



Unilever Basis of Reporting 2008

Background

For the third year running, Deloitte LLP (Deloitte) have carried out limited assurance of the same ten environmental and occupational safety performance indicators for our Sustainable Development Report 2008, published online in May 2009.

Deloitte's assurance report outlining the assurance scope and their qualified assurance conclusion is available at www.unilever.com/sustainability/approach/reporting/assurance/

Below we provide the definitions and basis of reporting for our environmental and occupational safety performance indicators.

Environmental Data

- o Scope

Every year we collect data from each of our manufacturing sites on key measures of environmental performance. This is collated and analysed using a web-based environmental performance reporting system.

Since 1995 (14 years) we have continually improved the way we collect and report environmental performance data from our manufacturing sites. In 2007 we focused on improving the reporting methodology for energy and carbon dioxide (CO₂) emissions for renewable energy to allow better reporting of data on renewable energy, biomass and resulting CO₂ emissions in line with the internationally accepted Greenhouse Gas Protocol.*

During 2008 we continued to improve our system for the reporting of monthly/quarterly environmental performance data by our sites.

In 2008, 276 manufacturing sites (including sites that have now closed) in 69 countries reported environmental performance data. In 2008 there were 11 fewer reporting sites than in 2007 (due to 14 sites closing and three new sites reporting). In line with previous years, for the purposes of sustainability reporting, we define our manufacturing sites as those where we have management control (over 51% share). Our reporting includes 100% of manufacturing site data, even if our economic or ownership interest is less than 100%. Where we have an economic interest in a site but do not have management control, we do not report its environmental data. We also do not collect environmental data from third-party companies that manufacture or pack our products (these account for approximately 15% of production) or from Unilever non-manufacturing sites.

Data on prosecutions and related fines is collected from all our manufacturing sites and additionally from our corporate head offices and research laboratories (eight sites in total).

Seven eco-efficiency KPIs are used for managing and reporting the environmental performance by our manufacturing operations and for driving future improvements.





These KPIs were chosen because they reflected the main environmental aspects for our sites covering utilities consumption (energy/CO₂ and water) and all environmental media (waste, air and water pollution). The KPIs also represent our main environmental costs and corresponding potential for cost savings as a result of achieving our reduction targets. Emissions of ozone-depleting substances are also reported, expressed as ozone-depleting potential (ODP).

Load per tonne of production is reported for seven parameters:

Chemical oxygen demand (kg)
Waste – hazardous and non-hazardous (kg)
Water (m³)
Energy (GJ)
CO₂ from energy (kg)
Boiler/utilities sulphur oxides (SO_x) (kg).

All products, semi-finished products and by-products are reported in our production tonnage. The reported tonnage is the net weight in tonnes excluding all packaging.

Whilst we report our data externally to two decimal places, we use the detailed numerical values (to three or four decimal places) to provide more accurate figures when calculating percentage changes in our annual KPI data.

- Definitions of parameters

1) Total COD (chemical oxygen demand) (kg)

COD represents the ingredients and product lost from our manufacturing processes. It arises mainly during cleaning operations.

COD is widely used by regulatory bodies to control industrial wastewaters, and to calculate the correct level of charges for downstream municipal wastewater treatment, which is designed to remove most of the COD before the wastewater is discharged to the environment.

The Unilever COD data represent the effluent load discharged from the factory/manufacturing site. The data does not make any allowance for the fact that based on individual site data we estimate a further 88.5% of this material is removed in municipal wastewater treatment plants. Consequently the COD load which actually reaches the environment is much lower.

2) Total water consumption (m³)

Water consumption is measured in all Unilever's factories. The data represents all water consumed – both the potable (drinking quality) and non-potable (lower quality) water that we use. Examples include water used as an ingredient in products, uncontaminated non-contact cooling water and wastewater.

3) and 4) Hazardous & non-hazardous waste (kg)

In terms of potential impact on the environment, it is important to distinguish between hazardous and non-hazardous waste. As a result, hazardous and non-hazardous





waste sent for disposal are reported separately. We also derive, and report, a figure for total waste sent for disposal.

Since there is no common international waste classification, the Unilever data is based on the national legal definitions applicable for each site, and is simply the total mass of material disposed of from the site under each classification.

A significant amount of solid waste from our factories is sent for recycling instead of landfilling or incineration. We report amounts of waste sent for disposal (tonnes), waste sent for off-site recycling (tonnes), total waste (tonnes) and total recycled (%). Recycling data excludes material or effluent that is reused or recycled within the factory.

5) and 6) Total energy consumption (GJ or 10⁹ Joules) & CO₂ from energy use (kg)

Energy consumption per tonne of product is widely used as a manufacturing performance indicator.

Since 1999 we have focused both on energy (in GJ) and CO₂ from energy use (in tonnes CO₂) as our major greenhouse gas contributor, and set targets for each of these. Our CO₂ from energy load has been calculated from the source energy data using internationally accepted conversion factors derived from the Greenhouse Gas Protocol website. See:

<http://www.ghgprotocol.org/calculation-tools/all-tools>

During 2007 we improved the reporting methodology for energy and CO₂ emissions for renewable energy in line with the Greenhouse Gas Protocol for the energy consumed and the CO₂ generated from energy at our manufacturing sites. See also Scope above. It is this methodology that we now use for our reporting.

