Unilever’s Basis of Preparation 2012 for selected Unilever Sustainable Living Plan (USLP) and Environmental and Occupational Safety (EOS) performance measures

1. Introduction
PricewaterhouseCoopers LLP (PwC) has been appointed to provide limited assurance of selected USLP and EOS performance measures – the Unilever Sustainable Living Plan and the Environmental and Occupational Safety measures respectively. This Basis of Preparation document sets out how the USLP and EOS performance measures, described in Section 2 below, have been prepared and reported.

Our USLP and EOS targets and the performance results achieved in 2012 are described in full in the online Unilever Sustainable Living Report for 2012.

Additional information for Environmental and Occupational Safety indicators beyond the scope of the Unilever Sustainable Living Plan targets is also provided via our online report at www.unilever.com/sustainable-living/.

This document is based on our internal reporting objectives and processes and takes into account regulatory requirements applicable to our operations globally, industry codes of practice and voluntary guidance from external bodies. Unlike financial accounting standards, currently there are no industry norms or globally recognised established practices for measuring and evaluating performance data of this type. While these practices are evolving, it is important therefore to understand the approach we have taken with our data. We have established objective measurement techniques, including appropriate estimates and assumptions, for our performance data.

Scope
This document summarises the definition, organisational boundary and data preparation for the performance indicators listed below. The preparation of the USLP and EOS performance indicators is detailed in Sections 4 and 5 respectively.

Organisational reporting boundary
Unilever has offices, operations and channels to consumers in many locations globally. In 2012, our products were sold in over 190 countries worldwide. The nature of activities at these locations varies from research and manufacturing through to supporting local distributors and retailers, as well as functions such as finance and marketing.

Adjustments
Differences between reported data and assured data are adjusted if they are material either individually or in aggregate.
2. USLP and EOS performance indicators

2.1 USLP performance indicators

In the light of the activities at these locations, including interactions with consumers, the organisational boundary for reporting varies for each of the selected performance indicators. The organisational boundary applicable for each indicator is described in more detail in Section 4.

The performance data includes newly acquired businesses as soon as the appropriate processes and systems are implemented to enable consistent data collation and Unilever Group level consolidation.

Operations categorised as joint ventures or investments and where we do not have management control are excluded from the scope of all performance indicators, unless otherwise indicated.

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<th>Performance measured</th>
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| **Sustainable sourcing:** | • Sustainable palm oil. | • The percentage of palm oil from sustainable sources by the end of 2012:  
  • via GreenPalm certificates; and  
  • palm oil purchased from certified, traceable sources (through a segregated supply).  
• Sustainable soy. | • The percentage of soy oil sustainably sourced in the form of RTRS (Round Table on Responsible Soy) certificates by the end of 2012. |
| **Sustainable tea.** | • The percentage of our Lipton tea bag blends which contained a proportion of Rainforest Alliance Certified™ tea by the end of 2012. | • The overall percentage of tea purchased for all our brands sourced from Rainforest Alliance Certified™ farms. |
| **Better livelihoods:** | • Supporting small-scale distributors. | • The number of female entrepreneurs (‘Shakti ammas’) selling products to households in India at the end of 2012. |
2.2 EOS performance indicators

In line with previous years, we define our manufacturing sites as those where we have management control (over 51% share). Our reporting includes 100% of manufacturing site data for those sites where we have management control. We also do not collect environmental data from third-party companies that manufacture or pack our products.

The environmental performance indicators were chosen because they reflect the main environmental aspects for our manufacturing sites covering utilities consumption (energy/CO₂ and water) and all environmental media (waste, air and water pollution). They 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).

Disposals during the year have been excluded from our reporting.

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.

Safety data is reported for all Unilever manufacturing and non-manufacturing sites. Safety data for third-party companies that manufacture or pack our products are excluded.

The organisational boundary applicable for each indicator is described in more detail in Section 5.

