

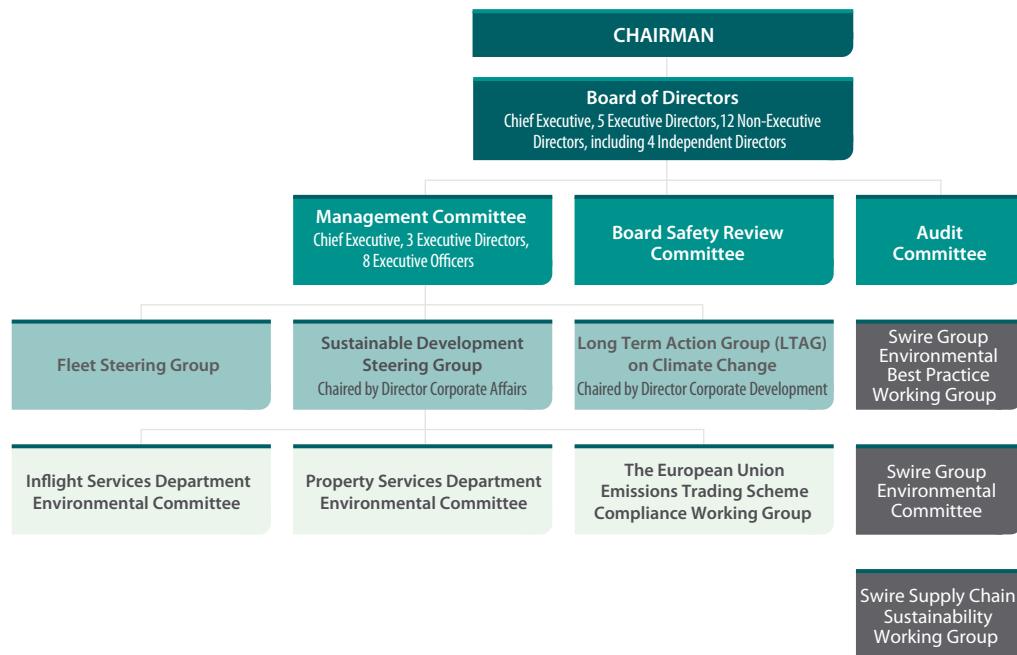
Cathay Pacific devotes considerable effort to putting in place high standards of corporate governance and best practices in accordance with our **Code of Conduct**.

## Content

- |   |                        |
|---|------------------------|
| 1 Governance of Sustainability                          | 3 Risk Management      |
| 2 Approach to Managing Specific Aspects of the Business | 4 Corporate Compliance |

# 1 Governance of Sustainability

The governance of sustainable development at Cathay Pacific is led by the Chairman, with the Chief Executive being accountable for the Sustainable Development Strategy. A key component of this Strategy is to encourage staff to mitigate or reduce the social and environmental impacts of the decisions they make day-by-day by acting responsibly. This enables us to address and integrate sustainability issues into our business and support our ability to deliver 'economic value' – i.e. profits for shareholders. The following diagram shows the reporting lines of various sustainability committees.



The Sustainable Development Steering Group convenes quarterly to oversee, make decisions and provide guidance on the company's Sustainable Development Strategy, and has a remit over a range of issues, including carbon management, supply chain, procurement, food policy, biofuels, the EU Emissions Trading Scheme, staff engagement and reporting. It is chaired by the Director Corporate Affairs, and comprises General Managers and Heads of Department representing airports, cargo, corporate communications, corporate risk, engineering, finance, flight operations, international affairs, personnel, products, property services, purchasing, and safety.

Further details of our governance structure can be found in the section below on [Approach to Managing Specific Aspects of Our Business](#) and the [Corporate Governance](#) section of our Annual Report 2013 p.39-49.

## 2 Approach to Managing Specific Aspects of the Business

### Corporate Governance and Risk Management

The company's highest governance body is the Board of Directors led by the Chairman, comprising the Chief Executive and three other Executive Directors. There are also 12 non-Executive Directors, four of whom are independent. As well as dealing with our economic performance, the Board oversees the environmental and social initiatives undertaken in the company.

The Chief Executive is accountable for the Sustainable Development Policy. This Policy is in place to help create long term value by embedding sustainable development principles and practices into the way we govern the company, manage risk and seize opportunity. Our governance structures are linked to the Swire Group's Environment and Risk Management Committees for internal audit purposes.

The [Sustainable Development Policy](#) outlines our commitments such as regulatory compliance, effective environmental management throughout our operations, staff education, stakeholder engagement and the target-setting process.



Want to find out more?  
Go to our [Sustainable Development Policy](#).

### Environmental Management

The Environmental Affairs Department works with the operational teams, as well as with the Cathay Pacific Environmental Committee, Sustainable Development Steering Group, the Climate Change Long Term Action Group, the Flight Efficiency Working Group, and the Swire Group Environmental Committee. The Department reports directly to the Director Corporate Affairs.

An Environmental Management System (EMS) based on ISO14001:2004 standard has been in existence since 1997. Internal audits are undertaken twice a year and audited externally every three years to monitor the design and implementation of the EMS against relevant environmental regulations and policies. Opportunities for continual improvement are also identified during the audits.

### Safety Management

The Airline Safety Review Committee (ASRC), which has been meeting monthly for 44 years to guide the management of safety in Cathay Pacific, is supported by six departmental Safety Action Groups and Committees, four of which (Flight Operations, Engineering, Cabin and Ramp/Cargo) also meet monthly, a Fatigue Risk Management System (FRMS) Committee that meets bi-monthly, and an Occupational Health & Safety (OHS) Committee that meets quarterly.

The ASRC is made up of Directors and General Managers from key operational areas as well as the heads of the Quality, Medical, Corporate Risk and Security departments and Airline Safety Managers. Senior representatives from HAECO and HAS (Hong Kong Airport Services) also attend the committee meetings. The ASRC Chairman reports to the Chief Executive after each meeting. The ASRC is under direct [governance](#) of the Board Safety Review Committee (BSRC), which meets twice yearly, and is chaired by an independent safety expert, David King, who reports on safety performance to the main Cathay Pacific Board. David is a retired Chief Inspector of the UK's Air Accidents Investigation Branch (AAIB) and Visiting Professor at Cranfield University.



## Sustainable Procurement Management

We aim to ensure that all purchasing practices are governed by the highest professional and ethical standards. Our Airline Purchasing and Aircraft Trading Department manages most of the purchasing requirements for both Cathay Pacific and Dragonair. Our Purchasing Ethics Policy outlines our expectations from our purchasing staff, including compliance with anti-bribery regulations. Our approach to sustainable procurement has been to encourage our suppliers to improve on their sustainability practices through capacity building and sharing knowledge and best practice.

The teams in our Purchasing Department understand the need to apply sustainable purchasing and responsible supply chain principles, wherever practical. Suppliers to Cathay Pacific must provide clear, accurate and appropriate reporting of their progress towards achieving our Supply Chain Sustainability Code of Conduct objectives. This is regularly highlighted during the internal purchasing conferences.

## Human Resources Management

Human resources issues are managed by the respective departments in Cathay Pacific, Dragonair and our subsidiaries. At Cathay Pacific, this is headed by our Director Personnel and at Dragonair, by the Head of Personnel.

The Corporate Code of Conduct sets out our principles for acting responsibly in the course of achieving our commercial success. The Code applies to all staff of Cathay Pacific and our subsidiaries, and includes issues related to business ethics, conflict of interest, procurement, insider trading, lobbying, bribery, environment, health and safety, and respect in the workplace. Comprehensive policies have been developed to support the following issues:

- Recognition of human rights
- Non-acceptance of child/forced labour
- Non-discrimination
- Freedom of association
- Public policy position
- Anti-corruption and bribery
- Competition and Anti-trust
- Labour and management relations
- Training and education
- Performance management
- Diversity and equal opportunity
- Compensation management
- Grievance and fair disciplinary procedures

To ensure that staff members are aware of these policies and their implications, they are communicated via appropriate channels including orientation and induction sessions and an intranet link provided in employee contracts.

We aim to ensure our employees are productive, competent, flexible, and operate within a healthy environment. This is achieved via a series of training and development programmes. We also strive to manage people in a way that recognises diversity.

## Community Investment Management

Our commitment to communities is a core part of our Sustainable Development Strategy. Whilst we have priority projects, we also have a flexible approach which enables us to respond to local needs and priorities. As much as possible, we seek to engage our employees in all our community investment activities.

Through ongoing dialogue with local communities, we can better understand and work to address issues and concerns relevant to their needs. In Hong Kong, we partner with local community groups, NGOs and other institutions, such as neighbourhood councils, integrated service centres, district councils, universities and schools.

Our community investment must be measured by the impact we make for the local communities. We apply international best practice and appropriate management tools to help us measure the impacts and evaluate outcomes of these initiatives.

## Subsidiaries Management

Our subsidiaries adopt similar policies, committees and management responsibility across all areas related to sustainable development as Cathay Pacific, including environmental management, human resources issues, customer service, product responsibility and community engagement. Depending on the level of impact, our subsidiaries manage issues relevant to their business, including the development of goals, monitoring data through an environmental, health and safety database and training for staff.

## 3 Risk Management

The Corporate Risk Management Team within Corporate Finance coordinates risk register reviews, and provides advice on a range of functions and activities for Cathay Pacific, Dragonair and the wholly-owned subsidiaries from risk management perspectives. The internal Corporate Risk Register is reviewed and presented to the Audit Committee annually. Our risk management and processes were established based on the AS/NZS 4360:2004 risk management standards.

### Promoting Risk Awareness

Following the rollout of the current risk management framework within Cathay Pacific departments in Hong Kong, this framework has been progressively introduced to certain subsidiaries and regional outports since 2011. Risk management workshops have been held for departments, subsidiaries, outports or with business units' particular functions/operations to promote awareness and help them understand, assess and respond to risks. Risks are eventually scored, ranked and documented in the risk registers of the business units and fed into the Corporate Risk Register.

### Ownership and Governance

Specific risks identified in the Corporate Risk Register are owned by specific Directors. Action plans to respond to the risks are then developed via discussion with the relevant departments, subsidiaries or outports, and with endorsement from the Directors. Each action plan is documented together with target completion dates and the responsible parties, with progress monitored regularly to reduce the risk exposure of the Cathay Pacific Group.

Our strategy towards specific types of risks, such as financial reporting and internal control, sustainable development and operational safety, are reviewed by specific committees. The Audit Committee reviews the completeness and accuracy of the company's accounts, adequacy and effectiveness of the internal control and risk management systems. Sustainable development risks relating to commercial and operational delivery are assessed by the Sustainable Development Steering Committee. Airline operational safety risk is reviewed monthly by the Airline Safety Review Committee, which is chaired by the General Manager Corporate Safety and comprises Directors, senior management of all operational departments as well as our operational partners.

### Incorporating Climate Change Risks

As awareness on sustainability grows, we recognise the importance of incorporating climate change issues into business plans. The Environmental Affairs Department works with all relevant departments to identify the key business units with risk exposure to climate change, and promote awareness of these issues when the departmental risk registers are being reviewed.

## 4 Corporate Compliance

It is the policy and intent of Cathay Pacific, Dragonair and the Hong Kong-based 100% owned subsidiaries to operate in full compliance with all applicable laws and regulations at all times.

To support clear communication and ensure awareness of our antitrust policy and guidelines, we hold face-to-face workshops, online training for new joiners and provide regular refresher online training for all employees. We encourage employees to report any apparent or suspected violations of our antitrust policy and associated guidelines, with strict confidentiality ensured.

In 2013, we completed a corruption risk assessment across the Group in relation to the UK Bribery Act, US Foreign Corrupt Practices Act (FCPA) and the HK Prevention of Bribery Ordinance. We published a new internal Anti-Bribery Policy and are gradually implementing an enhanced compliance programme across the business units.

On 1 April 2013, new provisions on the regulation of direct marketing activities in Hong Kong came into force. We have reviewed and revised Cathay Pacific and Dragonair's privacy policy and guidelines, reviewed the procedures to manage customers' consent and ability to opt-out and provided training to all relevant employees.

Stakeholder engagement is central to how we conduct our business and, in our view, is a pre-requisite for long-term sustainability.

## Content

1 Stakeholder Engagement

2 Issues Materiality

# 1 Stakeholder Engagement

## Why We Engage with Stakeholders

Our stakeholders help us define our Sustainable Development Strategy, communication strategies and how and what we report.

It is essential that we understand the issues of concern to our key stakeholders, so that our business priorities reflect theirs. Many people are interested in the way we incorporate sustainability into the business and how we plan to address certain issues. As a way to address material issues and meaningfully strengthen sustainable development performance at Cathay Pacific, we regularly and systematically meet with a range of stakeholders, including our customers, staff, sustainability thought-leaders, non-governmental organisations (NGOs), analysts, investors, suppliers, business and community partners.

## Approach to Stakeholder Engagement

We started our formal stakeholder engagement on sustainability issues in 2006. From 2008 to 2012 we followed a five-year stakeholder engagement plan to ensure that through focus groups and interviews, we systematically engaged with a range of interest groups on a regular basis, at least once every two years.

During the last two years, the engagements were focused on gaining insights into stakeholders' current perceptions of Cathay Pacific, material issues as well as their expectations of the company, the material issues and areas of improvement. The findings informed two core elements: Cathay Pacific's Sustainable Development Strategy and our sustainability reporting process.

The discussion groups and interviews were facilitated by an independent organisation, guaranteeing anonymity to ensure impartiality and encourage respondents to speak frankly.

In 2012, we ran a multi-stakeholder focus group for the first time, which comprised sustainability leaders from the NGO, customer, sustainability experts and supplier communities. We were perceived as a strong airline performer in Asia in terms of sustainable development, and were recognised for our efforts over recent years. At the same time, there were high expectations to further improve our sustainability performance in certain areas, including setting climate change targets that exceeded those established by industry, and enhancing waste management practices. We were also expected to demonstrate our leadership by promoting sustainable development across our sphere of influence, by equipping employees with sustainability knowledge, raising the awareness of customers and the wider Hong Kong community.

In 2013, we began separating engagement from our reporting process, so that engagement outcomes are effectively embedded into the way sustainability is managed. We would also be able to effectively and proactively engage with our stakeholders during the year. We undertook a comprehensive survey of all our key stakeholder groups to create a baseline for monitoring and measuring stakeholder views in future years.

So far, the 2013/14 exercise highlighted that stakeholders not only expect Cathay Pacific to take a leadership role in the industry, but also to drive change. Findings reiterated the need to integrate sustainable development within the business, especially among key employee groups. Enhanced communications and engagement remains an important issue, particularly in relation to informing customers of our performance.

The table below shows the most common issues raised by the key stakeholder groups over the years.

Stakeholder Group	How We Engage	Common Issues that are Important to this Stakeholder Group
<b>Customers</b>	<ul style="list-style-type: none"> <li>• Reflex passenger survey</li> <li>• Online feedback</li> <li>• Comment cards and letters</li> <li>• Social media</li> <li>• Focus groups</li> </ul>	<ul style="list-style-type: none"> <li>• Safety</li> <li>• Punctuality and service</li> <li>• Customer experience</li> <li>• Crisis handling and customer relations</li> <li>• Cost of tickets</li> <li>• Environmental issues</li> <li>• Customer education on sustainability</li> <li>• Caring for the environment</li> <li>• Collaborating with the community</li> <li>• Transparency with sustainability information</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>• Intranet</li> <li>• Newsletters and briefing notes</li> <li>• Consultative committees and staff forums</li> <li>• Focus groups</li> <li>• Organisational alignment survey</li> <li>• Staff sustainability survey</li> </ul>	<ul style="list-style-type: none"> <li>• Employee relations and labour standards</li> <li>• Staff benefits</li> <li>• Training and development</li> <li>• Education on sustainability</li> <li>• Reduction of inflight waste</li> <li>• Sustainable sourcing of inflight meals</li> <li>• Volunteering and community involvement</li> <li>• Better engagement and alignment between Hong Kong and outports</li> <li>• Safety and fatigue management</li> <li>• Reduction of fuel burn</li> <li>• Moving from paper to electronic documents</li> <li>• Communicating environmental benefits of new fleet to the public</li> <li>• Adopting best international labour and contractual practices</li> <li>• OHS training</li> <li>• Enhance communication of sustainability information to improve knowledge</li> <li>• Be provided with channels to express thoughts and ideas</li> </ul>

Stakeholder Group	How We Engage	Common Issues that are Important to this Stakeholder Group
NGOs/sustainability experts/the academia	<ul style="list-style-type: none"> <li>• Stakeholder review committee</li> <li>• Focus groups</li> <li>• Strategic discussions</li> <li>• Event participation</li> </ul>	<ul style="list-style-type: none"> <li>• Climate change and use of sustainable fuel alternatives</li> <li>• Strategic engagement with NGOs</li> <li>• Better communication of sustainability initiatives to the general public</li> <li>• Stronger influence on customers with carbon offsetting</li> <li>• Target-setting for key performance areas, e.g. carbon goals, carbon trading, offsetting and cost of emissions</li> <li>• Biodiversity</li> <li>• Investing in the next generation</li> <li>• Training local personnel</li> <li>• Staff satisfaction, retention and training</li> <li>• Maintaining employee relations</li> <li>• Community engagement, including on disaster response and relief and programme involvement</li> <li>• Global approach to community investment</li> <li>• Customer service</li> <li>• Safety</li> <li>• Having a supply chain strategy</li> <li>• Promoting sustainable tourism</li> <li>• Embedding sustainability into the workplace</li> <li>• Industry leadership</li> <li>• Innovation</li> </ul>
Investors and shareholders	<ul style="list-style-type: none"> <li>• Annual Report</li> <li>• Focus groups and interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Improving transparency on environmental issues and supplier management</li> <li>• Contextual information on reported data to help stakeholder understanding</li> <li>• Focus on customer service and cost, rather than just the bottom line</li> <li>• Clearer reporting on community investment</li> <li>• Providing industry and peer data for easy comparisons</li> <li>• Direct engagement with investors</li> <li>• Embedding carbon information in flight booking menu</li> <li>• Sustainability performance</li> </ul>



Stakeholder Group	How We Engage	Common Issues that are Important to this Stakeholder Group
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>Supplier questionnaire</li> <li>Sustainability newsletter</li> <li>Focus groups</li> </ul>	<ul style="list-style-type: none"> <li>Commitment to climate change, offsetting and biofuels</li> <li>Transparency around labour relations</li> <li>Rising costs (e.g. fuel) and effects on the industry</li> <li>Collaboration with local businesses and communities</li> <li>More stringent supplier code of conduct</li> <li>Supplier training</li> <li>Communication on responsible procurement plan</li> <li>Top level governance for sustainability</li> </ul>
<b>Other businesses</b>	<ul style="list-style-type: none"> <li>Annual Report</li> <li>Focus groups</li> <li>Business forums</li> </ul>	<ul style="list-style-type: none"> <li>Active communication on sustainability initiatives</li> <li>Lead on climate change and resource efficiency issues</li> <li>Highest governance level takes leadership position on sustainability issues imperative</li> <li>Customer and staff safety</li> <li>Staff welfare</li> </ul>

Based on an analysis of the engagement findings from the last two years, the following issues were deemed as material for CX and should be addressed in the report:

- Safety**
- Climate change and fuel efficiency**
- Waste management**
- Supply chain and sourcing of materials**
- Transparency and two-way communication**
- Biodiversity**

## Previous Stakeholder Engagements

The table below details our stakeholder engagements since 2006:

Year	Stakeholder Groups Engaged	General Comments	Milestones
2006	<ul style="list-style-type: none"> <li>• Staff</li> <li>• NGOs</li> <li>• Government</li> <li>• Business community</li> <li>• Shareholders/investors</li> <li>• Local politicians</li> <li>• Media</li> </ul>	<ul style="list-style-type: none"> <li>• Successful company with a positive image and brand.</li> <li>• Community involvement, sponsorship and support for charities and NGOs are widely recognised.</li> <li>• Committed to sound environmental practices.</li> <li>• Concern about our contribution to climate change through the emissions of greenhouse gases.</li> <li>• Do not sufficiently communicate all our efforts and a number of them are unaware of the company's community activities.</li> <li>• Indicate that we are perceived to be a good employer but disputes in the past still affect our reputation for good human resource management externally.</li> <li>• Interested in our efforts to promote non-discrimination and diversity.</li> <li>• Interested in our procurement practices and responsibilities along supply chains.</li> </ul>	First year of formal stakeholder engagement on sustainability issues
2007	<ul style="list-style-type: none"> <li>• Shareholders/investors</li> <li>• Frequent flyers</li> </ul>	<ul style="list-style-type: none"> <li>• Praise for our 'I Can Fly' programme and our initiatives with the Tung Chung community.</li> <li>• A number of our stakeholders asked about our activities outside of Hong Kong.</li> <li>• Interest in Cathay Pacific's Change for Good and Dragonair's Change for Conservation programmes, and a desire to know more about how the donations to these programmes are used.</li> <li>• Recognised that Cathay Pacific was a safe airline but wanted to know if it was also a healthy one in terms of our inflight catering.</li> <li>• Suggests a need for longer term scenario planning. Indeed, some questioned whether the airline industry could continue its rapid expansion.</li> <li>• Ongoing challenge of inflight waste was raised.</li> <li>• Interested for more information on governance.</li> </ul>	

Year	Stakeholder Groups Engaged	General Comments	Milestones
2008	<ul style="list-style-type: none"> <li>• Environmental NGOs</li> <li>• Staff – cabin crew</li> </ul>	<ul style="list-style-type: none"> <li>• Viewed as one of the leading airlines in terms of environmental performance but there is a need to develop initiatives further on reducing carbon dioxide (CO<sub>2</sub>) emissions.</li> <li>• Positive response to our <b>FLY greener</b> programme but more transparency is required on our offsetting choices.</li> <li>• Increase environmental awareness and communication amongst our customers.</li> <li>• Should discuss how environmental performance relates to business performance.</li> <li>• Support for our environmental initiatives such as our inflight recycling programme. However, cabin crew stressed the need for enhanced customer involvement in such initiatives.</li> <li>• Concerns relating to injuries caused in the cabin through overweight baggage and heavy cabin service trolleys.</li> </ul>	Began our 5-year stakeholder engagement strategy
2009	<ul style="list-style-type: none"> <li>• Environmental NGOs</li> <li>• Shareholders/investors</li> <li>• Suppliers</li> <li>• Frequent flyers</li> <li>• Corporate customers</li> </ul>	<ul style="list-style-type: none"> <li>• Genuine commitment to sustainable development and the stakeholder engagement process.</li> <li>• Placed more emphasis on environmental initiatives than on social and community activities.</li> <li>• Reporting on climate change, procurement and supply chain stood out as particularly impressive.</li> <li>• Provide more transparency on inflight waste at the end of each flight and actions taken.</li> <li>• More proactive reporting on issues such as the impact of noise and air pollution on local communities was requested.</li> <li>• More information on our overall strategy for dealing with climate change.</li> <li>• Engage more with our customers in relation to <b>FLY greener</b> and our other CSR initiatives.</li> <li>• Responsible disposal of spare aircraft parts especially with retired fleet, and our work with subcontractors.</li> <li>• Better engagement with suppliers.</li> </ul>	
2010	<ul style="list-style-type: none"> <li>• Staff – pilots, young employees</li> <li>• Environmental NGOs</li> <li>• Social NGOs</li> <li>• Hong Kong business community</li> <li>• Hong Kong university students</li> </ul>	<ul style="list-style-type: none"> <li>• Overall positive view of Cathay Pacific as a responsible corporate citizen.</li> <li>• Leadership within the aviation industry and on climate change issues was recognised, as well as the company's environmental, safety and community engagement initiatives.</li> <li>• Room for improvement in our labour relations.</li> </ul>	

