



# ECOLOGICAL SUSTAINABILITY

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## IN DETAIL:

Climate change **61**

Waste and packaging **73**

Water **78**

Biodiversity **81**

Chemicals **88**

(Pictured) **Brian McCallum, co-founder, Urban Bees**

The Co-operative's Plan Bee campaign (page 86), which aims to save the declining honeybee, has funded urban beekeeper training courses across the country. Brian has been instrumental in establishing hives on rooftops, community gardens and allotments across London.

# CLIMATE CHANGE

## Background

Climate change is widely regarded as humanity's greatest challenge<sup>1</sup>. If left unchecked, global atmospheric temperature is forecast to rise by between 1°C and 6.4°C by the end of this century<sup>2</sup>, bringing severe disruption to both the economic and ecological systems upon which humanity depends.

2010 was the warmest year on record<sup>3</sup>, as measured by certain temperature series<sup>4</sup>, and follows the warmest decade recorded. The year saw limited progress on the international response; the UN summit in Cancun, Mexico, formalised a series of commitments made at the Copenhagen summit a year earlier<sup>5</sup>.

## Materiality and strategy

The Co-operative has a number of operations that emit significant quantities of greenhouse gases (GHGs), the most significant of which is the Food business.





The approach to climate change is influenced by the views of members and customers within ethical policy consultations. In the 2007 Co-operative Food Ethical Policy consultation, members endorsed a commitment to reduce the carbon footprint of The Co-operative Food's products. The Co-operative Bank's Ethical Policy states that customers' money will not be used to finance the extraction of fossil fuels and the distribution of fuels with a higher global warming impact; and The Co-operative Asset Management seeks to use its influence as an institutional investor to encourage investees to reduce their reliance on fossil fuels, switch to renewable energy, and promote energy efficiency.

Climate change is a major area of focus for the Ethical Operating Plan (page 13). The approach to climate change is five-fold, embracing: energy efficiency, support for renewable energy, carbon offsetting, the provision of finance and public policy lobbying.

Climate change

Waste and packaging

Water

Targets 2010	Progress	Targets 2011
<b>Indicator: Direct greenhouse gas emissions (CO<sub>2</sub>e)</b>		
		<b>EOP</b> Reduce the gross greenhouse gas emissions from operations by 35% by 2017.
Conduct further product carbon footprinting work in The Co-operative Food.	 The carbon footprints of haddock, salmon and beef mince were investigated, and a study on strawberries continued (page 68).	
<b>Indicator: Energy-usage and carbon dioxide emissions (CO<sub>2</sub>e)</b>		
Reduce energy consumption across The Co-operative by 20% by 2010 and 25% by 2012, based on 2006 levels.	 During 2010, energy consumption across The Co-operative decreased by 12% compared with 2009 and by 29% compared with 2006 (pages 62–64).	
Generate 15% of energy requirements from sustainable energy sources by 2012.	 Output from renewable energy installations in 2010 represented approximately 2.1% of energy requirements. At least one new wind farm is currently awaiting construction (page 64).	<b>EOP</b> Generate the equivalent of 25% of electricity needs from renewable sources by 2017.
Attain a post-construction BREEAM 'outstanding' rating for the new head office complex.	 The design of the building was accredited to the BREEAM 'outstanding' rating in 2009 (page 63).	<b>EOP</b> Construct a head office by 2012 that will set new standards in sustainable design, construction and operation in the UK.
<b>Indicator: Cooling systems: emissions from leakage</b> (Performance benchmark page 65)		
Reduce greenhouse gas emissions from refrigerant leakages in The Co-operative Food's stores by 50% by 2013, based on 2006 levels.	 In 2010, emissions from refrigerant gas leaks from The Co-operative Food's stores and distribution centres reduced significantly: by 35% compared with 2009, and by 58% compared to 2006 (page 64).	
<b>Indicator: Transport: mileage and emissions (CO<sub>2</sub>e)</b>		
Maintain transport CO <sub>2</sub> emissions from The Co-operative Food's distribution fleet at 15% below 2005 levels.	 In 2010, The Co-operative Food's distribution mileage and associated CO <sub>2</sub> e emissions decreased by 21% (24.4 million miles) and by 20% (30,909 tonnes of CO <sub>2</sub> e) respectively, compared with 2005 (page 65).	

Biodiversity

Chemicals

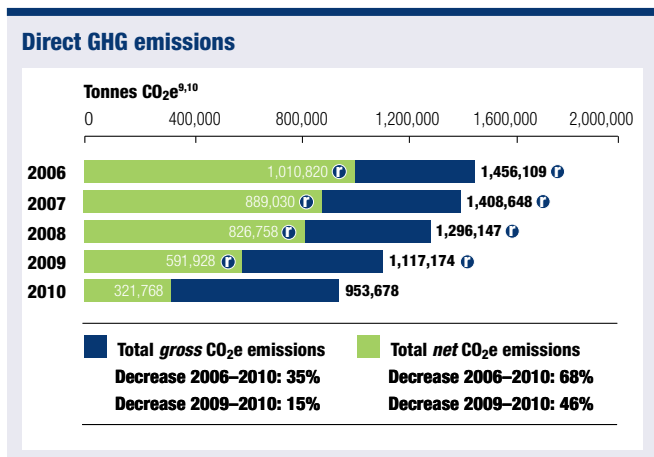
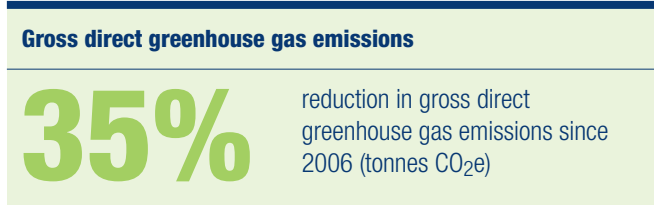
# CLIMATE CHANGE

Targets 2010	Progress	Targets 2011
<b>Indicator: Carbon offset: products and operations</b>		
		<b>EOP</b> Render operations carbon neutral by 2012, with carbon offset solutions provided by a programme of international co-operative projects.
<b>Indicator: Climate change initiatives</b>		
		<b>EOP</b> Broaden the campaign against unconventional fossil fuels to encompass solutions such as community energy.

## Direct greenhouse gas (GHG) emissions<sup>6</sup>

GHG emissions are reported in two ways: *gross* emissions (that treat electricity from renewables in the same way as 'brown' electricity)<sup>7</sup>, and *net* emissions (that treat electricity from renewables as zero carbon and allow for operational offsets). Emission factors used to calculate GHG emissions have been taken from the Department for Environment, Food and Rural Affairs (Defra) 2010 guidance<sup>8</sup> unless otherwise stated.

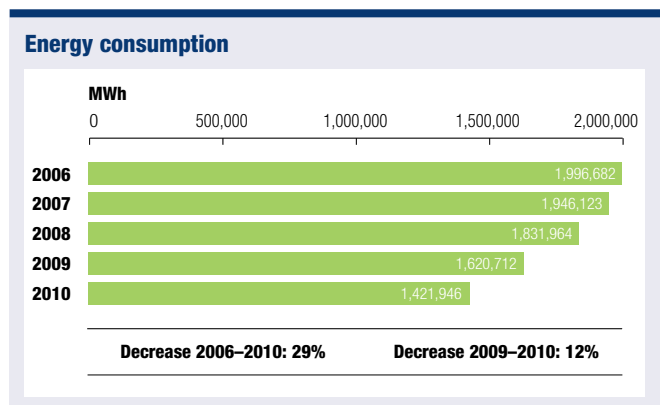
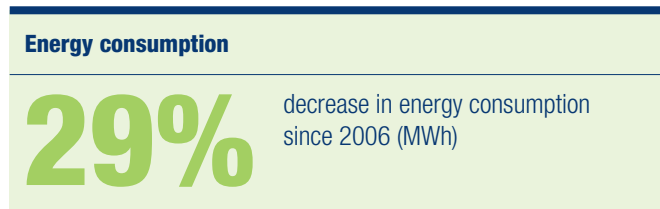
The Co-operative's *gross* greenhouse gas emissions have reduced by 15% in 2010 and by 35% since 2006. *Net* emissions have reduced by 46% in 2010 and by 68% since 2006. Like every other major retailer and financial services provider, The Co-operative does not currently have complete accounting systems in place for the great majority of its indirect emissions. It is recognised that these are likely to be significantly larger than its direct emissions, and work to progress accounting systems is detailed on page 67 and online [EOP](#).



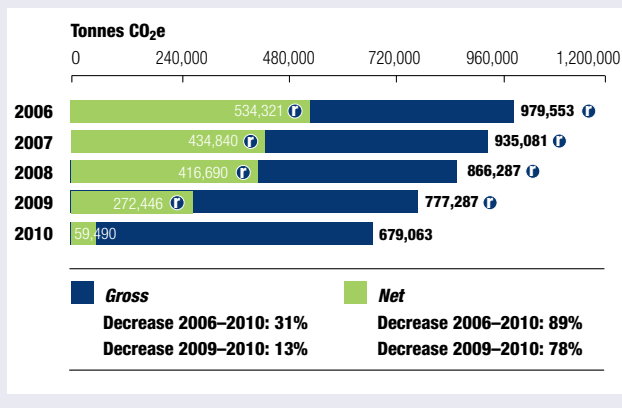
## Energy

**EOP** During 2010, energy consumption across The Co-operative decreased by 12% compared with 2009 and by 29% compared with 2006, meeting and surpassing reduction targets two years ahead of schedule. There was a 13% decrease in electricity usage and a 9% decrease in gas usage in 2010<sup>11</sup>.

*Gross* energy-related CO<sub>2</sub>e emissions have decreased by 31% compared with 2006. As a result of the increased use of renewable electricity at former Somerfield premises, *net* energy-related CO<sub>2</sub> emissions have decreased by 89% over the same period.



**Total emissions from energy consumption<sup>12</sup>**



**Energy programme**

The Co-operative’s energy strategy focuses on The Co-operative Food’s stores and distribution, and The Co-operative’s head office operations, which comprise almost 90% of total energy use. The energy programme is directed by a Programme Board chaired by

the Managing Director of The Co-operative Estates. There are three areas of focus: the encouragement of staff behavioural change and better housekeeping; amendments to the standard ongoing refit programme; and a retrofit programme designed to reduce energy at the most energy-intensive stores. Further capital expenditure of £30m has been approved for the period 2011 to 2013 inclusive.

Initiatives delivered in 2010 included:

- roll-out of retrofit measures to a further 658 premises (2009: 736), including 169 energy management systems and 90 improved lighting systems; and
- maintaining energy efficiency features of the ongoing refits programme, such as the wider use of Light Emitting Diodes (LEDs), with 606 refits taking place.

Six dedicated Food regional energy managers oversaw the continued training of some 3,000 employee Energy Champions. Every Food store has an Energy Champion, supported by 239 area and 37 district Energy Champions. In 2010, the Champion programme was extended to acquired Somerfield stores.

**New head office**

The Co-operative is developing new headquarter premises in Manchester, to be completed in 2012. The design of the building has now been accredited to the BREEAM ‘outstanding’ rating<sup>13</sup>, and work will continue to ensure it achieves BREEAM outstanding for ‘in-use’. As part of the initial design process, a review was undertaken to investigate the impact of projected temperature rises from climate change upon the building’s cooling systems and energy consumption.

The building is currently under construction and has numerous resource-efficient features:

- an on-site combined heat and power (CHP) plant, fuelled by plant-oil grown by The Co-operative Farms,

providing the majority of the energy requirement for the new building;

- glass façades and building orientation to maximise natural lighting;
- a double-skin façade that controls heat loss and heat gain. This is combined with automated and efficient lighting and ventilation systems throughout to maximise energy efficiency;
- natural refrigerants throughout the building in place of hydrofluorocarbons (HFCs);
- the harvesting and re-use of grey water generated on site; and
- provision for storage of over 100 bicycles and showering facilities.



# CLIMATE CHANGE

## Performance recognition

In 2010 and 2011, The Co-operative ranked fourth and third respectively in the Sunday Times 60 Best Green Companies list. In both years it was the highest ranked retail and financial services provider.



### Green electricity procurement

During 2010, virtually all (over 98%) electricity (some 1,137GWh) was sourced from good-quality renewable sources – mainly wind and hydro technologies. This makes The Co-operative one of the largest purchasers of green electricity in the world. In addition, The Co-operative has negotiated equivalent green energy contracts (294 GWh) on behalf of 15 independent co-operative societies. In October 2009, a new five-year electricity contract was agreed to provide renewable electricity to over 5,500 sites.

The Co-operative Insurance was the first institutional property investor to transfer all contracts held for its investment property portfolio to green electricity (large-scale hydro and climate change levy-exempt sources) and believes it is still the only institutional property investor to have done this, sourcing some 9.3GWh in 2010 (2009: 9.2GWh).

### On-site renewables generation

The Co-operative is progressing the development of its own renewables capacity. Output from renewable energy installations in 2010 was approximately 24,000MWh (2009: 28,815MWh), representing 2.1% of energy requirements.

A 16MW, eight-turbine wind farm has been operational since 2006 on Co-operative land at Coldham, Cambridgeshire, and all output is paired with The Co-operative's sites. Planning permission has been granted for a seven-turbine extension, to be constructed in 2011. Planning permission has also been granted for a second 28MW, 14-turbine wind farm on Co-operative land in Yorkshire, to be capable of supplying enough electricity to power more than 16,000

Wind turbines at Coldham, Cambridgeshire.



homes annually. In 2009, The Co-operative applied for planning permission for a third 20MW wind farm on third-party-owned land. However, this was refused in April 2011, and an appeal is currently being pursued.

In 2010, feasibility work was undertaken for further renewables projects, including a biofuel CHP system within the new head office (page 63); a biomass CHP project to be based in Manchester and fuelled using waste wood; and photovoltaic installations in south-west England.

In New Mills, Derbyshire, The Co-operative purchases electricity via a private wire to its local Food store from a co-operatively owned micro-hydro project. A second micro-hydro scheme was commissioned in December 2009 in Settle, Yorkshire, where part of the electrical output will be taken through a long-term power purchase agreement.

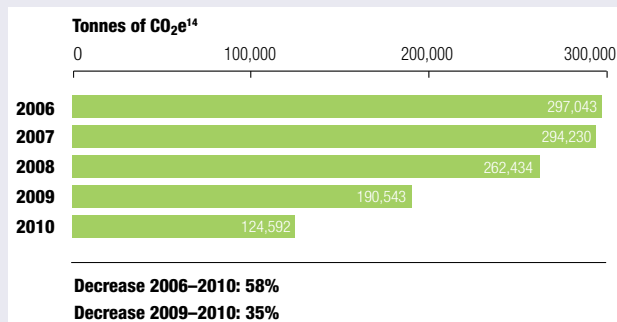
The Co-operative has been an active supporter of micro-generation technologies, through its Green Energy for Schools programme which progressed 189 installations (page 57) and on its buildings. This commitment includes the Solar Tower project, the UK's largest solar power installation, with over 7,000 photovoltaic panels.

In 2011, The Co-operative Bank pledged to extend commercial lending on energy efficiency and renewables from £400m to £1bn (page 44).

### Cooling systems

The Co-operative's refrigeration and air conditioning systems are a significant potential source of GHG emissions due to their use of hydrofluorocarbons (HFCs). The most significant source is refrigerant leakages from Food stores.

#### The Co-operative Food refrigerant gas leaks



In 2010, emissions from refrigerant gas leaks from The Co-operative Food stores and distribution centres reduced significantly: by 35% compared with 2009, and by 58% since 2006, meeting and surpassing a 50% reduction target three years ahead of schedule. Data on total tonnes leaked can be found online .

Less than 5% of existing cooling equipment across The Co-operative Food stores (including former Somerfield stores) relies on hydrochlorofluorocarbons (HCFCs), which are classed as potent ozone depletors. Legislation requires that usage of these is phased out by December 2014 and a system of reclaim and recycle is now in place for this equipment.