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<td>Energy and greenhouse gas emissions:</td>
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<td>• The percentage of our manufacturing sites achieving zero non-hazardous waste to landfill by the end of 2012.</td>
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<td>• Hazardous waste in kg per tonne of production.</td>
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<td>• Non-hazardous waste in kg per tonne of production.</td>
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<td>Occupational safety:</td>
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<td>• Number of fatal accidents in 2012.</td>
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<td></td>
<td>• Accident rate: Total Recordable Frequency Rate (TRFR) per 1,000,000 man-hours in 2012.</td>
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3. Data sources
Our objective is to gather and report reliable and robust data. We are committed to providing transparency on the quality of the data where we consider there are matters which are material to users of the information. The information we report is subject to internal review processes and, where relevant and/or required, external review and assurance.

3.1 USLP performance indicators
Our data reporting systems for Unilever Sustainable Living Plan targets and performance are evolving and we continue to work to align data recording and reporting methods across the Unilever Group. This includes working with third parties where we rely on their data to provide input and support our performance.

3.2 EOS performance indicators
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 tool (EPR). Since 2008 our CO₂ emissions data reporting has been aligned to the internationally accepted Greenhouse Gas Protocol.*

In 2012, 252 manufacturing sites in 69 countries reported environmental performance data. In some cases multiple factories occupy one manufacturing site and these report separately in our EPR system.

For the two occupational safety indicators, we collect data from all our manufacturing sites and non-manufacturing sites, eg head offices, research laboratories and marketing/sales organisations via our Occupational Safety (OS) tool.

In 2012, 510 sites reported occupational safety performance indicators. The number of reporting sites increased by 62 in 2012 compared to 2011 primarily due to improved granularity of reporting, with individual sites providing data, as opposed to aggregated data in the past, in order to improve tracking of safety performance.

* The Greenhouse Gas Protocol Initiative is a multi-stakeholder partnership of businesses, NGOs, governments and others convened by the World Resources Institute (WRI), a US-based environmental NGO, and the World Business Council for Sustainable Development (WBCSD), a Geneva-based coalition of 200 international companies. Launched in 1998, the Initiative’s mission is to develop internationally accepted greenhouse gas (GHG) accounting and reporting standards for business and to promote their broad adoption.

4. USLP performance data preparation
It is the responsibility of Unilever’s management to ensure that appropriate procedures are in place to prepare performance data as set out, in all material respects, in this document. This preparation needs to ensure that:
- the reported information reflects our performance;
- the data is meaningful and is consistent with the stated definitions, scope and boundaries;
- any specific exclusions are stated clearly and explained;
• we describe openly any assumptions we make as well as our accounting and calculation methods; and
• we aim for transparency to enable users to have confidence in the integrity of our reporting.

Sections 4.1–4.9 detail the basis of preparation for each USLP performance indicator.
4.1 Health & Hygiene – Reduce diarrhoeal and respiratory disease through handwashing

**Performance measure:** The number of people reached by Lifebuoy handwashing programmes since 2010 (this covers the period 1 January 2010 to 31 December 2012).

The Lifebuoy behaviour change handwashing programmes are designed to reach children through schools, to reach mothers through health clinics and women’s groups, and to reach people in remote areas via rural outreach programmes such as ‘Khushion Ki Doli’ (KKD) and Laser Beam Community outreach.

**Definition**
Reach is the total number of people influenced as a result of the handwashing programmes.

Direct contact is defined as an individual who has attended a handwashing programme consisting of interactive elements such as educational videos and comic book stories as well as demonstrations regarding handwashing and hygiene.

**Boundary**
The countries ‘in scope’ of this performance measure are: Bangladesh, Brazil, Egypt, Ghana, India, Indonesia, Kenya, Malaysia, Nigeria, Pakistan, South Africa, South Sudan, Uganda, Vietnam, Zambia and Zimbabwe.

**Performance data preparation and assumptions**
Each individual attending one of the intervention programmes (a direct contact) is logged and consolidated into the total number of direct contacts per programme in each ‘in scope’ country.

Total reach is calculated as:
- The total number of direct contacts per handwashing programme (excluding KKD and Laser Beam) multiplied by the average number of individuals in a household applicable in each of the ‘in scope’ countries.

