10     | 0.12   |
| 24                   | MARMORE          | 96433.68    | M3   |     | 5260672.53        | 0.07   | 812317.46      | 0.07   |
| 25                   | SERICITA         | 13660.20    | T    |     | 3647530.00        | 0.05   | 547130.00      | 0.05   |
| 26                   | FELDSPATO        | 684.00      | T    |     | 3291129.30        | 0.05   | 493669.34      | 0.05   |
| 27                   | ARENITO          | 4012.14     | T    |     | 3241467.50        | 0.04   | 510079.35      | 0.05   |
| 28                   | CASCALHO         | 330.00      | M3   |     | 66000.00          | 0.00   | 9900.00        | 0.00   |
| 29                   | SEIXO ROLADO     | 16.00       | M3   |     | 16000.00          | 0.00   | 2400.00        | 0.00   |
| 30                   | SILTITO          | 1656.00     | M2   |     | 13800.00          | 0.00   | 2119.50        | 0.00   |
| 31                   | PIRITA           | 21800.00    | T    |     | 21.80             | 0.00   | 3.27           | 0.00   |
| T O T A I S.....Cz\$ |                  |             |      |     | 7267193200.61     | 100.00 | 1084291195.22  | 100.00 |

Fonte: SIPROM/DNPH

|     |                                             |             |      |            |      |
|-----|---------------------------------------------|-------------|------|------------|------|
| 51  | ITACOLOMBO IND E COM DE MIN LTDA            | 15037430.47 | 0.21 | 2255846.36 | 0.21 |
| 52  | MERLIN, MERLIN & CIA LTDA                   | 14523320.00 | 0.20 | 2183887.00 | 0.20 |
| 53  | AREAL BOZZA LTDA.                           | 14483023.75 | 0.20 | 2172453.56 | 0.20 |
| 54  | FRANCISCO ADÃO JASKIEWICZ & CIA LTDA        | 14328971.30 | 0.20 | 143166.00  | 0.01 |
| 55  | PEDREIRA ICA LTDA                           | 14198277.40 | 0.20 | 2147724.57 | 0.20 |
| 56  | EXTR E COM DE AREIA DAS ILHAS LTDA          | 14121807.00 | 0.19 | 2112391.03 | 0.19 |
| 57  | GILBERTO SCHIAVON                           | 13796192.10 | 0.19 | 2069427.60 | 0.19 |
| 58  | PEDREIRA GUARAPUAVA LTDA                    | 13665203.82 | 0.19 | 1624061.73 | 0.15 |
| 59  | CALPLAN IND E COM DE CALCARIOS LTDA         | 12952934.17 | 0.18 | 3578302.08 | 0.33 |
| 60  | CIA DE DESENV DE MAL CANDIDO RONDON         | 12952692.68 | 0.18 | 1942903.90 | 0.18 |
| 61  | PEDREIRA ITATIBA LTDA                       | 12663930.66 | 0.17 | 1995528.70 | 0.18 |
| 62  | AGUA MINERAL TIMBU LTDA                     | 12609348.00 | 0.17 | 1853481.00 | 0.17 |
| 63  | TONIAL EXTR COM DE AREIA E TRANSP DE CARGAS | 12355125.00 | 0.17 | 1853248.75 | 0.17 |
| 64  | CONCRETRAN - TRANSP ESPECIALIZADOS LTDA     | 12218040.00 | 0.17 | 1832706.00 | 0.17 |
| 65  | ALBERTO NEGRO FILHO & CIA LTDA              | 11609409.60 | 0.16 | 1741410.54 | 0.16 |
| 66  | AREAL SAO JOAO BATISTA LTDA                 | 11477983.33 | 0.16 | 1600391.50 | 0.15 |
| 67  | MINERACAO IRAPURU LTDA                      | 11295568.59 | 0.16 | 1694335.39 | 0.16 |
| 68  | PICCINI & CIA LTDA                          | 11233044.00 | 0.15 | 1684956.61 | 0.16 |
| 69  | REFRATARIOS JANUARIO SCANDELARI S/A         | 11202737.34 | 0.15 | 1781966.16 | 0.16 |
| 70  | MINERACAO GIRALDI LTDA                      | 11142748.59 | 0.15 | 1671231.30 | 0.15 |
| 71  | LORES SCROCCARO & CIA LTDA                  | 11007587.28 | 0.15 | 1653111.04 | 0.15 |
| 72  | PEDREIRA CENTRAL LTDA                       | 10838879.86 | 0.15 | 1626731.85 | 0.15 |
| 73  | MARAGNO & NEZZI LTDA                        | 10803510.43 | 0.15 | 1620537.67 | 0.15 |
| 74  | AREAL ITABAUNA LTDA                         | 10532284.00 | 0.14 | 1585130.00 | 0.15 |
| 75  | PRODUTORA REI DO CAL LTDA                   | 10251481.47 | 0.14 | 1562494.69 | 0.14 |
| 76  | IRMAOS MOTTIN LTDA                          | 10251460.00 | 0.14 | 1162680.00 | 0.11 |
| 77  | MINERACAO ALNAM LTDA.                       | 9783060.00  | 0.13 | 97830.60   | 0.01 |
| 78  | OUROPAR DISTRIB PARAMANENSE DE METAIS LTDA  | 9751421.00  | 0.13 | 162883.13  | 0.02 |
| 79  | PEDREIRAS MORO LTDA                         | 9450755.00  | 0.13 | 1417613.37 | 0.13 |
| 80  | EMP DE AGUA MINERAL ITAIPU LTDA             | 9002984.00  | 0.12 | 1350456.00 | 0.12 |
| 81  | CALFIBRA S/A MIN IND E COM                  | 8996846.17  | 0.12 | 1373161.14 | 0.13 |
| 82  | CAVASSIM & CIA LTDA                         | 8980320.00  | 0.12 | 1347048.00 | 0.12 |
| 83  | BURATTI & CIA LTDA                          | 8979600.00  | 0.12 | 2172839.80 | 0.20 |
| 84  | S/A CERAMICA IGUAÇU                         | 8846574.55  | 0.12 | 1465721.10 | 0.14 |
| 85  | EMP DE MIN M.D. LTDA                        | 8839080.00  | 0.12 | 1325862.00 | 0.12 |
| 86  | MINERACAO TABATINGA LTDA                    | 8596097.76  | 0.12 | 4243916.53 | 0.39 |
| 87  | SAUDE S/A - SANEAMENTO URBANIZACAO E DESENV | 8373854.00  | 0.12 | 1256078.10 | 0.12 |
| 88  | CALCARIO MORRO AZUL LTDA                    | 8298390.00  | 0.11 | 1244758.50 | 0.11 |
| 89  | MICA MINERACAO CAPUAVA LTDA                 | 8056874.23  | 0.11 | 1220391.47 | 0.11 |
| 90  | MINERACAO FLORESTA LTDA                     | 7362233.53  | 0.10 | 1110709.59 | 0.10 |
| 91  | ITAJARA MINERIOS LTDA                       | 7211100.00  | 0.10 | 1081665.00 | 0.10 |
| 92  | MINAS OURO COM DE PROD AGRIC E EXTR DE ARG  | 7174800.00  | 0.10 | 1076220.00 | 0.10 |
| 93  | PLUMBUM S/A IND BRAS MINERACAO              | 7139150.81  | 0.10 | 1070872.60 | 0.10 |
| 94  | AREAL RAPOCAM LTDA                          | 6861085.00  | 0.09 | 1029162.75 | 0.09 |
| 95  | INECOL INDL ENG E CONST LTDA                | 6853606.00  | 0.09 | 1028040.90 | 0.09 |
| 96  | IRMAOS POLETTI & CIA LTDA                   | 6542496.00  | 0.09 | 60134.40   | 0.01 |
| 97  | MINERACAO PALOTINA LTDA                     | 6376777.44  | 0.09 | 887053.98  | 0.08 |
| 98  | SUPERCAL LTDA                               | 5812588.55  | 0.08 | 1116661.42 | 0.10 |
| 99  | IKPC - IND. KLABIN DE PAPEL E CELULOSE S/A  | 5590432.00  | 0.08 | 838564.80  | 0.08 |
| 100 | VALDEMAR COSTA FARIA & CIA LTDA             | 5517737.06  | 0.08 | 858925.51  | 0.08 |

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|           |               |       |              |       |
|-----------|---------------|-------|--------------|-------|
| SUB TOTAL | 6772906372.52 | 93.20 | 996305688.08 | 91.88 |
|-----------|---------------|-------|--------------|-------|

|                 |              |      |             |      |
|-----------------|--------------|------|-------------|------|
| OUTRAS EMPRESAS | 494286828.09 | 6.80 | 87985507.14 | 8.12 |
|-----------------|--------------|------|-------------|------|

|             |               |        |               |        |
|-------------|---------------|--------|---------------|--------|
| TOTAL GERAL | 7267193200.61 | 100.00 | 1084291195.22 | 100.00 |
|-------------|---------------|--------|---------------|--------|

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PRODUÇÃO MINERAL PARANAENSE - 1988 - Por Substância

|                                      |                 |           |        | VALOR DA     |          | VALOR DO    |         |
|--------------------------------------|-----------------|-----------|--------|--------------|----------|-------------|---------|
| QUANTIDADES UNID                     | MED             | Z s/QUANT | (cz\$) | PRODUÇÃO     | Z s/PROD | (cz\$)      | I U M   |
|                                      |                 |           |        |              |          |             | Z s/IUM |
| <b>SUBSTANCIA - AGUA MINERAL</b>     |                 |           |        |              |          |             |         |
| ALMIRANTE TAMANDARE                  | 2083731.00      | L         | 6.91   | 12609348.00  | 7.33     | 1853481.00  | 7.17    |
| CAMPO LARGO                          | 22300219.84     | L         | 73.96  | 128386769.50 | 74.67    | 19258016.72 | 74.52   |
| CORNELIO PROCOPIO                    | 49200.00        | L         | 0.16   | 400000.00    | 0.23     | 62172.00    | 0.24    |
| DOUTOR CAMARGO                       | 866244.00       | L         | 2.87   | 4778420.00   | 2.78     | 716763.00   | 2.77    |
| LONDRINA                             | 2867719.53      | L         | 9.51   | 16059248.00  | 9.34     | 2408888.10  | 9.32    |
| MISSAL                               | 1798910.00      | L         | 5.97   | 9002984.00   | 5.24     | 1350456.00  | 5.23    |
| ROLANDIA                             | 186148.57       | L         | 0.62   | 713546.00    | 0.41     | 191374.90   | 0.74    |
| Subtotal.....                        | 30152172.94.... | L.....    | 100.00 | 171950315.50 | 100.00   | 25841151.72 | 100.00  |
| <b>SUBSTANCIA - AGUA SUBTERRANEA</b> |                 |           |        |              |          |             |         |
| ALMIRANTE TAMANDARE                  | 3613935.00      | L         | 6.55   | 15825884.00  | 92.53    | 2554469.16  | 93.07   |
| CURITIBA                             | 7682365.00      | L         | 13.92  | 35764.61     | 0.21     | 5364.77     | 0.20    |
| PONTA GROSSA                         | 43904189.39     | L         | 79.54  | 1241062.91   | 7.26     | 184809.16   | 6.73    |
| Subtotal.....                        | 55200489.39.... | L.....    | 100.00 | 17102711.52  | 100.00   | 2744643.09  | 100.00  |
| <b>SUBSTANCIA - AREIA</b>            |                 |           |        |              |          |             |         |
| ALTONIA                              | 471321.85       | M3        | 25.32  | 40985696.78  | 8.59     | 7802147.21  | 10.24   |
| ANDIRA                               | 2370.80         | M3        | 0.13   | 431933.00    | 0.09     | 64789.95    | 0.09    |
| ANTONINA                             | 1399.50         | M3        | 0.08   | 874200.00    | 0.18     | 131130.00   | 0.17    |
| ARAUCARIA                            | 34471.80        | M3        | 1.85   | 23353099.10  | 4.89     | 3512458.94  | 4.61    |
| CAMBARA                              | 2728.55         | M3        | 0.15   | 252946.20    | 0.05     | 37941.83    | 0.05    |
| CURITIBA                             | 95240.26        | M3        | 5.12   | 65366828.01  | 13.70    | 9968272.72  | 13.08   |
| DOIS VIZINHOS                        | 11.50           | M3        | 0.00   | 2301.00      | 0.00     | 1277.69     | 0.00    |
| FOZ DO IGUAÇU                        | 13178.63        | M3        | 0.71   | 5782493.65   | 1.21     | 2351331.19  | 3.09    |
| FRANCISCO BELTRAO                    | 10243.13        | M3        | 0.55   | 1925143.20   | 0.40     | 944563.51   | 1.24    |
| GUAIRA                               | 131017.33       | M3        | 7.04   | 14571575.01  | 3.05     | 2190474.80  | 2.88    |
| GUARAPUAVA                           | 581.50          | M3        | 0.03   | 1401600.00   | 0.29     | 211078.26   | 0.28    |
| ICARAIMA                             | 19499.90        | M3        | 1.05   | 1264177.41   | 0.26     | 189626.56   | 0.25    |
| IRATI                                | 80.00           | M3        | 0.00   | 76700.00     | 0.02     | 11505.00    | 0.02    |
| IVAIPORA                             | 6213.00         | M3        | 0.33   | 4196950.00   | 0.88     | 636064.00   | 0.83    |
| JACAREZINHO                          | 6689.00         | M3        | 0.36   | 3326600.00   | 0.70     | 498990.50   | 0.65    |
| JARDIM OLINDA                        | 379.42          | M3        | 0.02   | 63685.00     | 0.01     | 10680.00    | 0.01    |
| LAPA                                 | 32878.46        | M3        | 1.77   | 28314479.00  | 5.93     | 4254802.55  | 5.58    |
| LONDRINA                             | 35180.24        | M3        | 1.89   | 6954447.80   | 1.46     | 1071651.55  | 1.41    |
| MANDAGUARI                           | 80.00           | M3        | 0.00   | 16000.00     | 0.00     | 2400.00     | 0.00    |
| MANDIRITUBA                          | 86554.86        | M3        | 4.65   | 82603578.75  | 17.31    | 12182757.50 | 15.99   |
| MANOEL RIBAS                         | 20.00           | M3        | 0.00   | 9000.00      | 0.00     | 1350.00     | 0.00    |
| MARILENA                             | 173878.36       | M3        | 9.34   | 20626411.50  | 4.32     | 3597213.73  | 4.72    |
| MARINGA                              | 5640.00         | M3        | 0.30   | 503100.00    | 0.11     | 94770.00    | 0.12    |
| MEDIANEIRA                           | 50.00           | M3        | 0.00   | 8000.00      | 0.00     | 1332.00     | 0.00    |
| MORRETES                             | 3686.73         | M3        | 0.20   | 511128.00    | 0.11     | 76837.50    | 0.10    |
| NOSSA SENHORA DAS GRACAS             | 6167.65         | M3        | 0.33   | 804747.00    | 0.17     | 120512.55   | 0.16    |
| NOVA PRATA DO IGUAÇU                 | 716.36          | M3        | 0.04   | 448006.20    | 0.09     | 67351.33    | 0.09    |
| ORTIGUEIRA                           | 1529.00         | M3        | 0.08   | 5200.00      | 0.00     | 780.00      | 0.00    |
| PARANAGUA                            | 19921.24        | M3        | 1.07   | 2535742.10   | 0.53     | 382674.04   | 0.50    |
| PARANAVAI                            | 3232.00         | M3        | 0.17   | 68440.00     | 0.01     | 10266.00    | 0.01    |
| PATO BRANCO                          | 2887.00         | M3        | 0.16   | 1245318.70   | 0.26     | 186798.00   | 0.25    |
| PIEN                                 | 1842.00         | M3        | 0.10   | 895080.00    | 0.19     | 134262.00   | 0.18    |



|                           |               |        |        |              |        |             |        |
|---------------------------|---------------|--------|--------|--------------|--------|-------------|--------|
| PONTA GROSSA              | 12868.15      | M3     | 0.69   | 3959160.00   | 0.83   | 611348.04   | 0.80   |
| PORTO AMAZONAS            | 3854.62       | M3     | 0.21   | 1263400.00   | 0.26   | 171133.50   | 0.22   |
| PORTO RICO                | 143265.63     | M3     | 7.70   | 10752268.56  | 2.25   | 1656779.50  | 2.17   |
| QUERENCIA DO NORTE        | 14621.00      | M3     | 0.79   | 1027280.50   | 0.22   | 155135.32   | 0.20   |
| REALIZA                   | 85.00         | M3     | 0.00   | 59850.00     | 0.01   | 10534.33    | 0.01   |
| RIBEIRAO CLARO            | 5385.00       | M3     | 0.29   | 2548850.00   | 0.53   | 382328.00   | 0.50   |
| RIO NEGRO                 | 523.00        | M3     | 0.03   | 7430.00      | 0.00   | 1841.15     | 0.00   |
| SANTA TEREZINHA DO ITAIPU | 16840.00      | M3     | 0.90   | 3745554.00   | 0.78   | 561833.11   | 0.74   |
| SANTANA DO ITARARE        | 7067.50       | M3     | 0.38   | 1102912.50   | 0.23   | 172456.90   | 0.23   |
| SANTO ANTONIO DA PLATINA  | 3465.15       | M3     | 0.19   | 725403.00    | 0.15   | 76470.50    | 0.10   |
| SAO JERONIMO DA SERRA     | 132.39        | M3     | 0.01   | 156100.00    | 0.03   | 35879.24    | 0.05   |
| SAO JOSE DOS PINHAIS      | 188932.01     | M3     | 10.15  | 57972060.33  | 12.15  | 8724054.03  | 11.45  |
| SAO MATEUS DO SUL         | 13046.88      | M3     | 0.70   | 4148521.00   | 0.87   | 793687.17   | 1.04   |
| SAO PEDRO DO IVAI         | 482.00        | M3     | 0.03   | 108370.00    | 0.02   | 16255.50    | 0.02   |
| SAO PEDRO DO PARANA       | 166897.81     | M3     | 8.96   | 18445749.73  | 3.87   | 2790472.93  | 3.66   |
| SENGES                    | 20.00         | M3     | 0.00   | 6000.00      | 0.00   | 900.00      | 0.00   |
| TELEMACHO BORBA           | 4988.86       | M3     | 0.27   | 2511049.87   | 0.53   | 375037.58   | 0.49   |
| TERRA ROXA                | 16008.30      | M3     | 0.86   | 615988.60    | 0.13   | 92398.29    | 0.12   |
| UMUARAMA                  | 4112.00       | M3     | 0.22   | 805035.00    | 0.17   | 142731.92   | 0.19   |
| UNIAO DA VITORIA          | 89394.38      | M3     | 4.80   | 57779922.50  | 12.11  | 8666038.53  | 11.37  |
| Subtotal.....             | 1861679.72... | M3.... | 100.00 | 477165513.00 | 100.00 | 76185406.45 | 100.00 |

