

- 43 ENVIRONMENTAL MANAGEMENT
- 44 RESOURCES
- 45 CASE STUDY:  
Tesco Lotus, Bangkok, Thailand
- 47 EMISSIONS
- 48 WASTE AND RECYCLING
- 51 OUR PRODUCTS
- 52 CASE STUDY: Wildlife Choice
- 55 CASE STUDY: Garden furniture

# environment

*working with customers*



We believe in sustainable growth – it is responsible, it is what our customers want and it makes sound business sense. If we take decisions that are unsustainable, we may harm the world we all live in. Similarly, if we fail to minimise our environmental impacts, we will be inefficient and increase our costs.

Paul Smith Perth Extra, UK

Achieving the objective of sustainability is not always straightforward. Some goals are very clear – for example reducing energy consumption and minimising water use. But environmental, social and economic goals are not always aligned, and may need to be carefully balanced. For example, are the environmental costs of importing fresh flowers from Kenya outweighed by the social benefits of trading with under-developed economies?

We do not have all the answers, and like everyone we have to make difficult trade-offs between competing goals. But we listen to an ever wider range of stakeholders; and take practical steps in what we believe is the right direction whenever we can.

## *to help the environment*

### Environmental management

Tesco integrates the management of environmental, as well as social and ethical, issues into our Steering Wheel (see page 8) – the tool we use to manage the company both on a day-to-day and long-term basis. Each quadrant of the Steering Wheel contains KPIs with annual targets, and our Corporate Responsibility KPIs (see page 56) are contained within ‘the way we operate is responsible and safe’ segment of the Operations quadrant. In this way, environmental, social and ethical targets are integrated into the overall running of the business.

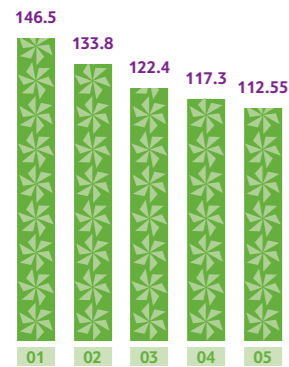


Promoting our environmental standards to our customers in-store.

For our full environment policy visit

[www.tesco.com/corporate](http://www.tesco.com/corporate)

energy consumption  
kwh per ft<sup>2</sup> sales space



This year we reached our target for a 3.6% reduction in energy used per square foot, at a time when our sales per square foot grew by 6.3%.

Next year we aim to reduce energy consumption by 5%.

## Resources

**Energy efficiency** Tesco is committed to reducing our energy consumption and use of greenhouse gases. In 1997, we made a voluntary commitment to reduce our energy consumption per square foot by 35% by 2006. In 2005 we achieved this target one year early.

Over the past year, we have spent £3.7 million on energy-saving schemes. This has included installing fan inverter drives in 91 stores. These reduce the speed of the fan motor in air conditioning units, reducing the volume of air flowing into the store by 15-20%, and reducing energy consumption by up to 50%. We have also installed a further 104 'Intellihood' systems, to add to the 274 installed last year. This is an extraction system which roughly halves the amount of energy consumed by the extractor fans at in-store bakeries and staff restaurants – saving 15,777 MWh of electricity worth £710,000 last year. We are working with the Carbon Trust to produce an energy efficiency training video for staff.

Our Horsham store has been trialling a Combined Heat and Power (CHP) unit since 2003, and has concluded that there are electricity savings to be made, despite a few problems. We are currently considering plans for future roll-out. We are also examining the potential of Light Emitting Diode (LED) lighting, which uses much less power, releases less heat into the refrigeration areas, and has lower maintenance costs.

Our drive for energy efficiency applies throughout the Tesco group. In Central Europe, we have dedicated energy managers responsible for energy-saving. There are similar programmes in all our international businesses.

**Emissions trading** Tesco supports the UK Government's position on climate change and the Kyoto Protocol. We are participating in the UK Emissions Trading Scheme and Climate Change Levy. As part of the Trading Scheme, we are committed to an absolute reduction in greenhouse gas emissions over a five-year period at a control group of 118 stores, in return for a payment from the Government which is invested in further energy saving initiatives. Over the past year, growth in the sales areas at these control stores has required us to use up carbon credits we earned in 2003-4 from greater than expected cuts in energy consumption. We participated in the UK Government's consultation on the EU Emissions Trading Scheme, and we expect to be part of the Scheme when it is extended to retailers in 2007.

