

World Mineral Production



2007–2011



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BRITISH GEOLOGICAL SURVEY

WORLD MINERAL PRODUCTION 2007–11

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Cover photograph: A BHP Billiton loco transporting Iron Ore
through the Pilbara, Western Australia. BHP Billiton operates
more than 1600 kilometres of rail in the Pilbara. The 426
kilometre Newman rail line, pictured, is one of Australia's
longest privately owned railways. Image © BHP Billiton

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PREFACE

This volume is the latest in the series *World Mineral Production*, published by the British Geological Survey. It comprises the most recent addition to a continuous dataset on global mineral production which stretches back to 1913, and includes the preceding titles *World Mineral Statistics* and *Statistical Summary of the Minerals Industry*. The data for 2011 represents the 99th year of this dataset and we have therefore decided to prepare for a "Centenary Edition" next year.

This publication is compiled from a comprehensive database, maintained by the British Geological Survey, through which we aim to provide a reliable, comprehensive and continuous set of data covering most of the minerals that enter international trade. In this volume we have set out the production figures by country for more than 70 mineral commodities, over the five-year period from 2007 to 2011. The objective of this series remains to present the latest production information obtained from official bodies in individual countries, although other sources are also used to ensure completeness and accuracy. The cooperation afforded to the British Geological Survey by numerous national and international organisations is gratefully acknowledged.

The statistics contained in this volume for 2011 reveal global outputs of many metals and minerals have remained relatively flat compared to 2010 with single digit percentage increases or decreases. However, there are a few exceptions with the largest growth being in zirconium minerals (up 23 per cent), lithium (up 21 per cent based on lithium content) and mined nickel (metal content up 20 per cent). The global production levels of iron ore continue to increase (up 15 per cent in 2011) as does the global output of crude petroleum (up 14 per cent in 2011). In contrast, the global production of bromine in 2011 decreased 18 per cent compared to the previous year, while feldspar output was down by eight per cent.

There continued to be a high level of interest in the security of mineral supply during the year at the worldwide, European and UK scales. In March 2012 the UK Government issued its response to the House of Commons Science & Technology Committee's report into *Strategically Important Metals* in a document entitled *Resource Security Action Plan: Making the most of valuable materials*. This document recognises the concerns that have been raised and sets out high level actions

to be undertaken by Government and business in partnership to address resource risks. The BGS has an important role to play in the provision of information to underpin these actions and this includes the data contained in this volume.

At a European level, the BGS is involved with the newly developed *European Innovation Partnership on Raw Materials*. This has been approved by all member states of the European Union with the expressed purpose of contributing to mid- and long-term security of supply of raw materials by increasing the competitiveness of European industries, improving resource efficiency and expanding recycling activities in the EU. The partnership will be developing its Strategic Implementation Plan during 2013 and is looking to support innovative research relating to the entire raw materials supply chain through the forthcoming Horizon 2020 funding programme.

Security of supply concerns have also led the EU to commission new research on specific aspects of raw materials supply. For example, a consortium, including BGS, has recently started work on a two-year *Study on structured statistical information on the quality and quantity of EU raw material deposits* which is examining resources and reserves data across Europe. Another study focusing on rare earth elements in Europe, also to be conducted by a consortium that includes the BGS, will start early in 2013.

I would welcome any comments and suggestions that might help us to meet your changing needs, particularly with respect to the coverage of statistics and the format in which they are made available.

John N Ludden
Executive Director

British Geological Survey
Keyworth
Nottingham

January 2013

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EXPLANATORY NOTES

Coverage

World Mineral Production covers the majority of economically important mineral commodities. For each commodity constant efforts are made to ensure that as many producing countries as possible are reported. For some commodities, where statistics on production are not publicly available, estimates are made. Users of this compilation are advised that more statistical information than can be included in a publication of this nature is held in the British Geological Survey files and is available for consultation. Historical data (1913–1970) can be obtained from the predecessors to this series entitled *World Mineral Statistics* and the *Statistical Summary of the Mineral Industry*. Copies of these publications are available in the World Archive section of the website: www.mineralsUK.com.

Arrangement of countries

Countries are ordered alphabetically in geographical groupings as follows:

- Europe
- Africa
- North and Central America, including the Caribbean
- South America
- Asia
- Australasia, including the Pacific Islands

So far as possible the nomenclature follows the London Diplomatic List.

Metals

Mine production of many metals is expressed in terms of metal content. This is clearly indicated at the head of the table, adjacent to the unit used. For aluminium, cobalt, copper, iron, lead, nickel, tin and zinc, mine production and metal production are shown in separate tables. Unless otherwise specified, metal production statistics relate to metal recovered from both domestic and imported materials, whether primary or secondary, but exclude remelted material.

World totals

For certain minerals and metals no world total is shown due to the non-availability of certain individual country totals.

Exclusion of Warranty

Use by recipients of information provided by the BGS, is at the recipients' own risk. BGS has taken care to ensure that information provided is as free from error as is reasonably practical. In view of the disparate sources of information at BGS's disposal, including such material donated to BGS, that BGS accepts in good faith as being accurate, the Natural Environment Research Council (NERC) gives no warranty, expressed or implied, as to the quality, accuracy, performance, and merchantability of the information supplied, or to the information's suitability for any use whether made known to BGS or otherwise. NERC/BGS accepts no liability whatever in respect of loss, damage, injury or other occurrence however caused.

Acknowledgements

Compilation of this volume of mineral statistics has been possible only by obtaining information from a very large number of organisations throughout the world, chiefly home and overseas government departments and specialist national or international authorities concerned with particular sectors of the minerals or metals industries. To all these bodies the British Geological Survey expresses its grateful acknowledgement for

the information made available, whether in published form or provided by direct correspondence. Particular acknowledgement is made to the Mines Departments and other government agencies of many countries whose regular statements, yearbooks and other reports are worthy of direct consultations by readers in search of detail.

Specialist commodity organisations which have kindly allowed information to be reproduced include the International Copper Study Group, the International Lead and Zinc Study Group, the International Nickel Study Group, the Barytes Association and the International Fertilizer Industry Association Ltd. In a few instances, information on specific commodities has been obtained directly from company sources. The co-operation of other members of the International Consultative Group on Metal Statistics is also gratefully acknowledged.

Supplementary information is also obtained from publications dealing with a wider range of commodities such as *Société de l'Industrie Minérale*, *Annuaire Statistique Mondial des Minerais et Métaux*; World Bureau of Metal Statistics, *World Metal Statistics* and, *Metallstatistik*; publications of the Interstate Statistical Committee of the CIS, the United States Geological Survey, and United Nations agencies.

In addition, information has been obtained from the websites of the following organisations, companies, statistical offices and government departments: Kaolin & Plastic Clays Europe; International Iron and Steel Institute; Kimberley Process; Eurofer; World Nuclear Association; Organisation of the Petroleum Exporting Countries; Eurostat; European Aggregates Association; Instituto Latinoamericano del Fierro y el Acero; RNC Gold; Glencairn Gold; Glamis Gold; Goldcorp; Inmet Mining; Stillwater Mining; Aluminium de Greece; New Boliden; Eurozinc Mining Corporation; Norilsk Nickel; Qatar Steel Company; Iamgold Corp, Lundin Mining; Xstrata; Anglo American; Rio Tinto; Aura Minerals Inc; Breakwater Resources; Nyrstar, Lappland Goldminers, Outokumpu, Dragon Mining, Agnico Eagle, Talvivaara, Endomines, Norsk Hydro, Rusal, Institute of Argentinean Petroleum and Gas, Argentina; Institute of Argentinean Steel, Argentina; Acero Argentinos; Northern Territory Government, Australia; Department of Primary Industries Victoria, Australia; Mineral Resources Tasmania, Australia; Australian Bureau of Agricultural & Resource Economics; Vereinigung der Osterreichischen Zementindustrie, Austria; Energy Bangla, Bangladesh; Petrobangla, Bangladesh; Central Bank of Barbados; Federation de l'Industrie Cimentiere Belge, Belgium; Statistics Belgium; Belgian Steel Federation, Instituto Nacional de Estadística Bolivia; Cámara Boliviana de Hidrocarburos, Bolivia; Ministry of Mining and Metallurgy, Bolivia; Republika Srpska Institute of Statistics, Bosnia & Herzegovina; Departamento Nacional De Producao Mineral, Brazil; Grupo Paranapanema, Brazil; Agencia Nacional do Petroleo, Brazil; Associação Brasileira do Alumínio, Brazil; Ministério de Minas y Energia, Brazil; Sindicato da Indústria Carbonífera de Santa Catarina, Brazil; Natural Resources Canada; Statistics Canada; Canadian Association of Petroleum Producers; Mineral Resources of Quebec, Canada; Chilean Copper Commission; National Service for Geology and Mining, Chile; China Mining Association; National Bureau of Statistics, China; Ministerio De Minas Y Energia, Columbia; Unidad de Planeación Minero Energética, Columbia; Central National de la Statistique et des Etudes, Economiques, Republic of Congo; Oficina Nacional de Estadísticas, Cuba; Czech Republic Statistical Office; Statistics Denmark; Danish Energy Agency, Denmark; Banco Central de la Republica Dominicana,

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Units

The Statistics shown in this volume are expressed in metric units. The following factors are given for converting to non-metric units:

tonnes × 0.9842 = long tons
 tonnes × 1.1023 = short tons
 kilograms × 2.2046 = pounds
 kilograms × 32.1507 = troy ounces
 cubic metres × 35.3147 = cubic feet
 1 tonne of crude petroleum equals on average 7 barrels of crude petroleum.
 1 flask mercury = 34.5 kilograms
 1 metric ton unit = 10 kilograms

Symbols

... figures not available
 0 quantity less than half unit shown
 — nil
 * estimated
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STATISTICAL INFORMATION

Production of bauxite

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|--------------|--------------|--------------|--------------|--------------|
| Bosnia & Herzegovina | 866 933 | 1 018 333 | 555 820 | 827 909 | 707 712 |
| France | 160 000 | * — | * — | * — | * — |
| Greece | 2 125 900 | 2 174 000 | 1 935 000 | 1 902 000 | 2 324 000 |
| Hungary | 546 310 | 511 337 | 317 000 | 365 000 | 277 800 |
| Montenegro | 667 053 | 671 811 | 45 779 | 61 205 | 158 614 |
| Russia | 6 053 900 | 5 675 000 | 5 300 000 | 5 035 000 | 5 380 000 |
| Turkey | 863 404 | 818 928 | 406 700 | 855 000 | * 600 000 |
| Ghana | 1 033 368 | 796 000 | 440 000 | 512 208 | 400 069 |
| Guinea | 18 519 010 | 17 682 330 | 14 774 240 | 16 427 300 | 17 593 100 |
| Mozambique | 8 650 | 5 443 | 3 600 | 8 600 | 10 400 |
| Sierra Leone | 1 169 036 | 954 370 | 742 820 | 1 089 131 | 1 457 507 |
| Tanzania | 5 003 | 20 601 | 122 920 | * 130 000 | * 130 000 |
| Jamaica | 14 567 738 | 14 636 102 | 8 103 884 | 8 539 853 | 10 188 916 |
| Mexico | 20 000 | 20 000 | 20 000 | 21 250 | 14 400 |
| USA (b) | 141 914 | 98 796 | 30 240 | 59 143 | 63 121 |
| Brazil (c) | 25 460 700 | 28 097 500 | 26 074 400 | 32 028 000 | 33 694 700 |
| Guyana | 2 242 928 | 2 092 237 | 1 484 935 | 1 082 512 | 1 818 399 |
| Suriname | 5 273 195 | 5 333 031 | 3 388 419 | 3 096 650 | 3 236 116 |
| Venezuela | 5 593 308 | 4 192 014 | 3 610 859 | 3 126 242 | 2 454 769 |
| China | 20 446 000 | 25 176 900 | 29 213 100 | 36 837 200 | * 37 000 000 |
| India (d) | 22 624 960 | 15 460 202 | 14 124 093 | 12 640 785 | 12 992 000 |
| Indonesia | * 16 000 000 | * 18 000 000 | * 15 000 000 | * 27 000 000 | * 41 000 000 |
| Iran (a) | 520 800 | 520 000 | 522 018 | 681 235 | * 680 000 |
| Iraq | — | 4 928 | 250 | 3 350 | — |
| Kazakhstan | 4 962 600 | 5 160 100 | 5 131 000 | 5 310 200 | 5 495 200 |
| Malaysia | 156 785 | 295 176 | 274 456 | 124 274 | 188 141 |
| Pakistan (e) | 18 118 | 35 759 | 15 629 | 11 131 | 9 033 |
| Vietnam | * 80 000 | * 80 000 | * 80 000 | * 80 000 | * 80 000 |
| Australia | 62 428 000 | 64 038 000 | 66 168 000 | 68 535 000 | 69 977 000 |
| World Total | 213 000 000 | 214 000 000 | 198 000 000 | 226 000 000 | 248 000 000 |

Notes

(1) This table includes production of refractory bauxite

- (a) Years ended 20 March following that stated
- (b) Data for Alabama only
- (c) Including beneficiated and direct shipping ore
- (d) Years ended 31 March following that stated
- (e) Years ended 30 June of that stated

Production of alumina

tonnes (Al₂O₃ content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|------------|-------------|-------------|-------------|-------------|
| Azerbaijan | 184 500 | 164 879 | 9 590 | — | 6 188 |
| Bosnia & Herzegovina | 303 799 | 294 455 | 191 792 | 269 414 | 261 874 |
| France | * 600 000 | 630 000 | 348 000 | 481 000 | 470 000 |
| Germany | * 900 000 | * 1 000 000 | 1 154 000 | * 1 000 000 | * 1 000 000 |
| Greece | 512 785 | 524 875 | 517 400 | 510 250 | 526 305 |
| Hungary | * 301 000 | * 299 000 | * 185 000 | * 214 000 | * 250 000 |
| Ireland, Republic of | 1 800 000 | 1 890 000 | 1 240 000 | 1 864 000 | 1 922 000 |
| Italy | 1 100 000 | 1 045 000 | 92 000 | — | — |
| Montenegro | 240 186 | 220 426 | 58 528 | — | — |
| Romania | 22 830 | 344 | 44 000 | 414 000 | 484 000 |
| Russia | 3 332 308 | 3 112 000 | 2 794 000 | 2 857 000 | 2 825 000 |
| Spain | 1 300 000 | 1 300 000 | * 1 300 000 | * 1 300 000 | * 1 300 000 |
| Turkey | 163 435 | * 160 000 | * 100 000 | * 160 000 | * 100 000 |
| Ukraine | 1 655 718 | 1 673 000 | 1 524 000 | 1 534 000 | 1 601 000 |
| Guinea | 542 100 | 593 000 | 530 000 | 597 000 | 574 000 |
| Canada | 1 454 390 | 1 491 523 | 1 232 604 | 1 416 594 | 1 473 271 |
| Jamaica | 3 940 589 | 3 995 358 | 1 773 600 | 1 590 658 | 1 959 926 |
| USA | 4 236 000 | 4 298 000 | 3 064 000 | 3 950 000 | 4 360 000 |
| Brazil | 7 077 600 | 7 822 300 | 8 617 900 | 9 433 400 | 1 018 200 |
| Suriname | 2 178 472 | 2 153 968 | 1 536 187 | 1 486 449 | 1 421 464 |
| Venezuela | 1 751 000 | 1 591 000 | 1 376 000 | 1 244 000 | 1 222 162 |
| China | 19 453 000 | 23 029 200 | 23 792 900 | 29 064 900 | 34 172 000 |
| India (b) | 3 320 169 | 3 620 252 | 3 432 716 | 3 576 917 | * 3 970 000 |
| Iran (a) | 174 461 | 200 042 | 210 385 | 236 476 | 232 000 |
| Japan | * 650 000 | * 600 000 | * 550 000 | * 550 000 | * 550 000 |
| Kazakhstan | 1 537 000 | 1 600 000 | 1 608 000 | 1 640 000 | 1 670 000 |
| Australia | 18 844 000 | 19 446 000 | 19 939 000 | 19 806 000 | 18 727 000 |
| World Total | 77 600 000 | 82 800 000 | 77 200 000 | 85 200 000 | 82 100 000 |

Notes

- (1) Where possible figures in this table show the alumina equivalent (Al₂O₃) of total hydrate produced, whether or not calcined
- (2) The figures in this table represent alumina produced from bauxite. Alumina-rich materials can also be derived from salt slags formed during the production of secondary aluminium

(a) Years ended 20 March following that stated

(b) Years ended 31 March following that stated

Production of primary aluminium

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|------------|------------|------------|------------|-------------|
| Azerbaijan | 39 241 | 61 604 | 10 145 | 379 | 6 817 |
| Bosnia & Herzegovina | 147 193 | 155 909 | 130 042 | 150 488 | 130 900 |
| France | 430 159 | 389 000 | 345 000 | 356 000 | 334 000 |
| Germany | 551 000 | 605 880 | 291 750 | 402 480 | 432 472 |
| Greece | 167 937 | 162 339 | 134 737 | 137 000 | 165 150 |
| Iceland | 446 297 | 761 204 | 804 605 | 825 803 | 780 853 |
| Italy | 179 500 | 186 400 | 165 800 | 129 500 | 141 900 |
| Montenegro | 135 151 | 111 513 | 63 960 | 82 043 | 92 838 |
| Netherlands | 296 900 | 317 000 | 306 000 | * 300 000 | * 300 000 |
| Norway | 1 362 000 | 1 368 000 | 1 090 000 | 1 400 000 | 1 982 000 |
| Poland | 43 000 | 31 000 | — | — | — |
| Romania | 283 449 | 288 156 | 228 630 | 241 000 | 261 000 |
| Russia | 3 955 417 | 4 190 000 | 3 815 000 | 3 947 000 | 3 992 000 |
| Slovakia | 160 461 | 162 995 | 149 604 | 163 000 | 162 840 |
| Slovenia | 111 016 | 83 300 | 35 148 | 40 177 | 75 300 |
| Spain | 405 100 | 405 800 | 334 600 | 335 000 | 335 000 |
| Sweden | 99 842 | 81 913 | 69 708 | 93 000 | 111 000 |
| Turkey | 63 400 | 61 100 | 30 000 | 54 100 | 56 400 |
| Ukraine | 113 437 | 88 800 | 50 000 | 25 000 | 7 000 |
| United Kingdom | 364 595 | 326 900 | 252 000 | 186 000 | 213 000 |
| Cameroon | 87 000 | 91 000 | 73 000 | 76 000 | 69 000 |
| Egypt (a) | 331 504 | 392 963 | 400 369 | 352 818 | 353 904 |
| Ghana | 12 900 | 9 300 | — | — | 35 000 |
| Mozambique | 564 000 | 536 000 | 545 000 | 557 000 | 562 000 |
| Nigeria | — | 9 000 | 11 000 | 18 000 | 15 000 |
| South Africa | 899 000 | 811 000 | 809 000 | 807 000 | 810 000 |
| Canada | 3 082 625 | 3 120 148 | 3 030 269 | 2 963 200 | 2 987 964 |
| USA | 2 553 900 | 2 658 300 | 1 727 200 | 1 727 300 | 1 990 000 |
| Argentina | 292 744 | 399 714 | 405 779 | 410 947 | 415 799 |
| Brazil | 1 654 800 | 1 661 000 | 1 535 900 | 1 536 200 | 1 440 400 |
| Venezuela | 615 000 | 607 000 | 569 000 | 353 658 | 330 000 |
| Bahrain | 865 883 | 871 658 | 847 700 | 850 700 | 881 310 |
| China | 12 558 600 | 13 178 200 | 12 890 500 | 16 244 100 | 18 061 700 |
| India (c) | 1 239 581 | 1 347 127 | 1 480 568 | 1 621 035 | * 1 660 000 |
| Indonesia | 242 100 | 242 500 | 257 600 | 253 300 | 246 300 |
| Iran (b) | 215 981 | 241 300 | 281 300 | 282 000 | 321 900 |
| Japan | 6 600 | 6 600 | 5 100 | 4 700 | 4 700 |
| Kazakhstan | 12 000 | 106 000 | 128 000 | 227 000 | 248 800 |
| Oman | — | 49 000 | 351 000 | 367 000 | 373 000 |
| Qatar | — | — | * 10 000 | * 190 000 | * 480 000 |
| Tajikistan | 419 060 | 399 500 | 359 400 | 348 900 | 277 600 |
| United Arab Emirates | 889 548 | 891 723 | 1 009 800 | 1 400 000 | 1 750 000 |
| Australia | 1 957 000 | 1 974 000 | 1 943 000 | 1 927 000 | 1 945 000 |
| New Zealand | 351 100 | 315 500 | 271 000 | 344 000 | 357 000 |
| World Total | 38 200 000 | 39 800 000 | 37 200 000 | 41 700 000 | 45 200 000 |

Notes

(1) The figures in this table are for primary aluminium only. Aluminium can also be produced from secondary sources and may be recovered from salt slags

(a) Years ended 30 June of that stated

(b) Years ended 20 March following that stated

(c) Years ended 31 March following that stated

Mine production of antimony

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------|---------|---------|---------|---------|---------|
| Russia | * 3 000 | * 3 000 | * 3 000 | * 3 000 | * 3 000 |
| Turkey | * 1 200 | * 1 300 | * 1 300 | * 1 300 | * 1 300 |
| South Africa | 3 436 | 3 674 | 2 090 | 2 257 | 2 391 |
| Canada | 193 | 132 | 64 | 69 | 68 |
| Guatemala | 365 | — | — | — | — |
| Mexico | 414 | 380 | 74 | 71 | 5 |
| Bolivia | 3 881 | 3 905 | 2 990 | 4 980 | 3 947 |
| Peru (a) | 590 | 531 | 145 | — | — |
| China | 163 000 | 100 230 | 112 000 | 129 831 | 128 017 |
| Kazakhstan | 952 | 890 | 597 | 785 | * 800 |
| Kyrgyzstan | * 250 | * 250 | 918 | * 900 | * 900 |
| Pakistan (b) | 119 | 245 | 75 | 25 | — |
| Tajikistan | 3 500 | 3 400 | 2 447 | 3 341 | * 4 000 |
| Thailand | 271 | 422 | 555 | 705 | 442 |
| Australia (b) | 767 | 1 688 | 1 794 | 707 | 1 751 |
| World Total | 182 000 | 120 000 | 128 000 | 148 000 | 147 000 |

Notes

(1) This table includes antimony content of antimonial lead alloys

(2) In addition, Hungary is believed to produce antimony

(a) Including Sb content of antimonial lead plus Sb content of ores for export

(b) Years ended 30 June of that stated

Production of white arsenic

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------|----------|----------|----------|----------|----------|
| Belgium | * 1 000 | * 1 000 | * 1 000 | * 1 000 | * 1 000 |
| Portugal | * 15 | * 15 | * 15 | * 15 | * 15 |
| Russia | * 1 500 | * 1 500 | * 1 500 | * 1 500 | * 1 500 |
| Namibia | 610 | 574 | — | — | — |
| Mexico | 677 | — | — | — | — |
| Bolivia | * 80 | 74 | 115 | 155 | 99 |
| Chile (a) | 11 400 | * 10 000 | * 11 000 | * 11 000 | * 10 000 |
| Peru | 4 321 | 4 822 | 300 | — | — |
| China | * 25 000 | * 25 000 | * 25 000 | * 25 000 | * 25 000 |
| Iran (b) | * 100 | * 100 | * 100 | * 100 | * 100 |
| Japan | * 40 | * 40 | * 40 | * 40 | * 40 |
| Kazakhstan | * 1 500 | * 1 500 | * 1 500 | * 1 500 | * 1 500 |

Notes

(1) This table includes calculated trioxide equivalent of arsenic metal produced except where this would involve double counting

(2) In addition to the countries listed, Austria, Finland, Hungary, Spain and the United Kingdom are believed to produce arsenic

(a) Exports

(b) Orpiment and realgar concentrates

Production of asbestos

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------|-----------|-----------|-------------|-------------|-------------|
| Russia | 1 030 000 | 1 020 000 | * 1 000 000 | * 1 000 000 | * 1 000 000 |
| Slovakia | 400 | 200 | — | — | — |
| Zimbabwe | | | | | |
| Chrysotile | 84 520 | 11 489 | 4 971 | 2 031 | — |
| Canada | | | | | |
| Chrysotile | * 180 000 | * 160 000 | * 150 000 | * 100 000 | * 50 000 |
| Argentina | 282 | 298 | 322 | 341 | * 350 |
| Brazil | 254 204 | 305 000 | 288 400 | 312 000 | 310 000 |
| China | * 390 000 | * 380 000 | * 440 000 | * 400 000 | * 440 000 |
| India | | | | | |
| Amphibole (a) | 269 | 315 | 243 | 258 | 255 |
| Kazakhstan | 292 600 | 230 100 | 230 000 | 214 100 | 223 200 |
| World Total | 2 200 000 | 2 100 000 | 2 100 000 | 2 000 000 | 2 000 000 |

Notes

(1) In addition to the countries listed, Romania is believed to produce asbestos

(a) Years ended 31 March following that stated

Production of barytes

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Bosnia & Herzegovina | 37 | 54 | 30 | 57 | — |
| Bulgaria | 50 900 | 40 100 | 14 300 | 500 | 200 |
| Germany | 88 265 | 78 941 | 45 606 | 55 887 | 55 342 |
| Italy | * 5 000 | * 5 000 | * 3 500 | * 3 500 | * 3 500 |
| Poland | 2 000 | 308 | — | — | — |
| Portugal | 25 | 171 | 1 078 | 15 | — |
| Russia | * 64 000 | * 64 000 | * 64 000 | * 64 000 | * 64 000 |
| Slovakia | 58 000 | 20 000 | 30 000 | 17 000 | 13 000 |
| Spain | 26 770 | 11 100 | 5 212 | 2 050 | — |
| Turkey | 150 000 | 150 000 | 213 187 | 225 000 | 225 000 |
| United Kingdom | 53 000 | 43 000 | 36 000 | 34 099 | 31 000 |
| Algeria | 63 098 | 60 088 | 37 981 | 42 254 | * 40 000 |
| Egypt | 504 | 1 556 | 1 587 | 1 170 | 1 168 |
| Morocco | 664 708 | 725 060 | 586 937 | 572 429 | 769 504 |
| Nigeria | 18 047 | * 16 000 | 14 314 | 10 749 | * 11 000 |
| Canada | 9 000 | 12 300 | 15 000 | 22 000 | 22 000 |
| Guatemala | — | — | 13 | 11 | 334 |
| Mexico | 185 921 | 140 066 | 152 791 | 143 225 | 134 727 |
| USA (b) | 455 000 | 648 000 | 383 000 | 662 000 | 640 000 |
| Argentina | 3 798 | 3 170 | 3 416 | 2 900 | 3 000 |
| Bolivia | 8 245 | 10 900 | 1 900 | 7 845 | 21 297 |
| Brazil (d) | 37 000 | 42 000 | 38 550 | * 40 000 | * 40 000 |
| Chile | 77 | — | — | — | — |
| Colombia | * 2 000 | * 2 000 | * 2 000 | * 2 000 | * 2 000 |
| Peru | 27 369 | 45 199 | 27 881 | 52 275 | 86 790 |
| Afghanistan | * 1 500 | * 1 500 | * 1 000 | * 1 000 | * 1 000 |
| Burma (a) | 5 918 | 6 889 | 7 008 | 14 119 | 31 791 |
| China | 4 300 000 | 5 000 000 | 2 900 000 | 3 900 000 | 4 300 000 |
| India (a) | 1 076 290 | 1 686 148 | 2 152 552 | 2 333 805 | 1 716 042 |
| Iran (c) | 249 495 | 226 590 | 361 217 | 326 275 | * 330 000 |
| Kazakhstan | 130 000 | 170 000 | 170 000 | 200 000 | 200 000 |
| Laos | 1 000 | 1 000 | 12 460 | 17 500 | 12 400 |
| Malaysia | — | 4 372 | 22 390 | 1 000 | — |
| Pakistan (e) | 46 759 | 49 933 | 62 997 | 57 166 | 31 836 |
| Saudi Arabia | 30 000 | 30 000 | 30 000 | 30 000 | * 30 000 |
| Thailand | 8 631 | 9 180 | 51 895 | 33 465 | 67 703 |
| Vietnam | 90 000 | 80 000 | 70 000 | 90 000 | 90 000 |
| Australia | 12 576 | 22 189 | 16 634 | 16 529 | 10 569 |
| World Total | 7 900 000 | 9 400 000 | 7 500 000 | 9 000 000 | 9 000 000 |

Notes

- (1) This table may include small quantities of witherite
(2) In addition to the countries listed, Cuba is believed to produce barytes

- (a) Years ended 31 March following that stated
(b) Sold or used by producers
(c) Years ended 20 March following that stated
(d) Including beneficiated and directly shipped material
(e) Years ended 30 June of that stated

Production of bentonite and fuller's earth

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Armenia | | | | | |
| Bentonite | 1 129 | 50 | 238 | 1 397 | 835 |
| Azerbaijan | | | | | |
| Bentonite | 50 459 | 40 683 | 10 581 | 18 100 | 20 679 |
| Bosnia & Herzegovina | | | | | |
| Bentonite (b) | 32 912 | 30 504 | 16 042 | 314 | * — |
| Bulgaria | | | | | |
| Bentonite | 99 000 | 178 700 | 108 400 | 99 700 | 53 900 |
| Croatia | | | | | |
| Bentonite | 19 578 | 19 759 | — | — | — |
| Cyprus | | | | | |
| Bentonite | 154 655 | 155 125 | 152 722 | 162 969 | 160 625 |
| Czech Republic | | | | | |
| Bentonite | 335 000 | 235 000 | 177 000 | 183 000 | 160 000 |
| Denmark | | | | | |
| Bentonite | 20 093 | 22 458 | 24 040 | 23 832 | 38 300 |
| France | | | | | |
| Bentonite | ... | ... | 25 000 | 25 000 | 20 000 |
| Germany | | | | | |
| Bentonite | 384 709 | 414 336 | 326 461 | 362 623 | 375 332 |
| Greece | | | | | |
| Bentonite | 1 342 000 | 1 580 000 | 1 500 000 | 844 804 | 1 250 000 |
| Hungary | | | | | |
| Bentonite | 54 231 | 6 220 | 5 298 | 17 200 | 17 308 |
| Italy | | | | | |
| Bentonite | 305 905 | 161 313 | 114 682 | 110 982 | 102 756 |
| Kosovo | | | | | |
| Bentonite | — | 20 800 | 49 000 | 20 200 | 33 200 |
| Macedonia | | | | | |
| Bentonite | 22 509 | 13 689 | 9 033 | 7 084 | 8 914 |
| Poland | | | | | |
| Bentonite | 1 300 | 3 000 | 2 800 | 2 000 | 900 |
| Romania | | | | | |
| Bentonite | 16 911 | 16 638 | 13 756 | 21 637 | 19 864 |
| Russia | | | | | |
| Bentonite | * 460 000 | * 460 000 | * 460 000 | * 460 000 | * 460 000 |
| Slovakia | | | | | |
| Bentonite | 149 000 | 145 000 | 109 000 | 153 000 | 213 000 |
| Slovenia | | | | | |
| Bentonite | 130 | 160 | 104 | 135 | 168 |
| Spain | | | | | |
| Bentonite | 147 253 | 154 534 | 147 090 | 157 001 | 110 721 |
| Attapulgite | 24 615 | 27 348 | 21 110 | 27 841 | 26 031 |
| Sepiolite | 717 728 | 737 659 | 573 937 | 557 862 | 566 270 |
| Turkey | | | | | |
| Bentonite | 748 170 | 683 253 | 753 155 | 718 260 | 379 918 |
| Sepiolite | * 10 000 | * 10 000 | * 10 000 | * 10 000 | — |
| Ukraine | | | | | |
| Bentonite | 314 000 | 200 000 | 195 000 | 185 000 | 211 000 |
| Algeria | | | | | |
| Bentonite | 32 600 | 30 595 | 31 612 | 34 126 | * 30 000 |
| Egypt | | | | | |
| Bentonite (e) | 19 200 | 28 320 | 35 384 | 28 865 | 33 132 |
| Malawi | | | | | |
| Bentonite | 2 080 | 7 023 | 8 050 | 1 020 | * 1 000 |
| Morocco | | | | | |
| Bentonite | 136 097 | 50 125 | 84 097 | 110 703 | 97 071 |
| Fuller's earth (f) | 121 737 | 140 875 | 132 110 | 82 570 | 103 682 |
| Mozambique | | | | | |
| Bentonite | 762 | 614 | 577 | 480 | * 400 |
| Senegal | | | | | |
| Attapulgite | * 150 000 | 166 900 | 180 900 | 204 300 | 180 300 |
| South Africa | | | | | |
| Bentonite | 45 778 | 44 067 | 40 340 | 82 341 | 120 417 |
| Attapulgite | 65 402 | 69 876 | 52 103 | 57 606 | 14 448 |

Production of bentonite and fuller's earth

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Canada | | | | | |
| Bentonite (g) | 3 744 | 3 906 | 3 947 | 4 542 | 2 266 |
| Cuba | | | | | |
| Bentonite | 401 | 382 | 670 | 228 | 1 244 |
| Guatemala | | | | | |
| Bentonite | 259 799 | 62 749 | 14 287 | 22 423 | 12 270 |
| Mexico | | | | | |
| Bentonite | 613 895 | 374 933 | 511 430 | 590 998 | 563 795 |
| Fuller's earth | 34 175 | 66 123 | 108 139 | 170 350 | 107 436 |
| USA | | | | | |
| Bentonite (c) | 4 820 000 | 4 900 000 | 3 650 000 | 4 630 000 | 4 950 000 |
| Fuller's earth (c) | 2 660 000 | 2 510 000 | 2 010 000 | 2 050 000 | 2 100 000 |
| Argentina | | | | | |
| Bentonite | 250 260 | 265 782 | 148 099 | 204 209 | * 200 000 |
| Brazil | | | | | |
| Bentonite | 329 647 | 340 141 | 217 926 | 326 428 | * 330 000 |
| Chile | | | | | |
| Bentonite | 533 | — | — | — | 1 255 |
| Peru | | | | | |
| Bentonite | 21 451 | 31 557 | 119 452 | 44 266 | 27 534 |
| Uruguay | | | | | |
| Bentonite | 530 | 310 | 210 | 430 | 1 210 |
| Burma | | | | | |
| Bentonite (d) | 971 | * 1 000 | * 1 000 | * 1 000 | * 1 000 |
| China | | | | | |
| Bentonite | * 3 300 000 | * 3 300 000 | * 3 400 000 | * 3 400 000 | * 3 400 000 |
| India | | | | | |
| Bentonite (d) | * 563 000 | * 671 000 | * 561 000 | * 739 000 | * 996 000 |
| Fuller's earth (d) | * 89 000 | * 29 000 | * 5 600 | * 5 600 | * 5 600 |
| Indonesia | | | | | |
| Bentonite | * 5 500 | * 6 000 | * 6 000 | * 6 500 | * 6 500 |
| Iran | | | | | |
| Bentonite (a) | 254 084 | 375 898 | 387 437 | 350 208 | * 350 000 |
| Iraq | | | | | |
| Bentonite | 570 | 1 605 | 3 959 | 6 127 | 6 452 |
| Japan | | | | | |
| Bentonite | * 430 000 | * 435 000 | * 432 000 | * 430 000 | * 430 000 |
| Fuller's earth | * 110 000 | * 110 000 | * 110 000 | * 110 000 | * 110 000 |
| Korea (Rep. of) | | | | | |
| Bentonite | 56 429 | 71 052 | 84 963 | 88 255 | 94 987 |
| Fuller's earth | 65 136 | 70 711 | 99 802 | 83 476 | 46 623 |
| Pakistan | | | | | |
| Bentonite (e) | 33 177 | 31 247 | 32 032 | 34 596 | 30 840 |
| Fuller's earth (e) | 11 378 | 10 998 | 10 213 | 11 219 | 6 774 |
| Philippines | | | | | |
| Bentonite | 1 148 | 1 422 | 1 413 | 1 475 | 2 087 |
| Thailand | | | | | |
| Bentonite | 650 | 210 | 110 | 130 | 55 220 |
| Uzbekistan | | | | | |
| Bentonite | * 40 000 | * 40 000 | * 40 000 | * 40 000 | * 40 000 |
| Vietnam | | | | | |
| Bentonite | * 20 000 | * 20 000 | * 20 000 | * 20 000 | * 20 000 |