#### SUBSTANCIA - ARENITO

|               |            |        |        |            |        |           |        |
|---------------|------------|--------|--------|------------|--------|-----------|--------|
| JACAREZINHO   | 61.00      | T      | 1.52   | 211200.00  | 6.52   | 31680.00  | 6.21   |
| JARDIM OLINDA | 59.20      | T      | 1.48   | 6100.00    | 0.19   | 915.00    | 0.18   |
| LAPA          | 2792.94    | T      | 69.61  | 2779067.50 | 85.73  | 440719.35 | 86.40  |
| PARANAVAI     | 195.00     | T      | 4.86   | 9100.00    | 0.28   | 1365.00   | 0.27   |
| PONTA GROSSA  | 904.00     | T      | 22.53  | 236000.00  | 7.28   | 35400.00  | 6.94   |
| Subtotal..... | 4012.14... | T..... | 100.00 | 3241467.50 | 100.00 | 510079.35 | 100.00 |

#### SUBSTANCIA - ARGILA

|                     |          |   |      |            |      |           |      |
|---------------------|----------|---|------|------------|------|-----------|------|
| ALHIRANTE TAMANDARE | 1005.50  | T | 0.13 | 665.00     | 0.00 | 99.75     | 0.00 |
| ALTO PARANA         | 146.66   | T | 0.02 | 110000.00  | 0.05 | 16500.00  | 0.05 |
| ALTONIA             | 700.00   | T | 0.09 | 280000.00  | 0.14 | 42000.00  | 0.12 |
| AMPERE              | 1320.38  | T | 0.17 | 233438.00  | 0.12 | 96120.70  | 0.27 |
| ANDIRA              | 761.00   | T | 0.10 | 172960.00  | 0.09 | 39135.95  | 0.11 |
| ANTONIO OLINTO      | 0.00     | T | 0.00 | 0.00       | 0.00 | 751328.61 | 2.10 |
| ARAPOTI             | 2670.63  | T | 0.35 | 100954.00  | 0.05 | 21011.95  | 0.06 |
| ARAUCARIA           | 12403.00 | T | 1.64 | 5569250.00 | 2.75 | 805415.67 | 2.25 |
| BALSA NOVA          | 19107.08 | T | 2.53 | 9900738.80 | 4.89 | 564082.02 | 1.57 |
| BANDEIRANTES        | 4490.00  | T | 0.60 | 1176000.00 | 0.58 | 176400.00 | 0.49 |
| BARRACAO            | 1114.94  | T | 0.15 | 280190.00  | 0.14 | 42137.40  | 0.12 |
| BOCAIUVA DO SUL     | 72.00    | T | 0.01 | 11520.00   | 0.01 | 1728.00   | 0.00 |
| CAMPO LARGO         | 12313.94 | T | 1.63 | 3056028.00 | 1.51 | 494423.30 | 1.38 |
| CAMPO MOURAO        | 713.17   | T | 0.09 | 178025.00  | 0.09 | 26703.75  | 0.07 |
| CARLOPOLIS          | 480.03   | T | 0.06 | 92747.80   | 0.05 | 12412.17  | 0.03 |
| CASTRO              | 145.00   | T | 0.02 | 51432.00   | 0.03 | 3748.05   | 0.01 |
| CHOPINZINHO         | 1330.00  | T | 0.18 | 324000.00  | 0.16 | 91965.00  | 0.26 |
| COLONBO             | 1756.52  | T | 0.23 | 528727.00  | 0.26 | 79373.41  | 0.22 |
| CONGONHINHAS        | 9951.01  | T | 1.32 | 2024315.70 | 1.00 | 306667.96 | 0.86 |
| CORBELIA            | 3166.00  | T | 0.42 | 956200.00  | 0.47 | 128580.00 | 0.36 |
| CORONEL VIVIDA      | 5145.00  | T | 0.68 | 1567300.00 | 0.77 | 235095.00 | 0.66 |
| CURITIBA            | 19082.05 | T | 2.53 | 5406774.63 | 2.67 | 907960.29 | 2.53 |
| CURIUVA             | 13094.00 | T | 1.74 | 2352640.00 | 1.16 | 404692.60 | 1.13 |
| DOUTOR CAMARGO      | 23145.26 | T | 3.07 | 5516901.60 | 2.73 | 841555.84 | 2.35 |
| ENGENHEIRO BELTRAO  | 2721.64  | T | 0.36 | 1077393.02 | 0.53 | 161608.96 | 0.45 |
| FLORESTA            | 18801.70 | T | 2.49 | 4068230.00 | 2.01 | 614070.90 | 1.71 |
| FOZ DO IGUAU        | 16293.50 | T | 2.16 | 3842829.17 | 1.90 | 686769.86 | 1.92 |
| FRANCISCO ALVES     | 172.50   | T | 0.02 | 40840.25   | 0.02 | 1708.56   | 0.00 |
| FRANCISCO BELTRAO   | 1370.70  | T | 0.18 | 165954.00  | 0.08 | 24892.50  | 0.07 |

|                           |          |   |      |             |       |            |       |
|---------------------------|----------|---|------|-------------|-------|------------|-------|
| GRANDES RIOS              | 9312.04  | T | 1.23 | 2282881.33  | 1.13  | 339643.47  | 0.95  |
| GUAIRA                    | 5312.00  | T | 0.70 | 1241260.00  | 0.61  | 186189.00  | 0.52  |
| GUAPOREMA                 | 1782.80  | T | 0.24 | 443292.00   | 0.22  | 72129.36   | 0.20  |
| GUARANIACU                | 1411.40  | T | 0.19 | 324950.00   | 0.16  | 48742.50   | 0.14  |
| GUARAPUAVA                | 709.53   | T | 0.09 | 171808.44   | 0.08  | 29764.69   | 0.08  |
| IBIPORA                   | 17170.36 | T | 2.28 | 5127559.60  | 2.53  | 745013.31  | 2.08  |
| IMBITUVA                  | 20039.07 | T | 2.66 | 4703027.40  | 2.32  | 706867.90  | 1.97  |
| INDIANOPOLIS              | 6758.00  | T | 0.90 | 1999900.00  | 0.99  | 306133.80  | 0.85  |
| IRATI                     | 12422.98 | T | 1.65 | 3087851.10  | 1.53  | 460409.15  | 1.28  |
| ITAMBE                    | 4403.00  | T | 0.58 | 928000.00   | 0.46  | 133059.78  | 0.37  |
| ITAJAJARA DO OESTE        | 2031.87  | T | 0.27 | 477410.00   | 0.24  | 72399.00   | 0.20  |
| IVAIPORA                  | 1254.00  | T | 0.17 | 373340.00   | 0.18  | 48615.00   | 0.14  |
| IVATUBA                   | 13737.00 | T | 1.82 | 3855720.00  | 1.91  | 592835.77  | 1.65  |
| JACAREZINHO               | 71064.97 | T | 9.42 | 26531600.00 | 13.11 | 4807139.80 | 13.42 |
| JAPURA                    | 58737.61 | T | 7.78 | 16969825.10 | 8.38  | 2622045.47 | 7.32  |
| JARDIM OLINDA             | 139.00   | T | 0.02 | 16900.00    | 0.01  | 2535.00    | 0.01  |
| JATAIZINHO                | 21274.18 | T | 2.82 | 6261940.00  | 3.09  | 1007710.86 | 2.81  |
| JUSSARA                   | 16293.80 | T | 2.16 | 4720460.00  | 2.33  | 708077.00  | 1.98  |
| LAPA                      | 3333.80  | T | 0.44 | 699168.80   | 0.35  | 119515.32  | 0.33  |
| LOANDA                    | 2324.57  | T | 0.31 | 387660.00   | 0.19  | 58221.45   | 0.16  |
| LONDRINA                  | 24544.64 | T | 3.25 | 6824532.52  | 3.37  | 1147543.98 | 3.20  |
| MALLET                    | 114.00   | T | 0.02 | 20660.00    | 0.01  | 3151.11    | 0.01  |
| MANDIRITUBA               | 756.00   | T | 0.10 | 248542.00   | 0.12  | 38967.66   | 0.11  |
| MARECHAL CANDIDO RONDON   | 15028.22 | T | 1.99 | 1879326.38  | 0.93  | 287513.92  | 0.80  |
| MARILANDIA DO SUL         | 16239.88 | T | 2.15 | 4387800.00  | 2.17  | 658170.00  | 1.84  |
| MEDIANEIRA                | 11824.52 | T | 1.57 | 2959535.46  | 1.46  | 474022.00  | 1.32  |
| MISSAL                    | 809.64   | T | 0.11 | 228862.20   | 0.11  | 34720.21   | 0.10  |
| NOVA CANTU                | 460.50   | T | 0.06 | 184200.00   | 0.09  | 27630.00   | 0.08  |
| NOVA SANTA ROSA           | 1120.03  | T | 0.15 | 316932.00   | 0.16  | 47540.00   | 0.13  |
| ORTIGUEIRA                | 24305.36 | T | 3.22 | 6859951.78  | 3.39  | 1028915.17 | 2.87  |
| DURIZONA                  | 7476.00  | T | 0.99 | 2199360.00  | 1.09  | 351697.86  | 0.98  |
| PALMEIRA                  | 427.00   | T | 0.06 | 42720.00    | 0.02  | 6408.00    | 0.02  |
| PALOTINA                  | 1398.67  | T | 0.19 | 325570.40   | 0.16  | 49676.36   | 0.14  |
| PARAISO DO NORTE          | 21239.08 | T | 2.81 | 8928685.58  | 4.41  | 1499874.84 | 4.19  |
| PATO BRANCO               | 5631.42  | T | 0.75 | 1526584.00  | 0.75  | 264191.79  | 0.74  |
| PEROLA DO OESTE           | 80.00    | T | 0.01 | 4680.00     | 0.00  | 702.00     | 0.00  |
| PLANALTO                  | 70.00    | T | 0.01 | 2450.00     | 0.00  | 367.00     | 0.00  |
| PONTA GROSSA              | 10996.66 | T | 1.46 | 3120939.59  | 1.54  | 507741.34  | 1.42  |
| PORTO UNIAO               | 200.00   | T | 0.03 | 20000.00    | 0.01  | 3000.00    | 0.01  |
| PORTO VITORIA             | 1445.00  | T | 0.19 | 359500.00   | 0.18  | 53925.00   | 0.15  |
| PRANCHITA                 | 14138.00 | T | 1.87 | 3908102.00  | 1.93  | 735917.63  | 2.05  |
| PRUDENTOPOLIS             | 11048.19 | T | 1.46 | 3348928.55  | 1.65  | 649053.25  | 1.81  |
| QUATRO BARRAS             | 6234.00  | T | 0.83 | 1779200.00  | 0.88  | 266939.40  | 0.74  |
| QUEDAS DO IGUAÇU          | 2190.20  | T | 0.29 | 403442.17   | 0.20  | 69039.93   | 0.19  |
| REALEZA                   | 5048.89  | T | 0.67 | 935368.90   | 0.46  | 124660.30  | 0.35  |
| REBOUCAS                  | 4672.50  | T | 0.62 | 1819910.00  | 0.90  | 272986.50  | 0.76  |
| RIO AZUL                  | 203.46   | T | 0.03 | 445.76      | 0.00  | 74.17      | 0.00  |
| RIO BRANCO DO SUL         | 56134.00 | T | 7.44 | 2678869.97  | 1.32  | 401829.91  | 1.12  |
| RIO NEGRO                 | 6416.25  | T | 0.85 | 1487400.00  | 0.73  | 223987.50  | 0.63  |
| ROLANDIA                  | 36.00    | T | 0.00 | 5400.00     | 0.00  | 810.00     | 0.00  |
| RONDON                    | 162.00   | T | 0.02 | 87840.00    | 0.04  | 13176.00   | 0.04  |
| SANTA INES                | 2520.00  | T | 0.33 | 594400.00   | 0.29  | 90360.00   | 0.25  |
| SANTA IZABEL DO IVAI      | 3314.95  | T | 0.44 | 765402.80   | 0.38  | 114810.42  | 0.32  |
| SANTA IZABEL DO OESTE     | 825.00   | T | 0.11 | 153970.00   | 0.08  | 46970.30   | 0.13  |
| SANTA MARIANA             | 447.84   | T | 0.06 | 88529.20    | 0.04  | 13315.76   | 0.04  |
| SANTA TEREZINHA DO ITAIPU | 77.50    | T | 0.01 | 20600.00    | 0.01  | 3090.00    | 0.01  |
| SANTO ANTONIO DA PLATINA  | 300.00   | T | 0.04 | 120000.00   | 0.06  | 18000.00   | 0.05  |
| SÃO CARLOS DO IVAI        | 7590.80  | T | 1.01 | 1909000.00  | 0.90  | 301097.83  | 0.84  |
| SÃO JERONIMO DA SERRA     | 1561.27  | T | 0.21 | 800820.00   | 0.40  | 117920.46  | 0.33  |

|                       |           |        |        |              |        |             |        |
|-----------------------|-----------|--------|--------|--------------|--------|-------------|--------|
| SÃO JORGE DO OESTE    | 1206.00   | T      | 0.16   | 127149.00    | 0.06   | 19321.02    | 0.05   |
| SÃO JOSÉ DOS PINHAIS  | 3726.96   | T      | 0.49   | 2136695.40   | 1.06   | 418661.63   | 1.17   |
| SÃO MATEUS DO SUL     | 2555.04   | T      | 0.34   | 869760.00    | 0.43   | 132191.57   | 0.37   |
| SÃO MIGUEL DO IGUAÇU  | 2022.59   | T      | 0.27   | 538520.00    | 0.27   | 81145.95    | 0.23   |
| SÃO PEDRO DO IVAÍ     | 1172.40   | T      | 0.16   | 267200.00    | 0.13   | 40080.00    | 0.11   |
| SAPOPEMA              | 4243.15   | T      | 0.56   | 594041.00    | 0.29   | 89106.16    | 0.25   |
| SARANDI               | 3850.00   | T      | 0.51   | 400000.00    | 0.20   | 62293.20    | 0.17   |
| SIQUEIRA CAMPOS       | 6884.00   | T      | 0.91   | 1256620.00   | 0.62   | 203779.30   | 0.57   |
| TAPIRÁ                | 1985.13   | T      | 0.26   | 412257.00    | 0.20   | 64474.65    | 0.18   |
| TERRA ROXA            | 2394.77   | T      | 0.32   | 717380.00    | 0.35   | 109899.00   | 0.31   |
| TIJUCAS DO SUL        | 0.00      | T      | 0.00   | 341759.72    | 0.17   | 3469082.24  | 9.68   |
| TOLEDO                | 4060.38   | T      | 0.54   | 876357.66    | 0.43   | 134075.67   | 0.37   |
| TRÊS BARRAS DO PARANÁ | 794.65    | T      | 0.11   | 85284.33     | 0.04   | 14012.15    | 0.04   |
| UNIÃO DA VITÓRIA      | 8603.00   | T      | 1.14   | 2466040.00   | 1.22   | 370239.30   | 1.03   |
| VERA CRUZ DO OESTE    | 447.30    | T      | 0.06   | 27560.00     | 0.01   | 4167.00     | 0.01   |
| VITORINO              | 489.00    | T      | 0.06   | 149700.00    | 0.07   | 22500.00    | 0.06   |
| Subtotal.....         | 754507.00 | T..... | 100.00 | 202385393.11 | 100.00 | 35830862.27 | 100.00 |