In 2010, 524 stores were refitted with more energy-efficient HFC units, with a further 500 stores planned for refit in 2011. The continued installation of HFC systems was necessitated by the pressing need to progress the rebrand programme, and the current immaturity and expense of non-organochlorine alternatives. However, a 'free heat' refrigeration system, which uses the heat from the refrigeration system to provide space heating, was installed at a further 25 stores in 2010. In addition, standalone refrigeration units (chillers and freezers) utilising hydrocarbons were introduced in 290 stores.

Refit initiatives planned for 2011 include:

- switching the refrigerant gas from the HFC R404a (which has a global warming potential, GWP, of 3,750) to the HFC R407a (which has a GWP of 1,770) in all new refrigeration installations;
- all new standalone refrigeration units to run on hydrocarbons;
- the installation of three new carbon dioxide refrigeration systems; and
- the trialling of hydrocarbon air conditioning systems in two stores, which, if successful, when combined with new in-store refrigeration systems, will allow stores to be wholly or in part HFC-free.

It is intended that all new installations will be HFC-free from 2015, and all stores within the estate will be HFC-free by 2030.

Trials of doors on refrigeration initiated in 2010 will be expanded to another 10 stores in 2011, to fully assess benefits and customer acceptance.

### Performance benchmark

In 2010, The Co-operative Food participated in the Environmental Investigation Agency's (EIA) survey of supermarket refrigeration technology. In total, 10 supermarkets were assessed on their use of refrigerants and future plans. The Co-operative Food was ranked fifth.

### CFS air conditioning

As air conditioning systems are replaced across CFS, it is preferred that systems based on ammonia, lithium bromide or hydrocarbons are introduced. During 2010, 20 HCFC/HFC branch and office air conditioning units were replaced with hydrocarbon (HC) systems, leading to the removal of 75kg of HCFC/HFC gases with a GWP of 116 tonnes of CO<sub>2</sub>e, and the introduction of 44kg of HC gases with a GWP of just 130kg of CO<sub>2</sub>e.

### Performance recognition

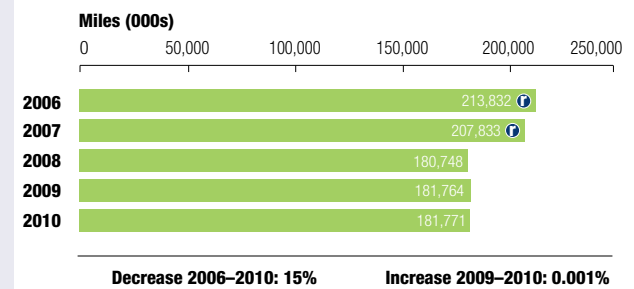
In 2010 and 2011 The Co-operative was named Green Retailer of the Year at the Grocer Gold Awards, in recognition of work undertaken to reduce environmental impact and change consumer behaviour.



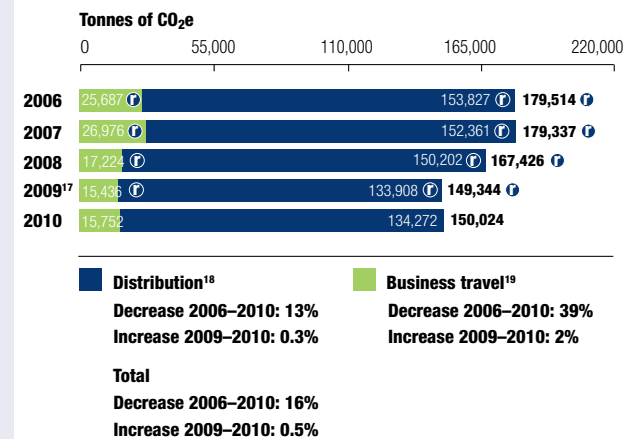
## Transport

### Distribution/business mileage and emissions

#### Total mileage<sup>15</sup>



#### Total transport emissions<sup>16</sup>



During 2010, reported mileage remained stable and transport-related CO<sub>2</sub>e emissions increased marginally by 0.5%. This small increase is a result of changes to conversion factors in Defra's guidance for reporting<sup>20</sup>. Since 2006, reported mileage and transport-related CO<sub>2</sub>e emissions have reduced by 15% and 16% respectively.

Road distribution emissions (excluding home deliveries) increased by 785 tonnes of CO<sub>2</sub>e, a result of an increase of some 1.1 million miles compared with 2009. Home delivery mileage and associated CO<sub>2</sub>e emissions reduced by 1.1 million miles travelled and 421 tonnes of CO<sub>2</sub>e respectively. Business travel mileage shows a small increase in CO<sub>2</sub>e emissions of 316 tonnes, with an increase in mileage of 23,344 miles during the same period.

The Co-operative Food is a signatory to the British Retail Consortium's 'A Better Retailing Climate' initiative, and committed to a 15% reduction in CO<sub>2</sub>e emissions from its distribution activities by 2013, based on 2005 levels, including those of former Somerfield.

In 2010, The Co-operative Food's distribution mileage and associated CO<sub>2</sub>e emissions decreased by 24.4 million miles (21%) and by 30,909 tonnes of CO<sub>2</sub>e (20%) compared with 2005 respectively.

## CLIMATE CHANGE

During 2010, CFS' business mileage decreased slightly by 1% compared with 2009, and has decreased by 52%, or 18.9 million miles, when compared with 2006. This is largely as a result of the reduction in Financial Advisers (FAs) employed by the business who travel to visit customers in their homes. Overall CO<sub>2</sub>e emissions from transport at CFS decreased by 4% compared with 2009 and have reduced by 52%, or 5,191 tonnes, when compared with 2006.

CFS policy requires that the existing 200 job requirement cars must have CO<sub>2</sub>e emissions of less than 150g/km and diesels must meet the Euro5 clean burn standard or have particulate filters. In 2010, this CO<sub>2</sub>e emissions target was reduced to sub-145g/km for all new cars entering the scheme. It is intended that the CO<sub>2</sub>e cap will be reduced to 140g/km in 2012. At Britannia, the vast majority of the 230 'essential use' cars already meet the 2012 target and have CO<sub>2</sub>e emissions of less than 140g/km.

### Biofuels

In recognition of the adverse environmental impacts that certain biofuel feedstocks can have, and the opaque nature of much of the transport biofuels supply chain (which makes selection of feedstocks that meet sustainability criteria all but impossible), biofuel use is not actively pursued in distribution activities. In 2009, The Co-operative Bank extended its Ethical Policy to decline business in connection with the distribution of biofuels that fail to achieve a 60% carbon dioxide saving; effectively ruling out investment in biofuels derived from feedstocks that cause tropical deforestation.

The Co-operative Farms has committed a significant area (2,322 hectares) to oilseed rape production, none of which is contracted for transport fuel production.

### Food miles and 'considered carbon'

The term 'food miles' has been widely used in discussions about food sustainability, and is often assumed to be synonymous with total environmental impact, ie, low food miles equating to low environmental impact. However, a wide range of research<sup>21</sup> has shown that, when the whole product lifecycle (cultivation, processing, transport, use, etc) is taken into account there can be counter-intuitive results. For example, foods grown in heated greenhouses in the UK often have a worse environmental impact than foods grown outdoors and flown in.

In addition, for some products, food miles can have ethical as well as environmental impacts. More than one million people in Africa rely on fruit and vegetable exports to British shops, with around £7m per day going to developing countries from supermarket sales. Not only do many of these air-freighted products have relatively low carbon footprints, the UK market for such exports represents a significant economic development opportunity for farmers in developing countries that have very low per capita CO<sub>2</sub> emissions<sup>22</sup>. The drive to reduce carbon emissions can, therefore, result in unintended consequences, which particularly work to the detriment of the

developing world. In response, The Co-operative has committed to reduce the carbon footprint of products, but never at the expense of the world's poorest. This will be achieved through the following measures:

- arguing against any unmerited focus being given to mode of travel (particularly air freight) or food miles – be it in terms of labelling or broad reduction targets;
- continuing to support significant local sourcing initiatives, whilst noting that these are driven not by a concern for food miles or carbon reduction, but the desire of some customers to support local UK products;
- only committing to operationalise carbon labelling at such a time as it is also possible to operationalise 'development labelling'; and
- in parallel with improving ability to account for, manage and reduce carbon within The Co-operative's supply chain, also aim to gain a better understanding and advancement of human development accounting and labelling.

### Green Travel website

At the end of 2009, a Green Travel website<sup>23</sup> was launched, which encourages employees and visitors to utilise more sustainable travel options such as walking and public transport. The site also provides access to a car-sharing scheme.

In 2010, 388 interest-free loans with a value of £450,000 (2009: 229, with a value of £256,000), were taken up by employees for public

transport season tickets, and Manchester-based employees had the opportunity to take part in bicycle maintenance demonstrations, as well as national initiatives such as Walk to Work Week. In Manchester, The Co-operative has led the development of a Green Travel Employers Forum, which has brought together employers to discuss the transport issues within the city.

### Other indirect emissions

Other GHG emissions arise from sources that can be described as 'indirect' (Greenhouse Gas Protocol Scope 3<sup>24</sup>), including the production, use and disposal of products and services for sale in Food, Travel and Pharmacy stores, financial products, projects financed, the disposal of waste, employee travel to work, and business travel in vehicles not owned by The Co-operative<sup>25</sup>. While the guidance for measurement and reporting of such emissions is still in its formative stages, measurement work has been initiated in 2010 in a number of areas.

The net estimated indirect emissions, currently measured, are 1.22m tonnes of CO<sub>2</sub>e, and full details behind this calculation are available online [Co-op](#). It is acknowledged that total indirect emissions are likely to be far larger than this and accounting systems will continue to be developed.

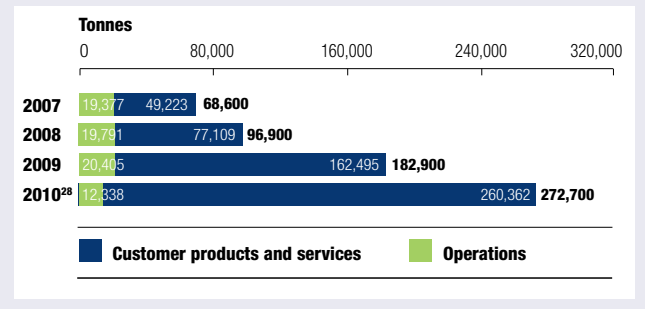
In addition, further initiatives that measure and address such emissions are underway, including the carbon footprinting of products sold in Food stores (page 68), combining a carbon offset with selected financial and Motor products (see below), influencing customers to reduce food waste (page 76), and only selling white goods that meet certain environmental criteria (page 69).

### Carbon offset

In 2010, carbon offset again expanded, with the largest increase in connection with The Co-operative Insurance, as carbon offsets became a standard feature of nearly all motor insurance policies offered. During 2010, a total of 272,700 tonnes of CO<sub>2</sub> offset was purchased (2009: 182,900) as follows:

- one tonne of CO<sub>2</sub> for every Co-operative Bank branded mortgage held;
- The Co-operative Insurance offset 20% of a typical car's CO<sub>2</sub> emissions for all standard motor insurance policies held, based on an average UK car travelling an average number of miles;
- The Co-operative Travel continued to sell carbon offsets at its branches. Offsets are sold in a series of bands, based on distance flown<sup>26</sup>;
- CFS maintained its policy of going 'beyond carbon neutral' by offsetting all its remaining operational and business travel emissions, together with an extra 10% to cover legacy issues;
- The Co-operative Travel and The Co-operative Clothing maintained carbon neutral status by offsetting all their remaining operational and business travel emissions;
- emissions from all Co-operative business flights were offset for the fourth year running; and
- The Co-operative Motor Group launched an Emissions Control Service in 2010 and for each service undertaken half a tonne of CO<sub>2</sub> is offset<sup>27</sup>.

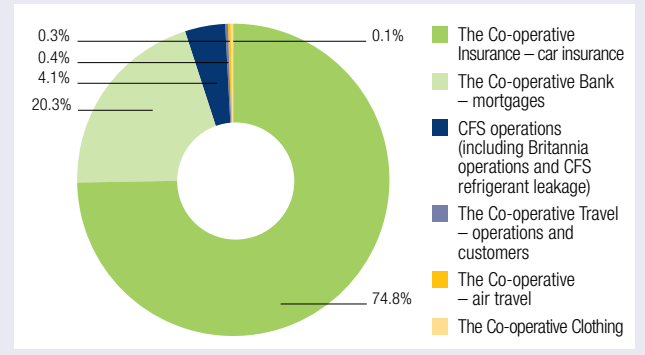
### Carbon offset



### Offset purchased 2010



### Carbon offset – total: 272,700 tonnes of CO<sub>2</sub>



The Co-operative places 80% of its offsetting portfolio into energy-efficiency and renewable energy projects. The remaining 20% is delivered through rainforest reforestation, such as that taking place in the Kibale Forest National Park, Uganda. This reflects the typical level of global greenhouse gas emissions attributable to deforestation<sup>29</sup>.

In 2010, offsets were provided, via ClimateCare, from the following projects:

#### Treadle pumps in West Bengal and Uttar Pradesh, India

These manual pumps are used to irrigate fields outside the monsoon season. They provide a more sustainable and affordable alternative to expensive diesel-powered pumps, increasing productivity and bringing much needed additional income to farming families. In 2010, offset monies funded 10,482 treadle pumps, which will avoid emissions of 5,000 tonnes of CO<sub>2</sub> over one year.

#### Energy-efficient cooking stoves in Cambodia

Energy-efficient cooking stoves reduce the amount of wood needed for cooking, which means less CO<sub>2</sub> is released. The reduced demand for wood helps to protect Cambodia's forests. In 2010, offset monies helped to fund the construction and supply of approximately 55,400 stoves, and will avoid emissions of 83,100 tonnes of CO<sub>2</sub> over two years.

Climate change

Waste and packaging


Water

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Chemicals

# CLIMATE CHANGE

## Product carbon footprinting

The Co-operative has developed a software tool in partnership with The University of Manchester that facilitates quicker and more accurate decision-making around the climate change impacts of products.  The tool has been used to analyse four product areas to date.

### Strawberries

In a study that predates the software tool, in 2007 and 2008, The Co-operative worked with the Carbon Trust to understand the carbon embodied within two types of strawberries (400g punnets): 'Ava' strawberries from The Co-operative Farms' Blairgowrie farm, Scotland, and 'Sabrosa' strawberries from Spain. It was estimated that the carbon embodied was 850g and 600g of CO<sub>2</sub>e for the Scottish and Spanish strawberries respectively. In 2009, the Blairgowrie farm trialled coir (coconut husk) as an alternative growing media to peat, which had been identified as the most significant element of the Scottish strawberries' higher carbon content. The trial was deemed successful and was extended into 2010. Results show that strawberries grown in coir have a 16% lower carbon footprint than peat-grown strawberries. A trial to re-use the coir will conclude in 2011. If successful, this will further increase emissions savings.



### Chicken

Chickens reared under three different welfare standards were analysed. 'Embodied carbon emissions' in Elmwood (page 33), free-range and organic whole



chickens were estimated to be 4.6kg, 5.1kg and 6.4kg of CO<sub>2</sub>e respectively, per kg of chicken meat. A significant proportion of emissions were found to be associated with feed and bedding. As a result, alternatives to carbon-intensive feed ingredients are now being investigated.

### Haddock

The carbon footprints of Scottish and Norwegian haddock fillets from two different catch methods – trawled and line-caught – were investigated and found to be broadly similar, at 2.8kg and 3.1kg of CO<sub>2</sub>e respectively, per kg end product. Whereas the most carbon-intensive stage of the trawled fish was the processing, for the line-caught fish it was emissions during catch.

### Salmon

The carbon emissions embodied in a 240g packet of fresh salmon were estimated to be 2kg of CO<sub>2</sub>e. However, during the investigation of the footprint the supplier relationship changed, meaning some data had to be estimated. Even so, it was clear that the dominant emissions source – approximately 60% of the total footprint – is the production of salmon feed. In 2011 the footprint will be revised with data from a new supplier, before considering any carbon reduction initiatives.

### Beef mince

Carbon emissions embodied in a 454g packet of beef mince are estimated to be 10.2kg of CO<sub>2</sub>e per kg end product, with a significant proportion associated with production of feed, both on-site (grass silage) and off-site (soya and wheat). In 2011 carbon reduction initiatives across the agricultural stage of beef production will be investigated.