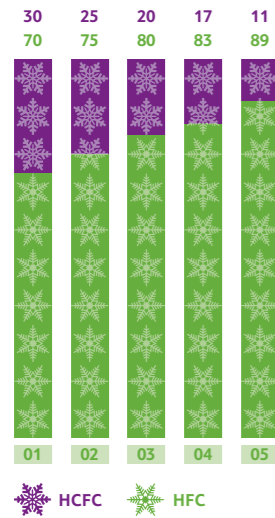
# case study Tesco Lotus, Bangkok, Thailand



In Thailand, Tesco Lotus has spent £3.1 million on energy conservation at 49 stores over the last three years, which has resulted in energy savings of approximately £2 million so far. At our new flagship 'green' store in Bangkok, solar panels the area of three football pitches cover more than half of the roof. These provide 12.5% of the store's energy consumption and save 400 tonnes of carbon dioxide. It is the largest rooftop solar energy system in the region. Even the benches at the front of the store are made of photo-voltaic panels. Tesco Lotus is evaluating the success of this scheme and hopes to introduce similar measures in new stores.

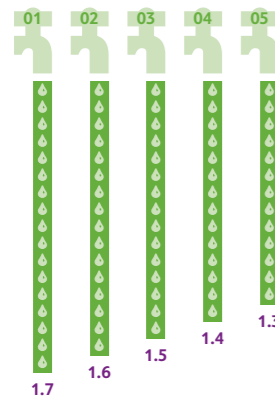
Green Store Rama 1 hypermarket,  
Bangkok, Thailand

% refrigerants used



We are reducing our year-on-year refrigerant usage by 3,500 tonnes of CO<sub>2</sub> equivalent.

water consumption  
m<sup>3</sup> per m<sup>2</sup> sales space



This year we reduced water consumption per m<sup>2</sup> by 7%, saving 119,905 m<sup>3</sup> of water.

Next year we aim to reduce water consumption by 1.3 m<sup>3</sup>/m<sup>2</sup>.

**Renewables** In January 2004 we installed a solar powered roof at our Hucknall store, in partnership with Solar Century and partially aided by a Government grant. The system produced 4,854 kWh over a 15 week period, enough to light the petrol station building for 20 weeks. We expect the system to pay for itself within 13 years. Further roll-out is currently under review.

We are also investigating the potential held by geothermal heating and cooling systems, which use the earth's natural ability to store heat.

**Refrigeration** Tesco has phased out the use of all CFCs in our UK stores and is in the process of replacing HCFCs with HFCs in advance of European Union requirements. As part of our commitment to the UK Emissions Trading Scheme, we are reducing our year-on-year refrigerant usage by 3,500 tonnes of CO<sub>2</sub> equivalent. We are actively evaluating alternative refrigeration design and refrigerant technology, including CO<sub>2</sub>, with the goal of reducing the overall environmental impact.

We assess the efficiency of all new refrigeration systems across their predicted working life, using Total Equivalent Warming Impact as a major deciding factor, as well as capital cost, maintenance and energy consumption.

**Water consumption** We have achieved our target to reduce water consumption by 7% per m<sup>2</sup> of sales space. This equates to a saving of 119,905 m<sup>3</sup> per year. We have spent £740,000 on water saving programmes, including leakage reduction, push taps, urinal controllers, rainwater recovery and water data loggers.

This year we hope to install rainwater recovery units at 33 stores. Our calculations show that at our Chichester store 1,733 m<sup>3</sup> of rainwater could be collected from the roof. Once filtered, this water will be used by toilets and urinals, thus reducing water use from the mains supply by 30-40%.

Emissions

The bulk of our emissions come from our transport distribution fleet.

**Vehicle efficiency** This year we exceeded our target to increase the volume of goods delivered per litre of fuel consumed by 2.5%. This means that 22.5 cases of goods are being delivered per litre of fuel this year, compared with 19.9 cases last year. This reduces mileage, emissions and congestion.