#### SUBSTANCIA - ARGILA BRANCA

|                      |           |        |        |              |        |             |        |
|----------------------|-----------|--------|--------|--------------|--------|-------------|--------|
| ARAUCÁRIA            | 5775.00   | T      | 2.53   | 7305048.00   | 4.65   | 1095757.20  | 4.75   |
| BALSA NOVA           | 132077.08 | T      | 57.79  | 67733230.32  | 43.08  | 8617337.38  | 37.39  |
| CAMPOLARGO           | 728.83    | T      | 0.32   | 373400.00    | 0.24   | 56010.00    | 0.24   |
| CASTRO               | 14073.00  | T      | 6.16   | 60201826.15  | 38.29  | 6988851.52  | 30.32  |
| CONTENDA             | 3294.88   | T      | 1.44   | 3260055.80   | 2.07   | 443966.45   | 1.93   |
| CURITIBA             | 1873.58   | T      | 0.82   | 537913.33    | 0.34   | 1530009.22  | 6.64   |
| PIEN                 | 566.40    | T      | 0.25   | 323540.00    | 0.21   | 48531.00    | 0.21   |
| QUATRO BARRAS        | 672.12    | T      | 0.29   | 153112.80    | 0.10   | 23052.92    | 0.10   |
| RIO BRANCO DO SUL    | 59988.00  | T      | 26.25  | 1217810.26   | 0.77   | 182671.18   | 0.79   |
| SÃO JOSÉ DOS PINHAIS | 4239.00   | T      | 1.85   | 7709190.55   | 4.90   | 1295113.20  | 5.62   |
| TIJUCAS DO SUL       | 5255.00   | T      | 2.30   | 8406166.03   | 5.35   | 2767291.03  | 12.01  |
| Subtotal.....        | 228542.89 | T..... | 100.00 | 157221293.24 | 100.00 | 23048591.10 | 100.00 |

#### SUBSTANCIA - ARGILA REFR

|               |         |        |        |             |        |            |        |
|---------------|---------|--------|--------|-------------|--------|------------|--------|
| CONTENDA      | 166.00  | T      | 4.60   | 338220.00   | 2.86   | 50733.00   | 2.74   |
| LAPA          | 2254.00 | T      | 62.43  | 9748041.04  | 82.43  | 1541261.72 | 83.18  |
| ORTIGUEIRA    | 71.00   | T      | 1.97   | 6390.00     | 0.05   | 958.50     | 0.05   |
| PONTA GROSSA  | 1119.32 | T      | 31.00  | 1732600.00  | 14.65  | 259890.00  | 14.03  |
| Subtotal..... | 3610.32 | T..... | 100.00 | 11825251.04 | 100.00 | 1852843.22 | 100.00 |

#### SUBSTANCIA - BASALTO

|                   |           |    |       |             |       |            |       |
|-------------------|-----------|----|-------|-------------|-------|------------|-------|
| ALTO PARANÁ       | 12671.20  | M3 | 1.96  | 3277770.45  | 1.22  | 491065.54  | 1.28  |
| ALTO PIQUIRI      | 1580.00   | M3 | 0.24  | 240600.00   | 0.09  | 36900.00   | 0.10  |
| APUCARANA         | 14448.94  | M3 | 2.23  | 8752633.32  | 3.27  | 1314894.50 | 3.42  |
| ARAPONGAS         | 16745.81  | M3 | 2.59  | 15636519.43 | 5.84  | 2390478.02 | 6.21  |
| BANDEIRANTES      | 217.50    | M3 | 0.03  | 158250.00   | 0.06  | 27018.37   | 0.07  |
| CAMPINA DA LAGOA  | 1753.78   | M3 | 0.27  | 2304889.00  | 0.86  | 318643.77  | 0.83  |
| CAMPOMOURA        | 22893.90  | M3 | 3.54  | 38076107.40 | 14.22 | 3621416.11 | 9.41  |
| CASCAVEL          | 51213.53  | M3 | 7.91  | 28533462.50 | 10.66 | 4256413.46 | 11.06 |
| CENTENÁRIO DO SUL | 583.80    | M3 | 0.09  | 701920.00   | 0.26  | 106319.17  | 0.28  |
| CHOPINZINHO       | 599.30    | M3 | 0.09  | 808912.67   | 0.30  | 134457.02  | 0.35  |
| CIANORTE          | 507.00    | M3 | 0.08  | 838700.00   | 0.31  | 125805.00  | 0.33  |
| CORNÉLIO PROCOPIO | 2414.00   | M3 | 0.37  | 4621350.00  | 1.73  | 693202.50  | 1.80  |
| FOZ DO IGUAÇU     | 20549.51  | M3 | 3.18  | 18280599.66 | 6.83  | 2789678.90 | 7.25  |
| FRANCISCO BELTRÃO | 3205.59   | M3 | 0.50  | 2114653.53  | 0.79  | 317252.16  | 0.82  |
| GUAIRÁ            | 59860.36  | M3 | 9.25  | 27177840.00 | 10.15 | 4076676.00 | 10.59 |
| GUARANIACU        | 1883.08   | M3 | 0.29  | 1736278.50  | 0.65  | 257741.77  | 0.67  |
| GUARAPUAVA        | 23955.39  | M3 | 3.70  | 14878734.62 | 5.56  | 1938959.45 | 5.04  |
| IBIPORÁ           | 165278.11 | M3 | 25.54 | 23037357.40 | 8.60  | 3473586.57 | 9.02  |
| IVAIPORÁ          | 9461.00   | M3 | 1.46  | 4405964.00  | 1.65  | 666544.85  | 1.73  |



|                          |              |        |        |              |        |             |        |
|--------------------------|--------------|--------|--------|--------------|--------|-------------|--------|
| LONDRIINA                | 42421.89     | M3     | 6.55   | 5574024.33   | 2.08   | 774778.45   | 2.01   |
| MARECHAL CANDIDO RONDON  | 11792.60     | M3     | 1.82   | 13524804.68  | 5.05   | 2028720.70  | 5.27   |
| MARINGA                  | 117628.37    | M3     | 18.18  | 4938642.95   | 1.84   | 787582.25   | 2.05   |
| MARMELEIRO               | 184.00       | M3     | 0.03   | 106150.00    | 0.04   | 15922.50    | 0.04   |
| MATELANDIA               | 10446.04     | M3     | 1.61   | 12663930.66  | 4.73   | 1995528.70  | 5.18   |
| PALOTINA                 | 14593.28     | M3     | 2.25   | 6568737.44   | 2.45   | 915847.98   | 2.38   |
| PATO BRANCO              | 16516.00     | M3     | 2.55   | 5044698.49   | 1.00   | 1364250.35  | 3.54   |
| PEABIRU                  | 2969.00      | M3     | 0.46   | 4192080.00   | 1.57   | 629843.17   | 1.64   |
| PITANGA                  | 257.00       | M3     | 0.04   | 107600.00    | 0.04   | 16140.00    | 0.04   |
| QUEDAS DO IGUAU          | 802.29       | M3     | 0.12   | 899600.00    | 0.34   | 298720.76   | 0.78   |
| SANTA CECILIA DO PAVAO   | 0.00         | M3     | 0.00   | 13280.00     | 0.00   | 2934.24     | 0.01   |
| SANTA INES               | 5320.31      | M3     | 0.82   | 1388065.50   | 0.52   | 398844.09   | 1.04   |
| SANTO ANTONIO DA PLATINA | 6683.68      | M3     | 1.03   | 3652376.97   | 1.36   | 146795.53   | 0.38   |
| SAO MIGUEL DO IGUAU      | 576.00       | T      | 0.09   | 230400.00    | 0.09   | 34560.00    | 0.09   |
| SAO PEDRO DO PARANA      | 246.00       | M3     | 0.04   | 49200.00     | 0.02   | 7380.00     | 0.02   |
| SIQUEIRA CAMPOS          | 443.64       | M3     | 0.07   | 26618.40     | 0.01   | 4591.95     | 0.01   |
| TELEMACHO BORBA          | 6456.90      | M3     | 1.00   | 13184399.60  | 4.92   | 1977659.94  | 5.14   |
| UMUARAMA                 | 12.50        | M3     | 0.00   | 12145.23     | 0.00   | 52000.68    | 0.14   |
| Subtotal.....            | 647171.29... | M3.... | 100.00 | 267759296.73 | 100.00 | 38489154.45 | 100.00 |

#### SUBSTANCIA - CALCARIO

|                     |               |        |        |               |        |              |        |
|---------------------|---------------|--------|--------|---------------|--------|--------------|--------|
| ADRIANOPOLIS        | 532.13        | T      | 0.01   | 116893.33     | 0.00   | 17534.00     | 0.00   |
| ALMIRANTE TAMANDARE | 287272.73     | T      | 7.44   | 10972933.59   | 0.46   | 3287691.34   | 0.87   |
| BOCAIUVA DO SUL     | 22707.96      | T      | 0.59   | 9450231.77    | 0.24   | 1441168.98   | 0.38   |
| CAMPO LARGO         | 439460.78     | T      | 11.38  | 388585632.52  | 16.18  | 55379733.76  | 14.60  |
| CASTRO              | 2205.03       | T      | 0.06   | 1608072.20    | 0.07   | 241210.80    | 0.06   |
| IMBITUVA            | 792.30        | T      | 0.02   | 4256359.64    | 0.18   | 638452.00    | 0.17   |
| IRATI               | 12.00         | T      | 0.00   | 24000.00      | 0.00   | 3600.00      | 0.00   |
| RIO BRANCO DO SUL   | 3109052.59    | T      | 80.49  | 1989871859.66 | 82.86  | 318385356.30 | 83.91  |
| SENSES              | 462.00        | T      | 0.01   | 132540.00     | 0.01   | 19903.44     | 0.01   |
| Subtotal.....       | 3862497.51... | T..... | 100.00 | 2405018522.71 | 100.00 | 379414650.62 | 100.00 |

#### SUBSTANCIA - CARVAO

|                 |              |        |        |               |        |              |        |
|-----------------|--------------|--------|--------|---------------|--------|--------------|--------|
| FIGUEIRA        | 168604.21    | T      | 67.14  | 1303139267.61 | 79.81  | 169834771.83 | 77.09  |
| IMBITUVA        | 3380.02      | T      | 1.35   | 3554914.40    | 0.22   | 1564070.00   | 0.71   |
| SAPOPEMA        | 60234.45     | T      | 23.99  | 218548923.90  | 13.38  | 32782338.65  | 14.88  |
| TELEMACHO BORBA | 18903.78     | T      | 7.53   | 107586159.12  | 6.59   | 16137923.92  | 7.32   |
| Subtotal.....   | 251122.47... | T..... | 100.00 | 1632829265.03 | 100.00 | 220319104.40 | 100.00 |

#### SUBSTANCIA - CASCALHO

|               |           |        |        |          |        |         |        |
|---------------|-----------|--------|--------|----------|--------|---------|--------|
| PONTA GROSSA  | 330.00    | M3     | 100.00 | 66000.00 | 100.00 | 9900.00 | 100.00 |
| Subtotal..... | 330.00... | M3.... | 100.00 | 66000.00 | 100.00 | 9900.00 | 100.00 |

#### SUBSTANCIA - CAULIM

|                      |             |        |        |              |        |             |        |
|----------------------|-------------|--------|--------|--------------|--------|-------------|--------|
| ARAUCARIA            | 4647.35     | T      | 15.87  | 22918366.15  | 16.54  | 3437754.94  | 16.54  |
| BALSA NOVA           | 9395.81     | T      | 32.08  | 92291.90     | 0.07   | 20945.86    | 0.10   |
| CAMPO LARGO          | 10523.48    | T      | 35.93  | 108813012.66 | 78.54  | 16322027.74 | 78.51  |
| CASTRO               | 787.11      | T      | 2.69   | 232808.90    | 0.17   | 34921.79    | 0.17   |
| CURITIBA             | 191.00      | T      | 0.65   | 5127709.80   | 3.70   | 769156.47   | 3.70   |
| SAO JOSE DOS PINHAIS | 81.27       | T      | 0.28   | 229560.00    | 0.17   | 34434.02    | 0.17   |
| SENSES               | 3664.00     | T      | 12.51  | 1128404.00   | 0.81   | 169260.60   | 0.81   |
| Subtotal.....        | 29290.02... | T..... | 100.00 | 138542153.41 | 100.00 | 20788501.42 | 100.00 |

#### SUBSTANCIA - CHUMBO

|               |            |        |        |              |        |             |        |
|---------------|------------|--------|--------|--------------|--------|-------------|--------|
| ADRIANOPOLIS  | 4214.77    | T      | 52.03  | 88936295.84  | 76.13  | 13340449.18 | 76.13  |
| CERRO AZUL    | 3886.21    | T      | 47.97  | 27891241.49  | 23.87  | 4183686.24  | 23.87  |
| Subtotal..... | 8100.98... | T..... | 100.00 | 116827537.33 | 100.00 | 17524135.42 | 100.00 |

## SUBSTANCIA - DIABASIO

|                          |             |        |        |             |        |            |        |
|--------------------------|-------------|--------|--------|-------------|--------|------------|--------|
| BANDEIRANTES             | 374.00      | M3     | 0.86   | 246200.00   | 0.40   | 36930.00   | 0.40   |
| IMBITUVA                 | 138.79      | M3     | 0.32   | 232450.00   | 0.38   | 34867.50   | 0.38   |
| IRATI                    | 10831.20    | M3     | 24.77  | 12753600.00 | 20.81  | 1913080.00 | 20.64  |
| PONTA GROSSA             | 21409.00    | M3     | 48.97  | 19048425.28 | 31.08  | 2857151.22 | 30.83  |
| SANTO ANTONIO DA PLATINA | 573.00      | M3     | 1.31   | 236174.00   | 0.39   | 42577.20   | 0.46   |
| SIQUEIRA CAMPOS          | 5254.00     | M3     | 12.02  | 346725.00   | 0.57   | 117910.95  | 1.27   |
| TELEMACHO BORBA          | 5139.92     | M3     | 11.76  | 28430051.60 | 46.38  | 4264507.75 | 46.02  |
| Subtotal.....            | 43719.91... | M3.... | 100.00 | 61293625.88 | 100.00 | 9267024.62 | 100.00 |

## SUBSTANCIA - DOLOMITO

|                     |               |        |        |              |        |             |        |
|---------------------|---------------|--------|--------|--------------|--------|-------------|--------|
| ADRIANOPOLIS        | 2394.00       | T      | 0.24   | 839310.28    | 0.26   | 125896.54   | 0.24   |
| ALMIRANTE TAMANDARE | 322514.74     | T      | 32.04  | 64054507.57  | 18.86  | 12372090.69 | 24.03  |
| BALSA NOVA          | 200.00        | T      | 0.02   | 56740.00     | 0.02   | 8511.00     | 0.02   |
| BOCAIUVA DO SUL     | 9422.50       | T      | 0.94   | 2202446.30   | 0.69   | 330367.80   | 0.64   |
| CAMPD LARGO         | 8873.42       | T      | 0.88   | 7358282.20   | 2.30   | 1103743.75  | 2.14   |
| CASTRO              | 67940.52      | T      | 6.75   | 35995050.08  | 11.24  | 5678396.69  | 11.03  |
| COLOMBO             | 358039.43     | T      | 35.57  | 129060897.32 | 40.31  | 19084748.07 | 37.06  |
| RIO BRANCO DO SUL   | 234946.72     | T      | 23.34  | 83764552.59  | 26.16  | 12695799.25 | 24.66  |
| SENGES              | 2277.16       | T      | 0.23   | 487905.00    | 0.15   | 92625.75    | 0.18   |
| Subtotal.....       | 1006608.48... | T..... | 100.00 | 323819691.34 | 100.00 | 51492179.54 | 100.00 |

## SUBSTANCIA - FELDSPATO

|               |           |        |        |            |        |           |        |
|---------------|-----------|--------|--------|------------|--------|-----------|--------|
| AGUDDO DO SUL | 113.00    | T      | 16.52  | 1159857.30 | 35.24  | 173978.54 | 35.24  |
| BALSA NOVA    | 571.00    | T      | 83.48  | 2131272.00 | 64.76  | 319690.80 | 64.76  |
| Subtotal..... | 684.00... | T..... | 100.00 | 3291129.30 | 100.00 | 493669.34 | 100.00 |

## SUBSTANCIA - FILITO

|                      |             |        |        |            |        |            |        |
|----------------------|-------------|--------|--------|------------|--------|------------|--------|
| BOCAIUVA DO SUL      | 5125.00     | T      | 23.12  | 749373.00  | 8.84   | 117207.45  | 9.51   |
| CASTRO               | 3043.35     | T      | 13.73  | 841565.90  | 9.93   | 116414.40  | 9.44   |
| COLOMBO              | 8717.12     | T      | 39.33  | 1407812.10 | 16.61  | 177322.34  | 14.38  |
| RIO BRANCO DO SUL    | 190.90      | T      | 0.86   | 19090.00   | 0.23   | 2863.50    | 0.23   |
| SAO JOSE DOS PINHAIS | 5087.00     | T      | 22.95  | 5460243.00 | 64.40  | 819036.45  | 66.43  |
| Subtotal.....        | 22163.37... | T..... | 100.00 | 8478084.00 | 100.00 | 1232844.14 | 100.00 |

## SUBSTANCIA - FLUORITA

|               |             |        |        |              |        |             |        |
|---------------|-------------|--------|--------|--------------|--------|-------------|--------|
| CERRO AZUL    | 13828.85    | T      | 100.00 | 302383294.48 | 100.00 | 45358493.25 | 100.00 |
| Subtotal..... | 13828.85... | T..... | 100.00 | 302383294.48 | 100.00 | 45358493.25 | 100.00 |

## SUBSTANCIA - GABRO

|               |            |        |        |            |        |            |        |
|---------------|------------|--------|--------|------------|--------|------------|--------|
| GOIO-ERE      | 7900.50    | M3     | 100.00 | 8373854.00 | 100.00 | 1256078.10 | 100.00 |
| Subtotal..... | 7900.50... | M3.... | 100.00 | 8373854.00 | 100.00 | 1256078.10 | 100.00 |