### Reforestation in the Kibale Forest National Park, Uganda

This project aims to re-establish rainforest within the Kibale Forest National Park, Uganda. The rainforest absorbs carbon dioxide during growth and effectively locks it up as biomass. In 2010, 26,200 tonnes of CO<sub>2</sub> were offset through this project. Since support began in 2000, The Co-operative has funded the planting of over 370 hectares of rainforest, equivalent to 519 football pitches. Further details of the Kibale project are provided on page 84.

### Renewable energy in India

This project, a wind farm in the state of Tamil Nadu, southern India, supplies clean energy to India's national grid, which is currently dominated by carbon intensive coal power. In 2010, offset monies to this project will avoid 130,000 tonnes of CO<sub>2</sub> emissions over four years.

### Reducing Emissions from Deforestation and Degradation (REDD) in Kenya

The increase in offset volumes in 2010 required an additional forestry-related project. The Kasigau Corridor REDD project in Kenya involves protecting an area of forest from deforestation. This is achieved through providing education and employment in conservation to local communities, as opposed to the current practice of slash and burn for agriculture. Alternative sources of forest products such as fruit trees and charcoal are produced in nearby nurseries, and in the long term these activities should reduce the pressure to deforest in the area. The area protected is also a wildlife corridor between two national parks, supporting many species including lion, cheetah, African elephants and the endangered Grevy's Zebra. In 2010, 28,300 tonnes of CO<sub>2</sub> were offset through this project.

## Other products and services

### Energy-inefficient goods

Since 2007, and three years ahead of legislative requirements<sup>30</sup>, The Co-operative Food has only stocked white goods (eg, fridges, freezers and washing machines) that are energy rated 'A' or above, or Energy Savings Trust Recommended.

In 2007, The Co-operative Food committed to phase out the sale of tungsten incandescent light bulbs by 2010. This was achieved by the end of 2009, two years ahead of legislative requirements<sup>31</sup>. During 2010, the range of energy-efficient light bulbs sold in The Co-operative Food stores increased from 31 to 102 products, with 455,000 bulbs sold.

### Ethical finance

#### Bank screening of finance

During 2010, 45 (2009: 55) finance opportunities were referred to the Ethical Policy Unit in relation to climate change, of which nine were declined (2009: 12) at a cost of £711,000 in terms of estimated income foregone.

#### Climate change-related business declines 2010

	Estimated income foregone 2010
<b>Engineering and support services</b> (four instances) £10m syndicated loan facility and £350,000 lending for businesses supplying equipment considered intrinsic to oil and gas extraction. Banking facilities for a business engaged in the manufacture of specialist software in support of fossil fuel extraction. Deposit facilities for a business supplying furnace equipment for oil refinery.	£349,000
<b>Fossil fuel extraction and production</b> (three instances) £100m interbank deposit facility for a global oil and gas business engaged in exploration, extraction and production. Deposit facility for a business engaged in oil exploration and production in Africa, the Middle East and Russia. Deposit facility for the issuer of licences for UK coal extraction.	£102,000
<b>Higher global warming impact fuels</b> £30m deposit facility for a business providing engineering, project management and construction services to tar sands extraction projects in Canada.	£210,000
<b>Power station</b> £50m interbank deposit facility for a large coal-fired power station. Unacceptable level of carbon dioxide emissions considered incompatible with support for ecological sustainability.	£50,000

### The Co-operative Asset Management (TCAM) engagement

• **Tar sands** In 2010, TCAM co-filed shareholder resolutions at two oil company AGMs calling for greater disclosure on the impacts of tar sands developments. See page 71 for details of these engagements.

• **TCAM overseas shareholder resolutions** In 2010, TCAM was presented with 56 overseas shareholder resolutions relating to climate change, of which 51 were supported. Three resolutions from proponents hostile to combating climate change were opposed.

Company	Resolution	Vote registered
17 companies <sup>32</sup>	To introduce/extend sustainability reporting	Supported
Mirant Corp; Dynegy Inc; Smithfield Foods Inc; Exxon Mobil Corp; Southern Co; ConocoPhillips	To adopt targets for greenhouse gas emissions reduction.	Supported
Chesapeake Energy Corp; Ultra Petroleum Corp; Exxon Mobil Corp; The Williams Companies	To report on potential environmental damage from hydraulic fracturing for natural gas extraction and consider policies to reduce or eliminate such damage.	Supported
Cisco Systems Inc; Microsoft Corp; Oracle Corp	To establish a board committee on sustainability.	Supported
Chevron Corp; Freeport-McMoRan Copper & Gold inc	To appoint an independent director with environmental expertise.	Supported
Southern Co; MDU Resources Group Inc	To report on efforts to reduce environmental and health hazards associated with coal combustion waste.	Supported
Chevron Corp; ConocoPhillips	To report on financial risks resulting from climate change.	Supported
ConocoPhillips; Exxon Mobil Corp	To report environmental, social and economic risks associated with tar sands extraction.	Supported
CVS Caremark Corp; Safeway Inc	To adopt principles for tackling global warming.	Supported
Apple Inc	To establish a board committee on sustainability.	Supported
Dominion Resources	To establish a goal for 20% renewable electricity energy generation by 2022.	Supported
Exxon Mobil Corp	To report on scenarios for developing leadership in sustainable energy technologies.	Supported
Exxon Mobil Corp	To consider in strategic planning the risk of significantly lower fossil fuel demand than forecast.	Supported
Fairfax Financial Holdings	To respond to requests for information from the Carbon Disclosure Project.	Supported
Kansai Electric Power Co (five resolutions)	To adopt policies mandating carbon reduction standards; environmental protection; renewable energy; and energy waste reduction.	Supported

Climate change

Waste and packaging

Water

Biodiversity

Chemicals

## CLIMATE CHANGE

Company	Resolution	Vote registered
Kyushu Electric Power Co	To introduce a 'smart grid' system for managing renewable energy supply.	Supported
Tokyo Electric Power Co	To introduce a 'smart grid' system for managing renewable energy supply.	Abstained <sup>33</sup>
Tohoku Electric Power	To appoint an independent director with environmental expertise.	Abstained <sup>34</sup>
Duke Energy	To report on global warming-related lobbying activities.	Opposed <sup>35</sup>
Ford Motor Co	To disregard any emissions reduction projects unless they meet Return on Investment criteria.	Opposed
Goldman Sachs Group	To report on costs/benefits of climate change policy and science of global warming.	Opposed <sup>36</sup>

### Community involvement

#### Green Energy for Schools

The Co-operative's Green Energy for Schools (GEFS) programme has enabled 189 schools across the UK to install solar panels at no cost and supported the subsidised installation of small wind turbines, biomass boilers and ground source heat pumps. For further details, see page 57.

#### Walking Buses

Walking Buses have now been established in 326 locations, helping children to walk to school together in safety. For further details, see page 57.

Students at the Howden Junior School travel to school in a Walking Bus.



### Influence and action

#### Green Investment Bank

The Co-operative supports the proposal to establish an independent, permanent and self-financing UK Green Investment Bank as a means to accelerate the UK's transition to a low carbon economy and, in particular, has highlighted the importance of funding for community-scale renewables to deliver a diversified energy supply.

The Co-operative has added its name to public statements issued by Transform UK, the umbrella group of NGOs and businesses campaigning for a Green Investment Bank. In December 2010, The Co-operative Bank Social Banking Unit (page 44) submitted oral evidence to the Environment Audit Committee. In February 2011, CFS joined seven other institutional investors as co-signatory to a letter to the Prime Minister that expressed a willingness to consider purchase of bonds issued by the Green Investment Bank in line with conventional investment criteria.

#### Heathrow third runway

As part of its Ethical Strategy, first published in 2008 (page 13), The Co-operative Travel opposes the development of a third runway at Heathrow Airport, and, in principle, all other new runway developments in the UK, unless there is a clear sustainability case. The Co-operative Travel wrote to the Secretary of State for Transport in 2009 questioning the need for a third runway and highlighting its environmental impact. In May 2010, the Government announced that it was scrapping plans for the new runway, a position that was confirmed later in the same month by the airport's owners.

#### Feed-in Tariffs for renewables and Renewable Heat Incentive

The Co-operative is a member of Friends of the Earth (FOE) and the Renewable Energy Association's (REA) Feed-in Tariffs (FITs) coalition. The coalition successfully campaigned for the introduction of FITs, which began in April 2010. In May 2010, a letter was written to the new Secretary of State for Energy and Climate Change expressing support for FITs and the principle of the Renewable Heat Incentive (RHI). The Co-operative also participated within the FOE and REA-led RHI campaign coalition, co-signing a letter to the Prime Minister in September 2010 calling for the introduction of the RHI and contributing £2,500 to a parliamentary lobby event in October 2010, attended by MPs of all main parties.

#### International climate change talks

In November 2010, The Co-operative signed the 'Cancun Communiqué on Climate Change' which urged political leaders at the United Nations Climate Change Conference in Cancun, Mexico, to press for: robust financial and policy support for energy-efficiency measures, strong policy support and fast-track funding for low-carbon energy systems, greater financial and policy support for emissions capture and storage, increased effort on tackling other GHG emissions and addressing the carbon emissions impact of urban planning, land use management and land use change.

**Toxic Fuels**

The Toxic Fuels campaign was launched in 2009, to highlight the environmental and financial risks associated with unconventional fossil fuels such as tar sands and shale gas, and call for a halt to expansion plans. The campaign has four main elements: support for the Beaver Lake Cree Nation; engagement with companies involved in tar sands development; calls to introduce mandatory GHG reporting and low-carbon fuel standards; and public awareness raising.

**Beaver Lake Cree Nation**

The Beaver Lake Cree Nation is a small indigenous community in Alberta, Canada, whose reserve home and ancestral lands are threatened by tar sand developments. They have constitutionally protected treaty rights, and have begun a legal challenge to enforce recognition of these rights and a halt to new developments. Donations by The Co-operative, and its customers and members, have raised over £200,000 in support of this action.



In 2010, The Co-operative assisted First Nations to seek a judicial review to protect the threatened woodland caribou, and published the report 'Save the caribou – stop the tar sands'.

**Mandatory GHG reporting and disclosure**

The Government has a legal obligation under the Climate Change Act to ensure mandatory GHG reporting by 2012, or to explain why it has not been introduced. In July 2010, The Co-operative and WWF published a report 'Toxic Fuels – Toxic Investments: why we need mandatory greenhouse gas reporting', which it sent to ministers at Defra and BIS. In October 2010, The Co-operative and WWF worked with MPs to table 'Early Day Motion 799 – corporate reporting of carbon emissions', and customers, members and supporters were mobilised to ask their MP to sign the EDM. In November 2010, The Co-operative, WWF and The Aldersgate Group organised an open letter to the Government (co-signed by 30 other businesses and civil society groups) calling for the introduction of reporting by 2012.



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**TCAM tar sands engagements and influence**

In early 2010, TCAM, with other investors, filed shareholder resolutions at the AGMs of BP plc and Royal Dutch Shell plc, calling on them to report on the risks associated with tar sands projects and their plans to address them. The Shell resolution was co-tabled by 141 investors, including fund managers, pension funds, foundations and faith groups, and represented the largest-ever mobilisation of investors in support of an independent resolution in the UK. The resolutions attracted significant support with 15% and 11% of shareholders voting for, or abstaining on, the BP and Shell resolutions respectively.

**Public awareness raising**

In 2010, The Co-operative supported the UK release of the films Dirty Oil, H2Oil and Petropolis, and hosted the world premiere of Dirty Oil, which was screened live via satellite to 25 cinemas around the UK, reaching an audience of thousands. The Co-operative also launched the touring street gallery Tarnished Earth, showing photographs of the devastation caused by tar sands developments. This was displayed on London's Southbank in September. It will tour the UK during 2011.



**Low carbon fuel standard**

The Fuel Quality Directive – Europe's Low Carbon Fuel Standard – sets a mandatory 6% reduction target for the GHG gas emissions of EU transport fuels by 2020. However, by treating tar sands oil the same as conventional oil, the increased emissions from tar sands will potentially negate claimed emissions reductions.

In response, a coalition was formed with WWF and other NGOs to campaign to 'keep tar sands out of Europe'. Extensive engagement has taken place<sup>37</sup>, including work with MEPs to table questions to the Commission, and a meeting with the UK Minister for Transport to advise of the inadequacy of current proposals. A petition to 'keep tar sands out of Europe' was incorporated into the Tarnished Earth street gallery, which was presented to the European Parliament in spring 2011. The Commission's final proposals are expected to be presented to Parliament for agreement in summer 2011.