Year	Stakeholder Groups Engaged	General Comments	Milestones
2011	<ul style="list-style-type: none"> <li>• Staff – outports in Bangkok, London &amp; Vancouver</li> <li>• Environmental NGOs</li> <li>• Social NGOs</li> <li>• Corporate customers</li> <li>• Suppliers</li> </ul>	<ul style="list-style-type: none"> <li>• Continued to be perceived as one of the safest airlines globally.</li> <li>• Found the engagement sessions useful, and expected the company to respond to their comments.</li> <li>• Staff, especially those at the outports, do not think they are familiar with the company's sustainability strategy and performance.</li> <li>• More transparency on the company's operational impacts, with clear long term goals, performance indicators, action plans and measurement of impacts.</li> <li>• Should develop a supplier audit system.</li> </ul>	
2012	<ul style="list-style-type: none"> <li>• Staff – pilots, young employees &amp; cabin crew</li> <li>• Environmental NGOs</li> <li>• Corporate customers</li> <li>• Shareholders/investors</li> </ul>	<ul style="list-style-type: none"> <li>• Perceived as a strong sustainable development performer in Asia, and are recognised for our efforts over recent years.</li> <li>• High expectations to further improve our sustainability performance in certain areas, including setting climate change targets that are higher than the industry ones, and enhancing waste management practices.</li> <li>• Expected to exert our leadership by promoting sustainable development across its sphere of influence, by equipping employees with sustainability knowledge, raising the awareness of customers and the wider Hong Kong community.</li> </ul>	<p>Last year of the 5-year engagement strategy</p> <p>Began developing future years' engagement plan</p>
2013	<ul style="list-style-type: none"> <li>• CX &amp; KA staff – pilots, cabin crew, ground and airport staff, both in Hong Kong and outports</li> <li>• Customers – including corporate travelers, frequent travelers, cargo forwarder and shippers</li> <li>• External stakeholders (non-customers) – investors/shareholders, NGOs, local and global sustainability influencers, academics and experts, industry influencers, and local authorities</li> </ul>	<ul style="list-style-type: none"> <li>• Carbon emissions and climate change remain an issue of increasing importance. Other important issues include fuel and labour relations. The remaining top tier issues are customer safety; staff OHS, benefits, training and retention; contingency planning; and air quality.</li> <li>• Dedicated programmes and communications are key ways to address these issues.</li> <li>• Sustainable development is increasingly important to customers, and is one of their considerations in assessing a company's performance.</li> <li>• CX is perceived to perform better than its competitors, but still needs to work harder to reach a leader's performance level in sustainability.</li> <li>• Areas of improvement include: tailored communication to each stakeholder group; integration of sustainable development across the organisation; effecting change by taking a leadership role; and educating passengers and staff around sustainable development.</li> </ul>	<p>First comprehensive survey of all key stakeholder groups in the same year, by means of interviews and a 3-week online staff survey. This created a baseline for monitoring stakeholder views in future years and obtaining actionable feedback.</p>

## 2 Issues Materiality



- We have been incorporating sustainable development risks into the [company's risk matrix](#) to enable us to gain a more comprehensive perspective, identify significant issues, risks or 'material' issues. We have also been developing a materiality matrix on sustainability issues since 2009. An issue is considered 'material' when it may substantially affect our long term commercial and operational viability. This matrix combines the Swire Group approach on identifying the risk concerns of our stakeholders and our own materiality scoring methodology, which follows the principles outlined in international standards such as the Global Reporting Initiative (GRI) and the AA1000APS social standard.

Our most recent stakeholder engagement research which commenced at the end of 2013 showed that all issues raised were important to stakeholders, albeit to differing degrees. The level of importance of an issue is relative to others being discussed, and a lower-scoring issue does not necessarily mean they are of 'low' priority to stakeholders. As a result, we have renamed our criteria from high/medium/low to Tier 1/2/3 to better reflect these views.

Our assessment criteria of the identified risks are shown in the following tables:

### Criteria for Assessing Materiality

Assessing 'Level of Concern to Cathay Pacific's Key External Stakeholders'	
TIER 1	The issue is understood to be of concern to key stakeholder groups at an international or national level and meets two or more of the following criteria: <ul style="list-style-type: none"><li>• Has a high impact on society or the environment</li><li>• Is known to be of high priority to stakeholders</li><li>• Is strongly related to the activities of CX and others in the sector</li><li>• Is particularly important in enabling judgments to be formed about CX's CR performance</li></ul>
TIER 2	The issue is understood to be of concern to key stakeholder groups at a national level and meets one or more of the following criteria: <ul style="list-style-type: none"><li>• Has a moderate impact on society or the environment</li><li>• Is known to be of moderate priority to stakeholders</li><li>• Is related to the activities of CX but also many other industry sectors</li><li>• Is fairly important in enabling judgments to be formed about CX's CR performance</li></ul>
TIER 3	The issue is understood to be of concern to key stakeholder groups at a national or local level and meets one or more of the following criteria: <ul style="list-style-type: none"><li>• Has a low impact on society or the environment</li><li>• Is known to be of low priority to stakeholders</li><li>• Is only indirectly related to the activities of CX</li><li>• Is not very important in enabling judgments to be formed about CX's CR performance</li></ul>

## Assessing 'Current or Potential Impact on Cathay Pacific'

TIER 1	<ul style="list-style-type: none"> <li>High current or future financial impact</li> <li>Potential for some impact (positive or negative) on brand, reputation and key stakeholder relationships and international media attention</li> <li>Some potential for legal non-compliance and fines</li> <li>Some potential for positive or negative impact on operations and customer orders</li> <li>Is part of stated strategy, policy or voluntary commitment</li> </ul>
TIER 2	<ul style="list-style-type: none"> <li>Limited current or future financial impact</li> <li>Potential for some impact (positive or negative) on brand, reputation and key stakeholder relationships and national media attention</li> <li>Low potential for legal non-compliance and fines</li> <li>Low potential for positive or negative impact on operations and customer orders</li> <li>Is part of stated strategy, policy or voluntary commitment</li> </ul>
TIER 3	<ul style="list-style-type: none"> <li>No or low current or future financial impact</li> <li>Potential for positive or negative local media attention, with no impact on brand, reputation and key stakeholder relationships</li> <li>No potential for legal non-compliance and fines</li> <li>No potential for positive or negative impact on operations and customer orders</li> </ul>

The graphic below is a summary of ongoing work in developing a well-defined materiality matrix for the Sustainable Development Strategy.

Tier 3	Tier 2	Tier 1	ECONOMIC
			Customer safety
			Getting it right when things go wrong
			Embedding sustainability in the business/risk management
			Increasing 2-way engagement with stakeholders
Tier 3	Tier 2	Tier 1	ENVIRONMENTAL
			CO <sub>2</sub> emissions/climate change/fuel emissions (Targets, IATA, AGD, EU ETS, <b>Fly greener</b> )
			Impact on biodiversity
			Waste/resource use
			Sustainability issues in supply chain
			Air quality
			Noise
Tier 3	Tier 2	Tier 1	SOCIAL
			Staff OHS
			Community work/employee involvement
			Staff issues – benefits, training, retainment

- CX and Stakeholder views coincide
- CX view only
- Stakeholder view

Since 2008, our top three material issues have been: safety, customer relations and climate change/fuel efficiency – this is consistent with the main concerns of all our stakeholders and has subsequently been reflected in our reporting. Please refer to our [GRI content index](#) for more information on our material aspects.

Cathay Pacific recognises the importance of contributing to the communities at the destinations to which we operate.

## Content

- |  |   |
|--|---|
| 1 Why We Support Communities               | 5 Environmental Conservation              |
| 2 Encouraging Staff Involvement            | 6 Contributing to the Hong Kong Community |
| 3 Youth and Education                      | 7 Engaging Our Customers                  |
| 4 Medical Care Services and Relief Efforts |   |

# 1 Why We Support Communities

Our global community investment strategy focuses on three areas: youth and education, medical care and environmental conservation.

We support and invest in the Hong Kong community of which we have been a part for more than six decades. Our local staff are also actively involved in community initiatives at our outport destinations. They are provided with guidelines to help them choose the types of projects in which we are involved. Over the years, we have had numerous meaningful community initiatives that have brought significant benefits to local communities. Our strategy is to leverage on and align the resources of our company (including our staff and passengers) with the needs of the communities we serve.



## 2 Encouraging Staff Involvement

The CX Volunteers team was set up towards the end of 2007, and had close to 1,200 staff members as at December 2013. In 2013, our staff completed more than 1,800 hours of volunteering. Further details of these initiatives and their impacts are described in the following sections.

In addition to encouraging our staff to participate in company-organised initiatives, Cathay Pacific seeks to support them in their own charitable endeavours and benefit a wide cross-section of charitable needs through the Cathay Pacific Charitable Fund (CCF).



Established in November 2011, the CCF's annual budget amounts to roughly HK\$1 million. All employees of Cathay Pacific and its wholly owned subsidiaries can apply for funding. A Fund Committee assesses applications and conducts reviews of Fund activities. To date, more than 40 local and overseas projects have been supported by the Fund.



Sustainable forestry in the Philippines



Big build in Vietnam



The charitable fund was set up to encourage staff across the CX Group to independently and actively participate in charitable projects. With the company's funding, staff are able to contribute to causes close to their hearts.

**Cecilia Leung**  
GM Corporate Communication and  
Convenor of the CCF Vetting Committee

## Projects supported by CCF in 2013



Food for Good



A new library for an island

### Food for good

Clifford Kwok, Cargo Sales Development Manager from the Cargo Department used a HK\$10,000 donation from the CCF to fund an activity held by a local charity, Feeding Hong Kong. Founded in 2009, Feeding Hong Kong was the only food bank in the city that redistributed surplus food to the needy. The charity also raises public awareness on poverty and promotes healthy meals to less-advantaged communities. It currently distributes more than 16,000 meals to 4,000 people each month.

The money was used to support "Bread Run", a campaign that collects and redistributes unsold fresh bread from bakeries. Clifford personally took part by collecting bread and buns around Hong Kong and sorting out items that could be redistributed at a warehouse later on.

### A new library for an island

Connie Cimafranca, Marketing and Communications Supervisor at our Cebu office, applied to build a new library for some 700 students at a primary school, the Po-o Elementary School in Olango Island, Cebu Province, the Philippines. The office received HK\$20,000 from the CCF that served as start-up fund for the library, with construction starting in October and completing in June 2014. The new library was equipped with books in the first phase, while computer units with internet access and recreational facilities will be ready for use in the near future. Other students from the island will also be allowed to use the library and its facilities.

"We can't wait to see the new complex where we can learn more, surf the internet and do exercises." – Sarah Jane Sagarino, a Grade 5 student at Po-o Elementary School, a beneficiary of the CCF in Cebu.

### 180 Degree Trust

Glen Stuart, First Officer, used the fund from CCF to support a 6-day Adventure Camp for teenagers from underprivileged families, which was organised by a charity in New Zealand. The charity aims to exert a tremendous force for positive choices and attitudes through outdoor expeditions<sup>▲</sup>.

### Greening Shanxi

Sam Tse, Inflight Service Manager, used the funding obtained from the CCF to contribute to the general fund of Green Action Charity Foundation, a Hong Kong-based NGO which is working on an afforestation initiative in Shek Lau County in China's Shanxi Province. The funding went towards the seedling, planting and maintenance of 30,000 trees on 2,100 acres of arid land.

## 3 Youth and Education

It is our belief to support and nurture today's young people who are our future, by providing them with opportunities to skills and personal development and capacity building. Therefore we invest in a range of educational programmes for Hong Kong's youths and build on their interest in aviation. This section outlines our key programmes.

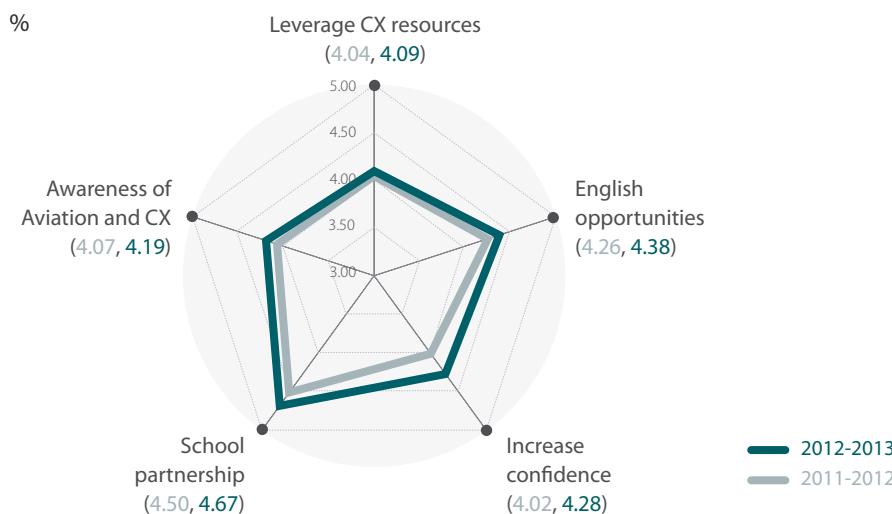
### Evaluating Progress on English On Air

Since 2007, Cathay Pacific has been organising the company's flagship English On Air programme to provide English-speaking opportunities for local youth. Two different activities were designed to cater for secondary school students of different age groups and needs: the Conversation Series and the Mock Interview<sup>4</sup>. A total of 122 students from five schools in Tung Chung and Tsing Yi participated in the programme between December 2012 and July 2013 during the 2012/2013 academic year<sup>4</sup>.

Continuing the effort of evaluating the outcome of our activities with reference to the London Benchmarking Group model in the last report, we have evaluated the programme on a full academic year. We received and analysed survey responses from 72 of the participating students and 6 English teachers involved in the programme's activities<sup>4</sup>.

During the 2012/2013 academy year, the programme continued to perform well against the goals set out in the five aspects, with an increase in scoring in all five aspects. There was a 5.16% rise in the category of "increase confidence"<sup>4</sup>, which showed that the programme continued to make improvement in encouraging students to speak in English by providing them with English-speaking opportunities and environment.

#### English on Air Programme Evaluation (2011/2013 Academic Year)





## I Can Fly

In August 2012, 100 Hong Kong students, aged between 15 and 18, graduated from the fifth Cathay Pacific "I Can Fly" programme, which was designed to increase young people's knowledge of aviation and to foster a commitment to their community. The six-month programme included visits to aviation facilities, participation in workshops on aviation-related topics, social-service projects and overseas trips.

In April 2012, the Cathay Pacific team in Thailand organised a successful local version of the "I Can Fly" programme for 15 students. Similar programmes have also been organised in the United States and Canada previously. In June 2013, 15 students graduated from the Vancouver-based programme.



## Dragonair Aviation Certificate Programme

Launched in 2005, the Dragonair Aviation Certificate Programme is jointly organised with the Hong Kong Air Cadet Corps. It is a one-to-one pilot mentorship programme conducted over a nine-month period which aims at inspiring a new generation of aviators in Hong Kong. Thirty graduates completed the programme in 2013.

In addition to having the opportunity to explore the aviation world through a series of lectures, training sessions, briefings and tour of aviation facilities, each participant is mentored by a Dragonair pilot. As at 2013, a total of 145 participants have graduated from the programme, with more than 40% of them working in the aviation industry.



## CX City Visits

Cathay Pacific's headquarters, Cathay City, is fully equipped with aviation and training facilities that are open to different non-profit organisations through a visit programme. In 2013, over 12,000 visitors from 551 groups from schools, universities, professional bodies and NGOs benefited from the programme.



Hong Kong Productivity Council visit for HKAEE Award applicants, August 2013



Polytechnic University visit in October 2013

## 4 Medical Care Services and Relief Efforts

We believe it is our responsibility to support access to essential medical care services in a practical way, especially for vulnerable and impoverished groups in the regions where we operate, as well as giving our support to projects that serve mobility-impaired groups. At times where there are major natural disasters, we also mobilise resources and respond quickly to help those affected through making charitable donations and launching fundraising campaigns.

### Cathay Pacific Wheelchair Bank

Working with the Faculty of Medicine at the Chinese University of Hong Kong, the Hong Kong Polytechnic University and the Prince of Wales Hospital, the Wheelchair Bank was set up in 1996 to raise funds to purchase specially adapted wheelchairs for children with neuromuscular diseases.

Since 1999, with UNICEF's support and consent, an average of one month's proceeds each year from Cathay Pacific's "Change For Good" inflight fundraising programme has been donated to this cause. To date, more than HK\$11 million has been donated to the Wheelchair Bank, which has helped around 420 children, supported more than 2,900 clinic attendances and handled over 5,000 spare-part changes and modifications.

### Cooperation with Medical Groups

Over the years, Cathay Pacific has been extending its long-term support to a number of medical groups by sponsoring air tickets. These groups include: Orbis, the Hong Kong Society for the Blind, and Médecins Sans Frontières.

### Typhoon Haiyan in the Philippines

In November 2013, the Cathay Pacific Group launched relief efforts to help the Philippines as it recovered from the devastation brought by Typhoon Haiyan (locally known as Yolanda), one of the strongest typhoons ever to make landfall. A fundraising appeal was launched among staff with the company pledging to match all funds raised to go to the Hong Kong Red Cross. In total, \$3.6 million was donated. The airline also operated six freighter charters to Cebu from various ports including New York, Frankfurt, Paris and Shanghai, and offered around 20,000 kg of free cargo space to send relief goods and support equipment from international relief teams.

## 5 Environmental Conservation

### Coastal Cleanup

Close to 100 staff, family and friends spent a Saturday morning in November 2013 clearing debris from Tong Fuk Rocky Beach on Lantau Island during the annual cleanup event. Among those who joined the event were Director Corporate Affairs Chitty Cheung, Director Flight Operations Richard Hall and Director Sales and Marketing, now COO, Rupert Hogg.

Together, the volunteers cleared 40 bags of rubbish – equivalent to 400 kilograms – from the site. Items found included stray pieces of abandoned sandals, polystyrene foam, plastic bottles, mangled wire netting, a cage, and even half an abandoned canoe.

Since 2009, Cathay Pacific has been working with the event's Hong Kong coordinator, the Green Council, to record the types of waste collected from Lantau beaches. The information will be analysed and used to identify the sources of debris. This will ultimately aid the Ocean Conservancy in developing initiatives to reduce marine debris on a global scale.



## 6 Contributing to the Hong Kong Community

As a home carrier in Hong Kong, we are committed to serving the Hong Kong community. In 2013, various initiatives including "The Spirit of Hong Kong" Campaign and Community Flights were held. We also dedicated our efforts to Tung Chung, our local neighbour to the airport community with many activities. They were organised in the continued partnership with the Neighbourhood Advice-Action Council, Tung Chung Integrated Services Centre.

### The Spirit of Hong Kong Campaign 2013

The Spirit of Hong Kong campaign was launched in 2013 by Cathay Pacific as part of the airline's support for the "Hong Kong: Our Home" campaign run by the Hong Kong SAR Government. We asked Hong Kong people to submit creative entries, which could be in the form of photography or illustrations, which showed the true spirit of Hong Kong. More than 5,200 entries were received, and a judging panel selected the 100 top winners and 10 champions with entries that stood out as relevant, inspirational and creative. These winners' silhouettes were featured on the third version of the "[Spirit of Hong Kong](#)" B777-300ER aircraft. The unveiling of the aircraft in December was attended by HKSAR Chief Secretary Carrie Lam, Chairman of the Hong Kong Tourism Board Dr Peter Lam and Deputy Commissioner for Tourism Rosanna Law.



'The Spirit of Hong Kong' Special Livery – The Making Of



'The Spirit of Hong Kong' Special Livery – The Unveiling Ceremony

## A Selection of the Winning Entries



Siu Sin-Mei used five popular varieties of bread to create the two Chinese characters representing “concave” and “convex”. “The characters convey an important value of Hong Kong – accommodating diversity. We can rid society of prejudices and dilemmas through love, respect and acceptance of different backgrounds”, Sin-Mei explained.

Amateur photographer Lam Kin-Fai was impressed by a scene at a marathon in Hong Kong: a wheelchair-bound athlete struggling alone up a ramp for the disabled. “The adjacent lane was filled with general participants, creating a striking contrast. I think the spirit of Hong Kong is striving for goals regardless of tough conditions.”



Cham Chui-Shan’s winning work was inspired by the unique nature of bamboo scaffolding. “Bamboo scaffolding is flexible, efficient and inexpensive. But to make it work, there must be a group of skilful workers prepared to work in extremely tough environments.”



## Community Flights



Cathay Pacific  
Community Flight  
fulfills dreams for  
less-advantaged  
families

In January 2013, Cathay Pacific hosted a [community flight](#) in a Boeing 777-300ER aircraft for 82 single-parent families. The participants ranged from age four to 68 and came from five Hong Kong districts with higher ratios of low-income families. It was their first flying experience. The aircraft circled above the South China Sea for 90 minutes, where the families enjoyed inflight meals and programmes on the inflight entertainment system. Some 50 CX volunteers played games with the children.

"I am quite used to serving the public as cabin crew. This time, however, my job took on a different meaning. The participants really enjoyed each moment, and this inspired us to give them extra care." Vince Tsang, Flight Attendant

One hundred children aged six to 16 and their parents were flown from Chengdu to Hong Kong in July 2013. They were all from Sichuan's Ya'an province, an area devastated by a deadly earthquake in April. Most of them were first-time flyers. The young visitors were also taken on a tour around CX City, Disneyland, Ocean Park and the Hong Kong Science Park, accompanied by 40 CX volunteers over the five days.



We hope to give the students support and encouragement through this visit, and introduce them to the joys of flying.

Ivan Chu  
Chief Executive

## Photos of the Flights



### January 2013 Community Flight



### July 2013 Community Flight



## Volunteering Activities in Tung Chung

### Visiting the Elderly

Around 60 CX Volunteers spent a Saturday afternoon before the Chinese New Year visiting 20 families and 56 elderly people in traditional villages in Tung Chung. The volunteers helped the elderly with basic cleaning tasks, decorated their homes with festive Chinese calligraphy (Fai Chun), as well as distributing special Chinese New Year packs containing food and CX souvenirs.