We have achieved this by using lorries returning from our stores to our distribution centres to collect goods from suppliers and recycling waste. By collaborating in this way, we have helped reduce the miles travelled by suppliers to our distribution centres by 23% and reduced fuel usage by 14%.

We have also opened three regional consolidation centres. Where previously, stores would receive deliveries from many different regional distribution centres, goods are now moved to fewer regional consolidation centres.

We have continued to fit Continuously Regenerating Traps (CRTs) to our vehicles. These units typically reduce air pollution by cutting carbon monoxide emissions, hydrocarbons and particulate matter by 90% compared with standard exhaust systems. Some 39% of our 1,723 vehicles now have these units fitted, up from 30% last year.



GlobalDiesel is available at 23 of our stores.

**Biofuels** We were the first major retailer to bring biodiesel to our customers. Since April 2004, we have been selling biodiesel at 23 stores, and to date have sold 5.4 million litres of GlobalDiesel. This ultra low sulphur diesel is blended with 5% biodiesel from rapeseed. The biodiesel cuts particulate emissions by 20%, improves fuel efficiency by 1% and reduces carbon dioxide emissions by 5%. In total, the inclusion of 274,000 litres of biodiesel in the GlobalDiesel has led to saving the equivalent of 818 tonnes of carbon dioxide equivalent emissions.

Tesco has a 25% stake in Greenergy, the GlobalDiesel supplier. This has enabled Greenergy to invest in the UK's largest single-line biodiesel plant, located on the Humber estuary. It is scheduled to open in early 2006 with an annual production capacity of 100,000 tonnes. Greenergy aims to buy rapeseed from around 1,500 farmers through a contract with Grainfarmers, a large agricultural co-operative in the UK.

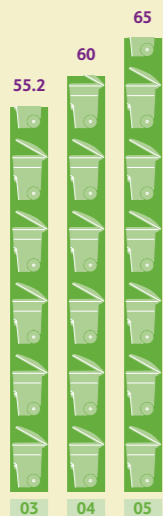
**Rail transport** Tesco remains committed to exploring all possible alternatives to road haulage, and we are testing the viability of rail distribution in two projects at Edinburgh and Inverness stations in Scotland. Both trials will be reviewed by the end of 2005.

**Green travel plans** Since the beginning of 2003, green travel plans for staff have become an integral part of all our new store and store extension development proposals. Travel plans are required for new large-scale developments by national planning policy guidance.

These green travel plans outline the measures that we take to reduce the number of store employees coming to work by car, including staff travel surveys and schemes such as car sharing and walking buddies. Where employees participate in car sharing or 'walking buddy' schemes, we offer them a guaranteed ride home in the event of emergencies. To date, we have produced travel plans for 49 new stores and store extensions, up from 29 last year.

## Waste and recycling

% waste recycled



Next year we aim to increase the amount of waste recycled to 68%.

**Recycling in our operations** Tesco is committed to minimising waste production throughout our operations. We have an internal programme for recycling paper, cardboard and plastic, and more than 80% of these materials are recycled. Over the past year we have increased the proportion of the store waste recycled from 60% to 65%, an increase of 20,000 tonnes. We continually visit and audit stores to encourage staff to improve the amount of cardboard and plastic recycled. Stores with poor recycling rates are given third-party training in best recycling practice.

The bulk of the waste we send to landfill is food waste. We are investigating the viability and sustainability of new technologies that provide alternatives to landfill, including composting, aerobic digestion and gasification.



The Rt Hon Margaret Beckett MP, UK Secretary of State for Environment, Food & Rural Affairs, officially opens our recycling machine at our Winchester store, along with pupils from the nearby Windale Primary School, December 2004.

**Recycling by customers** Across the UK, Tesco accounts for 13% of all material collected for recycling by local authorities, through recycling facilities at 450 Tesco superstores.

Recycling is a key issue for us and for our customers. With 9 out of 10 people saying they would recycle if it were easier to do so, Tesco is constantly looking for ways to help. This year, we introduced Britain's first fully automated recycling machine, which sorts plastic, metal and glass, rather than expecting our customers to do so. The machine uses revolving arms to throw bottles at an inbuilt stone wall and knives

to shred plastic. Breaking the waste down in this way means that the new machine stores 50 times as much waste, and needs to be emptied less frequently as a traditional recycling unit. Our research predicts that the new equipment will encourage our customers to triple the amount of waste they bring to stores for recycling.