Based on previous research, it is assumed that each individual will take back to their household the learning from attending the intervention programme plus the total number of direct contacts attending the KKD and Laser Beam outreach programmes.

The average number of individuals in a household in each ‘in scope’ country is based on national census data or recognised survey data.

It is assumed that there are no material overlaps between handwashing programmes in the same communities (ie for mothers and schools) and therefore only one individual per household attends one of the programmes.
4.2 Health & Hygiene – Provide safe drinking water

Performance measure: The number of people who have gained access to safe drinking water from Pureit since its launch in 2005 (this covers the period 1 January 2005 to 31 December 2012).

Definition
People gaining access to safe drinking water is the number of individuals having access to a Pureit appliance. Pureit is an in-home water purifier appliance that operates without the need for electricity or pressurised tap water.

Boundary
The countries ‘in scope’ of this performance measure are: Bangladesh, Brazil, India, Indonesia, Mexico, Nigeria and Sri Lanka.

Performance data preparation and assumptions
The numbers of Pureit appliances sold are obtained from the relevant Unilever sales management systems in each ‘in scope’ country. It is assumed that all Pureit appliances sold to retailers in each ‘in scope’ country are sold onto individual households in that country.

The number of people gaining access to safe drinking water is the total number of Pureit appliances sold multiplied by the average number of individuals in a household applicable to each of the ‘in scope’ countries. It is assumed that a single Pureit appliance will be used by a single household. It is also currently assumed that a Pureit appliance has an endless product life.

The average number of individuals in a household in each ‘in scope’ country is based on national census data or recognised survey data.
4.3 Nutrition – Helping people to achieve healthier diets

Performance measure: The percentage of sales volume of Unilever’s food and refreshment products meeting the criteria for the highest nutritional standards, based on globally recognised dietary guidelines, at the end of September 2012 (this covers the period 1 January 2012 to 30 September 2012).

Definition
Unilever’s food and refreshment products portfolio consists of all the individual food and refreshment SKUs (stock-keeping units) including food service marketed by Unilever worldwide, as well as the products marketed by the Pepsi–Lipton joint venture.

The highest product nutrition benchmarks refer to product levels of salt, saturated fat, trans fats, added sugar and kilocalories that are aligned with international dietary guidelines and are therefore the strictest within Unilever’s Nutrition Enhancement Programme. We evaluate the content of these nutrients in our food and beverage products on the basis of the nutritional specifications. These specifications are the basis for nutrient levels disclosure on our product packaging or websites. The nutritional specifications are determined in line with globally and/or locally accepted food regulator methodologies.

The nutrient content of individual food and refreshment SKUs is compared to the benchmarks in order to determine compliance. Each product must meet all the nutrient benchmarks to be determined as compliant.

The benchmarks used are available at:


For 2012 we report the percentage of sales volume (in tonnes) meeting these benchmarks.

Boundary
All food and refreshment products including food service sold by Unilever globally in all countries are ‘in scope’ of this performance measure, as well as the ready-to-drink tea portfolio sold under the Pepsi–Lipton joint ventures.

Performance data preparation and assumptions
The nutritional data for all food and refreshment products including food service are taken from Unilever’s product specification management systems.

Ready-to-drink tea portfolio data is taken from Pepsi–Lipton joint venture data management systems.
4.4 Greenhouse gases (GHG) – Reduce GHG emissions from washing clothes

Performance measure: The percentage of Unilever concentrated and compacted products within the total laundry products portfolio at the end of June 2012 (this covers the period 1 July 2011 to 30 June 2012).

Definition
Concentrated and compacted laundry products are those detergents formulated as concentrated and/or compacted, offering lower dosage and reduced GHG emissions to wash normal soiled clothes than the standard recommended dosage for a non-concentrated/non-compact product.

Boundary
The laundry products portfolio relates to those products sold in our top 14 countries as measured by revenue.

Performance data preparation and assumptions
Products are categorised (ie as concentrated and compacted) based on data from Unilever’s product specification management systems.

Consumer behaviour research data is also used to determine if concentrated and compacted products are being used as intended. Where they are not, they are categorised as ‘standard’ laundry detergent products for the purposes of calculating this performance data.