### Children's Christmas Party

Forty staff volunteers organised a Christmas party at Cathay City for 80 primary school students from low income families in Tung Chung with a tour at the check-in and cabin mock-up areas, followed by games and Christmas carols. As a token of encouragement, Cathay Pacific acknowledged the students who have made the most significant improvement in their school work by presenting Special Recognition Awards to them. The party culminated in an appearance by Santa Claus who distributed gifts to the children.

This is the sixth year that CX has hosted a Christmas party for children in the Tung Chung area.



## 7 Engaging Our Customers

We have been engaging our passengers via inflight fundraising programmes such as Cathay Pacific's "Change For Good" for UNICEF and Dragonair's "Change for Conservation" for The Nature Conservancy, as well as through Asia Miles.

### Cathay Pacific/UNICEF Change for Good Inflight Fundraising Programme

In June 2013, we announced that the airline's passengers had contributed more than HK\$14.3 million in 2012 to support UNICEF's programmes helping underprivileged children in more than 150 developing countries around the world. Since the programme's launch in 1991, more than HK\$133 million has been raised through "Change for Good".

### Staff Field Trip to Vietnam

Twenty-five staff from Cathay Pacific joined a field trip to Vietnam in March organised by UNICEF. They were able to see how funds from "Change for Good" have been put to good use in improving people's lives. From the field trip, they learned about the critical issues relating to children's growth and development such as malnutrition, lack of education, insufficient basic healthcare, poor sanitation and child exploitation.

As a continuation of support after the Vietnam field trip, about HK\$2,340,000 (US\$300,000) from the "Change for Good" donation in 2013 was assigned to fund UNICEF's child protection programme in four selected provinces in Vietnam.

Cathay Pacific's Change for Good programme temporarily supported UNICEF's relief effort in this region for a two-week period. Dragonair's Change for Conservation programme was also temporarily suspended to be replaced by Change for Good during that period. A total of HK\$1.4 million was raised from passengers to support those affected by the typhoon.





We have a long and close connection with the Philippines and it was shocking to witness the events in November. On behalf of senior management I'd like to say a sincere thank you to everyone who made a donation, and to those who made individual efforts to bring assistance to the country's people.

**Chitty Cheung**  
Director Corporate Affairs



### Dragonair's "Change for Conservation" Inflight Fundraising Programme

Since 2004, Dragonair has operated the "Change for Conservation" inflight fundraising campaign. Close to HK\$9 million has been raised to protect watershed areas in northwest Yunnan in Mainland China and to help to develop economic opportunities for the people there.



### Asia Miles

Asia Miles – Asia's leading travel and lifestyle reward programme with over 5.8 million members and more than 500 partners worldwide – enables members to donate miles online to our Asia Miles for Charity partners including C.A.R.E. Society, ORBIS, Oxfam Hong Kong, Hong Kong Red Cross and UNICEF.

Alternatively, Asia Miles members can choose to donate miles to fund carbon-reducing projects via the Cathay Pacific and Dragonair **FLY greener** programme.

A total of over 8.3 million miles have been donated since the programme was launched.

## Social Enterprise Products Inflight

Since 2005, through our inflight sales shop, we have been offering products that are managed by social enterprises and benefit the underprivileged. In 2013, we created a special section for these items called "Shop for a Good Cause" in our inflight shop magazine, *Discover the Shop*.

In 2013, these items included:

- Good Citizens Movement (GCM) shawl (since 2005): GCM is a Hong Kong-based charity that provides a centre for newly-arrived women immigrants who are seeking jobs or having difficulties adjusting to their new environment in the city. All sales proceeds went to supporting the charity's ongoing mission.
- Ai Funan soaps (since April 2013): Ai-Funan, meaning "flower" in Timor-Leste, Indonesia, is run by the Hummingbird Foundation as a social enterprise. Ai Funan soaps are made by hand in Timor-Leste and contain 100% all-natural ingredients: organic coconut and palm oils, aromatic botanical extracts and pure essential oils. All profits from the sale of soaps are directed to support the women in Timor-Leste for employment and economic development through the environmentally sustainable production process.
- L plus H scarves (since July 2013): L plus H is a social enterprise founded in 2008 to provide job opportunities to locally based, skilled but displaced textile artisans of Hong Kong. They offer products that combine the finest materials with artisan craftsmanship, and revives Hong Kong's rich heritage of knitwear manufacturing. They take pride in their efforts to revitalise the label "Made in Hong Kong".



Want to find out more?  
Go to **Cathay Pacific Catering Services**.

For further details of our subsidiary companies' community initiatives, please refer to their respective reports:



Want to find out more?  
Go to **Hong Kong Airport Services**.

Cathay Pacific Catering Services  
<http://www.cpcs.com.hk/press/Sustainability%20Report%202012%20ENG.pdf>  
Hong Kong Airport Services  
<http://www.has.com.hk/cms/images/downloadable/Highlines%20of%20SD%20Report%202013.pdf>



At Cathay Pacific we strive to maintain the highest levels of safety and always put safety first.

## Content

- |                                  |   |
|----------------------------------|---|
| 1 Overview                       | 5 Safety Occurrences                        |
| 2 Safety Management System       | 6 Health and Safety                         |
| 3 Fatigue Risk Management System | 7 Cathay Pacific Safety Performance Targets |
| 4 Emergency Response System      |   |

## 1 Overview

Our Safety Policy, signed by the Chief Executive, clearly articulates this commitment by stating that “safety is our number-one priority” and that we are “fully committed to providing a safe operational and working environment” for all our passengers and staff. It goes on to state that “ultimate accountability rests with me as Chief Executive. However, responsibility for safety lies with each and every one of us in the airline”.

It’s easy to make these claims, but turning words into actions and delivering results requires a dedicated focus and well-developed and embedded proactive safety systems to ensure that this is achieved. Cathay Pacific has a dedicated Corporate Safety Department (CSD) to ensure that we live up to these exacting standards.

As a business support function, safety management’s goal is to manage the risks of the operation to As Low As Reasonably Practical (ALARP) in order to allow the company to pursue and maintain its commercial activities in a sustainable way. The enduring success of Cathay Pacific depends on CSD monitoring, recognising and mitigating the day-to-day and emerging risks of the complex and dynamic environment in which we conduct our operations. We do this through a sophisticated Safety Management System (SMS), parts of which are highlighted here.

## 2 Safety Management System

During 2013, we continued to develop our risk-based approach to safety, as managing safety effectively is all about managing operational risks effectively. At Cathay Pacific, this is primarily achieved through a risk-based SMS, which was accepted by the Hong Kong Civil Aviation Department (HK CAD) in 2009. Our SMS defines how we manage operational safety as an integral part of our overall business development.

In 2011, we introduced a number of prescriptive Safety Performance Targets that are split into three categories, comprising Safety Status Indicators, Operational Performance Indicators & Management Performance Indicators. When combined, they give a measure of operational safety, fatigue, occupational health and safety (OH&S) and quality issues. During 2013, we further developed these safety metrics by introducing a new Safety Performance Indicator (SPI) and Risk Index Score (RIS) methodology into the SMS. The purpose of the new SPI methodology is to provide an early warning of emerging problem areas, identify factors that contribute to increasing risks, prioritise safety actions and measure the effectiveness of any mitigations put in place. The RIS introduces a new risk classifications system that allocates a numerical risk value to each incident, with the aim of providing a more meaningful, measurable and transparent mechanism to communicate the operational risks faced.



If we don't know where the risks lie,  
we can't mitigate them effectively.

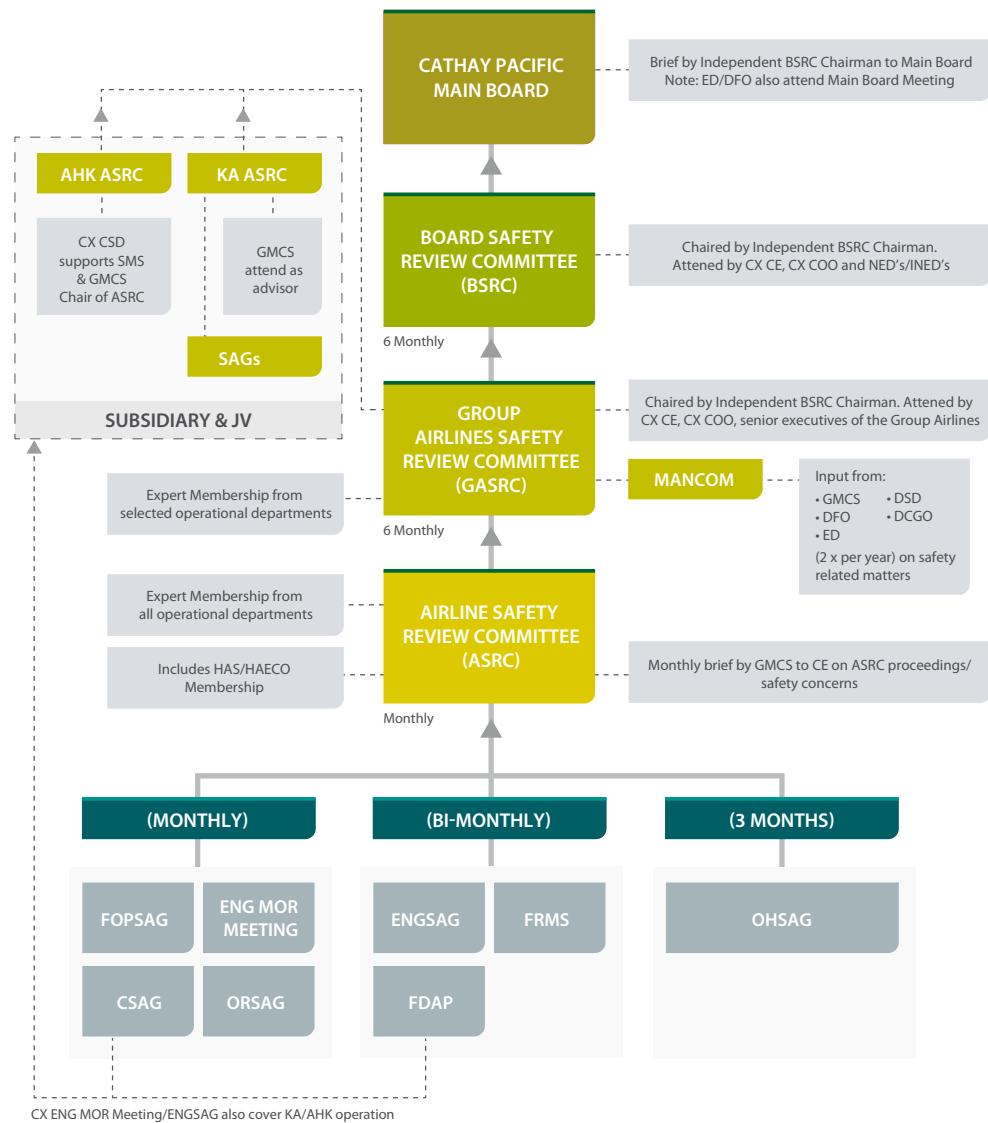
**Richard Howell**  
General Manager Corporate Safety

Where possible, these safety metrics are benchmarked against other airlines, industry performance and best practices.

All safety metrics are reviewed, along with all incidents and safety events, on a monthly basis by functional area Safety Action Groups (SAG's) and the Airline Safety Review Committee (ASRC). Each SAG and the ASRC comprise subject matter experts from the respective disciplines. In addition, an independent safety expert, Dr David King, chairs the Group Airline Safety Review Committee (GASRC) and the Board Safety Review Committee (BSRC) that sit twice a year and report directly to the main Cathay Pacific Board. Dr King also observes selected SAG's and the ASRC at least twice a year with a view to assessing their effectiveness on behalf of the main Cathay Pacific Board. Dr King is a retired Chief Inspector of the UK's Air Accidents Investigation Branch (AAIB) and Visiting Professor at Cranfield University.

Our governance structure for safety is represented in the following chart:

CX Aviation Group Safety and Governance Structure



NOTE: WHOLE PROCESS SUPPORTED BY RISK BASED SAFETY MANAGEMENT SYSTEM (SMS)



## Charles Haddon-Cave Safety Review – Update

In 2011, Cathay Pacific commissioned a leading international expert on aviation safety, Sir Charles Haddon-Cave, Q.C., to conduct a review of the safety systems and culture within Cathay Pacific, Dragonair, and Air Hong Kong. It was conducted over five intensive weeks in Hong Kong, where he held detailed conversations with all Directors, operational GMs, senior executives and many other staff including operating cabin crew and pilots. Sir Charles also attended various committee and safety action group meetings, including the ASRC and the FRMS Committees, and observed a couple of flights on the way to and from the UK, an experience which allowed him to observe important front-line operations.

During the review, Sir Charles found many areas where Cathay's existing safety procedures were world-class, and that there is a great deal that we do well or very well. Seventy deliverable action points were collated from the Haddon-Cave safety review, covering a range of issues such as operational, technical, organisational, management, planning, risks, co-ordination between departments, staff development and culture. A director was assigned with the responsibility of oversight to each of the actions. One action point that was addressed was the upgrade of the Head of Corporate Safety to General Manager Corporate Safety on 1 January 2012 to reflect the importance of safety within the airline. So far, we have actioned and closed over 80% of those seventy action points. Work will continue until all 100% have been addressed.

## 3 Fatigue Risk Management System

Cathay Pacific has a very complex passenger and freighter network with pilots based all over the world living in vastly different time zones. This has created a very challenging task in pilot rostering and fatigue management. Consequently, managing pilot fatigue risk is an important component of Cathay Pacific's SMS. Therefore, during 2013, we continued to develop and mature the Fatigue Risk Management System (FRMS) that was established in 2011.

The aim of the FRMS is to complement the existing HK CAD Approved Flight Time Limitations Scheme (AFTLS), which itself aims to ensure that crew members are adequately rested prior to commencing a duty period, and that the duration and timing of individual duty periods will enable them to operate to a satisfactory level of efficiency and safety in all normal and abnormal situations. The FRMS complements the AFTLS by introducing an evidence-based, data-driven system with reactive, proactive and predictive elements that are used to continuously monitor and control fatigue risk to a level that is 'As Low as Reasonably Practical' (known as ALARP). The FRMS provides a mechanism by which appropriate measures, supporting procedures and training ensure that flight crew are not subjected to unacceptable levels of work-related fatigue. Employees also have a personal obligation to minimise fatigue so that they are fit for duty, and shall not perform any duty if they consider their fatigue level to be unacceptable. There are currently no HK CAD regulatory requirements for local aircraft operators to have this additional FRMS. Nevertheless, Cathay Pacific has implemented a system that far exceeds current HK CAD regulations pertaining to the management of pilot fatigue.

In 2013, the FRMS continued to mature by increasing training, improving documentation, enhancing the use of our fatigue modelling software and increasing internal and external communication.

With regards to training, staff involved in safety investigations were trained to identify fatigue as a potential contributory factor and utilise the expertise of the Assistant Airline Safety Manager – FRMS when this is the case. The Flight Crew Fatigue Training Course was also updated, providing crew with updated training on sleep, fatigue, fatigue countermeasures and the CX FRMS.

A revised Air Safety Report – Fatigue (ASR-F) was issued, the key enhancement of which was simplifying and streamlining the data collected via the form. A fillable PDF version of this ASR-F was issued, enabling crew to complete the form on a computer or tablet and submit it electronically. The key enhancements included increased availability to crew, faster and more secure transmission to CSD, and increased data accuracy.

Fatigue software (FAST) continues to be used proactively to model new roster patterns and potential mitigations before they appear in the rosters. Fatigue related safety risks were identified via fatigue reporting, and extensive FAST analysis and changes were made to rostering practices to mitigate these risks.

The FRMS section of the CSD Operations Manual was revised to reflect enhanced FRMS policies and procedures.

Tailored crew communications continued via the FRMS Bulletin – a regular newsletter to update crew on FRMS activities were issued in May and December and articles in the May and September issues of Kai Talk, the CX Flight Safety Journal on napping, debunking fatigue myths and explaining the data driven nature of the FRMS.

Cathay Pacific's FRMS experience is much sought after by industry groups. In 2013, CX continued to serve on the International Air Transport Association (IATA) FRMS Taskforce and on a panel at the international FRMS Forum. Cathay Pacific is one of the industry leaders in FRMS and we will continue developing and maturing the CX FRMS in 2014 and for many years to come.

Dragonair continued to implement the KA FRMS in 2013. The FRMS is fully incorporated into Dragonair's SMS and serves to complement the company-approved AFTLS. The Cockpit Fatigue Report was updated to allow crew to provide more information. Reporting of fatigue increased slightly throughout 2013 and changes were made to rostering to address issues identified via fatigue reporting. Regular issues of the 'FRMS Newsletter to Pilots' keep flight crew informed on the KA FRMS. KA will commence roster analysis using the FAST fatigue software in 2014.

## 4 Emergency Response System

In terms of emergency response, the Cathay Pacific Crisis Management Centre is prepared to manage an emergency or accident event involving CX aircraft anywhere around the world, should the need arise. In such situations, the Emergency Plan takes immediate effect and triggers the assembly of the Crisis Management Team. This activates a central telephone enquiry centre, the Family Call Centre, where phone lines are on standby 24 hours to link up calls from any outport. These can be accessed by the public to ensure information is disseminated immediately to passengers and their families involved in an incident.

Volunteers from the Care Team are also on hand to offer humanitarian support to passengers and their families during and after a crisis, including making arrangements for travel, accommodation, financial and referral services. The team now comprises approximately 650 members worldwide, taking advantage of the many languages and cultures in the network. Before being certified, each team member receives two days of intensive training, which is led by the company staff psychologist and emergency response specialists.



Care team training exercise

A new Incident Management protocol was added in 2012 enabling all incidents to be classified and responded to with the same, scalable Incident Management Team. All ports in the Group participated in at least one emergency event simulation over the 24-month period ending in 2013, testing their local response plans.

The Customer & Commercial Control (CCC) team was created in 2011 to provide a coordinated response during disruptions, helping to better manage customers' experience. They also provide support and consistency across the network and outports. Where the Integrated Operations Centre (IOC) tends to look at operational issues such as crew rostering, engineering and flight planning, the CCC is dedicated to focussing on the passenger experience, such as passenger protection and hotel arrangements.



Handling disruptions at the Hong Kong International Airport

## 5 Safety Occurrences

One of Cathay Pacific's safety goals is zero accidents and zero 'high risk' incidents. In 2013, there were no events classified as an accident, which was the same as in 2012. There were eight 'high risk' safety incidents in 2013, compared to one in 2012. Five of these concerned cargo issues, loading or load integrity on the freighter fleet. One involved the collapse of an airport passenger bridge at the Hong Kong International Airport. Of the remaining two, one involved a "near miss" with a military aircraft/drone in Chinese airspace, and the other a passenger attempting to carry a large number of lithium batteries in a checked-in suitcase from Hong Kong.

These events were investigated by CSD, with a view to learning and preventing recurrence. Mitigating actions have been put in place to prevent any repeat occurrences. For example, to prevent the carriage of lithium batteries in checked baggage, airport security targeted certain flights for increased baggage screening. This resulted in several shipments of batteries being discovered, off loaded, confiscated and the person responsible warned about their conduct.

There were 0.64 'moderate risk' safety incidents per 1,000 sectors in 2013, a reduction from 0.72 events/1,000 sectors in 2012. The majority of these were cargo/ramp related events on the ground, which in part are the result of a maturing reporting culture. CSD view any increase in reporting as a healthy positive indicator of a safety culture, where staff feel comfortable reporting to the company in order to facilitate safety actions. It demonstrates an excellent pro-active reporting culture.

Note: High risk events are significant risks that require immediate attention. Moderate risks are significant risks that require appropriate mitigation and monitoring.

## 6 Health and Safety

### Passenger Safety

In 2013, Cathay Pacific and Dragonair flew approximately a combined 30 million passengers. There were zero fatalities.

### Inflight Medical Support

All Cathay Pacific aircraft are able to call for aero-medical advisory assistance 24/7 through the use of the inflight phone system. This system ensures that, regardless of where the aircraft is flying, there is generally access to emergency medical specialists who can offer assistance with the diagnosis and treatment of any passenger or crew illnesses and injuries. All crew are trained in basic first-aid, cardio-pulmonary resuscitation, and we carry automated external defibrillators on all our aircraft, which all crew are trained to use.

### Food Safety

Cathay Pacific strives to serve meals that meet the highest levels of food safety and hygiene. Caterers are charged to create well-balanced meals, minimizing the use of trans-fats, and to implement a policy of no monosodium glutamate. Our policies on food safety and hygiene are based on recognised standards, such as the World Food Safety Guidelines for Airline Catering. Our caterers must comply with our strict food safety requirements and they are measured and monitored through the Cathay Pacific robust audit programme.

### Staff Safety

There was one staff fatality and zero serious work-related injuries in 2013. A Cathay Pacific employee was fatally injured while working on the ramp at JFK Airport, New York, in the United States. The year saw work advancing on Occupational Health & Safety (OHS) for all staff groups, with a focus on manual handling.

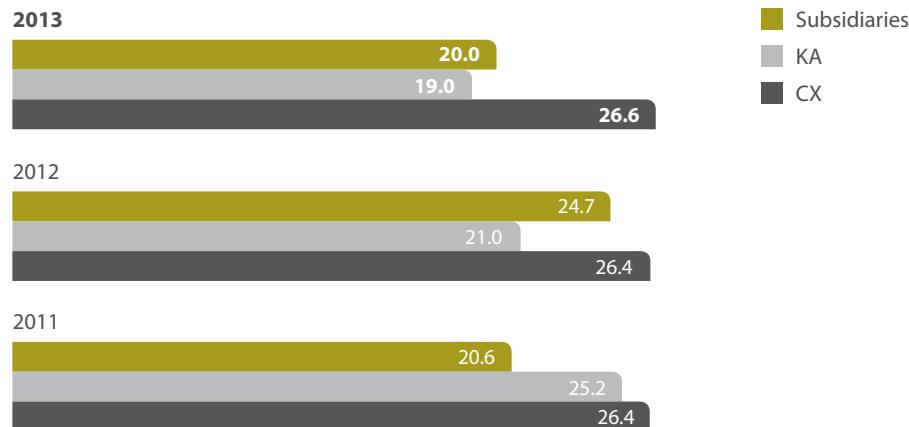
One staff group that continually needs attention as a consequence of the specialist working environment are our cabin crew. Therefore, the Inflight Services Department (ISD) employs an Assistant Manager Inflight Safety and Standards, who is an Occupational Specialist to ensure OHS principles are continuously applied and considered in training and policy development within ISD. ISD has also actively engaged all its Inflight Service Managers (ISM's) through an annual Inflight Service Managers Forum, training them on how their leadership and supervisory role can further reduce cabin injuries.

All new joining crew complete an e-learning module related to OHS as part of their induction training and an annual half-day training session on manual handling skills. ISD regularly issues internal Cabin Crew Safety Newsletters to all cabin crew, which has monthly safety and OHS updates and communications to refresh and share important safety information.

