



**Key environmental indicators for the group with performance trends over three years are presented in the tables and graphs below. Detailed summaries for the two divisions (Shipping and Freight) that together comprise 95+% of Grindrod's environmental footprint (99% of total GHG emissions, 99% of waste and 93% of water consumption) can be found on the company website. Data for the other divisions is incorporated into group totals.**

## **ENVIRONMENTAL KPI**

### **Consolidated Grindrod Group (global) footprint trends over three years**

nr – not recorded/reported

| <b>Key Performance Indicators</b>   | <b>2012</b>               | <b>2011</b>            | <b>2010</b>             |
|---|---------------------------|------------------------|-------------------------|
| <b>Water and Wastewater (kilolitres)</b>  |                           |                        |                         |
| Total water usage (land-based and ships)  | 191 529                   | 180 824                | 199 315                 |
| Harvested rainwater usage<br>(% of total)   | 11 942<br>(6%)            | 0                      | 0                       |
| <b>Land-based water utilisation (kilolitres) (% contribution)</b>                                       |                           |                        |                         |
| Domestic office use discharged to municipal sewer   | 65 634 (34.9%)            | 70 995 (41.7%)         | 75 994 (39.5%)          |
| Domestic/office use – not to municipal sewer (e.g. soak away)   | 6 861 (3.6%)              | 12 670 (7.4%)          | 183 (0.1%)              |
| Washing vehicles and equipment discharged to municipal sewer  | 41 996 (22.3%)            | 44 673 (26.2%)         | 61 152 (31.8%)          |
| Washing vehicles and equipment - discharged to ground/stormwater  | 24 439 (13%)              | 12 392 (7.3%)          | 28 146 (14.6%)          |
| Dust suppression - to atmosphere or stormwater system   | 46 579 (24.7%)            | 29 584 (17.4%)         | 20 409 (10.6%)          |
| Other   | 2 719 (1.4%)              | 0 (0%)                 | 6 464 (3.4%)            |
| <b>Solid and Liquid Waste (tonnes)</b>  |                           |                        |                         |
| Total Solid and Liquid Waste Generated (tonnes)   | 10 562                    | 7 471                  | 7 564                   |
| Solid and Liquid Waste – to landfill (tonnes)   | 8 824                     | 6 912                  | 5 971                   |
| MARPOL Category 1-6 waste - disposed of at sea or incinerated at sea in accordance with MARPOL (tonnes) | 687                       | 435                    | 71                      |
| Total Land-based Non Hazardous Solid Waste Recycled (tonnes)  | 1 026 of 2 833<br>(36.2%) | 70.4 of 1068<br>(6.6%) | 481 of 3 058<br>(15.7%) |
| <b>Energy, fuel and air emissions:</b>  |                           |                        |                         |
| Total electricity usage (kWh)   | 22 560 736                | 23 699 498             | 23 483 422              |
| Electricity efficiency (kWh per Full Time Equivalent)   | 3 090                     | 3 892                  | 3 736                   |
| Land-based diesel (kilolitres)  | 30 910                    | 30 795                 | 27 909                  |
| Land-based petrol (kilolitres)  | 531                       | 552                    | 533                     |
| LPG (tonnes)  | 3                         | 38                     | 1.8                     |
| Air pollution - SO <sub>x</sub> emitted (tonnes)  | 4 393                     | 2 370                  | 2 778                   |
| Air pollution - NO <sub>x</sub> emitted (tonnes)  | 7 449                     | 6 378                  | 3 618                   |
| Scope 1 and 2 GHG emissions (tonnes CO <sub>2</sub> -e) *   | 407 211                   | 364 764                | 280 731                 |
| Total GHG emissions including Scope 3 (tonnes CO <sub>2</sub> -e) *                                     | 418 957                   | 374 924                | 294 446                 |
| GHG emissions Intensity (gCO <sub>2</sub> -e per Rand revenue)  | 14.9                      | 10.1                   | 9.8                     |
| Total Energy Usage Scope 1 and 2 (GJ)   | 5 421 251                 | 4 761 335              | 3 454 654               |
| Energy intensity (MJ per Rand revenue)  | 0.199                     | 0.13                   | 0.12                    |

\* See breakdown on the following page.