This first pilot machine is operating in Winchester and initial feedback from customers is very positive. We are extending the trial to five more stores in 2005. We are working with the UK Government's Waste Resources Action Programme (WRAP) to deliver the further trial units.



Mobile phone and inkjet recycling by customers raised £200,000 for seven UK charities.

This year we worked in partnership with The Woodland Trust to collect over 630 tonnes of Christmas cards for recycling, nearly 9 million more cards than last year. We have also collected over 100,000 mobile phones and 174,160 inkjet cartridges for recycling, raising a total of £200,000 which was shared by the Alzheimer's Society, NCH, Cystic Fibrosis, Barnardo's, Multiple Sclerosis, RNIB and Help the Hospices.

In 2004, we were one of the first supermarkets to introduce degradable plastic carrier bags into our UK stores. These bags break down in as little as 60 days into biomass, carbon dioxide, water and mineral matter, with no harmful residue, unlike conventional plastic carrier bags. An estimated 719 million degradable carrier bags have since been used by our customers, which means that the equivalent of 6,035 tonnes of non-degradable plastic has been offset.

**Green trays** In 2000, Tesco pioneered the use of reusable plastic crates – our award-winning green trays – to replace cardboard boxes and other packaging to transport and display products. Green trays have subsequently been adopted all over the world, as they also protect products, minimising damage. This year we missed our target to increase the number of green tray trips by 10%, achieving an increase of 7%. We have consequently introduced a new software system to improve the tracking of trays to ensure we meet our future targets. While the increase in tray usage is mainly due to our sales growth, it still represents a saving of over 4,000 tonnes of cardboard packaging that otherwise would have been used.

**Packaging** WRAP recently announced the launch of the Retail Innovation Fund to support retailers in reducing product packaging through design innovation. We are discussing a number of projects with WRAP – for example to improve the design of ready meal packaging, with the aim of reducing product packaging by 10%.

**WEEE Directive** The EU Waste Electrical and Electronic Equipment (WEEE) Directive aims to encourage the recycling of old electrical and electronic equipment such as televisions and washing machines when new ones are bought. Tesco fully supports the principle of recovery, recycling and re-use, and we are working with the British Retail Consortium to provide a workable and effective compliance scheme that will help to provide a network of accessible collection facilities.

## Our products

We are constantly working with our suppliers to ensure that we give our customers high quality, competitively priced products that are produced to the high environmental and welfare standards they demand.

**Nature's Choice** To ensure our fruit, vegetables and salad are grown to high safety, quality and environmental standards, we ask our suppliers to comply with our Nature's Choice scheme.



This is our own integrated farm management scheme and is unique to Tesco. Introduced in 1992, it sets environmental standards and it specifies shape, size, taste, variety and shelf life requirements.

### Nature's Choice environmental standards

- ★ rational use of plant protection products, fertilisers and manures;
- ★ pollution prevention;
- ★ protection of human health;
- ★ use of energy, water and other natural resources;
- ★ recycling and re-use of material;
- ★ wildlife and landscape conservation and enhancement.

Farms must have a plan for managing the environment, detailing action to protect and encourage wildlife diversity, including planting hedgerows and creating wildlife corridors. Pollution control and energy use are also important parts of the scheme, with specific controls on discharges to local watercourses, and energy use reviews by independent third parties. The Nature's Choice scheme is governed by a committee made up of suppliers, an independent academic, an auditor and Tesco managers.

The scheme applies to all fruit, vegetable and salad suppliers to our UK market. Over 6,000 farms in 41 countries are currently working towards the scheme's requirements. Nature's Choice requires suppliers and growers to undergo regular audits, and Tesco requires a third-party audit to apply independent verification of the Nature's Choice standards.

We have achieved our target of 80% of all suppliers to the UK complying with the scheme by April 2005 and we are aiming for 100% of suppliers to comply by 2006/07.