## SUBSTANCIA - GNAISSE

|                      |             |        |        |             |        |            |        |
|----------------------|-------------|--------|--------|-------------|--------|------------|--------|
| CAMPD LARGO          | 4129.00     | M3     | 4.46   | 326865.50   | 0.49   | 49029.82   | 0.75   |
| COLOMBO              | 2988.50     | M3     | 3.23   | 1650156.50  | 2.46   | 247523.40  | 3.81   |
| CURITIBA             | 10427.00    | M3     | 11.27  | 24962701.33 | 37.26  | 75587.45   | 1.16   |
| PIRAQUARA            | 78.00       | M3     | 0.08   | 181600.00   | 0.27   | 27240.00   | 0.42   |
| SAO JOSE DOS PINHAIS | 74921.12    | M3     | 80.96  | 39882127.08 | 59.52  | 6100983.27 | 93.86  |
| Subtotal.....        | 92543.62... | M3.... | 100.00 | 67003450.41 | 100.00 | 6500363.94 | 100.00 |

## SUBSTANCIA - GRANITO

|                 |          |   |      |             |      |            |      |
|-----------------|----------|---|------|-------------|------|------------|------|
| ADRIANOPOLIS    | 985.00   | T | 0.37 | 927638.28   | 0.36 | 139145.74  | 0.35 |
| AGUDOS DO SUL   | 830.00   | T | 0.31 | 3021580.00  | 1.17 | 453236.50  | 1.16 |
| BALSA NOVA      | 10.00    | T | 0.00 | 3000.00     | 0.00 | 450.00     | 0.00 |
| BOCAIUVA DO SUL | 811.69   | T | 0.30 | 2910807.00  | 1.13 | 436621.05  | 1.11 |
| CAMPD LARGO     | 21878.71 | T | 8.15 | 15915593.60 | 6.17 | 2417952.85 | 6.16 |
| CASTRO          | 1339.30  | T | 0.50 | 668108.17   | 0.26 | 100533.47  | 0.26 |
| COLOMBO         | 7595.60  | T | 2.83 | 13157695.00 | 5.10 | 2012157.98 | 5.13 |
| GUARATUBA       | 60.42    | T | 0.02 | 705602.00   | 0.27 | 105840.30  | 0.27 |

|                           |              |        |        |              |        |             |        |
|---------------------------|--------------|--------|--------|--------------|--------|-------------|--------|
| PARANAGUA                 | 2590.28      | T      | 0.97   | 3859948.02   | 1.50   | 677861.66   | 1.73   |
| PIRAI DO SUL              | 481.00       | T      | 0.18   | 96200.00     | 0.04   | 14430.00    | 0.04   |
| PIRAQUARA                 | 23302.79     | T      | 8.69   | 24470979.39  | 9.48   | 4573371.99  | 11.65  |
| PONTA GROSSA              | 18225.50     | T      | 6.79   | 33181661.00  | 12.86  | 4991721.86  | 12.72  |
| QUATRO BARRAS             | 161962.26    | T      | 60.37  | 143256130.51 | 55.52  | 21525919.77 | 54.86  |
| QUITANDINHA               | 79.00        | T      | 0.03   | 314420.00    | 0.12   | 47163.00    | 0.12   |
| RIO BRANCO DO SUL         | 631.15       | T      | 0.24   | 4619240.10   | 1.79   | 1406091.40  | 3.58   |
| SAO JOSE DOS PINHAIS      | 27510.00     | T      | 10.25  | 10936466.00  | 4.24   | 337560.00   | 0.86   |
| Subtotal.....             | 268292.70... | T..... | 100.00 | 258045069.07 | 100.00 | 39240057.59 | 100.00 |
| SUBSTANCIA - MARMORE      |              |        |        |              |        |             |        |
| BOCAIUVA DO SUL           | 98.00        | M3     | 0.10   | 78842.00     | 1.50   | 11826.30    | 1.46   |
| CAMPO LARGO               | 107.13       | M3     | 0.11   | 303829.80    | 5.78   | 45574.47    | 5.61   |
| COLOMBO                   | 4568.74      | M3     | 4.74   | 2604181.80   | 49.50  | 390627.27   | 48.09  |
| RIO BRANCO DO SUL         | 91659.81     | M3     | 95.05  | 2273818.93   | 43.22  | 364289.42   | 44.85  |
| Subtotal.....             | 96433.68...  | M3.... | 100.00 | 5260672.53   | 100.00 | 812317.46   | 100.00 |
| SUBSTANCIA - NIGHATITO    |              |        |        |              |        |             |        |
| CAMPO LARGO               | 5201.94      | M3     | 4.71   | 1679464.66   | 3.59   | 252819.55   | 3.57   |
| COLOMBO                   | 4073.00      | M3     | 3.69   | 3932745.50   | 8.40   | 589912.13   | 8.33   |
| CURITIBA                  | 508.50       | M3     | 0.46   | 1789868.50   | 3.82   | 268520.77   | 3.79   |
| QUATRO BARRAS             | 4578.00      | M3     | 4.14   | 1662180.24   | 3.55   | 249327.04   | 3.52   |
| SAO JOSE DOS PINHAIS      | 96094.59     | M3     | 87.00  | 37765593.00  | 80.64  | 5718575.78  | 80.78  |
| Subtotal.....             | 110456.03... | M3.... | 100.00 | 46829851.90  | 100.00 | 7079155.27  | 100.00 |
| SUBSTANCIA - OURO         |              |        |        |              |        |             |        |
| CAMPO LARGO               | 18435.25     | G      | 100.00 | 55340352.30  | 100.00 | 618648.73   | 100.00 |
| Subtotal.....             | 18435.25...  | G..... | 100.00 | 55340352.30  | 100.00 | 618648.73   | 100.00 |
| SUBSTANCIA - PIRITA       |              |        |        |              |        |             |        |
| FIGUEIRA                  | 21800.00     | T      | 100.00 | 21.80        | 100.00 | 3.27        | 100.00 |
| Subtotal.....             | 21800.00...  | T..... | 100.00 | 21.80        | 100.00 | 3.27        | 100.00 |
| SUBSTANCIA - PRATA        |              |        |        |              |        |             |        |
| CERRO AZUL                | 2901.52      | KG     | 100.00 | 10138770.11  | 100.00 | 2000815.48  | 100.00 |
| Subtotal.....             | 2901.52...   | KG.... | 100.00 | 10138770.11  | 100.00 | 2000815.48  | 100.00 |
| SUBSTANCIA - QUARTZITO    |              |        |        |              |        |             |        |
| CAMPO LARGO               | 49640.80     | T      | 99.99  | 41577944.17  | 100.00 | 7264994.10  | 100.00 |
| CASTRO                    | 3.90         | T      | 0.01   | 1518.04      | 0.00   | 227.72      | 0.00   |
| Subtotal.....             | 49644.70...  | T..... | 100.00 | 41579462.21  | 100.00 | 7265221.82  | 100.00 |
| SUBSTANCIA - SEIXO ROLADO |              |        |        |              |        |             |        |
| UMUARAMA                  | 16.00        | M3     | 100.00 | 16000.00     | 100.00 | 2400.00     | 100.00 |
| Subtotal.....             | 16.00...     | M3.... | 100.00 | 16000.00     | 100.00 | 2400.00     | 100.00 |
| SUBSTANCIA - SERICITA     |              |        |        |              |        |             |        |
| BOCAIUVA DO SUL           | 13660.20     | T      | 100.00 | 3647530.00   | 100.00 | 547130.00   | 100.00 |
| Subtotal.....             | 13660.20...  | T..... | 100.00 | 3647530.00   | 100.00 | 547130.00   | 100.00 |
| SUBSTANCIA - SILTITO      |              |        |        |              |        |             |        |
| JACAREZINHO               | 1656.00      | M2     | 100.00 | 13800.00     | 100.00 | 2119.50     | 100.00 |
| Subtotal.....             | 1656.00...   | M2.... | 100.00 | 13800.00     | 100.00 | 2119.50     | 100.00 |

SUBSTANCIA - TALCO

|                 |           |        |        |              |        |             |        |
|-----------------|-----------|--------|--------|--------------|--------|-------------|--------|
| BOCAIUVA DO SUL | 9450.92   | T      | 2.97   | 26586979.26  | 5.66   | 4016419.94  | 5.86   |
| CASTRO          | 163414.24 | T      | 51.37  | 236649432.51 | 50.38  | 36424827.03 | 53.13  |
| PIEN            | 20.00     | T      | 0.01   | 1673.60      | 0.00   | 251.00      | 0.00   |
| PONTA GROSSA    | 145198.32 | T      | 45.65  | 206505735.79 | 43.96  | 28122151.69 | 41.02  |
| Subtotal.....   | 318083.48 | T..... | 100.00 | 469743921.16 | 100.00 | 68563649.66 | 100.00 |

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TOTAL GERAL..... 7267193200.61..... 1084291195.22.....

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Fonte: SIPROM/DNPH

PRODUÇÃO MINERAL PARANAENSE - 1988 - Por Município

|                                        | QUANTIDADES | UNID MED | VALOR DA<br>PRODUÇÃO | Z s/PROD | VALOR DO<br>IUM | Z s/PROD |
|----------------------------------------|-------------|----------|----------------------|----------|-----------------|----------|
| <b>MUNICIPIO - ADRIANOPOLIS</b>        |             |          |                      |          |                 |          |
| CALCARIO                               | 532.13      | T        | 116893.33            | 0.13     | 17534.00        | 0.13     |
| CHUMBO                                 | 4214.77     | T        | 88936295.84          | 97.93    | 13340449.18     | 97.93    |
| DOLOMITO                               | 2394.00     | T        | 839310.28            | 0.92     | 125896.54       | 0.92     |
| GRANITO                                | 985.00      | T        | 927638.28            | 1.02     | 139145.74       | 1.02     |
| Subtotal.....                          |             |          | 90820137.73          | 100.00   | 13623025.46     | 100.00   |
| <b>MUNICIPIO - AGUADOS DO SUL</b>      |             |          |                      |          |                 |          |
| FELDSPATO                              | 113.00      | T        | 1159857.30           | 27.74    | 173978.54       | 27.74    |
| GRANITO                                | 830.00      | T        | 3021580.00           | 72.26    | 453236.50       | 72.26    |
| Subtotal.....                          |             |          | 4181437.30           | 100.00   | 627215.04       | 100.00   |
| <b>MUNICIPIO - ALMIRANTE TAMANDARE</b> |             |          |                      |          |                 |          |
| AGUA MINERAL                           | 2083731.00  | L        | 12609348.00          | 12.64    | 1853481.00      | 9.24     |
| AGUA SUBTERRANEA                       | 3613935.00  | L        | 15825884.00          | 15.86    | 2554469.16      | 12.73    |
| ARGILA                                 | 1005.50     | T        | 665.00               | 0.00     | 99.75           | 0.00     |
| CALCARIO                               | 287272.73   | T        | 10972933.59          | 11.00    | 3287691.34      | 16.38    |
| DOLOMITO                               | 322514.74   | T        | 64054507.57          | 60.51    | 12372090.69     | 61.65    |
| Subtotal.....                          |             |          | 103463338.16         | 100.00   | 20067831.94     | 100.00   |
| <b>MUNICIPIO - ALTO PARANA</b>         |             |          |                      |          |                 |          |
| ARGILA                                 | 146.66      | T        | 110000.00            | 3.25     | 16500.00        | 3.25     |
| BASALTO                                | 12671.20    | M3       | 3277770.45           | 96.75    | 491065.54       | 96.75    |
| Subtotal.....                          |             |          | 3387770.45           | 100.00   | 507565.54       | 100.00   |
| <b>MUNICIPIO - ALTO PIQUIRI</b>        |             |          |                      |          |                 |          |
| BASALTO                                | 1580.00     | M3       | 240600.00            | 100.00   | 36900.00        | 100.00   |
| Subtotal.....                          |             |          | 240600.00            | 100.00   | 36900.00        | 100.00   |
| <b>MUNICIPIO - ALTONIA</b>             |             |          |                      |          |                 |          |
| AREIA                                  | 471321.85   | M3       | 40985696.78          | 99.32    | 7802147.21      | 99.46    |
| ARGILA                                 | 700.00      | T        | 280000.00            | 0.68     | 42000.00        | 0.54     |
| Subtotal.....                          |             |          | 41265696.78          | 100.00   | 7844147.21      | 100.00   |
| <b>MUNICIPIO - AMPERE</b>              |             |          |                      |          |                 |          |
| ARGILA                                 | 1320.38     | T        | 233438.00            | 100.00   | 96120.70        | 100.00   |
| Subtotal.....                          |             |          | 233438.00            | 100.00   | 96120.70        | 100.00   |
| <b>MUNICIPIO - ANDIRA</b>              |             |          |                      |          |                 |          |
| AREIA                                  | 2370.80     | M3       | 431933.00            | 71.41    | 64789.95        | 62.34    |
| ARGILA                                 | 761.00      | T        | 172960.00            | 28.59    | 39135.95        | 37.66    |
| Subtotal.....                          |             |          | 604893.00            | 100.00   | 103925.90       | 100.00   |
| <b>MUNICIPIO - ANTONINA</b>            |             |          |                      |          |                 |          |
| AREIA                                  | 1399.50     | M3       | 874200.00            | 100.00   | 131130.00       | 100.00   |
| Subtotal.....                          |             |          | 874200.00            | 100.00   | 131130.00       | 100.00   |

## MUNICIPIO - ANTONIO OLINTO

|               |      |   |      |        |           |        |
|---------------|------|---|------|--------|-----------|--------|
| ARGILA        | 0.00 | T | 0.00 | 100.00 | 751328.61 | 100.00 |
| Subtotal..... |      |   | 0.00 | 100.00 | 751328.61 | 100.00 |

## MUNICIPIO - APUCARANA

|               |          |    |            |        |            |        |
|---------------|----------|----|------------|--------|------------|--------|
| BASALTO       | 14448.94 | M3 | 8752633.32 | 100.00 | 1314894.50 | 100.00 |
| Subtotal..... |          |    | 8752633.32 | 100.00 | 1314894.50 | 100.00 |

## MUNICIPIO - ARAPONGAS

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| BASALTO       | 16745.81 | M3 | 15636519.43 | 100.00 | 2390478.02 | 100.00 |
| Subtotal..... |          |    | 15636519.43 | 100.00 | 2390478.02 | 100.00 |

## MUNICIPIO - ARAPOTI

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 2670.63 | T | 100954.00 | 100.00 | 21011.95 | 100.00 |
| Subtotal..... |         |   | 100954.00 | 100.00 | 21011.95 | 100.00 |

## MUNICIPIO - ARAUCARIA

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| AREIA         | 34471.80 | M3 | 23353099.10 | 39.48  | 3512458.94 | 39.68  |
| ARGILA        | 12403.00 | T  | 5569250.00  | 9.42   | 805415.67  | 9.10   |
| ARGILA BRANCA | 5775.00  | T  | 7305048.00  | 12.35  | 1095757.20 | 12.38  |
| CAULIM        | 4647.35  | T  | 22918366.15 | 38.75  | 3437754.94 | 38.84  |
| Subtotal..... |          |    | 59145763.25 | 100.00 | 8851386.75 | 100.00 |

## MUNICIPIO - Balsa Nova

|               |           |   |             |        |            |        |
|---------------|-----------|---|-------------|--------|------------|--------|
| ARGILA        | 19107.08  | T | 9900738.80  | 12.39  | 564082.02  | 5.92   |
| ARGILA BRANCA | 132077.08 | T | 67733230.32 | 84.75  | 8617337.38 | 90.41  |
| CAULIM        | 9395.81   | T | 92291.90    | 0.12   | 20945.86   | 0.22   |
| DOLOMITO      | 200.00    | T | 56740.00    | 0.07   | 8511.00    | 0.09   |
| FELDSPATO     | 571.00    | T | 2131272.00  | 2.67   | 319690.80  | 3.35   |
| GRANITO       | 10.00     | T | 3000.00     | 0.00   | 450.00     | 0.00   |
| Subtotal..... |           |   | 79917273.02 | 100.00 | 9531017.06 | 100.00 |

## MUNICIPIO - BANDEIRANTES

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| ARGILA        | 4490.00 | T  | 1176000.00 | 74.41  | 176400.00 | 73.39  |
| BASALTO       | 217.50  | M3 | 158250.00  | 10.01  | 27018.37  | 11.24  |
| DIABASIO      | 374.00  | M3 | 246200.00  | 15.58  | 36930.00  | 15.37  |
| Subtotal..... |         |    | 1580450.00 | 100.00 | 240348.37 | 100.00 |

## MUNICIPIO - BARRACAO

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 1114.94 | T | 280190.00 | 100.00 | 42137.40 | 100.00 |
| Subtotal..... |         |   | 280190.00 | 100.00 | 42137.40 | 100.00 |

## MUNICIPIO - BOCAIUVA DO SUL

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| ARGILA        | 72.00    | T  | 11520.00    | 0.03   | 1728.00    | 0.03   |
| CALCARIO      | 22707.96 | T  | 9450231.77  | 13.77  | 1441168.98 | 20.88  |
| DOLOMITO      | 9422.50  | T  | 2202446.30  | 5.25   | 330367.80  | 4.79   |
| FILITO        | 5125.00  | T  | 749373.00   | 1.79   | 117207.45  | 1.70   |
| GRANITO       | 811.69   | T  | 2910807.00  | 6.94   | 436621.05  | 6.33   |
| MARMORE       | 98.00    | M3 | 78842.00    | 0.19   | 11826.30   | 0.17   |
| SERICITA      | 13660.20 | T  | 3647530.00  | 8.69   | 547130.00  | 7.93   |
| TALCO         | 9450.92  | T  | 26586979.26 | 63.35  | 4016419.94 | 58.19  |
| Subtotal..... |          |    | 45637729.33 | 100.00 | 6902469.52 | 100.00 |