## GRINDROD GROUP GHG EMISSIONS

### Three year trends by GHG Protocol Scope, by Division and by South African Emissions

All figures in metric tonnes CO<sub>2</sub>-e.

|  |  | Group Global Totals |                |                | 2012 Divisional Analysis - Global |                |            |                                    | 2012 SOUTH AFRICAN SCOPE 1&2 GHG EMISSIONS |
|--|--|---------------------|----------------|----------------|-----------------------------------|----------------|------------|------------------------------------|--|
|  |  | 2012                | 2011           | 2010           | Freight Services                  | Shipping       | Trading    | Financial Services and Head Office |  |
| SCOPE 1  | Combustion of fuel in ships where company has operational control        | 276 535             | 231 078        | 145 879        | 0                                 | 276 535        | 0          | 0                                  | 30 044 *                                   |
|  | Company owned and/or operated vehicles, mobile equipment and locomotives | 97 349              | 97 223         | 105 307        | 97 326                            | 11             | 9          | 3                                  | 84 118                                     |
|  | Combustion in stationary fuel-burning equipment (generators and boilers) | 350                 | 327            | 589            | 350                               | 0              | 0          | 0                                  | 327  |
|  | HFC Refrigerant gases  | 9 777               | 11 810         | 9 787          | 5 767                             | 4 010          | 0          | 0                                  | 9 777                                      |
| <b>Scope 1 Subtotal</b>  |  | <b>384 011</b>      | <b>340 438</b> | <b>261 561</b> | <b>103 443</b>                    | <b>280 556</b> | <b>9</b>   | <b>3</b>                           | <b>124 267</b>                             |
| SCOPE 2 Total  | Purchased electricity  | 23 199              | 24 326         | 19 170         | 20 199                            | 47             | 177        | 2 776                              | 17 114                                     |
| SCOPE 3 and Other  | Purchased electricity - rented out to third parties                      | 0                   | 585            | 712            | 0                                 | 0              | 0          | 0                                  |  |
|  | Business air travel  | 1 851               | 1 899          | 6 323          | 0                                 | 0              | 0          | 1 851                              |  |
|  | Business travel - car rental   | 17                  | 34             | 16             | 0                                 | 0              | 0          | 17                                 |  |
|  | HCFCs and other non-Kyoto gases  | 357                 | 140            | 289            | 2                                 | 232            | 0          | 123                                |  |
|  | Waste sent to landfill   | 9 521               | 7 503          | 6 375          | 7 187                             | 2 292          | 0          | 42                                 |  |
| <b>Scope 3 and Other Subtotal</b>                                    |  | <b>11 746</b>       | <b>10 160</b>  | <b>13 715</b>  | <b>7 189</b>                      | <b>2 524</b>   | <b>0</b>   | <b>2 033</b>                       |  |
| <b>TOTALS</b>  | <b>metric tonnes of CO<sub>2</sub>-e</b>                                 | <b>418 956</b>      | <b>374 924</b> | <b>294 446</b> | <b>130 831</b>                    | <b>283 127</b> | <b>186</b> | <b>4 812</b>                       | <b>141 381</b>                             |
| <b>Percentage Contribution:</b>                                      |  |                     |                |                | 31.23                             | 67.58          | 0.04       | 1.15                               |  |
| <b>GHG Emissions Intensity (gCO<sub>2</sub>-e per Rand revenue):</b> |  | <b>14.90</b>        | <b>10.01</b>   | <b>9.75</b>    | 31.44                             | 79.98          | 0.01       | 10.96                              |  |

Notes: The Grindrod owned building *Mansion House* previously included under scope 3 electricity emissions, was excluded this year as a result of this building no longer falling within Grindrod's operational control criteria.

\* As international shipping emissions are not (yet) included as part of countries' Kyoto Protocol commitments, and as these are difficult to assign to countries, Grindrod's South African shipping emissions reported here are for operationally controlled ships' fuel purchased and combusted within South African EEZ waters. This interpretation of country-specific emissions from this source may change in coming years as guidance is given by the International Maritime Organisation (IMO).