The total number of washes per laundry product is calculated using the sales data and dosage measure when using the ‘standard’ recommended dosage for normal soiled clothes. This number is then used to determine the percentage of the total laundry products portfolio that is from concentrated and compacted products.
4.5 Water – Reduce water use in the laundry process

**Performance measure:** The number of households using Unilever’s One Rinse fabric conditioner products in 2012 (this covers the period 1 January 2012 to 31 December 2012).

**Definition**
Product penetration is defined as the number of households which have, at some point through the reporting year, purchased any variant of One Rinse fabric conditioner.

Household refers to a group of individuals, primarily close family members, living together in a single dwelling. To qualify, the household only needs to have bought a One Rinse fabric conditioner once in the 52-week time period. This metric does not account for a household buying multiple times or multiple bottles.

One Rinse fabric conditioner products are a group of products with the same core specification (formulation) – Comfort One Rinse and Surf One Rinse.

**Boundary**
The countries ‘in scope’ for this performance measure are: Brazil, Indonesia, the Philippines, Thailand and Vietnam. Both urban and rural households are now included for all countries.

**Performance data preparation and assumptions**
Third-party research companies determine the One Rinse conditioner products’ penetration in each of the ‘in scope’ countries.

The third-party research companies organise consumer household panels in each of the ‘in scope’ countries to determine the amount of product purchased as a percentage compared to other brands (Unilever and non-Unilever).

The consumer household panels in each of the ‘in scope’ countries are made up of individuals representing a household.

The product penetration percentage is multiplied by the number of households in each ‘in scope’ country. Household data is sourced by a third-party research company in each country and this data can come from local government departments, national census data or recognised survey data.
4.6 Sustainable sourcing – Sustainable palm oil

**Performance measure**: The percentage of palm oil purchased from sustainable sources at the end of 2012 (this covers the period 1 January 2012 to 31 December 2012). This is expressed as a percentage of the total actual purchases of palm oil in 2011.

**Definition**

Palm oil is defined as crude palm oil, palm oil mixtures/fractions and palm-based derivatives. These are used in home care, personal care and food products.

Sustainably sourced palm oil is defined as:

a) Purchases of physically certified RSPO palm oil that can be traced back to a certified mill, i.e. to a producer who has been certified as complying with the Roundtable on Sustainable Palm Oil’s (RSPO) Principles and Criteria – ‘segregated supply’ or ‘mass balance supply’; and

b) Purchases of GreenPalm certificates (both palm oil and palm kernel oil certificates) in lieu of segregated supply. For further details of GreenPalm certificates see [http://www.greenpalm.org/en/what-is-greenpalm/how-it-works](http://www.greenpalm.org/en/what-is-greenpalm/how-it-works).

**Boundary**

Palm oil purchased (in its various forms) by all Unilever operations, excluding any palm oil purchased by third parties that manufacture products for Unilever.

**Performance data preparation and assumptions**

All palm oil purchases are consolidated from the relevant Unilever purchasing systems. The segregated supply volumes are identified based on the certified volumes provided by the relevant suppliers.

Palm oil derivates (e.g., palm kernel oil, palm stearine, palm olein) contained in a specific commodity purchase are consolidated from the relevant Unilever purchasing systems. The proportion of palm oil within the volume of ingredients purchased is based on details obtained from Unilever’s product specification systems.

Purchases of oleo chemical derivatives are obtained from the relevant Unilever purchasing systems. Due to the interchangeability of underlying feedstocks to produce the same oleo chemical derivative, conversion factors are applied to determine the volume of palm oil contained in such derivatives. The conversion factors are based on guidelines issued by the RSPO for oleo chemical derivatives and are used consistently across Unilever.

The total volume of palm oil purchased by Unilever in metric tonnes is consolidated from the above sources.