## MUNICIPIO - CAMBARA

|               |         |    |           |        |          |        |
|---------------|---------|----|-----------|--------|----------|--------|
| AREIA         | 2728.55 | M3 | 252946.20 | 100.00 | 37941.83 | 100.00 |
| Subtotal..... |         |    | 252946.20 | 100.00 | 37941.83 | 100.00 |



## MUNICIPIO - ANTONIO OLINTO

|               |      |   |      |        |           |        |
|---------------|------|---|------|--------|-----------|--------|
| ARGILA        | 0.00 | T | 0.00 | 100.00 | 751328.61 | 100.00 |
| Subtotal..... |      |   | 0.00 | 100.00 | 751328.61 | 100.00 |

## MUNICIPIO - APUCARANA

|               |          |    |            |        |            |        |
|---------------|----------|----|------------|--------|------------|--------|
| BASALTO       | 14448.94 | M3 | 8752633.32 | 100.00 | 1314894.50 | 100.00 |
| Subtotal..... |          |    | 8752633.32 | 100.00 | 1314894.50 | 100.00 |

## MUNICIPIO - ARAPONGAS

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| BASALTO       | 16745.81 | M3 | 15636519.43 | 100.00 | 2390478.02 | 100.00 |
| Subtotal..... |          |    | 15636519.43 | 100.00 | 2390478.02 | 100.00 |

## MUNICIPIO - ARAPOTI

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 2670.63 | T | 100954.00 | 100.00 | 21011.95 | 100.00 |
| Subtotal..... |         |   | 100954.00 | 100.00 | 21011.95 | 100.00 |

## MUNICIPIO - ARAUCARIA

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| AREIA         | 34471.80 | M3 | 23353099.10 | 39.48  | 3512458.94 | 39.68  |
| ARGILA        | 12403.00 | T  | 5569250.00  | 9.42   | 805415.67  | 9.10   |
| ARGILA BRANCA | 5775.00  | T  | 7305048.00  | 12.35  | 1095757.20 | 12.38  |
| CAULIM        | 4647.35  | T  | 22918366.15 | 38.75  | 3437754.94 | 38.84  |
| Subtotal..... |          |    | 59145763.25 | 100.00 | 8851386.75 | 100.00 |

## MUNICIPIO - Balsa Nova

|               |           |   |             |        |            |        |
|---------------|-----------|---|-------------|--------|------------|--------|
| ARGILA        | 19107.08  | T | 9900738.80  | 12.39  | 564082.02  | 5.92   |
| ARGILA BRANCA | 132077.08 | T | 67733230.32 | 84.75  | 8617337.38 | 90.41  |
| CAULIM        | 9395.81   | T | 92291.90    | 0.12   | 20945.86   | 0.22   |
| DOLOMITO      | 200.00    | T | 56740.00    | 0.07   | 8511.00    | 0.09   |
| FELDSPATO     | 571.00    | T | 2131272.00  | 2.67   | 319690.80  | 3.35   |
| GRANITO       | 10.00     | T | 3000.00     | 0.00   | 450.00     | 0.00   |
| Subtotal..... |           |   | 79917273.02 | 100.00 | 9531017.06 | 100.00 |

## MUNICIPIO - BANDEIRANTES

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| ARGILA        | 4490.00 | T  | 1176000.00 | 74.41  | 176400.00 | 73.39  |
| BASALTO       | 217.50  | M3 | 158250.00  | 10.01  | 27018.37  | 11.24  |
| DIABASIO      | 374.00  | M3 | 246200.00  | 15.58  | 36930.00  | 15.37  |
| Subtotal..... |         |    | 1580450.00 | 100.00 | 240348.37 | 100.00 |

## MUNICIPIO - BARRACAO

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 1114.94 | T | 280190.00 | 100.00 | 42137.40 | 100.00 |
| Subtotal..... |         |   | 280190.00 | 100.00 | 42137.40 | 100.00 |

## MUNICIPIO - BOCAIUVA DO SUL

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| ARGILA        | 72.00    | T  | 11520.00    | 0.03   | 1728.00    | 0.03   |
| CALCARIO      | 22707.96 | T  | 9450231.77  | 13.77  | 1441168.98 | 20.88  |
| DOLOMITO      | 9422.50  | T  | 2202446.30  | 5.25   | 330367.80  | 4.79   |
| FILITO        | 5125.00  | T  | 749373.00   | 1.79   | 117207.45  | 1.70   |
| GRANITO       | 811.69   | T  | 2910807.00  | 6.94   | 436621.05  | 6.33   |
| MARMORE       | 98.00    | M3 | 78842.00    | 0.19   | 11826.30   | 0.17   |
| SERICITA      | 13660.20 | T  | 3647530.00  | 8.69   | 547130.00  | 7.93   |
| TALCO         | 9450.92  | T  | 26586979.26 | 63.35  | 4016419.94 | 58.19  |
| Subtotal..... |          |    | 45637729.33 | 100.00 | 6902469.52 | 100.00 |

## MUNICIPIO - CAMBARA

|               |         |    |           |        |          |        |
|---------------|---------|----|-----------|--------|----------|--------|
| AREIA         | 2728.55 | M3 | 252946.20 | 100.00 | 37941.83 | 100.00 |
| Subtotal..... |         |    | 252946.20 | 100.00 | 37941.83 | 100.00 |



## MUNICIPIO - CAMPINA DA LAGOA

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| BASALTO       | 1753.78 | M3 | 2304889.00 | 100.00 | 318643.77 | 100.00 |
| Subtotal..... |         |    | 2304889.00 | 100.00 | 318643.77 | 100.00 |

## MUNICIPIO - CAMPO LARGO

|               |             |    |              |        |              |        |
|---------------|-------------|----|--------------|--------|--------------|--------|
| AGUA MINERAL  | 22300219.84 | L  | 128386769.50 | 17.08  | 19258016.72  | 18.65  |
| ARGILA        | 12313.94    | T  | 3056028.00   | 0.41   | 494423.30    | 0.48   |
| ARGILA BRANCA | 728.83      | T  | 373400.00    | 0.05   | 56010.00     | 0.05   |
| CALCARIO      | 439460.78   | T  | 388585632.52 | 51.69  | 55379733.76  | 53.63  |
| CAULIM        | 10523.48    | T  | 108813012.66 | 14.48  | 16322027.74  | 15.81  |
| DOLOMITO      | 8873.42     | T  | 7358282.20   | 0.98   | 1103743.75   | 1.07   |
| GNAISSE       | 4129.00     | M3 | 326865.50    | 0.04   | 49029.82     | 0.05   |
| GRANITO       | 21878.71    | T  | 15915593.60  | 2.12   | 2417952.85   | 2.34   |
| MARMORE       | 107.13      | M3 | 303829.80    | 0.04   | 45574.47     | 0.04   |
| MIGMATITO     | 5201.94     | M3 | 1679464.66   | 0.22   | 252819.55    | 0.24   |
| DURO          | 18435.25    | G  | 55340352.30  | 7.36   | 618648.73    | 0.60   |
| QUARTZITO     | 49640.80    | T  | 41577944.17  | 5.53   | 7264994.10   | 7.04   |
| Subtotal..... |             |    | 751717174.91 | 100.00 | 103262974.79 | 100.00 |

## MUNICIPIO - CAMPO MOURAO

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| ARGILA        | 713.17   | T  | 178025.00   | 0.47   | 26703.75   | 0.73   |
| BASALTO       | 22893.90 | M3 | 38076107.40 | 99.53  | 3621416.11 | 99.27  |
| Subtotal..... |          |    | 38254132.40 | 100.00 | 3648119.86 | 100.00 |

## MUNICIPIO - CARLOPOLIS

|               |        |   |          |        |          |        |
|---------------|--------|---|----------|--------|----------|--------|
| ARGILA        | 480.03 | T | 92747.80 | 100.00 | 12412.17 | 100.00 |
| Subtotal..... |        |   | 92747.80 | 100.00 | 12412.17 | 100.00 |

## MUNICIPIO - CASCAVEL

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| BASALTO       | 51213.53 | M3 | 28533462.50 | 100.00 | 4256413.46 | 100.00 |
| Subtotal..... |          |    | 28533462.50 | 100.00 | 4256413.46 | 100.00 |

## MUNICIPIO - CASTRO

|               |           |   |              |        |             |        |
|---------------|-----------|---|--------------|--------|-------------|--------|
| ARGILA        | 145.00    | T | 51432.00     | 0.02   | 3748.05     | 0.01   |
| ARGILA BRANCA | 14073.00  | T | 60201826.15  | 17.90  | 6988851.52  | 14.09  |
| CALCARIO      | 2205.03   | T | 1608072.20   | 0.48   | 241210.80   | 0.49   |
| CAULIM        | 787.11    | T | 232808.90    | 0.07   | 34921.79    | 0.07   |
| DOLOMITO      | 67940.52  | T | 35995050.08  | 10.70  | 5678396.69  | 11.45  |
| FILITO        | 3043.35   | T | 841565.90    | 0.25   | 116414.40   | 0.23   |
| GRANITO       | 1339.30   | T | 668108.17    | 0.20   | 100533.49   | 0.20   |
| QUARTZITO     | 3.90      | T | 1518.04      | 0.00   | 227.72      | 0.00   |
| TALCO         | 163414.24 | T | 236649432.51 | 70.38  | 36424827.03 | 73.45  |
| Subtotal..... |           |   | 336249813.95 | 100.00 | 49589131.49 | 100.00 |

## MUNICIPIO - CENTENARIO DO SUL

|               |        |    |           |        |           |        |
|---------------|--------|----|-----------|--------|-----------|--------|
| BASALTO       | 583.80 | M3 | 701920.00 | 100.00 | 106319.17 | 100.00 |
| Subtotal..... |        |    | 701920.00 | 100.00 | 106319.17 | 100.00 |

## MUNICIPIO - CERRO AZUL

|               |          |    |              |        |             |        |
|---------------|----------|----|--------------|--------|-------------|--------|
| CHUMBO        | 3886.21  | T  | 27891241.49  | 8.19   | 4183686.24  | 8.12   |
| FLUORITA      | 13828.85 | T  | 302383294.48 | 88.83  | 45358493.25 | 88.00  |
| PRATA         | 2901.52  | K6 | 10138770.11  | 2.98   | 2000815.48  | 3.88   |
| Subtotal..... |          |    | 340413306.08 | 100.00 | 51542994.97 | 100.00 |

## MUNICIPIO - CHOPINZINHO

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| ARGILA        | 1330.00 | T  | 324000.00  | 28.60  | 91965.00  | 40.62  |
| BASALTO       | 599.30  | M3 | 808912.67  | 71.40  | 134457.02 | 59.38  |
| Subtotal..... |         |    | 1132912.67 | 100.00 | 226422.02 | 100.00 |

## MUNICIPIO - CIANORTE

|               |        |    |           |        |           |        |
|---------------|--------|----|-----------|--------|-----------|--------|
| BASALTO       | 507.00 | M3 | 838700.00 | 100.00 | 125805.00 | 100.00 |
| Subtotal..... |        |    | 838700.00 | 100.00 | 125805.00 | 100.00 |

## MUNICIPIO - COLOMBO

|               |           |    |              |        |             |        |
|---------------|-----------|----|--------------|--------|-------------|--------|
| ARGILA        | 1756.52   | T  | 528727.00    | 0.35   | 79373.41    | 0.35   |
| DOLOMITO      | 358039.43 | T  | 129060897.32 | 84.72  | 19084748.07 | 84.51  |
| FILITO        | 8717.12   | T  | 1407812.10   | 0.92   | 177322.34   | 0.79   |
| GNAISSE       | 2988.50   | M3 | 1650156.50   | 1.08   | 247523.40   | 1.10   |
| GRANITO       | 7595.60   | T  | 13157695.00  | 8.64   | 2012157.98  | 8.91   |
| MARMORE       | 4568.74   | M3 | 2604181.80   | 1.71   | 390627.27   | 1.73   |
| MIGMATITO     | 4073.00   | M3 | 3932745.50   | 2.58   | 589912.13   | 2.61   |
| Subtotal..... |           |    | 152342215.22 | 100.00 | 22581664.60 | 100.00 |

## MUNICIPIO - CONGONHINHAS

|               |         |   |            |        |           |        |
|---------------|---------|---|------------|--------|-----------|--------|
| ARGILA        | 9951.01 | T | 2024315.70 | 100.00 | 306667.96 | 100.00 |
| Subtotal..... |         |   | 2024315.70 | 100.00 | 306667.96 | 100.00 |

## MUNICIPIO - CONTENDA

|               |         |   |            |        |           |        |
|---------------|---------|---|------------|--------|-----------|--------|
| ARGILA BRANCA | 3294.88 | T | 3260055.80 | 90.60  | 443966.45 | 89.74  |
| ARGILA REFR   | 166.00  | T | 338220.00  | 9.40   | 50733.00  | 10.26  |
| Subtotal..... |         |   | 3598275.80 | 100.00 | 494699.45 | 100.00 |

## MUNICIPIO - CORBELIA

|               |         |   |           |        |           |        |
|---------------|---------|---|-----------|--------|-----------|--------|
| ARGILA        | 3166.00 | T | 956200.00 | 100.00 | 128580.00 | 100.00 |
| Subtotal..... |         |   | 956200.00 | 100.00 | 128580.00 | 100.00 |

## MUNICIPIO - CORNELIO PROCOPIO

|               |          |    |            |        |           |        |
|---------------|----------|----|------------|--------|-----------|--------|
| AGUA MINERAL  | 49200.00 | L  | 400000.00  | 7.97   | 62172.00  | 8.23   |
| BASALTO       | 2414.00  | M3 | 4621350.00 | 92.03  | 693202.50 | 91.77  |
| Subtotal..... |          |    | 5021350.00 | 100.00 | 755374.50 | 100.00 |

## MUNICIPIO - CORONEL VIVIDA

|               |         |   |            |        |           |        |
|---------------|---------|---|------------|--------|-----------|--------|
| ARGILA        | 5145.00 | T | 1567300.00 | 100.00 | 235095.00 | 100.00 |
| Subtotal..... |         |   | 1567300.00 | 100.00 | 235095.00 | 100.00 |

## MUNICIPIO - CURITIBA

|                  |            |    |              |        |             |        |
|------------------|------------|----|--------------|--------|-------------|--------|
| AGUA SUBTERRANEA | 7682365.00 | L  | 35764.61     | 0.03   | 5364.77     | 0.04   |
| AREIA            | 95240.26   | M3 | 65366828.01  | 63.32  | 9968272.72  | 73.70  |
| ARGILA           | 19082.05   | T  | 5406774.63   | 5.24   | 907960.29   | 6.71   |
| ARGILA BRANCA    | 1873.58    | T  | 537913.33    | 0.52   | 1530009.22  | 11.31  |
| CAULIM           | 191.00     | T  | 5127709.80   | 4.97   | 769156.47   | 5.69   |
| GNAISSE          | 10427.00   | M3 | 24962701.33  | 24.18  | 75587.45    | 0.56   |
| MIGMATITO        | 508.50     | M3 | 1789868.50   | 1.73   | 268520.77   | 1.99   |
| Subtotal.....    |            |    | 103227560.21 | 100.00 | 13524871.69 | 100.00 |

## MUNICIPIO - CURIUVA

|               |          |   |            |        |           |        |
|---------------|----------|---|------------|--------|-----------|--------|
| ARGILA        | 13094.00 | T | 2352640.00 | 100.00 | 404692.60 | 100.00 |
| Subtotal..... |          |   | 2352640.00 | 100.00 | 404692.60 | 100.00 |

## MUNICIPIO - DOIS VIZINHOS

|               |       |    |         |        |         |        |
|---------------|-------|----|---------|--------|---------|--------|
| AREIA         | 11.50 | M3 | 2301.00 | 100.00 | 1277.69 | 100.00 |
| Subtotal..... |       |    | 2301.00 | 100.00 | 1277.69 | 100.00 |

**MUNICIPIO - DOUTOR CAMARGO**

|               |           |   |             |        |            |        |
|---------------|-----------|---|-------------|--------|------------|--------|
| AGUA MINERAL  | 866244.00 | L | 4778420.00  | 46.41  | 716763.00  | 46.00  |
| ARGILA        | 23145.26  | T | 5516901.60  | 53.59  | 841555.84  | 54.00  |
| Subtotal..... |           |   | 10295321.60 | 100.00 | 1558318.84 | 100.00 |

**MUNICIPIO - ENGENHEIRO BELTRAO**

|               |         |   |            |        |           |        |
|---------------|---------|---|------------|--------|-----------|--------|
| ARGILA        | 2721.64 | T | 1077393.02 | 100.00 | 161608.96 | 100.00 |
| Subtotal..... |         |   | 1077393.02 | 100.00 | 161608.96 | 100.00 |

**MUNICIPIO - FIGUEIRA**

|               |           |   |               |        |              |        |
|---------------|-----------|---|---------------|--------|--------------|--------|
| CARVAD        | 168604.21 | T | 1303139267.61 | 100.00 | 169834771.83 | 100.00 |
| PIRITA        | 21800.00  | T | 21.80         | 0.00   | 3.27         | 0.00   |
| Subtotal..... |           |   | 1303139289.41 | 100.00 | 169834775.10 | 100.00 |