## CLIMATE CHANGE

## Accompanying notes

- 1 See for example: Stern, N. (2009), Blueprint for a Safer Planet – How We Can Save the World and Create Prosperity.
- 2 [www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)
- 3 [www.bbc.co.uk/news/science-environment-11903397](http://www.bbc.co.uk/news/science-environment-11903397)
- 4 [news.bbc.co.uk/1/hi/sci/tech/8400905.stm](http://news.bbc.co.uk/1/hi/sci/tech/8400905.stm)
- 5 [unfccc.int/meetings/cop\\_16/items/5571.php](http://unfccc.int/meetings/cop_16/items/5571.php)
- 6 Figures for direct GHG emissions include those associated with air, rail and 'own-car' business travel, which are more commonly reported as 'indirect', or 'Scope 3' emissions.
- 7 With a conversion factor of 0.54284kg CO<sub>2</sub>e per kWh, as per Defra guidance (2010).
- 8 2010 Guidelines to Defra GHG Conversion Factors for Company Reporting Archive: [defra.gov.uk/environment/business/reporting/pdf/101006-guidelines-ghg-conversion-factors.pdf](http://defra.gov.uk/environment/business/reporting/pdf/101006-guidelines-ghg-conversion-factors.pdf)
- 9 Carbon dioxide equivalent (CO<sub>2</sub>e) is used to compare the Global Warming Potential (GWP) of different greenhouse gases (methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>)) relative to CO<sub>2</sub>. For example, CO<sub>2</sub> has a GWP of one, whilst N<sub>2</sub>O has a GWP of 310.
- 10 Historic data (2006–2009) includes data for merged and acquired businesses (the former United Co-operatives, former Somerfield and Britannia), even at a time when these were not part of The Co-operative. Where historic data is unavailable, proxies have been used. Full information regarding the composition of figures can be found online [↗](#).
- 11 CFS energy consumption including Britannia: 2010: 74,930 MWh; 2009: 77,210 MWh; 2008: 79,041 MWh; 2007: 79,021 MWh; 2006: 83,219 MWh.
- 12 Figures apply a conversion factor of 0.5428kg CO<sub>2</sub>e per kWh for fossil fuel and renewable electricity and 0.18523kg CO<sub>2</sub>e per kWh for gas.
- 13 The BRE Environmental Assessment Method (BREEAM) assesses buildings against set criteria and provides an overall score that will fall within a band providing either: PASS, GOOD, VERY GOOD, EXCELLENT or OUTSTANDING rating, [www.breem.org](http://www.breem.org)
- 14 Refrigerant data (2006–2010) includes The Co-operative, former United Co-operatives, and former Somerfield stores and distribution centres, even when these were not part of The Co-operative. CO<sub>2</sub>e emissions factors are calculated by applying relevant Defra 2010 conversion factors.
- 15 The Co-operative Bank, The Co-operative Insurance and the Trading Group have reported on their transport impacts since at least 2003. Data for Britannia and former United Co-operatives' transport impacts is unavailable prior to 2006 and 2007 respectively, necessitating the need for proxies (2007 and 2008 respectively). Data for former Somerfield's transport impacts is unavailable prior to 2009 (with the exception of distribution mileage, which has the largest impact), necessitating the use of 2009 data as a proxy in previous years.
- 16 CO<sub>2</sub>/CO<sub>2</sub>e emissions are calculated by applying relevant Defra 2010 conversion factors for each mode of transport to the distance travelled.
- 17 In addition to business areas listed in footnote 18, data covers home deliveries for The Co-operative Food, The Co-operative Pharmacy, Sunwin Cash In Transit and former Somerfield.
- 18 Accounting systems connected with road distribution capture The Co-operative Food (including Somerfield), The Co-operative Funeralcare, The Co-operative Clothing and home deliveries across The Co-operative Food, The Co-operative Pharmacy and Sunwin Cash in Transit.
- 19 Data covers rail, air, company car, business mileage in employees' own cars and hire car journeys.
- 20 Ibid note 7.
- 21 Such research includes: Dr A Williams (2 February 2007) Comparative Study of Cut Roses for the British Market Produced in Kenya and the Netherlands, Précis Report for World Flowers, Cranfield University; C Saunders and A Barber (2007) Comparative Energy and Greenhouse Gas Emissions of New Zealand's and the UK's Dairy Industry, Research Report No. 297, Lincoln University, New Zealand; and P Tyedmers and N Pelletier (2007) Greenhouse gas emissions for selected seafood species supplied to the UK, Dalhousie University, Canada.
- 22 Melamed, C (2007) Sometimes it's ethical to buy air-freighted goods, *The Guardian*, 2 March 2007.
- 23 [www.co-operative.coop/greentravel](http://www.co-operative.coop/greentravel)
- 24 [www.ghgprotocol.org/calculation-tools/faq](http://www.ghgprotocol.org/calculation-tools/faq)  
The GHG Protocol categorises direct and indirect emissions into three broad scopes. Scope 1: All direct GHG emissions. Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam. Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g. T and D losses) not covered in Scope 2, outsourced activities, waste disposal, etc.
- 25 Emissions from business travel are currently recorded in Scope 1 and Scope 2 reporting. This is due to accounting systems for business travel being unable to disaggregate mileage from company and privately owned vehicles.
- 26 For all flights, distance travelled is calculated using the greater circle distance between airports. For long-haul flights (Bands 4 to 6), customers' CO<sub>2</sub> emissions are calculated using average fuel burn figures for a Boeing 747 and Airbus A340, whereas for short-haul flights (Bands 1 to 3), fuel burn figures for a Boeing 737 are used. These figures are divided by the typical number of seats in each case, deducting the average amount of freight when necessary. A metric of two is then applied to attempt to account for the enhanced impact of aviation upon the climate and give a CO<sub>2</sub> equivalent figure. For further information, please refer to [www.jpmorganclimatecare.com](http://www.jpmorganclimatecare.com)
- 27 Due to reporting of this new product the tonnes required for 2010 sales will be offset in the portfolio of 2011. Going forward the offset will occur in the same year as sales.
- 28 The significant reduction in offset total between 2009 and 2010 is a result of conservative overestimates in previous data combined with improved accountancy in 2010.
- 29 Stern, N (2006) The Stern Review on the economics of Climate Change. Also see Global Canopy Programme (May 2007) Forests First in the Fight Against Climate Change – The Vivocarbon Initiative.
- 30 In April 2009, The European Commission announced new minimum performance standards for household appliances under the EU Eco-Design Directive. As a result, from July 2010, all fridges, freezers, washing machines and dishwashers that are energy rated less than 'A' must be removed from sale.
- 31 In March 2009, The European Commission confirmed the sale of incandescent light bulbs would be phased out between September 2009 and 2012.
- 32 Apple Inc; Boston Properties Inc; C R Bard Inc; Chesapeake Energy Corp; EQT Corp; Gentex Corp; Google Inc; Great-West Lifeco; Kroger Co; Las Vegas Sands; Lennar Corp; MGM Mirage; PPG Industries; St Jude Medical; Suntrust Banks Inc; Toll Bros Inc; Tyson Foods Inc.
- 33 The proponents' rationale was considered insufficient.
- 34 Ibid.
- 35 TCAM disagreed with the resolution's view of the company's climate change policy as 'based on unsettled science and pushed by outside pressure groups'.
- 36 Ibid.
- 37 The full extent of engagement included: in April 2010 writing jointly with WWF to the UK Minister of State for Transport and key MEPs to highlight the issue and ask that they put pressure on the EC to penalise tar sands fuels for their higher emissions; employing a consultant in Brussels to engage with MEPs, Parliament and the EC, and holding face-to-face briefings with key MEPs; working with MEPs on the European Parliament Environment Committee to table questions to the Commission; in July 2010, writing jointly with WWF and Greenpeace to the new Minister of State for Transport, and signing a letter to the EC with 10 other international environmental and civic society groups calling for the FOD to be strengthened; in September 2010, with WWF and Greenpeace, meeting the UK Minister of State for Transport to advise of the inadequacy of current EC proposals; working with a group of six Environment Committee MEPs to table questions to the Commission; in October 2010, with NGO coalition partners, briefing MEPs on the EU-Canada trade delegation visit to Alberta, and working with the delegation secretariat to include an official meeting with an environmental science organisation, as well as an unofficial meeting with First Nation representatives; in December 2010, briefing several MEPs ahead of meetings with the Climate Change and Trade Commissioners (organised to raise concerns about reports of Canadian pressure to remove the FOD tar sands review clause), and ahead of meetings with representatives of the Canadian Government. In April 2010, The Co-operative put its name to a full-page advert in the European Voice reinforcing its message to the Commission.

# WASTE AND PACKAGING

## Background

The UK Commercial and Industrial sector produces an estimated 48 million tonnes of waste per year. The retail sector is the largest contributor, generating some 9 million tonnes<sup>1</sup>. In addition, the sector contributes 6.7 million tonnes of food waste to the 26.5 million tonnes of waste generated by UK households each year. It is estimated that 60% of food disposed by households – approximately one-third of food purchased – could have been eaten<sup>2</sup>.

Total packaging produced by the retail sector has remained stable at approximately 2.9 million tonnes between 2007 and 2009<sup>3</sup>.

Public awareness of waste and packaging issues is growing. Over the last 10 years there has been a year-on-year reduction in waste sent to landfill by households, and a three-fold increase in household recycling<sup>4</sup>.

## Materiality and strategy

The majority of The Co-operative's waste is associated with The Co-operative Food, and the waste generated by its 2,900 stores. CFS and the Group head office complex are the main generators of office waste.

Waste and packaging is a major area of focus in the new Ethical Operating Plan (page 13). In the latest ethical policy consultations for the food, banking and investments businesses, members and customers indicated their wish for the business to pursue measures that promote sustainable waste management.

The Co-operative's approach to operational waste management follows the established waste hierarchy of reduce, reuse and recycle. The Packaging Policy, for own-brand food products, prioritises absolute packaging reductions and governs acceptable packaging materials, based on food safety and environmental considerations<sup>5</sup>.

Climate change

Waste and packaging

Water

Biodiversity

Chemicals

Targets 2010	Progress	Targets 2011
<b>Indicator: Waste reduced</b>		
Extend the consolidation of waste management contracts across The Co-operative to further improve accounting systems for general and recycled waste streams.	✓ The accuracy of the waste to landfill tonnage for Pharmacy, Travel and Food has improved following a consolidation of waste management contracts for these businesses (page 74).	
Reduce total waste arising and maintain a 70% reuse/recycling rate across CFS' main offices, excluding the Britannia estate.	✓ CFS (excluding Britannia) reduced its waste arising by 158 tonnes and maintained a stable reuse/recycling rate above 70% (pages 74 and 76).	Reduce total waste arisings and maintain a 70% reuse/recycling rate across CFS' main offices, including Britannia.
Reduce the carbon impact of The Co-operative Food's packaging by 10% by 2012, compared with 2009 <sup>6</sup> .	= A number of reductions in the environmental impact of own-brand packaging were developed in 2010 (page 75).	<b>EOP</b> In addition to the 15% weight reductions achieved in packaging, reduce the carbon impact of The Co-operative Food's packaging by 10% by 2012, compared with 2009 <sup>7</sup> .
		<b>EOP</b> Reduce the number of carrier bags used by The Co-operative Food by 75% by 2013.
<b>Indicator: Waste reused/recycled</b>		
Increase the amount of cardboard and polythene recycled by The Co-operative Food.	✓ Although the volume of tonnes recycled decreased slightly when compared with 2009, this was due to an increased use of reusable crates, which has reduced the total amount of cardboard waste generated (page 75).	
<b>Indicator: Waste disposed</b>		
Maintain less than 50% of total waste arisings being sent to landfill from The Co-operative Food.	✓ In 2010, 40% of total waste arising was sent to landfill or for disposal (page 77).	<b>EOP</b> Ensure that the vast majority of operational waste is diverted away from landfill by 2013, and expand work with Fareshare on food waste.

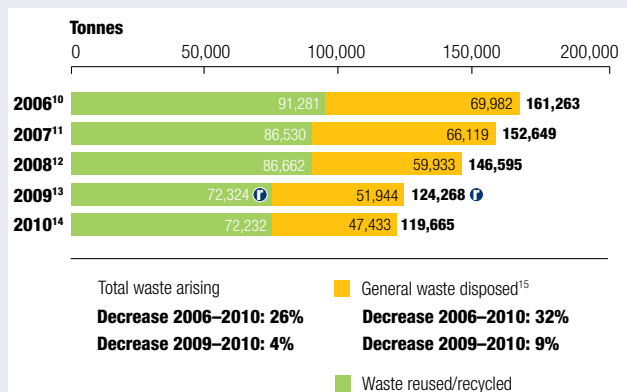
# WASTE AND PACKAGING

## Total waste

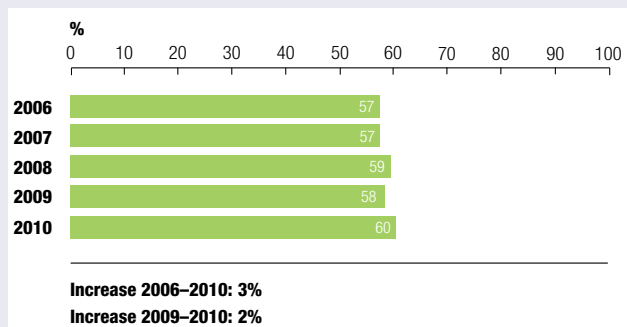
In 2010, total reported waste arisings and general waste disposed<sup>8</sup> were 119,665 tonnes (2009: 124,268 tonnes) and 47,433 tonnes (2009: 51,944 tonnes), representing a reduction of 4% and 9% respectively when compared to 2009, and 26% and 32% respectively when compared with 2006. Meanwhile, the reuse/recycle rate increased by 2% compared to 2009, and 3% compared to 2006.

🎯 In 2010, the accuracy of the waste to landfill tonnage for The Co-operative Pharmacy, Travel and Food improved due to a consolidation of waste management contracts for these businesses. In line with its target, CFS continued to reduce its waste in 2010, and maintained a 70% recycling rate across its head office<sup>9</sup>.

### Total waste arising



### Proportion of waste reused/recycled



## Reducing waste

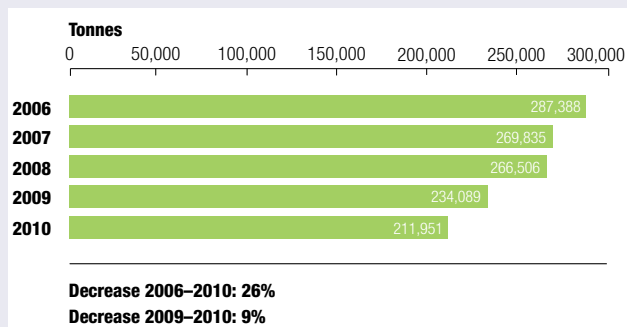
### Total primary packaging (own-brand and branded)

Total primary packaging levels<sup>16</sup> at The Co-operative Food<sup>17</sup> (own-brand and branded) have reduced by 22,138 tonnes (9%) since 2009, and 75,437 tonnes (26%) since 2006.

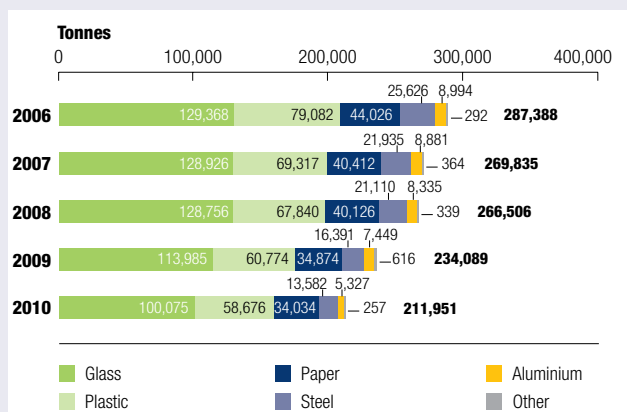
### Reduction in total primary packaging

**26%** reduction in total primary packaging since 2006

### Total primary packaging handled<sup>18</sup>



### Primary packaging handled by material<sup>19</sup>



## Reducing own-brand packaging

In 2009, The Co-operative Food achieved its target to reduce own-brand primary packaging by 15% – one year ahead of schedule<sup>20</sup> – achieving an estimated total reduction of 16% (15,403 tonnes).

A new target has now been set to reduce the carbon impact of packaging by 10% by 2012 based on 2009 levels. This is in line with the focus of the industry-wide initiative Courtauld II<sup>21</sup>, to which The



Co-operative has pledged its commitment. Courtauld II extends the focus of the original Courtauld agreement on packaging reduction, to include the carbon impact of packaging, as well as UK household food waste and waste in the supply chain. In 2010, an 11% reduction (15,051 tonnes) in the weight of own-brand packaging was achieved, compared to 2009<sup>22</sup>.

Specific reductions in own-brand packaging developed in 2010 include:

Initiative	Projected annual savings (tonnes)
Reduction in the weight of own-brand Californian wine bottles	530 glass
Change from plastic lids to pre-printed film on soft fruits.	221 plastic
Change from paper labels to pre-printed film on pre-packaged tomatoes.	181 paper
Reduction in the thickness of potato plastic bags.	34 plastic
Reduction in the thickness of box packaging on whole dates.	6 plastic

**Food waste**

To help customers reduce food waste, storage instructions for fruit and vegetables are included on loose fresh produce bags. For example, messages on banana packaging are designed to encourage customers to store the fruit at room temperature, rather than in the refrigerator.

In early 2011, The Co-operative committed to work further with charities, such as Fareshare, to help reduce food waste.

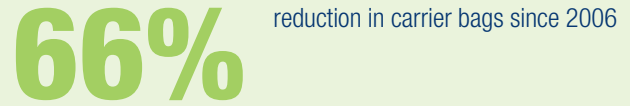
**Carrier bags**

The number of single-use carrier bags distributed to customers has been reduced by 66% (2009: 63%) compared to 2006, representing over one billion carrier bags avoided. These reductions have been achieved through a number of initiatives, including re-use messages on carrier bags; the launch of a reusable Fairtrade cotton carrier bag; and the removal of single-use bags from prominent display at checkouts.

In early 2011, a new target was set to reduce the number of carrier bags used by The Co-operative Food by 75% by 2013.



**Reductions in carrier bags**



**Reusing waste**

**Reusable crates**

The use of reusable plastic crates for transportation and display of fresh produce and some meat products enabled The Co-operative Food to save an estimated 10,788 tonnes of cardboard in 2010 (2009: 5,422 tonnes).

**IT equipment**

In 2010, CFS donated, or sold for reuse, 23 tonnes of IT equipment (2009: 15 tonnes), including monitors, PCs, laptops and printers. Donated items were sent to charities, such as Digital Links International and the NSPCC. In addition, head office passed 32 tonnes of IT equipment (2009: 12 tonnes) to their asset management contractor for reuse.

**Recycling waste**

In 2010, The Co-operative reused/recycled 72,232 tonnes of waste (2009: 72,349 tonnes), representing 60% of total waste arising (2009: 58%).

**Waste reused/recycled 2010**



**Cardboard and polythene**

Cardboard and polythene represent approximately 86% of waste reused/recycled. In 2010 some 62,084 (2009: 63,250) tonnes were reused/recycled<sup>23</sup>. Although this is a slight reduction compared with 2009, it can be accounted for by the increased use of reusable crates (see above), which has reduced the amount of cardboard waste generated by stores.