GreenPalm certificates are purchased and logged in the GreenPalm trading platform. Each GreenPalm certificate equates to one tonne of sustainable palm oil.
The percentage of palm oil purchased from sustainable sources is the total volume sourced as GreenPalm certificates and segregated supply as a proportion of the total volume of palm oil purchased by Unilever in metric tonnes.
4.7 Sustainable sourcing – Sustainable soy

**Performance measure:** The percentage of soy (oil and beans) purchased from sustainable sources at the end of 2012 (this covers the period 1 January 2012 to 31 December 2012). This is expressed as a percentage of the total actual purchases of soy (oils and beans) in 2011.

**Definition**
Soy is an important ingredient for several Unilever food products. Soy includes both soy oils and all soy beans (conventionally grown, organic and genetically modified) measured in metric tonnes as bought by Unilever.

Sustainable sourcing of certified soy (oils or beans) is measured in the form of Round Table on Responsible Soy (RTRS) certificates purchased in lieu of segregated supply.

The RTRS standard for responsible soy production is designed to be used for all scales of soy production and all the countries where soy is produced. It includes requirements to halt conversion of areas with a high conservation value, to promote best management practices, to ensure fair working conditions and to respect land tenure claims.

Sustainable sources are defined as:
- Purchases of physically certified RTRS soy that can be traced back to a certified mill, i.e. to a producer who has been certified as complying with the Round Table on Responsible Soy (RTRS) Principles and Criteria.

The percentage of soy purchased from sustainable sources is the total volume sourced as RTRS certificates as a proportion of the total annual volume of soy purchased by Unilever in metric tonnes.

**Boundary**
Soy oil and beans purchased by all Unilever operations, excluding any purchased by third parties that manufacture products for Unilever.

**Performance data preparation and assumptions**
The Unilever Procurement function records and tracks the amount of raw material (in this case soy) sourced sustainably by:
- recording purchased certificate redemptions in the public domain via the RTRS website
- validating the certificate redemptions with the invoices to Unilever from RTRS certificate suppliers in the relevant Unilever purchasing systems.

Each certificate equates to one tonne of sustainable soy.

The total annual volume of soy purchased by Unilever in metric tonnes is consolidated from the Unilever data warehouse (MSI) and validated by Procurement management.
Similar to palm oil, which uses a GreenPalm certificates offsetting scheme, the purchase of RTRS certificates is a first step to send a market signal to producers in the current absence of segregated traceable RTRS soy oil or beans.
4.8 Sustainable sourcing – Sustainable tea

Performance measure: The percentage of tea purchased from sustainable sources at the end of 2012 (this covers the period 1 January 2012 to 31 December 2012). This is expressed as a percentage of the total actual purchases of tea in 2011. The percentage of our Lipton tea bag blends which contained a proportion of Rainforest Alliance Certified™ tea by the end of 2012.

Definition
Sustainable sources refers to both Rainforest Alliance (‘RA’) Certified™ farms as well as farms that have been verified as complying with the requirements set out in the Unilever Sustainable Agriculture Code.

RA is an internationally recognised standard. Others available are UTZ Certified and FairTrade. RA farms meet the standards of the Sustainable Agriculture Network, an independent organisation which develops, manages and owns the Sustainable Agriculture Standard.

The percentage of tea purchased from sustainable sources is the total volume sourced as RA certified as a proportion of the total annual volume of tea purchased by Unilever in metric tonnes.

For our Lipton tea bag blend target, each raw material (tea) is coded describing several properties of the material itself, eg one of them is ‘RA’ describing whether the material is a RA certified tea or not. Tea blends are considered as containing a proportion of RA certified tea if they contain greater than 5% RA certified tea.

Boundary
Tea purchased by all Unilever operations, excluding any purchased by third parties that manufacture products for Unilever.

Performance data preparation and assumptions
The Unilever Procurement function records and tracks the amount of raw material (in this case tea) sourced sustainably by:
- recording purchases of RA tea raw materials
- validating them against the RA certified suppliers in the relevant Unilever purchasing systems.

The total annual volume of tea purchased by Unilever is consolidated and validated by Procurement management.

The use of tea in blends packed in Lipton tea bags is tracked on a manual basis. It is reviewed and validated by the Category Procurement Operations Manager – Tea.
4.9 Better livelihoods – Supporting small-scale distributors

Performance measure: The number of female entrepreneurs (‘Shakti ammas’) selling products to households in India at the end of 2012 (this is as at 31 December 2012).