**MUNICIPIO - FLORESTA**

|               |          |   |            |        |           |        |
|---------------|----------|---|------------|--------|-----------|--------|
| ARGILA        | 18801.70 | T | 4068230.00 | 100.00 | 614070.90 | 100.00 |
| Subtotal..... |          |   | 4068230.00 | 100.00 | 614070.90 | 100.00 |

**MUNICIPIO - FOZ DO IGUAU**

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| AREIA         | 13178.63 | M3 | 5782493.65  | 20.72  | 2351331.19 | 40.35  |
| ARGILA        | 16293.50 | T  | 3842829.17  | 13.77  | 686769.86  | 11.78  |
| BASALTO       | 20549.51 | M3 | 18280599.66 | 65.51  | 2789678.90 | 47.87  |
| Subtotal..... |          |    | 27905922.48 | 100.00 | 5827779.95 | 100.00 |

**MUNICIPIO - FRANCISCO ALVES**

|               |        |   |          |        |         |        |
|---------------|--------|---|----------|--------|---------|--------|
| ARGILA        | 172.50 | T | 40840.25 | 100.00 | 1708.56 | 100.00 |
| Subtotal..... |        |   | 40840.25 | 100.00 | 1708.56 | 100.00 |

**MUNICIPIO - FRANCISCO BELTRAO**

|               |          |    |            |        |            |        |
|---------------|----------|----|------------|--------|------------|--------|
| AREIA         | 10243.13 | M3 | 1925143.20 | 45.77  | 944563.51  | 73.41  |
| ARGILA        | 1370.70  | T  | 165954.00  | 3.95   | 24892.50   | 1.93   |
| BASALTO       | 3205.59  | M3 | 2114653.53 | 50.28  | 317252.16  | 24.66  |
| Subtotal..... |          |    | 4205750.73 | 100.00 | 1286708.17 | 100.00 |

**MUNICIPIO - GOIO-ERE**

|               |         |    |            |        |            |        |
|---------------|---------|----|------------|--------|------------|--------|
| GABRO         | 7900.50 | M3 | 8373854.00 | 100.00 | 1256078.10 | 100.00 |
| Subtotal..... |         |    | 8373854.00 | 100.00 | 1256078.10 | 100.00 |

**MUNICIPIO - GRANDES RIOS**

|               |         |   |            |        |           |        |
|---------------|---------|---|------------|--------|-----------|--------|
| ARGILA        | 9312.04 | T | 2282881.33 | 100.00 | 339643.47 | 100.00 |
| Subtotal..... |         |   | 2282881.33 | 100.00 | 339643.47 | 100.00 |

**MUNICIPIO - GUAIRA**

|               |           |    |             |        |            |        |
|---------------|-----------|----|-------------|--------|------------|--------|
| AREIA         | 131017.33 | M3 | 14571575.01 | 33.89  | 2190474.80 | 33.94  |
| ARGILA        | 5312.00   | T  | 1241260.00  | 2.89   | 186189.00  | 2.89   |
| BASALTO       | 59860.36  | M3 | 27177840.00 | 63.22  | 4076676.00 | 63.17  |
| Subtotal..... |           |    | 42990675.01 | 100.00 | 6453339.80 | 100.00 |

**MUNICIPIO - GUAPOREMA**

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 1782.80 | T | 443292.00 | 100.00 | 72129.36 | 100.00 |
| Subtotal..... |         |   | 443292.00 | 100.00 | 72129.36 | 100.00 |

**MUNICIPIO - GUARANIACU**

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| ARGILA        | 1411.40 | T  | 324950.00  | 15.76  | 48742.50  | 15.90  |
| BASALTO       | 1883.08 | M3 | 1736278.50 | 84.24  | 257741.77 | 84.10  |
| Subtotal..... |         |    | 2061228.50 | 100.00 | 306484.27 | 100.00 |

**MUNICIPIO - GUARAPUAVA**

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| AREIA         | 581.50   | M3 | 1401600.00  | 8.52   | 211078.26  | 9.68   |
| ARGILA        | 709.53   | T  | 171808.44   | 1.04   | 29764.69   | 1.37   |
| BASALTO       | 23955.39 | M3 | 14878734.62 | 90.44  | 1938959.45 | 88.95  |
| Subtotal..... |          |    | 16452143.06 | 100.00 | 2179802.40 | 100.00 |

**MUNICIPIO - GUARATUBA**

|               |       |   |           |        |           |        |
|---------------|-------|---|-----------|--------|-----------|--------|
| GRANITO       | 60.42 | T | 705602.00 | 100.00 | 105840.30 | 100.00 |
| Subtotal..... |       |   | 705602.00 | 100.00 | 105840.30 | 100.00 |

**MUNICIPIO - IBIPORA**

|               |           |    |             |        |            |        |
|---------------|-----------|----|-------------|--------|------------|--------|
| ARGILA        | 17170.36  | T  | 5127559.60  | 18.21  | 745013.31  | 17.66  |
| BASALTO       | 165278.11 | M3 | 23037357.40 | 81.79  | 3473506.57 | 82.34  |
| Subtotal..... |           |    | 28164917.00 | 100.00 | 4218599.88 | 100.00 |

**MUNICIPIO - ICARAIMA**

|               |          |    |            |        |           |        |
|---------------|----------|----|------------|--------|-----------|--------|
| AREIA         | 19499.90 | M3 | 1264177.41 | 100.00 | 189626.56 | 100.00 |
| Subtotal..... |          |    | 1264177.41 | 100.00 | 189626.56 | 100.00 |

**MUNICIPIO - IMBITUVA**

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| ARGILA        | 20039.07 | T  | 4703027.40  | 36.90  | 706867.90  | 24.01  |
| CALCARIO      | 792.30   | T  | 4256359.64  | 33.39  | 638452.00  | 21.68  |
| CARVAO        | 3380.02  | T  | 3554914.40  | 27.89  | 1564070.00 | 53.12  |
| DIABASIO      | 138.79   | M3 | 232450.00   | 1.82   | 34867.50   | 1.18   |
| Subtotal..... |          |    | 12746751.44 | 100.00 | 2944257.40 | 100.00 |

**MUNICIPIO - INDIANOPOLIS**

|               |         |   |            |        |           |        |
|---------------|---------|---|------------|--------|-----------|--------|
| ARGILA        | 6758.00 | T | 1999900.00 | 100.00 | 306133.80 | 100.00 |
| Subtotal..... |         |   | 1999900.00 | 100.00 | 306133.80 | 100.00 |

**MUNICIPIO - IRATI**

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| AREIA         | 80.00    | M3 | 76700.00    | 0.48   | 11505.00   | 0.48   |
| ARGILA        | 12422.98 | T  | 3087851.10  | 19.37  | 460409.15  | 19.28  |
| CALCARIO      | 12.00    | T  | 24000.00    | 0.15   | 3600.00    | 0.15   |
| DIABASIO      | 10831.20 | M3 | 12753600.00 | 80.00  | 1913080.00 | 80.09  |
| Subtotal..... |          |    | 15942151.10 | 100.00 | 2388594.15 | 100.00 |

**MUNICIPIO - ITAMBE**

|               |         |   |           |        |           |        |
|---------------|---------|---|-----------|--------|-----------|--------|
| ARGILA        | 4403.00 | T | 928000.00 | 100.00 | 133059.78 | 100.00 |
| Subtotal..... |         |   | 928000.00 | 100.00 | 133059.78 | 100.00 |

**MUNICIPIO - ITAPEJARA DO OESTE**

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 2031.87 | T | 477410.00 | 100.00 | 72399.00 | 100.00 |
| Subtotal..... |         |   | 477410.00 | 100.00 | 72399.00 | 100.00 |

**MUNICIPIO - IVAIPORA**

|               |         |    |            |        |            |        |
|---------------|---------|----|------------|--------|------------|--------|
| AREIA         | 6213.00 | M3 | 4196950.00 | 46.76  | 636064.00  | 47.07  |
| ARGILA        | 1254.00 | T  | 373340.00  | 4.16   | 48615.00   | 3.60   |
| BASALTO       | 9461.00 | M3 | 4405964.00 | 49.08  | 666544.85  | 49.33  |
| Subtotal..... |         |    | 8976254.00 | 100.00 | 1351223.85 | 100.00 |

**MUNICIPIO - IVATUBA**

|               |          |   |            |        |           |        |
|---------------|----------|---|------------|--------|-----------|--------|
| ARGILA        | 13737.00 | T | 3855720.00 | 100.00 | 592835.77 | 100.00 |
| Subtotal..... |          |   | 3855720.00 | 100.00 | 592835.77 | 100.00 |

**MUNICIPIO - JACAREZINHO**

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| AREIA         | 6689.00  | M3 | 3326600.00  | 11.06  | 498990.50  | 9.34   |
| ARENITO       | 61.00    | T  | 211200.00   | 0.70   | 31680.00   | 0.59   |
| ARGILA        | 71064.97 | T  | 26531600.00 | 88.19  | 4807139.80 | 90.02  |
| SILTITO       | 1656.00  | M2 | 13800.00    | 0.05   | 2119.50    | 0.04   |
| Subtotal..... |          |    | 30083200.00 | 100.00 | 5339929.80 | 100.00 |

**MUNICIPIO - JAPURA**

|               |          |   |             |        |            |        |
|---------------|----------|---|-------------|--------|------------|--------|
| ARGILA        | 58737.61 | T | 16969825.10 | 100.00 | 2622045.47 | 100.00 |
| Subtotal..... |          |   | 16969825.10 | 100.00 | 2622045.47 | 100.00 |

**MUNICIPIO - JARDIM OLINDA**

|               |        |    |          |        |          |        |
|---------------|--------|----|----------|--------|----------|--------|
| AREIA         | 379.42 | M3 | 63685.00 | 73.47  | 10680.00 | 75.58  |
| ARENITO       | 59.20  | T  | 6100.00  | 7.04   | 915.00   | 6.48   |
| ARGILA        | 139.00 | T  | 16900.00 | 19.50  | 2535.00  | 17.94  |
| Subtotal..... |        |    | 86685.00 | 100.00 | 14130.00 | 100.00 |

**MUNICIPIO - JATAIZINHO**

|               |          |   |            |        |            |        |
|---------------|----------|---|------------|--------|------------|--------|
| ARGILA        | 21274.18 | T | 6261940.00 | 100.00 | 1007710.86 | 100.00 |
| Subtotal..... |          |   | 6261940.00 | 100.00 | 1007710.86 | 100.00 |

**MUNICIPIO - JUSSARA**

|               |          |   |            |        |           |        |
|---------------|----------|---|------------|--------|-----------|--------|
| ARGILA        | 16293.80 | T | 4720460.00 | 100.00 | 708077.00 | 100.00 |
| Subtotal..... |          |   | 4720460.00 | 100.00 | 708077.00 | 100.00 |

**MUNICIPIO - LAPA**

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| AREIA         | 32878.46 | M3 | 28314479.00 | 68.16  | 4254802.55 | 66.94  |
| ARENITO       | 2792.94  | T  | 2779067.50  | 6.69   | 440719.35  | 6.93   |
| ARGILA        | 3333.80  | T  | 699168.80   | 1.68   | 119515.32  | 1.88   |
| ARGILA REFR   | 2254.00  | T  | 9748041.04  | 23.47  | 1541261.72 | 24.25  |
| Subtotal..... |          |    | 41540756.34 | 100.00 | 6356298.94 | 100.00 |

**MUNICIPIO - LOANDA**

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 2324.57 | T | 387660.00 | 100.00 | 58221.45 | 100.00 |
| Subtotal..... |         |   | 387660.00 | 100.00 | 58221.45 | 100.00 |

**MUNICIPIO - LONDRINA**

|               |            |    |             |        |            |        |
|---------------|------------|----|-------------|--------|------------|--------|
| AGUA MINERAL  | 2867719.53 | L  | 16059248.00 | 45.35  | 2408888.10 | 44.59  |
| AREIA         | 35180.24   | M3 | 6954447.80  | 19.64  | 1071651.55 | 19.83  |
| ARGILA        | 24544.64   | T  | 6824532.52  | 19.27  | 1147543.98 | 21.24  |
| BASALTO       | 42421.89   | M3 | 5574024.33  | 15.74  | 774778.45  | 14.34  |
| Subtotal..... |            |    | 35412252.65 | 100.00 | 5402862.08 | 100.00 |

**MUNICIPIO - MALLET**

|               |        |   |          |        |         |        |
|---------------|--------|---|----------|--------|---------|--------|
| ARGILA        | 114.00 | T | 20660.00 | 100.00 | 3151.11 | 100.00 |
| Subtotal..... |        |   | 20660.00 | 100.00 | 3151.11 | 100.00 |

**MUNICIPIO - MANDAGUARI**

|               |       |    |          |        |         |        |
|---------------|-------|----|----------|--------|---------|--------|
| AREIA         | 80.00 | M3 | 16000.00 | 100.00 | 2400.00 | 100.00 |
| Subtotal..... |       |    | 16000.00 | 100.00 | 2400.00 | 100.00 |

**MUNICIPIO - MANDIRITUBA**

|               |          |    |             |        |             |        |
|---------------|----------|----|-------------|--------|-------------|--------|
| AREIA         | 86554.86 | M3 | 82603578.75 | 99.70  | 12182757.50 | 99.68  |
| ARGILA        | 756.00   | T  | 248542.00   | 0.30   | 38967.66    | 0.32   |
| Subtotal..... |          |    | 82852120.75 | 100.00 | 12221725.16 | 100.00 |

**MUNICIPIO - MANOEL RIBAS**

|               |       |    |         |        |         |        |
|---------------|-------|----|---------|--------|---------|--------|
| AREIA         | 20.00 | M3 | 9000.00 | 100.00 | 1350.00 | 100.00 |
| Subtotal..... |       |    | 9000.00 | 100.00 | 1350.00 | 100.00 |

**MUNICIPIO - MARECHAL CANDIDO RONDON**

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| ARGILA        | 15028.22 | T  | 1879326.38  | 12.20  | 287513.92  | 12.41  |
| BASALTO       | 11792.60 | M3 | 13524804.68 | 87.80  | 2028720.70 | 87.59  |
| Subtotal..... |          |    | 15404131.06 | 100.00 | 2316234.62 | 100.00 |

**MUNICIPIO - MARILANDIA DO SUL**

|               |          |   |            |        |           |        |
|---------------|----------|---|------------|--------|-----------|--------|
| ARGILA        | 16239.88 | T | 4387800.00 | 100.00 | 658170.00 | 100.00 |
| Subtotal..... |          |   | 4387800.00 | 100.00 | 658170.00 | 100.00 |

**MUNICIPIO - MARILENA**

|               |           |    |             |        |            |        |
|---------------|-----------|----|-------------|--------|------------|--------|
| AREIA         | 173878.36 | M3 | 20626411.50 | 100.00 | 3597213.73 | 100.00 |
| Subtotal..... |           |    | 20626411.50 | 100.00 | 3597213.73 | 100.00 |

**MUNICIPIO - MARINGA**

|               |           |    |            |        |           |        |
|---------------|-----------|----|------------|--------|-----------|--------|
| AREIA         | 5640.00   | M3 | 503100.00  | 9.25   | 94770.00  | 10.74  |
| BASALTO       | 117628.37 | M3 | 4938642.95 | 90.75  | 787582.25 | 89.26  |
| Subtotal..... |           |    | 5441742.95 | 100.00 | 882352.25 | 100.00 |

**MUNICIPIO - MARMELEIRO**

|               |        |    |           |        |          |        |
|---------------|--------|----|-----------|--------|----------|--------|
| BASALTO       | 184.00 | M3 | 106150.00 | 100.00 | 15922.50 | 100.00 |
| Subtotal..... |        |    | 106150.00 | 100.00 | 15922.50 | 100.00 |

**MUNICIPIO - MATELANDIA**

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| BASALTO       | 10446.04 | M3 | 12663930.66 | 100.00 | 1995528.70 | 100.00 |
| Subtotal..... |          |    | 12663930.66 | 100.00 | 1995528.70 | 100.00 |

**MUNICIPIO - MEDIANEIRA**

|               |          |    |            |        |           |        |
|---------------|----------|----|------------|--------|-----------|--------|
| AREIA         | 50.00    | M3 | 8000.00    | 0.27   | 1332.00   | 0.28   |
| ARGILA        | 11824.52 | T  | 2959535.46 | 99.73  | 474022.00 | 99.72  |
| Subtotal..... |          |    | 2967535.46 | 100.00 | 475354.00 | 100.00 |

**MUNICIPIO - MISSAL**

|               |            |   |            |        |            |        |
|---------------|------------|---|------------|--------|------------|--------|
| AGUA MINERAL  | 1798910.00 | L | 9002984.00 | 97.52  | 1350456.00 | 97.49  |
| ARGILA        | 809.64     | T | 228862.20  | 2.48   | 34720.21   | 2.51   |
| Subtotal..... |            |   | 9231846.20 | 100.00 | 1385176.21 | 100.00 |

**MUNICIPIO - NORRETES**

|               |         |    |           |        |          |        |
|---------------|---------|----|-----------|--------|----------|--------|
| AREIA         | 3686.73 | M3 | 511128.00 | 100.00 | 76837.50 | 100.00 |
| Subtotal..... |         |    | 511128.00 | 100.00 | 76837.50 | 100.00 |

**MUNICIPIO - NOSSA SENHORA DAS GRACAS**

|               |         |    |           |        |           |        |
|---------------|---------|----|-----------|--------|-----------|--------|
| AREIA         | 6167.65 | M3 | 804747.00 | 100.00 | 120512.55 | 100.00 |
| Subtotal..... |         |    | 804747.00 | 100.00 | 120512.55 | 100.00 |