**The Co-operative recycling centre**

Head office paper and cardboard are recycled through a recycling centre based at the Manchester head office complex. In 2010, the centre recycled a total of 984 tonnes (2009: 761 tonnes) of The Co-operative's waste<sup>24</sup>.

**Packaging regulations**

Under the Producer Responsibility Obligations (Packaging Waste) Regulations 2007<sup>25</sup>, The Co-operative is obligated to determine how much packaging material (across six categories) it passes on to customers, and to produce evidence of a set amount of recycling and recovery<sup>26</sup>. The Co-operative maintains compliance with these regulations on behalf of much of the UK retail Co-operative Movement.

Climate change

Waste and packaging

Water

Biodiversity

Chemicals

## WASTE AND PACKAGING

### Recycled content and recyclability of product packaging

Two own-brand products – 100% recycled toilet tissue and kitchen towels – are made from waste paper supplied by The Co-operative Recycling Centre. Recycled materials are also used in product packaging, including the majority of green glass wine bottles, washing powder boxes and certain tissue boxes. All new hand



baskets at The Co-operative Food are made from 100% recycled plastic.

The majority of The Co-operative Food's own-brand products now carry a packaging recycling logo. The logo was developed by WRAP and the British Retail Consortium, working with UK retailers, including The Co-operative. Use of this logo is voluntary; however, it is hoped that the use of a single, industry-wide logo will minimise customer confusion over which materials can be recycled.



In 2010, The Co-operative entailed total obligations of 98,259 tonnes. This included obligations in all six material categories: paper (14,839 tonnes), glass (50,504 tonnes), aluminium (1,377 tonnes), steel (6,097 tonnes), plastic (11,808 tonnes) and wood (4 tonnes), and a balanced recycling and recovery obligation of 13,630 tonnes<sup>27</sup>. These recycling obligations were met through the purchase of Packaging Recovery Notes (PRNs), largely from the Veolia compliance scheme.

#### Electricals

In accordance with the introduction of the Waste Electrical and Electronic Equipment (WEEE) Regulations<sup>28</sup>, producers and retailers in the UK are responsible for financing the environmentally sound disposal of WEEE.

The Co-operative entails obligations as both a producer and distributor of electrical and electronic equipment. It is a member of the Valpak producer compliance scheme and the retailer take-back scheme<sup>29</sup>. WEEE generated by The Co-operative's business activities will be taken back for recovery, reuse or recycling by its suppliers.

In 2010, The Co-operative recycled 3,156 tonnes of WEEE, including 3,102 tonnes (47,725 items) of electrical equipment taken back at its end of life from The Co-operative Electrical customers<sup>30</sup>.

#### Batteries

Under the Waste Batteries and Accumulators Regulations 2009, The Co-operative Food entails obligations as a distributor of batteries, and each store has a battery bin to take back waste portable batteries of any brand and size from customers. In 2010, 11 tonnes of batteries were recycled through stores. The Co-operative Food is classed as a small producer of batteries and is not required to join a Battery Compliance Scheme<sup>31</sup>.

#### Biodegradable waste

As in previous years, some 95% of animal by-product food waste from The Co-operative Food (1,712 tonnes) was recovered/recycled in 2010. This can be used in pet food, and as food for fishing bait<sup>32</sup>.

#### Inhaler recycling

In February 2011, The Co-operative Pharmacy announced that 40 of its branches in South Wales and the South East would take part in the first ever inhaler recycling scheme in Europe.

#### CFS

📍 In 2010, CFS (excluding Britannia) reused/recycled 940 tonnes (2009: 897 tonnes) of its waste (excluding general waste to landfill from the bank branches), resulting in a stable reuse/recycling rate above 70%<sup>33</sup>. The CFS reuse/recycle rate including waste sent to landfill from branches is 58%. The target will be extended to Britannia in 2011.

#### Other recycled waste

An additional 4,241 tonnes of miscellaneous items were recycled in 2010. Further detail, by business, can be found online 📺.

#### Customer recycling facilities

In 2011, the Salvation Army carried out a survey of customer recycling facilities at The Co-operative sites, identifying that there are recycling facilities at the majority of The Co-operative Food stores including:

#### Customer recycling facilities

Facility	Number of stores
Batteries	2,886 <sup>34</sup>
Textiles	565
Glass	397
Paper	303
Aluminium	264
Shoes	234
Plastic	146
Books	59
Cartons	27

A proportion of the textile recycling facilities are provided by Textile Recycling for Aid and International Development (TRAID). Customers have recycled 241 tonnes of unwanted clothing through these facilities since 2005.

## Waste disposal

### Waste sent to landfill

🎯 In 2010, The Co-operative disposed of 47,433 tonnes of waste to landfill, some 39% of total waste arising. A target has been set to divert the vast majority of such waste away from landfill by 2013.

Waste sent to landfill	
Business	Tonnes
The Co-operative Food	39,996 <sup>35</sup>
The Co-operative Pharmacy	2,374 <sup>36</sup>
The Co-operative Funeralcare	1,491 <sup>37</sup>
CFS	1,256
The Co-operative Farms	1,142
Manchester head office complex	246
The Co-operative Travel	122 <sup>38</sup>
Other businesses <sup>39</sup>	425
<b>Total</b>	<b>47,052</b>

In addition to waste disposed directly to landfill, 381 tonnes of clinical and hazardous waste were autoclaved, rendered, or incinerated<sup>40</sup>.

### Degradable packaging

For a number of years, The Co-operative Food worked to render packaging more degradable through the use of additives. The Co-operative Food introduced Britain's first degradable plastic carrier bag in 2002, and own-brand sliced bread bags and self-select fresh produce bags were made degradable in 2004 and 2006 respectively. However, subsequent research<sup>41</sup> has found that the use of these additives has no environmental benefit, and, as a result, from January 2010 The Co-operative has ceased to use them in carrier bags and will remove them from other grocery packaging.

## Ethical finance

### The Co-operative Asset Management (TCAM) overseas shareholder resolutions

In 2010, TCAM was presented with two overseas shareholder resolutions relating to waste or packaging. The first called on Tyson Foods Inc to report on the prevention of run-off and other forms of water pollution, and was supported. The second called on Starbucks Corp to adopt a recycling strategy for beverage containers, and an abstention was registered; TCAM considered that the company already implements an ambitious recycling strategy.

### Accompanying notes

- DEFRA Survey of Commercial and Industrial Waste Arisings 2010.
- WRAP (2009) Household Food and Drink Waste in the UK.
- [www.wrap.org.uk/retail-supply-chain/voluntary-agreements/courtauld-commitment/phase2-1/index.html](http://www.wrap.org.uk/retail-supply-chain/voluntary-agreements/courtauld-commitment/phase2-1/index.html)
- [www.defra.gov.uk/statistics/environment/waste/wrfg16-recycrates](http://www.defra.gov.uk/statistics/environment/waste/wrfg16-recycrates)
- [www.co-operative.coop/Corporate/PDFs/Packaging\\_Policy.pdf](http://www.co-operative.coop/Corporate/PDFs/Packaging_Policy.pdf)
- In line with WRAP's Courtauld II target and methodology.
- Ibid.
- The majority of waste disposed is sent to landfill (page 77).
- CFS waste arisings 2010: 2,456 tonnes (2009: 2,378 tonnes). CFS waste reused/recycled 2010: 1,507 tonnes (2009: 1,601 tonnes). Full CFS data 2006–2010 can be found online [↗](#).
- 80% complete, with reliance on extrapolation at The Co-operative Pharmacy, The Co-operative Funeralcare and The Co-operative Travel.
- Ibid.
- 85% complete, with reliance on extrapolation at The Co-operative Pharmacy and The Co-operative Travel.
- 85% complete, with reliance on extrapolation at The Co-operative Pharmacy and The Co-operative Travel. Reduction in waste arisings is largely due to store disposals.
- Reduction in waste recycled is largely due to store disposals. Figures specific to CFS can be found online [↗](#).
- Including waste to landfill and waste autoclaved/incinerated.
- Primary packaging refers to packaging that the consumer will take home, and does not include packaging used in transport and/or merchandising.
- In 2010, The Co-operative Food accounted for 98% of total packaging handled by The Co-operative.
- Data includes tonnages from co-operative societies that merged with United Co-operatives prior to its merger with The Co-operative. These include Yorkshire Co-operative Society, Leeds Co-operative Society and Sheffield Co-operative Society. Specific data relating to CFS can be found online [↗](#).
- Includes former Somerfield estate tonnages. 'Other' refers to wood and other packaging materials, such as cork, which account for very small tonnages.
- Based on 115,927 tonnes of primary packaging handled by The Co-operative Food in the baseline year 2006, of which it is estimated that 38,000 is own-brand packaging. Excludes former Somerfield.
- The Co-operative was also a signatory to the original Courtauld Commitment (2005–2010), which sought to 'design-out' packaging waste growth, deliver absolute reductions in packaging weight and tackle the amount of food that consumers throw away. Courtauld II runs from 2010–2012.
- Includes former Somerfield stores.
- Derived assuming The Co-operative accounts for 84.6% of the Co-operative Retail Trading Group collections in 2010.
- 2010 figure includes various recyclates from CFS' main offices (54,1537 tonnes) and the Manchester head office complex centre (44,3249 tonnes).
- Ultimately derived from the European Parliament and Council Directive 94/62/EC on Packaging and Packaging Waste.
- As is any retailer that handles more than 50 tonnes of packaging and has a turnover in excess of £2m per annum. The Co-operative and former Somerfield are obligated as 'sellers' at 48%, pack/fillers at 37% and importers at 100%. The 2010 targets for materials were: glass (810%), paper (698.5%), aluminium (4,038%), steel (698.5%), plastics (297%) and wood (221%). Overall recovery (which includes energy recovery and composting) is set at 743%, of which a minimum of 92% must be achieved via recycling. The Producer Responsibility Obligations (Packaging Waste) Regulations 2007, Defra.
- Under the Regulations, obligations are calculated on the packaging handled in the previous year. The obligation in 2010 was, therefore, based on 211,951 tonnes of packaging handled by The Co-operative and 131,708 tonnes of packaging handled by the former Somerfield estate in 2009.
- [www.opsi.gov.uk/si/si2006/ukSI\\_20063315\\_en.pdf](http://www.opsi.gov.uk/si/si2006/ukSI_20063315_en.pdf)
- The Co-operative producer obligation based on 8,459 items, and distributor obligation based on 215,656 items of electrical and electronic equipment produced/sold in 2010.
- It also includes 30 tonnes of IT equipment from CFS; and 24 tonnes of IT equipment from the Manchester head office complex.
- Places an obligation on retailers to take back batteries in stores that sell more than 32kg of batteries per annum. Although this only applies to approximately 150 of The Co-operative Food stores, all stores have take back facilities.
- As defined in The Animal By-Products Regulations 2005.
- Excludes Britannia estate.
- Although The Co-operative takes back batteries in all stores, there is only a legal obligation to take back batteries in stores that sell more than 32kg per annum. In 2010, only 150 stores were legally obligated to take back batteries.
- Including 37,689 tonnes of waste from Food stores and 2,307 tonnes of waste from Regional Distribution Centres, (extrapolated from a 33% sample). It is estimated that 25,600 tonnes (68%) of The Co-operative Food's waste to landfill is food waste.
- Extrapolated from a 91% sample.
- Extrapolated from a 54% sample.
- Extrapolated from one month's data.
- Waste to landfill data for The Co-operative Electricals, Motor Group, Clothing and Legal Services, and Sunwin Cash in Transit, can be found online [↗](#).
- In addition to waste disposed directly to landfill, The Co-operative Funeralcare sent 283 tonnes of clinical waste and one tonne of spray booth filters to be autoclaved/incinerated; The Co-operative Food sent 90 tonnes of animal by-products respectively to be rendered/incinerated; The Co-operative Motor Group sent six tonnes of hazardous waste, including cleaning solution and rags to be reprocessed and disposed; and The Co-operative Farms disposed of one tonne of asbestos. No data is available for clinical/pharmaceutical waste from The Co-operative Pharmacy.
- Defra (2010) Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle [randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=16263#Description](http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=16263#Description)

Climate change

Waste and packaging

Water

Biodiversity

Chemicals

# WATER

## Background

Water is a critical issue in terms of both human development and environmental sustainability, with many areas of the world already surpassing 'peak ecological water'<sup>1</sup>. Despite the UN establishing the right to water as a basic human right in 2002<sup>2</sup>, almost one billion people worldwide still lack access to safe drinking water.

Water stress – where demand exceeds supply – is also a problem within the UK, with 12 of the 22 water regions in England showing serious levels of water stress<sup>3</sup>. Climate change is forecast to further aggravate these issues.

## Materiality and strategy

The Co-operative consumes water through its estate of over 5,000 properties, and through the 17,541 hectares of land managed by The Co-operative Farms. In addition, water is consumed indirectly, through the water use embedded in the production of food products, and the potential to influence water stewardship indirectly through the investments of The Co-operative Financial Services (CFS). Water consumption within the Food supply chain is likely to be significantly larger than direct uses.

The Co-operative's approach is to prioritise its direct consumption over which it has control. The Ethical Operating Plan (page 13) targets a reduction in water consumption across operations; water stress is the focus when considering indirect consumption within The Co-operative Food's supply chain, and suppliers are encouraged to practise good water stewardship. Water and sanitation are crucial components of the community investments delivered within the tackling global poverty programme (page 22).

Targets 2010	Progress	Targets 2011
<b>Indicator: Water consumption across estate</b>		
Reduce water consumption across The Co-operative's estate by 5% in 2010, excluding The Co-operative Farms.	✓ Total estimated water consumption across the estate decreased by 10.2% (see below).	<b>EOP</b> Reduce water consumption across The Co-operative's operations by 10% by 2013.
Improve water consumption accounting and reporting across The Co-operative.	✓ Water reporting now accounts for 63% of the estate, compared to 40% in 2009 (see below).	Further improve water consumption accounting and reporting.
Introduce a water policy framework for own-brand produce suppliers for The Co-operative Food to encourage better water stewardship.	⇒ In 2010, The Co-operative Food took the decision to adopt the Institute of Grocery Distribution (IGD) guide to 'Understanding, Assessing and Managing Water in Grocery Supply Chains' in place of its own water policy framework (page 79).	Produce an Agronomic Code of Practice and disseminate to all suppliers.

## Water consumption

### The Co-operative Estates

The Co-operative Estates is a large but non-intensive user of water.

🔍 Water bills are currently stored on a number of different systems, and data from the most comprehensive of these, which accounts for 63% of the estate (2009: 40%), is the basis for reporting and targets setting<sup>4</sup>.

🔍 In 2010, total estimated water consumption across the estate decreased by 10.2%, and estimated average water consumption per site decreased by 6.2%.

	2008	2009	2010
Average water consumption per site (m <sup>3</sup> ) <sup>5</sup>	443 📈	390	366
Total water consumption (million m <sup>3</sup> )	2.5	2.2	2.0

### The Co-operative Farms

As the UK's largest farmer, The Co-operative Farms manages 14 farm units in England and Scotland, covering 17,541 hectares of land (of which 11,133 hectares are owned/tenanted by The Co-operative). Water consumption on farms is particularly affected by levels of rainfall, with dry years causing significant increases in the use of abstracted water for irrigation<sup>6</sup>.

Complex ownership, management, contracting and partnership agreements across The Co-operative Farms make the compilation of exact water consumption figures challenging. Water consumption figures for Farms are based on spray records and irrigation figures provided by farmers<sup>7</sup>.

	2007	2008	2009	2010
Water consumption (m <sup>3</sup> per cropped hectare)	24	18	37	43
Total water consumption (million m <sup>3</sup> )	0.4m	0.3m	0.6m	0.7m

### Rainwater collection at The Stoughton Estate

Rainwater is collected from the roof of the toilet block of the From Farm to Fork (page 57) buildings on The Co-operative Farms' Stoughton Estate. It is filtered and heated by solar panels, before being used by school children to wash their hands. Excess water is used by the children to irrigate crops in the farm's polytunnels.



### Supply chain

🎯 In 2010, The Co-operative Food took the decision to adopt the Institute of Grocery Distribution (IGD) guide to 'Understanding, Assessing and Managing Water in Grocery Supply Chains'<sup>8</sup> in place of its own water policy framework. In doing so, it joined forces with industry leaders to present a united message to suppliers about water conservation. This avoids multiple demands being placed on suppliers from different buying companies.