As a result of the work to improve OHS and reduce crew and staff injury, the overall Lost Time Injury Frequency Rate (LTIFR) has stabilised following a slight reduction. In 2013, we conducted a safety campaign called "Think Safe" which is our injury preventive initiative for cabin crew handling passenger's baggage. Our cabin crew are not encouraged to handle passenger's baggage for OHS reasons. However, should they be required to assist passengers with special needs (such as passengers who are frail or infirm, the elderly, minors travelling alone and passengers travelling with infants or small children), they should always assess the weight of the baggage by conducting a "lift check" before any manual handling. If the weight of the baggage is beyond their capacity, they should always seek assistance from a fellow cabin crew or try an alternative such as breaking the load, or having the baggage offloaded to the cargo hold. It is important that our cabin crew look after themselves whilst providing excellent service. More intervention to drive injuries lower is planned for 2014.

We continue to work closely with our work injury rehabilitation provider to better manage any injuries that occur, and to better understand the reasons for any injury. We also continue to take steps to minimise the amount of excess baggage being brought into the aircraft cabin and educate our customers on the problems that can be caused by excess cabin baggage.

#### Lost Time Injury Frequency Rate (%)



LTIFR is computed as (# of injuries resulting in lost time/total workforce hours) x 1,000,000

We have revised the LTIFR figures for CX to better report on cabin crew and flight crew lost days and work hours by including data from our outports.

#### Ground Transportation

Our parent company, Swire Pacific Limited, issued a Transportation Safety Policy in 2013 to protect staff when travelling on company transport. It is applicable to staff and crew buses operated by Hong Kong Airport Services (HAS), a Cathay Pacific subsidiary, as well as the buses provided by our contractor, Kwoon Chung Limited. The policy also applies to crew transport in outstations. It has been adopted by Cathay Pacific, and communicated to our Airline Purchasing Department and local managers, who will ensure that it is included in all contracts. The policy includes maintenance and driver standards, prohibits smoking and consumption of alcohol, and encourages all staff to wear seatbelts whenever travelling.

## Alcohol & Other Drugs Policy

Cathay Pacific has a responsibility to manage workplace safety to very high standards. Safety may be impacted by many factors, including the use of alcohol and psychoactive drugs. The aim of our Alcohol and Other Drugs Policy and Programme is to educate employees and managers on issues related to alcohol and other drug use, as well as to promote and maintain work place safety. A balanced programme is one that creates a supportive environment for those in need of help; but also demands a workplace free from the influence of alcohol and other drugs, delivering benefits in terms of safety, productivity and morale. The Programme supports employees and managers so they can fairly and effectively deal with issues related to employee alcohol and other drug use before they affect workplace safety, result in an accident or incident, damage Company reputation, or significantly affect employee health and work performance.

## Public Health

Cathay Pacific monitors public health outbreaks closely to ensure that we protect the health and safety of our front line employees as well as the travelling public. We monitor infectious disease outbreaks on an on-going basis and provide educational information as appropriate. We follow closely guidance issued by International Air Transport Association (IATA), the World Health Organisation and local governmental health agencies. A cross-departmental taskforce may be activated in situations where there is potentially high risk and preventive steps are taken to ensure that any impact to our operations, staff and customers are minimised. Infectious disease related incidents involving staff or passengers are investigated, including food borne illnesses, and action steps taken as appropriate. We have a periodic schedule to test the water supply (in both water heaters and tanks) as well as the air quality in our headquarter buildings.

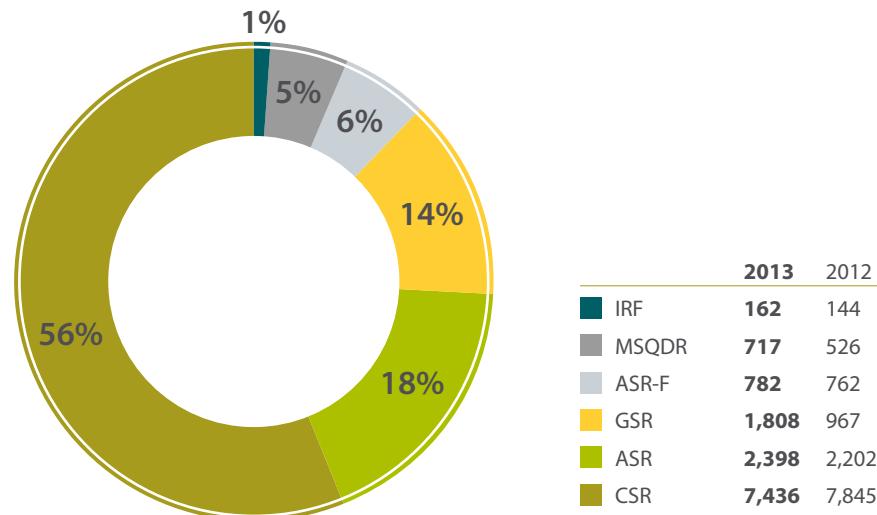
## Indoor Air Quality

We spend more than 70% of our time at homes, in offices and other indoor environment. Poor indoor air quality can lead to discomfort, ill health (e.g. headache, itchy eyes, respiratory difficulties, skin irritation, nausea and fatigue), and in the workplace, absenteeism and lower productivity. Children, elderly and those with existing respiratory or heart disease are more susceptible to the effects of poor indoor air quality. Good indoor air quality safeguards the health of the building occupants and contributes to their comfort and well being. As a participant in the Hong Kong Clean Air Charter Certification Scheme, we conduct yearly indoor air quality monitoring of our headquarter buildings Cathay City and Dragonair House, and have been receiving a 'Good' rating since 2008.

## Cabin Air Quality

All passenger aircraft are fitted with high efficiency particulate air filters that remove more than 99.7% of particulates, allergens and airborne microbes (bacteria and viruses). The filters are maintained and changed regularly according to the manufacturer's guidelines. Air circulation within the cabin is continuous with outside air flowing into and out of the cabin. This replenishes the cabin air constantly, keeping carbon dioxide and other contaminants below standard limits, and keeps cabin air quality at comfortable levels for passengers.

Safety Focus 2013 (%)



IRF – Injury Report Form

MSQDR – Engineering reports on maintenance, safety, quality and defects

ASR-F – Air Safety Report – Fatigue

GSR – Ground Safety Reports

ASR – Air Safety Report

CSR – Cabin Safety Reports

Note: Safety Report Overview not included this year.

## 7 Cathay Pacific Safety Performance Targets

### Achievements Against CX Safety Performance Targets

#### Key Performance Indicators (KPI) (2013)

	Target	Actual
Accidents	Zero	Zero
High Risk or Severe Incidents	Zero	8
Moderate Risk Incidents	Below 1/1,000 sectors	0.64/1,000
IATA Operational Safety Audit (IOSA)	Maintain 100% conformance	IOSA renewed in 2012
Regulatory Report Rates	Below 4/1,000 flights	4.6/1,000
Line Operational Safety Audit (LOSA)	Every 4 years	Completed June 2013
Simulate an Emergency Response	Each port every 24 months	Yes



Mitigating the impacts of climate change remains one of our greatest environmental challenges as a business. We are dedicated to delivering on our commitment to carbon-neutral growth by continuously improving the sustainability of our flight operations, and continuing to support the UN's landmark 2013 agreement for a global market-based measure (MBM) to address aviation's impact on climate change.

## Content

- |  |   |
|--|---|
| <ol style="list-style-type: none"><li><a href="#">1 Our Climate Change Position</a></li><li><a href="#">2 Climate Change Science – Aviation</a></li><li><a href="#">3 2013 CO<sub>2</sub> Emissions Performance</a></li><li><a href="#">4 Fuel Efficiency – A 30 Year Story</a></li><li><a href="#">5 The Future – New Fleet &amp; Sustainable Biofuels</a></li><li><a href="#">6 The EU Emissions Trading Scheme and the IATA Climate Change Task Force</a></li></ol> | <ol style="list-style-type: none"><li><a href="#">7 Carbon Offsetting – <b>FLY greener</b></a></li><li><a href="#">8 Understanding Climate Change Risks</a></li><li><a href="#">9 HKIA Third Runway Proposal</a></li><li><a href="#">10 Our Approach on the Ground</a></li><li><a href="#">11 Business and Community Engagement</a></li></ol> |
|--|---|

## 1 Our Climate Change Position

In 2006, Cathay Pacific initiated the identification of specific climate change concerns and participated in the Swire Group's "Value at Stake" project which analysed mechanisms for greenhouse gas reporting and considered the climate change implications for our business. The potential impacts were assessed against our revenues and reputation.

Following this exercise, we developed a clear climate change position as a basis for ensuring progress could continue to be made. With the developments in 2013, some parts of the position statement below have been progressed, such as the setting of Cathay Pacific's own CO<sub>2</sub> target for 2020, International Air Transport Association (IATA)'s commitment to carbon neutral growth by 2020 (CNG 2020), and the securing of a global agreement with International Civil Aviation Organization (ICAO). However, our overall approach remains the same:

### The Cathay Pacific Group Climate Change Position

Substantial reductions in global carbon emissions are urgently required to mitigate the impacts of climate change. Cathay Pacific acknowledges that:

- Aviation is estimated to contribute to approximately 2% of man-made carbon dioxide emissions.
- Improved efficiency can be achieved through technological improvements, operations controls and improved air traffic management systems.
- Absolute emissions will continue to rise as the industry grows.

We are already making a very positive contribution towards addressing climate change by:

- Measuring and reporting openly on our emissions.
- Working with industry partners and regulators to support route improvements and address inefficiencies in air traffic management.
- Maximising efficiency through operational efficiency drives and fleet development.
- Addressing climate change through the development of a carbon management plan and a carbon offset project.
- Calling on governments to put climate change at the heart of a global scheme on emissions.

We support the following:

- The important role that market-based measures can play to help secure the required reduction in global carbon emissions at minimum cost.
- The funding of carbon emission reduction strategies on the ground from any revenues raised through market-based measures.
- The leadership by the International Civil Aviation Organization (ICAO) in establishing a global offset scheme for international aviation.

Cathay Pacific will continue to work through the International Air Transport Association (IATA) and other industry partnerships to facilitate such action.

Our Climate Change Position has enabled us to clarify our approach towards addressing climate change through three key principles:

1. Maximising fuel efficiency and reducing fuel wastage through fleet modernisation, technical improvements to our existing fleet, weight management and the implementation of operational efficiency drives.
2. Addressing inefficiencies on air traffic management through collaboration and by supporting industry lobbying efforts.
3. Acknowledging the role of market-based measures such as offsetting and emissions trading.

## 2 Climate Change Science – Aviation

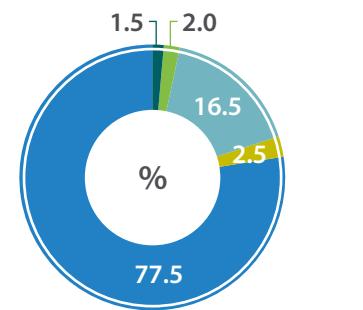
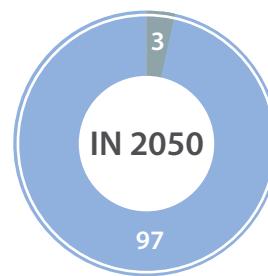
According to the [Intergovernmental Panel on Climate Change \(IPCC\)](#) and the [International Energy Agency \(IEA\)](#), in 2009, aviation accounts for 649 million tonnes of the global total of around 30 billion tonnes of CO<sub>2</sub>, equivalent to 2% of global emissions from human activity. As aviation grows to meet increasing demand, the IPCC has forecasted that by 2050, this could rise to 3%. While the forecast emissions for 2050 can vary significantly, it does highlight the challenge that the aviation industry faces in the next 40 years.

Global Man-Made GHG Emissions (%)



Source: IPCC, 2007 and IPCC – AIE2005

Comparison of Aviation CO<sub>2</sub> Emissions vs Other Forms of Transport (%)



- International aviation
- International marine
- Road transport
- Other transport
- Emissions from other sectors

Source of CO<sub>2</sub> data: IEA2010

According to the [IPCC](#), aircraft contribute to climate change through the emission of oxides of nitrogen (NOx), soot, sulphate aerosols and water vapour. These impacts are summarised below:

### Non-CO<sub>2</sub> Emissions from Aircraft

Non-CO <sub>2</sub> Emissions	Nature of Impact
NOx	Increases the GHG ozone: warming effect Destruction of methane: cooling effect
Water Vapour	Forms condensation trails: in exhaust air. Warming effects dependent on altitude, location and atmospheric conditions
Sulphate Aerosols	Reflect incoming solar radiation: cooling effects
Soot	Small warming effect

Source: IPCC



Uncertainty remains within the scientific community regarding the full impact of other greenhouse gases (GHGs) in the upper atmosphere. In 2007, the IPCC estimated these effects to be two to four times greater than those of aviation's CO<sub>2</sub> emissions alone, and by 2050, aviation's total climate change contribution, including CO<sub>2</sub> and other effects, could rise to 5% (with a worst-case scenario of 15% of human emissions). However, the IPCC acknowledges that there is still uncertainty and the non-CO<sub>2</sub> impacts of aviation are the subject of intensive academic research.

In light of uncertainty about the cumulative or 'multiplier' impacts of other aviation-related GHGs, we continue to focus our efforts on reducing our CO<sub>2</sub> emissions while monitoring the latest atmospheric science research findings of the relevant organisations and research institutes. These include the Goddard Institute of Space Studies (GISS) at the National Aeronautics and Space Administration (NASA), the Institute of Atmospheric Physics at the German Aerospace Centre (DLR), and various academic institutions around the world.

### Contributing to Climate Change Science



To assist in increasing understanding of climate change science in the atmosphere, in 2011 we signed a memorandum of agreement with In-service Aircraft for a Global Observing System (IAGOS) Project, which is part of the European Commission's European Strategy Forum on Research Infrastructures. Its aim is to conduct long-term monitoring of climate change contributors such as aerosol, cloud particles and atmospheric composition through the use of installed equipment on long-haul aircraft of international airlines, where satellite collections are not feasible. While carbon dioxide's effect on climate change is widely known, IAGOS explores the uncertainties about other atmospheric gases when mixed at altitude, including methane, nitrogen oxide and water vapour. By trying to build a global picture of their effects, this will contribute to the scientific understanding of aviation and climate change.

In 2013, one of our Airbus A330-300 aircraft was the first of its type to be equipped with IAGOS scientific instruments following the certification of the IAGOS system on the Airbus A330. It has been deployed primarily on Australian and Middle East routes from Hong Kong to complement other similarly equipped commercial aircraft operating on other routes around the world, which would help build a better global picture of climate change. Data is transmitted from the aircraft on a daily basis to the IAGOS central database for access by science and policy users, including the provision of useful real time data for weather prediction, air quality forecasting and climate models. More information can be found on their website at [www.iagos.org](http://www.iagos.org).

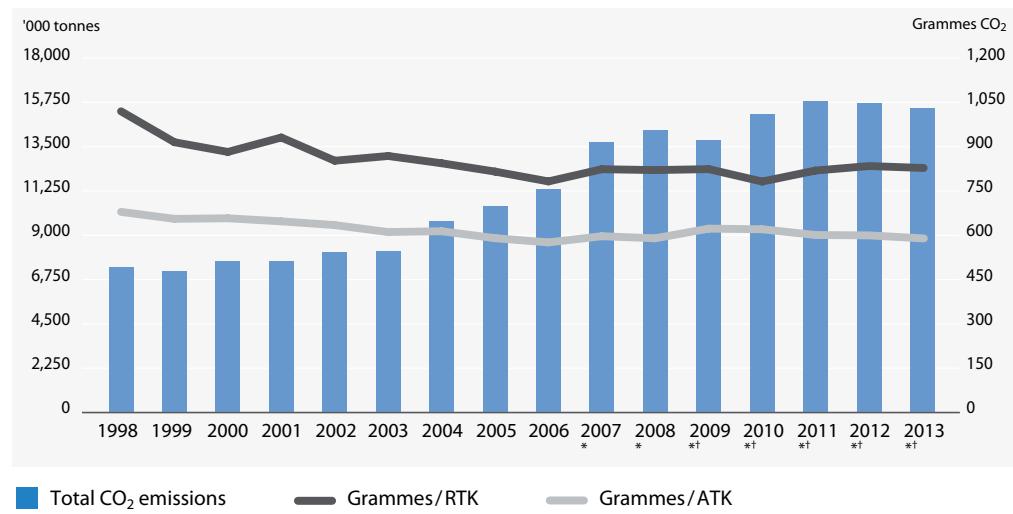


### 3 2013 CO<sub>2</sub> Emissions Performance

**15.5**  
million tonnes  
CO<sub>2</sub> emissions from  
fuel burn

In 2013, CO<sub>2</sub> emissions from fuel burn from the Cathay Pacific and Dragonair fleet remained at 15.5 million tonnes<sup>▲</sup>. This represents an absolute emissions reduction of 1.7%, or 0.27 million tCO<sub>2</sub>, from 2012. A reduction in CO<sub>2</sub> emissions was also recorded in relation to capacity (grammes/ATK – available tonne kilometre) and traffic volume carried (grammes/RTK – revenue tonne kilometre). This improvement in our fuel efficiency is in line with our expectation as we continued to upgrade and modernise our fleet while retiring less fuel-efficient aircraft. Since 1998, our CO<sub>2</sub> efficiency in relation to ATK and RTK has improved by 13.3% and 19.1% respectively.

#### Global CO<sub>2</sub> Emissions – Cathay Pacific Group Fleet



\* includes Dragonair  
† includes testing, training, and wet lease flights

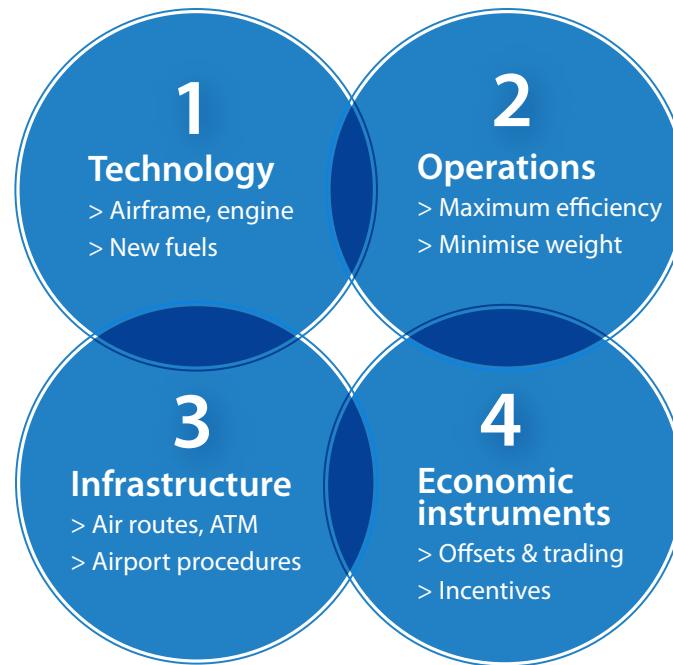
#### 2013 GHG Emissions (tCO<sub>2</sub>e) – Cathay Pacific Group

SCOPE 1	SCOPE 2
<b>▲ 15,913,517 (99.66%)</b> Aviation Fuel, Fuel Combustion and Towngas	<b>▲ 54,842 (0.34%)</b> Electricity and Towngas

## 4 Fuel Efficiency – A 30 Year Story

Our operating culture of fuel efficiency has been embedded since our first non-stop long haul flights from Hong Kong to London in 1980 and Hong Kong to Vancouver in 1983. Reducing weight onboard these two routes enabled us to offer a unique and competitive service to our customers. Various teams within Cathay Pacific and Dragonair worked on implementing innovative initiatives such as a fuel monitoring system; use of core washing; introduction of lighter weight onboard equipment (for example food carts and cargo container boxes); and utilising flight techniques and flight planning systems that reduce fuel use – which have been part of the airline's standard operating procedures for the past 30 years. We believe this has allowed us to operate our aircraft in a highly efficient manner, and to a certain extent, play a part in helping to build resilience in the face of adverse conditions such as additional carbon charges and rising fuel prices.

Our fuel efficiency initiatives in these 30 years reflect the IATA four-pillar strategy:



 Commitments	
We fully support IATA's climate change commitments:	
<b>2010</b>	An average improvement of fuel efficiency of 1.5% per year
<b>2020</b>	A cap on aviation CO <sub>2</sub> emissions from 2020 (carbon neutral growth)
<b>2050</b>	Aspiration for 50% reduction in net CO <sub>2</sub> emissions over 2005 levels

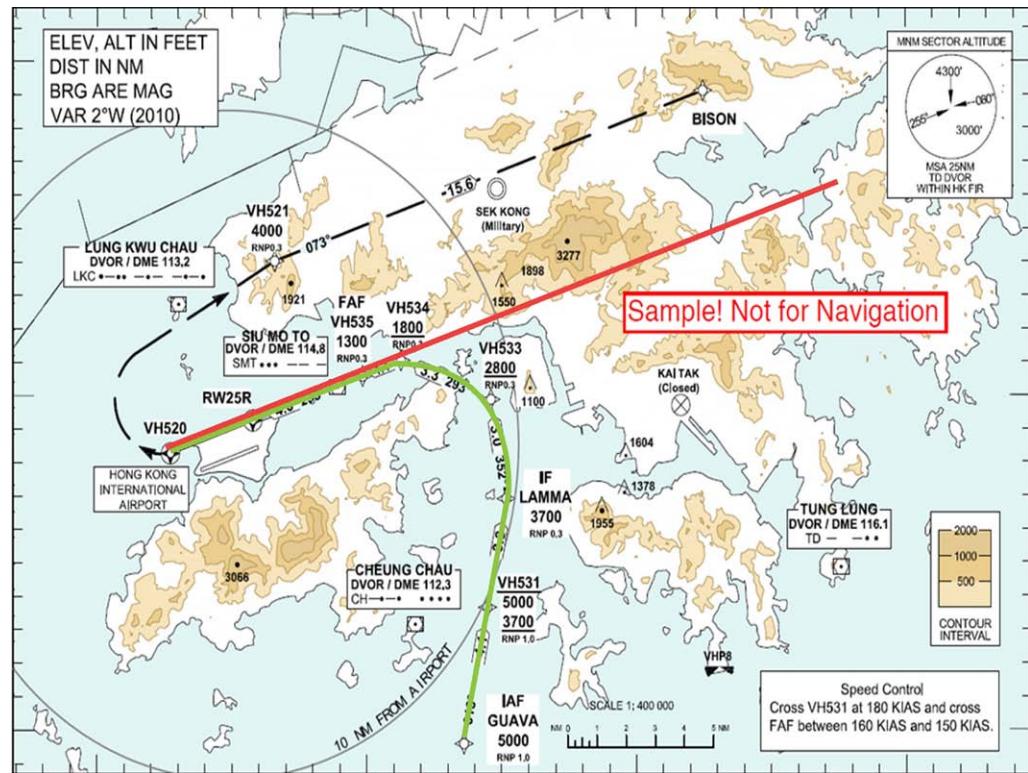
In 2013, apart from the operational efficiencies embedded in our operations, other progress on fuel efficiency included:

- **Fleet modernisation** – We took delivery of five Airbus A330-300s; nine Boeing 777-300ERs, and five Boeing 747-8F aircraft. We now have a total of 38 Boeing 777-300ERs, powered by two highly efficient GE90 engines, which form the backbone of our ultra long-haul fleet, where the greatest fuel efficiency improvements of 26-28% are realised. Five Boeing 747-400s were retired from our fleet. In addition, we announced an order of 21 Boeing 777-9X to be delivered from 2021, which will deliver greater efficiency, significant fuel savings and lower noise footprint.