Production of bentonite and fuller's earth

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------------------|------------|------------|------------|------------|------------|
| Australia | | | | | |
| Bentonite (e) | * 116 300 | * 85 800 | * 124 400 | * 131 300 | * 77 700 |
| Fuller's earth | * 10 000 | * 10 000 | * 10 000 | * 10 000 | * 14 300 |
| New Zealand | | | | | |
| Bentonite | 6 154 | 753 | 880 | 1 216 | — |
| World Total Bentonite | 16 000 000 | 15 700 000 | 14 200 000 | 14 900 000 | 15 500 000 |
| World Total Fuller's Earth (b) | 4 100 000 | 4 000 000 | 3 300 000 | 3 400 000 | 3 300 000 |

Notes

- (1) Bentonites consist of montmorillonite (one of the smectite group of clay minerals) and occur in two main varieties, calcium bentonite, the most commonly occurring, and sodium bentonite, industrially the more important
- (2) Calcium bentonite can be converted to sodium bentonite by a sodium-exchange process
- (3) In some countries, such as the United Kingdom, calcium bentonite is known as fuller's earth, a term which is also used to refer to attapulgite, a mineralogically distinct clay mineral but exhibiting similar properties
- (4) In addition to the countries listed, Austria is believed to produce bentonite and France may produce fuller's earth

- (a) Years ended 20 March following that stated
- (b) Including attapulgite and sepiolite
- (c) Sold or used by producers
- (d) Years ended 31 March following that stated
- (e) Years ended 30 June of that stated
- (f) Smectite
- (g) Sales

Production of beryl

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------|-------|-------|-------|---------|---------|
| Madagascar (a) | * 12 | * 12 | * 12 | * 12 | * 12 |
| Mozambique | 31 | 8 | 45 | * 22 | * 22 |
| Uganda | 2 | — | — | — | — |
| Zambia | * 5 | * 4 | * 6 | * 6 | * 6 |
| USA (b) | 3 810 | 4 410 | 3 030 | * 4 460 | * 4 500 |
| China | * 500 | * 500 | * 500 | * 500 | * 500 |

Notes

- (a) Includes ornamental and industrial products
- (b) Includes bertrandite ore, calculated as equivalent to beryl containing 11% beryllium oxide

Mine production of bismuth

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-------------|-------|-------|-------|-------|---------|
| Bulgaria | * 45 | * 45 | * 45 | * 45 | * 45 |
| Romania | * 40 | * 40 | * 40 | * 40 | * 40 |
| Russia | * 55 | * 70 | * 65 | * 50 | * 45 |
| Canada | 145 | 71 | 86 | 92 | 92 |
| Mexico | 1 170 | 1 132 | 854 | 982 | 935 |
| Bolivia | 147 | 28 | 54 | 87 | 41 |
| Peru (a) | 1 114 | 1 061 | 423 | — | — |
| China | 1 363 | 1 453 | 1 688 | 1 589 | * 1 600 |
| Japan (a) | 408 | 480 | 423 | 454 | 483 |
| Kazakhstan | * 145 | * 150 | * — | * — | * — |
| Australia | * 100 | * 100 | * 100 | * 100 | * 100 |
| World Total | 4 700 | 4 600 | 3 800 | 3 400 | 3 400 |

Notes

- (1) The figures in this table are in some instances derived from reported bismuth content of refined and impure metal plus recoverable in ores and concentrates exported
- (2) Production for some countries may include bismuth produced from imported ores but it is thought that any resulting duplication is insignificant in the countries shown
- (3) In addition to the countries listed, Brazil is believed to produce bismuth

(a) Metal production

Production of borates

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------|-------------|-------------|-------------|-------------|-------------|
| Russia | * 400 000 | * 400 000 | * 400 000 | * 400 000 | * 400 000 |
| Turkey | 1 997 163 | 2 139 224 | 1 687 102 | 1 910 000 | 2 273 122 |
| USA (a) | * 1 150 000 | * 1 150 000 | * 1 200 000 | * 1 200 000 | * 1 250 000 |
| Argentina | 669 578 | 789 954 | 505 983 | 622 968 | * 600 000 |
| Bolivia | 79 531 | 66 249 | 93 829 | 109 922 | 138 767 |
| Chile | 535 071 | 590 999 | 613 135 | 503 609 | 491 421 |
| Peru | 233 991 | 349 891 | 187 221 | 292 855 | — |
| China | * 290 000 | * 280 000 | * 290 000 | * 300 000 | * 300 000 |
| Iran (b) | 1 603 | 1 020 | 388 | * 500 | * 500 |
| Kazakhstan | * 30 000 | * 30 000 | * 30 000 | * 30 000 | * 30 000 |

Notes

- (a) Sold or used by producers
- (b) Years ended 20 March following that stated

Production of bromine

kilograms

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-------------|---------------|---------------|---------------|---------------|---------------|
| Russia | * 60 000 | * 60 000 | * 60 000 | * 60 000 | * 60 000 |
| Spain | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| Ukraine | * 1 800 000 | * 400 000 | * 400 000 | * 400 000 | * 400 000 |
| USA (a) | * 235 000 000 | * 230 000 000 | * 230 000 000 | * 230 000 000 | * 225 000 000 |
| China | * 137 000 000 | * 135 000 000 | * 140 000 000 | * 150 000 000 | * 155 000 000 |
| India (b) | 1 664 640 | 2 118 740 | 1 862 480 | 1 587 000 | 1 572 160 |
| Israel | 159 395 000 | 164 042 000 | 127 689 000 | 184 696 000 | 202 313 000 |
| Japan | * 20 000 000 | * 20 000 000 | * 20 000 000 | * 20 000 000 | * 20 000 000 |
| Jordan | 85 105 000 | 105 600 000 | 69 000 000 | * 70 000 000 | * 70 000 000 |
| World Total | 640 000 000 | 657 000 000 | 589 000 000 | 657 000 000 | 674 000 000 |

Notes

(a) Elemental bromine sold as such or used in the preparation of bromine compounds by primary producers

(b) Years ended 31 March following that stated

Production of cadmium

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|--------|--------|--------|--------|---------|
| Bulgaria | 318 | 376 | 413 | 389 | * 430 |
| France | 50 | — | — | — | — |
| Netherlands | 495 | 530 | * 490 | * 560 | * 560 |
| Norway | 269 | 178 | 249 | 300 | 309 |
| Poland | 421 | 603 | 534 | 451 | 526 |
| Russia | 810 | * 800 | * 700 | * 700 | * 700 |
| Canada (a) | 1 388 | 1 409 | 1 299 | 1 357 | 1 203 |
| Mexico | 1 605 | 1 550 | 1 510 | 1 464 | 1 494 |
| USA (a) | 735 | 777 | 633 | 637 | 600 |
| Argentina | 35 | 38 | 36 | 35 | 35 |
| Brazil | * 200 | * 200 | * 200 | * 200 | * 200 |
| Peru | 347 | 371 | 289 | 357 | 572 |
| China | 4 215 | 6 964 | 7 053 | 7 263 | * 7 360 |
| India (b) | 589 | 507 | 553 | 550 | * 460 |
| Japan | 1 939 | 2 126 | 1 824 | 2 053 | 1 755 |
| Kazakhstan | 1 300 | 1 100 | 1 300 | 1 400 | * 1 400 |
| Korea (Rep. of) | 2 846 | 3 090 | 2 500 | 4 166 | 3 005 |
| Korea, Dem. P.R. of | * 200 | * 200 | * 200 | * 200 | * 200 |
| Australia | 351 | * 350 | * 370 | * 350 | * 390 |
| World Total | 18 100 | 21 200 | 20 200 | 22 400 | 21 200 |

Notes

(1) Data in this table excludes secondary metal unless otherwise stated

(a) Including cadmium sponge and/or secondary metal

(b) Years ended 31 March following that stated

Production of chromium ores and concentrates

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|------------|------------|------------|------------|------------|
| Albania | 194 760 | 220 536 | 288 759 | 334 467 | 187 788 |
| Finland | 556 000 | 614 000 | 247 000 | 598 000 | 693 000 |
| Russia | 776 681 | 913 000 | 416 194 | * 400 000 | * 400 000 |
| Turkey | 1 678 932 | 1 885 712 | 1 770 029 | 2 461 314 | 2 281 981 |
| Madagascar | 77 700 | 112 600 | 131 800 | 134 500 | 66 711 |
| South Africa | 9 646 958 | 9 682 640 | 6 864 938 | 10 871 095 | 10 721 360 |
| Sudan | 37 656 | 27 094 | 14 087 | 56 823 | ... |
| Zimbabwe | 614 559 | 442 584 | 193 674 | 516 776 | 599 079 |
| Brazil | 627 772 | 664 000 | 365 000 | 520 000 | 567 444 |
| Afghanistan | 6 491 | 6 491 | 6 000 | * 6 000 | * 6 000 |
| China | * 220 000 | * 220 000 | * 220 000 | * 220 000 | * 220 000 |
| India (a) | 4 872 847 | 4 073 479 | 3 425 580 | 4 262 207 | 3 735 000 |
| Iran (b)(c) | 139 114 | 268 586 | 274 511 | 350 000 | 330 000 |
| Kazakhstan | 4 590 000 | 4 207 000 | 4 678 000 | 5 092 000 | 5 059 000 |
| Oman | 407 822 | 859 748 | 636 482 | 865 400 | 616 700 |
| Pakistan | * 300 000 | * 390 000 | * 300 000 | * 540 000 | * 450 000 |
| Philippines (b) | 31 593 | 15 268 | 14 322 | 14 807 | 25 483 |
| United Arab Emirates | 23 000 | 31 000 | — | — | — |
| Vietnam | * 103 800 | * 55 100 | * 37 100 | * 58 600 | * 24 900 |
| Australia | 295 000 | 142 000 | 182 000 | 181 200 | 323 800 |
| World Total | 25 200 000 | 24 800 000 | 20 100 000 | 27 500 000 | 26 300 000 |

Notes

(1) In addition to the countries listed, Bulgaria is believed to produce chromite

(a) Years ended 31 March following that stated

(b) Including foundry sand and/or lumpy ore

(c) Years ended 20 March following that stated

Production of coal

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|-------------|-------------------|----------------|----------------|----------------|
| Albania | | | | | |
| Lignite | 2 700 | 1 500 | 2 000 | 3 000 | 100 |
| Bosnia & Herzegovina | | | | | |
| Brown coal & lignite | 9 762 800 | 11 221 305 | 11 515 138 | 10 976 163 | 12 738 225 |
| Bulgaria | | | | | |
| Lignite | 25 325 000 | 26 007 800 | 25 014 800 | 27 148 300 | 34 496 200 |
| Brown coal | 2 833 500 | 2 643 200 | 2 243 800 | 2 321 200 | 2 743 500 |
| Czech Republic | | | | | |
| Bituminous | 12 462 000 | 12 197 000 | 10 621 000 | 11 193 000 | 10 967 000 |
| Lignite | 437 000 | 416 000 | 262 000 | — | — |
| Brown coal | 49 134 000 | 47 456 000 | 45 354 000 | 43 931 000 | 46 848 000 |
| Georgia | 18 891 | 12 000 | 213 188 | 267 664 | 350 417 |
| Germany | | | | | |
| Anthracite & Bituminous | 24 185 000 | 19 143 000 | 14 971 000 | 14 110 000 | 12 960 000 |
| Brown coal | 180 409 054 | 175 313 020 | 169 857 142 | 169 402 544 | 176 502 000 |
| Greece | | | | | |
| Lignite | 66 100 000 | 64 521 000 | 61 800 000 | 53 600 000 | 58 400 000 |
| Hungary | | | | | |
| Lignite | 8 351 563 | 8 041 168 | 8 026 587 | 8 203 000 | 8 800 783 |
| Brown coal | 1 450 400 | 1 386 140 | 952 000 | 911 000 | 757 900 |
| Kosovo | | | | | |
| Lignite | — | 7 842 000 | 7 839 173 | 7 958 090 | 8 212 103 |
| Macedonia | | | | | |
| Lignite | 6 569 220 | 7 669 103 | 7 395 915 | 6 583 000 | 7 902 000 |
| Montenegro | | | | | |
| Lignite | 1 195 515 | 1 740 076 | 957 164 | 1 937 847 | 1 972 671 |
| Norway | | | | | |
| Bituminous (d) | 3 223 000 | 3 429 000 | 2 437 000 | 1 685 000 | 1 640 000 |
| Poland | | | | | |
| Bituminous | 88 313 369 | 84 345 443 | 78 064 462 | 76 727 800 | 76 454 400 |
| Lignite | 57 537 727 | 59 668 166 | 57 108 304 | 56 510 100 | 62 841 300 |
| Romania | | | | | |
| Lignite | 35 671 000 | 34 529 000 | 28 460 152 | 28 774 244 | 33 779 130 |
| Brown coal | 97 000 | 205 000 | 63 458 | 62 448 | 46 071 |
| Russia | | | | | |
| Coal | 314 000 000 | 326 000 000 | 298 000 000 | 317 000 000 | 334 000 000 |
| Serbia | | | | | |
| Bituminous | 58 000 | 66 000 | 69 000 | 108 000 | 134 000 |
| Lignite | 36 803 000 | (m)(b) 31 332 000 | (b) 38 070 579 | (b) 37 562 840 | (b) 40 467 132 |
| Brown coal | 204 000 | ... | 209 660 | 193 492 | 349 861 |
| Slovakia | | | | | |
| Lignite | 20 000 | 87 000 | 155 000 | 176 000 | 124 000 |
| Brown coal | 1 839 000 | 2 075 000 | 2 221 000 | 2 026 000 | 1 989 000 |
| Slovenia | | | | | |
| Lignite | 4 037 766 | 4 008 440 | 3 921 746 | 4 010 930 | 4 066 278 |
| Brown coal | 483 417 | 488 828 | 510 769 | 419 466 | 435 800 |
| Spain | | | | | |
| Anthracite | 3 485 083 | 3 152 550 | 4 306 033 | 3 212 603 | 2 489 797 |
| Bituminous | 4 387 416 | 4 085 652 | 2 898 340 | 2 776 918 | 1 774 991 |
| Sub-bituminous | 3 128 081 | 2 890 230 | 2 493 577 | 2 428 877 | 2 357 557 |
| Lignite | 6 112 946 | — | — | — | — |
| Turkey | | | | | |
| Anthracite | 3 230 787 | 3 343 409 | 3 773 603 | 6 312 137 | 5 619 316 |
| Lignite | 74 316 728 | 86 074 626 | 82 263 104 | 86 943 392 | 89 805 602 |
| Ukraine | | | | | |
| Bituminous | 75 538 400 | 77 802 200 | 54 977 000 | 54 952 000 | 62 661 000 |
| Lignite | 182 000 | 163 000 | 175 000 | * 175 000 | * 175 000 |
| United Kingdom | | | | | |
| Bituminous (g) | 17 070 000 | 18 053 000 | 17 874 000 | 18 417 000 | 18 492 000 |
| Botswana | 828 164 | 909 511 | 737 798 | 988 240 | 787 729 |
| Congo, Democratic Republic | | | | | |
| Bituminous | 126 100 | 128 800 | 133 400 | 133 400 | * 133 400 |
| Egypt | 146 841 | — | — | 109 884 | 233 283 |
| Malawi | 58 550 | 57 477 | 59 201 | 79 186 | * 79 000 |

Production of coal

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------------|---------------|---------------|---------------|---------------|---------------|
| Mozambique | | | | | |
| Bituminous | 23 602 | 37 700 | 25 924 | 35 737 | 82 920 |
| Niger | 171 296 | 182 912 | 225 072 | 246 558 | * 250 000 |
| Nigeria | | | | | |
| Sub-bituminous | * 20 000 | * 30 000 | * 40 000 | 44 148 | * 44 000 |
| South Africa | | | | | |
| Anthracite | 2 348 955 | 2 207 304 | 1 657 860 | 2 073 889 | 2 553 635 |
| Bituminous | 245 251 281 | 250 006 054 | 248 923 814 | 255 131 918 | 250 203 209 |
| Swaziland | | | | | |
| Anthracite | 241 283 | 174 807 | 129 647 | 145 903 | 121 050 |
| Tanzania | | | | | |
| Bituminous | 27 198 | 15 242 | 16 500 | * 18 000 | * 18 000 |
| Zambia | | | | | |
| Bituminous | 14 058 | * 14 000 | * 14 000 | — | — |
| Zimbabwe | | | | | |
| Bituminous | 2 080 221 | 1 509 080 | 1 667 346 | 2 668 183 | 2 562 054 |
| Canada | | | | | |
| Bituminous | 32 325 000 | 32 839 000 | 27 959 000 | 33 704 000 | 34 621 000 |
| Sub-bituminous | 26 118 000 | 24 988 000 | 24 425 000 | 23 927 000 | 22 762 000 |
| Lignite | 10 541 000 | 9 921 000 | 10 550 000 | 10 264 000 | 9 731 000 |
| Mexico | | | | | |
| Bituminous | 16 792 109 | 15 038 557 | 13 555 680 | 16 318 120 | 20 967 630 |
| USA | | | | | |
| Anthracite (k) | 1 451 000 | 1 542 000 | 1 724 000 | 1 633 000 | * 2 087 000 |
| Bituminous (k) | 492 428 000 | 503 768 000 | 457 320 000 | 444 074 000 | * 454 054 000 |
| Sub-bituminous | 475 101 000 | 489 072 000 | 450 334 000 | 467 027 000 | * 463 126 000 |
| Lignite | 71 306 000 | 68 675 000 | 65 772 000 | 70 943 000 | * 73 483 000 |
| Argentina | | | | | |
| Bituminous | 250 000 | 207 983 | 181 474 | 140 000 | * 150 000 |
| Brazil | | | | | |
| Bituminous & lignite (e) | 5 998 354 | 6 518 733 | 5 947 364 | 5 611 467 | 5 689 727 |
| Chile | | | | | |
| Bituminous | 184 122 | 212 375 | 118 305 | 106 018 | 131 430 |
| Lignite | 103 871 | 321 417 | 517 769 | 512 775 | 522 672 |
| Colombia | | | | | |
| Bituminous | 69 902 000 | 73 502 075 | 72 807 412 | 74 350 133 | 85 803 000 |
| Peru | | | | | |
| Anthracite & Bituminous | 100 594 | 136 435 | 156 372 | 91 960 | 164 392 |
| Venezuela | | | | | |
| Bituminous | 6 855 341 | 5 053 700 | 3 258 146 | 2 630 820 | * 2 600 000 |
| Afghanistan | | | | | |
| Bituminous | ... | 314 702 | 453 592 | 657 618 | * 658 000 |
| Bangladesh | 388 376 | 677 098 | 857 648 | 730 866 | 666 635 |
| Bhutan | 105 261 | 123 704 | 48 545 | 87 814 | 148 244 |
| Burma | 282 655 | 241 299 | 231 271 | 235 743 | 351 770 |
| China | 2 692 000 000 | 2 802 000 000 | 2 973 000 000 | 3 235 000 000 | 3 520 000 000 |
| India | | | | | |
| Bituminous (h) | 457 082 000 | 492 757 000 | 532 042 000 | 533 223 000 | 546 884 000 |
| Lignite (h) | 33 980 000 | 32 421 000 | 34 071 000 | 37 651 000 | 80 686 000 |
| Indonesia | | | | | |
| Anthracite & Bituminous | 216 946 699 | 240 249 968 | 256 181 000 | 275 164 196 | * 350 000 000 |
| Iran | | | | | |
| Bituminous (c) | 2 525 000 | 2 520 000 | 2 180 810 | * 2 500 000 | * 2 500 000 |
| Japan | | | | | |
| Bituminous | * 1 340 000 | * 1 300 000 | * 1 100 000 | * 1 000 000 | * 1 000 000 |
| Kazakhstan | | | | | |
| Bituminous | 94 013 800 | 106 295 600 | 86 881 082 | 90 069 836 | 93 453 636 |
| Lignite | 4 370 100 | 4 776 700 | 4 612 000 | 6 607 026 | 7 591 322 |
| Korea (Rep. of) | | | | | |
| Anthracite | 2 886 000 | 2 772 544 | 2 518 940 | 2 083 972 | 2 084 474 |
| Korea, Dem. P.R. of | * 24 100 000 | * 25 060 000 | * 36 000 000 | * 41 000 000 | * 41 000 000 |
| Kyrgyzstan | 400 000 | 436 678 | 546 971 | 549 000 | 1 061 000 |
| Laos | 681 715 | 379 273 | 466 082 | 501 600 | 511 700 |

Production of coal

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Malaysia | 1 063 078 | 1 166 525 | 2 138 390 | 2 397 340 | 2 915 788 |
| Mongolia | | | | | |
| Anthracite & semi-bituminous | 4 664 900 | 5 228 000 | ... | ... | ... |
| Brown coal & lignite | 4 572 700 | 4 843 900 | (i) 14 365 500 | (i) 25 161 900 | (i) 32 029 700 |
| Nepal | | | | | |
| Sub-bituminous (l) | 16 374 | 13 845 | 14 819 | * 16 000 | * 16 000 |
| Pakistan | 3 702 162 | 4 066 409 | 3 679 185 | 3 535 828 | 3 291 617 |
| Philippines | | | | | |
| Bituminous | 3 401 136 | 3 609 316 | 4 687 277 | 6 650 357 | 6 881 474 |
| Tajikistan | 181 400 | 198 500 | 178 300 | 199 700 | 236 400 |
| Thailand | | | | | |
| Lignite | 18 239 176 | 18 095 335 | 16 360 261 | 18 399 399 | 21 324 406 |
| Uzbekistan | | | | | |
| Bituminous | 159 665 | 197 766 | 100 698 | 197 766 | * 198 000 |
| Lignite | 3 282 194 | 3 091 685 | 3 553 443 | 3 101 665 | * 3 100 000 |
| Vietnam | | | | | |
| Anthracite | 42 483 000 | 39 777 000 | 44 078 000 | 44 800 000 | 45 800 000 |
| Australia | | | | | |
| Bituminous (f) | 325 000 000 | 333 000 000 | 350 000 000 | 357 000 000 | 347 000 000 |
| Brown coal (j) | 65 613 000 | 66 033 000 | 68 252 000 | 68 751 000 | 66 733 000 |
| New Zealand | | | | | |
| Bituminous | 2 019 430 | 2 476 848 | 2 085 486 | 2 597 400 | 2 330 400 |
| Sub-bituminous | 2 555 830 | 2 179 081 | 2 218 143 | 2 438 200 | 2 294 200 |
| Lignite | 260 148 | 253 492 | 259 704 | 294 900 | 320 100 |
| World Total | 6 587 000 000 | 6 811 000 000 | 6 876 000 000 | 7 235 000 000 | 7 739 000 000 |

Notes

(1) There is no international agreement as to the separate definition of lignite and brown coal. In some cases they are distinguished. Elsewhere both may be aggregated under one or other term

- (a) Including lignite
- (b) Excluding production in Kosovo
- (c) Years ended 20 March following that stated
- (d) Spitzbergen: not including production from mines controlled by Russia
- (e) Including beneficiated and directly shipped material
- (f) Including sub-bituminous
- (g) Including anthracite
- (h) Years ended 31 March following that stated
- (i) Coal; all forms
- (j) Years ended 30 June of that stated
- (k) Includes a small amount of refuse recovery
- (l) Years ended 15 July of that shown
- (m) Including brown coal

Mine production of cobalt

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|---------|---------|---------|---------|---------|
| Finland | * 120 | * 100 | * 27 | * 140 | 480 |
| Russia (a) | 3 587 | 2 502 | 2 352 | 2 460 | 2 337 |
| Botswana | 242 | 337 | 342 | 272 | 149 |
| Congo, Democratic Republic | 17 886 | 42 461 | 56 258 | 97 693 | 108 888 |
| Madagascar | — | — | — | 700 | — |
| Morocco (a) | 1 573 | 1 791 | 1 600 | 1 582 | 1 518 |
| South Africa (a) | 307 | 244 | 238 | 840 | 862 |
| Uganda (a) | 698 | 663 | 673 | 624 | 661 |
| Zambia (a) | 4 335 | 3 841 | 1 535 | 5 134 | 5 956 |
| Zimbabwe | 29 | 28 | 39 | 58 | 174 |
| Canada | 8 692 | 8 953 | 3 919 | 4 636 | 7 071 |
| Cuba | 4 549 | 3 175 | * 3 500 | 3 721 | 3 850 |
| Brazil | 1 311 | 2 631 | 2 075 | 3 139 | 3 150 |
| China | 6 100 | 6 630 | 6 000 | 6 500 | * 6 800 |
| Indonesia | * 650 | * 650 | * 650 | * 650 | * 650 |
| Philippines | * 1 000 | * 1 200 | * 1 500 | * 1 500 | * 1 500 |
| Australia (b) | 5 325 | 5 770 | 5 365 | 4 838 | 4 254 |
| New Caledonia | 1 620 | 869 | 913 | 1 735 | 2 404 |
| World Total | 58 000 | 82 000 | 87 000 | 136 000 | 151 000 |

Notes

- (1) There is frequently a considerable disparity between the cobalt content of ore raised and cobalt actually recovered
(2) Figures in this table relate where possible to cobalt recovered. The principal exceptions to this are Brazil and New Caledonia, the figures for which relate to cobalt in ore raised

(a) Metal

(b) Years ended 30 June of that stated

Production of cobalt metal

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------------------|--------|--------|--------|--------|--------|
| Belgium (d) | 2 825 | 3 020 | 2 150 | 2 600 | 3 187 |
| Finland | 9 173 | 9 645 | 8 970 | 9 429 | 10 627 |
| France | 305 | 311 | 368 | 302 | 354 |
| Norway | 3 939 | 3 719 | 3 510 | 3 208 | 3 067 |
| Russia | 3 587 | 2 502 | 2 352 | 2 460 | 2 337 |
| Congo, Democratic Republic (c) | 606 | 1 049 | 2 950 | 4 182 | 3 083 |
| Morocco | 1 573 | 1 791 | 1 600 | 1 582 | 1 518 |
| South Africa (b) | 307 | 244 | 238 | 840 | 862 |
| Uganda | 698 | 663 | 673 | 624 | 661 |
| Zambia | 4 435 | 3 841 | 1 535 | 5 134 | 5 956 |
| Canada (a) | 5 620 | 5 637 | 4 918 | 4 711 | 6 038 |
| Brazil | 1 148 | 994 | 1 012 | 1 369 | 1 613 |
| China (d) | 13 245 | 18 239 | 23 138 | 32 930 | 34 969 |
| India | 980 | 858 | 1 001 | 1 187 | 1 299 |
| Japan | 1 085 | 1 071 | 1 332 | 1 935 | 2 007 |
| Australia | 3 684 | 3 617 | 4 050 | 4 117 | 4 722 |
| World Total | 53 200 | 57 200 | 59 800 | 76 600 | 82 300 |

Notes

(1) In addition to the production listed above, several countries, including the United Kingdom, Finland and France, are known to produce substantial amounts of cobalt compounds

(a) Including oxides

(b) Includes metal and metal contained in sulphate

(c) Excludes white alloy and matte which are believed to be further processed in Belgium and elsewhere

(d) Some metal production in China is recorded in Belgium

Mine production of copper

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|------------|------------|------------|------------|------------|
| Albania | 2 384 | 3 633 | 2 596 | 2 672 | 4 378 |
| Armenia | 17 629 | 18 754 | 23 233 | 31 062 | 33 597 |
| Bulgaria | 116 157 | 107 195 | 110 652 | 112 904 | 114 603 |
| Cyprus | 3 012 | 2 986 | 2 380 | 2 595 | 3 660 |
| Finland | 13 600 | 13 300 | 14 600 | 14 700 | 14 000 |
| Georgia | 11 300 | 18 700 | 16 600 | 11 300 | 10 200 |
| Macedonia | 7 029 | 8 051 | 7 440 | 7 900 | 7 600 |
| Poland | 451 900 | 429 687 | 439 365 | 425 700 | 426 700 |
| Portugal | 90 182 | 89 026 | 86 462 | 74 011 | 82 200 |
| Romania | 2 213 | 308 | 3 129 | 5 127 | 6 355 |
| Russia | 690 000 | 705 000 | 675 700 | 702 700 | 713 100 |
| Serbia | 16 500 | 17 600 | 19 400 | 22 500 | 25 800 |
| Spain | 6 281 | 7 071 | 17 663 | 54 335 | 67 983 |
| Sweden | 62 905 | 57 688 | 55 414 | 76 514 | 82 967 |
| Turkey | 81 000 | 83 000 | 87 070 | 81 500 | 95 000 |
| Botswana | 19 996 | 23 146 | 24 382 | 48 026 | 28 246 |
| Congo, Democratic Republic | 144 600 | 239 200 | 299 200 | 377 900 | 480 000 |
| Mauritania | 28 755 | 33 073 | 36 608 | 36 969 | 35 281 |
| Morocco | 5 592 | 5 929 | 11 830 | 14 986 | 12 076 |
| Namibia | 5 800 | 8 800 | — | — | 3 366 |
| South Africa | 97 000 | 108 700 | 107 600 | 102 600 | 96 600 |
| Tanzania | 3 276 | 2 852 | 3 079 | 6 400 | 6 700 |
| Zambia | 524 000 | 567 700 | 601 200 | 731 700 | 739 759 |
| Zimbabwe | 2 681 | 2 827 | 3 572 | 4 629 | 6 555 |
| Canada | 596 249 | 607 957 | 484 605 | 525 129 | 566 124 |
| Dominican Republic | — | 2 600 | 11 500 | 9 000 | 11 700 |
| Mexico | 337 527 | 246 593 | 240 648 | 270 136 | 443 621 |
| USA | 1 170 000 | 1 310 000 | 1 180 000 | 1 110 000 | 1 120 000 |
| Argentina | 180 223 | 156 900 | 143 084 | 140 300 | 116 700 |
| Bolivia | 606 | 567 | 620 | 2 100 | 4 176 |
| Brazil | 205 728 | 222 000 | 217 000 | 213 000 | 223 807 |
| Chile | 5 557 000 | 5 327 600 | 5 394 400 | 5 418 900 | 5 262 800 |
| Colombia | 840 | 1 050 | 1 140 | 711 | 808 |
| Peru | 1 190 274 | 1 267 867 | 1 276 249 | 1 247 184 | 1 235 198 |
| Burma | 15 100 | 6 900 | 9 800 | * 12 000 | * 12 000 |
| China | 946 200 | 1 092 700 | 1 062 000 | 1 179 500 | 1 299 300 |
| India (a) | 32 726 | 30 528 | 28 491 | 31 696 | 30 340 |
| Indonesia | 796 899 | 655 046 | 988 530 | 878 376 | 542 700 |
| Iran | 244 200 | 248 100 | 262 500 | 256 600 | 259 100 |
| Kazakhstan | 444 000 | 467 000 | 456 000 | 427 000 | 417 000 |
| Korea, Dem. P.R. of | * 12 000 | * 12 000 | * 12 000 | * 12 000 | * 12 000 |
| Laos | 62 541 | 89 004 | 121 581 | 132 047 | 138 756 |
| Malaysia | — | — | 240 | — | — |
| Mongolia | 130 165 | 126 980 | 129 800 | 124 985 | 121 590 |
| Oman | 9 341 | 18 728 | 19 659 | 20 880 | 26 736 |
| Pakistan | 18 800 | 18 700 | 19 600 | 19 400 | * 20 000 |
| Philippines | 22 862 | 21 235 | 49 060 | 58 412 | 63 835 |
| Saudi Arabia | 737 | 1 465 | 1 719 | 1 603 | * 2 000 |
| Uzbekistan | * 80 000 | * 80 000 | * 80 000 | * 80 000 | * 80 000 |
| Vietnam | 12 500 | 11 525 | 12 925 | 12 250 | 11 250 |
| Australia | 871 000 | 886 000 | 856 000 | 871 000 | 960 000 |
| Papua New Guinea | 169 184 | 159 650 | 166 669 | 159 821 | 130 456 |
| World Total | 15 500 000 | 15 600 000 | 15 900 000 | 16 200 000 | 16 200 000 |

Notes

(a) Years ended 31 March following that stated

Smelter production of copper

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------------------|------------|------------|------------|------------|------------|
| Armenia | 6 954 | 6 480 | 6 858 | 7 644 | 8 876 |
| Bulgaria | 217 600 | 257 100 | 256 200 | 265 000 | 285 000 |
| Finland | 118 911 | 142 154 | 110 479 | 112 687 | 116 455 |
| Germany | 270 200 | 295 000 | 251 000 | 378 700 | 346 200 |
| Norway | 34 200 | 37 000 | 33 900 | 36 200 | 36 000 |
| Poland | 518 303 | 492 942 | 457 510 | 469 656 | 481 875 |
| Russia | 649 300 | 616 800 | 620 700 | 647 100 | 652 200 |
| Serbia | 30 200 | 31 900 | 27 000 | 20 000 | 28 200 |
| Spain | 257 348 | 259 897 | 264 971 | 259 119 | 260 730 |
| Sweden | 203 100 | 203 700 | 183 400 | 181 500 | 206 100 |
| Turkey | 17 900 | 38 000 | — | — | 35 600 |
| Botswana | 27 000 | 25 000 | 24 700 | 22 823 | 16 105 |
| Congo, Democratic Republic (a) | 1 800 | — | — | — | — |
| Namibia | 20 600 | 16 600 | 21 500 | 29 900 | 41 700 |
| South Africa | 111 900 | 94 800 | 86 900 | 75 900 | 82 400 |
| Zambia (a) | 224 000 | 232 000 | 334 000 | 487 000 | 511 200 |
| Canada | 470 713 | 443 710 | 316 510 | 318 006 | 304 724 |
| Mexico | 294 746 | 230 056 | 178 672 | 168 861 | 336 739 |
| USA | 617 000 | 573 800 | 597 400 | 601 200 | 538 400 |
| Brazil | 218 000 | 227 800 | 204 500 | 208 800 | 223 500 |
| Chile | 1 514 300 | 1 369 200 | 1 522 300 | 1 559 800 | 1 364 200 |
| Peru | 236 809 | 306 583 | 325 788 | 312 968 | 299 004 |
| China | 2 111 500 | 2 453 400 | 2 694 000 | 2 825 600 | 3 080 100 |
| India | 699 900 | 651 000 | 705 100 | 653 900 | 671 300 |
| Indonesia | 277 000 | 253 300 | 295 900 | 276 800 | 280 000 |
| Iran | 180 300 | 179 800 | 192 700 | 188 200 | 185 200 |
| Japan | 1 383 372 | 1 335 846 | 1 302 120 | 1 356 289 | 1 173 275 |
| Kazakhstan | 408 800 | 430 000 | 369 000 | 370 900 | 375 900 |
| Korea (Rep. of) | 470 000 | 502 000 | 455 400 | 475 900 | 449 200 |
| Korea, Dem. P.R. of | * 10 000 | * 10 000 | * 10 000 | * 10 000 | * 10 000 |
| Oman | 13 940 | 11 906 | 11 830 | 8 815 | * 10 000 |
| Pakistan | 18 200 | 17 800 | 18 300 | 18 900 | * 16 000 |
| Philippines | 219 900 | 239 700 | 230 100 | 216 200 | 205 000 |
| Thailand | 5 600 | — | — | — | — |
| Uzbekistan | 90 200 | 90 100 | 90 000 | 90 000 | 90 000 |
| Vietnam | — | 2 200 | 6 000 | 8 000 | * 8 000 |
| Australia | 399 000 | 449 000 | 422 000 | 410 000 | 441 000 |
| World Total | 12 300 000 | 12 500 000 | 12 600 000 | 13 100 000 | 13 200 000 |