The IGD guide references the work of WWF on water, and sets out a three-stage approach to water management, recognising water stress as an issue in stages two and three. Links to the guide have been sent to major suppliers and added to the online supplier management portal. In the course of 2011, the guide will be supplemented by The Co-operative's own Agronomic Code of Practice, which includes a specific set of measures on water in agriculture, irrigation and the use of water in processes.

In addition, The Co-operative Food is a member of IGD's water stewardship council. The council is in the process of conducting a case study into water usage in a UK water catchment system, in order to holistically account for all demands for water use in the system. Results of the case study are expected in 2011.

### Ethical finance

#### The Co-operative Asset Management (TCAM) engagement

• **Water Disclosure Project** In late 2009 The Carbon Disclosure Project (CDP) launched its Water Disclosure Project, supported by 137 financial institution signatories including CFS. The project aims to make data available to institutional investors for assessing risks and opportunities associated with water scarcity and to help drive investment towards sustainable water use. In April 2010 a questionnaire requesting data on water usage and exposure to water-stressed areas was sent on behalf of these signatories to

302 of the largest 500 companies in the FTSE Global Equity Index Series that operate in sectors that are water intensive or exposed to water-related risks.

Responses were received from 150 companies and summarised in the Water Disclosure Global Report. In December 2010, The Co-operative Asset Management wrote to 10 non-respondents, urging them to participate in the project and to disclose data on total water use, water recycling, exposure to water-stressed areas and future water use goals.

- **TCAM overseas shareholder resolutions** In 2010, TCAM was presented with two overseas shareholder resolutions relating to water. The resolutions called on Ecolab Inc and Exxon Mobil Corp to adopt policy commitments to the human right to water. Both resolutions were supported.

### Affinity products and services

#### Fairbourne Springs

The Co-operative's own-brand bottled water, Fairbourne Springs, funds PlayPumps™ in Southern Africa (page 28). In 2010, The Co-operative sold 25,125m<sup>3</sup> of Fairbourne Springs water, resulting in 160 (2009: 137 📈<sup>9</sup>) PlayPumps™ being funded in 2010, which will provide a further 0.3 million m<sup>3</sup> (2009 0.3 million m<sup>3</sup> 📈<sup>10</sup>) of pumping capacity.

Due to increased logistical difficulties, there was a greater delay between funding and installation of pumps in 2010 than in previous years. All remaining PlayPumps™ will be installed in 2011.

The approximate number of beneficiaries from PlayPumps™ in 2010 was 404,000.



#### PlayPumps™

Year	Number of PlayPumps™ installed	Cumulative water pumped (m <sup>3</sup> ) <sup>11</sup>
2007	31	36,000
2008	34	124,000
2009	147	276,000
2010	70	538,000
<b>Total</b>	<b>282</b>	<b>974,000</b>

#### Water and sanitation beneficiaries 2010

**508,900** estimated water and sanitation beneficiaries in the developing world

Climate change

Waste and packaging

Water

Biodiversity

Chemicals

# WATER

## The Co-operative antibacterial handwash

In early 2011, The Co-operative Pharmacy launched an affinity product with UNICEF. For each sale of its 250ml hand wash, The Co-operative Pharmacy will donate 15p, which will go towards extending the scope of a sanitation project in Togo (page 30).



## Carbon offset

The Co-operative invests in carbon offset projects, one of which is a treadle pump scheme in India (page 67). In addition to providing an alternative to diesel-powered pumps and associated CO<sub>2</sub> emissions, over the course of a year, each treadle pump provides, on average, 5,100m<sup>3</sup> of irrigation water outside of the monsoon season. An estimated 52,400 individuals benefited from treadle pumps in 2010.

### Treadle pumps

Year	Treadle pumps funded	Cumulative pumping capacity of pumps funded (m <sup>3</sup> )
2007	27,922	144m
2008	57,631	440m
2009	53,052	713m
2010	10,482	767m

The large decrease in the number of treadle pumps in 2010 is due to fewer offset credits being available from this project.

## Community involvement

### Water and sanitation beneficiaries in the developing world

Development uplift projects, with a focus on providing water, sanitation and renewable energy solutions, are an important focus for The Co-operative's work to tackle global poverty (page 22). Four projects aimed at improving access to clean water, sanitation and hygiene education are currently underway, two in Malawi, one in Mozambique and one in Panama (page 30). The estimated number of beneficiaries from these projects in 2010 is 52,500.

Water pump in Bauleni village, Malawi, a community investment beneficiary.



### Accompanying notes

- The Pacific Institute defines 'peak ecological water' as being a state in which 'humans use more water than the ecosystem can sustain without significant deterioration and degradation', [www.worldwater.org/data20082009/ch01.pdf](http://www.worldwater.org/data20082009/ch01.pdf)
- In November 2002, the United Nations Committee on Economic, Social and Cultural Rights affirmed that access to adequate amounts of clean water for personal and domestic uses is a fundamental human right of all people.
- Environment Agency (2007) Identifying areas of water stress.
- An extrapolation was made to estimate full consumption.
- Total number of sites decreased from 5,738 in 2009 to 5,490 in 2010.
- Abstracted water in 2009 accounted for 90% of total water consumption, as opposed to 70% in 2008 and 67% in 2007.
- The Environment Agency and Scottish Environmental Protection Agency stipulate that farmers must keep a record of water abstracted.
- [www.igd.com/water](http://www.igd.com/water)
- In the 2009 Sustainability Report, the 'pumps installed' figure was erroneously reported as the 'pumps funded' figure.
- In the 2009 Sustainability Report, 'increased capacity due to pumps installed' was reported. This has been changed to 'increased capacity from pumps funded', in order to be more consistent with reporting in the International Development chapter. However, once rounded up, 2009 figures from both pumps installed and pumps funded are the same.
- Figures in the table are based on PlayPumps™ spinning for four hours a day, pumping 1,400 litres an hour. This figure is multiplied by the number of pumps installed in that year (according to the rate at which they were installed), and the number of days in a year.

# BIODIVERSITY

## Background

The current rate of loss of land, freshwater and marine biodiversity is more rapid than at any time in human history<sup>1</sup>. Globally, three-quarters of commercial fish stocks are fully or over-exploited, and deforestation for products including wood, palm oil and soya, threatens the habitat of 80% of the world's terrestrial species<sup>2</sup>.

In 2010, the landmark The Economics of Ecosystems and Biodiversity report was published, estimating that an investment of £29 billion could secure a global network of protected areas whose services are worth more than £3.2 trillion annually<sup>3</sup>. A renewed political commitment has followed, and the Nagoya Biodiversity summit secured an agreement to form a network of protected areas comprising 17% of the world's land surface, and 10% of the oceans, by 2020<sup>4</sup>.

## Materiality and strategy

The Co-operative exerts a significant impact on biodiversity via the products offered by the Food business, which contain raw materials sourced from across the world. As the UK's largest farmer, The Co-operative has a direct impact on the UK's biodiversity, and The Co-operative Financial Services recognises that, unless closely monitored, its provision of finance and investment may have a detrimental impact on biodiversity.

Biodiversity is identified within the new Ethical Operating Plan (page 13) as an environmental priority. The food business works, where possible, to established certification schemes, including Forest Stewardship Council (FSC) (wood), Marine Stewardship Council (MSC) (fish) and Roundtable on Sustainable Palm Oil (RSPO) (palm oil), and a Responsible Fish Sourcing Policy governs the purchase of fish. The Co-operative Farms works to Defra's Environmental Stewardship scheme.

Climate change

Waste and packaging

Water

Biodiversity

Chemicals

Targets 2010	Progress	Targets 2011
<b>Indicator: MSC-certified fish species sold</b> (Performance benchmark and recognition page 83)		
Ensure all own-brand fish products are labelled as 'responsibly sourced'.	✓ All own-brand fish products now carry a 'responsibly sourced' label (page 82).	<b>EOP</b> Maintain position as one of the UK's most responsible retailers of fish.
Ensure no own-brand products contain fish from the Marine Conservation Society's (MCS's) 'Fish to Avoid' list.	✓ No 'Fish to Avoid' products sold (page 82).	Ensure all own-brand canned tuna is 100% pole and line caught by 2011.
<b>Indicator: FSC-certified timber products sold</b>		
		<b>EOP</b> Aim to be the UK's leading retailer on forest protection, including maintaining leading work on wood and paper.
Achieve FSC certification for The Co-operative Food's greaseproof paper during 2010.	✗ Work is underway with suppliers, however, at present, supplies remain unavailable (page 83).	Achieve FSC certification for The Co-operative Food's greaseproof paper during 2011.
Pursue 'Graduate Status' for The Co-operative Food within the WWF-FTN in 2010.	✗ 'Graduate Status' not yet achieved; will continue to be pursued during 2011 (page 83).	Attain WWF-UK Forest and Trade Network 'Graduate Status'.
Ensure 90% or more of The Co-operative Travel's point-of-sale material remains FSC-certified during 2010.	✓ FSC certification achieved on more than 90% of point-of-sale material (page 84).	
<b>Indicator: Use of palm oil in own-brand products</b>		
Ensure palm oil used in all own-brand products is 100% certified sustainable palm oil (CSPO) by 2015.	= Target on track, and timeline brought forward (page 84).	<b>EOP</b> Palm oil used in all own-brand products to be 100% certified sustainable palm oil (CSPO) by end of 2011.
Complete the conversion of at least 15 own-brand products to CSPO during 2010.	✓ 268 products now made with CSPO (page 84).	

(continued over)

# BIODIVERSITY

🎯 Targets 2010	Progress	Targets 2011
<b>Indicator: Use of soya in own-brand products</b>		
		<b>EOP</b> Move soya sourcing to a sustainable footing by 2015.
<b>Indicator: Biodiversity initiatives</b>		
Progress wildflower seed trials on The Co-operative Farms' sites, as part of Plan Bee, during 2010.	✔ Over 850 hives established, and research is due to conclude in 2012 (page 86).	<b>EOP</b> Extend Plan Bee campaign and seek to address the decline of additional 'at risk' pollinators.
Raise, through the RSPB credit card, £400,000 for Britain's threatened wetlands during 2010.	✔ £398,000 raised (page 87).	

## Marine stewardship



The Co-operative Food's Responsible Fish Sourcing Policy<sup>5</sup> was launched in 2008, and governs the sourcing of all own-brand wild and farmed seafood. The Policy is underpinned by a checklist, which examines individual species based on the fishery location

and method of catch; species' resilience to fishing; fishery by-catch estimates; and whether species are noted as critically endangered or endangered on the IUCN Red List, as well as stock assessments from NGOs, such as Greenpeace. The full Responsible Fish Sourcing Policy is available online [▶](#).

🎯 All own-brand fish products have a 'responsibly sourced' label, and the number of MSC-certified fish products sold has increased from 18 to 28<sup>6</sup> in 2010, representing 25% of the range.

🎯 The Co-operative sells no products identified by the Marine Conservation Society as 'Fish to Avoid', and also commits to the following sustainability initiatives:

- **Tuna** Own-brand tuna is caught by methods that conform to the Earth Island Institute (EII) dolphin-safe standards<sup>7</sup>. Drift nets are not used to catch tuna<sup>8</sup>, nor are fish caught using the method known as 'setting on dolphins'<sup>9</sup>.
- **Salmon and trout** Conventional and organic farmed fish (representing the majority of fresh salmon and trout) is produced to strict codes of practice. The Co-operative Food was an early promoter of humane stunning prior to slaughter for farmed fish; a standard that is now widely accepted across the industry.
- **Prawns** All warm-water prawns are sourced from well-established farms in Indonesia and Thailand, which are Global Aquaculture Alliance (GAA) certified. Farms in areas of mangrove forest depletion are not used.
- **Cod** Own-brand cod is sourced from well-managed Icelandic and Norwegian stocks that are either MSC-certified or currently undergoing MSC assessment.
- **Haddock** Own-brand Scottish haddock is sourced from well-managed MSC-certified fisheries, and all other Co-operative Food branded haddock is line caught from Icelandic or Norwegian stock that is MSC-certified or currently undergoing MSC assessment<sup>10</sup>.

## ▶ Support for UK fisheries

In 2008, £200,000 was made available to fund the certification of UK fisheries to the MSC standard. Twelve projects are currently underway: one fishery is currently undergoing MSC pre-assessment, the Sussex

inshore fishery (including 26 separate fisheries) has completed its pre-assessment, nine fisheries are currently undergoing full MSC assessment and the North Menai Strait Mussel has gained MSC accreditation.

*"By funding fisheries like Bangor Mussel Producers through assessments, The Co-operative is taking direct responsibility for ensuring that fisheries are certified as sustainable, and making a significant difference towards changing the global seafood market to a sustainable basis."*

**Toby Middleton**, Marine Stewardship Council



**MSC certification 2010**

**28** MSC-certified fish products sold  
2009: **18**

**Performance benchmark**

The Co-operative Food was ranked first out of eight retailers in the Marine Conservation Society (MCS) 2009 supermarket survey. The Co-operative was praised for eliminating all fish from MCS's list of 'Fish to Avoid' from its shelves; for selling the largest volume of seafood from the 'Fish to Eat' list; for its campaigning work to bring about marine reserves; and its financial support to enable UK fisheries to become more sustainable.

**Performance benchmark**

In early 2011, The Co-operative Food was ranked fourth of nine retailers in the Greenpeace Tuna League Table. The Co-operative was praised for only stocking those tuna species more resilient to fishing and for its public advocacy work with the MCS. Although The Co-operative has a strong commitment to sourcing only pole and line caught tinned tuna by the end of 2011, at the time of the survey, some own-brand tuna was sourced from fisheries utilising fish aggregating devices and purse seine nets, a combination which is associated with increased levels of by-catch.

**Performance recognition**

In early 2010, The Co-operative Food was named as a 'Seafood Champion' by the Seafood Choices Alliance, a US-based organisation that campaigns to improve the sustainability of the global seafood sector. The award provides international recognition for outstanding leadership in promoting environmentally responsible seafood.

**Forest stewardship**



The mark of responsible forestry

**The Co-operative Food**

The Co-operative supports Forest Stewardship Council® (FSC®) certification, the most respected independent standard for the certification of forest products. During 2010, 37,800m<sup>3</sup> of wood and paper products (2009: 30,800m<sup>3</sup>) were purchased. All were of known origin, with credible evidence of legal harvesting, and 94% (2009: 93%) were supported by FSC certification, demonstrating a complete chain of custody from forests that demonstrate social, economic and environmental benefits<sup>11</sup>. A further 2% (2009: 6%) were sourced from recycled post-consumer waste, 3% (2009: 0%) were from recycled pre-consumer waste, and 1% (2009: 0%) were from known, legal-source virgin material, such as that certified by the Programme for Endorsement of Forest Certification Scheme (PEFC).

**Total percentage of own-brand Co-operative Food products supported by FSC certification**

2006	2007	2008	2009	2010
36%	67%	96%	93%	94%

**FSC certification 2010**

**94%** of Co-operative Food wood and paper products FSC-certified, with a further 5% from recycled waste  
2009: **93%**

FSC products sold include: barbecue charcoal, wooden kitchenware, bagged growing media, and household paper. Cork used in own-brand corked wines is currently being converted to FSC-certified cork, and five own-brand wines have been converted to date.

🔍 Greaseproof paper is currently PEFC-certified, and, working with suppliers, the product will be moved to FSC certification as soon as supplies are available.

As a member of the WWF-UK Forest and Trade Network (FTN), The Co-operative Food commits to tracing all timber and paper products back to forest sources and to improve forest sustainability in conjunction with suppliers. 🔍 During 2011, The Co-operative Food will continue to pursue Graduate Status within the FTN, which confirms and recognises the achievements of members whose trade by volume in forest products is consistently more than 95% credibly certified and/or recycled post-consumer material.