#### Boeing 777-300ER Fuel Efficiency Features



- **Route improvements** – The development of a new approach through the West Lamma Channel into Hong Kong has resulted in a reduction in distance, fuel usage, carbon emissions and noise. Each flight using the new approach will save approximately 320 kg of fuel, 1 tonne of CO<sub>2</sub>, 24 track miles, and 6.5 minutes flight time. Aircraft equipped with advanced navigational equipment such as the Boeing 777 and Boeing 747-8 aircraft will be able to take advantage of the new flight path.



Aircraft approaching Hong Kong used to fly over Shatin and Park Island (indicated in red). The new route takes aircraft through the West Lamma Channel (indicated in green).

In addition, we conducted four demonstration flights from Hong Kong to Sydney, Melbourne, Anchorage, and San Francisco respectively in November. These were the first multi-destination green flights in one day under the [Asia and Pacific Initiative to Reduce Emissions \(ASPIRE\)](#), which is a sister initiative of [INSPIRE](#) which we participated in 2012. By incorporating best practice in air traffic management by optimising airport procedures, air routes, and air traffic management, we highlighted the potential for real reduction in fuel usage and CO<sub>2</sub> emissions on a daily basis. For our flights to Australia, this best practice approach saves 4.5 to 12 minutes per flight. As we operate 13 flights a day into Australia, this could lead to potential savings up to 1,000 tonnes of fuel and 3,150 tonnes of CO<sub>2</sub> per year.



In the past 10 years, Cathay Pacific and Dragonair have implemented the following route improvements:

Examples of Cathay Pacific & Dragonair Route Improvements in the Past 10 Years	Emission Savings
Flexible entry/exit points implementation in China for European flights (Y-1 route)	14,000 tCO <sub>2</sub> /year
North Pacific route improvements	835 tCO <sub>2</sub> /year
Flexible entry/exit points implementation in China for European flights (MORIT route)	0.6 to 0.9 tCO <sub>2</sub> per flight
Re-design of flight paths over the Pearl River Delta	54,000 tCO <sub>2</sub> /year
Further North Pacific route improvements (SFO-HKG)	792 tCO <sub>2</sub> /year
Development of a new approach for flights arriving into Hong Kong on appropriately equipped aircraft, where possible	1 tCO <sub>2</sub> per flight

- Fuel efficiency initiatives** – In 2012, as part of the larger e-Enabled aircraft programme, we signed an agreement with Navtech to develop e-charts, part of a broader plan to develop a fully paperless cockpit. eEnabled Aircraft is a major multi-year initiative to create real time integration of aircraft operational and passenger data with ground infrastructure. One of its benefits is a significant reduction in the amount of paper (up to 15 hardcover manuals on long-haul flights) throughout the whole operation of the CX Group, leading to a reduction in weight on board, fuel used and CO<sub>2</sub> emissions.

In 2013, we installed the first electronic flight bag (EFB) on a Boeing 777-300ER as part of our eEnabling Project to develop a fully paperless cockpit. Before any paper documents are removed, the EFB will undergo a rigorous six-month validation programme before receiving certification from Federal Aviation Administration (FAA) and Hong Kong Civil Aviation Department (CAD) for operational usage. We will report on progress next year.

A total of 714 core washes were performed in 2013, with a total fuel saving of 4,900 tonnes.

In the past 10 years, we have implemented the following fuel efficiency improvements:

Examples of Cathay Pacific & Dragonair Initiatives on Fuel Efficiency in the Past 10 Years	Emission Savings
KA use of idle reverse thrust when operationally feasible	Data not yet available
KA single-engine taxi after landing	Data not yet available
Weight reduction from inflight magazine paper grammage reduction	880 tCO <sub>2</sub> /year
Modification of engines on our A330 fleet	11,000 tCO <sub>2</sub> /year
Utilising and manually fine-tuning the flexitrap approach – use of real-time wind data to generate flexible flight tracks for flight planning	607 tCO <sub>2</sub> on monitored flights in 2010
Using alternative base coat exterior paint	Depends on aircraft type e.g. 134 tCO <sub>2</sub> on the A340 in 2008
Core washing engines	71,000 tCO <sub>2</sub> since 2010
Weight reductions from catering and food equipment (e.g. lightweight cargo and baggage containers and food carts, cutlery, etc)	78,460 tCO <sub>2</sub> /year since 2004

## Washing an Engine Core



Engine core washing reduces fuel burn and leads to better efficiency. The cores are washed at intervals ranging from two months to half a year, and each wash consumes roughly 120 litres of water – what a person would use for a shower.

### How it is done:

1. A specially-designed hollow J-hook is used.
2. An engineer places the J-hook behind the engine's fan blades.
3. The J-hook is attached to a water hose. Once in place, water will pass through the hook to spray directly onto the compressor blades inside the engine core.
4. Tap water is de-ionised for purification. The water is then heated to 70 to 80 °C and kept in two water tanks where it is pressurised. The high heat destabilises molecules, making it easier for engineers and mechanics to remove dirt.
5. The engine is dry-motored, which means it is moved mechanically without using fuel, to create a suction effect. This ensures that water will be sucked in to cover the surface of each rotor blade.
6. The engine core is hosed for five minutes. Technicians then allow the components to soak in the water for five minutes, so that the grease and dust inside the core can dissolve. Mechanics then hose the engine core for another five minutes to flush out the dirty water.

## 5 The Future – New Fleet & Sustainable Biofuels

Our ongoing fleet modernisation programme – purchasing the most fuel efficient aircraft that are appropriate for our operations – is one of the most significant ways that an airline can reduce its environmental impact.

For our passenger aircraft fleet, we will have taken delivery of 53 Boeing 777-300ERs by 2015, 22 Airbus A350-900s, 26 Airbus A350-1000s by 2020, and 21 Boeing 777-9Xs by 2024. On the freighter side, we are expecting delivery of one Boeing 747-8F in 2016 for a total of 14 in the fleet. From 2014 to 2024, we will be taking delivery of 93 aircraft, at an aggregate list price of approximately HK\$222 billion which, according to Airbus Industrie and the Boeing Company, will provide a combined range of fuel efficiency improvements of 17-28% compared to the aircraft these will replace.

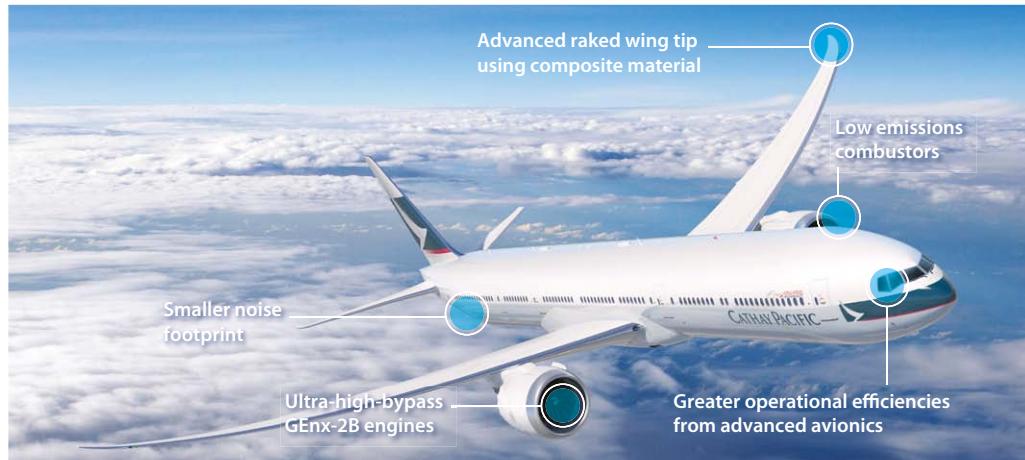
### Enhanced Fuel/CO<sub>2</sub> Efficiency

New aircraft will improve fuel efficiency and CO<sub>2</sub> emissions by at least 17% over existing aircraft

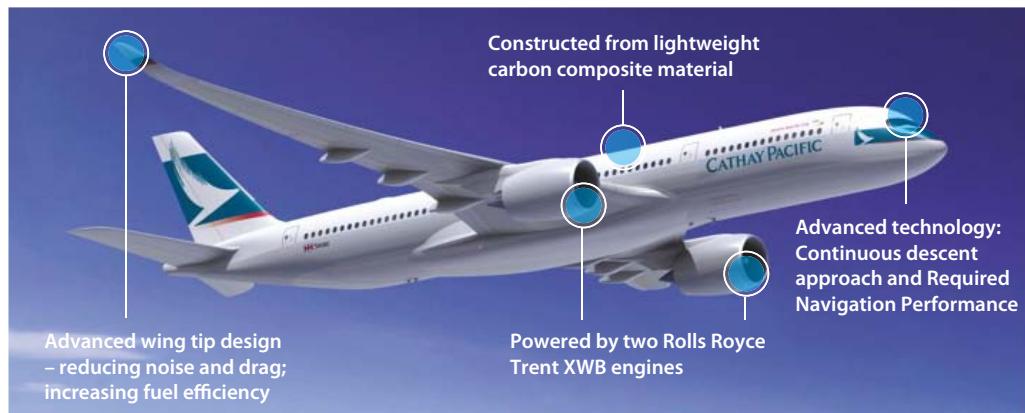


Source: Airbus Industries, Boeing Company, Cathay Pacific

### Boeing 777-9X Fuel Efficiency Features



### Airbus A350-900 Fuel Efficiency Features





The reality is our industry is highly reliant on technological advancements to get us to where we need to be by 2050. While we expect to take delivery of what are still considered conventional aircraft designs, we are increasingly seeing significant changes in aircraft technology through increasingly efficient engines, improved aerodynamics, weight reduction through use of composite materials, eco-design and end-of-life aircraft initiatives, onboard systems to minimise fuel burn and the use of sustainable aviation biofuels.

We recognise the amount of research and development effort that goes into designing, testing and manufacturing a new aircraft and the significant investment and risk associated with bringing a new product to market. But this is the challenge of climate change – where a step-change through radical designs and technology is imperative in meeting our climate change targets. We will work with the manufacturers and developers so that these technologies can be brought to the forefront.

One such example of working together is on the issue of sustainable aviation biofuels. As a member of an industry coalition, the [Sustainable Aviation Fuel Users Group \(SAFUG\)](#), we are united in our desire to accelerate the commercialisation of sustainable jet fuel, including subscribing to a set of sustainability criteria to ensure that these biofuels do not compete with food and drinking water supplies, biodiversity and local populations.

We are a member of the [Roundtable on Sustainable Biomaterials \(RSB\)](#), an international initiative hosted within the Swiss Federal Institute of Technology in Lausanne (EPFL), Switzerland, along with more than 120 organisations around the world. In addition to being a certification body for sustainable biofuels, the RSB actively involves its members in the development and implementation of the RSB Global Sustainability Standard, a global standard for sustainable production, conversion and use of biomass.

From a research perspective, we are one of the very few Airlines selected to join the FAA Centre of Excellence for Alternative Jet Fuels, which is a forum dedicated to the research, development and commercialisation of sustainable aviation biofuels.

Since the appointment of a dedicated Cathay Pacific Biofuel Manager in 2011, we now have a robust sustainable aviation fuels strategy in place and are progressing several projects. One of these projects involves working with an international technology partner to undertake a study on the feasibility of a Hong Kong based biojet fuel facility, producing fuel made from commercial and household waste streams in the city. This local supply chain could help reduce burden on landfill and the use of the fuels would significantly reduce the net CO<sub>2</sub> emissions from our aircraft. Outside of Hong Kong, we continue to pursue opportunities that will lay the foundation for a consistent, sustainable alternative biofuel source for the future.

Despite advancements made on technology, we are reliant on the work of governments and regulators to ensure that we are allowed to fly the most efficient routes and operate in the most efficient manner during take-off and landing. [For example](#), Air Navigation Service Providers (ANSPs) must work with regulators in areas such as the European Union (EU), the United States and China to increase efficiencies in the global air traffic management system, which could reduce the industry's CO<sub>2</sub> emissions by at least 12% of its emissions, roughly around 78 million tonnes of CO<sub>2</sub>.



## 6 The EU Emissions Trading Scheme and the IATA Climate Change Task Force

While Cathay Pacific supports market-based measures as one of the interim solutions to reduce aviation's emissions, we do not support the imposition of the European Union's Emissions Trading Scheme (EU ETS) to airlines based outside of Europe for several reasons. These include:

- Distortion of the market;
- Additional bureaucracy and cost; and
- Most significantly, no guarantee that revenue generated from the scheme will be directed into funding much needed climate change initiatives.

Since 2008, Cathay Pacific has been calling for aviation emissions to be regulated under a global sectoral scheme under the UN's ICAO (International Civil Aviation Organization), which we believe is more appropriate for the global nature of the industry, rather than through regional schemes such as the EU ETS.

Together with other leading international airlines, aviation sector companies and an international environmental NGO, we convened the Aviation Global Deal Group in 2008, setting out plans for a global solution to emissions that meet environmental and developmental needs whilst ensuring a level playing field in our industry, in full support of ICAO and IATA.

Our Head of Environmental Affairs was appointed to IATA's Climate Change Task Force (CCTF) in 2011. The CCTF led the industry's work to develop airlines' commitment to carbon neutral growth for 2020 (CNG 2020), and to develop proposals for a global agreement on emissions under ICAO's leadership. Cathay Pacific's view is that any approach must be clear, transparent and equitable.

In 2012, the CCTF completed extensive work to examine the opportunities and practical issues around the implementation of CNG 2020 and the need for an appropriate mechanism through which this industry commitment could be operationalised. We welcomed the [EU's decision](#) to "stop the clock" on the inclusion of international aviation under the EU ETS for one year, which was conditional on significant progress being made within the United Nation's ICAO process.

The 38<sup>th</sup> ICAO Assembly convened in Montreal in October 2013 where representatives from 191 countries gathered to discuss a range of issues pertinent to the global aviation industry, including climate change. The Assembly agreed to proceed with the development of a global market-based measure (MBM) addressing emissions from international aviation for the next Assembly to approve in 2016 and for implementation by 2020. The Assembly called upon Member States to engage in constructive consultations when designing new and implementing existing MBMs for international aviation. In hindsight, our participation in the Aviation Global Deal and the CCTF played a significant role in the process as it helped to highlight the need to tackle the issue, and garner support between airlines and within IATA for the first comprehensive agreement on climate change for any global sector.

In the same month, the [EU Commission announced its proposal](#) to amend the EU ETS so that aviation emissions would be covered for the part of flights that takes place in European airspace. This proposal was backed by the Environment, Health, and Food Safety Committee of the European Parliament. However, the Council of the European Union, representing the majority of EU Member States, supported the continuation of "stop-the-clock", which limited the scope to include only intra-European Economic Area (EEA) flights. The latter proposal was approved by the European Parliament and formally adopted by the European Council in April 2014. The revised regulation will extend the 'stop-the-clock' suspension of the ETS with respect to flights to and from non-EEA countries until 2016, as well as requiring Member States to report on how they use revenue from ETS allowance auctions.

Although we welcomed the clarity this provided airlines for the next three years, the continual amendments to the regulation added to legislative uncertainty. It also posed an additional layer of complexity for airlines striving to meet regulatory requirements in all markets in which they operate. Despite our opposition, we have been making all the necessary preparations for full compliance with the EU ETS regulation.

### Global Efforts by the Aviation Industry in Reducing Emissions

2008	CX as a founding member of the Aviation Global Deal Group
2009	The aviation industry committed to new and ambitious targets for emissions reductions through IATA
2010	Monitoring of CO <sub>2</sub> data began in compliance with the EU ETS
2011	CX appointed to IATA Climate Change Task Force
2012	CCTF completed extensive work around the implementation of CNG 2020
2013	The 38 <sup>th</sup> ICAO Assembly agreed to proceed with the development of a global market-based measure for international aviation emissions

## 7 Carbon Offsetting – FLY greener

**FLY greener**, Cathay Pacific's carbon offset programme launched in 2007, the first by an Asian airline, is part of our ongoing effort to engage with passengers on climate change issues. They can contribute to projects that reduce CO<sub>2</sub> emissions, and increase their awareness on climate change issues. More information on this programme and the projects we offer, including our unique corporate carbon offset programme for corporate clients, can be found at [www.cathaypacific.com/flygreener](http://www.cathaypacific.com/flygreener) and [www.dragonair.com/flygreener](http://www.dragonair.com/flygreener).

Based on carbon emissions calculated for the specified flights, the attributable monetary contributions go directly to fund third-party validated projects that help to offset the carbon dioxide generated by those flights. All of the projects we offer are certified under the Voluntary Carbon Standard (VCS) to ensure that they are verifiable, credible and make a difference to local communities and the environment.

In 2013, 3,000 tCO<sub>2</sub><sup>▲</sup> were offset by our passengers, including several companies in Hong Kong, China, and Taiwan.

Cathay Pacific and Dragonair also offset the CO<sub>2</sub> impacts of staff travelling on business, amounting to 8,000 tCO<sub>2</sub><sup>▲</sup> at an approximate cost of HK\$200,000 in 2013.

A summary of carbon emissions offset purchased:

	Passengers	Staff Travelling on Business
2009	3,300 tCO <sub>2</sub>	8,100 tCO <sub>2</sub>
2010	3,100 tCO <sub>2</sub>	12,000 tCO <sub>2</sub>
2011	3,400 tCO <sub>2</sub>	15,000 tCO <sub>2</sub>
2012	2,600 tCO <sub>2</sub>	9,400 tCO <sub>2</sub>
2013	3,000 tCO <sub>2</sub>	8,000 tCO <sub>2</sub>

Current portfolio of projects supported by **FLY greener**:

### Lankou 26 MW Hydropower Project

Run-of-river hydropower project

Dongguan, Guangdong

Feeds into the China Southern Power Grid

### Chaonan Shalong Wind Power Project

Set of 66 wind turbines

Shantou, Guangdong

Feeds into the China Southern Power Grid



Wind turbines at the Chaonan Shalong Wind Project

## 8 Understanding Climate Change Risks

As part of our overall risk management process, this year we started to identify specific issues and events related to climate change that could affect our business. These ranged from severe disruptions brought about by a changing climate, pandemics, resource scarcity and impacts to our supply chain. While this work is still ongoing, our initial findings show that we have some of the contingency plans in place as part of dealing with weather-related disruptions; but also that more work needs to be done to understand the full impact of climate change to our business. We are exploring the use of scenario planning tools and methodologies to assist us in developing our understanding of climate change.

In 2012 and 2013, we not only worked on this issue internally, but also with like-minded companies in Hong Kong through the Climate Change Business Forum (CCBF), of which we were a member. CCBF embarked on a climate change risk study in Hong Kong that was aimed at understanding the appropriate tools and information Hong Kong and its companies need to better prepare to adapt to climate change. The members produced a report entitled, "*The New Normal: A Hong Kong Business Primer on Climate Change Adaptation*", which identified predictable and calculable risks to business continuity, which would facilitate longer-term analysis of climate impacts and consequent investment in resilience. In particular, it looked at a number of sectors, namely: transport, energy generation, construction, property, finance and manufacturing & supply chain.



The Climate Change Business Forum report

## 9 HKIA Third Runway Proposal

In 2011, the Airport Authority Hong Kong (AAHK) released its 20-year development blueprint for Hong Kong International Airport (HKIA) ("Master Plan 2030") to solicit stakeholder and public feedback on the airport's future development direction, including the construction of a third runway, over a three-month consultation period. Cathay Pacific supports the plans and believes that expansion of the Hong Kong airport is important to the sustainability of the Hong Kong economy and to ensure the long-term competitiveness of our home hub.

In March 2012, the Government of the Hong Kong Special Administrative Region (HKSAR) adopted in principle the three-runway option as the official expansion plan. We welcomed this as the future development blueprint for the HKIA.



We firmly believe the third runway is of critical importance to the sustainability of the Hong Kong economy and, therefore, to the long-term prosperity and well-being of Hong Kong's people. Connectivity with the rest of the world has made Hong Kong what it is today so we must be clear on how we can maintain and grow these links to our future.

**John Slosar**  
Chairman,  
Cathay Pacific

In August 2012, the HKSAR Government's Environmental Protection Department (EPD) issued the Study Brief for the Environmental Impact Assessment (EIA) of the proposed third runway. We provided our inputs during the consultation period, with an excerpt of our comments below:

**We fully support AAHK's efforts in developing a comprehensive Environmental Impact Assessment (EIA) that fully complies with Hong Kong's regulations, responds to stakeholder concerns, proposes relevant and appropriate mitigation measures and is guided by international best practice. It is also expected that AAHK will ensure that the construction of a 3<sup>rd</sup> runway will be undertaken with the least impact to the environment and that the mitigation measures proposed will be fully implemented.**



In 2013, AAHK continued conducting the EIA covering 12 key assessment aspects, which is expected to be completed in 2014. The EIA will be subject to review by the EPD and the public to ensure the requirements set out in the Study Brief have been met before an application for an Environmental Permit can be submitted. Whilst we acknowledge that aviation has an impact on the environment and climate change, the industry is working to ensure that we are also part of the solution in its commitment to achieve sustainable long-term growth, reduce its environmental impact whilst continuing to generate significant benefits for societies, tourism, world trade and economies.

To support the EIA studies, we have provided past emissions/engine performance, air traffic data and future forecast plans to AAHK's consultant team. We are also an active participant in the EIA technical briefing groups dealing with air quality and noise, and provide support on community liaison groups, exhibitions, and public forums.

In addition, under the AAHK's Carbon Reduction Programme, over 40 business partners around the airport community pledged to reduce airport-wide carbon emissions by 25% per workload unit by 2015 from 2008 levels (where one workload unit is equal to one passenger or 100 kg of cargo). As part of the AAHK's community, we fully support this pledge and believe our climate change commitments align with it.

## 10 Our Approach on the Ground

We have been working tirelessly on our ground operations to reduce our carbon footprint, primarily from electricity consumption of our buildings, equipment stock and vehicular emissions.