In Brazil, Nature's Choice has led to one of the biggest papaya farms in the world establishing set aside areas totalling 25% of the farm hectare, managing waterways and wetland areas, and conserving tropical forests.

This year we have been working with primary produce suppliers and independent agricultural experts to review the use of pesticides, taking into account best agricultural practices. As a result of examining more than 6,000 pesticide uses on 80 crops, we have stopped the use of 190 and put in place extra controls on another 570. This has involved working with suppliers outside the EU to bring their standards into line with EU requirements, thus helping minimise the risk of residues on imported products to the UK.

Our international operations also encourage good environmental practice from our fresh produce suppliers. For example, Tesco Kipa in Turkey is the first retailer in the country to pioneer EUREPGAP (the Euro Retailer Producer Group's Good Agricultural Practices) standards. Currently seven different products are certified to EUREPGAP, and eight further fruit and vegetables will be certified over the coming year.

**Wildlife Choice** For the past two years we have been working to strengthen the biodiversity and landscape requirements of Nature's Choice. Now called Wildlife Choice, this separate scheme requires farmers to be fully aware of the wildlife potential on their farms, to agree an independent improvement plan with quantified targets, and then to monitor the impact of the changes to farmland habitats. Initial surveys and environmental record searches are conducted by the Game Conservancy Trust and independent ecologists.

To date, seven farms are participating in this project, and are providing practical evidence of quantified benefits to wildlife. Three winter and summer counts have now taken place by independent ornithologists. A Wildlife Choice website containing each farm's action plan and progress to date will be launched in mid-2005. Our aim is to build a national, regional and county database of how Tesco growers are making a difference in the sustainability of their farms.

## case study Wildlife Choice at J.W.Busby & Partners, Leicestershire

John Busby and his family work closely with Tesco's supplier Berryworld to supply top quality strawberries to Tesco.

Their 500-acre farm in the Midlands practises a four-year rotation to produce strawberries and a range of arable crops such as wheat, barley and oilseed rape.

The farm has made great progress, under the UK Government's Countryside Stewardship Scheme, in providing habitats for wildlife on

grass margins, in set-aside and within new plantations. There are well structured hedges with hawthorn, elder, dog rose and poplar together with oak, ash and willow trees. Water is a key feature of manor farm with the River Mease and its tributaries being natural field boundaries. Two ponds provide a water catchment area and aquatic habitats for freshwater life. Initial results indicate that there has been an increase in breeding abundance at this farm.



Sunflowers grown in set-aside areas at Busby's farm provide seeds for feeding birds in winter.



**Organic food** Customers buy more organic food from Tesco than from any other retailer.

Our organic sales have grown by 22% over the past year. We sell more than 1,200 organic products lines, including 33 million bananas, 48 million eggs, 541,000 mince pies and 30,000 litres of vodka.

This year our sponsorship of Newcastle University's Centre for Organic Agriculture came to an end, through mutual agreement, due to difficulties in delivering suitable research. We are hiring a full-time Organic Technical Manager and holding a conference for our organic suppliers in mid-2005. We will ask our organic suppliers for practical suggestions on how Tesco can help them build their businesses. We will then look to fund any suitable research or initiatives that arise from this consultation.

**Animal welfare** We demand high standards of animal welfare. We have livestock codes of practice which cover all aspects of animal husbandry for each species. These codes were updated in 2004, and cover animal welfare requirements, environmental impact and food safety factors. The codes ensure compliance with legal requirements and Government welfare recommendations, and are used to ensure overseas suppliers to UK stores have

UK-equivalent standards. All Tesco's suppliers of meat and farmed fish in the UK must be members of an independently audited and certified farm assurance scheme.

We support UK industry initiatives such as the National Farmers' Union (NFU) 'Red Tractor' logo and national farm assurance schemes. This year we extended the Red Tractor logo to our own-brand cheese.



We are committed to achieving an integrated supply base to allow, wherever possible, whole-life traceability. We ensure that our standards are met by using both an internal team of agricultural experts and independent auditors to carry out inspections. We also employ a consultant vet with a certificate in animal welfare to ensure that we are abreast of current issues.