Climate change

Waste and packaging

Water

Biodiversity

Chemicals

## BIODIVERSITY

### CFS, The Co-operative Funeralcare and The Co-operative Travel

FSC-certified timber, or high recycled content MDF, was specified for the refurbishment of six bank branches and eight regional sales offices in 2010. Of the 92,000 coffins and caskets manufactured by The Co-operative Funeralcare, 45% (2009: 44%) were FSC-certified foil on chipboard, and the veneer coffin ranges, representing 48% of output, were converted to FSC in early 2011. The remaining 6% (2009: 7%) of coffins manufactured were from solid wood<sup>12</sup>. During 2010, more than 90% (2009: 50%) of The Co-operative Travel's printed point-of-sale material was FSC-certified.

### Palm oil

Palm oil is used as an ingredient in a wide variety of food and non-food products. As demand for palm oil increases, biodiversity loss from land-use conversions can be dramatic; palm oil plantations are now the leading cause of rainforest destruction in Malaysia and Indonesia<sup>13</sup>.

In order to tackle the deforestation associated with palm oil, the Roundtable on Sustainable Palm Oil (RSPO) was formed in 2004 to promote the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders. One barrier to the wide-scale uptake of RSPO-certified oil is the complexity of the commodity supply chain. In order to overcome this, The Co-operative Food has, since 2009, been a member of GreenPalm, an RSPO-endorsed platform, which negates the problem of segregation of sustainable and unsustainable oil by allowing the end user to purchase certificates directly from the producer to cover usage in products. These certificates can then be redeemed to show how a business is promoting the production of RSPO-verified sustainable palm oil.

During 2010, accounting systems were improved to determine the volumes and origins of palm oil used in The Co-operative Food's own-brand products<sup>14</sup>. In total, 5,090 tonnes of palm oil were used within 624 own-brand products, of which 2,343 (46%) were Certified Sustainable Palm Oil (CSPO), under one of the certification schemes developed by the RSPO<sup>15</sup>. A total of 268 own-brand products now use exclusively CSPO, considerably exceeding the target of 15 products set the previous year. The Co-operative Food has set the new target of ensuring its palm oil requirements for all own-brand products are fully covered by either CSPO or a certificated equivalent such as GreenPalm by the end of 2011. Additionally, it is intended that identity preserved CSPO will be utilised for all own-brand requirements by 2015.

#### Certified palm oil 2010

**268** own-brand products made exclusively with certified sustainable palm oil

### Soya

As a high-protein, low-fat and low-cost bean, soya is a versatile and prevalent ingredient in many foods, however the vast majority of the global soybean crop is used as a foodstuff for livestock and poultry<sup>16</sup>. In 2009, nearly half of all soya originated in South America<sup>17</sup> and its production has been linked with deforestation of the Amazon and destruction of other ecosystems<sup>18</sup>.

## Carbon offset, reforestation and forest protection

In 2010, reforestation, again, accounted for 20% of The Co-operative's carbon offset programme (page 67), and will continue to do so, given this is the commonly accepted level of CO<sub>2</sub> emissions attributable to deforestation and land use change. During the year £173,500 (2009: £251,000) supported reforestation in Kibale Forest National Park, Uganda and £187,000 supported a Reducing Emissions from Deforestation and Degradation (REDD) project in Kasigau, Kenya.

In Kibale, the areas planted on behalf of The Co-operative have attracted primates, including chimpanzees, and

forest elephants, and the programme provides seasonal work for up to 400 people. Further details of work with villagers living near Kibale are given on page 29. The Kasigau Corridor project in Kenya provides education and employment to local communities in areas such as conservation and sustainable charcoal production, creating an economic alternative to forest clearing for agriculture. The area protected is also a wildlife corridor between two national parks, supporting many species including lion, cheetah, African elephants and the endangered Grevy's Zebra.



Due to the wide breadth of soya use across the food chain, the development and maintenance of accounting systems to gauge and monitor soya use in own-brand products is challenging. However, in 2011, The Co-operative Food will develop accounting systems to measure soya use within the Elmwood product feed chain (higher-welfare pork, chicken and turkey) and by 2015, soya in the feed chain of own-brand meat products will have a sustainable footing which avoids deforestation and other habitat destruction, providing adequate supplies of sustainable soya are available.

**Peat**

Peat is the major constituent of most horticultural growing media in the UK, however its removal from bogs in Britain threatens wildlife habitats and degrades carbon sinks. The Co-operative's long-term goal is to meet the Government's target to completely phase peat out of the amateur gardener market by 2020. To comply, annual dilution targets for peat have been established, and in 2011, all growing media sold will contain no more than 20% peat.

Of the 8,741m<sup>3</sup> of peat-related products sold in 2010 (2009: 9,072m<sup>3</sup>), 68% was peat<sup>19</sup> (2009: 36%). The substantial increase in the average peat content was predominantly due to the short-term removal from sale of low peat own-brand growing media (40% peat).

During 2010, plant baskets and tubs successfully used composted flower waste as growth media. The Co-operative was the first major retailer to stock peat-free salad cress, which, rather than being sold in peat-lined punnets, is grown on special matting made of 100% biodegradable material.

**Moors for the Future**

The blanket bog areas on the high moorland plateau of the Peak District contain some of the oldest peat deposits in the UK. They are internationally recognised, providing a home for populations of breeding birds, such as merlin and golden plover<sup>20</sup>, and nationally rare and significant plant communities. Moors for the Future is Britain's largest upland conservation partnership project, implementing conservation, research and awareness-raising work in the Peak District. In spring 2009, The Co-operative Foundation (page 19) provided £78,290 to Moors for the Future for a project to develop a method for large-scale cultivation and spreading of Sphagnum

moss<sup>21</sup>. The loss of Sphagnum, predominantly due to historic pollution, over-grazing and fire damage, has been a major factor in the erosion of blanket peat in the South Pennines<sup>22</sup>. The final results of the project will be published in 2011, however initial results show that Sphagnum is suitable for large-scale reintroduction via aerial spraying, and survival rates are sufficiently high to enable re-colonisation.

*"The work on the Sphagnum propagation project is probably the most important project to have been undertaken in restoring moorland. It would not have happened without The Co-operative Foundation."*

**Matthew Buckler**, Moors for the Future

**Land stewardship: The Co-operative Farms**

In 2010, The Co-operative Farms managed a total of 17,541 hectares (2009: 20,726 hectares) of land on a variety of different agreements. Of this land, 11,133 hectares (2009: 10,699 hectares) were owned/tenanted by The Co-operative. Of land farmed as The Co-operative Farms, 10,674 hectares (2009:10,070 hectares) were intensively cultivated and 459 hectares (2009: 262 hectares) were either unintensively cultivated or left fallow.

All farms are assessed annually against an environmental management system (EMS), which checks for best practice and legislative compliance, and identifies areas for environmental improvement. In 2010, 93% (2009: 94%) of the eligible owned/tenanted and intensively farmed land was managed in accordance with the Natural England Environmental Stewardship Scheme 'Entry Level', and a 'Higher Level' Stewardship Scheme commenced on the Stoughton Estate<sup>23</sup>. Farms are compliant with Good Agriculture and Environmental Condition standards and Statutory Management Requirements on soil, ensuring a base level of protection for soils, habitats and landscape features.

Hedges are only cut every second or third year, and are cut in late winter. A number of grass margins and field corners have been established and maintained, and in 2010 these accounted for over 250 hectares<sup>24</sup> (2009: 243 hectares) of intensively cultivated land. These measures provide improved nesting sites for birds and chicks, and offer habitats for insects and small mammals.

**Habitat heroes**

In 2010, a national wildlife initiative, 'Habitat heroes', was launched at six Co-operative farms across the UK. Adaptations are being made to farmland to improve habitats and support endangered or protected species. Barn owls are expected to benefit from a Barn Owl Manor built on The

Co-operative's Down Ampney Farm and others have already been seen investigating the purpose-built holt on The Co-operative's Coldham Farm. Red squirrels, water voles, bats (17 species) and pollinators such as bees, butterflies and hoverflies, are all expected to benefit.



Climate change

Waste and packaging

Water

Biodiversity

Chemicals

# BIODIVERSITY

## Plan Bee



In January 2009, The Co-operative launched Plan Bee to highlight the decline of the honeybee population. Plan Bee is centred on taking action on pesticides (page 89), the funding of research into the causes of the decline in bee numbers, and encouraging Co-operative members to take action in their own gardens. As announced as part of the new Ethical Operating Plan (page 13), Plan Bee will be extended to other 'at risk' pollinators in 2011.

[www.co-operative.coop/planbee](http://www.co-operative.coop/planbee)



### Key activities include:

- The distribution of wildflower seeds to Co-operative members and customers. Since the campaign launched in 2009, over 900,000 packets of wildflower seeds have been distributed. The flowers, once grown, will provide nutrition for bees, as well as other pollinators.
-  Research into the wildflowers best suited to honeybees, being progressed at The Co-operative Farms. Seed mixes have been trialled since 2009 and the research is expected to be concluded in 2012. Land managed by The Co-operative Farms now has over 850 (2009: 500) hives.



- Development of a Plan Bee trailer for The Co-operative Good with Food roadshow, which toured UK county and royal shows during 2010. The trailer raises awareness of the decline in bee numbers and provides practical advice on supporting bees in gardens. In total, the trailer was shown at shows attended by two million people.

- Urban bee-keeping training workshops held in Inverness, Sheffield, Mid Antrim, Manchester and London. By the end of 2011, approximately 300 new beekeepers will have attended these workshops.



- Research to map native bee populations which may be better adapted to the UK climate. This project was expanded to include the rearing of native queens in 2010.

- Support for 'Honey', the street theatre production, which was featured at 12 festivals in 2010, engaging with over 1,900 people.

- A promotion on selected wines in The Co-operative Food stores, with a supplier donation of 5p per bottle to the Plan Bee campaign, raising £45,000.



- Sponsorship, by The Co-operative Travel, of a bee conservation project in Quintana Roo, Mexico, funding the planting of 570 trees and shrubs suited to honeybees, and the construction of a water canal to protect hives from ant invasion. Early signs indicate that this project is having a positive impact, with honey yields showing an increase of 87% on previous figures.



The Plan Bee campaign won the Chartered Institute of Public Relations Excellence Award for Corporate Responsibility in 2010.

## Ethical finance

### Bank screening of finance

During 2010, 55 finance opportunities (2009: 76) were referred to the Ethical Policy Unit in connection with biodiversity, of which two were declined (2009: two) at a cost of £306,000 in terms of estimated income foregone in 2010.

#### Biodiversity-related business declines 2010

	Estimated income foregone 2010
<b>Timber merchants</b> (two instances) In the first instance, £9m lending was declined for a business engaged in actively sourcing teak hardwood from Burma, as well as sourcing uncertified timber, including vulnerable species from West Africa, Asia and South America. In the other, banking facilities were declined for a business sourcing uncertified timber, including endangered species from Asia and West Africa.	£306,000

### The Co-operative Asset Management (TCAM) overseas shareholder resolutions

In 2010, TCAM was presented with six overseas shareholder resolutions relating to biodiversity, all of which were supported.

Company	Resolution	Vote registered
Nordea Bank	To avoid investment in companies supporting unsustainable forestry.	Supported
Weyerhaeuser Corp	To report on FSC certification.	Supported
Valero Energy Corp	To report on impact of operations on rainforest sustainability.	Supported
ConocoPhillips, Exxon Mobil Corp	To aid in restoration of Louisiana wetlands damaged by companies' past activities.	Supported
R R Donnelley & Sons	To develop a sustainable paper purchasing policy.	Supported

### RSPB credit cards

Wetlands are an important and productive habitat, but are under threat from the demand for water, poor land management, agricultural drainage and housing development. Between 1999 and 2010, over £5.6m was raised for Britain's threatened wetlands via the Royal Society for the Protection of Birds (RSPB) credit cards ( £398,000 during 2010). Monies raised by the card are used for the creation and management of wetlands in the UK.

### Woodland Trust credit cards

The UK is the least wooded country in Europe, with just 12% woodland cover, compared with a European average of 44%. Monies raised through the Woodland Trust affinity card will help the Trust reverse this trend and support a range of woodland protection and creation

projects, such as the 'Tree for All' campaign. Tree for All aims to plant 12 million trees – one for every child in the UK. Since 2007, the Woodland Trust credit card has raised over £124,000 (£32,262 in 2010), enough to help the Woodland Trust plant over 15,000 trees.

### Bonus Account

The bank offers a youth account in support of animal welfare and conservation. Since 2003, the Bonus Account, in partnership with the Born Free Foundation, has provided £206,183 (£49,826 in 2010) of support to projects such as anti-poaching units in Zimbabwe and Kenya, Cameroon chimpanzee sanctuaries, and conservation projects for sea turtles in Tanzania and tigers in India.

## Influence and action

### Illegal timber

In April 2010 TCAM wrote to the European Parliament's Environment Committee in support of its proposals to introduce legislation banning the import of illegally logged timber into the EU. In July 2010 the vote to introduce the proposed legislation was successfully passed.

### Accompanying notes

- UNEP, 2010 Advancing the Biodiversity Agenda – A UN System-Wide Contribution.
- www.teebweb.org
- Ibid.
- Ibid.
- www.co-operative.coop/food/food-and-drink/food/Own-brand-fish
- A full list of products is available online [▶](#)
- The Earth Island Institute monitors this claim. www.earthisland.org
- Drift nets are kept at, or below, the surface of the sea by numerous floats, and drift with the current. They may be used close to the seabed (eg, shrimp drift net) or at the surface (eg, herring drift net), usually across the path of migrating fish schools. Fish strike the net and become entangled.
- The tuna/dolphin controversy centres on the Eastern Tropical Pacific fishery where, unusually, schools of large yellowfin tuna associate with dolphins. In a practice that began in the 1950s, purse seiners maximise their catches of yellowfin tuna by chasing and setting their nets on herds of dolphins. This practice has resulted in very high numbers of dolphin deaths.
- The Co-operative Food's sustainable fish sourcing policy requires cod to be line caught from specific areas, such as Iceland or Norway, where stocks are deemed to be acceptable and well managed.
- FSC certification includes FSC mixed-source certification, which requires a timber product to contain a minimum of 50% FSC-certified material and the remaining materials to be from controlled sources.
- The majority of which are made using American red oak.
- UNEP (2007) State of Emergency: Illegal logging, fire and palm oil in Indonesian national parks.
- The product composition document requests that, for all new products and re-labelling of existing products, suppliers consider other types of oils, ideally from non-tropical sources, before palm oil, in the formulation of a product, where it does not have an impact on flavour or functionality of the final product. Some products may be allowed to use palm oil to fry strictly on permission of the Technical Manager, although, in these cases, sustainable palm oil will be a requirement.
- The Co-operative uses three different routes for CSPO accreditation. These are: 'UTZ certification' (3.8% of total palm oil use), where oil is traced using the RSPO official traceability partner; 'Segregated' (7.6% where palm oil can be 100% CSPO traced from plantation to product, allowing the claim that this product contains RSPO-certified palm oil; 'identically preserved' (less than 1%) where oil is uniquely identifiable to the mill and its supply base, and is kept physically isolated from all other palm oil sources throughout the supply chain (including other segregated RSPO-CSPO sources); and GreenPalm (34.6%), as described within the main text.
- FAO (2006) – Livestock's Long Shadow.
- soystats.com/2010/page\_30.htm
- Such as the Cerrado, the Pantanal, and the Atlantic Forest.
- Includes bagged compost and compost for household and bedding plants.
- www.jncc.gov.uk/default.aspx?page=2001
- Sphagnum moss is the fundamental building block of the world's peatlands. It creates waterlogged anaerobic, acidic conditions that prevent micro-organisms from growing easily and breaking down dead vegetation. This allows plant remains to accumulate at a faster rate than they decompose, thus forming peat.
- The degradation of Sphagnum moss, as a result of 250 years of industrial pollution, has resulted in the erosion of blanket peat. The erosion of blanket peat leads to the drying out and exposure of peat.
- www.naturalengland.org.uk/ourwork/farming/funding/es/default.aspx
- This figure varied throughout 2010 as a result of land sales.

# CHEMICALS

## Background

Over 100,000 synthetic chemicals are registered for use in the EU<sup>1</sup> and more than 400 million tonnes are produced globally each year<sup>2</sup>. However, little toxicity data exists for the majority of these chemicals, and most have never been adequately assessed for their human and environmental safety<sup>3</sup>.