Notes

(1) This table shows primary metal in the form of blister and anode produced from concentrates, and may include copper produced from scrap but this is excluded when it can be separately identified

(a) Including leach cathodes

Production of refined copper

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|------------|------------|------------|------------|------------|
| Austria | 81 400 | 106 700 | 96 200 | 113 700 | 112 500 |
| Belgium | 394 000 | 395 800 | 373 700 | 389 000 | 393 600 |
| Bulgaria | 69 900 | 114 200 | 183 600 | 195 400 | 201 100 |
| Cyprus | 3 012 | 2 986 | 2 380 | 2 595 | 3 660 |
| Finland | 109 870 | 131 249 | 105 411 | 120 528 | 124 360 |
| Germany | 665 517 | 689 763 | 668 945 | 704 300 | 708 800 |
| Italy | 28 600 | 24 200 | 6 500 | 1 800 | 2 000 |
| Norway | 34 200 | 37 000 | 33 900 | 36 200 | 36 000 |
| Poland | 532 975 | 526 808 | 502 462 | 547 074 | 571 000 |
| Romania | 18 589 | 15 300 | 4 600 | — | — |
| Russia | 948 300 | 876 800 | 855 000 | 899 600 | 912 000 |
| Serbia | 31 600 | 33 800 | 27 400 | 22 200 | 25 300 |
| Spain | 308 372 | 319 050 | 329 356 | 347 518 | 353 790 |
| Sweden | 213 894 | 227 774 | 205 759 | 190 497 | 219 316 |
| Turkey | 99 600 | 88 000 | 33 500 | 47 300 | 85 000 |
| Ukraine | 19 500 | 21 700 | 20 000 | 23 400 | 20 000 |
| Congo, Democratic Republic | 36 000 | 57 700 | 169 900 | 258 600 | 354 800 |
| Egypt (a) | 1 719 | 2 664 | 2 842 | 2 620 | 2 487 |
| South Africa | 110 700 | 92 700 | 88 600 | 76 200 | 79 500 |
| Zambia | 523 400 | 575 000 | 697 900 | 681 600 | 515 400 |
| Zimbabwe | 6 800 | 3 100 | * 3 000 | * 5 000 | * 7 000 |
| Canada | 453 453 | 442 050 | 335 896 | 319 619 | 273 761 |
| Mexico | 357 300 | 295 000 | 260 700 | 247 300 | 400 000 |
| USA | 1 310 800 | 1 280 300 | 1 161 200 | 1 093 400 | 1 040 000 |
| Argentina | * 16 000 | * 16 000 | * 16 000 | * 16 000 | * 16 000 |
| Brazil | 219 300 | 233 800 | 231 400 | 224 300 | 228 200 |
| Chile | 2 936 500 | 3 057 600 | 3 276 600 | 3 243 900 | 3 092 400 |
| Peru | 413 907 | 463 933 | 423 393 | 393 638 | 367 554 |
| Burma | 15 100 | 6 900 | 9 800 | * 12 000 | * 10 000 |
| China | 3 499 400 | 3 794 600 | 4 051 300 | 4 540 300 | 5 197 100 |
| India (b) | 501 485 | 513 640 | 532 865 | 512 124 | * 525 000 |
| Indonesia | 256 900 | 253 400 | 284 800 | 277 500 | 257 000 |
| Iran | 204 300 | 200 600 | 210 300 | 219 800 | 227 200 |
| Japan | 1 576 818 | 1 539 957 | 1 439 843 | 1 548 688 | 1 328 288 |
| Kazakhstan | 408 026 | 398 411 | 312 767 | 323 368 | 338 524 |
| Korea (Rep. of) | 566 400 | 537 925 | 531 701 | 564 600 | 595 447 |
| Korea, Dem. P.R. of | * 15 000 | * 12 000 | * 12 000 | * 12 000 | * 12 000 |
| Laos | 62 541 | 64 075 | 67 562 | 64 241 | 78 859 |
| Mongolia | 3 007 | 2 587 | 2 470 | 2 746 | 2 389 |
| Oman | 13 940 | 11 906 | 11 830 | 8 815 | * 10 000 |
| Philippines | 160 200 | 174 600 | 178 000 | 176 000 | 164 000 |
| Thailand | 12 714 | 438 | 490 | 529 | 459 |
| Uzbekistan | 89 600 | 70 400 | 82 500 | 82 500 | 90 000 |
| Vietnam | — | 2 200 | 6 000 | 8 000 | 8 000 |
| Australia | 442 000 | 503 000 | 446 000 | 424 000 | 477 000 |
| World Total | 17 800 000 | 18 200 000 | 18 300 000 | 19 000 000 | 19 500 000 |

Notes

(1) Figures relate to both primary and secondary refined copper, whether electrolytic or fire refined. Metal recovered from secondary materials by remelting alone is excluded

(2) In addition to the countries listed, Albania and Colombia produce refined copper

(a) Years ended 30 June of that stated

(b) Years ended 31 March following that stated

Production of diamond

carats

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|-------------|-------------|-------------|-------------|-------------|
| Russia | 38 291 200 | 36 925 150 | 34 759 400 | 34 856 600 | 35 139 800 |
| Angola | 9 701 709 | 8 906 974 | 13 827 609 | 8 362 139 | 8 328 519 |
| Botswana | 33 639 000 | 32 595 000 | 17 734 000 | 22 019 000 | 22 903 000 |
| Cameroon (a) | * 12 000 | * 12 000 | * 12 000 | * 12 000 | * 12 000 |
| Central African Republic | 467 711 | 372 754 | 310 469 | 301 558 | 323 576 |
| Congo | 22 000 | 110 000 | 68 000 | 381 242 | 76 548 |
| Congo, Democratic Republic | 28 452 496 | 33 401 928 | 21 298 459 | 20 166 220 | 19 249 057 |
| Ghana | 839 235 | 598 042 | 354 443 | 308 679 | 283 369 |
| Guinea | 1 018 723 | 3 098 490 | 696 732 | 374 096 | 235 400 |
| Lesotho | 229 077 | 253 054 | 91 816 | 108 827 | 224 180 |
| Liberia | 21 699 | 46 963 | 36 828 | 22 018 | 39 865 |
| Namibia | 2 266 100 | 2 435 195 | 939 916 | 1 475 610 | 1 229 000 |
| Sierra Leone | 603 698 | 371 290 | 400 480 | 437 552 | 355 890 |
| South Africa | 15 247 122 | 12 901 018 | 6 118 974 | 8 870 967 | 7 046 644 |
| Tanzania | 282 786 | 237 676 | 181 874 | 80 498 | 28 378 |
| Togo | 13 452 | 8 787 | 125 | 96 | 71 |
| Zimbabwe | 695 016 | 797 198 | 963 502 | 8 435 224 | 8 502 648 |
| Canada | 17 007 850 | 14 802 699 | 10 946 098 | 11 773 000 | 10 795 000 |
| Brazil | 182 031 | 80 226 | 21 153 | 25 394 | 45 536 |
| Guyana | 268 925 | 168 926 | 143 982 | 49 920 | 52 273 |
| Venezuela | 14 502 | 9 381 | 7 730 | 2 099 | — |
| China | * 1 070 000 | * 1 100 000 | * 1 100 000 | * 1 100 000 | * 1 100 000 |
| India (b) | 586 | 536 | 16 891 | 19 774 | 18 489 |
| Indonesia | 22 980 | 27 688 | — | — | — |
| Australia | 19 231 000 | 15 670 000 | 10 795 000 | 9 998 000 | 7 562 000 |
| World Total | 169 600 000 | 164 900 000 | 120 800 000 | 129 200 000 | 123 600 000 |

Notes

- (1) This table does not show production of synthetic diamond
- (2) So far as possible the amounts shown include estimates for illegal production
- (3) Production of diamond from Ivory Coast has been under United Nations sanctions since 2004. It is believed illegal production continues but it is not possible to estimate the quantity involved

- (a) Including artisanal production
- (b) Years ended 31 March following that stated

Production of diatomite

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------|-----------|-----------|-----------|-----------|-------------|
| Czech Republic | 19 000 | 31 000 | — | 32 000 | 46 000 |
| Denmark | | | | | |
| Moler (d) | 92 416 | 92 108 | 82 778 | 83 756 | 80 854 |
| France | * 75 000 | * 75 000 | * 75 000 | * 75 000 | * 75 000 |
| Hungary | 1 424 | — | 1 277 | 1 200 | 1 312 |
| Poland | 600 | 600 | 670 | 1 000 | 600 |
| Romania | 2 057 | — | — | — | — |
| Spain (b) | 45 480 | 46 192 | 29 194 | 64 346 | 83 624 |
| Algeria | 1 902 | 1 677 | 1 847 | 2 231 | * 2 000 |
| Ethiopia (a) | — | — | 4 104 | * 4 100 | * 4 100 |
| Kenya | 201 | 72 | 231 | * 250 | * 250 |
| Mozambique | 651 | 379 | 200 | * 40 | ... |
| Costa Rica | 14 200 | 14 700 | 24 500 | 29 900 | 8 700 |
| Mexico | 82 519 | 128 536 | 80 807 | 91 710 | 84 231 |
| USA (c) | 687 000 | 764 000 | 575 000 | 595 000 | 600 000 |
| Argentina | 49 604 | 36 996 | 62 270 | 1 252 741 | * 1 000 000 |
| Brazil | 9 600 | 12 100 | 7 500 | 9 300 | * 10 000 |
| Chile | 25 405 | 25 497 | 23 027 | 30 925 | 22 938 |
| Peru | 21 603 | 12 200 | 9 946 | 18 886 | 54 163 |
| China | * 420 000 | * 440 000 | * 440 000 | * 400 000 | * 440 000 |
| Iran (e) | 300 | 2 000 | — | — | * — |
| Japan | * 120 000 | * 115 000 | * 110 000 | * 110 000 | * 100 000 |
| Korea (Rep. of) | 2 360 | 2 540 | 2 440 | 2 200 | 5 150 |
| Saudi Arabia | * 1 000 | * 1 000 | * 1 000 | * 1 000 | * 1 000 |
| Thailand | 1 260 | 4 075 | 5 600 | 7 100 | 38 130 |
| Vietnam | * 10 000 | * 10 000 | * 10 000 | * 10 000 | * 10 000 |
| Australia (f) | * 33 600 | * 21 200 | * 13 900 | * 13 600 | * 12 000 |
| New Zealand | — | — | 10 | 95 | — |
| World Total | 1 717 000 | 1 837 000 | 1 561 000 | 2 836 000 | 2 680 000 |

Notes

(1) In addition to the countries listed, Egypt and Turkey are believed to produce diatomite

- (a) Years ended 7 July of that stated
- (b) Including Tripoli
- (c) Sold or used by producers
- (d) Moler is an impure diatomite containing a large proportion of clay
- (e) Years ended 20 March following that stated
- (f) Years ended 30 June of that stated

Production of feldspar

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------|-----------|-----------|-------------|-------------|-------------|
| Bulgaria | * 90 000 | * 90 000 | * 80 000 | * 80 000 | * 80 000 |
| Czech Republic | 514 000 | 488 000 | 431 000 | 388 000 | 407 000 |
| Finland | 48 980 | 45 250 | 23 120 | 28 013 | 26 292 |
| France | * 650 000 | * 650 000 | * 650 000 | * 650 000 | * 650 000 |
| Germany | 171 303 | 161 416 | 140 000 | * 150 000 | * 150 000 |
| Greece | 95 000 | 62 000 | 55 737 | 23 050 | 10 200 |
| Italy | 3 524 389 | 4 727 000 | * 4 700 000 | * 4 700 000 | * 4 700 000 |
| Macedonia | 32 814 | 28 920 | 19 377 | 23 188 | 25 032 |
| Norway | 65 000 | 62 000 | 48 000 | 56 000 | 25 271 |
| Poland | 497 900 | 599 100 | 445 500 | 513 700 | * 550 000 |
| Portugal | 378 521 | 230 427 | 210 266 | 169 722 | 179 600 |

Production of feldspar

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------------|-------------|-------------|-------------|-------------|-------------|
| Romania | 41 477 | 22 995 | 14 317 | 6 049 | 3 814 |
| Russia | * 160 000 | * 160 000 | * 160 000 | * 160 000 | * 160 000 |
| Serbia | * 250 | * 200 | 149 | 253 | 171 |
| Slovakia | — | 10 000 | 13 000 | — | — |
| Spain | 683 134 | 690 256 | 597 496 | 691 894 | * 650 000 |
| Sweden | 25 000 | 22 000 | 18 000 | 22 000 | 30 000 |
| Turkey | 6 000 000 | 6 500 000 | 4 000 000 | 6 281 597 | 4 477 993 |
| Ukraine | 76 305 | 83 420 | 84 757 | 146 016 | 178 614 |
| United Kingdom (c)(e) | 1 112 | 430 | — | — | — |
| Algeria | 83 208 | 115 938 | 131 046 | 163 939 | * 160 000 |
| Egypt | 135 290 | 168 673 | 353 700 | 405 600 | * 210 000 |
| Ethiopia | 566 | 523 | 750 | 1 500 | * 1 500 |
| Morocco | 37 955 | 30 080 | * 35 000 | * 40 000 | 43 889 |
| Nigeria | ... | ... | 13 631 | 1 616 | * 1 600 |
| South Africa | 90 312 | 105 815 | 101 394 | 94 307 | 101 559 |
| Cuba | 5 600 | 4 300 | 4 700 | 2 800 | 3 100 |
| Guatemala | 10 480 | 45 854 | 5 672 | 15 720 | 7 516 |
| Mexico | 438 696 | 445 519 | 347 510 | 398 849 | 382 497 |
| USA | 730 000 | 680 000 | 550 000 | 670 000 | 690 000 |
| Argentina | 291 562 | 220 234 | 213 551 | 217 213 | * 220 000 |
| Brazil | 166 000 | 122 000 | 115 000 | * 120 000 | * 120 000 |
| Chile | 6 704 | 17 834 | 9 079 | 7 723 | 7 563 |
| Colombia | * 91 000 | * 86 000 | * 85 000 | * 85 000 | * 85 000 |
| Ecuador | 63 558 | * 60 000 | * 60 000 | * 60 000 | * 60 000 |
| Peru | 15 450 | 13 333 | 5 154 | 3 589 | 11 645 |
| Uruguay | 2 050 | 1 920 | 910 | — | — |
| Venezuela | 222 000 | 96 783 | 100 451 | 57 760 | ... |
| China | * 2 400 000 | * 2 400 000 | * 2 400 000 | * 2 400 000 | * 2 400 000 |
| India (a) | 488 458 | 531 689 | 496 997 | 472 041 | 542 184 |
| Indonesia | * 25 000 | * 26 000 | * 26 000 | * 26 000 | * 26 000 |
| Iran (b) | 512 261 | 501 821 | 634 503 | 652 020 | * 655 000 |
| Japan (e) | * 750 000 | * 700 000 | * 700 000 | * 650 000 | * 600 000 |
| Jordan | 9 800 | 2 950 | — | — | * — |
| Korea (Rep. of) | 398 513 | 344 257 | 622 770 | 496 511 | 384 221 |
| Malaysia | 358 585 | 457 377 | 410 053 | 455 497 | 379 628 |
| Pakistan (d) | 26 120 | 18 737 | 37 881 | 54 198 | 23 254 |
| Philippines | 14 837 | 15 838 | 16 394 | 15 882 | 22 050 |
| Saudi Arabia | 73 000 | 55 000 | 55 000 | 42 300 | * 40 000 |
| Sri Lanka | 46 583 | 55 212 | 73 365 | 75 405 | 53 337 |
| Taiwan | — | 4 379 | — | 20 | 50 |
| Thailand | 684 668 | 670 618 | 718 692 | 641 900 | 1 041 152 |
| Uzbekistan | * 4 300 | * 4 300 | * 4 300 | * 4 300 | * 4 300 |
| Vietnam | * 200 000 | * 200 000 | * 200 000 | * 200 000 | * 200 000 |
| Australia (d) | * 105 000 | * 102 000 | * 100 000 | * 103 000 | * 94 000 |
| World Total | 21 544 000 | 22 940 000 | 20 319 000 | 22 724 000 | 20 875 000 |

Notes

(1) In addition to the countries listed, Slovakia is believed to produce feldspar

(a) Years ended 31 March following that stated

(b) Years ended 20 March following that stated

(c) China stone

(d) Years ended 30 June of that stated

(e) Including weathered granite feldspar

Production of fluorspar

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|-------------|-------------|-------------|-------------|-------------|
| Bulgaria | — | — | 32 | 10 | 31 800 |
| Germany | 54 359 | 48 519 | 49 962 | 59 086 | 65 619 |
| Russia | * 180 000 | * 269 000 | * 240 000 | * 250 000 | * 250 000 |
| Spain | 155 197 | 148 736 | 122 533 | 132 341 | 117 333 |
| United Kingdom | 44 936 | 36 801 | 18 536 | 26 420 | — |
| Egypt (c) | 11 588 | 9 115 | 4 343 | 5 953 | 3 808 |
| Kenya | 82 000 | 98 248 | 15 667 | 40 800 | 95 100 |
| Morocco | 78 817 | 56 724 | 72 096 | 89 680 | 79 207 |
| Namibia | 118 766 | 118 263 | 80 857 | 104 494 | 94 000 |
| South Africa | 285 000 | 299 000 | * 140 000 | * 140 000 | * 140 000 |
| Mexico | 933 361 | 1 057 649 | 1 045 940 | 1 067 386 | 1 206 907 |
| Argentina | 9 735 | 15 098 | 13 424 | 17 657 | * 15 000 |
| Brazil (a) | 65 526 | 63 241 | 43 964 | 25 814 | * 25 900 |
| China | * 3 200 000 | * 3 250 000 | * 3 200 000 | * 3 300 000 | * 3 300 000 |
| India (d) | 7 764 | 9 990 | 13 781 | 7 544 | 4 900 |
| Iran (b) | 68 192 | 61 592 | 71 409 | * 70 000 | * 70 000 |
| Kazakhstan | 64 000 | 66 300 | * 66 000 | * 66 000 | * 66 000 |
| Korea, Dem. P.R. of | * 12 500 | * 12 500 | * 12 500 | * 12 500 | * 12 500 |
| Kyrgyzstan | * 4 000 | * 4 000 | * 4 000 | * 4 000 | * 4 000 |
| Mongolia | 354 900 | 334 800 | 459 500 | 367 000 | 404 000 |
| Pakistan (c) | 1 505 | 2 612 | 493 | 222 | 198 |
| Thailand | 1 820 | 29 529 | 119 840 | 30 487 | 5 093 |
| Vietnam | * 4 000 | * 4 000 | * 4 000 | * 4 000 | * 4 000 |
| World Total | 5 700 000 | 6 000 000 | 5 800 000 | 5 800 000 | 6 000 000 |

Notes

- (1) In addition to the countries listed, Bulgaria is believed to produce fluorspar
(2) In addition, the USA produced the following amounts of fluorspar equivalent in fluorosilicic acid derived from processing phosphate rock ('000 t): 2005: 86; 2006: 70; 2007: 83; 2008: 92; 2009: 97

- (a) Including beneficiated and directly shipped material
(b) Years ended 20 March following that stated
(c) Years ended 30 June of that stated
(d) Years ended 31 March following that stated

Production of primary gallium

Accurate data for gallium is difficult to obtain because it is produced only as a by-product of bauxite or zinc processing using proprietary techniques and the few producers do not report production figures. The United States Geological Survey estimates total world primary production as: 2007, 80 tonnes; 2008, 95 tonnes; 2009, 78 tonnes; 2010, 182 tonnes and 2011, 216 tonnes. In the 8th edition of their report on Gallium, Roskill Information Services estimated 2010 world primary production to be between 206 and 209 tonnes.

Producing countries, in decreasing order of production level, are believed to be China, Germany, Kazakhstan, Ukraine, Republic of Korea, Russia, Hungary and Japan.

There is also believed to be significant production of refined gallium from scrap recycling, particularly in China, Japan, United Kingdom and USA.

Production of germanium metal

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------|-------|-------|-------|-------|-------|
| USA (a) | 5 | 5 | 5 | 3 | * 3 |
| China | * 100 | * 100 | * 100 | * 100 | * 100 |
| Japan | 1 | * 2 | * 2 | * 2 | * 2 |
| Other countries | * 45 | * 35 | * 15 | * 15 | * 15 |

Notes

(1) Germanium is also believed to be recovered from imported or domestic material in Belgium, Canada, Russia and Ukraine

(a) Including production of secondary metal

Mine production of gold

kilograms

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|---------|---------|---------|---------|----------|
| Armenia | 565 | * 565 | 682 | 1 033 | 1 056 |
| Azerbaijan | — | — | 333 | 2 093 | 1 775 |
| Bulgaria | 3 964 | 4 160 | 4 482 | 4 489 | 5 302 |
| Finland | 1 639 | 1 336 | 3 808 | 5 644 | 6 438 |
| Georgia | 3 100 | * 3 100 | * 3 100 | * 3 100 | * 3 100 |
| Greenland | 1 835 | 1 648 | — | — | 93 |
| Poland (d) | 883 | 902 | 814 | 776 | 703 |
| Romania | * 500 | 500 | * 500 | * 500 | * 500 |
| Russia | 156 912 | 184 488 | 205 236 | 201 300 | 185 263 |
| Serbia (d) | 500 | * 712 | 818 | 856 | 1 534 |
| Slovakia | 92 | 198 | 346 | 534 | 398 |
| Sweden | 5 159 | 4 953 | 5 542 | 6 285 | 5 994 |
| Turkey | 9 920 | 11 016 | 14 450 | 16 400 | 23 248 |
| United Kingdom | 88 | 163 | 187 | 177 | 202 |
| Algeria | 236 | 647 | 998 | 723 | * 341 |
| Botswana | 2 722 | 3 176 | 1 626 | 1 774 | 1 562 |
| Burkina Faso | 2 250 | 7 633 | 13 181 | 22 926 | 31 711 |
| Burundi | 2 423 | 2 170 | 980 | 293 | 1 052 |
| Cameroon | * 600 | * 600 | * 600 | * 600 | * 600 |
| Chad | * 150 | * 100 | * 100 | * 100 | * 100 |
| Congo, Democratic Republic | 5 100 | 3 300 | 2 000 | 3 500 | 3 500 |
| Egypt | — | — | — | 4 675 | 6 305 |
| Equatorial Guinea | * 200 | * 200 | * 200 | * 200 | * 200 |
| Eritrea | 87 | 32 | * 30 | * 30 | 11 788 |
| Ethiopia | 4 368 | 3 465 | 6 251 | 5 936 | * 11 000 |
| Gabon | * 300 | * 300 | * 300 | * 300 | * 300 |
| Ghana | 83 558 | 80 503 | 91 143 | 92 380 | 90 959 |
| Guinea | 15 303 | 17 981 | 21 402 | 24 836 | 15 779 |
| Ivory Coast | 1 243 | 4 205 | 6 947 | 5 316 | 10 685 |
| Kenya | 3 023 | 340 | 1 055 | 2 035 | * 2 100 |
| Liberia | 311 | 624 | 524 | 666 | 469 |
| Mali | 52 753 | 41 160 | 42 364 | 38 524 | 40 415 |
| Mauritania | 2 332 | 5 528 | 7 838 | 8 326 | 8 211 |
| Morocco (d) | 771 | 587 | 470 | 650 | 520 |
| Mozambique | 97 | 298 | 511 | 106 | * 500 |
| Namibia | 2 488 | 2 115 | 2 057 | 2 683 | 2 053 |
| Niger | 3 427 | 2 314 | 2 067 | 1 929 | 1 453 |
| Nigeria | 180 | 2 890 | 1 350 | 3 718 | * 3 700 |
| Senegal | * 600 | * 600 | 5 655 | 5 354 | 4 089 |
| Sierra Leone | 212 | 196 | 157 | 270 | 164 |
| South Africa | 252 345 | 212 744 | 197 628 | 188 702 | 180 184 |
| Sudan | 2 701 | 2 251 | 1 922 | 2 129 | 2 231 |
| Tanzania | 40 193 | 36 434 | 39 113 | 39 448 | 40 390 |
| Togo | 10 159 | 11 835 | 12 955 | 10 452 | 16 469 |
| Uganda (e) | 2 543 | 2 055 | 931 | 918 | 163 |
| Zambia (c) | 1 269 | 1 693 | 3 108 | 3 410 | 3 493 |
| Zimbabwe | 7 018 | 3 579 | 4 966 | 9 620 | 12 993 |
| Canada | 102 377 | 96 501 | 97 235 | 102 693 | 100 379 |
| Costa Rica | 1 221 | * 154 | * 205 | * 300 | * 500 |
| Dominican Republic | — | 44 | 425 | 488 | 451 |
| Guatemala | 7 100 | 7 448 | 8 484 | 9 213 | 11 898 |
| Honduras | 3 012 | 1 846 | 2 127 | 2 200 | 1 893 |
| Mexico | 39 355 | 50 365 | 62 439 | 79 376 | 88 649 |
| Nicaragua | 3 330 | 2 960 | 2 590 | 4 924 | 6 395 |
| Panama (b) | — | — | 800 | 868 | 1 728 |
| USA | 238 136 | 233 327 | 223 323 | 231 000 | 234 000 |
| Argentina | 42 021 | 42 046 | 46 588 | 63 139 | 61 964 |
| Bolivia | 8 818 | 8 431 | 7 217 | 6 400 | 6 513 |
| Brazil | 49 600 | 54 000 | 56 100 | 57 900 | 65 200 |
| Chile | 41 528 | 39 162 | 40 834 | 39 494 | 45 137 |
| Colombia | 15 483 | 34 321 | 47 838 | 53 606 | 55 908 |
| Ecuador | 4 588 | 4 133 | 5 392 | 4 753 | 4 149 |
| French Guiana | 2 844 | 1 941 | 1 250 | 1 140 | * 1 300 |
| Guyana | 7 412 | 8 131 | 9 326 | 8 744 | 11 293 |
| Peru | 170 128 | 179 870 | 182 390 | 164 070 | 164 008 |

Mine production of gold

kilograms

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|------------------|------------------|------------------|------------------|------------------|
| Suriname | 8 585 | 10 290 | 12 800 | 12 933 | 12 606 |
| Uruguay | 3 172 | 2 429 | 2 010 | 1 704 | 1 899 |
| Venezuela | 11 809 | 10 815 | 12 232 | 6 991 | * 7 000 |
| Burma (d) | * 100 | * 100 | * 100 | * 100 | * 100 |
| China (d) | 275 000 | 285 000 | 313 980 | 340 880 | 360 960 |
| India (a) | 2 969 | 2 438 | 2 084 | 2 239 | 2 174 |
| Indonesia | 117 854 | 64 390 | 140 488 | 119 726 | 75 240 |
| Iran (d) | 252 | 303 | 340 | 341 | * 400 |
| Japan | 8 869 | 6 868 | 7 708 | 8 544 | 8 200 |
| Kazakhstan (d) | 21 824 | 20 825 | 22 525 | 29 941 | 36 670 |
| Korea (Rep. of) | 162 | 175 | 274 | 235 | 209 |
| Korea, Dem. P.R. of | * 2 000 | * 2 000 | * 2 000 | * 2 000 | * 2 000 |
| Kyrgyzstan | 10 559 | 18 132 | 17 130 | 18 464 | 18 940 |
| Laos | 4 161 | 4 333 | 5 021 | 5 138 | 3 984 |
| Malaysia | 2 913 | 2 490 | 2 794 | 3 766 | 4 215 |
| Mongolia | 17 473 | 15 184 | 9 803 | 6 037 | 5 703 |
| Oman | 248 | 118 | 93 | 82 | * 80 |
| Philippines | 38 792 | 35 568 | 37 047 | 40 847 | 31 120 |
| Saudi Arabia | 4 438 | 4 527 | 4 857 | 4 400 | 4 206 |
| Taiwan | 3 | 4 | 34 | 111 | 3 |
| Tajikistan | 2 000 | 1 672 | 1 361 | 2 049 | 2 240 |
| Thailand | 3 401 | 2 721 | 5 400 | 5 300 | 5 568 |
| Uzbekistan | 72 850 | 73 000 | 73 000 | 73 000 | * 73 000 |
| Vietnam | * 3 000 | * 3 000 | * 3 000 | * 3 000 | * 3 000 |
| Australia | 247 000 | 215 000 | 223 000 | 260 000 | 258 000 |
| Fiji | 29 | 700 | 1 091 | 1 903 | 1 572 |
| New Zealand | 8 833 | 13 403 | 13 442 | 13 469 | 11 761 |
| Papua New Guinea | 57 549 | 67 466 | 68 173 | 66 901 | 62 271 |
| Solomon Islands | 93 | 141 | 130 | 130 | 1 588 |
| World Total | 2 350 000 | 2 290 000 | 2 490 000 | 2 590 000 | 2 600 000 |

Notes

- (1) In several countries substantial amounts of gold produced in small operations are not recorded in the official statistics used when compiling this table
 - (2) In addition to the countries listed, Benin, Central African Republic, Congo, Madagascar and Rwanda produce less than 100 kg gold per year
 - (3) Greece and Norway are believed to produce gold
- (a) Years ended 31 March following that stated
 - (b) Fiscal years ending 31 May of the year following that stated
 - (c) Contained in blister copper, refinery muds and electrolytic copper
 - (d) Metal production
 - (e) Exports

Production of graphite

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|-----------|-------------|-------------|-------------|-------------|
| Austria (a) | — | 250 | 750 | 420 | 925 |
| Bosnia & Herzegovina | 393 762 | 272 084 | 133 819 | 45 079 | ... |
| Czech Republic | 3 000 | 3 000 | — | — | — |
| Norway | 3 000 | 4 100 | 4 562 | 6 270 | 7 789 |
| Romania | — | — | 24 352 | 6 633 | ... |
| Russia | * 14 000 | * 14 000 | * 14 000 | * 14 000 | * 14 000 |
| Turkey | — | 3 236 | 2 400 | — | — |
| Ukraine | * 8 000 | * 8 000 | * 8 000 | * 8 000 | * 8 000 |
| Madagascar | 5 400 | 4 900 | 3 400 | 3 654 | 3 951 |
| Zimbabwe | 5 418 | 5 134 | 2 463 | 741 | 7 252 |
| Canada | 15 000 | 20 000 | * 7 000 | * 20 000 | * 20 000 |
| Mexico | 9 900 | 7 229 | 5 105 | 6 628 | 7 348 |
| Brazil (b) | 77 163 | 80 500 | 59 400 | 84 000 | 89 900 |
| China (d) | 1 800 000 | * 1 800 000 | * 1 800 000 | * 1 800 000 | * 1 800 000 |
| India (a)(c) | 170 813 | 117 767 | 124 625 | 114 836 | 143 429 |
| Korea (Rep. of) | 52 | 73 | 48 | 34 | — |
| Korea, Dem. P.R. of | * 30 000 | * 30 000 | * 30 000 | * 30 000 | * 30 000 |
| Pakistan (e) | — | — | 700 | 950 | — |
| Sri Lanka | 9 593 | 6 615 | 3 171 | 3 437 | 3 357 |
| World Total | 2 500 000 | 2 400 000 | 2 200 000 | 2 100 000 | 2 100 000 |

Notes

- (1) This table includes all forms of amorphous and crystalline graphite but excludes synthetic material
(2) In addition to the countries listed, Egypt, Namibia and the USA are believed to produce graphite

- (a) Crude
(b) Including beneficiated and directly shipped material
(c) Years ended 31 March following that stated
(d) Including flake graphite
(e) Years ended 30 June of that stated