### Headquarters

Our headquarter buildings, Cathay City and Dragonair House, are based at Chek Lap Kok, near the Hong Kong International Airport. They cover a total floor area of 193,000 m<sup>2</sup> and mainly comprise offices, flight training centres and stores. Both premises are certified to the ISO14001 international environmental management standard. They are both equipped with a building management system. Cathay City also has automatic lighting, air-conditioning controls and motion sensors in conference rooms. In 2013, the total electricity consumption at Cathay City and Dragonair House was 33,677,843 kWh and 6,998,637 kWh respectively, representing a decrease of 7% and 4.1% respectively, compared to an increase of 1.2% and 0.2% respectively the year before. The main reasons for this saving are from the chilled water system optimisation and LED lighting replacements. The Civil Aviation Department and the Cathay Pacific Services Limited vacated Dragonair House toward the end of the year, contributing to a minor reduction in electricity consumption. There is also a 500-room staff hotel, the Headland, adjacent to Cathay City. This is managed separately by Swire Hotels, and therefore falls outside of the scope of this report.

## CX City Renovation Project



As part of the Pioneer Floor Programme spearheaded by the Property Services Department, part of the fourth floor office in Cathay City was given a makeover this year. This programme aimed to revitalise the office environment of Cathay City by introducing a new office layout. The project area consisted of workstations, private offices, meeting rooms, filing/equipment areas, centralised storage areas, printing rooms and pantries. Breakout areas were also introduced to facilitate better collaboration of different teams.

Key energy saving features that were adopted for the pioneer floor included the following:

### Lighting

- The new layout, which consisted of fewer walls, maximises the penetration of natural light from the atrium and windows.
- The existing lighting panels were reused to reduce material wastage. These were modified to hold LED light tubes instead of T8 light tubes. The light-coloured decoration also reduced lighting density in the office. All these resulted in a better lighting performance, greater energy saving, and the need for fewer lighting panels.

### Window Blinds

- Two layers of roller blinds were installed in front of the base building curtain wall, including a layer of solar control and a layer of semi-translucent colour film. These minimised the UV and heat entering the office, and hence reducing the energy required for air-conditioning.

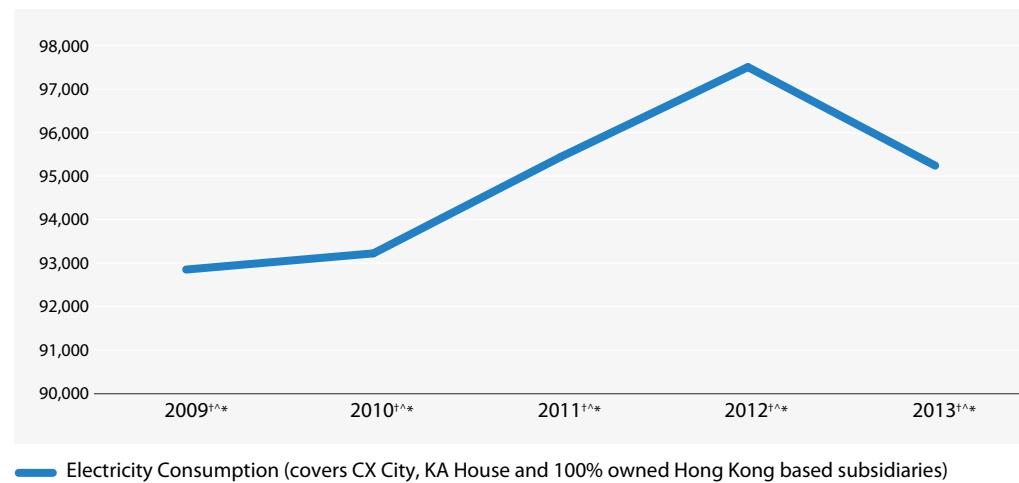
The pioneer floor also featured a number of waste management and resource use initiatives. These are described in the [Waste Management Factsheet](#).

As part of making our buildings more energy efficient, a detailed energy audit for Cathay City and Dragonair House was commissioned and undertaken in 2012/2013. The audit provided an overview of the type, usage, operation, and performance of the key components of the buildings, their historical energy performance, and energy management opportunities.

The findings of this audit will form the basis of refining our energy-efficiency improvement programme and assist us in setting appropriate energy targets. The chilled water system optimisation regime in Cathay City was scaled-up in 2013, and has become an ongoing practice of system operations.

Approximately 10% saving in power could be achieved from the trial of the chilled ceiling panels in the Control Room in Cathay City. However, capital investment to the system modifications currently constrained further application of these chilled ceilings throughout the building.

### Electricity Consumption (kWh) between 2010 and 2013



Together with a dozen other companies in Hong Kong, we signed the World Business Council for Sustainable Development (WBCSD) Building Manifesto for Energy Efficiency in Buildings in 2012, whereby member companies pledge to improve the energy performance of their commercial buildings.



The WBCSD Building Manifesto for Energy Efficiency in Buildings pledging event

At Dragonair House, LED lighting will be used to replace florescent lighting as KA premises are renovated to improve energy efficiency.

### New Cargo Terminal

The purpose-built, fast-connection Cathay Pacific Cargo Terminal, designed for an annual air cargo throughput of 2.6 million tonnes, started its phased commencement in February 2013, and completed the transition in October. The terminal contains many sustainability design features, including the use of a chilled ceiling cooling system at the Terminal's office building, which could save up to 30% in power consumption compared to conventional air conditioning systems, and the use of high performance cladding for the exterior of the Terminal. There are also a number of green initiatives in place, such as the collection of grey water for irrigation and flushing, waste separation at source, and the use of electric vehicles and equipment.

Cathay Pacific Services Ltd continuously evaluates potential areas with a commitment to protect the environment. For 2014, the company aims to reduce paper consumption by 10%, and save more than 1 million kWh of electricity per year by installing power efficient retrofit lamps. The new cargo terminal also plans to introduce motion sensors and photo sensors across the Terminal to minimise unnecessary lighting.



Chilled ceiling air conditioning at the new Cargo Terminal



As a socially and environmentally responsible company, Cathay Pacific Services Limited has incorporated sustainability considerations into daily operations and future development. We are determined to protect the environment and establish a green cargo terminal with a high level of environmental performance.

**Algernon Yau**

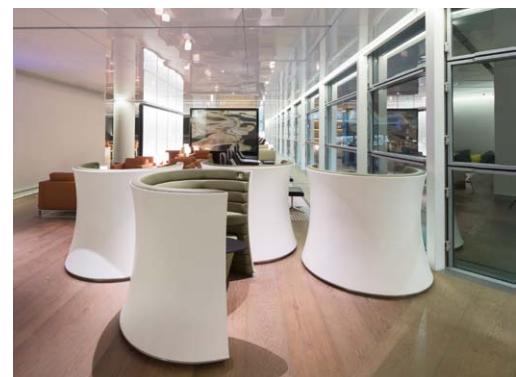
Chief Executive Officer,  
Cathay Pacific Services Ltd.

## Our Airport Lounges – The Bridge

At our newly refurbished airport lounge at the Hong Kong International Airport, The Bridge, an installation has been used whereby waste heat produced from the heating, ventilation and air conditioning (HVAC) system is reclaimed and utilised to achieve energy conservation and minimise electricity consumption at the lounge. This process makes use of energy exchange between the water boiler and the HVAC system. Following several feasibility studies, it was decided that the application of water-to-water heat pump utilising waste heat recovery will be applied due to the significant hot water consumption pattern at the Bridge. Energy saving from using these heat pumps compared with using conventional electrical boilers will be reported next year. LED lights are used throughout the lounge. Toilets are equipped with a dual flushing system to encourage the efficient use of water.



HVAC System at The Bridge



Main Lounge

## Our Subsidiaries – Hong Kong Airport Services

Our wholly-owned subsidiary, Hong Kong Airport Services (HAS), has the largest vehicle fleet in the Group, and is the largest ground handling agent in Hong Kong, serving 29 airlines. HAS is committed to reducing carbon emissions from their fleet, and started the first term of a three-year Ground Support Equipment (GSE) Replacement Programme since 2011.

During the first period of this Programme, over 230 aged and less fuel efficient GSE and vehicles were replaced. Currently, 25% of the motor vehicles and GSE is electrically-powered or complies with EURO IV/V emission standards. All newly bought vehicles meet the EURO V standard.

The second term of the three-year programme will commence in 2014.



Electric tractor



51-seater shuttle bus

The electricity consumption per thousand air traffic movement (ATM) and fuel consumption per thousand ATM increased by 1.9% and 6% respectively in 2013. The installation of new electric induction cookers at the 24-hour staff canteen contributed to the slight increase in electricity consumed. Due to more flight handling in the outer bay and the North Satellite Concourse at HKIA, vehicular travelling distance increased leading to more fuel consumption per ATM in 2013. HAS also replaced the shuttle buses with larger seating capacities to reduce passenger waiting time; and thus caused an increase in fuel consumption.

HAS launched a Paper Reduction Campaign at the end of December 2012 and targeted to reduce the general paper consumption by 5%. As part of the campaign, telex systems were improved to divert telex messages to email accounts to save telex paper consumption. Electronic devices such as smart phones were introduced to convey flight loading information for frontline operations, which reduced the amount of paper consumed. For 2013, general paper consumption fell by 6.8% compared to 2012.

## Our Subsidiaries – Vogue Laundry Services (VLS)

Vogue Laundry Services is another wholly-owned subsidiary of Cathay Pacific. It employs over 600 staff and serves over 17 airlines, 20 hotels and has a daily output of 277,000 items, equivalent to 79 tonnes of laundry. It is the first laundry in Hong Kong to be certified to the ISO 14001 environmental management standard and the OHSAS 18001 occupational health and safety standard.

Over the past few years, Vogue has been actively exploring ways to reduce emissions through active carbon absorption in the dry cleaning machines and from perchloroethylene, which is a volatile organic compound (VOC) consumed in the dry cleaning process. Consumption of this solvent has been reducing and in 2013, it was 7.0% less than in 2012. Vogue also switched from diesel boiler to a dual fuel boiler utilising Towngas and ultra-low sulphur diesel at a 75:25 ratio, which helped reduce CO<sub>2</sub> emissions. However, due to continuous cold days in 2013, boiler hours increased. The actual CO<sub>2</sub> emission was 3.8% higher in 2013 when compared to the same period in 2012.

Vogue runs a fleet of 29 vehicles for its collection and delivery services. In 2013, one Euro V van was added to the fleet, with a further three Euro II trucks to be phased out in 2014.

## Our Subsidiaries – Cathay Pacific Catering Services (CPCS)

Cathay Pacific Catering Services (CPCS), a 100% subsidiary of Cathay Pacific, serves 41 airlines and is one of the largest flight kitchens in the world. In 2013, CPCS installed cold room plastic curtains for outbound and tray set cold rooms, which reduced 27 tonnes of CO<sub>2</sub> emissions. It also continued to use Towngas as boiler fuel, which reduced 1,600 tonnes of CO<sub>2</sub> emissions. A total of 449 LED light tubes were installed at the new first floor ware wash area, which operates for 12 hours daily, and reduced 12.8 tonnes of CO<sub>2</sub> emissions. In some work areas, the temperature rose by 1°C and reduced 40 tonnes of CO<sub>2</sub> emissions. CPCS's dedicated purchasing team continued to source sustainable seafood. In the vehicle fleet, all pre-Euro type trucks have been replaced and the number of Euro V trucks increased to 16 in 2013.

## Summary of Recent Key Initiatives – Subsidiaries

Company	Initiatives
Hong Kong Airport Services	<p>In 2013, 25% of motor vehicles and Ground Support Equipment is electrically powered or complies with EURO IV/V emission standards.</p> <p>Paper Reduction Campaign reduced general paper consumption by 6.8% in 2013.</p> <p>Seven fast chargers installed, with 10% electricity savings in 2012.</p> <p>Participated in the Clean Air Network Green Drive in 2012.</p>
Vogue Laundry Services	<p>The first laundry in Hong Kong to be certified to the ISO 14001 environmental management standard and the OHSAS 18001 occupational health and safety standard.</p> <p>Dry cleaning solvent consumption reduced by 7% in 2013.</p> <p>Diesel boiler replaced by dual fuel boiler, with a 12% CO<sub>2</sub> emissions reduction in 2011.</p> <p>Continuous phasing out of lower Euro trucks and addition of Euro V vehicles.</p>
Cathay Pacific Catering Services	<p>Air-cooled condensers in blast chillers replaced by water-cooled condensers, with energy saving of 385,440 kWh in 2012.</p> <p>Plastic curtains were installed in the cold rooms to reduce energy consumption.</p> <p>The use of Towngas boilers, installation of LED lights and the raising of temperature in some work areas all helped to reduce overall electricity consumption.</p> <p>Sixteen Euro V trucks in the fleet by 2013. All pre-Euro trucks have been replaced.</p>

## 11 Business and Community Engagement

Engaging with regulators and groups involved in shaping climate change and aviation policy is a key component of our climate change strategy. We work with organisations not only in increasing awareness on climate change issues, but also in developing appropriate solutions for the aviation industry.

**International Air Transport Association (IATA)** – The IATA AGM in June 2009 agreed to commit to new and ambitious targets for emissions reduction. Aviation is the only industry where collective climate change targets have been endorsed by the whole industry at a global level. Specific analysis and actions continue to focus on an equitable global approach to emissions accounting, carbon offsetting, a full range of balanced mitigation measures and investment support for new aircraft. We are also actively involved in the IATA Climate Change Task Force and Environmental Committees through representation by our Head of Environmental Affairs, Mark Watson. In 2013, we joined the IATA Air Cargo Carbon Footprint Working Group, which was newly convened to assess the carbon emissions generated from air cargo and develop industry recommended practice on CO<sub>2</sub> reporting for cargo operations.

**Greener Skies Conference** – CX has been sponsoring this aviation sustainability conference since 2007, and which is supported by IATA, the Air Transport Action Group (ATAG) and the Association of Asia Pacific Airlines (AAPA). The 5<sup>th</sup> conference, held in 2013 in Hong Kong, saw John Slosar, Chief Executive of CX at the time, delivering the opening remarks and Mark Watson, Head of Environmental Affairs, moderating a panel discussion on how the industry can work together to formulate a global solution to reduce aviation emissions, especially in the realm of using market-based measures.

**Climate Change Business Forum (CCBF)** in Hong Kong – We have been an active member of CCBF, a forum for Hong Kong business leaders to collaborate on tackling climate change since 2008. CCBF serves as the Southeast Asia anchor on climate change issues for the World Business Council for Sustainable Development (WBCSD). It is also an international network partner of The Prince of Wales's Corporate Leaders Group on Climate Change (CLG), and is often called upon by these and other groups seeking Asian business leadership on climate change and low-carbon issues. In 2012, its founding Patron Chair, Mr C.Y. Leung, was elected Chief Executive of Hong Kong. CCBF intensified its efforts to offer advice on Hong Kong's transition to a low carbon economy, through both opinion editorials and targeted policy papers. A number of CCBF members demonstrated action leadership by signing a Building Energy Pledge which originated with the WBCSD. Cathay Pacific was one of the first Hong Kong companies to sign the Pledge, which commits signatories to calculate a carbon or energy baseline for commercial buildings; set a reduction target consistent with transformational change; and report annually against that target. This demonstration of collective leadership was welcomed by Hong Kong Secretary for Environment K.S. Wong, and sets the stage for further thought and action leadership in the coming year. In 2013, CCBF became one of four Advisory Groups under the new Business Environment Council structure.



**Sustainable Aviation Fuel Users Group (SAFUG)** – Cathay Pacific is a member of SAFUG, an industry working group united by the desire to accelerate the commercialisation of sustainable aviation biofuels by developing robust, global sustainability criteria and best practices for the aviation biofuels market. SAFUG is working closely with the Roundtable on Sustainable Biomaterials (RSB) bringing together farmers, airlines, fuel producers, government regulators and NGOs to agree on a way forward for obtaining biofuels from responsible and sustainable sources. We subscribe to the sustainability criteria that aviation biofuels must not compete with food and drinking water supplies, biodiversity and local populations.

**Carbon Price Communiqué of the Prince of Wales' Corporate Leaders Group on Climate Change (CLG)** – We signed the [Carbon Price Communiqué](#) in 2012, which defines the international business community's expectations on a carbon price signal – “*asserts that one of the main building blocks of a cost-effective, pro-business policy framework for climate change is a clear and transparent price on carbon emissions*”. In the past we have signed the [Cancun Communiqué](#) in 2010, urging governments not to wait for one global deal; instead, they should pursue new sectoral, bilateral or regional agreements, depending on their appropriateness and relevance. For example, the Communiqué called for a comprehensive global approach on emissions for aviation and shipping. In 2009, we also signed the [Copenhagen Communiqué](#) calling on world leaders to agree on “ambitious, robust and equitable global deal on climate change.” In 2008, we signed the [Poznan Communiqué](#), which sets out what business leaders believe should be the key elements of an international agreement on climate change.

**Carbon Reporting** – In 2013, for the first time, Cathay Pacific was included in the Dow Jones Sustainability Index (DJSI), a world leading and one of the most recognised sustainability indices. We were also listed in the Carbon Disclosure Leadership Index (CDLI) under the Industrials sector, for having one of the top scores for showing positive actions that the company has demonstrated to promote climate change mitigation, adaptation and transparency.

How and what resources we use, and how we dispose of them, make an impact on the world around us.

## Content

- |   |                  |
|---|------------------|
| 1 Resource Use Strategy                   | 5 Food Waste     |
| 2 Paper and Wood Products                 | 6 Fuel Jettisons |
| 3 Plastic                                 | 7 Water          |
| 4 Recycling and Re-Use of Waste Materials |                  |

## 1 Resource Use Strategy

It is important to manage the procurement of the materials we use regularly as a way of reducing the impact of our operations. We are constantly examining options whereby we can reduce resource use, or use materials from sustainable sources and reduce waste.

Our strategy to resource use and waste management is illustrated by this process:



- **Identify impacts per operational area** – Identify resource use and waste generated at all operational points, concentrating in areas that are offered to customers and where there is significant single-use waste generated.
- **Identify midterm goals to meet our 2020 commitments** – With departments, we identify our goals for up to 2015 and how we can work toward those goals. We have developed internal guidelines on resource use (for example on the use of paper and plastic) to help departments make decisions regarding which material to choose. We will continue to work internally to develop guidelines for other resources.
- **Identify solutions, trial and then full implementation** – Work with departments that are responsible for these items either individually or as part of a working committee. For example, most of our inflight measures are initiated by the Inflight Services Department Environmental Working Committee since 2005 (although there have been environmental related projects since at least the mid-1990s). Guidelines and policies are also developed to assist departments to consider sustainability in their decisions – for example our Marketing Department already implements a policy that all marketing paper collateral from headquarters should come from a Forest Stewardship Council (FSC)-certified source. We also work with purchasing managers on the impacts of the items we purchase and think of ways we can involve our suppliers in meeting our sustainability goals. This is discussed in the section on [Sustainable Sourcing](#).

- Monitor progress** – Building on our existing data collection system, we are developing a process to collect material usage data in a more comprehensive and robust manner to monitor our progress against our commitments. In 2013, preparations were being made to migrate our data to a new Swire Group sustainability management system. The new system will facilitate collecting, consolidating, analysing and reporting our environmental, social and governance (ESG) performance across the Group's diverse businesses located in different jurisdictions. Further details will be provided in the next report.

The table below summarises the initiatives or strategies we have developed and implemented through the years on resource use and waste management. Further details can be found in the relevant sections of this fact sheet and our archived reports.

Resource Item	Strategy/Initiatives	Year first implemented (where applicable)
Paper & wood products/ furniture	<p>Meal boxes introduced on regional routes are on FSC-certified paper.</p> <p>Inflight magazines – Discovery, Silk Road, Discover the Shop, and Emporium – are printed on FSC paper.</p> <p>Reduced print run of Discovery and Discover the Shop inflight magazines by 110,000 copies per month.</p> <p>Disposable chopsticks used inflight have been replaced with reusable chopsticks.</p> <p>Hand towels and toilet paper in CX City are made from FSC or recycled paper.</p> <p>The use of bamboo wood in the construction and design at our Hong Kong airport lounges, The Cabin (2010) and The Wing (2013).</p> <p>Sofas disposed from the First Class Lounge (30), the Pier, are donated to Hong Kong charity Crossroads.</p> <p><b>Marketing collateral, headquarter office</b> paper and inflight safety cards are on FSC paper.</p> <p>Most staff newsletters are printed on recycled paper.</p> <p>Most forms, notices and training manuals are in electronic format.</p> <p>Paper grammage of CX/KA inflight magazines is reduced while maintaining publishing quality.</p> <p>Electronic initiatives:</p> <ul style="list-style-type: none"> <li>e-AWB (airway bill) for our cargo operations</li> <li><b>mobile boarding passes</b> at 24 CX/KA ports (as at December 2013)</li> <li>electronic versions of our customer magazines such as the inflight Discovery magazine, and staff newsletters such as CX World (for general staff) and the Hub Exchange</li> </ul> <p>Withdrawal of paper menus in Economy Class of short haul flights (CX). Reuse of and recycling inflight menu cards (KA).</p> <p>"Paperless" Campaign – replacing paper with electronic storage devices.</p> <p>Paper recycling campaign in the offices in Hong Kong and outports.</p>	2013 2013 2013 2013 2012 2010 2013 2008 – 2012 2011 2011 2011/2012 2004 1996 1995
Plastic	<p>200,000 Economy Class plastic cups were sent to a recycler to be made into other plastic items.</p> <p>Replaced a proportion of Styrofoam boxes with cooler bags for inflight ice cream storage.</p> <p>Biodegradable plastic used for:</p> <ul style="list-style-type: none"> <li>inflight magazine bags</li> <li>Vogue Laundry's laundry bags</li> <li>bags for inflight blankets, inflight cutlery and duty free purchases</li> </ul> <p>Cleaning and re-using plastic cutlery for approximately 10 cycles before disposal.</p> <p>Plastic cups and bottles used inflight are recycled.</p> <p>Rebate programme for the return of plastic clothes hangers at Vogue Laundry.</p>	2013 2013 2012 2011 2011 – 2007 2002

Resource Item	Strategy/Initiatives	Year first implemented (where applicable)
<b>Food</b>	Surplus food at CX City canteen is donated to underprivileged communities in Hong Kong through the Food Angel programme.	2013
	Pre-consumable food offcuts are sent to a pig farm in Hong Kong. Food leftovers are sent to make fish or pig feed.	2009
	Food provisioning reviewed due to development of protocols to load adequate food on late night flights.	2008
	The amount of food provisioned are continuously monitored and adjusted on our flights in all classes. From the various communication channels in place, we are in a position to alter loading ratios from flight to flight for the optimal requirement.	-
<b>Water</b>	Used cooking oil from CPCS is sold to be manufactured into vehicle biodiesel in Hong Kong.	2004
	Survey on inflight potable water usage was conducted to optimise water uplifted on our aircraft.	2013
	"Green" sealing treatment for aircraft's outer surfaces to help reduce cleaning time and defer re-painting.	2009
	Water tap runs are reduced on all Dragonair and Cathay Pacific fleet.	2010
	Water reuse system at Vogue Laundry.	2003
<b>Leftover fuel</b>	Water saving devices are installed at CPCS.	
	Collected and reused by HAECO.	2011
<b>Textiles</b>	New First Class sleep suits are made with organic cotton.	2013
	Used First Class sleep suits are donated to the charity Compassion Revival.	2012
	Old Cathay Pacific winter coats are donated to the charity Compassion Revival for people in Pakistan.	2011
<b>Amenity kits</b>	Use of alternative materials:	
	• Toothbrushes and shoe horns are made from biodegradable corn-starch material	2010
	• Premium Economy amenity bags are made from recycled plastic	2012
	Economy Class amenity kits are provided on demand only.	2010
<b>Blankets, duvets, pillows</b>	Used blankets, duvets and pillows are donated to various charitable organisations.	1990s
<b>Aluminium cans and materials</b>	Aluminium cans are collected and recycled both in the office and inflight.	1995 and 2006
	Aluminium food containers are removed from all ultra short haul flights (Manila and Taipei). Aluminium foil in the breakfast service for selected routes is replaced with reusable materials.	2006
<b>Printer cartridges</b>	Collected in the office and recycled.	1995
<b>Glass</b>	The CX Chinese New Year Parade Float was constructed partly using 600 wine bottles emptied after inflight servicing.	2012
	Glass bottles collected inflight and in the office are recycled and used in the production of paving bricks.	2011
	The use of recycled glass for a feature reception wall in our premium passenger lounge, The Cabin, at the Hong Kong International Airport.	2010
<b>Used cooking oil</b>	Collected and recycled by waste contractors.	1996
<b>Hazardous wastes</b>	Chromate-free primer are utilised by Dragonair & Cathay Pacific A320/A321 and A330 aircraft.	2010
	Peroxide strippers are utilised instead of phenolic strippers.	2009

## 2 Paper and Wood Products

Since the 1990s, we have been implementing a paper recycling and use of alternative paper sources campaign in our operations, both inflight and in our offices. Migration to electronic means of communication to improve operational efficiency has also facilitated the reduction in paper consumption in many areas since the 1990s, and many of our systems are moving toward electronic storage devices.

