

ENVIRONMENT

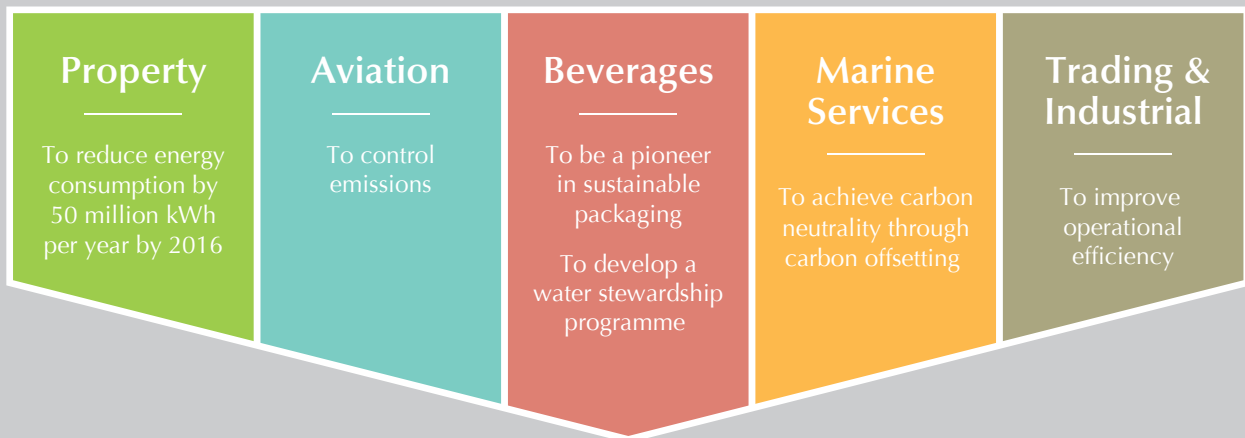
Our ultimate goal, which we first articulated in 2010, is for our operating companies to achieve zero net impact on the environment. We call this goal Net Zero. In 2012, we developed a preliminary plan for reaching Net Zero. We plan:

- to reduce our carbon emissions, the amount of water we use and the amount of waste we produce;
- to reuse things which we use, by treating and recycling them, where possible returning them to the environment; and

- to replenish resources which we consume by supporting the projects of others and by making our own investments.

Each of our operating companies has a different impact on the environment. Each therefore has its own environmental targets. We intend to include these targets (and their achievement or otherwise) in quarterly management accounts. This will help to focus the attention of senior management on sustainability matters.

OUR ENVIRONMENT STRATEGY



TOWARDS **ZERO** NET IMPACT

GREENHOUSE GAS EMISSIONS

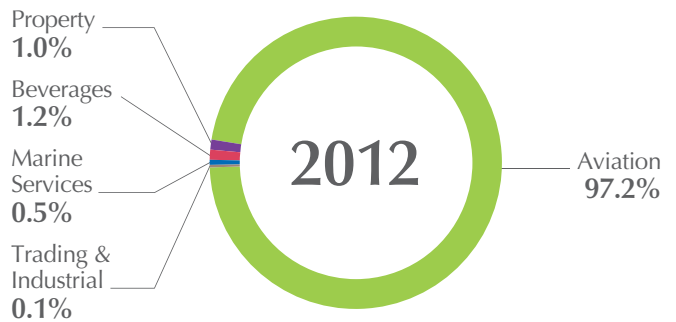
Measuring our greenhouse gas emissions enables us to set reduction targets and is therefore the first step towards Net Zero. In 2012, our greenhouse gas emissions were 16.7 million tonnes of CO₂e, 1% less than in 2011. The Aviation Division is responsible for 97% of our total emissions. Its emissions decreased by 1% in 2012 reflecting lower fuel consumption by the Cathay Pacific group. We cannot eliminate our emissions, but we can offset them by buying or earning carbon credits. In 2012, we established a carbon desk to identify what carbon credits our operating companies need and to provide them.

SPO is offsetting some of its greenhouse gas emissions by participating in a scheme to avoid deforestation in Paraguay. Over 20 years, starting in 2013, it is estimated that SPO's participation in the scheme will offset approximately 1 million tonnes of emissions. The scheme will also assist in maintaining biodiversity and will benefit indigenous communities.

Fuel Efficiency – Cathay Pacific group

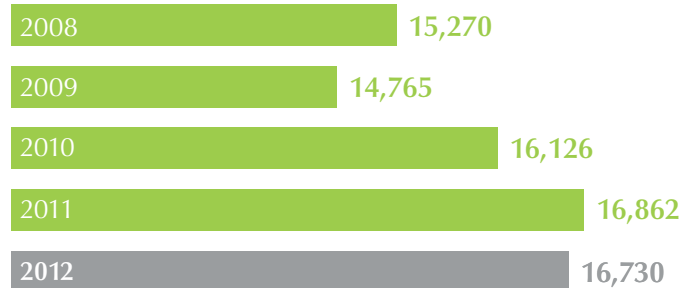
Cathay Pacific attempts to minimise its greenhouse gas emissions by investing in more fuel efficient aircraft and retiring older less fuel efficient aircraft. Its target is to improve its fuel efficiency by 2% per annum between 2009 and 2020, compared with an airline industry improvement of 1.5% per annum. In 2012, our fuel efficiency improved slightly (less than 0.2%) compared with 2011. The steps which Cathay Pacific has taken in its effort to improve fuel efficiency in recent years are shown below.