Production of gypsum

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------------|-------------|-------------|-------------|-------------|-------------|
| Armenia | 54 600 | 45 900 | 40 100 | * 40 000 | * 40 000 |
| Austria (a) | 1 063 844 | 1 087 259 | 910 945 | 872 273 | 815 438 |
| Azerbaijan | 22 037 | 27 898 | 44 413 | 48 887 | 107 328 |
| Bosnia & Herzegovina (a) | 154 294 | 150 039 | 74 302 | 64 570 | 71 870 |
| Bulgaria | 234 300 | 21 200 | 127 600 | 109 200 | 114 800 |
| Croatia | 170 721 | * 250 000 | 318 139 | 248 675 | 231 008 |
| Cyprus | 330 000 | 412 000 | 317 000 | 333 000 | 335 000 |
| Czech Republic | 66 000 | 35 000 | 13 000 | 5 000 | 11 000 |
| France (a) | * 3 500 000 | 2 338 910 | 1 887 260 | 2 065 814 | 2 452 204 |
| Germany (a) | 1 898 000 | 2 112 000 | 1 898 000 | 1 822 000 | 2 021 000 |
| Greece (a) | 836 967 | 1 000 000 | 730 000 | * 600 000 | 587 000 |
| Hungary (a) | 26 000 | 15 940 | 19 766 | 20 000 | 3 000 |
| Ireland, Republic of | * 700 000 | * 600 000 | * 400 000 | * 300 000 | * 300 000 |
| Italy | * 1 600 000 | * 1 600 000 | * 1 600 000 | * 1 600 000 | * 1 600 000 |
| Latvia (a) | 346 000 | 349 000 | 175 870 | 176 510 | 216 000 |
| Macedonia | 255 500 | 242 400 | 154 550 | 143 118 | 162 984 |
| Moldova (e) | * 800 000 | * 700 000 | * 200 000 | * 300 000 | * 400 000 |
| Poland (a) | 1 581 299 | 1 499 901 | 1 326 928 | 1 399 000 | 1 500 000 |
| Portugal | 418 035 | 372 731 | 335 189 | 336 755 | 337 272 |
| Romania | 1 004 150 | 832 248 | 720 713 | 639 010 | * 660 000 |
| Russia | * 3 000 000 | * 3 600 000 | * 2 900 000 | * 2 900 000 | * 2 900 000 |
| Slovakia (a) | 151 000 | 152 000 | 131 000 | 87 000 | 88 000 |
| Spain | 14 535 422 | 11 955 753 | 8 181 315 | 6 990 249 | * 7 100 000 |
| Switzerland | * 300 000 | * 300 000 | * 300 000 | * 300 000 | * 300 000 |
| Turkey | 3 241 177 | 7 338 127 | 4 369 589 | 2 850 601 | 991 415 |
| Ukraine | 741 580 | 1 160 910 | 711 490 | 678 610 | 675 950 |
| United Kingdom | * 1 700 000 | * 1 700 000 | * 1 700 000 | * 1 700 000 | * 1 700 000 |
| Algeria | 1 198 303 | 1 671 651 | 1 756 781 | 1 609 605 | * 1 700 000 |
| Angola | — | — | 120 000 | 200 000 | * 240 000 |
| Egypt (a) | 3 085 000 | 2 443 000 | 1 035 300 | * 1 668 000 | * 2 138 000 |
| Eritrea | 874 | * 800 | * 800 | * 800 | * 800 |
| Ethiopia (d) | 29 886 | 32 989 | * 33 000 | * 33 000 | * 33 000 |
| Kenya (a) | * 11 000 | * 11 000 | * 10 000 | * 11 000 | * 11 000 |
| Libya | * 240 000 | * 250 000 | * 250 000 | * 250 000 | * 50 000 |
| Madagascar | 500 | * 500 | 156 | 127 | * 100 |
| Mauritania | 49 229 | 44 428 | 36 928 | 65 245 | ... |
| Morocco | * 600 000 | * 600 000 | * 600 000 | * 600 000 | * 600 000 |
| Niger | 4 615 | 8 661 | 19 737 | 7 559 | * 8 000 |
| Nigeria | 579 000 | * 380 000 | * 160 000 | — | * — |
| Somalia | * 1 500 | * 1 500 | * 1 500 | * 1 500 | * 1 500 |
| South Africa | 643 630 | 571 343 | 597 571 | 1 026 620 | 476 118 |
| Sudan | 7 974 | 12 705 | 30 000 | 31 000 | * 30 000 |
| Tanzania | 2 730 | 55 730 | 8 105 | 26 918 | 38 659 |
| Tunisia | 157 000 | 177 000 | 360 000 | 435 000 | * 435 000 |
| Uganda | 168 | 84 | * 100 | * 100 | * 100 |
| Canada (a) | 7 638 000 | 5 797 000 | 3 540 000 | 2 717 000 | 2 555 000 |
| Cuba | 80 200 | 110 000 | 77 800 | 111 300 | 131 400 |
| Dominican Republic | 320 683 | 369 592 | 77 201 | 85 880 | 61 161 |
| Guatemala | 495 335 | 127 387 | 18 733 | 58 924 | 77 009 |
| Honduras | * 5 500 | * 5 500 | * 5 500 | * 5 500 | * 5 500 |
| Jamaica | 227 697 | 238 274 | 156 877 | 147 143 | 79 521 |
| Mexico | 6 918 973 | 6 933 279 | 7 542 721 | 6 477 590 | 6 463 861 |
| Nicaragua | 43 300 | 49 900 | 37 400 | 20 300 | 29 700 |
| USA | 17 900 000 | 14 400 000 | 9 400 000 | 8 840 000 | 9 400 000 |
| Argentina | 1 226 530 | 1 257 310 | 1 356 025 | 1 346 535 | * 1 350 000 |
| Brazil | 1 923 119 | 3 100 000 | 3 500 000 | 4 000 000 | * 4 000 000 |
| Chile | 773 119 | 773 749 | 723 928 | 758 011 | 917 759 |
| Colombia | * 200 000 | * 200 000 | * 190 000 | * 200 000 | * 200 000 |
| Paraguay | * 4 500 | * 4 500 | * 4 500 | * 4 500 | * 4 500 |
| Peru | 330 687 | 463 134 | 321 012 | 313 025 | 479 950 |
| Afghanistan | ... | 44 180 | 42 120 | 57 243 | * 57 250 |
| Bhutan | 189 198 | 248 445 | 299 735 | 344 034 | 352 234 |
| Burma (f) | 76 401 | 91 013 | 84 516 | 76 391 | 76 669 |

Production of gypsum

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| China | * 40 000 000 | * 38 000 000 | * 37 000 000 | * 37 000 000 | * 37 000 000 |
| India (f)(g) | 3 400 050 | 3 876 671 | 3 370 322 | 4 346 700 | 3 323 000 |
| Indonesia | * 6 000 | * 6 000 | * 6 000 | * 6 000 | * 6 000 |
| Iran (c) | 11 930 563 | 11 251 070 | 13 615 547 | 11 913 979 | * 12 000 000 |
| Iraq | 1 285 000 | 1 279 000 | 5 026 495 | 8 276 733 | 11 350 170 |
| Israel | 82 974 | 9 975 | 9 152 | 99 730 | 20 437 |
| Jordan | 287 789 | 231 771 | 304 356 | 292 340 | 254 860 |
| Kazakhstan | 653 600 | 696 900 | * 700 000 | * 700 000 | * 700 000 |
| Laos | 232 250 | 337 304 | 761 331 | 553 300 | 686 100 |
| Mongolia | * 60 000 | * 60 000 | * 60 000 | * 60 000 | * 60 000 |
| Oman | 183 200 | 179 800 | 333 400 | 653 200 | 1 254 100 |
| Pakistan (b) | 624 120 | 660 473 | 800 084 | 853 590 | 885 368 |
| Saudi Arabia | * 750 000 | * 750 000 | * 750 000 | * 750 000 | * 750 000 |
| Sri Lanka | — | 617 | 358 | 104 | 542 |
| Syria | 447 900 | 572 886 | 403 137 | * 405 000 | * 405 000 |
| Tajikistan | 51 000 | 45 000 | 26 400 | 14 600 | 11 300 |
| Thailand | | | | | |
| Gypsum | 8 643 391 | 8 500 401 | 8 631 797 | 10 172 629 | 10 994 074 |
| Anhydrite | 692 877 | 488 681 | 633 820 | 536 120 | 614 148 |
| Uzbekistan | * 80 000 | * 80 000 | * 80 000 | * 80 000 | * 80 000 |
| Vietnam | * 5 000 | * 5 000 | * 5 000 | * 5 000 | * 5 000 |
| Yemen, Republic of | 92 000 | 104 000 | * 110 000 | * 110 000 | * 110 000 |
| Australia (b) | 3 951 400 | 3 733 900 | 3 435 600 | * 3 268 000 | * 3 029 000 |
| World Total | 157 200 000 | 151 200 000 | 138 000 000 | 138 300 000 | 141 300 000 |

Notes

(1) Some countries produce large quantities of synthetic gypsum. Where possible, this output is excluded from the table

- (a) Including anhydrite
- (b) Years ended 30 June of that stated
- (c) Years ended 20 March following that stated
- (d) Years ended 7 July of that stated
- (e) Excluding output from the region east of the River Nistru and the Municipality of Bender
- (f) Years ended 31 March following that stated
- (g) Including selenite

Refinery production of indium

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------|-------|-------|-------|-------|-------|
| Belgium | * 30 | * 30 | * 30 | * 30 | * 30 |
| Germany | * 10 | * 10 | * 10 | * 10 | * 10 |
| Italy | * 5 | * 5 | * 5 | * 5 | * 5 |
| Netherlands | * 5 | 5 | * 5 | * 5 | * 5 |
| Russia | * 10 | * 10 | * 4 | * 4 | * 4 |
| United Kingdom | * 5 | * 5 | * 5 | * 5 | * 5 |
| Canada | * 50 | * 45 | * 40 | * 67 | * 65 |
| Brazil | ... | ... | * 5 | * 5 | * 5 |
| Peru | 5 | 6 | 2 | — | 2 |
| China | * 370 | * 340 | * 330 | * 340 | * 340 |
| Japan | * 60 | * 65 | * 67 | * 70 | * 70 |
| Korea (Rep. of) | * 100 | * 100 | * 100 | * 100 | * 100 |

Production of iodine

kilograms

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------|-------------|-------------|-------------|-------------|-------------|
| Azerbaijan | 21 500 | 116 400 | 148 700 | 191 300 | 200 000 |
| Russia | * 105 000 | * 105 000 | * 105 000 | * 105 000 | * 105 000 |
| USA | * 1 200 000 | * 1 200 000 | * 1 250 000 | * 1 250 000 | * 1 270 000 |
| Chile | 15 473 000 | 15 503 000 | 17 399 000 | 15 793 000 | 16 000 000 |
| China | * 570 000 | * 570 000 | * 580 000 | * 590 000 | * 590 000 |
| Indonesia | * 75 000 | * 75 000 | * 75 000 | * 75 000 | * 75 000 |
| Japan | 9 282 000 | 9 500 000 | 8 232 000 | 9 216 000 | 9 277 000 |
| Turkmenistan | * 270 000 | * 270 000 | * 270 000 | * 270 000 | * 270 000 |
| Uzbekistan | * 2 000 | * 2 000 | * 2 000 | * 2 000 | * 2 000 |
| World Total | 27 000 000 | 27 300 000 | 28 100 000 | 27 500 000 | 27 800 000 |

Production of iron ore

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|---------------|---------------|---------------|---------------|---------------|
| Austria (b) | 2 152 825 | 2 032 671 | 2 002 131 | 2 068 853 | 2 206 910 |
| Azerbaijan | 17 600 | 28 100 | — | 57 800 | 214 300 |
| Bosnia & Herzegovina | 2 943 963 | 2 667 359 | 2 727 452 | 1 401 000 | 1 891 000 |
| Germany (f)(i) | 421 711 | 455 100 | 363 699 | 390 353 | 489 091 |
| Norway | 630 000 | 746 000 | 896 000 | 3 266 000 | 2 532 100 |
| Romania | 8 157 | — | — | — | — |
| Russia | 105 000 000 | 99 900 000 | 92 000 000 | 95 500 000 | 104 000 000 |
| Slovakia | 570 000 | 392 000 | — | — | — |
| Sweden | 24 714 000 | 23 888 000 | 17 677 000 | 25 292 000 | 26 113 000 |
| Turkey | 4 549 556 | 3 990 110 | 4 169 972 | 5 378 455 | 5 754 426 |
| Ukraine | 77 930 000 | 72 688 000 | 66 452 000 | 78 541 000 | 80 900 000 |
| United Kingdom (a) | * 300 | 145 | — | — | — |
| Algeria | 1 982 101 | 2 077 000 | 1 307 000 | 1 474 279 | * 1 500 000 |
| Egypt (d) | 664 642 | 773 000 | 1 780 162 | 2 314 425 | 3 320 878 |
| Mauritania | 11 815 000 | 10 968 000 | 10 275 049 | 11 109 000 | 11 176 000 |
| Morocco | 47 958 | 22 878 | 30 523 | 44 665 | 78 926 |
| Nigeria | 57 900 | 62 000 | 99 424 | 50 000 | * 50 000 |
| South Africa (c) | 42 100 887 | 48 982 537 | 55 313 053 | 58 709 330 | 58 056 897 |
| Swaziland | — | — | — | — | 79 553 |
| Tunisia | 180 600 | 108 300 | 151 200 | 180 500 | 171 200 |
| Uganda | 366 | 1 740 | 972 | 3 795 | 2 134 |
| Zimbabwe | 79 109 | 2 919 | — | 28 | — |
| Canada (g) | 33 158 000 | 32 102 000 | 31 699 000 | 37 001 000 | 33 573 000 |
| Cuba | 3 300 | — | — | — | — |
| Guatemala | 31 006 | 452 | 5 463 | 1 604 | 1 160 |
| Mexico | 16 540 000 | 17 709 000 | 17 693 000 | 21 210 000 | 19 403 000 |
| USA | 52 500 000 | 53 600 000 | 26 700 000 | 49 500 000 | 54 000 000 |
| Brazil | 354 674 378 | 351 200 000 | 331 000 000 | 372 300 000 | 460 400 000 |
| Chile | 8 817 700 | 9 315 580 | 8 242 300 | 9 129 500 | 12 624 600 |
| Colombia | 623 930 | 473 273 | 280 773 | 77 048 | 174 459 |
| Peru | 6 277 000 | 6 348 000 | 5 435 000 | 7 432 000 | 8 623 000 |
| Venezuela | 19 632 456 | 19 332 299 | 14 206 621 | 14 330 761 | * 16 000 000 |
| China | 707 073 000 | 824 011 100 | 880 171 400 | 1 077 705 100 | 1 326 942 000 |
| India (h) | 213 246 000 | 212 960 000 | 218 553 000 | 207 998 000 | 168 534 000 |
| Iran (e) | 33 638 878 | 31 225 935 | 31 993 513 | 35 548 974 | 48 134 131 |
| Iraq | 40 000 | 3 000 | — | — | 26 639 |
| Kazakhstan | 19 582 200 | 21 486 300 | 46 248 000 | 50 190 000 | 51 742 000 |
| Korea (Rep. of) | 290 802 | 365 883 | 455 405 | 512 642 | 541 539 |
| Korea, Dem. P.R. of | * 5 130 000 | * 5 316 000 | * 5 300 000 | * 5 300 000 | * 5 300 000 |
| Malaysia (g) | 802 030 | 981 932 | 1 470 186 | 3 557 813 | 7 695 577 |
| Mongolia | 265 100 | 1 387 400 | 1 379 000 | 3 203 200 | 5 678 300 |
| Pakistan (d) | 125 879 | 286 255 | 320 214 | 447 541 | 329 100 |
| Philippines | — | — | — | — | 126 177 |
| Thailand | 1 554 860 | 1 709 750 | 616 399 | 976 937 | 489 359 |
| Vietnam | * 1 200 000 | 1 372 000 | 1 905 000 | 1 972 000 | 2 209 000 |
| Australia | 299 038 000 | 342 435 000 | 394 069 000 | 433 452 000 | 488 105 000 |
| New Zealand | 1 723 726 | 2 020 227 | 2 092 640 | 2 438 641 | 2 357 440 |
| World Total | 2 052 000 000 | 2 205 000 000 | 2 275 000 000 | 2 620 000 000 | 3 012 000 000 |

Notes

- (a) The Florence mine near Egremont, Cumbria closed in 2008. The mine produced high-grade hematite for foundry uses, mineral specimens and jewellery. The mine was also a tourist attraction
- (b) Including micaceous iron oxide
- (c) Including by-product magnetite
- (d) Years ended 30 June of that stated
- (e) Years ended 20 March following that stated
- (f) Including manganiferous iron ore
- (g) Including by-product iron ore
- (h) Years ended 31 March following that stated
- (i) Used as aggregate in the construction industry

Production of pig iron

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|---------------|---------------|-------------|---------------|---------------|
| Austria | 5 908 000 | 5 795 000 | 4 353 000 | 5 621 000 | 5 815 000 |
| Belgium | 6 577 000 | 6 977 000 | 3 087 000 | 4 688 000 | 4 700 000 |
| Bosnia & Herzegovina | — | 243 000 | 482 469 | 620 935 | 685 000 |
| Bulgaria | 1 069 000 | 441 000 | — | — | — |
| Czech Republic | 5 287 000 | 4 737 000 | 3 483 000 | 3 987 000 | 4 137 000 |
| Finland | 2 915 130 | 2 942 946 | 2 042 000 | 2 564 000 | 2 600 000 |
| France | 12 425 703 | 11 371 879 | 8 104 318 | 10 136 827 | 9 697 535 |
| Germany | 31 700 000 | 29 105 000 | 20 104 000 | 28 560 000 | 27 943 000 |
| Hungary | 1 393 655 | 1 288 758 | 1 050 000 | 1 325 000 | 1 315 000 |
| Italy | 11 100 000 | 10 400 000 | 5 670 000 | 8 555 000 | 9 824 000 |
| Netherlands | 6 412 000 | 6 130 000 | 4 655 000 | 5 799 000 | 5 943 000 |
| Norway | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| Poland | 5 804 418 | 4 933 781 | 2 983 500 | 3 637 995 | 3 974 930 |
| Romania | 3 923 244 | 2 957 715 | 1 576 679 | 1 723 418 | 1 595 000 |
| Russia | 51 500 000 | 48 300 000 | 43 900 000 | 48 200 000 | 48 200 000 |
| Serbia | 1 485 000 | 1 582 000 | 964 607 | 1 158 628 | 1 197 693 |
| Slovakia | 4 012 000 | 3 529 000 | 3 019 000 | 3 649 000 | 3 346 000 |
| Spain | 3 976 000 | 3 784 000 | 2 920 000 | 3 572 000 | 3 540 000 |
| Sweden | 3 947 000 | 3 708 000 | 1 966 000 | 3 447 000 | 3 240 000 |
| Turkey | 6 235 537 | 6 697 372 | 6 913 325 | 16 362 115 | 17 235 903 |
| Ukraine | 35 650 000 | 30 991 000 | 25 683 000 | 27 366 000 | 28 878 000 |
| United Kingdom | 10 959 800 | 10 136 800 | 7 671 100 | 7 233 000 | 6 625 000 |
| Algeria | 1 193 000 | 690 000 | 680 000 | 696 000 | 360 000 |
| Egypt | 3 786 000 | 3 543 000 | 3 851 000 | 3 565 000 | 3 532 000 |
| Libya | 1 660 000 | 1 569 000 | 1 077 000 | 1 270 000 | 165 000 |
| South Africa | 7 094 000 | 6 540 000 | 5 784 000 | 6 386 000 | 6 165 000 |
| Zimbabwe | 38 000 | 1 000 | — | — | — |
| Canada | 9 490 000 | 9 474 000 | 5 615 000 | 8 266 000 | 7 520 000 |
| Mexico | 10 343 007 | 10 461 858 | 8 065 305 | 10 074 620 | 10 473 406 |
| Trinidad & Tobago | 2 062 800 | 1 601 000 | 1 181 700 | 1 751 800 | 1 705 600 |
| USA | 36 337 000 | 33 729 000 | 19 018 000 | 26 843 000 | 29 000 000 |
| Argentina | 4 389 100 | 4 428 000 | 2 849 000 | 4 098 500 | 4 470 900 |
| Brazil | 35 571 000 | 34 871 000 | 25 135 000 | 30 898 000 | * 32 600 000 |
| Chile | 1 147 000 | 1 109 000 | 923 000 | 635 000 | 1 130 000 |
| Colombia | 340 900 | 308 100 | 342 000 | 327 000 | 295 000 |
| Paraguay | 110 000 | 95 000 | 71 000 | 81 000 | 45 000 |
| Peru | 495 500 | 466 000 | 100 000 | 100 000 | 95 000 |
| Venezuela | 7 435 300 | 6 827 200 | 5 508 000 | 3 760 000 | 4 470 000 |
| China | 476 516 300 | 478 244 200 | 552 834 600 | 597 333 400 | 629 693 000 |
| India | 56 598 000 | 58 229 000 | 61 677 000 | 64 987 000 | 66 460 000 |
| Indonesia | 1 321 000 | 1 209 000 | 1 119 000 | 1 274 000 | 1 228 000 |
| Iran | 9 609 000 | 9 600 000 | 10 760 000 | 10 532 000 | 12 670 000 |
| Japan | 86 770 755 | 86 171 136 | 66 942 610 | 82 283 358 | 81 028 352 |
| Kazakhstan | 3 795 352 | 3 105 548 | 2 997 000 | 265 392 | 3 141 000 |
| Korea (Rep. of) | 29 436 783 | 31 042 782 | 27 474 604 | 35 064 568 | 42 212 717 |
| Korea, Dem. P.R. of | * 250 000 | * 250 000 | * 250 000 | * 250 000 | * 250 000 |
| Malaysia | 1 872 000 | 1 958 000 | 2 388 000 | 2 390 000 | * 2 500 000 |
| Pakistan (a) | 1 008 778 | 993 371 | 791 052 | 483 298 | 433 104 |
| Qatar | 1 296 000 | 1 637 778 | 2 096 282 | 2 040 037 | 2 212 999 |
| Saudi Arabia | 4 101 000 | 4 500 000 | 4 623 000 | 4 937 000 | 5 153 000 |
| Taiwan | 10 518 000 | 9 823 000 | 7 939 000 | 9 358 000 | 12 940 000 |
| Vietnam | 170 000 | 255 000 | 275 000 | 500 000 | 600 000 |
| Australia | 6 369 000 | 6 057 000 | 4 370 000 | 6 259 000 | 5 265 000 |
| New Zealand | 679 000 | 622 000 | 608 000 | 667 000 | 659 000 |
| World Total | 1 024 000 000 | 1 006 000 000 | 978 000 000 | 1 106 000 000 | 1 159 000 000 |

Notes

(1) The data in this table include sponge iron and direct reduced iron (DRI), where these have been separately identified

(a) Years ended 30 June of that stated

Production of crude steel

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|------------|------------|------------|------------|-------------|
| Albania | 263 271 | 250 000 | 221 000 | 390 000 | 464 000 |
| Austria | 7 577 000 | 7 594 000 | 5 662 000 | 7 206 000 | 7 474 000 |
| Azerbaijan | 468 000 | 278 100 | 150 300 | 129 125 | 234 002 |
| Belarus | 2 214 019 | 2 478 131 | 2 329 694 | 2 530 829 | 2 607 325 |
| Belgium | 10 692 000 | 10 673 000 | 5 635 000 | 7 973 000 | 8 026 000 |
| Bosnia & Herzegovina | 513 867 | 587 878 | 495 150 | 590 757 | 649 000 |
| Bulgaria | 1 909 000 | 1 330 000 | 726 000 | 744 000 | 835 000 |
| Croatia | 76 252 | 121 759 | 54 266 | 103 429 | 95 440 |
| Czech Republic | 7 059 000 | 6 387 000 | 4 594 000 | 5 180 000 | 5 583 000 |
| Finland | 4 430 726 | 4 416 792 | 3 066 000 | 4 030 000 | 3 985 000 |
| France | 19 249 862 | 17 879 161 | 12 840 108 | 15 413 577 | 15 780 639 |
| Germany | 48 550 000 | 45 832 000 | 32 670 000 | 43 830 000 | 44 284 000 |
| Greece | 2 554 000 | 2 477 000 | 2 000 000 | 1 821 000 | 1 934 000 |
| Hungary | 2 227 000 | 2 097 000 | 1 403 000 | 1 678 000 | 1 733 000 |
| Italy | 31 506 000 | 30 590 000 | 19 848 000 | 25 750 000 | 28 735 000 |
| Latvia | 696 000 | 635 000 | 692 000 | 655 000 | 568 000 |
| Luxembourg | 2 858 000 | 2 582 000 | 2 141 000 | 2 548 000 | 2 521 000 |
| Macedonia | 370 317 | 344 866 | 299 332 | 317 057 | 348 576 |
| Moldova (a) | 965 000 | 885 000 | 380 000 | 240 000 | 313 000 |
| Montenegro | 173 849 | 201 623 | 90 404 | 48 272 | 61 164 |
| Netherlands | 7 368 000 | 6 853 000 | 5 193 000 | 6 651 000 | 6 937 000 |
| Norway | 708 000 | 560 000 | 595 000 | 520 000 | 620 000 |
| Poland | 10 630 716 | 9 727 325 | 7 128 482 | 7 993 025 | 8 776 458 |
| Portugal | 1 847 000 | 1 630 000 | 1 587 000 | 1 351 000 | 1 351 000 |
| Romania | 6 269 486 | 5 035 164 | 2 772 679 | 3 727 775 | 3 835 000 |
| Russia | 72 400 000 | 68 700 000 | 59 200 000 | 66 300 000 | 68 400 000 |
| Serbia | 1 478 000 | 1 662 000 | 1 054 336 | 1 254 386 | 1 304 954 |
| Slovakia | 5 082 000 | 4 489 000 | 3 747 000 | 4 580 000 | 4 236 000 |
| Slovenia | 638 000 | 642 000 | 430 000 | 606 000 | 648 000 |
| Spain | 18 998 000 | 18 640 000 | 14 358 000 | 16 343 000 | 15 504 000 |
| Sweden | 5 672 900 | 5 197 600 | 2 803 700 | 4 845 600 | 4 867 000 |
| Switzerland | 1 264 000 | 1 312 000 | 934 000 | 1 320 000 | * 1 400 000 |
| Turkey | 25 760 889 | 26 809 050 | 25 303 741 | 29 029 789 | 34 107 000 |
| Ukraine | 43 646 655 | 38 136 117 | 30 301 844 | 33 345 586 | 35 512 156 |
| United Kingdom | 14 392 300 | 13 520 500 | 10 074 500 | 9 708 000 | 9 478 000 |
| Algeria | 1 278 000 | 646 000 | 543 000 | 688 000 | 440 000 |
| Egypt | 6 224 000 | 6 198 000 | 5 541 000 | 6 676 000 | 6 486 000 |
| Libya | 1 250 000 | 1 137 000 | 914 000 | 825 000 | 100 000 |
| Morocco | 512 000 | 478 000 | 479 000 | 455 000 | 290 000 |
| Nigeria | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| South Africa | 9 098 000 | 8 550 000 | 7 484 000 | 7 617 000 | 6 650 000 |
| Tunisia | 60 900 | 82 200 | 99 500 | 115 100 | * 115 100 |
| Zimbabwe | 23 000 | — | — | — | — |
| Canada | 15 572 000 | 14 845 000 | 9 286 000 | 13 013 000 | 13 090 000 |
| Cuba | 263 568 | 275 584 | 267 752 | 279 040 | 283 982 |
| Dominican Republic | * 75 000 | * 68 000 | * 67 000 | * 60 000 | * 76 000 |
| El Salvador | 73 000 | 71 000 | 56 000 | 51 000 | 92 000 |
| Guatemala | 349 000 | 250 000 | 224 000 | 274 000 | 445 000 |
| Mexico | 17 572 676 | 17 209 020 | 14 131 810 | 16 869 675 | 18 101 282 |
| Trinidad & Tobago | 694 600 | 489 600 | 417 000 | 571 600 | 604 500 |
| USA | 98 102 000 | 91 350 000 | 58 196 000 | 80 495 000 | 86 000 000 |
| Argentina | 5 387 600 | 5 541 400 | 4 013 000 | 5 138 500 | 5 610 500 |
| Brazil | 33 782 000 | 33 716 000 | 26 506 000 | 32 948 000 | 35 220 000 |
| Chile | 1 678 000 | 1 549 000 | 1 308 000 | 1 011 000 | 1 768 000 |
| Colombia | 1 245 000 | 1 053 000 | 1 052 000 | 1 207 000 | 1 244 000 |
| Ecuador | 87 100 | 128 000 | 259 000 | 357 000 | 523 000 |
| Paraguay | 95 000 | 82 800 | 54 000 | 59 000 | 25 000 |
| Peru | 881 000 | 1 001 000 | 718 000 | 867 000 | 882 000 |
| Uruguay | 71 100 | 85 700 | 57 000 | 65 000 | 75 000 |
| Venezuela | 5 005 300 | 4 224 500 | 3 808 000 | 2 207 000 | 3 344 000 |

Production of crude steel

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Burma | * 25 000 | * 25 000 | * 25 000 | * 25 000 | * 25 000 |
| China | 489 288 000 | 503 057 500 | 572 182 300 | 637 229 900 | 683 883 000 |
| India | 53 468 000 | 57 791 000 | 63 527 000 | 68 321 000 | 72 200 000 |
| Indonesia | 4 160 000 | 3 915 000 | 3 501 000 | 3 664 000 | 3 621 000 |
| Iran | 10 051 000 | 9 964 000 | 10 873 000 | 11 995 000 | 13 040 000 |
| Israel | * 300 000 | * 300 000 | * 300 000 | * 300 000 | * 300 000 |
| Japan | 120 202 937 | 118 739 328 | 87 534 137 | 109 598 507 | 107 601 194 |
| Jordan | * 150 000 | * 150 000 | * 150 000 | * 150 000 | * 150 000 |
| Kazakhstan | 4 784 105 | 4 243 582 | 4 146 000 | 4 220 000 | 4 699 000 |
| Korea (Rep. of) | 51 517 309 | 53 322 000 | 48 572 000 | 58 914 125 | 68 519 191 |
| Korea, Dem. P.R. of | * 300 000 | * 300 000 | * 250 000 | * 250 000 | * 250 000 |
| Kuwait | * 500 000 | * 500 000 | * 500 000 | * 500 000 | * 500 000 |
| Malaysia | 6 895 000 | 6 423 000 | 5 354 000 | 5 694 000 | * 6 000 000 |
| Mongolia | * 35 000 | * 35 000 | * 35 000 | * 35 000 | * 35 000 |
| Pakistan | 1 090 000 | * 1 000 000 | * 800 000 | * 800 000 | * 850 000 |
| Philippines | 718 000 | 710 669 | 824 009 | 1 050 000 | 1 200 000 |
| Qatar | 1 174 917 | 1 434 652 | 1 472 612 | 1 974 937 | 2 010 000 |
| Saudi Arabia | 4 644 000 | 4 667 000 | 4 690 000 | 5 015 000 | 5 275 000 |
| Singapore | 640 000 | 764 000 | 664 000 | 728 000 | 752 000 |
| Syria | * 70 000 | * 70 000 | * 70 000 | * 70 000 | * 70 000 |
| Taiwan | 20 700 389 | 19 882 000 | 15 873 000 | 20 498 146 | 22 879 000 |
| Thailand | 5 565 000 | 5 211 212 | 3 645 586 | 4 144 908 | 4 238 000 |
| United Arab Emirates | * 90 000 | * 90 000 | * 90 000 | * 90 000 | * 90 000 |
| Uzbekistan | 649 000 | 682 000 | 716 000 | 716 000 | 733 000 |
| Vietnam | 2 024 000 | 2 250 000 | 2 700 000 | 4 314 000 | 4 900 000 |
| Australia | 8 057 000 | 7 724 000 | 5 135 000 | 7 408 000 | 6 404 000 |
| New Zealand | 845 000 | 799 000 | 765 000 | 853 000 | 844 000 |
| World Total | 1 348 000 000 | 1 334 000 000 | 1 231 000 000 | 1 429 000 000 | 1 516 000 000 |

Notes

(1) Unless otherwise indicated, these figures include production from scrap

(2) Small amounts of steel are believed to be produced in DR Congo, Estonia, Ghana, Kenya, Mauritania, Sri Lanka and Uganda

(a) Production from the region east of the River Nistru

Production of ferro-alloys

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------------------|-----------|-----------|-----------|-----------|-----------|
| Albania | | | | | |
| Ferro-chrome | 920 | 16 315 | 5 705 | 23 233 | 28 433 |
| Armenia | | | | | |
| Ferro-molybdenum | 5 977 | 5 323 | 5 154 | 5 126 | 5 525 |
| Austria | | | | | |
| Ferro-molybdenum | 5 000 | 4 500 | 4 000 | 4 000 | 4 000 |
| Ferro-nickel | 3 000 | 2 000 | 2 500 | 2 500 | 2 500 |
| Ferro-vanadium | 6 500 | 6 300 | 6 200 | 8 000 | 8 000 |
| Bulgaria | | | | | |
| Ferro-silicon | * 10 000 | 6 000 | * 3 000 | * — | * — |
| Czech Republic | | | | | |
| Ferro-vanadium | * 1 700 | * 2 800 | * 1 900 | * 3 400 | * 4 600 |
| Finland | | | | | |
| Ferro-chrome | 241 760 | 233 550 | 123 310 | 238 000 | 231 000 |
| France | | | | | |
| Ferro-manganese | * 144 000 | * 47 000 | * 46 000 | * 138 000 | * 140 000 |
| Ferro-silico-manganese | * 65 400 | * 60 200 | * 54 100 | * 54 000 | * 54 000 |
| Ferro-silicon | * 31 000 | * 30 000 | * 18 300 | * 27 000 | * 27 000 |
| Silicon metal | * 120 000 | * 118 000 | * 80 000 | * 112 000 | * 112 000 |
| Georgia | | | | | |
| Ferro-manganese | * 5 000 | * 5 000 | * 4 500 | * 4 500 | * 4 500 |
| Ferro-silico-manganese | 107 986 | 123 468 | 112 016 | 203 791 | 226 592 |
| Germany | | | | | |
| Ferro-chrome | 22 030 | 26 960 | 13 667 | * 20 000 | * 20 000 |
| Other ferro-alloys | * 5 000 | * 5 000 | — | — | * — |
| Silicon metal | 29 379 | 29 092 | 27 620 | 30 105 | 30 134 |
| Greece | | | | | |
| Ferro-nickel | 93 300 | 83 200 | 42 400 | 69 600 | 94 000 |
| Iceland | | | | | |
| Ferro-silicon | 114 886 | 107 882 | 112 992 | 114 230 | 120 076 |
| Italy | | | | | |
| Ferro-manganese | * 30 000 | * 30 000 | * 20 000 | * 25 000 | * 25 000 |
| Ferro-silico-manganese | 87 000 | 87 000 | 56 000 | 108 000 | 145 000 |
| Macedonia | | | | | |
| Ferro-nickel | 15 321 | 15 026 | 12 000 | 14 413 | 17 292 |
| Ferro-silicon | 78 892 | 97 605 | 7 657 | 30 044 | 56 167 |
| Norway | | | | | |
| Ferro-manganese | * 130 000 | * 130 000 | * 130 000 | * 130 000 | * 130 000 |
| Ferro-silico-manganese | 293 699 | 273 485 | * 250 000 | * 250 000 | * 250 000 |
| Ferro-silicon | 170 024 | 185 344 | 233 974 | * 235 000 | 170 102 |
| Other ferro-alloys | * 62 000 | * 60 000 | * 60 000 | * 60 000 | * 60 000 |
| Silicon metal | * 140 000 | * 155 000 | * 150 000 | * 150 000 | * 150 000 |
| Poland | | | | | |
| Ferro-manganese | 2 093 | 8 475 | 1 736 | 800 | ... |
| Ferro-silico-manganese | 15 590 | 25 061 | 72 | 100 | ... |
| Ferro-silicon | 58 538 | 56 031 | 9 673 | 53 206 | 72 668 |
| Other ferro-alloys | 6 255 | 2 948 | 4 190 | 200 | 332 |
| Romania | | | | | |
| Ferro-chrome | — | 6 179 | 15 377 | 14 353 | * 10 000 |
| Ferro-silico-manganese | 26 868 | 9 979 | — | 20 605 | * 30 000 |
| Russia | | | | | |
| Spiegeleisen | * 7 000 | * 7 000 | * 7 000 | * 7 000 | * 7 000 |
| Ferro-chrome | 564 474 | 475 686 | 378 000 | 414 000 | * 414 000 |
| Ferro-silico-chrome | 97 915 | 72 050 | 8 285 | 4 200 | * 4 200 |
| Ferro-manganese | * 120 000 | * 110 000 | 88 000 | 171 000 | * 170 000 |
| Ferro-silico-manganese | * 40 000 | * 40 000 | 98 700 | 147 900 | * 148 000 |
| Ferro-nickel | 31 871 | 31 411 | 31 529 | 34 363 | * 34 400 |
| Ferro-silicon | 896 100 | 850 000 | 745 000 | 916 000 | * 916 000 |
| Other ferro-alloys | * 34 000 | * 34 000 | * 34 000 | * 34 000 | * 34 000 |
| Silicon metal | * 54 500 | * 54 000 | 23 900 | 48 700 | * 48 700 |
| Slovakia | | | | | |
| Ferro-silico-manganese | 71 587 | 59 940 | 32 000 | 34 960 | 25 023 |
| Ferro-silicon | 8 583 | 10 844 | 4 600 | 26 419 | 31 845 |
| Other ferro-alloys | 74 065 | 61 194 | 22 250 | 38 860 | 23 497 |
| Slovenia | | | | | |
| Ferro-silicon | * 6 000 | * — | * — | * — | * — |