Pesticides are chemicals designed to exert toxicity selectively, but have a potential for unintended consequences on human health (both that of the grower and consumer) and the environment<sup>4</sup>. Whilst fertilisers are not considered to be persistent, bioaccumulative or toxic (PBT) chemicals, their use and excessive application can contribute to environmental problems, particularly waterway eutrophication<sup>5</sup>, and minimal application is therefore desirable.

## Materiality and strategy

The use of PBT chemicals, pesticides and fertilisers is recognised as a priority for the supply chain management of own-brand food products, the consumer use of own-brand household products and the operations of The Co-operative Farms. The Co-operative Financial Services also recognises its influence in this area as a provider of finance and investments.

The Co-operative Food's Ethical Policy commits it to being the UK's leading retailer in the removal of substances of concern, and the new Ethical Operating Plan (page 13) commits to a continuous improvement of the Pesticides Policy. The Co-operative Bank's Ethical Policy states that it will not finance the manufacture of PBT chemicals, whilst The Co-operative Asset Management will seek to influence investees to end the production of such chemicals.

Targets 2010	Progress	Targets 2011
<b>Indicator: Pesticides reduction</b> (Performance benchmark page 89)		
		<b>EOP</b> Further enhance the Pesticides Policy, and seek to ban chemicals such as Endosulfan and Paraquat.
Complete the roll-out of The Co-operative Food's Pesticides Policy across frozen vegetable categories.	Roll-out complete (see below).	Reduce pesticide derogations by 10% against 2010 levels.
Review The Co-operative Food's pesticides residue testing programme to increase the scope of testing, and improve results analysis and online reporting.	The pesticide residue testing process has been improved, and the scope of the test now covers 415 residues (page 89).	Ensure the new Co-operative Retail Online Pesticide Network (CROP) system is fully utilised by suppliers of fresh produce during 2011, and suppliers of frozen and canned produce by 2012.
		Establish an Expert Pesticide Overview Group and identify residue reduction targets.
<b>Indicator: PBT chemicals reduction</b>		
Progress the development of a REACH database within The Co-operative Food.	Launch of the database has been delayed until 2011 as a result of the integration with Somerfield (page 90).	Progress the development of a REACH database within The Co-operative Food.
Extend the range of household products accredited to the EU Eco-label standard.	Technical difficulties delayed the expansion, however, product development will be progressed in 2011 (page 90).	Extend the range of household products accredited to the EU Eco-label standard.
<b>Indicator: Fertiliser reduction</b>		

## Pesticides reduction

### The Co-operative Food Pesticides Policy

The Co-operative Pesticides Policy seeks to reduce the use of pesticides in all own-brand fresh, frozen and canned produce.

To date, a total of 443 pesticides are listed in the Policy as banned, prohibited or monitored:

- Banned (32) – pesticides should not be used under any circumstances.
- Prohibited (89) – pesticides should not be used, other than in exceptional circumstances pre-approved by The Co-operative Food ('derogations').
- Monitored (322) – pesticides may be used, but more benign alternatives should be considered and full justification for use should be made available to The Co-operative Food on request.

**Pesticides banned 2010**

**32** pesticides banned in line with the Pesticides Policy  
2009: **24**

The Pesticides Policy determines that the use of pesticides by growers should be considered only as a last resort, when the use of preventative measures (such as land choice, crop rotation and crop hygiene, and cultural and biological controls) has been fully explored with limited success. From 2010, the list of banned pesticides is updated using the Prior Informed Consent (PIC) and Persistent Organic Pollutants (POP) lists, which are revised independently. Pesticides previously banned by The Co-operative, but not on the PIC or POP, are now listed as 'prohibited'.

In 2009, The Co-operative Food specifically highlighted to suppliers the likely change in status of two pesticides on The Co-operative's lists as a result of planned reviews under international conventions: Paraquat from 'monitored' to 'prohibited' and Endosulfan from 'prohibited' to 'banned'<sup>6</sup>. Following the temporary move of neonicotinoid pesticides to 'prohibited' status in 2009, two of these were moved to 'monitored' in early 2010 following a review of new research<sup>7</sup>.

**Pesticide residue analysis**

Regular audits are undertaken to ensure compliance with the Pesticides Policy. These comprise desk-based traceability audits<sup>8</sup>, site audits, agronomic audits and pesticide analysis, the latter of which is undertaken on a monthly basis by an independent third-party analytical laboratory. In instances where the Pesticides Policy is breached, sourcing from the supplier/grower temporarily ceases, pending the conclusions of a full investigation. Where appropriate, corrective action is secured; however, should this not prove to be forthcoming, the relationship will cease.

🔍 During 2010, the pesticide residue testing process was extended, such that the scope of the test now covers 415 residues. Due to movement to a new facility, a reduced number of tests took place in comparison with the previous year. No banned pesticides were detected, and a prohibited pesticide residue at levels in excess of the maximum residue limit (MRL)<sup>9</sup> was detected in one sample where pre-approval had not taken place. This will be followed up with the individual supplier in 2011.

**Performance benchmark**

In March 2009, Pesticides Action Network published a study comparing the pesticides policies of 10 UK supermarkets. The Co-operative Food was named as one of three retailers doing the most to address pesticide use and the contamination of food.

**The Co-operative Food pesticide residue analysis**

Pesticide analysis results	2006	2007	2008	2009	2010
Total number of samples tested	184	238	257	268	124
Average number of tests per product sample	84	82	82	140	174
Banned pesticides detected	–	1	0	0	0
Derogations granted for prohibited pesticides	–	13	39	282	168
Number of residues in excess of MRL	3	0	0	0	1
Prohibited pesticides detected without derogation	5	0	0	8	4
% samples with no residues	64%	74%	70%	56%	49%

In 2010, an internet-based pesticides portal, the Environmental Practice at Work (EPAW) system, was introduced to help first tier suppliers comply with pesticide requirements. From 2011, EPAW will be improved with the addition of the Co-operative Retail Online Pesticide Network (CROP) system, which will provide suppliers with suggested alternatives to prohibited chemicals, allow online derogations and improve data-tracking. The system will be utilised by suppliers of fresh produce in 2011, and frozen and canned produce suppliers from 2012.

**Neonicotinoid research**

As part of Plan Bee (page 86), The Co-operative funded an independent research project to determine the effects of neonicotinoids on bees. The project quantified the level of neonicotinoid exposure in resources available to bees, such as guttation fluid, pollen and nectar. The effects of these exposures on honeybee and bumblebee

mortality and performance were then assessed, followed by the wider impacts of these chemicals on bee behaviour. The research is currently under peer review. In 2010, The Co-operative funded a further research project to determine the effects of neonicotinoids on bee brood (infant bees), the results of which are expected in spring 2012.

**Chemicals reduction**

**The Co-operative Food Chemicals Strategy**

The Co-operative Food Chemicals Strategy identifies 38 chemical types for removal from own-brand non-food products, including 19 added during 2010<sup>10</sup>. Chemicals are primarily selected as defined by the Oslo–Paris Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)<sup>11</sup>, and based on

Climate change

Waste and packaging

Water

Biodiversity

Chemicals

# CHEMICALS

emerging evidence of problematic impacts, such as with Bisphenol A and PVC.


The list is reviewed periodically in line with the European Chemical Agency list of Substances of Very High Concern (SVHC), and those SVHCs not already covered by the Strategy are added. In some cases, such as cadmium, legislation has severely restricted the options for usage<sup>12</sup>.

A full list of chemicals identified for removal is provided in the online version of this Report , together with examples of recent decisions taken in connection with chemicals where there is concern but, as yet, no internationally established consensus.

### REACH regulations


The Co-operative supports the principles and objectives of the European regulation REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals)<sup>13</sup> and campaigned for its introduction. REACH came into force in June 2007, and its implementation will be phased in over 11 years, until 2018<sup>14</sup>.

In line with REACH, The Co-operative Food has committed to the following:

- the European Chemicals Agency will be notified in 2011 as to whether any products contain 0.1% or more of Substances of Very High Concern;
- the REACH data will be included in the Co-operative Online Resource Environment (CORE) database, which will enable the exchange of information between the business and its supply chain.  Launch of the database has been delayed until 2011, as a result of the integration with Somerfield; and
- from 2011, a due diligence programme will test the safety of The Co-operative Food's products against the CORE declarations. Non-compliant products will be withdrawn from sale.

## Ecological Cleaning Range

Since 2008, The Co-operative Food has produced an own-brand ecological cleaning range consisting of seven products. At the time of launch, the range was the only brand in the UK to carry both the EU's Eco Flower logo and the BUAV 'Cruelty-Free' logo.

 Technical difficulties in further developing the range delayed expansion during 2010, however this will be progressed in 2011.



### CFS green branch refurbishments

Designated CFS supplier contracts are screened against a range of toxic chemicals, based on the OSPAR List of Chemicals for Priority Action, together with Bisphenol A and PVC. In 2010, the 'green branch' refurbishment programme continued, with seven bank branches and eight regional sales offices being refurbished according to the 'green branch' specifications. All reactive maintenance – for example, replacement of furniture and painting – carried out in 2010 was required to adhere to the specifications. One bank branch was unable to meet all 'green branch' specifications due to local planning regulations. From 2011, the programme will include the Britannia estate.

### Bank and membership plastic cards

The majority of all credit and debit cards in the world are made of PVC<sup>15</sup>. Since 2007, all cards issued by the bank have been PVC-free (over 2.5 million<sup>16</sup>), instead utilising the plastic glycol-modified polyethylene terephthalate (PETG), which does not contain chlorine or use it in its production. Likewise, since their introduction in 2006, all membership cards (some 8.5 million) have been manufactured from PETG.

### The Co-operative Farms

The Co-operative Farms minimises the application of chemicals, such as fertilisers and pesticides, through crop rotation and varietal choices that maintain soil health and limit the spread of pests and plant disease. Minimum tillage is favoured, as this ensures that energy use during crop establishment is reduced and earthworm and soil microbe communities are maintained. Soil samples are taken to determine nitrogen fertiliser requirements, and grain nitrogen is sampled to help refine the decision-making process on each individual farm.

#### Fertiliser use

Fertilisers are applied either via the soil for uptake by plant roots, or by foliar feeding for uptake through leaves<sup>17</sup>. In comparison with the previous year, fertiliser inputs reduced in 2010, attributable to the use of nitrogen planning tools, and a change in crop mix, including an increase in fallow land and land covered by fruit orchards, which require less fertiliser than other crops.

	2006	2007	2008	2009	2010
Nitrogen	113	244	224	180	143
Phosphorus	20	15	22	30	25
Potassium	14	15	14	24	21

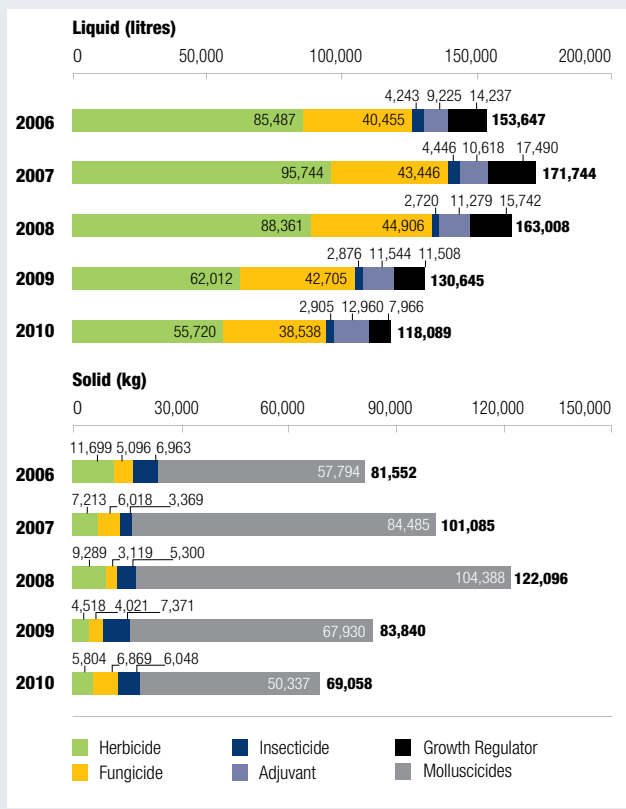
#### Pesticide use

Pesticide usage remained broadly comparable with the previous year. Dry conditions resulted in shorter cereal crops, reducing the need for application of growth regulator – used to prevent crops being beaten down by weather prior to harvest – and solid molluscicide.

The Co-operative farming at Louth Park Farms.



**Co-operative Farms' pesticide, adjuvant<sup>18</sup> and growth regulator<sup>19</sup> purchases**



**Ethical finance**

**The Co-operative Asset Management (TCAM) overseas shareholder resolutions**

In 2010, TCAM was presented with four overseas shareholder resolutions relating to chemicals of concern, all of which were supported.

Company	Resolution	Vote registered
CocaCola Co	To report on Bisphenol A use and development of alternatives.	Supported
ConocoPhillips	To adopt stringent goals to reduce emissions of toxic chemicals from refineries.	Supported
Dow Chemical Co	To report on the pace and effectiveness of the company's remediation project in an area impacted by dioxin exposure.	Supported
Occidental Petroleum Corp	To report on security of chemical facilities.	Supported

**Community involvement**

In 2010, The Co-operative again provided £5,000 in sponsorship for Pesticides Action Network's annual Rachel Carson Memorial Lecture.

**Accompanying notes**

- European Inventory of Existing Commercial chemical Substances (EINECS).
- WWF (May 2003) Chemicals and Health in Humans.
- Defra (2008) Consultation on the enforcement of REACH in the UK.
- www.pesticides.gov.uk/about\_pesticides.asp
- Excessive plant growth and decay that may lead to lack of available oxygen and reduced water quality affecting fish and other animal populations.
- Paraquat and Endosulfan are to be reviewed under the Rotterdam Convention (PIC) in 2010 and Stockholm Convention in 2012 respectively. See www.pic.int and www.pops.int
- Thiacloprid and Acetamiprid were moved to 'monitored'. Clothianidin, Dinotefuran, Imidacloprid, Nitenpyram, Thiamethoxam and Fipronil remain on the 'prohibited' list.
- Traceability audits are undertaken by The Co-operative Food's Quality Assurance team, which analyses Pesticide Application Records. These detail the number, rate and dates of pesticide application. Assurance is sought that the decision to use pesticides in the growing process has been based on sound information, and that due consideration has been given by the grower to integrated crop management procedures.
- According to the Pesticides Safety Directive (PSD), maximum residue limits (MRLs) are established on the basis of highest residues expected when a pesticide product is applied in accordance with instructions for use (Good Agricultural Practice). Under these arrangements, the PSD contends that such residue levels do not pose unacceptable risks for consumers.
- Listed in the online version of this Report.
- www.ospar.org/content/content.asp?m=00940304440000\_000000\_000000
- RoHS Regulations (2006), Dangerous Substances Marketing and Use Directive.
- Regulation EC 1907/2006.
- ec.europa.eu/environment/chemicals/reach/reach\_intro.htm
- REACH regulations require manufacturers, importers and downstream users of chemicals to demonstrate safe product use and disposal for approximately 30,000 of the 100,000 chemical substances in use in the EU.
- ICMA (International Card Manufacturers Association). www.icma.com
- An extrapolation based on data available up to October 2010.
- Fertilisers are used to promote growth and supplement the three major plant nutrients (nitrogen, phosphorus and potassium), the secondary plant nutrients (calcium, sulphur and magnesium) and sometimes trace elements with a role in plant nutrition (boron, chlorine, manganese, iron, zinc, copper and molybdenum).
- To decrease the use of pesticides, adjuvants are also utilised. An adjuvant is a substance, other than water, that is not a pesticide, but which enhances, or is intended to enhance, the effectiveness of the pesticide with which it is used.
- Growth regulators are synthetic plant hormones that modify natural growth in cereals and are used in conjunction with pesticides and adjuvants to optimise crop productivity.

Climate change

Waste and packaging

Water

Biodiversity

Chemicals