Definition
‘Shakti ammas’ are women identified in rural villages in India who sell Unilever products. ‘Shakti ammas’ are required to purchase Unilever products from one of Unilever’s main distributors. ‘Shakti ammas’ are not employed by Unilever. A ‘Shaktimaan’ is a male Shakti, generally from the same family. The metric currently does not report on the number of ‘Shaktimaan’.

A ‘Shakti amma’ is considered to be active if the individual regularly purchases Unilever products from the main distributor. An active ‘Shakti amma’ is someone who has completed one full sales cycle in the last three months, ie purchase from and full payment of goods to the distributor and a further purchase of goods.

Boundary
The ‘Shakti ammas’ do not include male entrepreneurs. The initiative currently operates only in India.

Performance data preparation and assumptions
‘Shakti ammas’ are allocated a unique identification number in Unilever’s sales management system. This system is used by the main distributors who sell products to the ‘Shakti ammas’.

Details of purchases by each ‘Shakti amma’, including date and value, are collected via mobile phones (given to the ‘Shakti ammas’), registered in the sales management system. The system also flags those individuals that are no longer active, ie those that have not purchased products within the preceding three months.

The number of active ‘Shakti ammas’ is extracted from the sales management system.

It is assumed that, on average, each ‘Shakti amma’ sells products to 68 households.
5. Environmental and Occupational Safety performance data preparation
Sections 5.1-5.10 detail the basis of preparation for each environmental and occupational safety performance indicator.

5.1 Water – Quantity of water (in cubic metres) abstracted by manufacturing sites (part of USLP)

Performance measure: The amount of water abstracted in cubic metres by manufacturing sites in 2012 (this covers the period 1 January 2012 to 31 December 2012). The quantity of water abstracted in cubic metres during the reporting year compared to the quantity of water abstracted in cubic metres in the baseline year (2008).

Definition
Water abstracted is defined as water imported by Unilever manufacturing sites from municipal supplies, bore hole, river, sea, etc. Each factory records water abstracted as either potable water (drinking water quality) or non-potable water (non-drinking water quality). Total water abstracted is the sum of potable and non-potable, measured in cubic metres.

We calculate water abstracted per tonne of production, based on total cubic metres of water abstracted divided by the sum of production volume in tonnes reported by each manufacturing site.

Boundary
Water abstracted by manufacturing sites does not include rainwater captured and treated on the manufacturing site. Water contained in raw materials is not included. However, water abstracted for use as an ingredient in products is included. Water abstracted by third parties that manufacture or package products for Unilever is excluded.

Performance data preparation and assumptions
Measuring water abstracted by Unilever manufacturing sites when it enters the factory boundary is more specific than ‘use’ of water resources which can have multiple meanings. All imported water as recorded on meter reads/invoices is captured by each manufacturing site in the Unilever Environmental Performance Reporting (EPR) system. All data is recorded in cubic metres.

The EPR system summarises and aggregates the data into standard reports by manufacturing site and at regional and global levels.
5.2 **Emissions of chemical oxygen demand (COD) in kg per tonne of production**

**Performance measure:** Chemical oxygen demand (COD) in kg in 2012 (this covers the period 1 January 2012 to 31 December 2012).

**Definition**
COD represents the ingredients and product lost from our manufacturing processes in process wastewaters. 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.

**Boundary**
The Unilever COD data represent the effluent load discharged from the boundary of the manufacturing site. It is typically calculated from a representative concentration of COD in the wastewater and volumetric flow of the wastewater.

**Performance data preparation and assumptions**
The COD load is typically calculated using COD concentration data measured in on-site laboratories or those of wastewater treatment companies and volumetric flow data from effluent flow meters on site.