Production of ferro-alloys

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------------------|-----------|-----------|-----------|-----------|-----------|
| Spain | | | | | |
| Ferro-manganese | * 155 000 | * 163 000 | * 68 000 | * 152 000 | * 152 000 |
| Ferro-silico-manganese | * 153 000 | * 160 000 | * 67 000 | * 150 000 | * 150 000 |
| Ferro-silicon | * 71 000 | * 74 000 | * 44 000 | * 64 400 | * 64 000 |
| Silicon metal | * 32 000 | * 33 000 | * 23 000 | * 32 500 | * 33 000 |
| Sweden | | | | | |
| Ferro-chrome | 124 400 | 118 700 | 31 100 | 64 400 | 80 140 |
| Ferro-silicon | 4 300 | — | — | — | — |
| Turkey | | | | | |
| Ferro-chrome | 69 730 | 75 840 | 41 028 | * 60 000 | * 60 000 |
| Ferro-silico-chrome | 6 624 | 6 094 | 2 903 | * 3 000 | * 3 000 |
| Ukraine | | | | | |
| Ferro-manganese | 368 321 | 361 501 | 135 339 | 285 643 | 187 897 |
| Ferro-silico-manganese | 1 281 073 | 958 667 | 771 950 | 1 000 329 | 930 337 |
| Ferro-nickel | 95 619 | 97 848 | 76 487 | 102 940 | 89 903 |
| Ferro-silicon | 218 485 | 201 706 | 193 034 | 253 801 | 186 306 |
| Other ferro-alloys | 53 174 | 43 127 | 23 882 | 28 546 | 25 126 |
| Egypt | | | | | |
| Ferro-silicon (d) | 48 464 | 59 192 | 78 355 | 47 205 | 25 516 |
| Other ferro-alloys (d) | * 30 000 | * 30 000 | * 30 000 | * 30 000 | * 30 000 |
| South Africa | | | | | |
| Ferro-chrome | 3 551 983 | 3 268 659 | 2 346 132 | 3 607 132 | 3 421 911 |
| Ferro-manganese | * 672 000 | * 498 000 | * 265 000 | * 517 000 | * 696 000 |
| Ferro-silico-manganese | * 355 000 | * 263 000 | * 140 000 | * 273 000 | * 696 000 |
| Ferro-silicon | * 140 000 | * 137 000 | * 110 000 | * 128 000 | * 135 000 |
| Ferro-vanadium | * 19 000 | * 19 000 | * 13 000 | * 19 000 | * 18 000 |
| Silicon metal | * 50 108 | * 49 146 | * 39 000 | * 46 000 | * 48 000 |
| Zimbabwe | | | | | |
| Ferro-chrome | 187 327 | 145 430 | 72 223 | 154 336 | 161 839 |
| Ferro-silicon | 3 097 | 1 612 | 603 | — | — |
| Canada | | | | | |
| Ferro-niobium | * 6 571 | * 6 644 | * 7 000 | * 7 000 | * 7 000 |
| Ferro-silicon | * 35 000 | * 35 000 | * 27 200 | * 35 000 | * 35 000 |
| Silicon metal | * 30 000 | * 50 000 | * 30 000 | * 30 000 | * 30 000 |
| Dominican Republic | | | | | |
| Ferro-nickel | 75 069 | 47 408 | — | — | 34 576 |
| Mexico | | | | | |
| Ferro-manganese | 74 578 | 97 366 | 42 492 | 81 019 | 73 684 |
| Ferro-silico-manganese | 109 286 | 114 320 | 85 065 | 134 470 | 139 047 |
| USA | | | | | |
| Ferro-silicon | 220 000 | 248 000 | 194 000 | 246 000 | * 246 000 |
| Silicon metal | * 143 000 | * 143 000 | * 143 000 | * 143 000 | * 143 000 |
| Argentina | | | | | |
| Ferro-silico-manganese | 8 917 | 9 172 | 6 644 | 10 900 | * 10 000 |
| Ferro-silicon | * 15 000 | * 10 400 | * 11 300 | * 11 000 | * 11 000 |
| Brazil | | | | | |
| Ferro-chrome | 177 656 | 209 273 | 108 893 | 172 800 | 145 000 |
| Ferro-silico-chrome | 12 943 | 13 674 | 1 750 | 13 100 | 11 600 |
| Ferro-silico-magnesium | 30 221 | 30 800 | 18 300 | 33 600 | 20 900 |
| Ferro-manganese | 135 757 | 149 900 | 44 600 | 87 200 | 77 000 |
| Ferro-silico-manganese | 225 373 | 238 000 | 109 500 | 218 700 | 218 600 |
| Ferro-nickel | 28 900 | 26 300 | 31 600 | 23 800 | 45 600 |
| Ferro-niobium | 71 676 | 81 600 | 48 900 | 77 200 | 81 900 |
| Ferro-silicon | 196 403 | 183 000 | 175 000 | 247 300 | 210 900 |
| Other ferro-alloys | 45 330 | 47 800 | 21 200 | 36 650 | 32 700 |
| Silicon metal | 225 120 | 219 600 | 154 000 | 184 100 | 210 400 |
| Colombia | | | | | |
| Ferro-nickel | 145 282 | 126 638 | 153 628 | 145 239 | 103 371 |
| Venezuela | | | | | |
| Ferro-manganese | * 15 000 | * 15 000 | * 15 000 | * 15 000 | * 15 000 |
| Ferro-silico-manganese | * 35 000 | * 35 000 | * 35 000 | * 35 000 | * 35 000 |
| Ferro-nickel | 68 506 | 42 300 | 40 113 | 40 150 | * 40 000 |
| Ferro-silicon | 94 000 | 180 000 | 52 100 | 76 800 | * 80 000 |

Production of ferro-alloys

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--|-------------|-------------|------------|-------------|--------------|
| Bhutan | | | | | |
| Ferro-silicon | * 40 300 | * 30 800 | * 90 800 | * 97 500 | * 79 600 |
| China | | | | | |
| Ferro-chrome | 1 296 000 | 1 505 800 | 1 813 000 | (c) ... | (c) ... |
| Ferro-silico-chrome | 38 700 | 72 300 | 116 000 | (c) ... | (c) ... |
| Other ferro-alloys | 16 165 000 | 16 722 000 | 20 171 000 | 24 300 000 | * 25 000 000 |
| Silicon metal | * 1 080 000 | * 1 100 000 | * 993 000 | * 1 050 000 | * 1 050 000 |
| India | | | | | |
| Ferro-aluminium (b) | 9 377 | 8 170 | 7 017 | 7 538 | 7 393 |
| Ferro-chrome (b) | 948 601 | 817 239 | 892 923 | 1 003 598 | 906 556 |
| Ferro-silico-magnesium (b) | 13 525 | 13 400 | 17 132 | 19 079 | 24 452 |
| Ferro-manganese (b) | 391 210 | 384 577 | 356 123 | 402 017 | 446 733 |
| Ferro-silico-manganese (b) | 911 402 | 891 458 | 1 116 047 | 1 242 139 | 1 478 403 |
| Ferro-molybdenum (b) | 2 899 | 2 162 | 2 822 | 3 090 | 4 362 |
| Ferro-silicon (b) | 83 716 | 99 595 | 97 682 | 115 164 | 127 092 |
| Ferro-titanium (b) | 1 937 | 1 661 | 1 929 | 2 172 | 2 217 |
| Ferro-vanadium (b) | 1 585 | 1 501 | 1 389 | 1 521 | 2 459 |
| Other ferro-alloys (b) | 362 | 541 | 569 | 595 | 730 |
| Indonesia | | | | | |
| Ferro-manganese | * 12 000 | * 12 000 | * 12 000 | * 12 000 | * 12 000 |
| Ferro-silico-manganese | * 6 000 | * 7 000 | * 7 000 | * 8 000 | * 8 000 |
| Ferro-nickel | 18 532 | 17 566 | 12 550 | 18 688 | 19 690 |
| Iran | | | | | |
| Ferro-chrome (a) | * 8 000 | * 8 000 | * 8 000 | * 8 000 | * 8 000 |
| Ferro-silicon (a) | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| Japan | | | | | |
| Ferro-chrome | 12 016 | 13 888 | 7 698 | 16 208 | 17 217 |
| Ferro-manganese | 420 151 | 431 181 | 361 375 | 453 265 | 456 798 |
| Ferro-silico-manganese | 52 901 | 58 884 | 49 205 | 49 865 | 49 798 |
| Ferro-molybdenum | 4 573 | 4 554 | 3 598 | 4 615 | 5 167 |
| Ferro-nickel | 351 503 | 301 361 | 284 884 | 348 420 | 279 944 |
| Ferro-vanadium | 3 205 | 3 477 | 2 560 | 4 190 | 3 980 |
| Other ferro-alloys | 13 982 | 14 478 | 12 957 | 16 374 | 20 913 |
| Kazakhstan | | | | | |
| Ferro-chrome | 1 307 536 | 1 220 315 | 977 235 | 1 189 593 | 1 170 193 |
| Ferro-silico-chrome | 145 685 | 133 828 | 51 576 | 144 936 | 129 996 |
| Ferro-silico-manganese | 188 445 | 179 939 | 181 776 | 203 778 | 210 502 |
| Ferro-silicon | 59 886 | 54 964 | 30 028 | 4 456 | 1 527 |
| Other ferro-alloys | 1 222 | 1 473 | 1 205 | 1 283 | 3 118 |
| Korea (Rep. of) | | | | | |
| Ferro-manganese | 209 321 | 251 125 | 182 308 | 286 259 | 355 047 |
| Ferro-silico-manganese | 105 607 | 76 184 | 148 509 | 120 779 | 195 650 |
| Other ferro-alloys | ... | ... | 3 921 | 4 059 | 4 162 |
| Korea, Dem. P.R. of | | | | | |
| Ferro-alloys | * 10 000 | * 10 000 | * 10 000 | * 10 000 | * 10 000 |
| Australia | | | | | |
| Ferro-manganese (d) | 133 816 | 128 000 | ... | ... | ... |
| Ferro-silico-manganese (d) | 105 800 | 126 000 | ... | ... | ... |
| Ferro-manganese & ferro-silico-manganese (d) | ... | ... | 212 000 | 219 000 | 267 000 |
| Silicon metal | * 33 000 | * 33 000 | * 33 000 | * 33 000 | * 33 000 |
| New Caledonia | | | | | |
| Ferro-nickel | 170 870 | 148 960 | 156 553 | 165 506 | 169 513 |

Notes

- (a) Years ended 20 March following that stated
- (b) Years ended 31 March following that stated
- (c) Included with 'other ferro-alloys'
- (d) Years ended 30 June of that stated

Production of kaolin

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|-----------|-------------|-------------|-------------|-------------|
| Austria | 16 929 | 16 460 | 18 148 | 18 914 | 18 897 |
| Belgium | * 300 000 | * 300 000 | * 300 000 | * 300 000 | * 300 000 |
| Bosnia & Herzegovina | 188 033 | 259 325 | 148 384 | 41 808 | 232 147 |
| Bulgaria | * 240 000 | * 220 000 | * 140 000 | * 190 000 | * 250 000 |
| Czech Republic (h) | 682 000 | 664 000 | 488 000 | 636 000 | 660 000 |
| France | 307 253 | 335 520 | 350 000 | 350 000 | * 350 000 |
| Germany (g) | 3 842 514 | 3 622 159 | 4 513 753 | 4 578 097 | 4 898 516 |
| Greece | 30 000 | 4 360 | — | 3 493 | 2 056 |
| Hungary | 2 136 | — | — | — | — |
| Italy | * 180 000 | * 180 000 | * 180 000 | * 180 000 | * 180 000 |
| Poland (f) | 153 670 | 165 615 | 136 561 | 250 000 | 143 000 |
| Portugal | 183 598 | 217 434 | 274 925 | 273 890 | 322 041 |
| Romania | 7 576 | 3 060 | 651 | 326 | — |
| Russia | * 45 000 | * 45 000 | * 45 000 | * 45 000 | * 45 000 |
| Serbia | 97 432 | 398 917 | 163 616 | 76 197 | 90 472 |
| Slovakia | 46 000 | 44 000 | 10 000 | — | 4 000 |
| Spain (f) | 489 428 | 355 739 | 270 298 | 310 993 | 302 580 |
| Turkey | 456 238 | 232 746 | 234 614 | 787 287 | * 650 000 |
| Ukraine (h) | 244 000 | 240 000 | * 100 000 | * 100 000 | * 100 000 |
| United Kingdom | 1 671 426 | 1 355 365 | 1 059 848 | * 1 000 000 | * 1 000 000 |
| Algeria | 106 567 | 50 788 | 87 766 | 71 065 | * 70 000 |
| Egypt | 331 671 | 523 327 | 523 300 | 304 200 | * 300 000 |
| Eritrea | 183 | * 200 | * 175 | * 200 | * 200 |
| Ethiopia (a) | 4 000 | 1 300 | 1 613 | * 1 500 | * 1 500 |
| Kenya | 910 | 940 | * 850 | * 900 | * 900 |
| Madagascar | ... | ... | 90 | 259 | — |
| Nigeria | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| South Africa | 51 218 | 39 506 | 31 048 | 29 929 | 15 220 |
| Sudan | 27 846 | 87 151 | 36 799 | 32 696 | * 30 000 |
| Tanzania | 1 020 | 13 926 | 18 624 | 42 649 | ... |
| Uganda | 8 152 | 3 738 | 4 721 | 27 237 | 20 883 |
| Cuba | 2 000 | — | — | 100 | — |
| Guatemala | 28 225 | 2 803 | 1 879 | 2 143 | 1 620 |
| Mexico | 970 598 | 690 366 | 406 421 | 516 850 | 372 506 |
| USA (e) | 7 110 000 | 6 750 000 | 5 290 000 | 5 370 000 | 5 480 000 |
| Argentina | 69 354 | 73 838 | 78 792 | * 78 722 | 80 000 |
| Brazil (h) | 2 480 000 | 2 667 000 | 1 987 000 | 1 900 000 | 2 200 000 |
| Chile | 87 901 | 63 526 | 48 354 | 62 226 | 59 912 |
| Ecuador | 18 618 | 15 000 | * 15 000 | * 15 000 | * 15 000 |
| Paraguay | * 66 000 | * 66 000 | * 66 000 | * 66 000 | * 66 000 |
| Peru | 4 772 | 13 215 | 9 655 | 16 446 | 18 169 |
| Venezuela | 238 | 1 896 | 300 | 9 444 | ... |
| Bangladesh (d) | * 19 400 | * 6 500 | — | — | — |
| China | 2 781 000 | * 3 000 000 | * 3 000 000 | * 3 000 000 | * 3 000 000 |
| India (i)(b) | 115 139 | 96 344 | 79 963 | 74 742 | * 65 000 |
| Indonesia | * 15 000 | * 15 000 | * 15 000 | * 15 000 | * 15 000 |
| Iran (c) | 947 884 | 1 274 092 | 907 487 | 1 480 291 | * 1 500 000 |
| Iraq | 3 545 | 1 524 | 1 980 | 2 606 | — |
| Japan | * 12 000 | * 12 000 | * 12 000 | * 12 000 | * 12 000 |
| Jordan | 100 584 | 181 018 | 177 471 | 114 931 | 89 903 |
| Korea (Rep. of) | 1 053 576 | 1 182 199 | 890 157 | 962 275 | 1 051 772 |
| Malaysia | 587 508 | 506 462 | 487 632 | 530 331 | 442 550 |
| Pakistan (d) | 30 979 | 31 512 | 17 169 | 22 769 | 16 055 |
| Philippines | 2 200 | 2 391 | 2 389 | 2 490 | 3 529 |
| Saudi Arabia | 4 415 | 5 560 | 4 166 | * 4 200 | * 4 200 |
| Sri Lanka | 11 178 | 10 039 | 9 538 | 8 207 | 11 157 |
| Taiwan | 5 060 | 33 745 | 18 413 | 18 097 | 16 936 |
| Thailand (h) | 159 186 | 162 215 | 131 131 | 156 827 | 175 881 |
| Uzbekistan (i) | * 150 000 | * 150 000 | * 150 000 | * 150 000 | * 150 000 |
| Vietnam | * 650 000 | * 650 000 | * 650 000 | * 650 000 | * 650 000 |

Production of kaolin

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------|------------|------------|------------|------------|------------|
| Australia (d) | 213 605 | 181 655 | 109 400 | 104 708 | 38 072 |
| New Zealand | 14 130 | 12 761 | 9 016 | 107 761 | 21 545 |
| World Total | 27 500 000 | 27 300 000 | 23 800 000 | 25 200 000 | 25 700 000 |

Notes

(1) In addition to the countries listed Denmark is believed to produce kaolin

- (a) Years ended 7 July of that stated
- (b) Years ended 31 March following that stated
- (c) Years ended 20 March following that stated
- (d) Years ended 30 June of that stated
- (e) Sold or used by producers
- (f) Washed
- (g) Washed and dried
- (h) Beneficiated
- (i) Beneficiated; excludes directly used natural kaolin

Mine production of lead

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Bosnia & Herzegovina | 4 633 | 6 029 | 3 781 | 5 811 | 6 648 |
| Bulgaria (a) | 17 768 | 14 577 | 12 981 | 12 705 | 14 369 |
| Greece | 13 400 | 14 000 | 10 000 | 12 200 | 13 400 |
| Ireland, Republic of | 56 800 | 50 200 | 49 500 | 39 100 | 50 700 |
| Italy | 3 000 | 3 000 | 2 000 | 3 000 | 3 000 |
| Kosovo (a) | — | — | 3 000 | 5 700 | 4 900 |
| Macedonia | 36 039 | 49 877 | 46 788 | 41 293 | 37 295 |
| Poland | 61 330 | 67 070 | 62 910 | 48 050 | 42 636 |
| Romania | 784 | — | * 3 000 | * 3 000 | * 3 000 |
| Russia | 48 000 | 60 000 | 72 000 | 97 000 | 113 000 |
| Serbia | 1 600 | 1 600 | 1 800 | 1 800 | 2 100 |
| Spain | — | — | 1 000 | 300 | 5 705 |
| Sweden | 63 224 | 63 489 | 69 293 | 67 697 | 62 028 |
| Turkey | 20 800 | 31 800 | 21 600 | 38 500 | 39 500 |
| United Kingdom | * 300 | * 300 | 243 | 251 | 280 |
| Morocco | 42 240 | 33 477 | 34 517 | 32 647 | 30 850 |
| Namibia | 10 543 | 14 062 | 10 129 | 10 140 | * 10 000 |
| Nigeria | 9 800 | 3 500 | 5 200 | 3 300 | 9 100 |
| South Africa | 41 857 | 46 440 | 49 149 | 50 625 | 54 460 |
| Canada | 75 135 | 99 810 | 68 839 | 64 844 | 54 797 |
| Guatemala | 363 | — | — | — | — |
| Honduras | 10 215 | 12 545 | 14 471 | 16 954 | 13 100 |
| Mexico | 137 133 | 141 173 | 143 838 | 192 062 | 223 717 |
| USA | 444 300 | 410 100 | 405 800 | 369 000 | 342 000 |
| Argentina | 17 045 | 20 788 | 24 753 | 22 600 | 22 800 |
| Bolivia | 22 798 | 81 602 | 84 538 | 72 803 | 100 051 |
| Brazil | 15 522 | 15 000 | 9 000 | 12 000 | 11 000 |
| Chile | 1 305 | 3 985 | 1 511 | 695 | 841 |
| Peru | 329 154 | 345 109 | 302 459 | 261 990 | 230 019 |
| Burma | * 1 000 | * 1 000 | * 5 000 | * 7 000 | * 8 700 |
| China | 1 402 000 | 1 402 700 | 1 604 100 | 1 981 300 | 2 358 300 |
| India (c) | 77 717 | 82 053 | 82 629 | 83 342 | 91 493 |
| Iran (b) | 31 864 | 26 905 | 39 254 | * 40 000 | * 35 000 |
| Kazakhstan | 40 200 | 38 800 | 34 000 | 35 000 | 38 800 |
| Korea (Rep. of) | 12 | 225 | 1 032 | 584 | 1 289 |
| Korea, Dem. P.R. of | * 35 000 | * 33 000 | * 25 000 | * 26 000 | * 26 000 |
| Laos | 222 | 710 | 400 | 542 | 544 |
| Pakistan | — | — | — | 1 000 | 2 900 |
| Saudi Arabia | 123 | 347 | 685 | 543 | 400 |
| Tajikistan | — | — | — | 3 900 | 6 000 |
| Vietnam | * 4 400 | * — | * 6 000 | * 3 700 | * 4 100 |
| Australia | 641 000 | 650 000 | 566 000 | 712 000 | 621 000 |
| World Total | 3 700 000 | 3 800 000 | 3 900 000 | 4 400 000 | 4 700 000 |

Notes

(a) Metal content of ore

(b) Years ended 20 March following that stated

(c) Years ended 31 March following that stated

Production of refined lead

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Austria | 28 500 | 26 900 | 22 200 | 25 500 | 26 200 |
| Belgium | 117 000 | 104 000 | 109 000 | 121 000 | 119 000 |
| Bulgaria | 87 000 | 90 900 | 83 100 | 80 600 | 71 000 |
| Czech Republic | 34 000 | 36 000 | 29 000 | 30 000 | 34 000 |
| Estonia | 10 000 | 10 000 | 10 000 | 10 000 | 10 000 |
| France | * 88 000 | 82 100 | 62 000 | 71 000 | 80 000 |
| Germany | 355 000 | 415 100 | 390 600 | 405 400 | 429 100 |
| Greece | * 11 000 | * 11 000 | * 11 000 | * 11 000 | * 11 000 |
| Ireland, Republic of | 22 500 | 20 000 | 19 000 | 19 000 | 18 000 |
| Italy | 211 800 | 199 900 | 149 000 | 150 000 | 146 500 |
| Kosovo | — | 900 | 4 250 | 4 300 | 1 000 |
| Netherlands | * 16 000 | * 16 000 | * 17 000 | 16 000 | 16 000 |
| Poland | 104 200 | 108 300 | 100 400 | 120 300 | 133 800 |
| Portugal | 5 000 | 5 000 | 4 000 | 4 000 | 4 000 |
| Romania | 39 369 | 39 596 | 8 687 | 11 263 | 6 854 |
| Russia | 103 000 | 112 000 | 90 000 | 96 000 | 103 000 |
| Serbia | 1 300 | — | — | — | — |
| Slovenia | 15 000 | 15 000 | 14 000 | 14 000 | 15 000 |
| Spain | 128 000 | 145 000 | 138 000 | 163 000 | 172 000 |
| Sweden | 69 730 | 56 812 | 51 574 | 59 179 | 52 438 |
| Switzerland | * 9 000 | * 8 000 | 800 | — | — |
| Turkey | * 6 000 | * 6 000 | * 6 000 | * 6 000 | * 6 000 |
| Ukraine | 62 100 | 54 700 | 60 600 | 71 500 | 55 300 |
| United Kingdom | 263 391 | 283 000 | 301 865 | 297 453 | 274 055 |
| Algeria | 6 000 | 6 000 | 6 000 | 9 000 | 9 000 |
| Kenya | * 1 000 | * 1 000 | * 1 000 | * 1 000 | * 1 000 |
| Morocco | 45 000 | 37 400 | 20 100 | 38 237 | 36 469 |
| Nigeria | 8 000 | 8 000 | 8 000 | 11 000 | 9 000 |
| South Africa | 59 000 | 62 000 | 58 000 | 51 000 | 56 000 |
| Zambia | 500 | 500 | 500 | 500 | 500 |
| Canada | 236 688 | 259 074 | 258 854 | 272 937 | 282 268 |
| Costa Rica | — | — | — | — | 4 000 |
| El Salvador | 10 000 | 11 000 | 12 000 | 11 000 | 12 000 |
| Guatemala | 8 000 | 12 000 | 17 000 | 22 000 | 24 000 |
| Honduras | — | — | — | — | 1 000 |
| Mexico | 204 838 | 206 364 | 200 411 | 225 980 | 251 729 |
| USA (a) | 1 303 000 | 1 280 500 | 1 214 100 | 1 256 000 | 1 250 000 |
| Argentina | 60 600 | 62 500 | 83 000 | 87 400 | 83 100 |
| Brazil | 131 000 | 144 000 | 155 000 | 172 000 | 184 000 |
| Colombia | 10 000 | 10 000 | 10 000 | 10 000 | 10 000 |
| Peru | 116 774 | 114 259 | 26 082 | * — | * — |
| Venezuela | * 36 000 | * 37 000 | * 31 000 | * 31 000 | * 31 000 |
| Burma | * 200 | * 200 | * 200 | * 200 | * 200 |
| China | 2 788 300 | 3 451 800 | 3 772 900 | 4 157 500 | 4 647 700 |
| India | 239 000 | 294 000 | 337 000 | 380 000 | 426 000 |
| Indonesia | * 18 000 | * 18 000 | * 18 000 | * 18 000 | * 18 000 |
| Iran | 78 000 | 75 000 | 72 000 | 75 000 | 74 000 |
| Israel | 25 000 | 27 000 | 26 000 | 27 000 | 27 000 |
| Japan | 276 286 | 278 071 | 247 634 | 267 206 | 252 562 |
| Kazakhstan | 117 641 | 105 766 | 73 480 | 93 800 | 101 167 |
| Korea (Rep. of) | 260 000 | 268 000 | 329 000 | 321 000 | 421 000 |
| Korea, Dem. P.R. of | * 7 000 | * 6 000 | * 5 000 | * 5 000 | * 5 000 |
| Malaysia | 17 000 | 39 000 | 54 000 | 26 000 | 44 000 |
| Pakistan (b) | — | — | 385 | 1 545 | 1 569 |
| Philippines | * 34 000 | * 34 000 | * 32 000 | * 30 000 | * 34 000 |
| Saudi Arabia | 37 000 | 38 000 | 37 000 | 39 000 | 39 000 |
| Taiwan | 36 000 | 38 000 | 36 000 | 35 000 | 36 000 |
| Thailand | 73 159 | 73 303 | 55 504 | 55 504 | 42 223 |
| United Arab Emirates | * 2 000 | * 2 000 | * 2 000 | * 2 000 | * 2 000 |

Production of refined lead

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|------------------|------------------|------------------|------------------|-------------------|
| Australia | 239 000 | 260 000 | 234 000 | 213 000 | 218 000 |
| New Zealand | * 11 000 | * 11 000 | * 11 000 | * 11 000 | * 11 000 |
| World Total | 8 200 000 | 9 100 000 | 9 100 000 | 9 700 000 | 10 400 000 |

Notes

(1) Figures relate to both primary and secondary refined lead and include the lead content of antimonial lead

(a) Excluding lead content of primary antimonial lead

(b) Years ended 30 June of that stated

Production of lithium minerals

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|
| Portugal | | | | | |
| Lepidolite | 34 755 | 34 888 | 37 359 | 40 109 | 37 534 |
| Spain | | | | | |
| Lepidolite | 10 326 | 9 342 | 4 270 | 7 824 | * 7 800 |
| Canada | * 23 000 | * 22 000 | * 10 000 | * — | * — |
| USA (a) | * 1 500 | * 1 500 | * 1 500 | * 1 500 | * 1 500 |
| Argentina (c)(b) | 17 691 | 17 784 | 12 800 | 16 500 | * 15 000 |
| Brazil | | | | | |
| Spodumene | 7 991 | 14 460 | 15 929 | 15 733 | * 15 800 |
| Chile (c) | 59 637 | 56 881 | 30 538 | 52 851 | 69 597 |
| China | * 42 000 | * 46 000 | * 53 000 | * 55 000 | * 58 000 |
| Australia | | | | | |
| Spodumene | 245 279 | 239 528 | 197 482 | 303 729 | 421 228 |
| World Total (Li content) | 20 800 | 20 500 | 14 100 | 20 300 | 24 600 |

Notes

(1) In addition to the countries listed, Russia has also produced lithium minerals in the past

(a) Li content

(b) Chloride

(c) Carbonate

Production of magnesite

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|--------------|--------------|--------------|--------------|--------------|
| Austria | 811 556 | 837 476 | 544 716 | 757 063 | 867 912 |
| Greece | 351 414 | 361 165 | 380 834 | 396 497 | 393 880 |
| Netherlands (f) | * 245 000 | 316 264 | 183 256 | 236 053 | 274 877 |
| Poland | 65 000 | 60 000 | 47 000 | 63 000 | 75 000 |
| Russia | * 2 600 000 | * 2 600 000 | * 2 600 000 | * 2 600 000 | * 2 600 000 |
| Slovakia | 957 000 | 806 500 | 477 600 | 650 100 | 751 700 |
| Spain | 464 498 | 442 339 | 390 311 | 462 959 | 577 725 |
| Turkey | 1 984 908 | 2 143 047 | 861 180 | 1 541 860 | * 1 000 000 |
| South Africa | 80 700 | 83 900 | * 80 000 | * 80 000 | * 80 000 |
| Zimbabwe | 1 814 | 2 549 | 449 | — | 169 |
| Canada (b) | * 140 000 | * 140 000 | * 140 000 | * 150 000 | * 150 000 |
| Guatemala | 7 612 | 11 757 | 17 247 | — | 311 |
| Brazil (c) | 399 314 | 421 300 | 410 000 | 439 500 | 500 000 |
| Colombia | 42 000 | 38 000 | * — | * — | * — |
| China | * 14 000 000 | * 15 600 000 | * 13 000 000 | * 14 000 000 | * 14 500 000 |
| India (e) | 252 849 | 252 880 | 301 070 | 229 734 | 215 455 |
| Iran (a) | 112 229 | 115 987 | 130 575 | 126 702 | * 130 000 |
| Israel (g) | 103 023 | 108 852 | 132 636 | 135 930 | 126 988 |
| Korea, Dem. P.R. of | * 55 000 | * 150 000 | * 150 000 | * 150 000 | * 150 000 |
| Pakistan (d) | 3 445 | 3 940 | 2 639 | 5 159 | 4 908 |
| Philippines | 3 600 | 3 976 | 3 872 | 4 186 | 4 784 |
| Australia (d) | 343 424 | 147 698 | 366 188 | * 295 000 | * 663 000 |
| World Total | 23 000 000 | 24 600 000 | 20 200 000 | 22 300 000 | 23 100 000 |

Notes

(1) In addition to the countries listed, Bulgaria is believed to produce magnesite

- (a) Years ended 20 March following that stated
- (b) Officially described as magnesitic dolomite and brucite
- (c) Including beneficiated and directly shipped material
- (d) Years ended 30 June of that stated
- (e) Years ended 31 March following that stated
- (f) Chloride produced from solution mining
- (g) Magnesium chloride

Production of primary magnesium metal

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------|----------|----------|----------|----------|----------|
| Russia | * 33 000 | * 30 000 | * 30 000 | * 30 000 | * 30 000 |
| Ukraine | 2 000 | * 2 000 | * 2 000 | * 2 000 | * 2 000 |
| Canada | * 8 000 | — | — | — | — |
| USA | * 40 000 | * 40 000 | * 40 000 | * 40 000 | * 40 000 |
| Brazil | * 5 000 | * 5 000 | * 5 000 | * 5 000 | * 5 000 |
| China | 659 300 | 630 700 | 501 800 | 653 800 | 660 600 |
| India | * 200 | * 200 | * 200 | * 200 | * 200 |
| Israel | 29 168 | 32 051 | 19 405 | 23 309 | 26 284 |
| Kazakhstan (a) | * 21 000 | * 21 000 | * 21 000 | * 21 000 | * 21 000 |

Note

(a) Not marketed as metal but used in titanium production

Production of manganese ore

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------|--------------|--------------|--------------|--------------|--------------|
| Bulgaria | 27 900 | 39 100 | 28 300 | 106 000 | 85 600 |
| Georgia (a) | 368 394 | *370 000 | * 370 000 | *370 000 | * 370 000 |
| Hungary | 51 000 | 49 579 | 43 000 | 55 000 | 58 000 |
| Romania | 49 350 | 43 590 | 20 304 | 13 120 | 3 180 |
| Ukraine (a) | 1 720 000 | 1 447 000 | 932 000 | 1 589 000 | * 1 590 000 |
| Burkina Faso | — | — | — | 40 000 | * 60 000 |
| Egypt (b) | 20 584 | 16 912 | * 12 500 | 6 508 | 37 194 |
| Gabon | 3 333 800 | 3 250 000 | 1 992 060 | 3 200 570 | 3 562 330 |
| Ghana | 1 167 339 | 1 089 025 | 1 012 941 | 1 194 074 | 1 827 692 |
| Ivory Coast | 80 402 | 148 120 | * 100 000 | * 80 000 | * 60 000 |
| Morocco | 41 628 | 102 285 | 51 788 | 75 614 | 58 000 |
| Namibia | 47 620 | 28 237 | 51 471 | 35 728 | * 36 000 |
| South Africa | | | | | |
| Metallurgical | 5 982 190 | 6 798 187 | 4 564 855 | 7 156 338 | 8 635 863 |
| Chemical | 12 950 | 9 327 | 10 911 | 15 407 | 15 979 |
| Sudan | 400 | — | 500 | 378 990 | * 400 000 |
| Mexico | 418 342 | 477 147 | 330 328 | 466 649 | 437 264 |
| Brazil | 1 866 000 | 2 400 000 | 2 300 000 | 2 600 000 | 3 100 000 |
| Chile | 26 808 | 5 096 | 1 642 | — | — |
| China | * 10 000 000 | * 11 000 000 | * 12 000 000 | * 13 000 000 | * 14 000 000 |
| India (c) | 2 696 980 | 2 789 025 | 2 491 950 | 2 881 080 | 2 387 000 |
| Iran (d) | 103 441 | 115 199 | 125 506 | 131 561 | * 135 000 |
| Kazakhstan | 2 482 000 | 2 485 000 | 2 457 400 | 1 094 000 | 2 930 000 |
| Malaysia | 56 500 | 536 675 | 567 963 | 899 703 | 576 835 |
| Thailand | 9 500 | 111 000 | 64 930 | 50 450 | 398 |
| Australia | 5 289 000 | 4 819 000 | 4 444 000 | 6 474 000 | 6 961 000 |
| World Total | 35 900 000 | 38 100 000 | 34 000 000 | 41 900 000 | 47 300 000 |

Notes

(1) In addition to the countries listed, Colombia, Cuba and Vietnam are believed to produce manganese ore

(a) Marketable

(b) Fiscal years ending 30 June of that stated

(c) Years ended 31 March following that stated

(d) Years ended 20 March following that stated

Production of mercury

kilograms

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|------------------|------------------|------------------|------------------|------------------|
| Finland | 45 195 | 33 120 | 6 210 | 9 000 | 5 000 |
| Russia | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| Morocco | 17 900 | 17 400 | * 18 000 | * 20 000 | * 20 000 |
| Mexico (a) | * 17 300 | * 43 100 | * 10 600 | * 11 000 | * 120 300 |
| USA | * 15 000 | * 15 000 | * 15 000 | * 15 000 | * 15 000 |
| Argentina | 3 483 | 1 027 | 9 468 | * 10 000 | * 10 000 |
| Chile (b) | * 50 000 | * 50 000 | * 88 000 | * 176 000 | * 100 000 |
| China | 798 000 | 1 333 000 | 1 424 000 | 1 585 000 | 1 493 000 |
| Kyrgyzstan | * 250 000 | * 250 000 | * 250 000 | * 250 000 | * 250 000 |
| Tajikistan | * 30 000 | * 30 000 | 19 100 | 15 000 | * 15 000 |
| World Total | 1 300 000 | 1 800 000 | 1 900 000 | 2 100 000 | 2 100 000 |

Notes

(1) Several countries are believed to have unrecorded production of mercury from copper electrowinning processes and by recovery from effluents