Some examples in 2013 included:

- Use of FSC-certified paper for all Cathay Pacific and Dragonair inflight magazines, including Discovery, Discover the Shop, Silk Road, and Emporium.
- Reduced print run of Discovery and Discover the Shop magazines by 432,000 and 300,000 copies per year respectively, by rationalising the replacement frequency of the plastic pouches containing these magazines in the literature pocket of each passenger seat.
- Meal boxes made from FSC-certified paper were introduced on regional routes, which resulted in a reduction in the use of plastic and foil containers.
- Replacing inflight disposable chopsticks with reusable ones.
- The first electronic flight bag (EFB) was installed on a Boeing 777-300ER as part of a trial of our eEnabling Project, which was aimed at developing a fully paperless cockpit. Before any paper documents and manuals could be removed from the cockpit, which might be up to 15 hardcover volumes, the EFB needs to undergo a rigorous six-month validation programme before receiving certification from the Federal Aviation Administration (FAA) and the Hong Kong Civil Aviation Department (HK CAD) for operational usage. We will report progress on this initiative.

As a matter of policy, all marketing collaterals and office paper from Hong Kong are from FSC-certified sources. We are working on implementing this policy throughout all our operations around the world over the next few years.

## Use of Sustainable Paper Sources in the CX Group

	Mixed Source FSC Certified Paper	Recycled Paper
Ground-based	<ul style="list-style-type: none"><li>• CPSC customer newsletter "Food for Thought" (2010)</li><li>• All paper marketing collaterals (2010)</li><li>• Calendars and diaries (2010)</li><li>• Sales marketing leaflets (2010)</li><li>• Copying and printing paper at CX, KA, CX Holidays and HAS offices (2010-2011)</li><li>• Hand towels in CX City toilets (2012)</li></ul>	<ul style="list-style-type: none"><li>• Cathay Pacific monthly staff newsletter "CX World"</li><li>• Dragonair monthly staff newsletter "Dragonews"</li><li>• Cabin Crew Newsletter</li><li>• Hand towels in CX City toilets (2012)</li><li>• Toilet paper in CX City toilets – 80% recycled content (2012)</li></ul>
Inflight	<ul style="list-style-type: none"><li>• Meal tray cards (2010)</li><li>• Safety cards on all aircraft (2011)</li><li>• CX/KA branded inflight magazines (2013)</li><li>• Meal boxes on regional routes (2013)</li></ul>	–

We incorporated the use of sustainable wood in our building, office, and airport lounge refurbishments where we could in accordance with green building standards or principles. Procuring wood products for furniture from a sustainable source ensured they were from a forest that is responsibly managed.

Some examples in 2013 include:

- Fast-growing bamboo wood was used in the renovation of our flagship lounge at the Hong Kong International Airport, The Wing, both for wall and furniture finishes. There is also a 40 metre long eucalyptus wood feature wall in the First Class section of the lounge.

## 3 Plastic

In 2012, we began a study looking at our use of plastic materials throughout the Cathay Pacific Group operations, including our subsidiaries. Plastics are versatile, cost effective, lighter and safer than most materials and for these reasons we use them throughout our operations in different forms. However, plastics take a very long time to degrade, and they contribute to a significant amount of waste as well as releasing toxins into the environment. Initially, our efforts will be focussed on tackling single-use disposable items.

### Developing an Inflight Entertainment Product with the Environment in Mind

In 2013, the Products and Inflight Services teams, together with Cathay Pacific Catering Services, reviewed the current process of replacing inflight magazines after every flight. The teams identified opportunities to reduce resource use and waste, especially paper and plastic. The associated multiple benefits for the company included savings in cost, fuel and ultimately, carbon emissions.

Previously, inflight magazines and airsickness bags would be placed in an individual plastic pouch in every seat pocket, and each of these would be replaced prior to every flight departing Hong Kong. In 2013, we successfully rationalised and reduced this replacement frequency, which increased the magazine usage rate and dramatically decreased the print run and plastic rolls used. As a result, there was a nearly 58% reduction in plastic wrap usage, from 2,967 rolls to 1,252 rolls in a year. Magazine print reduced by over 700,000 copies.

In addition, to lower the magazine weight, the thickness of the magazine paper was gradually reduced throughout 2012 and 2013, whilst maintaining a good balance with print quality and book size. This has achieved a total CX/KA fuel saving of 785,822 kg and an estimated carbon emission saving of 2.46 million kg in a year.

At the same time, the magazines moved to Forestry Stewardship Council (FSC)-certified paper in 2013, which is from sustainably managed sources.

Overall, through the above initiatives, the following was achieved in 2013:

Reduction in the number of the Discovery magazine	432,000 copies
Reduction in the number of the Discover the Shop magazine	300,000 copies
Reduction in biodegradeable plastic wrap	13 rolls (or 103,000 metres)
Fuel saving	785,000 kg
Reduction in carbon emission (approximate)	2,460,000 kg

As part of our Economy Class refresh in 2013, instead of disposing 200,000 old plastic tea cups to landfill, they were sent to a recycler to be made into other plastic items.

Another important change in inflight procedures was the increased use of reusable cooler bags rather than Styrofoam for inflight ice cream storage. The usage of foam boxes decreased by 45%, down from approximately 11,000 pieces to 6,200 pieces per month since mid-2013<sup>4</sup>.

A summary of the ways we are reducing the impact of our plastic use:

Reducing plastic wrapping for inflight magazines	2013
Recycling phased-out Economy Class plastic tea cups	2013
Replacing Styrofoam boxes with reusable cooler bags for inflight ice cream storage	2013
Premium Economy Class amenity bags are made from recycled plastic bottles	2012
Biodegradable plastic bags are used to hold our blankets, cutlery, duty-free purchases (2011) and our inflight magazines	2012
Toothbrush and shoe horn are switched to a cornstarch and cellulose material	2011
Plastic cups and bottles are collected inflight for recycling	2007
Plastic cutlery are washed and re-used multiple times	2001
Rebate programme for returning plastic hangers to Vogue Laundry	2002

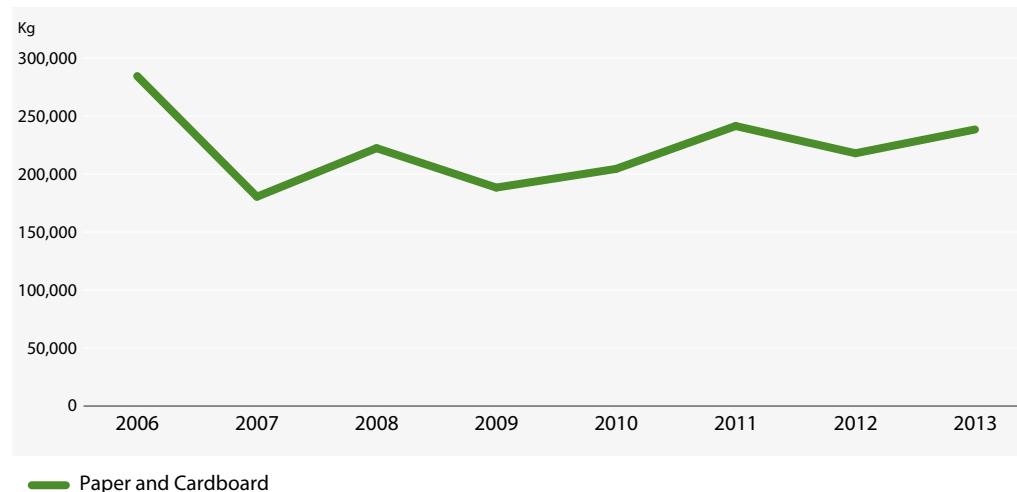
## 4 Recycling and Re-Use of Waste Materials

The Cathay Pacific Group recycles a range of materials in its offices, including paper, plastic, metal, aluminium cans, printer cartridges, waste lubrication oil and garment hangers. Detailed data can be found in our [Environmental Indicators Table](#).

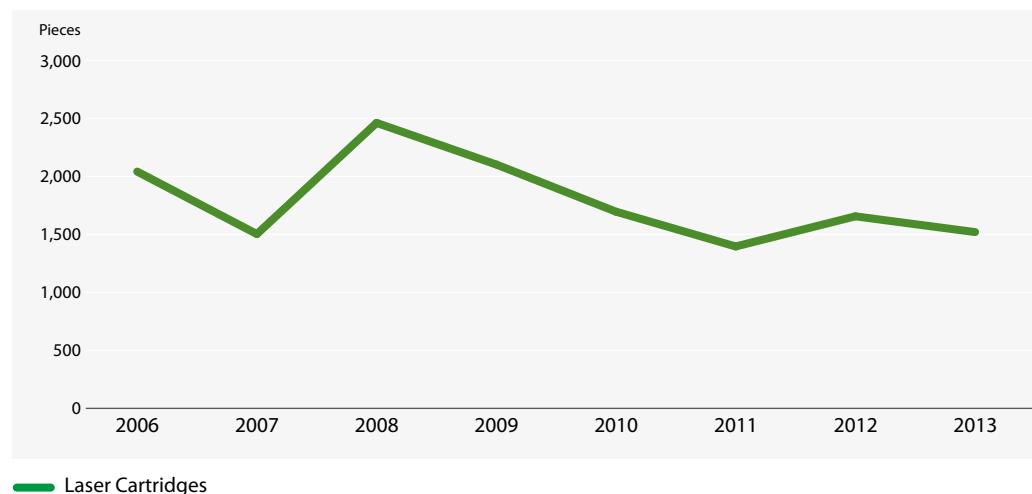
### Cathay City recycling data (2013):

- Paper and cardboard: 236,970 kg<sup>▲</sup>
- Aluminium cans: 34 kg
- Plastic: 6,651 kg<sup>▲</sup>
- Waste lubrication oil: 600 litres
- Printer cartridges: 1,505 pieces<sup>▲</sup>
- Glass bottles: 3,503 pieces

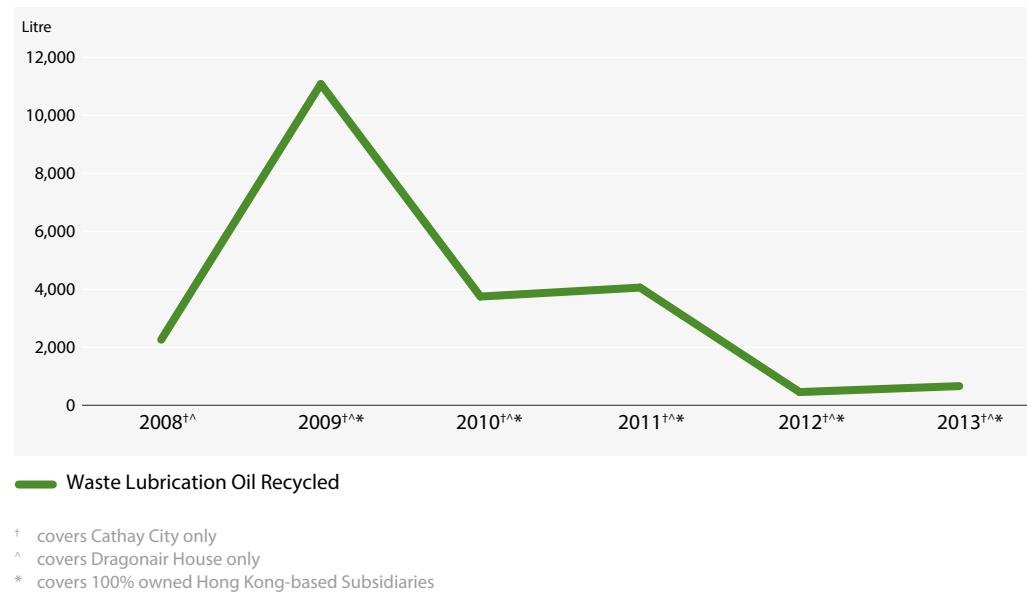
#### CX City Recycling – Paper and Cardboard (Kg)



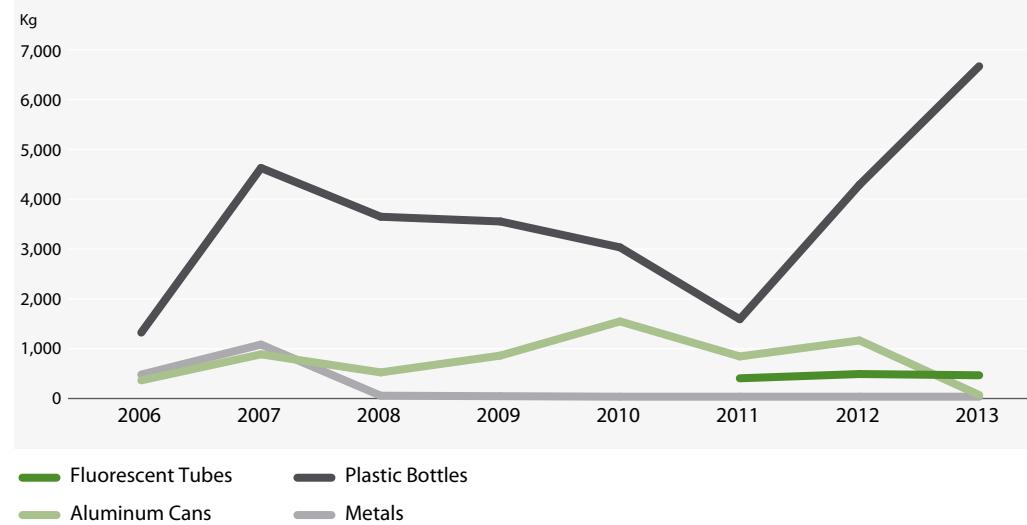
#### CX City Recycling – Laser Cartridges (Pieces)



## Recycled Waste Lubrication Oil (Litre)



## Other Recycled Items at CX City (Kg)



## Dragonair House recycling data (2013):

- Paper and cardboard: 2,880 kg ^
- Aluminium cans: 69 kg ^
- Plastic: 71 kg ^

Vogue Laundry uses 2.7 million garment hangers every year. We continue to reuse these hangers through our rebate programme with private and corporate customers who returned their hangers, which was at 56% in 2013. This is a decrease from 79% in 2012 due to the poor condition of the returned hangers this year.

In terms of fuel spills, in 2013, a total of 12 and four incidents were reported to the regulators by Cathay Pacific, Dragonair and Air Hong Kong in Hong Kong and outports respectively. Six of these were considered 'major spills', where more than 20 litres of fuel was involved or it covered an area more than five square metres.



## Inflight Waste and Recycling

Since we started sorting, reusing and recycling inflight waste in 2006, our cabin crew has continued their efforts to reduce waste from our inflight operations. We continue to find ways to improve our inflight waste management by working around the various limitations on board, such as storage space, tight flight schedules and procedures, and service quality. This is recognised as one of our customers' key concerns.

Currently our inflight recycling is only carried out on inbound flights to Hong Kong. We are constrained by regulations in our destination countries where they prohibit the disposal of waste from international flights, and we are unable to bring the waste back on the return flight for hygiene and storage reasons. However, we will continue to look for opportunities to work with local authorities and other carriers to examine ways of treating waste at these destinations.

For the first time, in 2012, we commenced a survey amongst the Cathay Pacific outports to determine whether our inflight waste entering these destinations was sorted and recycled, and if so, to what extent. Initial findings have shown that some degree of recycling is being carried out at a number of outports. We continue to explore with these ports to look for further recycling opportunities.

At some of the ports, such as in North America and Australia, there are very strict health and safety regulations on international waste, including those from international flights, which require their 'deep burial and landfill' or incineration. We will continue to monitor any regulatory changes in these countries which may facilitate inflight waste recycling.

Cathay Pacific participated in IATA's airline cabin waste management practices survey, which reviewed the composition and quantities of aircraft cabin and catering waste. This also gave useful insights on the main barriers to inflight waste management and recycling. We were also able to further share best practices and updates are amongst international airlines via the new Cabin Waste Working Group.

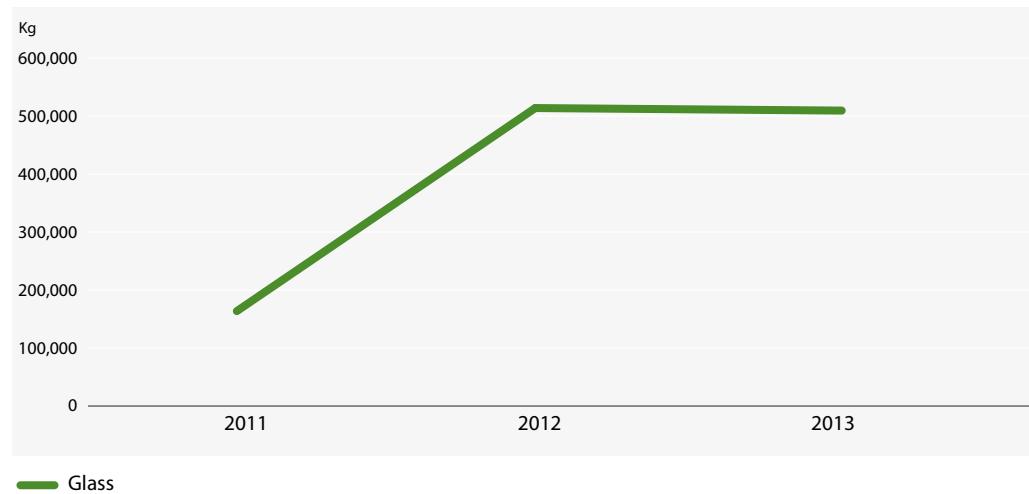
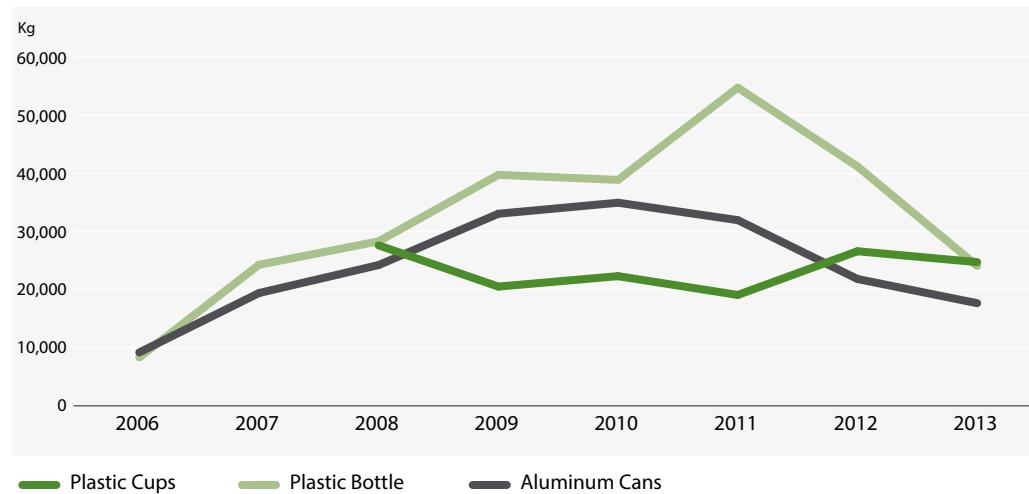
In 2013, we recycled 24,469 kg<sup>▲</sup> of plastic cups, 16,782 kg<sup>▲</sup> of plastic bottles, and 15,462 kg<sup>▲</sup> of aluminium cans on Cathay Pacific inbound flights to Hong Kong. Similarly, 7,033 kg of plastic bottles and 1,921 kg of aluminium cans were recycled on Dragonair flights. Our stakeholder engagement exercise highlighted the need to assess the percentage of materials that we recycled over total use. We are unable to provide this number as we do not have the total number of materials in weight to compare with. However, we are working on providing this information in the medium term with our new data collection and monitoring system.

In 2013, 509,656 kg<sup>▲</sup> of glass bottles were collected from Cathay Pacific inbound flights to Hong Kong for recycling.



Around 600 wine bottles emptied after inflight servicing were used for the CX Chinese New Year Parade Float in 2012. Aircraft tyres were used as photo frames on the float.

### Inflight Waste Recycling (Kg)



Cathay Pacific commenced inflight glass recycling on 1 September 2011.

## Recycling Glass

With cabin crew's help, Cathay Pacific started collecting glass bottles inflight for recycling in 2011. Find out what happens after the bottles leave the aircraft and are taken to one of two glass recycling plants in Hong Kong.



1 Crew place empty glass bottles back into the bar carts, which are returned to CPCS. There, staff empties the bottles into recycling bins, which are collected and transferred to a brick-making plant and quarry in Sau Mau Ping, Kwun Tong.

2 The bottles are crushed into a coarse glass powder. Because the majority of the bottles collected are green, the glass powder also has a greenish tinge.



3 This powder is added to a concrete brick mixture to make up 20% of each brick's weight. Each brick weighs 0.5 kg and contains the equivalent of one glass bottle.



4 The bricks are then moulded and steamed in a kiln for a day.

5 After passing through quality control, the bricks are used by the Highways Department to pave Hong Kong's roads and sidewalks.