Over the past five years we have committed more than £1 million to support research and initiatives in this area. For example, every year we sponsor Oxford University's Food and Animal Initiative (FAI) with financial support of £100,000. This initiative aims to research and develop sustainable farm systems that provide discernible benefits to animal welfare, the environment and human health, within a commercial framework, and to share knowledge with farmers and the public. More information can be found at

[www.faifarms.co.uk](http://www.faifarms.co.uk)

This year we also sponsored a Compassion in World Farming conference.

**Animal testing** Tesco brand non-food products are not tested on animals by us or our suppliers, nor on our behalf. As a five-star donor, Tesco contributes £10,000 a year to the Fund for the Replacement of Animals in Medical Experimentation (FRAME), which seeks to end animal testing.



MSC10703©

**Seafood** Tesco is committed to the principles of sustainability in our fish sourcing. We understand this is a concern for our customers and external stakeholders.

We support the Marine Stewardship Council (MSC), which was set up by the World Wildlife Fund in 1997 to investigate ways to conserve fish stocks effectively. The MSC certifies fisheries which are well-managed and sustainable. We sell MSC-labelled wild Alaskan salmon, mackerel and MSC-certified cockles, hake, hoki and Thames herring.

Of the 36 'at risk' species currently identified by the Marine Conservation Society (MCS), we do not source 32. For the four remaining species on the MCS list our sourcing policy is developed on a case by case basis to minimise the impact on the environment and promote sustainability of these species. For example, line fishing is specified in preference to trawling for cod and haddock.

**Genetically Modified foods** Our policy on Genetically Modified (GM) foods is driven by the view of our customers. They continue to tell us that they are not yet convinced of the benefits of GM. We do not therefore have any own-brand GM foods on our shelves.

Use of GM feed is prohibited in organic products, which means that all of our organic meats are fed on non-GM feed.

The farming community have told us that to extend the range of meat we sell from animals fed on non-GM would put immense pressure on them. We will

keep an open mind as the technology develops, listening and responding to our customers.

We remain committed to clear labelling to enable customers to make an informed choice. All branded products containing GM ingredients are labelled as such.

**Palm oil** Palm oil is an ingredient in a wide range of food and non-food products including soap, cosmetics, confectionary, ice cream, snack products and margarine. The Palm Oil Sustainability Group is investigating concerns relating to palm oil conservation and is helping to define what is sustainable. We are monitoring the work of this group and will actively engage at an appropriate stage in their work. We have recently initiated further discussions amongst retailers through the British Retail Consortium to explore the role of retailers and future opportunities for collective action at a UK and EU level where it is needed.

**Timber** Tesco is committed to purchasing timber and timber products only from legal, sustainable sources. We will never knowingly purchase timber from illegal sources. All suppliers of timber products are asked what species of wood they use and where it comes from. Every six months an external consultant collates supplier information and conducts a risk assessment to determine which need auditing and further checks. All our paperwork relating to timber products is also audited by a third party.

## case study garden furniture

Tesco brand garden furniture uses timber from well-managed forests. Our sources are Forest Stewardship Council (FSC) approved, or members of the Tropical Forest Trust (TFT) committed to achieving the FSC standard through the SGS certification support programme.

In addition to the audits carried out by the FSC and TFT, a Tesco technical manager has visited all the factories, and a Tesco representative has carried out audits at all the manufacturing sites. We are in possession of relevant FSC and TFT documentation to demonstrate that the timber

comes from legal and sustainable sources. Tesco worked with the FSC and TFT to provide improved at point of sale information for customers.

We are pleased this year to have received 'A' grade rating in Greenpeace's 2005 Garden Furniture Survey, in recognition of the controls we have established over the sourcing of timber for our garden furniture. Customers can check the source of the garden furniture they buy through the Greenpeace online garden furniture guide

[www.greenpeace.org.uk/products/GFG](http://www.greenpeace.org.uk/products/GFG)



*'We welcome Tesco's commitment to sourcing and selling FSC-certified timber and timber products, such as garden furniture. The aim of the FSC is to improve the standard of forest management around the world by providing a market driven mechanism. When a retailer the size of Tesco commits to the FSC system it can have a very real effect on the ground and throughout the supply chain. We look forward to seeing the Tesco range of FSC-certified products expand over the coming years.'*

**Anna Jenkins**, Director, FSC UK.