(a) BGS estimates based on net exports

(b) From copper solvent extraction and electrowinning processes

Production of mica

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|----------------|----------------|----------------|----------------|----------------|
| Finland | 11 449 | 10 706 | 7 855 | 13 809 | 12 896 |
| France (b) | * 20 000 | * 20 000 | * 18 000 | * 19 000 | * 19 000 |
| Russia | * 12 000 | * 10 000 | * 9 000 | * 9 000 | * 9 000 |
| Spain (b) | 5 569 | 4 254 | 3 655 | 4 034 | 3 775 |
| Turkey | 3 313 | 8 392 | 4 172 | * 4 500 | * 4 500 |
| Egypt | 200 | 50 | * 50 | * 50 | * 50 |
| Madagascar | 1 349 | 1 233 | 358 | 947 | 1 165 |
| South Africa | 419 | 393 | 299 | 904 | 633 |
| Sudan | ... | 66 | 100 | 10 | * 200 |
| Canada | * 18 000 | * 17 000 | * 15 000 | * 15 500 | * 15 000 |
| Mexico | 9 600 | 5 000 | 5 000 | 160 | — |
| USA (d)(b) | 97 000 | 85 000 | 51 000 | 53 000 | 50 000 |
| Argentina | 10 171 | 8 790 | 8 668 | 9 638 | * 10 000 |
| Brazil | 4 000 | 4 000 | 4 000 | 4 000 | * 4 000 |
| China (c) | * 93 000 | * 139 000 | * 91 000 | * 126 000 | * 132 000 |
| India (e) | 1 242 | 1 462 | 1 061 | 1 293 | 1 736 |
| Iran (f) | 1 800 | 1 510 | 6 797 | 2 860 | * 2 900 |
| Korea (Rep. of) (a) | 42 385 | 49 474 | 27 078 | 36 486 | 31 260 |
| Malaysia (g) | 6 118 | 5 593 | 4 324 | 4 515 | 4 244 |
| Sri Lanka | 3 224 | 2 364 | 2 347 | 2 095 | 2 927 |
| Taiwan | 3 387 | 3 179 | 557 | — | 1 455 |
| World Total | 340 000 | 380 000 | 260 000 | 308 000 | 307 000 |

Notes

(1) In addition to the countries listed, Romania is believed to produce mica

(a) Mainly sericite

(b) Including mica recovered from mica schists and/or kaolin beneficiation

(c) Conservative BGS estimates, based on exports

(d) Sold or used by producers

(e) Years ended 31 March following that stated

(f) Years ended 20 March following that stated

(g) Sericite

Mine production of molybdenum

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-------------|----------|----------|----------|----------|----------|
| Armenia | 4 385 | 4 472 | 4 365 | 4 377 | 4 817 |
| Russia | * 4 800 | * 4 800 | * 4 800 | * 4 800 | * 4 800 |
| Canada | 6 681 | 8 602 | 8 721 | 8 648 | 8 326 |
| Mexico | 6 491 | 7 812 | 10 167 | 10 849 | 10 787 |
| USA | 57 000 | 55 900 | 47 800 | 59 400 | 64 000 |
| Argentina | — | 228 | 1 148 | 468 | 1 708 |
| Chile | 44 775 | 33 639 | 34 786 | 37 044 | 40 698 |
| Peru | 16 787 | 16 721 | 12 297 | 16 963 | 19 141 |
| China | * 67 700 | * 81 000 | * 93 500 | * 93 600 | * 94 000 |
| Iran (a) | 3 205 | 3 628 | 3 882 | 3 676 | 3 513 |
| Kazakhstan | 500 | 400 | — | — | — |
| Mongolia | 1 978 | 1 900 | 2 410 | 2 198 | 1 957 |
| World Total | 214 000 | 219 000 | 224 000 | 242 000 | 254 000 |

Notes

(1) In addition to the countries listed, Australia, Georgia, India, Democratic P.R. of Korea, Romania and Tajikistan are believed to produce molybdenum

(a) Years ended 20 March following that stated

Production of nepheline syenite

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------|-------------|-------------|-----------|-----------|-----------|
| Norway | 312 000 | 346 000 | 270 000 | 327 000 | 330 000 |
| Russia (a) | * 1 000 000 | * 1 000 000 | 4 400 000 | 4 900 000 | 4 608 000 |
| Canada | 690 000 | 646 000 | 513 000 | 581 000 | 610 000 |
| Iran | 75 000 | ... | ... | ... | ... |

Note

(a) Nepheline concentrates

Mine production of nickel

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| Albania | 2 197 | 3 500 | 550 | 1 954 | 914 |
| Finland | 3 600 | 6 200 | 1 600 | 12 100 | 19 100 |
| Greece | 21 200 | 18 600 | 9 600 | 16 100 | 21 700 |
| Kosovo | — | 3 655 | 10 565 | 9 100 | 7 728 |
| Macedonia | 15 000 | 15 000 | 12 000 | 14 200 | 25 600 |
| Norway | 378 | 377 | 336 | 348 | 339 |
| Russia | 279 800 | 266 800 | 261 900 | 270 000 | 270 000 |
| Spain | 6 630 | 8 136 | 8 029 | 6 296 | — |
| Turkey | * 2 000 | * 1 500 | 1 199 | * 1 900 | * 4 300 |
| Ukraine | * 12 000 | * 8 000 | — | — | * — |
| Botswana | 22 844 | 28 940 | 29 616 | 24 931 | 15 675 |
| Morocco | 100 | 100 | 733 | 317 | 217 |
| South Africa (a) | 37 877 | 31 700 | 34 610 | 39 960 | 43 321 |
| Zambia | — | 800 | 1 500 | 2 809 | 2 869 |
| Zimbabwe | 8 582 | 6 354 | 4 858 | 6 133 | 7 992 |
| Canada | 254 915 | 259 651 | 135 037 | 158 376 | 219 612 |
| Cuba | 73 900 | 67 300 | 60 000 | 66 000 | 66 000 |
| Dominican Republic | 29 128 | 18 742 | — | — | 13 498 |
| Brazil | 38 400 | 67 116 | 56 950 | 66 200 | 74 000 |
| Colombia | 49 312 | 41 638 | 51 802 | 49 433 | 37 800 |
| Venezuela | 15 666 | 10 886 | 13 749 | 12 063 | 13 400 |
| China | 66 400 | 79 500 | 81 800 | 79 800 | 89 800 |
| Indonesia | 243 500 | 223 000 | 183 900 | 217 300 | 226 300 |
| Kazakhstan | * 1 200 | * 1 600 | — | — | * — |
| Philippines | 91 367 | 80 645 | 137 350 | 184 330 | 319 354 |
| Australia | 184 000 | 200 000 | 166 000 | 169 000 | 215 000 |
| New Caledonia | 125 364 | 105 883 | 95 649 | 131 309 | 131 050 |
| World Total | 1 585 000 | 1 556 000 | 1 359 000 | 1 540 000 | 1 826 000 |

Notes

(a) Includes metal and metal content of sulphate and concentrates

Smelter/refinery production of nickel

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|-----------|-----------|-----------|-----------|-----------|
| Austria | 900 | 500 | 700 | 1 000 | 1 000 |
| Finland | 55 000 | 51 963 | 41 556 | 49 772 | 49 823 |
| France | 14 800 | 13 700 | 13 900 | 14 400 | 13 700 |
| Greece | 18 668 | 16 640 | 8 269 | 13 960 | 18 530 |
| Kosovo | — | 5 777 | 6 365 | 7 000 | 15 700 |
| Macedonia | 15 300 | 15 000 | 12 000 | 14 400 | 17 292 |
| Norway | 87 600 | 88 700 | 88 577 | 92 185 | 92 000 |
| Russia | 272 000 | 257 700 | 244 800 | 262 300 | 265 700 |
| Serbia | 1 000 | — | — | — | — |
| Ukraine | 20 600 | 24 700 | 15 800 | 21 900 | 17 100 |
| United Kingdom | 34 050 | 40 800 | 17 800 | 28 900 | 36 300 |
| South Africa | 39 500 | 32 800 | 37 300 | 39 960 | 43 321 |
| Zimbabwe | 14 000 | 11 300 | 9 200 | 4 400 | * 3 500 |
| Canada | 153 647 | 167 732 | 116 909 | 105 413 | 142 445 |
| Cuba | 34 000 | 35 600 | 33 000 | 33 000 | 33 600 |
| Dominican Republic | 29 128 | 18 742 | — | — | 13 498 |
| Brazil | 34 954 | 36 000 | 32 800 | 41 900 | 43 100 |
| Colombia | 49 312 | 41 638 | 51 802 | 49 443 | 37 817 |
| Venezuela | 15 666 | 10 886 | 10 400 | 11 700 | 13 400 |
| China | 199 300 | 200 300 | 253 800 | 332 300 | 411 200 |
| Indonesia | 18 532 | 17 566 | 12 550 | 18 688 | 19 690 |
| Japan | 161 200 | 156 500 | 143 500 | 166 100 | 156 900 |
| Korea (Rep. of) | — | 7 113 | 19 333 | 21 461 | 18 580 |
| Australia | 114 000 | 108 000 | 131 000 | 102 000 | 110 000 |
| New Caledonia | 44 954 | 37 467 | 38 230 | 39 802 | 40 513 |
| World Total | 1 428 000 | 1 397 000 | 1 340 000 | 1 472 000 | 1 615 000 |

Note

(1) Data relate to refined nickel plus the nickel content of ferro-nickel, nickel oxide and nickel salts

Production of perlite

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Armenia | * 35 000 | * 35 000 | * 35 000 | * 35 000 | * 35 000 |
| Bulgaria | 13 900 | 7 400 | 14 800 | — | — |
| Greece | 1 100 000 | 1 000 000 | 862 935 | 760 000 | 720 000 |
| Hungary | 67 542 | 132 000 | 82 058 | 70 990 | 70 108 |
| Italy | * 60 000 | * 60 000 | * 60 000 | * 60 000 | * 60 000 |
| Russia | * 45 000 | * 45 000 | * 45 000 | * 45 000 | * 45 000 |
| Slovakia | 20 000 | 25 000 | 25 000 | 23 000 | 23 000 |
| Turkey | 478 579 | 551 266 | 522 832 | 737 077 | 429 776 |
| Ukraine | * 36 000 | * 36 000 | * 36 000 | * 36 000 | * 36 000 |
| South Africa | * 400 | * 400 | * 400 | * 400 | * 400 |
| Mexico | 54 405 | 43 180 | 51 395 | 31 779 | 30 750 |
| USA | 409 000 | 434 000 | 348 000 | 414 000 | 400 000 |
| Argentina | 35 838 | 26 545 | 21 802 | 27 182 | * 27 000 |
| China | * 700 000 | * 700 000 | * 700 000 | * 700 000 | * 700 000 |
| Iran (a) | 47 422 | * 47 000 | 753 183 | 547 617 | * 550 000 |
| Japan | * 230 000 | * 230 000 | * 220 000 | * 210 000 | * 300 000 |
| Philippines | 9 900 | 10 100 | 10 100 | 10 500 | 13 800 |
| Thailand | 6 400 | 7 000 | 13 500 | 14 700 | 26 500 |
| Australia (b) | 8 546 | 6 942 | 7 649 | 6 616 | 2 362 |
| New Zealand | 7 873 | — | 8 848 | 5 088 | — |

Notes

(1) In addition to the countries listed, Algeria, Canada, Djibuti, Iceland, Mozambique and former Yugoslavia are believed to produce perlite

(a) Years ended 20 March following that stated

(b) Years ended 30 June of that stated

Production of crude petroleum

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|-------------|-------------|-------------|-------------|-------------|
| Albania | 563 189 | 577 301 | 576 739 | 742 012 | 894 530 |
| Austria | 853 548 | 861 639 | 905 031 | 875 969 | 838 052 |
| Azerbaijan | 42 523 200 | 42 074 700 | 48 353 700 | 48 580 900 | 43 195 200 |
| Belarus | 1 760 020 | 1 740 020 | 1 720 010 | 1 700 140 | 1 681 470 |
| Bulgaria | 25 700 | 23 000 | 23 800 | 22 400 | 21 400 |
| Croatia | 911 207 | 867 027 | 807 424 | 748 791 | 691 197 |
| Czech Republic | 240 000 | 236 000 | 217 000 | 173 000 | 163 000 |
| Denmark | 15 552 000 | 14 338 000 | 13 045 000 | 12 090 000 | 10 908 900 |
| Estonia (g) | 1 901 600 | 1 869 500 | 1 733 000 | 2 080 000 | 2 173 132 |
| France | 1 013 000 | 975 000 | 899 000 | * 800 000 | * 800 000 |
| Georgia | 63 850 | 51 660 | 52 731 | 50 413 | 50 033 |
| Germany | 3 415 374 | 3 053 998 | 2 800 063 | 2 511 174 | 2 677 136 |
| Greece | 80 000 | 66 000 | 87 000 | 86 000 | 87 126 |
| Hungary | 838 672 | 811 000 | 796 000 | 790 000 | 696 453 |
| Italy | 5 800 000 | 5 200 000 | 4 600 000 | 5 100 000 | 5 280 000 |
| Lithuania | 154 449 | 127 658 | 114 956 | 114 464 | 113 895 |
| Netherlands | 2 576 222 | 2 163 000 | 1 704 000 | 1 414 000 | 1 464 000 |
| Norway | 125 763 000 | 121 101 700 | 115 000 000 | 105 042 000 | 100 289 000 |
| Poland | 720 603 | 754 907 | 686 992 | 686 487 | 614 704 |
| Romania | 4 837 000 | 4 528 000 | 4 388 940 | 4 172 411 | 4 081 979 |
| Russia | 491 000 000 | 488 000 000 | 494 000 000 | 505 000 000 | 509 000 000 |
| Serbia | 639 089 | 636 383 | 663 005 | 865 499 | 1 020 490 |
| Slovakia | 23 000 | 21 000 | 19 000 | 16 000 | 18 000 |
| Slovenia | 344 | 174 | 138 | 233 | 263 |
| Spain | 142 879 | 127 542 | 106 817 | 121 528 | 99 926 |
| Turkey | 2 131 288 | 2 222 594 | 2 489 914 | 2 602 114 | 2 383 000 |
| Ukraine | 4 459 000 | 4 328 000 | 3 960 000 | 3 549 000 | 3 363 000 |
| United Kingdom | 70 357 000 | 66 745 000 | 64 001 000 | 58 988 000 | 63 498 000 |
| Algeria | 86 500 000 | 85 600 000 | 77 800 000 | 75 500 000 | 74 300 000 |
| Angola | 82 500 000 | 93 500 000 | 89 100 000 | 92 000 000 | 85 200 000 |
| Cameroon | 4 343 360 | 4 300 000 | 3 700 000 | 3 200 000 | 2 966 000 |
| Chad | 7 500 000 | 6 700 000 | 6 200 000 | 6 400 000 | 6 000 000 |
| Congo | 11 091 800 | 11 768 000 | 14 200 000 | 15 100 000 | 15 200 000 |
| Congo, Democratic Republic | 1 105 000 | 995 000 | 1 100 000 | 1 050 000 | 1 010 000 |
| Egypt | 34 100 000 | 34 600 000 | 35 300 000 | 35 000 000 | 35 200 000 |
| Equatorial Guinea | 17 300 000 | 17 200 000 | 15 200 000 | 13 600 000 | 12 500 000 |
| Gabon | 12 100 000 | 11 800 000 | 11 829 000 | 12 431 000 | 12 170 000 |
| Ghana | 301 000 | 301 000 | 301 000 | 360 000 | 364 000 |
| Ivory Coast | 2 423 000 | 2 964 000 | 2 897 000 | 2 197 000 | 1 984 000 |
| Libya | 85 000 000 | 85 300 000 | 77 100 000 | 77 500 000 | 22 400 000 |
| Mauritania | 739 507 | 592 679 | 550 143 | 412 465 | 385 234 |
| Morocco | 11 100 | 9 000 | 9 300 | 10 400 | 9 600 |
| Nigeria | 114 100 000 | 105 300 000 | 101 500 000 | 117 200 000 | 117 400 000 |
| Senegal | 42 900 | 13 400 | 33 600 | 53 800 | * 54 000 |
| South Africa | 502 000 | 403 000 | 270 000 | 316 000 | 179 000 |
| Sudan | 23 100 000 | 23 700 000 | 23 400 000 | 22 900 000 | 22 300 000 |
| Tunisia | 4 546 000 | 4 146 000 | 3 902 000 | 3 731 400 | 3 700 000 |
| Barbados | 40 253 | 39 760 | 38 030 | 42 069 | 40 179 |
| Canada | 137 300 000 | 135 700 000 | 134 300 000 | 141 200 000 | 145 000 000 |
| Cuba | 2 905 000 | 3 003 100 | 2 731 300 | 3 024 800 | * 3 110 000 |
| Guatemala | 774 500 | 715 400 | 523 700 | 605 100 | 554 100 |
| Mexico | 179 450 000 | 163 220 000 | 153 600 000 | 152 670 000 | 151 687 000 |
| Trinidad & Tobago | 6 183 900 | 5 904 500 | 5 056 600 | 5 061 410 | 4 736 250 |
| USA | 314 746 780 | 309 706 456 | 334 637 399 | 346 213 286 | 360 155 048 |
| Argentina | 32 959 940 | 32 365 564 | 31 930 560 | 31 170 941 | 29 356 595 |
| Bolivia | 1 907 000 | 1 806 400 | 1 565 000 | 1 599 700 | * 1 500 000 |
| Brazil | 94 800 000 | 98 500 000 | 105 000 000 | 110 600 000 | 113 400 000 |
| Chile | 132 000 | 137 000 | 192 000 | 217 750 | 246 810 |
| Colombia | 26 357 800 | 29 236 400 | 33 288 500 | 38 990 438 | 45 433 683 |
| Ecuador | 26 021 000 | 25 767 000 | 24 747 000 | 24 720 000 | 25 405 000 |
| Peru | 5 617 000 | 5 921 000 | 7 175 000 | 7 753 000 | 7 533 000 |
| Suriname | 877 500 | 952 000 | 945 300 | 953 300 | 966 300 |
| Venezuela | 152 100 000 | 15 100 000 | 149 900 000 | 142 500 000 | 139 600 000 |

Production of crude petroleum

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|---------------|----------------|---------------|---------------|---------------|
| Afghanistan | * 3 000 | * 3 000 | * 3 000 | * 3 000 | * 3 000 |
| Bahrain | 1 721 000 | 1 636 000 | 1 603 000 | 1 646 984 | 2 393 357 |
| Brunei | 9 639 000 | 8 680 000 | 8 291 000 | 8 448 000 | 8 248 000 |
| Burma (f) | 1 076 000 | 973 000 | 983 000 | 958 000 | 935 000 |
| China (a) | 186 318 200 | 190 430 600 | 189 489 600 | 203 014 000 | 203 646 000 |
| East Timor | (e) 3 001 000 | (d)* 3 000 000 | (d) 3 066 000 | (d) 2 760 000 | (e) 3 095 000 |
| India (f) | 34 118 000 | 33 506 000 | 33 691 000 | 37 705 000 | 37 887 000 |
| Indonesia | 47 719 000 | 48 973 000 | 47 440 000 | 47 238 000 | 45 150 000 |
| Iran | 209 700 000 | 209 800 000 | 202 400 000 | 207 100 000 | 205 800 000 |
| Iraq | 102 688 000 | 115 411 000 | 117 533 000 | 120 400 000 | 136 900 000 |
| Israel | 11 700 | 2 200 | 2 010 | 1 791 | 4 638 |
| Japan | 876 000 | 899 000 | 840 000 | 796 000 | 759 000 |
| Jordan | 1 200 | 2 200 | 1 300 | 1 300 | * 1 300 |
| Kazakhstan | 67 125 300 | 70 671 000 | 76 482 000 | 79 684 000 | 80 060 900 |
| Kuwait (c) | 129 900 000 | 137 300 000 | 121 300 000 | 122 500 000 | 140 000 000 |
| Kyrgyzstan | 100 000 | 71 000 | 77 300 | 82 800 | 90 300 |
| Malaysia | 32 600 000 | 32 900 000 | 31 500 000 | 30 500 000 | 27 200 000 |
| Mongolia | 117 000 | 162 000 | 257 000 | 300 000 | 351 000 |
| Oman | 35 350 000 | 37 700 000 | 40 500 000 | 43 100 000 | 44 100 000 |
| Pakistan (b) | 3 282 000 | 3 413 700 | 3 204 400 | 3 160 800 | 3 205 500 |
| Philippines | 815 000 | 902 000 | 1 150 000 | 1 092 000 | 1 016 000 |
| Qatar | 53 600 000 | 60 800 000 | 57 900 000 | 65 700 000 | 71 100 000 |
| Saudi Arabia (c) | 494 200 000 | 515 300 000 | 459 500 000 | 466 600 000 | 525 800 000 |
| Syria | 18 600 000 | 18 900 559 | 18 853 258 | 19 100 000 | 16 500 000 |
| Taiwan | 17 778 | 16 134 | 15 995 | 14 477 | 11 344 |
| Tajikistan | 25 900 | 25 800 | 26 200 | 27 000 | * 30 000 |
| Thailand | 11 500 000 | 12 400 000 | 12 900 000 | 13 000 000 | 12 100 000 |
| Turkmenistan | 9 800 000 | 10 200 000 | 10 200 000 | 10 700 000 | 10 700 000 |
| United Arab Emirates | 140 700 000 | 142 900 000 | 126 300 000 | 130 800 000 | 150 100 000 |
| Uzbekistan | 4 900 000 | 4 800 000 | 4 500 000 | 3 600 000 | 3 600 000 |
| Vietnam | 15 920 000 | 14 904 000 | 16 360 000 | 14 967 000 | 15 180 700 |
| Yemen, Republic of | 15 300 000 | 14 100 000 | 13 104 442 | 14 200 000 | 10 800 000 |
| Australia | 21 567 000 | 21 569 000 | 22 527 000 | 24 796 000 | 21 285 000 |
| New Zealand (e) | 1 890 500 | 2 724 600 | 2 522 200 | 2 421 800 | 2 232 200 |
| Papua New Guinea | 2 153 000 | 1 950 000 | 1 813 000 | 1 683 000 | 1 424 000 |
| World Total | 3 904 000 000 | 3 798 000 000 | 3 840 000 000 | 3 923 000 000 | 3 980 000 000 |

Notes

(1) The figures shown in this table include natural gas liquids

- (a) Including oil from shale and coal
- (b) Years ended 30 June of that stated
- (c) Including shares of production from the Neutral Zone
- (d) Entirely natural gas liquids
- (e) including natural gas liquids
- (f) Years ended 31 March following that stated
- (g) From oil shale

Production of natural gas

million cubic metres

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------------|---------|---------|---------|---------|----------|
| Albania | 10 | 12 | 9 | 2 | 2 |
| Austria | 1 835 | 1 544 | 1 559 | 1 713 | 1 591 |
| Azerbaijan | 10 832 | 16 337 | 16 325 | 16 673 | 16 361 |
| Belarus | 201 | 203 | 205 | 213 | 222 |
| Bulgaria | 295 | 218 | 15 | 74 | 443 |
| Croatia | 2 892 | 2 729 | 2 591 | 2 727 | 2 471 |
| Czech Republic | 148 | 168 | 180 | 201 | 187 |
| Denmark | 8 757 | 9 562 | 7 980 | 7 792 | 6 263 |
| France | 1 023 | 925 | 813 | * 800 | * 800 |
| Georgia | 18 | 14 | 12 | 8 | 7 |
| Germany | 18 075 | 16 547 | 15 554 | 13 666 | 12 952 |
| Greece | 21 | 14 | 11 | * 10 | * 10 |
| Hungary | 2 653 | 2 703 | 2 748 | 2 600 | 2 315 |
| Ireland, Republic of (b) | 519 | 506 | 414 | 402 | 361 |
| Italy | 9 700 | 9 300 | 7 900 | 7 600 | 8 340 |
| Netherlands | 72 431 | 79 325 | 74 659 | 83 944 | 76 431 |
| Norway | 89 700 | 99 200 | 103 500 | 107 250 | 101 376 |
| Poland | 5 653 | 5 382 | 5 537 | 5 666 | 5 825 |
| Romania | 11 981 | 11 520 | 11 273 | 11 138 | 11 164 |
| Russia | 653 000 | 664 000 | 584 000 | 649 000 | 669 000 |
| Serbia | 274 | 282 | 279 | 423 | 448 |
| Slovakia | 195 | 111 | 114 | 106 | 106 |
| Slovenia | 3 | 3 | 3 | 7 | 2 |
| Spain | 42 | 46 | 19 | 58 | 44 |
| Turkey | 839 | 894 | 660 | 626 | 756 |
| Ukraine | 21 104 | 21 444 | 24 189 | 20 382 | 20 646 |
| United Kingdom | 76 970 | 74 937 | 63 022 | 59 674 | 47 790 |
| Algeria | 84 800 | 85 800 | 79 600 | 80 400 | 78 000 |
| Angola | 830 | 680 | 690 | 733 | 752 |
| Congo | 7 276 | 7 351 | 7 980 | 8 438 | 9 458 |
| Egypt | 55 700 | 59 000 | 62 700 | 61 300 | 61 300 |
| Equatorial Guinea | 2 920 | 6 670 | 5 900 | 6 136 | 6 235 |
| Gabon | 167 | * 170 | * 170 | * 170 | * 180 |
| Ivory Coast | 1 574 | 1 300 | 1 300 | 1 352 | 1 317 |
| Libya | 15 300 | 15 900 | 15 900 | 16 800 | 4 100 |
| Morocco | 61 | 50 | 41 | 50 | 53 |
| Mozambique | 2 800 | 3 100 | 3 600 | 3 744 | 3 548 |
| Nigeria | 35 000 | 35 000 | 24 800 | 36 600 | 39 900 |
| South Africa | 1 600 | 1 500 | 1 200 | 1 600 | 1 400 |
| Tunisia | 2 285 | 2 596 | 3 056 | 3 402 | 2 940 |
| Barbados | 21 | 21 | 19 | 20 | 20 |
| Canada | 174 334 | 167 515 | 156 046 | 151 023 | 145 285 |
| Cuba | 1 218 | 1 161 | 1 155 | 1 073 | 1 020 |
| Mexico | 53 600 | 54 200 | 54 900 | 55 100 | 52 500 |
| Trinidad & Tobago | 42 259 | 41 842 | 43 221 | 44 624 | 42 809 |
| USA (e) | 545 000 | 571 000 | 583 000 | 604 066 | 651 292 |
| Argentina | 51 007 | 50 509 | 48 416 | 47 097 | 45 524 |
| Bolivia | 14 301 | 14 895 | 12 786 | 14 923 | * 15 900 |
| Brazil | 12 710 | 15 510 | 13 370 | 16 152 | 18 280 |
| Chile | 2 015 | 1 828 | 1 889 | 1 792 | 1 440 |
| Colombia | 7 500 | 9 100 | 10 378 | 10 599 | 10 810 |
| Ecuador | 310 | 255 | 296 | 340 | * 350 |
| Peru | 2 671 | 3 386 | 3 470 | 7 149 | 12 034 |
| Venezuela | 29 500 | 30 000 | 28 700 | 30 200 | 31 200 |
| Afghanistan | * 50 | 155 | 142 | 142 | * 142 |
| Bahrain | 11 433 | 12 320 | 12 475 | 12 785 | 19 638 |
| Bangladesh (d) | 15 920 | 17 015 | 18 511 | 19 919 | 20 075 |
| Brunei | 11 718 | 11 665 | 10 733 | 12 283 | 12 797 |
| Burma (c) | 13 385 | 11 476 | 12 441 | 12 746 | 12 888 |
| China | 69 240 | 80 299 | 85 269 | 94 848 | 102 500 |
| East Timor | 4 826 | 5 986 | 5 063 | 4 710 | 4 982 |

Production of natural gas

million cubic metres

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| India (c) | 32 417 | 32 849 | 47 510 | 51 203 | 46 386 |
| Indonesia | 72 530 | 74 129 | 77 427 | 86 342 | 75 555 |
| Iran | 111 900 | 116 300 | 131 200 | 146 200 | 151 800 |
| Iraq | 13 596 | 14 681 | 16 577 | 16 885 | 18 692 |
| Israel | 2 758 | 3 436 | 2 825 | 3 234 | 4 320 |
| Japan | 3 708 | 3 735 | 3 539 | 3 396 | 3 298 |
| Jordan | 220 | 250 | 220 | 185 | * 185 |
| Kazakhstan | 29 562 | 32 889 | 35 942 | 37 406 | 39 531 |
| Kuwait (a) | 12 060 | 12 700 | 11 200 | 11 600 | 13 000 |
| Kyrgyzstan | 10 | 17 | 15 | 23 | 27 |
| Malaysia | 60 780 | 60 820 | 59 970 | 61 250 | 61 260 |
| Oman | 26 107 | 25 968 | 24 800 | 29 279 | 30 848 |
| Pakistan (d) | 40 028 | 41 178 | 41 367 | 41 995 | 41 676 |
| Philippines | 3 689 | 3 883 | 3 910 | 3 683 | 3 976 |
| Qatar | 63 200 | 77 000 | 89 300 | 116 700 | 146 800 |
| Saudi Arabia (a) | 74 420 | 80 440 | 77 500 | 87 700 | 99 200 |
| Syria | 7 825 | 7 574 | 7 948 | 7 700 | 8 300 |
| Taiwan | 417 | 357 | 351 | 290 | 330 |
| Tajikistan | 17 | 16 | 20 | 23 | 19 |
| Thailand | 25 812 | 27 559 | 26 347 | 29 565 | 29 041 |
| Turkmenistan | 65 400 | 66 100 | 36 400 | 42 400 | 59 500 |
| United Arab Emirates | 50 290 | 50 240 | 59 100 | 60 500 | 51 700 |
| Uzbekistan | 59 100 | 62 200 | 60 000 | 59 600 | 57 000 |
| Vietnam | 7 080 | 7 499 | 8 010 | 9 402 | 8 480 |
| Australia | 39 955 | 38 256 | 42 813 | 52 081 | 51 268 |
| New Zealand | 4 310 | 3 995 | 4 113 | 4 434 | 4 033 |
| Papua New Guinea | 136 | 151 | 156 | 151 | 158 |
| World Total | 3 070 000 | 3 181 000 | 3 101 000 | 3 318 000 | 3 403 000 |

Notes

(1) So far as possible the figures in this table exclude flared or reinjected gas

- (a) Including one-half of the output of the Neutral Zone
- (b) Sales
- (c) Years ended 31 March following that stated
- (d) Years ended 30 June of that stated
- (e) Dry gas

Production of phosphate rock

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|-------------|-------------|-------------|-------------|--------------|
| Finland | 830 989 | 780 000 | 658 347 | 817 289 | 869 694 |
| Russia | 10 936 500 | 9 810 200 | 9 537 800 | 10 843 500 | * 10 850 000 |
| Algeria | 1 800 025 | 1 805 000 | 1 017 000 | 1 525 234 | 1 281 100 |
| Burkina Faso | * 2 400 | * 2 400 | * 2 400 | * 2 400 | * 2 400 |
| Egypt (e) | 2 290 295 | 2 356 523 | 6 227 424 | 3 021 335 | 1 392 990 |
| Morocco | 27 834 000 | 24 861 000 | 18 307 000 | 26 603 000 | 28 052 000 |
| Senegal | 691 300 | 645 000 | 948 600 | 976 200 | 1 500 000 |
| South Africa | 2 555 723 | 2 286 794 | 2 237 128 | 2 493 904 | 2 564 820 |
| Tanzania | 8 261 | 28 684 | 18 000 | 17 180 | 20 000 |
| Togo | 750 100 | 842 508 | 725 547 | 695 123 | 865 616 |
| Tunisia | 8 002 000 | 7 691 700 | 7 409 000 | 8 148 500 | 2 479 400 |
| Zimbabwe | 46 106 | 21 051 | 32 100 | 56 656 | 46 047 |
| Canada | 682 000 | 983 000 | 901 388 | 826 858 | 851 308 |
| Mexico | 47 721 | 969 094 | 1 421 823 | 1 507 402 | 1 690 606 |
| USA | 29 700 000 | 30 200 000 | 26 400 000 | 25 800 000 | 28 400 000 |
| Brazil (d) | 6 185 000 | 6 730 000 | 6 100 000 | 6 300 000 | 6 634 500 |
| Chile | 25 073 | 41 186 | 13 292 | 50 528 | 15 929 |
| Colombia | * 24 000 | * 48 000 | * 48 000 | * 50 000 | * 50 000 |
| Peru | — | — | — | 1 134 086 | 8 889 295 |
| Venezuela | 371 000 | 213 981 | 362 753 | 85 240 | 81 500 |
| China | 45 417 000 | 50 740 600 | 60 208 900 | 68 070 000 | 81 223 000 |
| Christmas Island (b)(c)(e) | 703 719 | * 700 000 | 563 000 | 566 645 | 616 000 |
| India (a) | 1 849 188 | 1 803 954 | 1 605 489 | 2 152 215 | 2 297 000 |
| Iran | 252 903 | * 250 000 | 61 231 | * 62 000 | * 62 000 |
| Iraq | — | — | 45 000 | 55 000 | 52 720 |
| Israel | 3 069 000 | 3 088 000 | 2 697 000 | 2 777 200 | 3 021 955 |
| Jordan | 5 552 000 | 6 266 000 | 5 280 693 | 6 528 708 | 7 643 228 |
| Kazakhstan | 1 044 900 | 2 470 600 | 1 204 700 | 1 755 000 | 2 213 800 |
| Korea, Dem. P.R. of | * 300 000 | * 300 000 | * 100 000 | * 100 000 | * 100 000 |
| Pakistan (e) | 3 350 | 6 580 | 17 625 | 47 385 | 30 950 |
| Philippines | | | | | |
| Phosphate rock | 1 961 | 2 271 | 2 257 | 2 308 | 2 778 |
| Guano | 209 | 254 | 251 | 272 | 310 |
| Sri Lanka | 40 128 | 41 947 | 36 347 | 47 778 | 58 254 |
| Syria | 3 678 000 | 3 221 379 | 2 466 150 | 3 764 900 | 3 541 900 |
| Thailand | 3 550 | 3 675 | 658 | 35 783 | 3 300 |
| Uzbekistan | 599 500 | 700 000 | 700 000 | 700 000 | 652 600 |
| Vietnam | 1 522 700 | 2 100 700 | 2 047 400 | 2 324 500 | 2 563 200 |
| Australia (e) | 2 131 045 | 2 156 848 | 1 962 893 | 2 135 801 | 2 388 038 |
| Nauru (b) | * 200 000 | 497 469 | 146 816 | 407 654 | 436 563 |
| World Total | 159 000 000 | 165 000 000 | 162 000 000 | 182 000 000 | 203 000 000 |

Notes

(1) In addition to the countries listed, Indonesia and Nigeria are believed to produce phosphate rock