GHG EMISSIONS BY DIVISION



GHG EMISSIONS

Thousand tonnes of CO₂e



FUEL EFFICIENCY IN CATHAY PACIFIC



2005

- Establishes a climate change task group to monitor global climate change
- Invests in equipment to wash aircraft engines, so saving more than 5,000 tonnes of fuel per annum (equivalent to about 16,000 tonnes of CO₂e per annum)

2006

- Establishes a system for improving air traffic management, so saving 480 hours of flight time per annum (equivalent to more than 14,000 tonnes of CO₂e per annum)

2007

- Starts to acquire fuel efficient Boeing B777-300ER and Airbus A330 passenger aircraft and retires older, less fuel efficient cargo aircraft

2009

- Supports IATA's climate change targets:
 - An average improvement of 1.5% per year in fuel efficiency from 2009 to 2020
 - A cap on aviation CO₂ emissions from 2020 (carbon-neutral growth)
 - A 50% reduction in net CO₂ emissions by 2050, relative to 2005 levels
- Helps to form the Sustainable Aviation Fuel Users Group Asia
- Introduces modified engines on Airbus A330 aircraft, so saving 3,700 tonnes of fuel per annum (equivalent to 11,000 tonnes of CO₂e per annum)

2012

- Adjusts fuel efficiency improvement target from 1.5% to 2% per year from 2009 to 2020

The steps which Swire Beverages has taken in its effort to control water usage in recent years are shown below.



WATER MANAGEMENT IN SWIRE BEVERAGES

Completes assessments of the vulnerability of sources of water for all bottling plants and develops plans to protect water sources

Opportunities to replenish water were identified. These will help to mitigate future risks to the supply of water for our bottling plants

Zhengzhou plant achieves zero wastewater discharge

The Zhengzhou plant supplies the municipal authorities with treated wastewater, which is used for filling a man-made lake and saves over 200 million litres of fresh water annually

Measures the water usage of a bottle of Coca-Cola

The total volume of fresh water used to produce a standard 600 ml bottle of Coca-Cola (that is its water footprint) was calculated. A water footprint consists of blue (surface and ground water), green (water stored in the soil) and grey (polluted water) components. All three components were measured

Starts to assess the vulnerability of sources of water

The aim is to do things intended to ensure sustainable water supplies for our production and for the needs of the communities in which the division operates

Commits to Coca-Cola's "reduce, reuse and replenish" goal for water

The aim is to return safely to the environment the equivalent amount of water used in our drinks and their production by 2020

Creates a corporate social responsibility policy

The policy led to engagement with young people and local communities with a view to making them aware of the need to conserve water and to the development of the Save a Barrel of Water Campaign and Coca-Cola Taiwan Water Bank education programmes

Carries out a water risk survey

Assessments were made of water usage by the division and its suppliers and of access by local communities to water in areas where the division's bottling plants are located

Begins to reuse treated wastewater outside bottling plants

The Hong Kong, Hefei, Taiwan and Xian bottling plants started to supply treated wastewater for external use, so reducing discharges to natural water bodies and helping to address water scarcity

Biofuels

Using sustainable biofuels will reduce our use of unsustainable fossil fuels and help us to reach Net Zero. Cathay Pacific supports the development of biofuels. It helped to form Sustainable Aviation Fuel Users Group Asia, which aims to develop sustainable aviation biofuels and to support their commercialisation. The development of biofuels from food crops could adversely affect food and water supplies, biodiversity and agriculture. So we concentrate on biofuels derived from non-food crops, agricultural residues and waste material that would otherwise go to landfills.

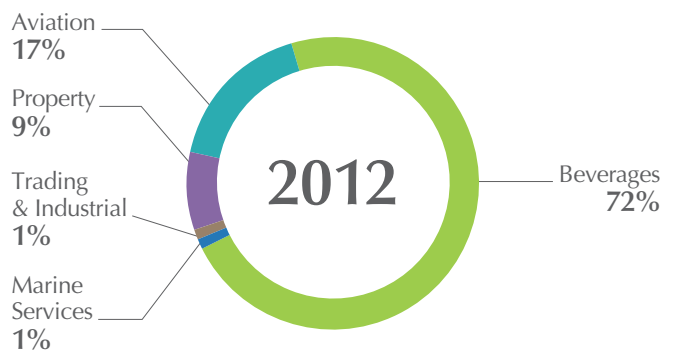
Energy Efficiency – Property Division

We own approximately 20.9 million square feet of principally commercial space. Our second-largest source of greenhouse gas emissions is the electricity used in our buildings. Making these buildings more energy efficient is a priority. Energy efficiency is a key design requirement for all our new buildings. Efficiency targets are established before design starts. Designs are evaluated by reference to these targets. After construction, energy efficiency is tested and continues to be tested during a building's life. By concentrating on energy efficiency, Swire Properties' energy consumption in 2012 was 5% higher than in 2001 despite a 28% increase in the size of its total property portfolio during that period. Swire Pacific and Swire Properties joined 118 organisations worldwide in support of the World Business Council on Sustainable Development's Manifesto on Energy Efficiency for Buildings.