**MUNICIPIO - NOVA CANTU**

|               |        |   |           |        |          |        |
|---------------|--------|---|-----------|--------|----------|--------|
| ARGILA        | 460.50 | T | 184200.00 | 100.00 | 27630.00 | 100.00 |
| Subtotal..... |        |   | 184200.00 | 100.00 | 27630.00 | 100.00 |

**MUNICIPIO - NOVA PRATA DO IGUAÇU**

|               |        |    |           |        |          |        |
|---------------|--------|----|-----------|--------|----------|--------|
| AREIA         | 716.36 | M3 | 448006.20 | 100.00 | 67351.33 | 100.00 |
| Subtotal..... |        |    | 448006.20 | 100.00 | 67351.33 | 100.00 |

**MUNICIPIO - NOVA SANTA ROSA**

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 1120.03 | T | 316932.00 | 100.00 | 47540.00 | 100.00 |
| Subtotal..... |         |   | 316932.00 | 100.00 | 47540.00 | 100.00 |



## MUNICIPIO - ORTIGUEIRA

|               |          |    |            |        |            |        |
|---------------|----------|----|------------|--------|------------|--------|
| AREIA         | 1529.00  | M3 | 5200.00    | 0.08   | 780.00     | 0.08   |
| ARGILA        | 24305.36 | T  | 6859951.78 | 99.83  | 1028915.17 | 99.83  |
| ARGILA REFR   | 71.00    | T  | 6390.00    | 0.09   | 958.50     | 0.09   |
| Subtotal..... |          |    | 6871541.78 | 100.00 | 1030653.67 | 100.00 |

## MUNICIPIO - OURIZONA

|               |         |   |            |        |           |        |
|---------------|---------|---|------------|--------|-----------|--------|
| ARGILA        | 7476.00 | T | 2199360.00 | 100.00 | 351697.86 | 100.00 |
| Subtotal..... |         |   | 2199360.00 | 100.00 | 351697.86 | 100.00 |

## MUNICIPIO - PALMEIRA

|               |        |   |          |        |         |        |
|---------------|--------|---|----------|--------|---------|--------|
| ARGILA        | 427.00 | T | 42720.00 | 100.00 | 6408.00 | 100.00 |
| Subtotal..... |        |   | 42720.00 | 100.00 | 6408.00 | 100.00 |

## MUNICIPIO - PALOTINA

|               |          |    |            |        |           |        |
|---------------|----------|----|------------|--------|-----------|--------|
| ARGILA        | 1398.67  | T  | 325570.40  | 4.72   | 49676.36  | 5.15   |
| BASALTO       | 14593.28 | M3 | 6568737.44 | 95.28  | 915847.98 | 94.85  |
| Subtotal..... |          |    | 6894307.84 | 100.00 | 965524.34 | 100.00 |

## MUNICIPIO - PARAISO DO NORTE

|               |          |   |            |        |            |        |
|---------------|----------|---|------------|--------|------------|--------|
| ARGILA        | 21239.08 | T | 8928685.58 | 100.00 | 1499874.84 | 100.00 |
| Subtotal..... |          |   | 8928685.58 | 100.00 | 1499874.84 | 100.00 |

## MUNICIPIO - PARANAGUA

|               |          |    |            |        |            |        |
|---------------|----------|----|------------|--------|------------|--------|
| AREIA         | 19921.24 | M3 | 2535742.10 | 39.65  | 382674.04  | 36.08  |
| GRANITO       | 2590.28  | T  | 3859948.02 | 60.35  | 677861.66  | 63.92  |
| Subtotal..... |          |    | 6395690.12 | 100.00 | 1060535.70 | 100.00 |

## MUNICIPIO - PARANAVAI

|               |         |    |          |        |          |        |
|---------------|---------|----|----------|--------|----------|--------|
| AREIA         | 3232.00 | M3 | 68440.00 | 88.26  | 10266.00 | 88.26  |
| ARENITO       | 195.00  | T  | 9100.00  | 11.74  | 1365.00  | 11.74  |
| Subtotal..... |         |    | 77540.00 | 100.00 | 11631.00 | 100.00 |

## MUNICIPIO - PATO BRANCO

|               |          |    |            |        |            |        |
|---------------|----------|----|------------|--------|------------|--------|
| AREIA         | 2887.00  | M3 | 1245318.70 | 15.93  | 186798.00  | 10.29  |
| ARGILA        | 5631.42  | T  | 1526584.00 | 19.53  | 264191.79  | 14.55  |
| BASALTO       | 16516.00 | M3 | 5044698.49 | 64.54  | 1364250.35 | 75.16  |
| Subtotal..... |          |    | 7816601.19 | 100.00 | 1815240.14 | 100.00 |

## MUNICIPIO - PEABIRU

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| BASALTO       | 2969.00 | M3 | 4192080.00 | 100.00 | 629843.17 | 100.00 |
| Subtotal..... |         |    | 4192080.00 | 100.00 | 629843.17 | 100.00 |

## MUNICIPIO - PEROLA DO OESTE

|               |       |   |         |        |        |        |
|---------------|-------|---|---------|--------|--------|--------|
| ARGILA        | 80.00 | T | 4680.00 | 100.00 | 702.00 | 100.00 |
| Subtotal..... |       |   | 4680.00 | 100.00 | 702.00 | 100.00 |

## MUNICIPIO - PIEN

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| AREIA         | 1842.00 | M3 | 895080.00  | 73.35  | 134262.00 | 73.35  |
| ARGILA BRANCA | 566.40  | T  | 323540.00  | 26.51  | 48531.00  | 26.51  |
| TALCO         | 20.00   | T  | 1673.60    | 0.14   | 251.00    | 0.14   |
| Subtotal..... |         |    | 1220293.60 | 100.00 | 183044.00 | 100.00 |

## MUNICIPIO - PIRAI DO SUL

|               |        |   |          |        |          |        |
|---------------|--------|---|----------|--------|----------|--------|
| GRANITO       | 481.00 | T | 96200.00 | 100.00 | 14430.00 | 100.00 |
| Subtotal..... |        |   | 96200.00 | 100.00 | 14430.00 | 100.00 |

## MUNICIPIO - PIRAQUARA

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| GNAISSE       | 78.00    | M3 | 181600.00   | 0.74   | 27240.00   | 0.59   |
| GRANITO       | 23302.79 | T  | 24470979.39 | 99.26  | 4573371.99 | 99.41  |
| Subtotal..... |          |    | 24652579.39 | 100.00 | 4600611.99 | 100.00 |

## MUNICIPIO - PITANGA

|               |        |    |           |        |          |        |
|---------------|--------|----|-----------|--------|----------|--------|
| BASALTO       | 257.00 | M3 | 107600.00 | 100.00 | 16140.00 | 100.00 |
| Subtotal..... |        |    | 107600.00 | 100.00 | 16140.00 | 100.00 |

## MUNICIPIO - PLANALTO

|               |       |   |         |        |        |        |
|---------------|-------|---|---------|--------|--------|--------|
| ARGILA        | 70.00 | T | 2450.00 | 100.00 | 367.00 | 100.00 |
| Subtotal..... |       |   | 2450.00 | 100.00 | 367.00 | 100.00 |

## MUNICIPIO - PONTA GROSSA

|                  |             |    |              |        |             |        |
|------------------|-------------|----|--------------|--------|-------------|--------|
| AGUA SUBTERRANEA | 43904189.39 | L  | 1241062.91   | 0.46   | 184809.16   | 0.49   |
| AREIA            | 12868.15    | M3 | 3959160.00   | 1.47   | 611348.04   | 1.63   |
| ARENITO          | 904.00      | M3 | 236000.00    | 0.09   | 35400.00    | 0.09   |
| ARGILA           | 10996.66    | T  | 3120939.59   | 1.16   | 507741.34   | 1.35   |
| ARGILA REFR      | 1119.32     | T  | 1732600.00   | 0.64   | 259890.00   | 0.69   |
| CASCALHO         | 330.00      | M3 | 66000.00     | 0.02   | 9900.00     | 0.03   |
| DIABASIO         | 21409.00    | M3 | 19048425.28  | 7.08   | 2857151.22  | 7.60   |
| GRANITO          | 18225.50    | T  | 33181661.00  | 12.33  | 4991721.86  | 13.28  |
| TALCO            | 145198.32   | T  | 206505735.79 | 76.74  | 28122151.69 | 74.83  |
| Subtotal.....    |             |    | 269091584.57 | 100.00 | 37580113.31 | 100.00 |

## MUNICIPIO - PORTO AMAZONAS

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| AREIA         | 3854.62 | M3 | 1263400.00 | 100.00 | 171133.50 | 100.00 |
| Subtotal..... |         |    | 1263400.00 | 100.00 | 171133.50 | 100.00 |

## MUNICIPIO - PORTO RICO

|               |           |    |             |        |            |        |
|---------------|-----------|----|-------------|--------|------------|--------|
| AREIA         | 143265.63 | M3 | 10752268.56 | 100.00 | 1656779.50 | 100.00 |
| Subtotal..... |           |    | 10752268.56 | 100.00 | 1656779.50 | 100.00 |

## MUNICIPIO - PORTO UNIAO

|               |        |   |          |        |         |        |
|---------------|--------|---|----------|--------|---------|--------|
| ARGILA        | 200.00 | T | 20000.00 | 100.00 | 3000.00 | 100.00 |
| Subtotal..... |        |   | 20000.00 | 100.00 | 3000.00 | 100.00 |

## MUNICIPIO - PORTO VITORIA

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 1445.00 | T | 359500.00 | 100.00 | 53925.00 | 100.00 |
| Subtotal..... |         |   | 359500.00 | 100.00 | 53925.00 | 100.00 |

## MUNICIPIO - PRANCHITA

|               |          |   |            |        |           |        |
|---------------|----------|---|------------|--------|-----------|--------|
| ARGILA        | 14138.00 | T | 3908102.00 | 100.00 | 735917.63 | 100.00 |
| Subtotal..... |          |   | 3908102.00 | 100.00 | 735917.63 | 100.00 |

## MUNICIPIO - PRUDENTOPOLIS

|               |          |   |            |        |           |        |
|---------------|----------|---|------------|--------|-----------|--------|
| ARGILA        | 11048.19 | T | 3348928.55 | 100.00 | 649053.25 | 100.00 |
| Subtotal..... |          |   | 3348928.55 | 100.00 | 649053.25 | 100.00 |

## MUNICIPIO - QUATRO BARRAS

|               |           |    |              |        |             |        |
|---------------|-----------|----|--------------|--------|-------------|--------|
| ARGILA        | 6234.00   | T  | 1779200.00   | 1.21   | 266939.40   | 1.21   |
| ARGILA BRANCA | 672.12    | T  | 153112.80    | 0.10   | 23052.92    | 0.10   |
| GRANITO       | 161962.26 | T  | 143256130.51 | 97.55  | 21525919.77 | 97.56  |
| MIGMATITO     | 4578.00   | M3 | 1662180.24   | 1.13   | 249327.04   | 1.13   |
| Subtotal..... |           |    | 146850623.55 | 100.00 | 22065239.13 | 100.00 |

## MUNICIPIO - QUEDAS DO IGUAÇU

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| ARGILA        | 2190.20 | T  | 403442.17  | 30.96  | 69039.93  | 18.77  |
| BASALTO       | 802.29  | M3 | 899600.00  | 69.04  | 298720.76 | 81.23  |
| Subtotal..... |         |    | 1303042.17 | 100.00 | 367760.69 | 100.00 |

## MUNICIPIO - QUERENCIA DO NORTE

|               |          |    |            |        |           |        |
|---------------|----------|----|------------|--------|-----------|--------|
| AREIA         | 14621.00 | M3 | 1027280.50 | 100.00 | 155135.32 | 100.00 |
| Subtotal..... |          |    | 1027280.50 | 100.00 | 155135.32 | 100.00 |

## MUNICIPIO - QUITANDINHA

|               |       |   |           |        |          |        |
|---------------|-------|---|-----------|--------|----------|--------|
| GRANITO       | 79.00 | T | 314420.00 | 100.00 | 47163.00 | 100.00 |
| Subtotal..... |       |   | 314420.00 | 100.00 | 47163.00 | 100.00 |

## MUNICIPIO - REALEZA

|               |         |    |           |        |           |        |
|---------------|---------|----|-----------|--------|-----------|--------|
| AREIA         | 85.00   | M3 | 59850.00  | 6.01   | 10534.33  | 7.79   |
| ARGILA        | 5048.89 | T  | 935368.90 | 93.99  | 124660.30 | 92.21  |
| Subtotal..... |         |    | 995218.90 | 100.00 | 135194.63 | 100.00 |

## MUNICIPIO - REBOUCAS

|               |         |   |            |        |           |        |
|---------------|---------|---|------------|--------|-----------|--------|
| ARGILA        | 4672.50 | T | 1819910.00 | 100.00 | 272986.50 | 100.00 |
| Subtotal..... |         |   | 1819910.00 | 100.00 | 272986.50 | 100.00 |

## MUNICIPIO - RIBEIRAO CLARO

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| AREIA         | 5385.00 | M3 | 2548850.00 | 100.00 | 382328.00 | 100.00 |
| Subtotal..... |         |    | 2548850.00 | 100.00 | 382328.00 | 100.00 |

## MUNICIPIO - RIO AZUL

|               |        |   |        |        |       |        |
|---------------|--------|---|--------|--------|-------|--------|
| ARGILA        | 203.46 | T | 445.76 | 100.00 | 74.17 | 100.00 |
| Subtotal..... |        |   | 445.76 | 100.00 | 74.17 | 100.00 |

## MUNICIPIO - RIO BRANCO DO SUL

|               |            |    |               |        |              |        |
|---------------|------------|----|---------------|--------|--------------|--------|
| ARGILA        | 56134.00   | T  | 2678869.97    | 0.13   | 401829.91    | 0.12   |
| ARGILA BRANCA | 59988.00   | T  | 1217810.26    | 0.06   | 182671.18    | 0.05   |
| CALCARIO      | 3109052.59 | T  | 1989871859.66 | 95.46  | 318385356.30 | 95.49  |
| DOLOMITO      | 234946.72  | T  | 83764552.59   | 4.02   | 12695799.25  | 3.81   |
| FILITO        | 190.90     | T  | 19090.00      | 0.00   | 2863.50      | 0.00   |
| GRANITO       | 631.15     | T  | 4619240.10    | 0.22   | 1406091.40   | 0.42   |
| HARNORE       | 91659.81   | M3 | 2273818.93    | 0.11   | 364289.42    | 0.11   |
| Subtotal..... |            |    | 2084445241.51 | 100.00 | 333438900.96 | 100.00 |

## MUNICIPIO - RIO NEGRO

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| AREIA         | 523.00  | M3 | 7430.00    | 0.50   | 1841.15   | 0.82   |
| ARGILA        | 6416.25 | T  | 1487400.00 | 99.50  | 223987.50 | 99.18  |
| Subtotal..... |         |    | 1494830.00 | 100.00 | 225828.65 | 100.00 |

## MUNICIPIO - ROLANDIA

|               |           |   |           |        |           |        |
|---------------|-----------|---|-----------|--------|-----------|--------|
| AGUA MINERAL  | 186148.57 | L | 713546.00 | 99.25  | 191374.90 | 99.58  |
| ARGILA        | 36.00     | T | 5400.00   | 0.75   | 810.00    | 0.42   |
| Subtotal..... |           |   | 718946.00 | 100.00 | 192184.90 | 100.00 |

## MUNICIPIO - RONDON

|               |        |   |          |        |          |        |
|---------------|--------|---|----------|--------|----------|--------|
| ARGILA        | 162.00 | T | 87840.00 | 100.00 | 13176.00 | 100.00 |
| Subtotal..... |        |   | 87840.00 | 100.00 | 13176.00 | 100.00 |

## MUNICIPIO - SANTA CECILIA DO PAVAO

|               |      |    |          |        |         |        |
|---------------|------|----|----------|--------|---------|--------|
| BASALTO       | 0.00 | M3 | 13280.00 | 100.00 | 2934.24 | 100.00 |
| Subtotal..... |      |    | 13280.00 | 100.00 | 2934.24 | 100.00 |

## MUNICIPIO - SANTA INES

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| ARGILA        | 2520.00 | T  | 594400.00  | 29.98  | 90360.00  | 18.47  |
| BASALTO       | 5320.31 | M3 | 1388065.50 | 70.02  | 398044.09 | 81.53  |
| Subtotal..... |         |    | 1982465.50 | 100.00 | 489204.09 | 100.00 |

## MUNICIPIO - SANTA IZABEL DO IVAI

|               |         |   |           |        |           |        |
|---------------|---------|---|-----------|--------|-----------|--------|
| ARGILA        | 3314.95 | T | 765402.80 | 100.00 | 114810.42 | 100.00 |
| Subtotal..... |         |   | 765402.80 | 100.00 | 114810.42 | 100.00 |

## MUNICIPIO - SANTA IZABEL DO OESTE

|               |        |   |           |        |          |        |
|---------------|--------|---|-----------|--------|----------|--------|
| ARGILA        | 825.00 | T | 153970.00 | 100.00 | 46970.30 | 100.00 |
| Subtotal..... |        |   | 153970.00 | 100.00 | 46970.30 | 100.00 |

## MUNICIPIO - SANTA MARIANA

|               |        |   |          |        |          |        |
|---------------|--------|---|----------|--------|----------|--------|
| ARGILA        | 447.84 | T | 88529.20 | 100.00 | 13315.76 | 100.00 |
| Subtotal..... |        |   | 88529.20 | 100.00 | 13315.76 | 100.00 |