(a) Years ended 31 March following that stated

(b) Exports

(c) Including phosphate dust

(d) Including beneficiated and directly shipped material

(e) Years ended 30 June of that stated

Mine production of platinum group metals

kilograms (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------------|----------|----------|---------|---------|----------|
| Poland | | | | | |
| Platinum | 30 | 30 | 30 | 30 | * 30 |
| Palladium | 20 | 20 | 20 | 20 | * 20 |
| Russia | | | | | |
| Platinum (c) | 28 500 | 25 000 | 24 400 | 26 500 | 26 500 |
| Palladium (c) | 141 200 | 113 800 | 113 100 | 115 700 | 107 500 |
| Other platinum metals (c) | 2 800 | 2 600 | 2 200 | 2 200 | 2 100 |
| Serbia | | | | | |
| Platinum | 2 | — | 12 | — | * — |
| Palladium | 15 | 70 | 38 | 22 | 25 |
| Botswana | | | | | |
| Platinum | 529 | 591 | 746 | 498 | 373 |
| Palladium | 3 110 | 2 955 | 4 728 | 2 830 | 2 115 |
| Ethiopia | | | | | |
| Platinum (a) | 3 | 10 | 10 | 8 | — |
| South Africa | | | | | |
| Platinum | 165 835 | 146 141 | 140 819 | 147 790 | 148 008 |
| Palladium | 86 461 | 75 537 | 75 118 | 82 222 | 82 731 |
| Other platinum metals | 58 623 | 54 089 | 55 456 | 57 292 | 58 111 |
| Zimbabwe | | | | | |
| Platinum | 5 086 | 5 495 | 6 849 | 8 639 | 10 827 |
| Palladium | 3 999 | 4 274 | 5 354 | 6 916 | 8 422 |
| Other platinum metals | 881 | 928 | 1 190 | 1 536 | 2 162 |
| Canada | | | | | |
| Platinum | * 8 100 | * 8 500 | * 4 000 | * 3 600 | * 8 000 |
| Palladium | * 14 100 | * 14 700 | * 6 900 | * 6 200 | * 14 000 |
| Other platinum metals | * 900 | * 1 000 | * 500 | * 400 | * 900 |
| USA | | | | | |
| Platinum | 3 857 | 3 577 | 3 826 | 3 450 | 3 700 |
| Palladium | 13 312 | 11 944 | 12 659 | 11 600 | 12 500 |
| Colombia | 1 526 | 1 370 | 929 | 997 | 1 231 |
| China | | | | | |
| Platinum | * 1 300 | * 1 400 | * 1 400 | * 1 400 | * 1 400 |
| Palladium | * 650 | * 700 | * 700 | * 700 | * 700 |
| Australia | | | | | |
| Palladium (b) | 742 | 710 | 1 034 | 781 | 445 |
| World Total | 542 000 | 475 000 | 462 000 | 481 000 | 492 000 |

Notes

- (1) Wherever possible, figures relate to quantities of platinum group metals thought to be recovered from ores originating in the country stated
- (2) Figures for metal production are only given for countries where recovery is thought to be based predominantly on domestic materials or on imported materials which have not been recorded as mine production elsewhere in the table
- (3) In addition to the production listed, concentrates produced in Spain, and possibly other countries, are believed to be processed in China to recover platinum group metals

- (a) Years ending 7 July of that stated
- (b) Platinum group metals; all forms
- (c) Sales from mine production and stocks

Production of potash

tonnes (K₂O content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------|------------|------------|------------|------------|------------|
| Belarus | 4 971 600 | 4 967 000 | 2 485 400 | 5 222 600 | 5 332 100 |
| Germany | | | | | |
| Potassic salts | 3 636 504 | 3 280 467 | 1 825 139 | 3 023 941 | 3 214 696 |
| Russia | 6 373 100 | 5 935 400 | 3 690 900 | 6 128 100 | 6 500 000 |
| Spain | | | | | |
| Chloride | 531 739 | 472 952 | 481 455 | 418 778 | 436 026 |
| United Kingdom | | | | | |
| Chloride | 430 000 | 403 800 | * 403 800 | * 403 800 | * 462 000 |
| Canada | | | | | |
| Chloride | 11 426 000 | 10 379 000 | 4 318 000 | 9 788 000 | 11 005 000 |
| USA | | | | | |
| Potassic salts | 1 100 000 | 1 100 000 | 700 000 | 930 000 | 1 100 000 |
| Brazil | | | | | |
| Chloride | 471 333 | 383 000 | 453 000 | 417 000 | 395 000 |
| Chile | | | | | |
| Chloride | 533 000 | 578 000 | 713 000 | 961 000 | 864 000 |
| China | 1 822 600 | 1 980 000 | 2 062 000 | 2 344 500 | 2 598 800 |
| Israel | | | | | |
| Chloride | 2 146 000 | 2 134 000 | 2 446 200 | 2 041 342 | 1 789 721 |
| Jordan | 1 090 000 | 1 200 000 | 1 199 400 | 1 284 791 | 1 355 160 |
| World Total | 34 500 000 | 32 800 000 | 20 800 000 | 33 000 000 | 35 100 000 |

Production of rare earth oxides

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------|-----------|-----------|-----------|-----------|-----------|
| Russia | 2 711 | 2 470 | * 2 500 | * 2 500 | * 2 500 |
| Brazil | 760 | 540 | 200 | 160 | * 200 |
| China (b) | * 120 800 | * 124 500 | * 129 400 | * 118 900 | * 120 000 |
| India (a)(c) | 35 | 22 | 16 | — | — |
| Malaysia | 440 | 150 | 20 | 471 | 498 |
| Australia | — | — | — | — | 2 188 |

Notes

- (1) All the figures in this table are either reported as rare earth oxides or are calculated to rare earth oxide equivalent
- (2) Prior to the 2005–2009 edition of this book, a table for the production of 'rare earth minerals' was included rather than the current 'rare earth oxides'. Users should exercise caution when comparing statistics over longer time periods
- (3) Although rare earth minerals are believed to be extracted in other countries, there is insufficient evidence to suggest that rare earth oxides are produced in those countries
- (4) In addition to the countries listed, the USA are known to be producing rare earth oxides from existing stockpiles. Best available estimates suggest this is in the order of 2000 tonnes per year

(a) Years ending 31 March following that stated

(b) Includes production from iron ore extraction, bastnasite concentrates and ion absorption clays

(c) May include small quantities of other rare earth compounds

Production of rhenium

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------|------|------|------|------|------|
| Armenia | * 0 | * 0 | * 0 | * 0 | * 1 |
| Poland | 4 | 5 | 4 | 4 | * 5 |
| Russia | * 2 | * 2 | * 2 | * 2 | * 1 |
| Canada | * 1 | * 2 | * 2 | * 1 | * 1 |
| USA | 7 | 8 | 6 | 6 | 6 |
| Chile | * 28 | * 28 | * 25 | * 25 | * 26 |
| Peru | * 5 | * 5 | * 5 | * 5 | * 5 |
| China | * 1 | * 1 | * 1 | * 1 | * 1 |
| Kazakhstan | * 6 | * 6 | * 3 | * 2 | * 3 |
| Uzbekistan | * 1 | * 1 | * 0 | * 0 | * 0 |

Production of salt

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------------------|-----------|-------------|-------------|-------------|-------------|
| Albania | | | | | |
| Sea salt | * 47 000 | * 47 000 | * 47 000 | * 47 000 | * 47 000 |
| Armenia | 34 800 | 37 334 | 29 402 | 29 440 | 35 570 |
| Austria | | | | | |
| Rock salt | 1 172 | 503 | 50 | 95 | 169 |
| Salt in brine | 735 724 | 866 674 | 1 035 044 | 1 071 842 | 1 150 474 |
| Azerbaijan | 7 126 | 7 527 | 5 466 | 4 449 | 18 848 |
| Belarus | 1 665 350 | 1 866 499 | 2 089 282 | 2 411 683 | 2 576 330 |
| Bosnia & Herzegovina | 502 487 | 538 357 | 556 089 | 566 101 | 721 046 |
| Bulgaria | 2 000 000 | 2 100 000 | 1 300 000 | 1 900 000 | 2 200 000 |
| Croatia | 32 536 | 54 937 | 57 186 | 66 835 | 53 963 |
| Denmark | 557 917 | 496 593 | 511 063 | 601 046 | * 600 000 |
| France | | | | | |
| Salt in brine (k) | 6 139 840 | * 6 000 000 | 6 100 000 | * 6 100 000 | * 6 000 000 |
| Germany | | | | | |
| Rock salt | 4 826 000 | 5 545 438 | 7 709 844 | 9 992 156 | 8 765 168 |
| Brine salt | 1 010 000 | 989 208 | 1 862 630 | 2 118 484 | 2 217 205 |
| Salt in brine | 7 558 000 | 7 306 745 | * 7 300 000 | * 4 500 000 | * 6 458 628 |
| Greece | 212 000 | * 220 000 | * 189 000 | * 190 000 | * 190 000 |
| Italy | | | | | |
| Rock salt & brine salt | 4 383 560 | 5 412 449 | 3 678 234 | 4 006 882 | 2 912 128 |
| Montenegro | | | | | |
| Sea salt | 20 000 | 25 200 | 17 000 | 11 200 | 10 000 |
| Netherlands | 6 177 000 | 6 200 000 | 5 967 000 | 5 982 000 | 6 866 000 |
| Poland | | | | | |
| Rock salt | 591 240 | 618 111 | 988 545 | 1 221 700 | 1 233 800 |
| Brine salt | 2 930 726 | 2 783 198 | 2 533 413 | 2 646 000 | 2 633 000 |
| Other salt | 785 694 | 706 618 | 763 385 | 763 515 | 547 700 |
| Portugal | | | | | |
| Rock salt | 590 588 | 606 545 | 594 578 | 618 961 | 631 295 |
| Sea salt | 64 048 | 69 249 | 72 325 | 44 574 | 48 048 |
| Romania | 2 475 349 | 2 526 774 | 2 072 744 | 2 388 357 | 2 248 940 |
| Russia | 2 200 000 | 1 800 000 | 1 600 000 | * 2 000 000 | * 2 000 000 |
| Serbia | 30 023 | 30 115 | 28 782 | 30 816 | 23 334 |
| Slovakia | 117 000 | 109 510 | 41 000 | — | — |
| Slovenia | 3 029 | 535 | 2 924 | 59 | 4 291 |
| Spain | | | | | |
| Rock salt | 2 709 545 | 2 909 907 | 2 763 081 | 3 115 940 | * 3 200 000 |
| Sea salt | 1 332 360 | 1 290 672 | 1 338 789 | 1 242 718 | 1 171 435 |
| Other salt | 102 524 | 102 149 | 99 853 | 92 644 | 91 735 |
| Switzerland | 353 000 | 368 000 | 554 000 | 643 000 | 478 324 |

Production of salt

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------------|------------|------------|------------|-------------|-------------|
| Turkey | | | | | |
| Sea salt | * 500 000 | * 500 000 | * 500 000 | * 500 000 | * 500 000 |
| Other salt | 2 366 000 | 2 472 000 | 3 765 564 | * 4 100 000 | * 4 100 000 |
| Ukraine | 5 547 852 | 4 425 317 | 5 394 512 | 4 908 186 | 5 938 000 |
| United Kingdom | 5 600 000 | 5 565 000 | 6 166 000 | 6 666 000 | * 6 700 000 |
| Algeria | | | | | |
| Brine salt & sea salt | 183 189 | 201 603 | 269 255 | 187 160 | * 190 000 |
| Angola | * 35 000 | * 35 000 | * 35 000 | * 35 000 | * 35 000 |
| Botswana | 165 710 | 170 994 | 241 114 | 364 761 | 446 525 |
| Burkina Faso | * 5 000 | * 5 000 | * 5 000 | * 5 000 | * 5 000 |
| Cape Verde | * 1 600 | — | — | — | — |
| Djibouti | — | — | — | 30 000 | 30 000 |
| Egypt (j) | 1 213 643 | 1 879 351 | 2 951 636 | 2 665 850 | 2 460 462 |
| Eritrea | 7 448 | 26 071 | * 26 000 | * 26 000 | * 26 000 |
| Ethiopia (d)(i) | | | | | |
| Rock salt | ... | 31 971 | 70 541 | * 70 000 | * 70 000 |
| Other salt | 12 899 | 30 414 | 41 847 | * 40 000 | * 40 000 |
| Ghana | * 250 000 | 238 727 | * 250 000 | * 250 000 | * 250 000 |
| Guinea | * 15 000 | * 15 000 | * 15 000 | * 15 000 | * 15 000 |
| Kenya (i) | 11 596 | 24 345 | 24 125 | * 24 000 | * 24 000 |
| Libya | * 40 000 | * 40 000 | * 40 000 | * 40 000 | * 40 000 |
| Madagascar | 70 000 | * 70 000 | * 70 000 | * 70 000 | * 70 000 |
| Mali | * 6 000 | * 6 000 | * 6 000 | * 6 000 | * 6 000 |
| Mauritania | 420 | 570 | 455 | 391 | 690 |
| Mauritius (c) | 6 650 | 5 042 | 2 301 | 3 000 | 4 000 |
| Morocco | 215 754 | 219 187 | 310 376 | 503 351 | 720 814 |
| Mozambique (c) | * 110 000 | * 110 000 | * 110 000 | * 110 000 | * 110 000 |
| Namibia | 810 942 | 732 000 | 807 348 | 783 036 | * 780 000 |
| Niger | * 1 300 | * 1 300 | * 1 300 | * 1 300 | * 1 300 |
| Senegal | 212 300 | 240 600 | 222 500 | 231 400 | 258 200 |
| Somalia | * 1 000 | * 1 000 | * 1 000 | * 1 000 | * 1 000 |
| South Africa | 407 079 | 415 996 | 408 422 | 394 493 | 381 177 |
| Sudan | 22 922 | 10 581 | 35 793 | 141 840 | ... |
| Tanzania | 35 224 | 25 897 | 27 393 | 34 455 | 36 352 |
| Tunisia (c) | 933 000 | 1 063 500 | 1 260 100 | 1 804 000 | 1 180 500 |
| Bahamas | 578 000 | 10 244 | 10 430 | 11 833 | 8 430 |
| Bonaire | — | — | — | — | * 300 000 |
| Canada | | | | | |
| Rock salt | 10 679 498 | 13 323 350 | 13 644 520 | 9 536 288 | 11 629 830 |
| Other salt (e) | 1 182 968 | 1 086 787 | 1 006 375 | 1 001 200 | 994 718 |
| Costa Rica | * 20 000 | * — | * — | * — | * — |
| Cuba | 141 300 | 157 300 | 265 700 | 271 800 | 280 800 |
| Dominican Republic | | | | | |
| Sea salt | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| El Salvador (c) | * 90 000 | 88 650 | 87 300 | 114 100 | 98 200 |
| Guatemala (c) | * 60 000 | * 60 000 | * 50 000 | * 50 000 | * 50 000 |
| Honduras | * 40 000 | * 40 000 | * 40 000 | * 40 000 | * 40 000 |
| Mexico | 8 032 273 | 8 808 714 | 7 445 025 | 8 634 098 | 9 361 454 |
| Netherlands Antilles | 403 961 | 343 457 | 303 565 | 337 321 | — |
| Nicaragua (c) | * 30 000 | * 30 000 | * 30 000 | * 30 000 | * 30 000 |
| Panama (c) | 20 315 | 21 053 | 19 548 | 27 587 | 16 577 |
| USA | | | | | |
| Rock salt (f) | 16 800 000 | 19 800 000 | 20 700 000 | 19 052 000 | 19 360 000 |
| Salt in brine (f) | 19 700 000 | 18 900 000 | 17 480 000 | 16 454 000 | 16 720 000 |
| Evaporated salt (f) | 7 990 000 | 8 580 000 | 8 280 000 | 7 794 000 | 7 920 000 |
| Argentina | 2 357 674 | 1 681 313 | 1 477 532 | 1 526 659 | * 1 500 000 |
| Brazil | | | | | |
| Rock salt | 1 621 000 | 1 528 000 | 1 443 000 | 1 415 373 | * 1 400 000 |
| Sea salt | 5 365 091 | 5 200 000 | 4 462 000 | 5 614 959 | * 5 600 000 |
| Chile | 4 403 743 | 6 431 029 | 8 382 215 | 7 694 879 | 9 966 038 |
| Colombia | | | | | |
| Rock salt | 266 941 | 245 170 | 255 332 | 288 676 | 305 706 |
| Sea salt | 309 557 | 386 461 | 356 797 | 139 810 | 116 265 |

Production of salt

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------------------|-------------|-------------|-------------|-------------|-------------|
| Ecuador | * 75 000 | * 75 000 | * 75 000 | * 75 000 | * 75 000 |
| Peru | 1 185 273 | 1 276 274 | 1 567 279 | 1 228 900 | 1 468 266 |
| Venezuela (c) | * 350 000 | * 350 000 | * 350 000 | * 350 000 | * 350 000 |
| Afghanistan | ... | 145 532 | 163 641 | 168 827 | * 169 000 |
| Bangladesh (j) | * 1 100 000 | 1 349 000 | 1 368 323 | 1 388 557 | 1 409 239 |
| Burma (h) | (b) 61 475 | (k) 242 088 | (k) 408 767 | (k) 125 218 | (k) 162 319 |
| Cambodia (a) | 76 651 | * 78 000 | * 30 000 | * 170 000 | * 95 000 |
| China | 61 669 700 | 66 644 300 | 66 627 900 | 70 377 600 | 64 294 000 |
| India | | | | | |
| Rock salt (h) | 1 200 | 2 100 | 2 300 | 1 200 | — |
| Sea salt (h) | 12 328 000 | 13 970 500 | 17 478 600 | 14 202 300 | 18 188 300 |
| Other salt (h) | 5 516 000 | 5 178 600 | 6 470 400 | 4 406 600 | 3 990 800 |
| Indonesia | * 700 000 | * 700 000 | * 720 000 | * 720 000 | * 720 000 |
| Iran (g) | 2 534 871 | 2 158 280 | 2 816 235 | 3 291 063 | * 3 300 000 |
| Iraq | 153 140 | 108 870 | 113 130 | 102 000 | 136 007 |
| Israel (c) | 399 904 | 420 809 | 356 889 | 420 749 | 399 649 |
| Japan (h) | 1 138 000 | 1 132 000 | 1 095 000 | 1 122 000 | 978 000 |
| Jordan | 17 000 | 25 400 | 2 500 | 32 542 | — |
| Kazakhstan | 227 643 | 504 100 | 222 942 | 276 131 | 364 222 |
| Korea (Rep. of) | 249 515 | 384 304 | 382 270 | 222 509 | 372 230 |
| Korea, Dem. P.R. of | * 500 000 | * 500 000 | * 500 000 | * 500 000 | * 500 000 |
| Kuwait | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| Laos | 24 900 | 25 100 | 27 700 | 32 240 | 35 100 |
| Lebanon | * 15 000 | * 15 000 | * 15 000 | * 15 000 | * 15 000 |
| Mongolia | 4 | 115 | 5 | — | — |
| Oman | 10 400 | 10 400 | 30 600 | 12 300 | 12 400 |
| Pakistan | | | | | |
| Rock salt (j) | 1 872 664 | 1 849 199 | 1 917 486 | 1 943 527 | 1 953 711 |
| Sea salt (j) | 10 616 | 240 269 | 31 293 | 174 786 | 186 697 |
| Philippines (c) | 437 689 | 510 059 | 516 066 | 557 644 | 720 146 |
| Saudi Arabia | | | | | |
| Rock salt & brine salt | 1 507 000 | 1 600 000 | 1 600 000 | 1 800 000 | * 1 800 000 |
| Sri Lanka | 70 208 | 65 972 | 102 500 | 104 000 | 87 256 |
| Syria | 81 000 | 88 600 | 78 263 | * 80 000 | * 80 000 |
| Taiwan | 107 720 | 118 046 | 171 583 | 262 594 | 104 854 |
| Tajikistan | 47 462 | 47 446 | 49 772 | 50 365 | 26 994 |
| Thailand | | | | | |
| Rock salt | 1 134 931 | 1 211 581 | 1 376 037 | 1 405 406 | 1 545 900 |
| Other salt | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| Turkmenistan | * 215 000 | * 215 000 | * 215 000 | * 215 000 | * 215 000 |
| Uzbekistan | * 60 000 | * 60 000 | * 60 000 | * 60 000 | * 60 000 |
| Vietnam | 856 900 | 717 500 | 679 000 | 975 300 | 928 900 |
| Yemen, Republic of | 61 000 | 69 000 | * 80 000 | * 80 000 | * 80 000 |
| Australia (l) | 10 801 000 | 11 160 000 | 10 316 000 | 12 054 000 | 11 403 000 |
| New Zealand | 102 000 | 67 000 | 67 000 | 60 000 | 70 000 |
| World Total | 255 000 000 | 270 400 000 | 279 000 000 | 277 700 000 | 281 800 000 |

Notes

- (1) This table does not include production of refined salt
(2) Salt is known to be produced in many countries for which statistics are not available

- (a) Seasons beginning in November and ending in May of the year stated
(b) Brine salt
(c) Sea salt
(d) Years ended 7 July of that stated
(e) Including salt in brine
(f) Sold or used by producers
(g) Years ended 20 March following that stated
(h) Years ended 31 March following that stated
(i) Lake salt
(j) Years ended 30 June of that stated
(k) Salt; all forms
(l) Excluding Victoria and the Northern Territory

Production of selenium metal

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-------------|-------|-------|-------|-------|-------|
| Belgium | * 200 | * 200 | * 200 | * 200 | * 200 |
| Finland | 52 | 65 | 59 | 73 | 86 |
| Germany | * 250 | * 250 | * 230 | * 250 | * 250 |
| Poland | 85 | 82 | 80 | 79 | 85 |
| Russia | * 130 | * 170 | * 160 | * 170 | * 265 |
| Sweden | 126 | 139 | 129 | 72 | * 70 |
| Canada | 144 | 191 | 173 | 97 | 35 |
| Mexico | — | — | — | 62 | 95 |
| Peru | 59 | 60 | 61 | 59 | 54 |
| China | * 65 | * 65 | * 65 | * 65 | * 65 |
| Japan | 806 | 754 | 709 | 754 | 630 |
| Kazakhstan | 155 | * 130 | * 120 | * 130 | * 130 |
| Philippines | * 65 | * 65 | * 65 | * 65 | * 65 |
| Uzbekistan | * 20 | * 20 | * 20 | * 20 | * 20 |

Note

(1) In addition to the countries listed, Australia, Chile, the Republic of Korea and Zimbabwe are believed to produce selenium metal

Production of sillimanite minerals

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------|----------|----------|-----------|-----------|-----------|
| France | | | | | |
| Andalusite | * 65 000 | * 65 000 | * 65 000 | * 65 000 | * 65 000 |
| South Africa | | | | | |
| Andalusite | 264 645 | 216 667 | * 245 000 | * 245 000 | * 295 000 |
| USA | | | | | |
| Kyanite (b) | 118 000 | 97 200 | 71 000 | 93 000 | 95 000 |
| Brazil | | | | | |
| Kyanite (d) | * 200 | * 200 | * 200 | * 200 | * 200 |
| India | | | | | |
| Kyanite (c) | 5 102 | 4 620 | 5 495 | 5 569 | 4 064 |
| Sillimanite (c) | 40 537 | 33 702 | 33 687 | 47 671 | 58 579 |
| Nepal | | | | | |
| Kyanite (a) | 18 | 15 | 10 | * 10 | * 10 |

Notes

(1) A number of other countries produce sillimanite minerals but details of output are not reported

(2) In addition to the countries listed above as producing sillimanite minerals, synthetic mullite is believed to be produced in Brazil, Germany and Hungary

(3) Production capacity for synthetic mullite also exists in China, India, Japan, USA and United Kingdom but output is believed to be zero

(a) Years ending 15 July of that stated

(b) Including related minerals

(c) Years ended 31 March following that stated

(d) Including beneficiated and directly shipped material

Mine production of silver

kilograms (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|-------------|-------------|-------------|-----------|-----------|
| Armenia | 6 900 | 9 200 | 9 000 | 16 400 | 16 100 |
| Azerbaijan | — | — | — | 1 400 | 3 805 |
| Bulgaria | * 55 000 | * 55 000 | * 55 000 | * 55 000 | * 55 000 |
| Finland | 44 895 | 69 906 | 70 062 | 64 596 | 73 081 |
| Greece | 38 300 | 33 500 | 27 500 | 29 000 | * 29 000 |
| Greenland | — | — | — | — | 9 |
| Ireland, Republic of | 9 650 | 7 172 | 5 267 | 3 818 | 6 109 |
| Macedonia | * 30 000 | * 40 000 | * 35 000 | * 32 000 | * 30 000 |
| Poland | 1 199 500 | 1 161 000 | 1 206 000 | 1 183 000 | 1 167 000 |
| Portugal | 26 514 | 26 273 | 20 483 | 20 561 | 25 545 |
| Romania | * 18 000 | * 18 000 | * 18 000 | * 18 000 | * 18 000 |
| Russia (a) | 911 300 | 1 132 200 | 1 312 600 | 1 144 600 | 1 134 000 |
| Serbia (a) | 2 300 | 2 300 | 4 424 | 4 384 | 7 380 |
| Slovakia | 50 | 198 | 201 | 320 | 330 |
| Spain | — | — | 2 200 | 20 800 | 29 900 |
| Sweden | 323 171 | 293 068 | 288 590 | 302 145 | 301 959 |
| Turkey | * 315 000 | * 294 000 | 351 600 | 348 000 | 292 400 |
| United Kingdom | 212 | 398 | 514 | 506 | 531 |
| Algeria | 500 | 114 | 200 | 147 | 100 |
| Congo, Democratic Republic | 76 200 | 34 100 | — | 5 875 | 9 187 |
| Ethiopia (b) | 700 | 2 714 | 771 | * 2 400 | * 2 400 |
| Ghana | 3 300 | 3 200 | 3 928 | * 3 900 | * 3 900 |
| Morocco | 177 712 | 201 195 | 210 000 | 243 000 | 186 000 |
| Namibia | (a) 7 902 | (a) 1 215 | (a) 700 | — | 1 841 |
| Niger | 139 | 289 | 256 | 326 | * 300 |
| South Africa | 70 089 | 75 199 | 77 780 | 79 315 | 73 180 |
| Sudan | 2 405 | — | 413 | 631 | * 3 500 |
| Tanzania | 12 381 | 10 388 | 8 231 | 12 040 | 13 524 |
| Zimbabwe | * 1 100 | 500 | — | — | — |
| Canada | 860 449 | 755 103 | 617 777 | 591 482 | 572 333 |
| Costa Rica | 331 | — | — | — | * — |
| Dominican Republic | — | — | 23 120 | 22 816 | 18 554 |
| Guatemala | 88 247 | 99 131 | 127 836 | 190 973 | 272 771 |
| Honduras | 53 894 | 58 936 | 57 698 | 58 158 | 48 365 |
| Mexico | 3 135 430 | 3 236 312 | 3 553 841 | 4 410 749 | 4 777 710 |
| Nicaragua | 3 420 | 3 720 | 4 491 | 6 995 | 7 928 |
| USA | 1 281 000 | 1 250 000 | 1 245 000 | 1 270 000 | 1 120 000 |
| Argentina | 255 567 | 355 596 | 415 235 | 693 600 | 702 000 |
| Bolivia | 525 000 | 1 114 000 | 1 325 730 | 1 259 000 | 1 215 586 |
| Brazil | 18 620 | 17 412 | 14 590 | 14 630 | 14 600 |
| Chile | 1 936 465 | 1 405 020 | 1 301 018 | 1 286 688 | 1 291 272 |
| Colombia | 9 766 | 9 162 | 10 827 | 15 300 | 24 045 |
| Ecuador | 0 | 0 | 0 | 1 | 2 |
| Peru | 3 493 090 | 3 685 931 | 3 922 708 | 3 640 444 | 3 414 010 |
| Burma (a)(c) | * 200 | — | — | — | — |
| China | * 2 700 000 | * 2 800 000 | * 2 900 000 | 3 085 441 | 3 231 626 |
| India (c) | 80 697 | 105 284 | 138 780 | 148 288 | 162 000 |
| Indonesia | 268 967 | 226 051 | 359 451 | 335 040 | 199 578 |
| Iran | * 40 000 | * 40 000 | * 40 000 | * 40 000 | * 40 000 |
| Kazakhstan (a) | 722 927 | 645 627 | 613 544 | 548 990 | 646 685 |
| Korea (Rep. of) | 1 400 | 1 500 | 1 700 | 2 025 | 2 649 |
| Korea, Dem. P.R. of | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| Laos | 4 499 | 6 706 | 14 726 | 17 234 | 17 976 |
| Malaysia | 296 | 349 | 367 | 436 | 459 |
| Mongolia | 20 455 | 19 954 | 20 397 | 19 641 | 19 107 |
| Oman | 3 863 | 2 140 | 2 162 | 1 290 | * 1 300 |
| Philippines | 27 754 | 14 224 | 33 808 | 41 004 | 45 530 |
| Saudi Arabia | 9 028 | 8 233 | 8 527 | 7 600 | 7 500 |
| Thailand | 7 727 | 5 465 | 15 300 | 15 300 | 16 423 |
| Uzbekistan | 77 800 | 74 600 | 52 900 | 59 100 | * 60 000 |

Mine production of silver

kilograms (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Australia | 1 880 000 | 1 926 000 | 1 631 000 | 1 880 000 | 1 725 000 |
| Fiji | — | 265 | 313 | 328 | 418 |
| New Zealand | 8 553 | 18 269 | 14 264 | 17 136 | 14 324 |
| Papua New Guinea | 48 677 | 48 062 | 55 082 | 83 957 | 90 055 |
| Solomon Islands | — | — | — | — | 592 |
| World Total | 20 947 000 | 21 454 000 | 22 281 000 | 23 406 000 | 23 294 000 |

Notes

- (a) Smelter and/or refinery production
- (b) Years ended 7 July of that stated
- (c) Years ended 31 March following that stated

Production of natural sodium carbonate

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------|------------|------------|-----------|------------|------------|
| Botswana | 279 625 | 263 566 | 215 188 | 240 898 | 257 851 |
| Ethiopia (a) | * 3 000 | 3 707 | 4 046 | * 4 000 | * 4 000 |
| Kenya | 386 578 | 502 846 | 404 904 | 473 689 | 499 100 |
| USA | 11 000 000 | 11 300 000 | 9 310 000 | 10 600 000 | 10 700 000 |

Note

- (a) Years ended 7 July of that stated

Production of strontium minerals

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Spain | 142 512 | 138 590 | 57 466 | 83 035 | 97 102 |
| Turkey | * 4 200 | * 1 600 | — | — | — |
| Morocco | * 2 700 | * 2 700 | * 2 600 | * 2 500 | * 2 500 |
| Mexico | 96 902 | 29 621 | 36 127 | 31 429 | 40 669 |
| Argentina (a) | 4 904 | 14 910 | 8 169 | 8 512 | * 8 000 |
| China | * 700 000 | * 700 000 | * 700 000 | * 700 000 | * 700 000 |
| Iran | — | — | 15 396 | * 15 500 | * 15 000 |
| Pakistan (b) | 1 530 | 1 310 | 470 | 160 | — |

Notes

- (1) In addition to the countries listed, Germany and Poland are believed to produce strontium minerals

- (a) May contain unbeneficiated material
- (b) Years ended 30 June of that stated

Production of sulphur and pyrites

tonnes (sulphur content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-------------------------------------|-----------|-----------|-----------|-----------|-------------|
| Austria | | | | | |
| Recovered (d) | 50 501 | 48 024 | 48 624 | 40 512 | 48 612 |
| Belarus | | | | | |
| Recovered (d) | 41 031 | 44 016 | 47 188 | 41 606 | 45 625 |
| Denmark | | | | | |
| Recovered (d) | 3 896 | 3 467 | 4 200 | 3 246 | 3 045 |
| Finland | | | | | |
| Pyrites | 194 400 | 226 000 | 153 600 | 250 000 | 338 000 |
| Recovered (c) | * 326 000 | 331 000 | 273 600 | 270 000 | 320 000 |
| Recovered (d) | 125 000 | 117 000 | 127 000 | 122 000 | 133 300 |
| Germany | | | | | |
| Recovered (d) | 1 650 100 | 1 578 000 | 1 504 000 | 1 455 000 | 1 465 000 |
| Recovered (e) | 35 900 | 39 000 | 565 000 | 513 000 | 542 210 |
| Lithuania | | | | | |
| Recovered (d) | 42 618 | 73 870 | 69 722 | 73 470 | 76 699 |
| Norway | | | | | |
| Recovered (c) | * 95 000 | * 95 000 | * 90 000 | * 96 000 | * 96 000 |
| Recovered (d) | 18 000 | 28 000 | 25 000 | 22 000 | 19 000 |
| Poland | | | | | |
| Frasch | 833 583 | 762 119 | 262 769 | 517 000 | 657 000 |
| Recovered (c) | 304 000 | 294 000 | 257 000 | 253 000 | 310 500 |
| Recovered (d) | 211 900 | 222 800 | 214 382 | 250 000 | * 171 000 |
| Russia | | | | | |
| Pyrites | 210 000 | 161 000 | 71 000 | * 71 000 | * 71 000 |
| Recovered (d) | 6 372 000 | 6 513 000 | 5 514 000 | 6 406 000 | 6 557 000 |
| Recovered (e) | 790 000 | 752 000 | 703 000 | 898 700 | 915 000 |
| Sulphur ore | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| Spain | | | | | |
| Recovered (c) | 543 000 | 551 000 | 533 000 | 547 000 | 490 000 |
| Recovered (d) | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| Sweden | | | | | |
| Recovered (c) | 177 000 | 199 600 | 186 100 | 179 833 | 202 289 |
| Recovered (d) | 66 569 | 84 456 | 83 646 | 83 947 | 92 973 |
| Other Europe (b) | 3 706 000 | 3 628 000 | 3 605 000 | 3 569 000 | 3 670 000 |
| South Africa | | | | | |
| Pyrites | 70 891 | 61 278 | 60 244 | 30 309 | — |
| Recovered (c) | 236 000 | 187 000 | 185 000 | 165 000 | * 170 000 |
| Recovered (d) | 335 000 | 323 000 | 291 000 | 262 000 | * 260 000 |
| Zimbabwe | | | | | |
| Pyrites | 19 812 | 30 308 | — | — | — |
| Other Africa (b) | 348 000 | 381 000 | 436 000 | 475 000 | 358 000 |
| Canada | | | | | |
| Recovered (c) | 1 167 118 | 1 147 732 | 890 899 | 979 232 | 609 000 |
| Recovered (d) | 7 621 863 | 7 007 706 | 6 570 503 | 6 492 699 | 5 914 000 |
| Mexico | | | | | |
| Recovered (c) | 556 000 | 441 000 | 412 000 | 425 000 | 523 000 |
| Recovered (d) | 1 027 000 | 1 040 546 | 1 114 028 | 991 802 | 959 463 |
| USA | | | | | |
| Recovered (c) | 817 000 | 753 000 | 749 000 | 791 000 | * 710 000 |
| Recovered (d) | 8 280 000 | 8 550 000 | 8 190 000 | 8 280 000 | * 8 100 000 |
| Other North and Central America (b) | 86 000 | 156 000 | 79 000 | 39 000 | 87 000 |
| Brazil | | | | | |
| Pyrites | 22 336 | 18 200 | 25 110 | 24 803 | * 25 000 |
| Recovered (c) | 321 707 | 359 586 | 275 593 | 286 875 | * 310 000 |
| Recovered (d) | 135 623 | 135 354 | 143 599 | 143 147 | * 160 000 |
| Chile | | | | | |
| Recovered (c) | 1 533 000 | 1 541 000 | 1 601 000 | 1 601 000 | 1 650 000 |
| Colombia | | | | | |
| Recovered (d) | 5 085 | 6 277 | 7 311 | 7 013 | 6 375 |
| Sulphur ore | 48 999 | 56 892 | 54 367 | 59 556 | 58 073 |
| Other South America (b) | 1 211 000 | 1 205 000 | 1 047 000 | 868 000 | 947 000 |