Our manufacturing sites use different sources of energy depending on their production processes and also their geographical location. We collect this information, along with data on emissions from electricity generation and other fuel sources for each country, to calculate our total CO₂ emissions from energy. In 2007 we improved our reporting of energy and CO₂ emissions from renewable energy and biogenic material. Pre-2007 we reported wood. From 2007, we have extended biogenic material to include wood, biomass, biogas and waste material that is used for fuel, eg waste crops at our plantations and sugarcane fibre. This methodology more accurately reflects our reported CO₂ emissions.

We report in more detail our direct and indirect GHG emissions from energy sources used by our manufacturing sites, together with their other non-energy GHG emissions. These energy sources include electricity, coal, natural gas, heavy fuel oil, light fuel oil, wood, liquid petroleum gas and steam.

Our main non-energy sources of GHGs from manufacturing are methane emissions from landfilling biodegradable wastes such as paper, cardboard and vegetable waste; CO₂ from aerobic wastewater treatment, and refrigerants losses.

We do not measure levels of three other major GHGs because our emissions are negligible. These are: nitrous oxide (produced mainly in nitric oxide manufacture), perfluorocarbons (mainly associated with aluminium and magnesium production) and sulphur hexafluoride (used in some electrical equipment).





7) Boiler/utilities SO_x (kg)

This air emission parameter is relevant to most sites since almost all have a boiler used for generating steam. In some cases diesel generators are also used on-site for electricity generation.

The Unilever data is calculated from the total mass of fuel consumed, and its sulphur content, and is expressed in terms of a mass of sulphur dioxide (SO₂). Emissions of SO_x are known to contribute to acid rain potential.

8) Ozone-depleting potential (kg)

Ozone-depleting substances (ODSs) are compounds mainly used as refrigerants. They include CFCs, HCFCs, HFCs, halons and methyl bromide. When these compounds break down in the stratosphere, they release chlorine or bromine atoms which deplete the ozone layer.

We report the annual quantity of ODSs emitted to the atmosphere including losses, eg due to leaks or maintenance (which are subsequently topped up) and emissions to the atmosphere not replaced, eg when a unit is decommissioned and for some reason the refrigerant is not recycled.

The ozone-depleting potential (ODP) is derived for the different ODSs using specific factors. The source data we use is from the EPA website for some of the single source refrigerants (R-11, R-12, R-113) – see values in <http://www.epa.gov/ozone/ods.html>, with the remainder (mainly mixtures) being derived from the refrigerant data summary by James M Calm and Glenn C Hourahan, *Engineered Systems*, Nov. 2001.

o Target setting for environmental data

Target setting provides a key driver to achieve environmental improvement and cost savings.

We are reviewing our approach to short- and long-term target-setting for our eco-efficiency measures. We will continue to track internal, short-term targets to drive our performance and our progress towards these 2010 targets are presented in this online Sustainable Development Report.

Future external reporting will focus on our performance against long-term targets. This provides a more accurate reflection of our progress rather than reporting against rolling annual milestones, since most of our eco-efficiency initiatives yield results over a longer timeframe. We have already adopted this approach for CO₂ from energy and in 2009 we aim to define similar long-term targets for our other two key performance indicators of water and total waste (sent for disposal).

As part of our annual environmental reporting process, each site is required to set improvement targets (annual milestones) for our key environmental performance parameters. Action plans are put in place at site level and the data is reviewed monthly or quarterly.

Sites are encouraged to set stretching targets/annual milestones through a process of review with the Regions. In each case, targets proposed by the site are reviewed by the Regional SHE managers, supported by training and guidance from SEAC.





The web-based environmental performance reporting (EPR) tool enables the regions to easily assess, for example, the progress of individual sites against targets/annual milestones, and the contribution of each site to the total regional load. This allows the identification of key sites where stretch targets are particularly important. Through dialogue with the sites and the Regions, the site's annual milestones are agreed in each case by taking into account any changes that may have occurred at the site during the previous year (for example production portfolio, effluent treatment systems).

Occupational Safety Data

- Scope

We collect data from all our manufacturing sites and non-manufacturing sites, eg head offices, research laboratories and marketing/sales organisations.

Two occupational safety indicators are collected and reported on – fatal accidents and Total Recordable Frequency Rate.

- Definitions of indicators

1) Fatal accidents

We collect data on three categories of fatal accidents: employee on-site, employee off-site and contractor on-site.

In addition to this fatality data, where such accidents may be deemed to be associated with our operations, Unilever also requires its individual organisations to report fatal accidents involving members of the public and those which occur at third-party contract manufacturers where they are producing goods and services for us. In common with other companies in our industrial sector, these incidents are only reportable internally.

2) Total Recordable Frequency Rate (TRFR)

Accidents are measured as Total Recordable Frequency Rate per 100,000 man-hours. TRFR is defined as all workplace accidents, excluding only those that require simple first aid treatment.

The TRFR calculation is the sum of all lost-time accidents (LTA) plus restricted work cases (RWC) plus medical treatment cases (MTC) expressed as a rate per 100,000 hours worked.

TRFR is now the preferred reporting indicator for accidents at work. Previously we have reported our accident frequency rate (AFR) – defined as workplace accidents resulting in time off work or some temporary restriction in the work that the injured person can undertake.

Information on man-hours worked is either obtained directly from personnel in our Human Resources (HR) function or calculated via employee numbers, absences and overtime information provided by HR.

In line with industry best practice, we include in our definition of an 'employee', temporary staff and contractors who work under our direct supervision.

