

Natural Capital – The Environment

	2014	2013	2012	2011	2010	Level of Assurance+
Production performance						
Total production (kilotons)	22 050	23 696	25 302	25 228	24 548	High
Greenhouse gases (GHG)¹ (kilotons)						
Direct methane (CH ₄)	120	118	114	114	114	High
Nitrous Oxide (N ₂ O)	0,888	0,611	0,813	0,542	0,955	High
Direct carbon dioxide (CO ₂) Scope 1 ¹	58 757	58 593	59 126	57 203	56 505	High
Indirect carbon dioxide (CO ₂) Scope 2	8 727	9 012	9 777	9 013	10 086	High
Indirect carbon dioxide (CO ₂) Scope 3	0,76	412	719	540	384	High
Total greenhouse gas (CO₂ equivalent)	70 502	70 716	72 278	69 322	69 671	High
GHG intensity (CO₂ equiv/ton product)	3,20	2,98	2,83	2,75	2,88	
Atmospheric emissions (kilotons)²						
Nitrogen oxides (NO _x)	159	158	155	155	164	High
Sulphur oxides (SO _x)	223	215	202	208	240	High
VOC indicator of performance	47,6	47,5	47,2	46,5	47,7	
Particulates (fly ash)	19,3	17,5	–	–	–	High
Waste (kilotons)³						
Hazardous waste	382	303	116	84	69	Moderate
Non-hazardous waste	189	262	264	409	454	Moderate
Total waste	571	1 032	1 318	1 701	2 140	
Recycled waste	89	546	937	1 208	1 617	
Energy use (thousand gigajoules)						
Electricity (purchased)	31 337	31 423	34 441	33 834	37 162	
Feedstock to electricity (self-generated)	48 490	38 691	30 944	29 864	25 405	
Feedstock to steam	276 703	281 309	276 426	266 185	278 247	
Mobile fuel use	671	859	736	683	718	
Stationary fuel use	4	NR	NR	NR	NR	
Fuel gas	57 230	68 828	69 017	63 596	54 972	
Other energy use	10 821	6 691	7 739	16 137	9 785	
Total energy use	425 257	427 801	419 294	410 299	406 289	High
Material use (kilotons)						
Coal (dry ash-free basis)	17 556	17 896	17 040	17 019	17 315	
Crude oil processed	4 133	3 392	5 492	4 890	4 331	
Nitrogen from air	1 356	1 513	409	334	683	
Oxygen from air	14 907	15 017	14 064	13 983	14 737	
Gas	3 949	3 616	4 031	NR	NR	
Other (e.g. chemicals, feedstock)	6 357	6 892	7 673	6 778	22 062	
Total material use	48 259	50 340	50 751	44 890	61 019	Moderate
Water (thousand cubic meters)						
Total water use	149 552	147 209	148 372	152 526	151 391	Moderate
Liquid effluent	35 833	33 307	34 122	36 770	64 808	
Water recycled	186 751	145 466	142 754	128 719	139 308	Moderate
Land and biodiversity (hectares)⁴						
Surface area affected by operations ⁵	5 245	4 518	2 671	3 679	3 779	
Area dedicated to conservation	5 335	2 324	3 046	3 456	3 869	
Land use and mining (hectares)						
Surface mining area	1 284	1 284	1 284	1 284	1 284	
Underground mining area	44 897	43 421	46 004	44 856	43 941	
Total area disturbed ⁶	46 181	47 786	50 373	46 140	45 225	
Total area rehabilitated	1 987	129	542	1 689	1 689	
Legal compliance⁷						
Fines, penalties and settlements (number)	0	7	3	9	46	
Fines, penalties and settlements (US\$m)	0	0,04	0,06	4,00	2,00	

* Level of Assurance refers to the 2014 parameters independently verified by the external assurance provider in 2014, in accordance with the statement on page 76.

* GHG data restated for the years 2000 to 2012.

NR: Not reported

Notes

- 1 **Greenhouse gas (GHG) emissions** have been calculated and reported in accordance with the GHG Protocol (www.ghgprotocol.org) and the Intergovernmental Panel on Climate Change (IPCC) 2006 Guidelines. In our GHG measurements, we have included 100% of the emissions for the following joint ventures (JVs): Natref in South Africa, Sasol Petroleum International Mozambique, ORYX GTL in Qatar, and Sasol-Huntsman in Germany. Data for those JVs where we do not have a significant influence or operational control is not included. An external assurance provider has once again independently verified our direct and indirect emissions levels (page 76). Quantitative data on the GHG emissions at each of Sasol's business units is provided in our Annual Integrated Report. The decrease in indirect scope 3 CO₂ emissions is due to the emissions of a facility producing product on Sasol's behalf, located at the Sasolburg site, being included as part of the direct scope 1 emissions.
- 2 **Atmospheric emissions:** The increase in fly ash emissions is due to improved monitoring and measurement accuracy. Historical assumptions in calculations have been removed resulting in more representative measurements.
- 3 **Waste:** the definitions of "waste" vary widely around the world. For reporting purposes, we use the applicable definitions of regulatory authorities. In situations with insufficient guidance from legislation, the definitions of hazardous waste are reported if it is (i) removed from the premises for disposal and/or treatment, or (ii) disposed of onsite (e.g. by landfill). These figures exclude coarse ash from gasification and fly ash from boilers. Non-hazardous waste is waste which requires disposal on a general waste landfill site. Recycled waste is materials left over from manufacturing or consumption, which may be reused or recycled. Hazardous and non-hazardous waste figures have included recycled waste figures since 2013. The data reported in this report has been corrected historically using the revised

calculation. The reporting on total waste generated by Sasol operations has been revised to exclude the reuse of legacy coal ash which explains the significant decrease in total waste recycled from 546 kt in 2013 to 89 kt in 2014.

- 4 **Managing land use and biodiversity:** we do not have operations in areas that have been declared biodiversity hotspots (areas identified as being critical or endangered eco-regions). However, we do have interests in areas of potential sensitivity, particularly as part of some of our upstream exploration and extraction activities. In accordance with our environmental management practices, the protection of biodiversity issues is addressed formally in new projects through environmental impact assessments (EIAs) and in existing projects through environmental management plans and/or programmes (EMPs). We are also working to assess the biodiversity of the habitats in land currently owned, leased or managed throughout the group.
- 5 The **areas affected by operations** the total footprint of all our business equate to 126 to 136 hectare of which the biggest is associated with our Mining division.
- 6 **Total area disturbed:** a subsidence risk of previously undermined areas has been identified at Sasol Mining; we have started engaging with affected landowners on this issue.
- 7 **Legal compliance:** the figure includes fines and penalties for non-compliance with all applicable international, regional, national and local laws and regulations associated with safety, health and environmental issues. Payments include fines due to non-compliance with laws, regulations and permits, compensation payments and regular proactive payments made as a result of non-compliance with regulations where there is a potential for any enforcement action. The payments do not include levies, or costs for lawyers and product liabilities. For more information on competition matters, please refer to the Annual Financial Statements.