The data does not make any allowance for the fact that based on individual site data we estimate that around a further 90% of this material is removed in municipal wastewater treatment plants. Consequently the COD load which actually reaches the environment is much lower.
5.3 & 5.4  **Greenhouse gases – CO\textsubscript{2} emissions from energy use in kg per tonne of production and change in the tonnes of CO\textsubscript{2} from energy produced in 2012 compared to 2008 manufacturing (part of USLP) and total energy consumption in GJ per tonne of production**

**Performance measure**: Tonnes of CO\textsubscript{2} emissions from energy used in manufacturing in 2012 (this covers the period 1 January 2012 to 31 December 2012). Absolute emissions during the reporting year compared to absolute emissions in the baseline year (2008).

**Definition**
Each factory records energy used in manufacturing under various energy sources (eg grid electricity, gas, fuel oil). Each energy use is converted to gigajoules (GJ), using standard conversion factors and calorific values.

CO\textsubscript{2} emissions from energy used in manufacturing sites is calculated from energy sources in gigajoules multiplied by the carbon emission factor for each energy type (in kg CO\textsubscript{2} per GJ).

Absolute CO\textsubscript{2} emissions during the reporting year is the sum of CO\textsubscript{2} emissions for each energy source.

We calculate CO\textsubscript{2} emissions per tonne of production, based on absolute CO\textsubscript{2} emissions divided by the sum of production volume in tonnes reported by each manufacturing site.

**Boundary**
The energy sources that result in CO\textsubscript{2} emissions include electricity, coal, natural gas, heavy fuel oil, light fuel oil and steam.

CO\textsubscript{2} emissions from the following uses/sources at our manufacturing sites are excluded:
- diesel/LPG used in forklifts, fire trucks and testing power generators
- third parties that manufacture or package products for Unilever
- biogenic fuels (biomass, wood pellets, etc)
- renewable electricity purchased from verifiable certification schemes.

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).

**Performance data preparation and assumptions**
Primary energy use data is taken from meter reads/invoices and captured for each manufacturing site in the Unilever Environmental Performance Reporting (EPR) system. The EPR system contains factors to convert common units of energy (eg cubic metres of gas or tonnes of oil) to a standard unit of energy (GJ).
Standard units of energy are converted to tonnes of CO$_2$ emissions from energy using standard carbon emission factors for each energy source. Carbon emission factors for grid-supplied electricity reflect the country/region where the manufacturing site is located. Consistent with the USLP metric, this is based on CO$_2$ emissions as opposed to GHG emissions.

These metrics are measured in the same way for all manufacturing sites. The EPR system summarises and aggregates the data into standard reports by manufacturing site and at regional and global levels.
5.5  Emissions of SO\textsubscript{x} from boilers and utilities in kg per tonne of production

**Performance measure:** Emissions of SO\textsubscript{x} from boilers and utilities in kg per tonne of production for the period from 1 January 2012 to 31 December 2012.

**Definition**
SO\textsubscript{x} emissions (expressed as sulphur oxides or SO\textsubscript{2}) are precursors to acid deposition due to acid rain. These have harmful effects on plants, aquatic life and infrastructure.

**Boundary**
This air emission parameter is relevant to most manufacturing sites since almost all have a boiler used for generating steam. In some cases diesel generators are also used on-site for electricity generation and some sites use mobile utilities (forklifts, tractors, etc).

For the relatively small number of sites which have spray drying towers, fuel used in the spray drying tower is not included in the calculation of emissions of SO\textsubscript{x} as the sulphur is assumed to be absorbed in the material in the spray drier and is not emitted to the atmosphere.

**Performance data preparation and assumptions**
The Unilever data is calculated from the total mass of fuel consumed, and its sulphur content (which is typically advised by the fuel supplier), and is expressed in terms of a mass of sulphur dioxide (SO\textsubscript{2}). Boiler SO\textsubscript{x} emissions are calculated assuming there is complete combustion of all the sulphur in the fuel to SO\textsubscript{2}. 
5.6 Emissions of ozone-depleting potential (ODP) in grams per tonne of production

**Performance measure:** Emissions of ozone-depleting potential in g per tonne of production for the period from 1 January 2012 to 31 December 2012.