## MUNICIPIO - SANTA TEREZINHA DO ITAIPU

|               |          |    |            |        |           |        |
|---------------|----------|----|------------|--------|-----------|--------|
| AREIA         | 16840.00 | M3 | 3745554.00 | 99.45  | 561833.11 | 99.45  |
| ARGILA        | 77.50    | T  | 20600.00   | 0.55   | 3090.00   | 0.55   |
| Subtotal..... |          |    | 3766154.00 | 100.00 | 564923.11 | 100.00 |

## MUNICIPIO - SANTANA DO ITARARE

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| AREIA         | 7067.50 | M3 | 1102912.50 | 100.00 | 172456.90 | 100.00 |
| Subtotal..... |         |    | 1102912.50 | 100.00 | 172456.90 | 100.00 |

## MUNICIPIO - SANTO ANTONIO DA PLATINA

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| AREIA         | 3465.15 | M3 | 725403.00  | 15.32  | 76470.50  | 26.94  |
| ARGILA        | 300.00  | T  | 120000.00  | 2.53   | 18000.00  | 6.34   |
| BASALTO       | 6683.68 | M3 | 3652376.97 | 77.15  | 146795.53 | 51.72  |
| DIABASIO      | 573.00  | M3 | 236174.00  | 4.99   | 42577.20  | 15.00  |
| Subtotal..... |         |    | 4733953.97 | 100.00 | 283843.23 | 100.00 |

## MUNICIPIO - SAO CARLOS DO IVAI

|               |         |   |            |        |           |        |
|---------------|---------|---|------------|--------|-----------|--------|
| ARGILA        | 7590.80 | T | 1989000.00 | 100.00 | 301897.83 | 100.00 |
| Subtotal..... |         |   | 1989000.00 | 100.00 | 301897.83 | 100.00 |

## MUNICIPIO - SAO JERONIMO DA SERRA

|               |         |    |           |        |           |        |
|---------------|---------|----|-----------|--------|-----------|--------|
| AREIA         | 132.39  | M3 | 156100.00 | 16.31  | 35879.24  | 23.33  |
| ARGILA        | 1561.27 | T  | 800820.00 | 83.69  | 117920.46 | 76.67  |
| Subtotal..... |         |    | 956920.00 | 100.00 | 153799.70 | 100.00 |

## MUNICIPIO - SAO JORGE DO OESTE

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 1206.00 | T | 127149.00 | 100.00 | 19321.02 | 100.00 |
| Subtotal..... |         |   | 127149.00 | 100.00 | 19321.02 | 100.00 |

## MUNICIPIO - SAO JOSE DOS PINHAIS

|               |           |    |              |        |             |        |
|---------------|-----------|----|--------------|--------|-------------|--------|
| AREIA         | 188932.01 | M3 | 57972060.33  | 35.76  | 8724054.03  | 37.21  |
| ARGILA        | 3726.96   | T  | 2136695.40   | 1.32   | 418661.63   | 1.79   |
| ARGILA BRANCA | 4239.00   | T  | 7709190.55   | 4.76   | 1295113.20  | 5.52   |
| CAULIM        | 81.27     | T  | 229560.00    | 0.14   | 34434.02    | 0.15   |
| FILITO        | 5087.00   | T  | 5460243.00   | 3.37   | 819036.45   | 3.49   |
| GNAISSE       | 74921.12  | M3 | 39882127.08  | 24.60  | 6100983.27  | 26.02  |
| GRANITO       | 27510.00  | T  | 10936466.00  | 6.75   | 337560.00   | 1.44   |
| MIGMATITO     | 96094.59  | M3 | 37765593.00  | 23.30  | 5718575.78  | 24.39  |
| Subtotal..... |           |    | 162091935.36 | 100.00 | 23448418.38 | 100.00 |

## MUNICIPIO - SAO MATEUS DO SUL

|               |          |    |            |        |           |        |
|---------------|----------|----|------------|--------|-----------|--------|
| AREIA         | 13046.88 | M3 | 4148521.00 | 82.67  | 793687.17 | 85.72  |
| ARGILA        | 2555.04  | T  | 869760.00  | 17.33  | 132191.57 | 14.28  |
| Subtotal..... |          |    | 5018281.00 | 100.00 | 925878.74 | 100.00 |

## MUNICIPIO - SAO MIGUEL DO IGUAÇU

|               |         |   |           |        |           |        |
|---------------|---------|---|-----------|--------|-----------|--------|
| ARGILA        | 2022.59 | T | 538520.00 | 70.04  | 81145.95  | 70.13  |
| BASALTO       | 576.00  | T | 230400.00 | 29.96  | 34560.00  | 29.87  |
| Subtotal..... |         |   | 768920.00 | 100.00 | 115705.95 | 100.00 |

## MUNICIPIO - SAO PEDRO DO IVAI

|               |         |    |           |        |          |        |
|---------------|---------|----|-----------|--------|----------|--------|
| AREIA         | 482.00  | M3 | 108370.00 | 28.85  | 16255.50 | 28.85  |
| ARGILA        | 1172.40 | T  | 267200.00 | 71.15  | 40080.00 | 71.15  |
| Subtotal..... |         |    | 375570.00 | 100.00 | 56335.50 | 100.00 |

## MUNICIPIO - SAO PEDRO DO PARANA

|               |           |    |             |        |            |        |
|---------------|-----------|----|-------------|--------|------------|--------|
| AREIA         | 166897.81 | M3 | 18445749.73 | 99.73  | 2790472.93 | 99.74  |
| BASALTO       | 246.00    | M3 | 49200.00    | 0.27   | 7380.00    | 0.26   |
| Subtotal..... |           |    | 18494949.73 | 100.00 | 2797852.93 | 100.00 |

## MUNICIPIO - SAPORENA

|               |          |   |              |        |             |        |
|---------------|----------|---|--------------|--------|-------------|--------|
| ARGILA        | 4243.15  | T | 594041.00    | 0.27   | 89106.16    | 0.27   |
| CARVAO        | 60234.45 | T | 218548923.90 | 99.73  | 32782338.65 | 99.73  |
| Subtotal..... |          |   | 219142964.90 | 100.00 | 32871444.81 | 100.00 |

## MUNICIPIO - SARANDI

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 3850.00 | T | 400000.00 | 100.00 | 62293.20 | 100.00 |
| Subtotal..... |         |   | 400000.00 | 100.00 | 62293.20 | 100.00 |

## MUNICIPIO - SENEGES

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| AREIA         | 20.00   | M3 | 6000.00    | 0.34   | 900.00    | 0.32   |
| CALCARIO      | 462.00  | T  | 132540.00  | 7.55   | 19903.44  | 7.04   |
| CAULIM        | 3664.00 | T  | 1128404.00 | 64.30  | 169260.60 | 59.88  |
| DOLOMITO      | 2277.16 | T  | 487905.00  | 27.80  | 92625.75  | 32.77  |
| Subtotal..... |         |    | 1754849.00 | 100.00 | 282689.79 | 100.00 |

## MUNICIPIO - SIQUEIRA CAMPOS

|               |         |    |            |        |           |        |
|---------------|---------|----|------------|--------|-----------|--------|
| ARGILA        | 6884.00 | T  | 1256620.00 | 77.09  | 203779.30 | 62.45  |
| BASALTO       | 443.64  | M3 | 26618.40   | 1.63   | 4591.95   | 1.41   |
| DIABASIO      | 5254.00 | M3 | 346725.00  | 21.27  | 117910.95 | 36.14  |
| Subtotal..... |         |    | 1629963.40 | 100.00 | 326282.20 | 100.00 |

## MUNICIPIO - TAPIRA

|               |         |   |           |        |          |        |
|---------------|---------|---|-----------|--------|----------|--------|
| ARGILA        | 1985.13 | T | 412257.00 | 100.00 | 64474.65 | 100.00 |
| Subtotal..... |         |   | 412257.00 | 100.00 | 64474.65 | 100.00 |

## MUNICIPIO - TELEMACHO BORBA

|               |          |    |              |        |             |        |
|---------------|----------|----|--------------|--------|-------------|--------|
| AREIA         | 4988.86  | M3 | 2511049.87   | 1.66   | 375037.58   | 1.65   |
| BASALTO       | 6456.90  | M3 | 13184399.60  | 8.69   | 1977659.94  | 8.69   |
| CARVAO        | 18903.78 | T  | 107586159.12 | 70.91  | 16137923.92 | 70.92  |
| DIABASIO      | 5139.92  | T  | 28430051.60  | 18.74  | 4264507.75  | 18.74  |
| Subtotal..... |          |    | 151711660.19 | 100.00 | 22755129.19 | 100.00 |

## MUNICIPIO - TERRA ROXA

|               |          |    |            |        |           |        |
|---------------|----------|----|------------|--------|-----------|--------|
| AREIA         | 16008.30 | M3 | 615988.60  | 46.20  | 92398.29  | 45.67  |
| ARGILA        | 2394.77  | T  | 717380.00  | 53.80  | 109899.00 | 54.33  |
| Subtotal..... |          |    | 1333368.60 | 100.00 | 202297.29 | 100.00 |

## MUNICIPIO - TIJUCAS DO SUL

|               |         |   |            |        |            |        |
|---------------|---------|---|------------|--------|------------|--------|
| ARGILA        | 0.00    | T | 341759.72  | 3.91   | 3469082.24 | 55.63  |
| ARGILA BRANCA | 5255.00 | T | 8406166.03 | 96.09  | 2767291.03 | 44.37  |
| Subtotal..... |         |   | 8747925.75 | 100.00 | 6236373.27 | 100.00 |

MUNICIPIO - TOLEDO

|               |         |   |           |        |           |        |
|---------------|---------|---|-----------|--------|-----------|--------|
| ARGILA        | 4060.38 | T | 876357.66 | 100.00 | 134075.67 | 100.00 |
| Subtotal..... |         |   | 876357.66 | 100.00 | 134075.67 | 100.00 |

MUNICIPIO - TRES BARRAS DO PARANA

|               |        |   |          |        |          |        |
|---------------|--------|---|----------|--------|----------|--------|
| ARGILA        | 794.65 | T | 85284.33 | 100.00 | 14012.15 | 100.00 |
| Subtotal..... |        |   | 85284.33 | 100.00 | 14012.15 | 100.00 |

MUNICIPIO - UNIJARANA

|               |         |    |           |        |           |        |
|---------------|---------|----|-----------|--------|-----------|--------|
| AREIA         | 4112.00 | M3 | 805035.00 | 96.62  | 142731.92 | 72.40  |
| BASALTO       | 12.50   | M3 | 12145.23  | 1.46   | 52000.68  | 26.38  |
| SEIXO ROLADO  | 16.00   | M3 | 16000.00  | 1.92   | 2400.00   | 1.22   |
| Subtotal..... |         |    | 833180.23 | 100.00 | 197132.60 | 100.00 |

MUNICIPIO - UNIAO DA VITORIA

|               |          |    |             |        |            |        |
|---------------|----------|----|-------------|--------|------------|--------|
| AREIA         | 89394.38 | M3 | 57779922.50 | 95.91  | 8666038.53 | 95.90  |
| ARGILA        | 8603.00  | T  | 2466040.00  | 4.09   | 370239.30  | 4.10   |
| Subtotal..... |          |    | 60245962.50 | 100.00 | 9036277.83 | 100.00 |

MUNICIPIO - VERA CRUZ DO OESTE

|               |        |   |          |        |         |        |
|---------------|--------|---|----------|--------|---------|--------|
| ARGILA        | 447.30 | T | 27560.00 | 100.00 | 4167.00 | 100.00 |
| Subtotal..... |        |   | 27560.00 | 100.00 | 4167.00 | 100.00 |

MUNICIPIO - VITORINO

|               |        |   |           |        |          |        |
|---------------|--------|---|-----------|--------|----------|--------|
| ARGILA        | 489.00 | T | 149700.00 | 100.00 | 22500.00 | 100.00 |
| Subtotal..... |        |   | 149700.00 | 100.00 | 22500.00 | 100.00 |

.....

|                            |                         |                         |
|----------------------------|-------------------------|-------------------------|
| T O T A L   G E R A L..... | Cz\$ 7267193200.61..... | Cz\$ 1084291195.22..... |
|----------------------------|-------------------------|-------------------------|

.....

Fonte: SIPROM/DNPM



COMPARATIVO ICH/IUM - Estado do Paraná

1 9 8 8

|           | I C H<br>cz\$   | I U M<br>cz\$ | %    |
|-----------|-----------------|---------------|------|
| JAN       | 5848598209.00   | 19487501.00   | 0.33 |
| FEV       | 5673288067.00   | 20986207.00   | 0.37 |
| MAR       | 6564746257.00   | 27654258.00   | 0.42 |
| ABR       | 9285350042.00   | 35200359.00   | 0.38 |
| MAI       | 10387198981.00  | 38437114.00   | 0.37 |
| JUN       | 11744158015.00  | 55153136.00   | 0.47 |
| JUL       | 12670074902.00  | 47397280.00   | 0.37 |
| AGO       | 16867580420.00  | 66430152.00   | 0.39 |
| SET       | 20174501382.00  | 91204913.00   | 0.45 |
| OUT       | 22078511465.00  | 113574213.00  | 0.51 |
| NOV       | 30307970384.00  | 114366420.00  | 0.38 |
| DEZ       | 51880523582.00  | 171055430.00  | 0.33 |
| T O T A L | 203482501706.00 | 800946983.00  | 0.39 |

Fonte: SRF/SEFA-PR

COMPARATIVO ICM/IUM - Estado do Paraná

1 9 8 8

|       | ICM<br>cr\$     | IUM<br>cr\$  | %    |
|-------|-----------------|--------------|------|
| JAN   | 5848598209.00   | 19487501.00  | 0.33 |
| FEV   | 5673288067.00   | 20986207.00  | 0.37 |
| MAR   | 6564746257.00   | 27654258.00  | 0.42 |
| ABR   | 9285350042.00   | 35200359.00  | 0.38 |
| MAI   | 10387198981.00  | 38437114.00  | 0.37 |
| JUN   | 11744158015.00  | 55153136.00  | 0.47 |
| JUL   | 12670074902.00  | 47397280.00  | 0.37 |
| AGO   | 16867580420.00  | 66430152.00  | 0.39 |
| SET   | 20174501382.00  | 91204913.00  | 0.45 |
| OUT   | 22078511465.00  | 113574213.00 | 0.51 |
| NOV   | 30307970384.00  | 114366420.00 | 0.38 |
| DEZ   | 51880523582.00  | 171055430.00 | 0.33 |
| TOTAL | 203482501706.00 | 800946983.00 | 0.39 |

Fonte: SRF/SEFA-PR

**SÍNTESE ANALÍTICA**

### SÍNTESE ANALÍTICA

O Boletim Estatístico da Produção Mineral - Paraná 1988 segue os mesmos parâmetros adotados nos anteriores propiciando uma rápida visualização do comportamento da produção mineral no Estado do Paraná.

Para um melhor entendimento dos dados estatísticos, cabem aqui algumas considerações:

- . o valor da produção mineral paranaense em 1988 foi da ordem de Cz\$ 7.267,19 milhões, que em relação a 1987, correspondeu a um crescimento real negativo de 33,59%;

- . a arrecadação de IUM pelo Estado do Paraná em 1988 foi de Cz\$ 1.084,30 milhões, que comparada ao ano de 1987 demonstra um crescimento real negativo de 33,48%;

- . das 31 substâncias minerais exploradas no Estado do Paraná, 12 tiveram um decréscimo da produção em 1988, principalmente o minério de chumbo e rochas utilizadas para brita;

- . o Estado do Paraná em relação com o ano anterior, desceu novamente de posição quanto à Arrecadação Nacional do IUM, passando para o 12º posto;

- . as substâncias não metálicas têm o maior valor de produção, correspondendo a 75,02%, seguidas das energéticas com 22,47%, metálicas com 1,61% e metais preciosos com 0,90%;

- . entre as substâncias produzidas, o calcário teve maior participação na formação do valor da Produção Mineral Paranaense com 33,09% do total, seguindo-se do carvão mineral com 22,47%, areia com 6,57%, talco com 6,46%, dolomito com 4,46% e fluorita com 4,16%. As substâncias restantes correspondem a 22,79% do Valor Total da Produção;

- . os cinco municípios que mais se destacaram foram, Rio Branco do Sul (calcário), Figueira (carvão mineral), Campo Largo (água mineral, calcário e quartzito), Cerro Azul (fluorita e minério de chumbo) e Castro (talco);

- . os cinco municípios mencionados foram responsáveis por 66,33% do valor total da produção mineral do Estado e por 65,25% do total de IUM arrecadado;

- . as empresas Cia. de Cimento Portland Rio Branco (calcário), Cia. Carbonífera do Cambuí (carvão), Cia. de Cimento Itambé (calcário) Klabin do Paraná S/A. (carvão) e Mineração Del Rey Ltda. (fluorita) foram responsáveis por 62,13% do valor total da produção e 61,66% do total do IUM arrecadado;

- . com a retomada das atividades de mineração da fluorita pela empresa MINERAÇÃO DEL REY LTDA. em 1987, a produção do minério saltou das 660 T em 1987 para 13.828 T em 1988;

- . a produção de minério de chumbo tornou a cair aos níveis de 1986. No período 1987/1988 o decréscimo foi da ordem de 36,90% originada pela exaustão de algumas reservas paranaenses.