WATER – BEVERAGES DIVISION

In 2012, the Group's total water consumption was 7.6 million cubic metres, a decrease of 5% from 2011. Swire Beverages accounted for 72% of total consumption, using water to make

WATER CONSUMPTION BY DIVISION



beverages and maintain hygiene. In 2008, Swire Beverages conducted a water risk assessment in Mainland China. Water of the right quality should continue to be available in the short term, but shortages are likely in some parts of Mainland China by 2025. The division is therefore doing things intended to ensure sustainable water supplies for its Mainland China plants. It has a programme to reduce its water consumption, to reuse recycled water and to replenish sources of water. In 2012, RMB1.36 million was spent on recycling concentrated water in reverse osmosis systems, on maintaining water pipes and on reusing condensate, wastewater and treated rinse water. The bottling plant in Zhengzhou continues to supply the municipal authorities with treated wastewater.

WASTE

Hong Kong's three landfills may be full by 2018. Our Hong Kong operating companies do their best to reduce waste. Cathay Pacific Catering Services makes available waste food for conversion into pigfeed and fishfeed, glass bottles for conversion into bricks, plastic bottles for reprocessing and used cooking oil for conversion into biodiesel. Swire Beverages' twistable lightweight Bonaqua bottle uses 34% less plastic than a conventional plastic bottle, incorporates recycled plastic and, after twisting, fits into a smaller space than a conventional bottle. Swire Beverages' reverse vending machines enable consumers to participate in recycling plastic bottles.



NOISE

Noise pollution is a challenge for our airline operations. Cathay Pacific endorses the International Civil Aviation Organisation's balanced approach to controlling noise emissions around airports. This approach focuses on reducing noise at source, regulating land use around airports, adapting operational procedures and implementing operating restrictions. Cathay Pacific works with the Hong Kong Civil Aviation Department on noise mitigation and with manufacturers and others on ways to reduce the noise made by its aircraft.

In 2012, Cathay Pacific was fined 14 times for noise infringements at London's Heathrow Airport and Manchester Airport and received warnings from airports in Frankfurt, Brussels and Los Angeles. It is working to improve performance through better planning and aircraft deployment.

AIR QUALITY IN HONG KONG

Air pollution is a major concern in Hong Kong. Emissions from motor vehicles contribute a lot of it. To limit such emissions, we replace our motor vehicles frequently. Over three quarters of our motor vehicles conform to Euro 3 or higher emissions standards and all our new vehicles will conform to or exceed applicable emissions standards. Swire Properties, HAECO and HAS operate some electric vehicles and ground service equipment. HUD has started to use electricity (instead of auxiliary diesel engines) to provide power for its container vessels when they are moored.



BIODIVERSITY

Our businesses are largely carried on in cities and therefore do not usually affect biodiversity on land. That said, we comply with all legal requirements relating to biodiversity and we have a sustainable food policy (see Working with Others on page 101).

INNOVATIVE TECHNOLOGY

HAESL is exploring the use of biofuels instead of kerosene for testing aircraft engines. HAS operates loaders powered by electricity and diesel, which produce fewer emissions than loaders powered solely by diesel. HAECO has installed radiant cooling ceiling air conditioning in its hangars at Hong Kong International Airport, which is 40% more energy efficient than conventional air conditioning.



Investment Fund

We have a fund available for direct investment in businesses devoted to sustainable development. The focus is on businesses which use new technologies and processes, are demonstrably sustainable, are capable of expansion and share our values. We intend to invest on terms which will permit us to participate in the making of key decisions. We look in particular at businesses which are capable of generating carbon credits and so will help us in our goal of moving to Net Zero.

COOPERATION WITH OTHER GROUPS

We try to keep ourselves informed about the latest developments in environmental protection. By joining advocacy groups, we learn from them and offer our own experiences to them. As a member of The Climate Group, Swire Pacific joined more than 140 other companies in signing the carbon price communiqué, urging policy makers to introduce a clear carbon price framework in a stable and timely manner.

In Hong Kong, Swire Pacific is a member of the Business Environment Council and the Climate Change Business Forum and Swire Properties is a platinum patron of the Green Building Council.

2012 Aims and Progress

Aims	To streamline the collection, reporting and monitoring of information
Progress	In progress
Comments	A new database is being evaluated
Aims	To explore opportunities to increase energy efficiency, to generate carbon credits and to conduct internal carbon trading
Progress	In progress
Comments	We held our first energy conference and established a carbon desk
Aims	To seek opportunities to invest in biofuels and other alternative energy technologies
Progress	In progress
Comments	A lot has been learnt from considering investment opportunities

2013 Aims

To use quarterly management accounts to monitor sustainability achievements against targets

To move towards our Net Zero goal

To continue to explore opportunities to increase energy efficiency, to generate carbon credits and to conduct internal carbon trading