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

**Boundary**
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 where the refrigerant is not recycled.

**Performance data preparation and assumptions**
The quantity of each type of refrigerant data used to calculate ODP is typically based on maintenance records for replenishment of any refrigerant gas losses. The quantity of refrigerant gas replenished is assumed to have leaked from the system and is recorded annually in the EPR system. Where a refrigeration unit is decommissioned and the refrigeration gas is removed from the system for recycling or secure disposal, the quantity is recorded as disposed or recycled waste.

The ozone-depleting potential (ODP) is derived for the different ODSs using specific factors. The conversion factor data we use is from the United States Environmental Protection Agency (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](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*, November 2011.
5.7 & 5.8 Waste – Hazardous and non-hazardous waste in kg per tonne of production and change in tonnes of total waste in 2012 compared to 2008 (part of USLP)

Performance measure: The amount of hazardous and non-hazardous waste sent for disposal in kg per tonne of production in 2012 (this covers the period 1 January 2012 to 31 December 2012). The change in the tonnes of total waste sent for disposal in 2012 compared to 2008.

Definition
Waste is defined as hazardous or non-hazardous as classified under local legislation where the manufacturing site is located.

Disposal of waste refers to solid or liquid wastes that are exported from a Unilever manufacturing site to landfill or to incineration without energy recovery.

We calculate kg disposed waste per tonne of production, based on total tonnes of disposed waste divided by the sum of production volume in tonnes reported by each manufacturing site.

Boundary
The metric does not include:
- liquid effluent wastes that are discharged from a site typically via pipeline or road tanker – where the chemical oxygen demand (COD) is measured (these liquid effluent wastes are recorded and reported separately internally);
- waste from building/demolition projects that are not directly related to production;
- waste disposed by third parties that manufacture or package products for Unilever.

Performance data preparation and assumptions
Sites have access to primary waste data. This is typically from weigh-bridge tickets and invoices from waste providers and is captured by each manufacturing site in the Unilever Environmental Performance Reporting (EPR) system.

This metric is measured in the same way for all manufacturing sites. The EPR system summarises and aggregates the data into standard reports by manufacturing site and at regional and global levels.
5.9 **Occupational safety – Reduce workplace injuries and accidents**

**Performance measure:** The number of occupational injury or work-related ill-health (WRIH) events which results from exposure to an occupational health and safety hazard(s), in the course of employment which results in death (this covers the period 1 January 2012 to 31 December 2012).

**Definition and boundary**

The following are referred to as Class A fatalities and are included in the scope of this indicator:

- Fatal occupational injuries and/or fatal work-related ill-health (WRIH) cases which occur on, or across the immediate external perimeter, of a Unilever site to a Unilever employee, while he/she is on duty, a contractor while he/she is working for Unilever (including on-site third-party operations) or a person visiting the Unilever site.
- Fatal occupational injuries or work-related ill-health (WRIH) which occur while a Unilever employee is away from a Unilever site but on company business (ie while on duty).

We record any of the following types of fatality, categorised as Class B, separate to those described above. They are not included in the scope of the fatal accident indicator but are reported separately internally:

- All fatal accidents involving members of the public which are associated with Unilever’s own operations and/or associated with a Unilever employee while they are on duty. This does not include outsourced activities undertaken for us by third parties other than any fatal accidents at contract manufacturers/packers which occur while their employees are engaged in work for Unilever.

**Performance data preparation and assumptions**

We collect data and report 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/units 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.
5.10 Accident rate: Total Recordable Frequency Rate (TRFR)

**Performance measure**: The number of occupational accidents per one million hours worked (this covers the period 1 January 2012 to 31 December 2012).

**Definition and boundary**
Accidents are measured as a Total Recordable Frequency Rate per 1,000,000 (one million) 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 one million hours worked.

TRFR is the preferred reporting indicator for accidents at work. Prior to 2004 we 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.

**Performance data preparation and assumptions**
Recordable accidents include recordable occupational injuries occurring to Unilever employees and lost-time accidents occurring to contractors working on behalf of, but directly supervised by, Unilever.

Man-hours worked includes the total number of paid hours worked by all Unilever site employees.

Injuries which occur while travelling on business must be included in the organisation’s (site’s) safety statistics, unless the injured person is travelling between their home and their normal place of work.

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.

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