Production of sulphur and pyrites

tonnes (sulphur content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|------------------|------------|------------|------------|------------|------------|
| Abu Dhabi | | | | | |
| Recovered (d) | 2 183 000 | 1 900 000 | 1 760 000 | 1 800 000 | 1 875 000 |
| Bahrain | | | | | |
| Recovered (d) | 71 771 | 80 000 | 108 439 | 138 477 | 125 648 |
| China | | | | | |
| Pyrites | 6 082 000 | 6 022 000 | 4 946 000 | 6 342 900 | 6 964 300 |
| Recovered | 4 485 000 | 5 268 000 | 5 843 000 | 6 403 900 | 7 026 100 |
| Sulphur ore | 1 200 000 | 1 537 000 | 1 700 000 | 3 200 000 | 4 000 000 |
| India | | | | | |
| Recovered (c) | 955 000 | 1 103 000 | 1 078 000 | 1 143 800 | 1 209 100 |
| Recovered (d)(e) | 951 000 | 1 101 000 | 1 451 000 | 1 600 000 | 1 600 000 |
| Iran | | | | | |
| Recovered (d) | 1 456 000 | 1 629 000 | 1 429 000 | 1 500 000 | 1 575 000 |
| Japan | | | | | |
| Recovered (c)(f) | 1 747 000 | 1 797 000 | 1 675 000 | 1 818 600 | 1 626 500 |
| Recovered (d) | 1 967 000 | 2 034 000 | 1 863 596 | 1 891 875 | 1 755 329 |
| Jordan | | | | | |
| Recovered (d) | 334 000 | * 310 000 | * 310 000 | * 310 000 | * 310 000 |
| Kazakhstan | | | | | |
| Recovered (c) | * 235 000 | 392 000 | 490 000 | 522 900 | 549 000 |
| Recovered (d) | 1 660 700 | 1 732 600 | 2 250 000 | 2 350 000 | 2 450 000 |
| Korea (Rep. of) | | | | | |
| Recovered (c) | 912 000 | 990 000 | 899 000 | 1 029 400 | 1 078 400 |
| Recovered (d) | * 670 000 | * 660 000 | * 660 000 | * 660 000 | * 660 000 |
| Oman | | | | | |
| Recovered (d) | * 30 000 | * 30 000 | * 30 000 | * 30 000 | * 30 000 |
| Pakistan | | | | | |
| Recovered (a) | 27 710 | 29 485 | 25 784 | 26 641 | 27 645 |
| Qatar | | | | | |
| Recovered (d) | 503 000 | 526 666 | 657 954 | 1 124 210 | 1 655 937 |
| Saudi Arabia | | | | | |
| Recovered (d) | 3 100 000 | 3 100 000 | 3 214 000 | 3 200 000 | 3 250 000 |
| Syria | | | | | |
| Recovered (d) | 40 650 | 40 491 | 40 000 | 50 000 | 60 000 |
| Taiwan | | | | | |
| Recovered | 249 156 | 211 869 | 252 392 | 231 700 | 219 975 |
| Other Asia (b) | 2 533 000 | 2 576 000 | 2 495 000 | 2 530 000 | 2 640 000 |
| Australasia (b) | 1 007 000 | 964 000 | 1 024 000 | 1 026 000 | 1 026 000 |
| World Total | | | | | |
| Pyrites | 6 700 000 | 6 600 000 | 5 400 000 | 6 800 000 | 7 500 000 |
| Frasch | 800 000 | 800 000 | 300 000 | 500 000 | 700 000 |
| Recovered | 63 200 000 | 64 200 000 | 63 300 000 | 65 900 000 | 66 600 000 |
| Sulphur ore | 1 400 000 | 1 800 000 | 1 900 000 | 3 400 000 | 4 200 000 |

Notes

- (1) Other Europe includes: Belgium, Bulgaria, Croatia, Czech Republic, France, Greece, Hungary, Italy, Netherlands, Portugal, Romania, Serbia, Slovakia, Turkey, Ukraine and the United Kingdom
- (2) Other Africa includes: Algeria, Egypt, Libya and Zambia
- (3) Other North and Central America includes: Aruba, Cuba, Curacao, Netherlands Antilles and Trinidad and Tobago
- (4) Other South America includes: Argentina, Ecuador, Peru and Venezuela
- (5) Other Asia includes: Indonesia, Iraq, Israel, Korea (Dem. P.R. of), Kuwait, Philippines, Singapore, Thailand and Uzbekistan
- (6) Australasia includes: Australia and New Zealand

- (a) Years ended 30 June of that stated
- (b) Sulphur; all forms
- (c) From metal sulphide processing
- (d) From petroleum refining and/or natural gas
- (e) Other
- (f) Including S content of sulphur ore

Production of talc

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|-------------|-------------|-------------|-------------|-------------|
| Austria | 153 409 | 154 577 | 111 388 | 138 367 | 132 018 |
| Finland | 535 882 | 527 686 | 375 302 | 419 345 | 429 494 |
| France | * 420 000 | * 420 000 | * 420 000 | * 420 000 | * 420 000 |
| Greece | 200 | * 200 | * 200 | * 200 | * 200 |
| Italy | 117 643 | * 110 000 | * 110 000 | * 110 000 | * 110 000 |
| Macedonia | 1 775 | 977 | 682 | 1 292 | 547 |
| Norway | * 34 000 | * 30 000 | 23 350 | 6 392 | 8 191 |
| Portugal | 12 367 | 11 657 | 11 567 | 11 981 | 15 462 |
| Romania | 1 513 | 1 843 | 570 | 296 | 131 |
| Russia | * 150 000 | * 150 000 | * 150 000 | * 150 000 | * 150 000 |
| Slovakia | — | — | — | 7 000 | 7 000 |
| Spain | 78 042 | 59 299 | 47 218 | 51 897 | 11 957 |
| Sweden | 7 000 | 4 000 | 4 000 | 4 000 | 3 000 |
| United Kingdom | 2 850 | 2 410 | 2 861 | 2 633 | 3 709 |
| Egypt (d) | 66 854 | 68 806 | 72 090 | 35 474 | 12 934 |
| Morocco | | | | | |
| Talc | 944 | 220 | — | — | 516 |
| Pyrophyllite | 26 072 | 25 782 | 33 442 | 27 066 | 4 613 |
| South Africa | | | | | |
| Talc | 14 281 | 5 145 | 4 718 | 3 150 | 4 453 |
| Pyrophyllite | 123 666 | 80 704 | 114 666 | 122 511 | 121 368 |
| Sudan | 2 620 | 4 667 | 1 167 | — | * — |
| Canada | 67 000 | 64 000 | 44 000 | 100 000 | 147 000 |
| Guatemala | 6 456 | 1 030 | 6 355 | 2 175 | 3 273 |
| Mexico | 32 410 | 16 405 | 33 421 | 870 | 51 221 |
| USA | 769 000 | 706 000 | 511 000 | 604 000 | 615 000 |
| Argentina (b) | 24 836 | 22 218 | 22 762 | 24 820 | * 25 000 |
| Brazil (b) | 485 641 | 513 433 | 577 935 | 655 000 | * 650 000 |
| Chile | 764 | 961 | 790 | 238 | — |
| Peru | 23 096 | 18 003 | 13 359 | 19 767 | 28 296 |
| Uruguay | 848 | 890 | 1 070 | 830 | 54 880 |
| Bhutan | 62 015 | 56 077 | 64 948 | 26 302 | 8 562 |
| China | * 2 000 000 | * 2 200 000 | * 2 300 000 | * 2 000 000 | * 2 200 000 |
| India | | | | | |
| Pyrophyllite (e) | 203 707 | 255 699 | 240 747 | 234 487 | 387 068 |
| Steatite (e) | 922 505 | 888 470 | 876 548 | 895 817 | 938 983 |
| Iran (a) | 90 889 | 89 110 | 66 383 | 95 767 | * 95 000 |
| Japan | | | | | |
| Talc | * 26 000 | * 26 000 | * 25 000 | * 24 000 | * 24 000 |
| Pyrophyllite | * 345 000 | * 350 000 | * 340 000 | * 340 000 | * 350 000 |
| Korea (Rep. of) | | | | | |
| Talc | 9 557 | 6 438 | 5 997 | 5 729 | 15 068 |
| Pyrophyllite | 798 054 | 892 625 | 617 411 | 673 936 | 510 708 |
| Korea, Dem. P.R. of | * 50 000 | * 50 000 | * 50 000 | * 50 000 | * 50 000 |
| Nepal (c) | 9 043 | 7 996 | 6 601 | * 9 000 | * 9 000 |
| Pakistan (d) | 44 886 | 37 999 | 13 923 | 53 991 | 47 561 |
| Taiwan | — | — | — | 360 | 659 |
| Thailand | | | | | |
| Talc | 3 508 | 3 264 | 504 | 672 | 2 304 |
| Pyrophyllite | 415 420 | 106 600 | 124 384 | 2 205 | 5 300 |
| Vietnam | | | | | |
| Pyrophyllite | * 16 000 | * 16 000 | * 16 000 | * 16 000 | * 16 000 |
| Australia (d) | * 121 000 | * 130 000 | * 92 000 | * 80 000 | * 99 000 |
| World Total | 8 300 000 | 8 100 000 | 7 500 000 | 7 400 000 | 7 800 000 |

Notes

- (a) Years ended 20 March following that stated
- (b) Including talc, agalmatolite and pyrophyllite
- (c) Years ended 15 July of that stated
- (d) Years ended 30 June of that stated
- (e) Years ended 31 March following that stated

Production of tantalum and niobium minerals

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Burundi | | | | | |
| Columbite-tantalite | 52 | 121 | 24 | * 20 | * 20 |
| Congo, Democratic Republic | | | | | |
| Columbite-tantalite | 267 | 509 | 490 | 279 | 260 |
| Ethiopia | | | | | |
| Tantalite (a) | 117 | 183 | 206 | 202 | 187 |
| Madagascar | | | | | |
| Columbite | — | — | — | 21 | 8 |
| Mozambique | | | | | |
| Tantalite | 196 | 396 | 405 | * 430 | * 450 |
| Nigeria | | | | | |
| Tantalite | ... | ... | 83 | ... | ... |
| Columbite | 180 | 335 | * 300 | 128 | * 128 |
| Rwanda | | | | | |
| Columbite-tantalite | 547 | 922 | 952 | 560 | 829 |
| Canada | | | | | |
| Pyrochlore | * 10 000 | * 10 200 | * 9 500 | * 10 100 | * 10 800 |
| Tantalite | 167 | 161 | 266 | * 250 | — |
| Brazil | | | | | |
| Pyrochlore | * 215 000 | * 241 000 | * 276 000 | * 276 000 | * 280 000 |
| Columbite-tantalite | * 420 | * 440 | * 250 | * 310 | * 300 |
| China | | | | | |
| Columbite-tantalite | * 350 | * 350 | * 350 | * 350 | * 350 |
| Malaysia | | | | | |
| Struverite | 52 | 216 | 176 | 84 | 110 |
| Australia | | | | | |
| Tantalite | * 890 | * 940 | * 140 | — | * 240 |
| World Total concentrates | 228 000 | 256 000 | 289 000 | 289 000 | 294 000 |
| Nb content | * 95 000 | * 106 000 | * 120 500 | * 120 600 | * 120 900 |
| Ta content | * 1 000 | * 1 300 | * 900 | * 700 | * 700 |

Notes

- (1) Niobium and tantalum minerals are believed to be produced in Namibia, Russia and South Africa
- (2) The figures in this table refer to gross tonnage of tantalum and niobium concentrates
- (3) Tantalum is also recovered from tin slags and is believed to have accounted for approximately 20% of raw material

(a) Years ended 7 July of that stated

Production of tellurium metal

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------|------|------|------|------|------|
| Canada | 14 | 20 | 16 | 8 | 6 |
| USA | 50 | 50 | 50 | 50 | 50 |
| Peru | 35 | 28 | 7 | — | — |
| Japan | 41 | * 47 | * 49 | * 47 | * 40 |

Mine production of tin

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|-----------|----------|-----------|----------|----------|
| Portugal | 41 | 29 | 34 | 22 | 39 |
| Russia (a) | 2 500 | 1 500 | 1 200 | 1 000 | 600 |
| Burundi | 51 | 96 | 20 | 29 | 52 |
| Congo, Democratic Republic | 9 551 | 12 817 | 10 083 | 8 720 | 3 549 |
| Niger | 11 | * 10 | 6 | 6 | — |
| Nigeria | 2 500 | 1 800 | 1 800 | 1 300 | 1 800 |
| Rwanda | 2 685 | 2 135 | 3 154 | 3 970 | 4 508 |
| Uganda | 24 | 40 | — | 24 | 0 |
| Bolivia | 15 972 | 17 320 | 19 575 | 20 190 | 20 373 |
| Brazil | 12 596 | 13 899 | 9 500 | 9 600 | 9 546 |
| Peru (b) | 39 019 | 39 037 | 37 503 | 33 848 | 28 882 |
| Burma | * 500 | * 500 | * 600 | * 400 | * 500 |
| China | 145 900 | 121 200 | * 128 000 | 129 600 | 127 400 |
| Indonesia | * 102 000 | * 96 000 | * 84 000 | * 84 000 | * 78 000 |
| Laos | 721 | 358 | 389 | 723 | 434 |
| Malaysia | 2 263 | 2 605 | 2 410 | 2 668 | 3 346 |
| Mongolia | 14 | 45 | 8 | 7 | 42 |
| Thailand | 149 | 235 | 166 | 291 | 282 |
| Vietnam | * 5 400 | * 5 400 | * 5 400 | * 5 400 | * 5 400 |
| Australia | 2 071 | 1 783 | 13 269 | 18 646 | 15 400 |
| World Total | 344 000 | 317 000 | 317 000 | 320 000 | 300 000 |

Notes

(a) Metal

(b) Recoverable

Smelter production of tin

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-------------|---------|---------|---------|---------|----------|
| Belgium | 8 400 | 9 200 | 8 700 | 9 900 | 10 000 |
| Russia | 3 300 | 1 700 | 1 300 | 400 | 400 |
| Bolivia (a) | 12 251 | 12 666 | 14 715 | 15 000 | 14 500 |
| Brazil | 9 987 | 11 020 | 8 311 | 10 500 | 7 300 |
| Peru | 36 004 | 38 865 | 34 388 | 36 451 | 32 290 |
| China | 148 800 | 139 900 | 140 400 | 149 400 | 156 100 |
| Indonesia | 64 127 | 53 471 | 51 418 | 43 832 | * 43 000 |
| Japan | 879 | 956 | 757 | 841 | 947 |
| Malaysia | 25 563 | 31 691 | 35 443 | 38 771 | 40 281 |
| Thailand | 23 104 | 21 860 | 19 423 | 23 551 | 20 670 |
| Vietnam | 3 369 | 3 583 | 2 747 | 3 042 | 3 900 |
| Australia | 118 | — | — | — | — |
| World Total | 336 000 | 325 000 | 318 000 | 332 000 | 329 000 |

Notes

(1) Figures relate to both primary and secondary metal

(2) In addition to the countries listed, many countries produce small amounts of secondary metal

(a) Refined, including alloys

Production of titanium minerals

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Norway | | | | | |
| Ilmenite | 882 000 | 915 000 | 671 000 | 864 000 | 870 000 |
| Ukraine | | | | | |
| Ilmenite | * 600 000 | * 600 000 | * 600 000 | * 600 000 | * 600 000 |
| Rutile | * 100 000 | * 100 000 | * 100 000 | * 100 000 | * 100 000 |
| Egypt | | | | | |
| Ilmenite | 108 000 | 88 000 | 88 000 | 11 000 | * — |
| Gambia | | | | | |
| Ilmenite | 672 | — | 54 655 | 69 940 | * 70 000 |
| Madagascar | | | | | |
| Ilmenite | — | — | 160 000 | * 273 000 | * 511 000 |
| Rutile | — | — | 3 200 | * 5 000 | * 10 000 |
| Mozambique | | | | | |
| Ilmenite | 140 515 | 328 875 | 471 524 | 678 400 | 636 800 |
| Rutile | 8 782 | 6 552 | 1 800 | 4 700 | 6 500 |
| Sierra Leone | | | | | |
| Ilmenite | 15 750 | 17 260 | 15 200 | 18 206 | 14 576 |
| Rutile | 82 805 | 78 910 | 63 860 | 68 198 | 67 970 |
| South Africa | | | | | |
| Ilmenite (b) | * 1 402 500 | * 1 360 000 | * 1 445 000 | * 1 200 000 | * 1 369 000 |
| Rutile | 111 500 | 132 000 | 134 000 | 135 000 | 129 000 |
| Canada | | | | | |
| Ilmenite (a)(b) | * 2 500 000 | * 2 600 000 | * 2 000 000 | * 2 400 000 | * 2 500 000 |
| USA | * 300 000 | * 200 000 | * 200 000 | * 200 000 | * 300 000 |
| Brazil | | | | | |
| Ilmenite | 130 000 | 110 000 | 39 000 | 123 000 | * 120 000 |
| Rutile | 3 000 | 3 000 | 3 000 | 3 000 | * 3 000 |
| China | | | | | |
| Ilmenite | * 1 260 000 | * 1 080 000 | * 900 000 | * 1 000 000 | * 1 000 000 |
| India | | | | | |
| Ilmenite (d) | 675 967 | 676 003 | 767 355 | 663 217 | * 700 000 |
| Rutile (d) | 20 518 | 19 098 | 18 573 | 26 593 | * 27 000 |
| Kazakhstan | 15 700 | * 16 000 | * 17 000 | * 17 000 | * 17 000 |
| Korea (Rep. of) | | | | | |
| Ilmenite | 193 953 | 226 069 | 120 236 | — | — |
| Malaysia | | | | | |
| Ilmenite | 59 310 | 36 779 | 15 983 | 19 036 | 28 782 |
| Rutile | 1 450 | 1 834 | 1 502 | 7 567 | 10 810 |
| Sri Lanka | | | | | |
| Ilmenite | 70 728 | 56 824 | 122 424 | 52 637 | 62 955 |
| Rutile | 4 607 | 3 405 | 2 276 | 2 568 | 1 970 |
| Vietnam | | | | | |
| Ilmenite (c) | * 653 000 | * 710 000 | * 700 000 | * 881 000 | * 870 000 |
| Rutile | 574 | 681 | 631 | 592 | * 600 |
| Australia | | | | | |
| Ilmenite | 2 339 000 | 2 060 000 | 1 626 000 | 1 339 000 | 1 277 000 |
| Rutile | 312 000 | 318 000 | 302 000 | 438 000 | 474 000 |
| Leucoxene | 164 000 | 126 000 | 137 000 | 160 000 | 225 000 |
| World Total | | | | | |
| Ilmenite (wt of concs) | 11 300 000 | 11 100 000 | 10 000 000 | 10 400 000 | 10 900 000 |
| Rutile (wt of concs) | 600 000 | 700 000 | 600 000 | 800 000 | 800 000 |
| All forms (TiO ₂ content) | * 6 100 000 | * 5 900 000 | * 5 400 000 | * 5 700 000 | * 6 100 000 |

See notes on next page

Notes

- (1) The figures in this table refer to gross tonnage of titanium concentrates
 (2) Some ilmenite is converted to synthetic rutile in Australia, India, Japan, Taiwan and USA
 (3) In 2011 South Africa produced an estimated 800 000 tonnes of slag (85% TiO₂) and Canada produced an estimated 1 000 000 tonnes of slag (80-95% TiO₂)

- (a) Canada produces some ilmenite which is sold as such and not processed into slag, but tonnages are small
 (b) It is believed that the majority of this is processed into slag.
 (c) BGS estimates, based on known imports into certain countries
 (d) Years ended 31 March following that stated

Mine production of tungsten

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|---------------|---------------|---------------|---------------|---------------|
| Austria | 1 117 | 1 122 | 887 | 975 | 861 |
| Portugal (c) | 846 | 981 | 823 | 799 | 818 |
| Russia | * 4 700 | * 4 000 | * 5 500 | * 3 000 | * 4 200 |
| Spain | — | 194 | 284 | 303 | 425 |
| Burundi | 163 | 230 | 100 | * 100 | * 100 |
| Congo, Democratic Republic | 621 | 372 | 190 | 40 | 19 |
| Rwanda | 1 412 | 1 037 | 690 | 630 | 950 |
| Uganda | 86 | 48 | 7 | 44 | 8 |
| Canada | 2 700 | 2 795 | 2 501 | 364 | 2 368 |
| Bolivia | 1 107 | 1 148 | 1 023 | 1 203 | 1 418 |
| Brazil (a) | 537 | 408 | 192 | 166 | * 250 |
| Peru | 366 | 456 | 634 | 716 | 546 |
| Burma (b) | 183 | 136 | 87 | 163 | * 150 |
| China | * 41 000 | * 50 000 | * 51 000 | * 59 100 | * 60 000 |
| Kazakhstan | * 100 | ... | ... | ... | ... |
| Korea, Dem. P.R. of | * 230 | * 270 | * 100 | * 100 | * 100 |
| Kyrgyzstan | * 100 | * 100 | * 100 | * 100 | * 100 |
| Mongolia | 166 | 97 | 27 | 13 | 8 |
| Thailand (c) | 687 | 718 | 274 | 481 | 229 |
| Uzbekistan | * 300 | * 300 | * 300 | * 300 | * 300 |
| Australia (d)(e) | 30 | 11 | 17 | 11 | 40 |
| World Total | 56 500 | 64 400 | 64 700 | 68 600 | 72 900 |

Notes

- (a) Mainly scheelite
 (b) Including tungsten content of tin-wolframite concentrates
 (c) Wolframite and scheelite
 (d) Scheelite
 (e) Years ended 30 June of that stated

Mine production of uranium

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--|--------|--------|--------|--------|---------|
| Czech Republic | 322 | 290 | 286 | 259 | 252 |
| Germany | 41 | — | — | * 8 | 51 |
| Romania | * 77 | * 77 | * 75 | * 77 | * 77 |
| Russia | 3 413 | 3 521 | 3 564 | 3 562 | 2 993 |
| Ukraine | 846 | * 800 | 840 | 850 | 890 |
| Malawi | — | — | 90 | 671 | 998 |
| Namibia | 2 888 | 4 371 | 4 631 | 4 500 | 3 262 |
| Niger | 3 153 | 2 993 | 3 241 | 4 198 | 4 159 |
| South Africa | 525 | 654 | 629 | 583 | 656 |
| Canada | 9 475 | 9 001 | 10 176 | 9 518 | 8 923 |
| USA | 1 746 | 1 503 | 1 428 | 1 628 | 1 537 |
| Brazil | 299 | 330 | 345 | 148 | 265 |
| China | * 712 | * 769 | * 750 | * 827 | * 1 500 |
| India | * 270 | * 271 | * 290 | * 400 | * 400 |
| Kazakhstan | 6 637 | 8 521 | 13 900 | 17 803 | 19 451 |
| Pakistan | * 45 | * 45 | * 50 | * 45 | * 45 |
| Uzbekistan | 2 320 | 2 338 | 2 429 | 2 400 | 3 000 |
| Australia | 8 603 | 8 471 | 7 942 | 5 971 | 5 886 |
| World Total | 41 400 | 44 000 | 50 700 | 53 400 | 54 300 |
| World Total (U ₃ O ₈ equivalent) | 48 800 | 51 900 | 59 800 | 63 000 | 64 100 |

Note

(1) Excluding uranium production from decommissioning operations in France, Germany and Spain

Mine production of vanadium

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------|----------|----------|----------|----------|----------|
| Russia | * 23 000 | * 23 000 | * 22 000 | * 21 000 | * 21 000 |
| South Africa | 23 486 | 20 295 | 14 353 | 22 606 | 21 651 |
| China | * 18 000 | * 18 500 | * 20 800 | * 22 000 | * 23 000 |
| Kazakhstan | * 1 000 | * 1 000 | * 1 000 | * 1 000 | * 1 000 |
| World Total | 65 000 | 63 000 | 58 000 | 67 000 | 67 000 |

Note

(1) This table includes vanadium in slag products but excludes vanadium recovered as a by-product of the refining and burning of heavy oils

Production of vermiculite

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Russia | * 30 000 | * 30 000 | * 30 000 | * 30 000 | * 30 000 |
| Egypt | 5 770 | 7 560 | 4 650 | — | 2 865 |
| South Africa | 199 664 | 199 764 | 193 334 | 199 285 | 170 571 |
| Uganda | 3 269 | — | — | 1 121 | 7 960 |
| Zimbabwe | 17 395 | 16 123 | 3 211 | — | — |
| Mexico | 102 | 132 | 291 | 98 | 241 |
| USA (a) | * 100 000 | * 100 000 | * 110 000 | * 100 000 | * 100 000 |
| Argentina | 1 726 | 1 813 | 2 150 | 2 500 | * 2 500 |
| Brazil | 18 952 | 32 503 | 50 438 | 49 976 | * 50 000 |
| China | * 110 000 | * 120 000 | * 120 000 | * 120 000 | * 130 000 |
| India (b) | 8 910 | 12 647 | 11 662 | 22 038 | 10 536 |
| Japan | * 6 000 | * 6 000 | * 6 000 | * 6 000 | * 6 000 |
| Australia (c) | 8 900 | 8 319 | 6 548 | 7 922 | * 10 500 |

Notes

(1) In addition to the countries listed Malawi is believed to produce vermiculite

(a) Sold or used by producers

(b) Years ended 31 March following that stated

(c) Years ended 30 June of that stated

Production of wollastonite

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------|-----------|-----------|-----------|-----------|-----------|
| Finland | 16 364 | 15 600 | 9 200 | 12 100 | 11 500 |
| Spain | 10 918 | 10 100 | 7 000 | 6 000 | 7 417 |
| Namibia | * 55 | * 55 | — | — | — |
| Mexico | 50 809 | 46 844 | 29 728 | 46 548 | 47 523 |
| USA | * 125 000 | * 90 000 | * 65 000 | * 67 000 | * 70 000 |
| China | * 350 000 | * 325 000 | * 300 000 | * 300 000 | * 300 000 |
| India (a) | 118 666 | 111 581 | 132 385 | 182 600 | 180 774 |

Notes

(1) In addition to the countries listed, Turkey is believed to produce wollastonite

(a) Years ended 31 March following that stated

Mine production of zinc

tonnes (metal content)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|----------------------------|------------|------------|------------|------------|------------|
| Armenia | 2 560 | 3 880 | 3 564 | 7 468 | 8 106 |
| Bosnia & Herzegovina | 4 799 | 8 595 | 6 228 | 10 025 | 12 477 |
| Bulgaria (c) | 14 453 | 12 819 | 9 339 | 9 904 | 10 977 |
| Finland | 38 900 | 27 800 | 30 233 | 55 562 | 64 115 |
| Greece | 20 700 | 24 200 | 17 800 | 18 400 | 21 200 |
| Ireland, Republic of | 400 900 | 398 200 | 385 700 | 342 500 | 344 000 |
| Kosovo | — | (c) 4 902 | (c) 5 582 | (c) 6 449 | (c) 6 597 |
| Macedonia | 30 957 | 38 737 | 38 648 | 32 900 | 28 100 |
| Poland | 129 600 | 132 400 | 115 500 | 92 800 | 87 800 |
| Portugal | 24 380 | 37 900 | 501 | 6 422 | 4 227 |
| Romania | 849 | 14 | * 3 000 | * 5 000 | * 5 000 |
| Russia | 177 000 | 204 000 | 214 000 | 235 000 | 252 000 |
| Serbia | 1 200 | 2 400 | 2 700 | 2 600 | 3 100 |
| Spain | — | — | 5 900 | 17 323 | 33 197 |
| Sweden | 214 576 | 187 987 | 192 502 | 198 687 | 194 021 |
| Turkey | 140 500 | 126 800 | 136 300 | 196 400 | 158 300 |
| Congo, Democratic Republic | 16 905 | 7 733 | 9 848 | 4 612 | 9 518 |
| Morocco | 54 353 | 80 747 | 44 800 | 43 680 | 45 065 |
| Namibia | 196 000 | 204 000 | 208 000 | 209 000 | 197 000 |
| South Africa | 31 062 | 29 002 | 28 200 | 36 142 | 36 629 |
| Canada | 630 485 | 750 502 | 699 145 | 648 905 | 611 577 |
| Honduras | 29 211 | 28 462 | 36 370 | 33 839 | 26 000 |
| Mexico | 452 012 | 453 588 | 489 766 | 570 004 | 631 859 |
| USA | 803 300 | 778 100 | 735 700 | 748 000 | 769 000 |
| Argentina | 27 025 | 30 349 | 31 869 | 32 600 | 45 800 |
| Bolivia | 214 053 | 383 618 | 430 879 | 411 409 | 427 129 |
| Brazil | 193 899 | 173 933 | 172 688 | 211 203 | 186 000 |
| Chile | 36 453 | 40 519 | 27 801 | 27 662 | 36 602 |
| Peru | 1 444 354 | 1 602 597 | 1 512 931 | 1 470 450 | 1 255 899 |
| Burma | * 10 000 | * 7 000 | * 6 000 | * 7 000 | * 8 000 |
| China | 3 047 700 | 3 342 600 | 3 324 400 | 3 842 200 | 4 308 300 |
| India (b) | 551 268 | 647 537 | 677 824 | 726 526 | 713 416 |
| Iran | 75 000 | 86 000 | 72 048 | * 72 000 | * 72 000 |
| Kazakhstan | 445 000 | 446 000 | 442 000 | 459 000 | 465 000 |
| Korea (Rep. of) | 2 034 | 1 836 | 2 221 | 355 | 743 |
| Korea, Dem. P.R. of | * 78 000 | * 48 000 | * 29 000 | * 38 000 | * 40 000 |
| Laos | 893 | 1 121 | 760 | 1 140 | 1 642 |
| Mongolia | 77 350 | 71 800 | 70 750 | 56 300 | 52 350 |
| Pakistan (a) | — | — | 1 000 | 10 000 | 11 123 |
| Philippines | 7 400 | 1 619 | 10 035 | 9 268 | 18 170 |
| Saudi Arabia | 716 | 3 663 | 4 952 | 4 879 | 4 900 |
| Thailand | 26 406 | 17 811 | 27 493 | 21 971 | 22 259 |
| Vietnam | * 45 000 | * 42 000 | * 38 000 | * 36 000 | * 38 000 |
| Australia | 1 514 000 | 1 519 000 | 1 290 000 | 1 480 000 | 1 516 000 |
| World | 11 200 000 | 12 000 000 | 11 600 000 | 12 400 000 | 12 800 000 |

Notes

(a) Years ended 30 June of that stated

(b) Years ended 31 March following that stated

(c) Metal content of ore

Production of slab zinc

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|---------------------|------------|------------|------------|------------|------------|
| Belgium | 254 000 | 251 000 | 137 000 | 281 000 | 282 000 |
| Bulgaria | 98 100 | 101 700 | 92 700 | 92 300 | 83 300 |
| Finland | 305 543 | 297 722 | 295 049 | 307 144 | 307 352 |
| France | 129 000 | 118 000 | 161 000 | 162 000 | 164 000 |
| Germany | 294 735 | 292 284 | * 153 000 | 165 000 | 170 000 |
| Italy | 102 100 | 107 100 | 103 400 | 104 700 | 110 200 |
| Netherlands | 234 000 | 250 000 | 224 000 | 264 000 | 261 000 |
| Norway | 157 027 | 145 469 | 138 973 | 148 862 | 153 200 |
| Poland | 141 900 | 142 500 | 139 100 | 135 000 | 94 100 |
| Romania | 58 342 | 61 978 | 1 000 | — | — |
| Russia | 263 000 | 263 000 | 208 000 | 241 000 | 245 000 |
| Serbia | 2 000 | — | — | — | — |
| Spain | 509 000 | 466 000 | 515 000 | 517 100 | 527 100 |
| Ukraine | 2 600 | 3 800 | 8 800 | 7 600 | 6 600 |
| Algeria | 27 249 | 30 752 | 28 000 | 31 000 | 27 000 |
| Namibia | 150 100 | 145 400 | 153 815 | 151 688 | 145 600 |
| South Africa | 101 000 | 82 000 | 87 000 | 90 000 | 73 000 |
| Zambia | 1 000 | 2 000 | — | — | — |
| Canada | 802 103 | 764 310 | 685 504 | 691 222 | 662 151 |
| Mexico | 321 932 | 305 188 | 313 044 | 322 508 | 321 000 |
| USA | 278 000 | 286 000 | 203 500 | 248 000 | 240 500 |
| Argentina | 46 300 | 42 600 | 35 600 | 41 000 | 45 600 |
| Brazil | 265 126 | 248 874 | 242 000 | 288 100 | 285 000 |
| Peru | 162 575 | 190 324 | 149 494 | 223 112 | 313 714 |
| China | 3 742 600 | 4 042 300 | 4 286 300 | 5 208 900 | 5 221 900 |
| India | 441 000 | 589 000 | 640 000 | 735 000 | 790 000 |
| Iran | 125 000 | 120 000 | 115 200 | 115 000 | 102 000 |
| Japan | 597 650 | 615 533 | 540 604 | 574 008 | 544 674 |
| Kazakhstan | 358 226 | 365 572 | 327 873 | 318 858 | 319 847 |
| Korea (Rep. of) | 691 000 | 738 000 | 722 000 | 750 000 | 828 735 |
| Korea, Dem. P.R. of | * 36 000 | * 41 000 | * 26 000 | * 43 000 | * 42 000 |
| Thailand | 99 337 | 107 753 | 104 695 | 95 219 | 98 370 |
| Uzbekistan | 71 800 | 70 400 | 19 000 | 50 000 | * 55 000 |
| Vietnam | * 10 000 | * 16 000 | * 17 000 | * 16 000 | * 16 000 |
| Australia | 502 000 | 500 000 | 525 000 | 498 000 | 507 000 |
| World Total | 11 400 000 | 11 800 000 | 11 400 000 | 12 900 000 | 13 000 000 |

Production of zirconium minerals

tonnes (metric)

| Country | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------|-----------|-----------|------------|-------------|-------------|
| Russia (a) | 7 136 | * 7 000 | * 5 000 | * 8 000 | * 10 000 |
| Ukraine | * 35 000 | * 35 000 | * 35 000 | * 35 000 | * 35 000 |
| Gambia | 355 | — | — | — | * — |
| Madagascar | — | — | (b)* 3 300 | (b)* 15 600 | (b)* 18 900 |
| Mozambique | 26 347 | 32 985 | 21 100 | 37 100 | 43 600 |
| South Africa | 388 800 | 404 000 | 392 000 | 381 000 | 383 000 |
| USA | 121 000 | 122 000 | * 100 000 | * 110 000 | * 115 000 |
| Brazil (a) | 26 739 | 25 300 | 34 200 | 23 200 | * 25 000 |
| China | * 25 000 | * 38 000 | * 31 500 | * 33 500 | * 33 500 |
| India | 35 977 | 29 158 | 28 049 | 33 209 | * 33 000 |
| Indonesia | * 111 000 | * 65 000 | * 63 000 | * 50 000 | * 127 000 |
| Malaysia | 7 393 | 984 | 1 145 | 1 267 | 1 685 |
| Sri Lanka | 381 | 1 447 | 10 267 | 9 200 | 641 |
| Thailand | 1 023 | — | — | — | — |
| Vietnam | * 24 300 | 25 303 | 19 368 | 23 730 | 24 020 |
| Australia | 600 000 | 528 000 | 431 000 | 549 000 | 762 000 |
| World Total | 1 410 000 | 1 314 000 | 1 175 000 | 1 310 000 | 1 612 000 |

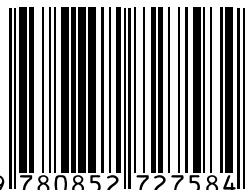
Notes

(1) In this table the term 'zirconium minerals' is understood to mean zircon, unless otherwise stated

(a) Including caldasite rock containing zircon and baddeleyite

(b) Conservative BGS estimates, based on exports

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