### FAST FACTS

**3,000**  
**bottles**

collected per day

**200**  
**tonnes of glass**

collected per day

**2,000**  
**tonnes of bricks**

produced

## Recycling Plastic Cups



- 1 During the flight, cabin crew help sort and separate aluminium cans, plastic bottles and plastic cups from other waste and place them inside the trolleys. A recycling sticker is placed on the trolleys for easy identification.



- 3 All plastic items are broken down in pieces and further crushed. The crushed pieces are melted and different colours are added.



- 4 The melted plastic is stretched out into long strings.



- 5 The strings are then cut and diced into either small dark pellets or white crystals ready for reshaping into other plastic items.



## Recycling First Class Sleep Suits



As part of Cathay Pacific's ongoing commitment to reduce our impact on the environment and contribute to the community of Hong Kong, we are partnering with Compassion Revival, a Hong Kong-based charity, whose mission is to "care for the poor and needy". Through this charity, complimentary sleep suits left behind by our First Class passengers on selected Cathay Pacific flights will be washed, repackaged and donated to those in need in Hong Kong. Approximately 100 to 200 sleep suits will be donated each month.

We have previously worked with Compassion Revival on distributing the overcoats from our disused uniforms to remote communities in Pakistan.

## Donating and Refurbishing Used PCs for Charity



With the concerted effort of the Information Management Department (IMT) and the Property Services Department, a total of 759 used personal computers (PCs) and laptops, together with monitors, printers, servers, storage devices and other computing accessories were collected from Cathay City and donated to local charity, Caritas Hong Kong.

"The benefits to those who will use these donated computers can be huge. Donating the equipment to charity ensures that they are well-used before they are eventually recycled," says IMT's Configuration Management Lead Stephen MacQueen.

The teams spent a week removing hard drives from the computers and formatting them to erase all CX data. The computers were then donated to Caritas to be distributed to people in need.



## Retired Aircraft

With our aggressive fleet modernisation plans, we continue to retire older aircraft from the fleet. For instance, in 2013, we retired five Boeing 747-400. When our aircraft retire from our fleet, we work with the Aircraft Fleet Recycling Association (AFRA) to find ways of salvaging spare parts, recycling or reusing aircraft parts and materials. A large proportion of the components can be re-certified and reused during maintenance, or sold to other users. Often, major components like the engines, auxiliary power unit and various avionic and aircraft system components are removed to support the fleet. Cathay Pacific is committed to supporting aircraft manufacturers' efforts to improve end-of-life recycling in the next generation of aircraft we purchase. In particular, the Boeing 747-8F freighters and Airbus A350s have been designed to ensure high rates (approximately 90 to 95%) of material and component recovery at the end of their useful service lives.



## The Newly Refurbished Pioneer Floor

### CX City Renovation Project

As part of a Pioneer Floor Programme spearheaded by the Property Services Department, we completed the renovation of a section of our headquarters building, CX City. In addition to reviewing workplace settings, one of the project objectives is to reduce our environmental impact. The following initiatives have been implemented in terms of resource use and waste management:

### Construction Waste Materials

- These were separated into recyclable and non-recyclable wastes prior to disposal at appropriate collection points. Quantities and documentation were presented to the project team regularly.
- Raw materials were cut in such a way so as to minimise material wastage as much as possible.

### Partition Walls

- The proprietary partition wall system from the old office was reused, where feasible.
- The existing partition surface was re-finished with 'Wovenimage Echo Panel', a textile that is 100% PET (60% recycled) material<sup>^</sup>.

### Ceiling System

- The existing ceiling system, including the ceiling grid and ceiling tiles, were retained to minimise wastage.
- The ceiling tiles were washed and repainted with non-VOC paints.

### Carpet Flooring

- All the carpet tiles throughout the office area are removable, reusable and recyclable. These are made from a material that is acknowledged by the U.S. Environmental Protection Agency, and which has received the Presidential Green Chemistry Challenge Award.

### Material Usage

- The existing base building material were retained and reused as much as possible to minimise wastage, such as the raised floor tiles, outlets and ducting from the HVAC system, fire services sprinkler outlets and piping, and public announcement speakers.

A number of energy saving features are described in the [Climate Change Factsheet](#).



The feedback gathered from occupants settling into the new office layout will be used to refine the renovation project plan when it is introduced to other parts of the building in the next few years.

## 5 Food Waste

The Cathay Pacific Group, through Cathay Pacific, Dragonair and Cathay Pacific Catering Services (CPCS), serves around 93,400 meals per day. We recognise that food waste is unavoidably created every day, and we have implemented a number of measures to reduce food waste where we can, such as constantly reviewing food provisioning on board, using leftovers and off-cuts for animal feed and reprocessing used cooking oil into vehicle biodiesel; but we believe that more can be done.

In total, CPCS produces around 70,000 meals per day, of which, on average 51,800 meals are served on Cathay Pacific flights. Dragonair serves around 23,400 meals per day.

We have joined the Hong Kong Airport Authority's food waste recycling scheme since 2011, collecting and sorting food waste from our office canteens, restaurants, crew hotel and airport lounges.

In 2013, surplus food at CX City was collected by a local charity Food Angel and made into hot meals for underprivileged families in Hong Kong. Since the programme's inception in August, we have donated 760 kg of food.

At most of our outports, due to very strict health and safety regulations on international food waste, inflight waste, including food waste, is required to be either deep buried or incinerated.

For more details, please refer to the [Inflight Waste and Recycling](#) section.



## 6 Fuel Jettisons

The jettisoning of aviation fuel from an aircraft is an extremely rare event. This only takes place when there is a need to reduce aircraft weight mid-flight, so that its weight reaches the level recommended by the aircraft manufacturer to enable it to land safely, for example during an emergency landing.

When required, fuel can be released from the aircraft's wingtips and, when activated from the cockpit, a fuel dump system can release fuel into the air, if necessary. It is recommended that jettisoning fuel is carried out over the sea, or, if this is not possible, at above 6,000 feet to allow it to evaporate before it reaches the ground. In 2013, six instances of fuel jettisons were recorded for Cathay Pacific flights, leading to 274 tonnes of fuel being released. There were no such cases recorded for Dragonair.

## 7 Water

We are continuously looking for both conventional and innovative ways of conserving water. Due to various initiatives taken by the Group companies, we have been able to reduce water consumption over the years.

Potable water consumed at Cathay City and Dragonair House was 25,070 m<sup>3</sup> and 9,019 m<sup>3</sup> in 2013 respectively. This represents an overall decrease of 9.3% over 2012 consumption. One of our more water-intensive operations, Vogue Laundry, consumed 325,531 m<sup>3</sup> of water in 2013, representing a 1.2% increase from its 2012 level. This is equivalent to 10.82 litres per kg of linen washed (up 1.1% from 10.06 litres per kg in 2012). The main reason for this increase was the frequent breakdown of an aged Batch Washer System. This resulted in increased usage of the standalone washing machines, which do not have water-recycling functions. Vogue plans to purchase a new Batch Washer System in the coming two years, which is expected to reduce water consumption by about 30%.

Water consumption at CPCS for 2013 was 409,393 m<sup>3</sup> and 2012 was 427,581 m<sup>3</sup>, which was a decrease of 4.3%.

In total, our potable water consumption for 2013 from the above was 769,013 m<sup>3</sup>.

In 2013, 117,530 m<sup>3</sup> of water was used for aircraft washing resulting in 14.8% increase from 2012, which was mainly due to an increase in the number of flights during the year.



We recognise that the degree to which our suppliers integrate Sustainable Development principles and practices into their businesses plays an important role in our overall sustainability performance. This is closely related to our operational efficiency and helps us better manage our risks.

## Content

- |  |  |
|--|--|
| <p><b>1 Engaging with Our Suppliers</b></p> <p><b>2 Sustainable Sourcing</b></p> | <p><b>3 Involving the Local Community</b></p> <p><b>4 Applying the Supply Chain Sustainability Code of Conduct</b></p> |
|--|--|

# 1 Engaging with Our Suppliers

Our aim is to enhance the sustainability of our supply chain through encouraging and applying ongoing compliance with our Supply Chain Sustainability Code of Conduct, and with continued engagement and collaboration with our suppliers. We manage our sustainable development risks related to our supply chain by actively working with suppliers who share our standards for issues related to the environment, health & safety, human rights and labour practices, business ethics and the community.

Since 2011, we have been publishing an annual Supply Chain Sustainability Newsletter, with the most recent in November 2013. It aims to help both staff and suppliers understand the importance of sustainable purchasing and responsible supply chain practices, and encourage suppliers to share with us how they are responding to their own sustainability impact challenges. The newsletter provides suppliers with information on what matters to us, and in return we invite them to share what matters to them.

**CX Supply Chain Sustainability Newsletter**  
November 2013  
Issue 3

*Making our supply chain more sustainable*

Welcome back to the CX Supply Chain Sustainability Newsletter! Through this bi-monthly publication, we hope to bring forward milestones reached by our supply chain partners and our suppliers. Please feel free to print it for your colleagues and suppliers.

**New Amenity Bags in Premium Economy Class Made of Recycled Plastics!**

Since 2006, Cathay Pacific has made extensive efforts in sorting and recycling inflight waste. Starting from our 7<sup>th</sup> year of our inflight recycling programme, we recycled 27,567 kg of aluminum cans, 26,230 kg of plastic cups, 40,751 kg of plastic bottles, and 51,624 kg of glass bottles in 2012 on Cathay Pacific and Dragonair flights.

We are working closely with our supply chain on our journey towards our sustainability commitments. We have reduced our inflight waste by 25% and our weight on producing CX-branded inflight products by 20% since 2006.

One of our first initiatives was the introduction of Cathay's economy class amenity kits with a cabin first meals' West low profile design. This bag is made from at least 90% recycled plastic bottles in 2012.

Through cooperation with G4, our airline partner in Hong Kong brand, we have introduced a Premium Economy amenity kit with a cabin first meals' West low profile design. This bag is made from at least 90% recycled plastic bottles.

**Highlights**

- C4 10 Report 2012 Available
- New GRI Reporting Framework

**Comments**

We want to hear from you! Please let us know of your environmental and/or social concerns with our G4s available here.

**Our Corresponding 2010 Sustainability Commitments:**

- Reduce inflated usage and waste by 25%
- Increase recycling by 25%

**Comment Suggestion! Want to share your story? Please let us know of [sustainability@cxairlines.com](mailto:sustainability@cxairlines.com).**

**CATHAY PACIFIC DRAGONAIR**

**CX Supply Chain Sustainability Newsletter**  
Latest Sustainable Development Report outlines 20 targets for 2020

Cathay Pacific Airways recently launched its first Sustainable Development Report (SDR) 2012, which provides an overview of the airline's initiatives undertaken by the airline in 2012.

Our commitment to doing the right thing by our staff, shareholders, customers and community and the environment is to be a guiding principle for our business strategy. Our long-term vision is to achieve a 20% reduction in our carbon footprint by 2050, equivalent to 25% per year on year fuel savings by 2020.

One of the key objectives is to achieve a 30% reduction in our passenger and tonne of cargo emissions by 2020, equivalent to 20% per year on year fuel savings by 2020.

Other commitments include reducing medical waste as well as increasing recycling.

**The New GRI Reporting Framework – G4**

The new GRI G4 Guidelines were adopted in May of the Global Conference on Reporting and Reporting. The G4 Board has decided to allow a two-year period to transition to the new reporting framework. The new reporting framework (referred to as G4) will be required to submit the G4 Statement of Compliance December 2013.

**New KPIs G4 related to Supplier Codes**

First new Key Performance Indicators are listed under G4, with an intention that reporting companies place more emphasis on their suppliers' well-being in sustainability development.

- G4-30: Significant Actual and Potential Negative Environmental Impacts in the Supply Chain and Actions Taken**
- G4-31: Significant Actual and Potential Negative Impacts to Labour Practices in the Supply Chain and Actions Taken**
- G4-32: Significant Actual and Potential Negative Human Rights Impacts in the Supply Chain and Actions Taken**
- G4-33: Significant Actual and Potential Negative Impacts on Society in the Supply Chain and Actions Taken**

**Comment Suggestion! Want to share your story? Please let us know of [sustainability@cxairlines.com](mailto:sustainability@cxairlines.com).**

**CATHAY PACIFIC DRAGONAIR**

Our third Supply Chain Sustainability Newsletter

## 2 Sustainable Sourcing

Building on our efforts to establish sustainable sourcing guidelines, we continue to examine opportunities for using alternative materials with lower environmental impacts. Some examples of successful applications in recent years include switching from plastic to corn starch and cellulose in manufacturing the toothbrushes and shoehorns in our inflight amenity kits. In 2013, we published internal guidelines outlining our preferred specifications to replace, remove or reduce plastic items wherever practical. We are also committed to focus on finding solutions and alternatives for single use plastic items throughout our supply chains. Our teams are also working with suppliers to expand our inflight catering offering of sustainably sourced seafood on a greater number of routes. In the long term, we aim to utilise more alternatives with sustainability attributes and expand our support of products that adhere to relevant sustainability credentials by organisations such as the Fairtrade Foundation, the Forest Stewardship Council (FSC) and the Marine Stewardship Council (MSC).



The Premium Economy amenity kit for Cathay Pacific, designed by Hong Kong home-grown brand G.O.D. in collaboration with Watermark Products, is made from at least 90% recycled plastic bottles. The design took inspiration from the vibrant culture of Hong Kong, where East meets West and age-old traditions blend with cutting-edge technology.

The toothbrush in this kit is made mainly from corn starch and cellulose, which is biodegradable, recyclable and uses less resource in its production.

In 2013, we continued trialling the implementation of selected items contained in the HKSAR Government's [green purchasing guidelines](#). While these guidelines were developed specifically for the HKSAR government's use, they have been a useful reference for our procurement specifications. This year, we adopted the relevant parts of these guidelines in the design of our new airport lounges and purchase of new IT equipment.

In 2014 and 2015, we aim to develop guidelines for textiles, food and cosmetics; this is in line with our 2020 commitment to offer sustainable products and services to our customers.

## New First Class Sleep Suits



As part of the First Class refresh in 2013, the new contemporary design sleep suits were made from 100% organic cotton by Hong Kong brand PYE.

PYE's wholly owned vertical supply chain ensures that sustainable production methods are practiced from start to finish. Green manufacturing at PYE starts with cotton farming and extends to spinning, weaving, dyeing, knitting and apparel and accessories production.

For example, PYE grow organic cotton using environmentally friendly farming methods such as natural pest control and drop irrigation. This reduces water consumption and pesticide use. In addition, the sleep suits are not pre-washed to reduce water consumption. A hangtag on the suits encourages passengers to care for their sleep suits in an ecofriendly way, such as washing with cold water and line drying to save energy.

## Making Our Airport Lounges Sustainable



Cathay Pacific First and Business Class lounges in San Francisco International Airport

As the first Cathay Pacific branded passenger lounge in the United States, the San Francisco lounge was also our first to pursue Leadership in Energy and Environmental Design (LEED) certification, integrating energy and environmental principles into its design and operations. This was made possible in partnership with our architectural and engineering contractors. By engaging our suppliers, we are leveraging on their expertise in design and construction to assist us in building a lounge that is more energy and water efficient, with reduced material usage, wastage, and improved indoor air quality for our customers. Using the San Francisco lounge as a blueprint, we plan to adopt a similar approach for new or refurbished lounges in the future. Our airport lounge at Charles de Gaulle, Paris, is also pursuing LEED certification.

### 3 Involving the Local Community

With financial support from the Hong Kong Government's Home Affairs Department, and in association with the Hong Kong Outlying Islands Women's Association Limited (OIWA Limited), our subsidiary CPCS collaborated with local community service centres in Tung Chung in 2009 to establish an inflight cutlery, headset-packing and vegetable semi-processing facility. The aim of the initiative is to support women's development, promote harmonious families, and build inclusive communities. It provides training and full or part-time employment near these women's homes so they can also look after their families. Feedback from the community has been positive, and in 2013, 40 to 45 part-time housewives were hired and worked at the facility. Involving local communities by leveraging on our operations on Lantau Island aligns with suggestions raised by stakeholders during previous focus groups, as well as last year's focus group with our suppliers.



CPCS working with the local community

## 4 Applying the Supply Chain Sustainability Code of Conduct

Since the launch of our Supply Chain Sustainability Code of Conduct in 2007, we published a revision in 2009 to include our standards for *business ethics* to reflect our strong preference to work with suppliers who share our commitment to honesty and integrity. Along with our Sustainable Development Strategy, we reviewed the Code of Conduct to align the expectations we have of our suppliers with our Sustainable Development Policy in 2012. It is available internally through our intranet and shared with our existing and potential suppliers, both locally and at our outports.

The Code of Conduct forms part of the supply tenders and contracts managed by our local offices. Suppliers, both new and existing, are expected to confirm their compliance with the standards described in our Code by completing a self-assessment questionnaire. Compliance with the Code of Conduct is also included as a contractual requirement for all suppliers.

We continue to refine and develop our approach to the compliance checking process. Using an internally developed risk matrix, we classify our suppliers based on the impact and likelihood of the risks each of them poses to our business. Each risk ranking carries varying levels of follow-up actions ranging from supplier initiated self-assessment for low risk suppliers, background checks of publicly available documents, to a comprehensive site visit for suppliers deemed to be in the highest risk category. We expect that this approach will allow us to more systematically monitor and manage our sustainable development risks relating to our supply chain.

### Proposed New Supply Chain Sustainability Compliance Process



In 2012, we completed a public search of our top 200 suppliers based on total contract value in 2011. What we wanted to understand was how many of our suppliers actually make public statements as to their own standards for sustainability. We were disappointed to find that a very high number of suppliers do not make any reference to sustainability or Corporate Social Responsibility on their websites, and only two suppliers had a published Code of Conduct that matched very closely with our own Code. We aim to review this in 2014.

Based on the findings of this study and on our existing risk process, we will re-assess our suppliers and identify those that are considered high-risk and recommend that they undergo a detailed compliance check.

In 2012, we also developed two detailed checklists for our Purchasing Managers to use as a supplement when assessing whether there are any sustainability risks associated with a particular supplier or the purchase of an item. We began trialling these checklists in 2013 for plastic items, aiming to extend to other items in 2014 and 2015.



The Cathay Pacific network connects over 140 destinations around the world, and we have an impact on the environment in these locations. Hence, we recognise the importance of conserving habitat and species diversity where we can, as well as raising public awareness through educational activities.

## Content

- |                            |                  |
|----------------------------|------------------|
| 1 Conservation             | 3 Cargo Carriage |
| 2 Sustainably Sourced Food |                  |

## 1 Conservation

Over the years, we have supported numerous initiatives and youth programs that raised awareness on the conservation of biodiversity.

Period	Initiative/Programme	Partners	Description
2004-2009	Tree Planting Programme	Friends of the Earth  Hong Kong SAR Government's Agriculture, Fisheries and Conservation Department	Provided funding that allowed for 10,000 tree seedlings to be planted around Hong Kong, with participation by staff volunteers and friends.
2004 – ongoing	Change for Conservation	The Nature Conservancy	Since 2004, this inflight charity campaign with Dragonair has raised nearly HK\$8.6 million from passengers. It supported conservation initiatives in Mainland China, including the protection of vital watershed areas, support for the opening of the first national park in Shangri-La County in northwest Yunnan, the development of sustainable fuel alternatives for local residents in Yunnan, and the monitoring of the Yunnan Golden Monkey Conservation Association.
2005	Asian Waterbird Conservation Fund	WWF Hong Kong	The fund was established with a donation of HK\$500,000 from Cathay Pacific. It is administered by WWF Hong Kong to provide financial support for projects that promote the conservation of migratory waterbirds, including threatened species, and the sustainable use of their wetland habitats in the East Asia–Australasian Flyway.
2011	Pig-nosed turtle repatriation	Kadoorie Botanical Gardens and Farm	Cathay Pacific assisted in the reintroduction of 609 endangered pig-nosed turtles ( <i>Carettochelys insculpta</i> ) to Indonesia by donating cargo space and air tickets to the organisers of the operation. The release involved full participation of the villagers of Bupul, and was an opportunity to educate the village children.

## 2 Sustainably Sourced Food

Cathay Pacific recognises the need for a policy to conserve certain species that are endangered by over-fishing, by choosing to opt out of certain unsustainably produced food items and asking for information about the source of the food items to ensure traceability.

It is therefore Cathay Pacific and Dragonair's corporate policy not to serve shark's fin soup either inflight, at Cathay City, Dragonair House or at any corporate events or meals which are organised or subsidised by the company. The internal Sustainable Food Policy was adopted in 2011.

Inflight, Cathay Pacific's Catering Team has been working with suppliers to support sustainable seafood and fisheries. Since 2010, we have been serving fish from sustainable sources, such as those that are Marine Stewardship Council (MSC) certified, in Economy Class on flights from our European ports. Whilst this may not be the most economical option in the short term, as the supply chain develops and matures, we believe this is the right way forward and are therefore prepared to support it where possible.

From 2011, fish served in Economy Class on flights from Australian ports has been from a certified sustainable source. We continue to work with suppliers who have a sustainability policy and programme in place, to source suitable seafood for our flights. In 2012, this was extended to include flights from North American ports.

## 3 Cargo Carriage

In keeping with our Sustainable Development Policy, in late 2012, we announced a restrictive carriage policy that will lead to us only carrying sustainably sourced sharks and shark related products. We believe this is the right thing to do for a company that is committed to sustainability. It was a considered decision based on independent science and research-based data, as well as dialogue with the expert community.

In 2013, we continued to engage with the global scientific community to further review and develop guidelines in implementing our restrictive cargo policy. In particular, we engaged with the International Union for the Conservation of Nature (IUCN) Shark Specialist Group (SSG) and TRAFFIC International, an NGO network that monitors wildlife trade, to further review and develop guidelines in implementing our restrictive cargo policy. Our aim is to compile a framework which will help us identify sources of shark and shark products, so that we can effectively implement our policy. This should identify best practice that is consistent with the principles of sustainability in fisheries management. While we have taken the more challenging path than an outright ban, we believe this is consistent with the principles of sustainable development. We will provide an update on the progress and findings in the next Report.

People are an important key to our success, whether it is our staff that differentiate us from other airlines, or the communities we fly to around the world. That is why we make it a priority to support staff in the workplace, and empowering them to make a difference in the local communities across the network.

### Content

- |   |                                   |   |                               |
|---|-----------------------------------|---|-------------------------------|
| 1 | Employee Relations and Engagement | 4 | Cathay Pacific Group Benefits |
| 2 | Recruitment                       | 5 | Cultural Diversity            |
| 3 | Training and Career Development   |   |                               |

## 1 Employee Relations and Engagement

### How We Have Engaged

Staff can provide their views, ideas and feedback through a variety of channels, ranging from the intranet, structured surveys, focus groups, to direct communication with their line managers and other department-specific platforms.

In 2011, in-depth individual interviews were conducted with senior management to understand their views on sustainability and how it relates to the company's business, culture and future direction. We explored areas where there may be synergies of existing and new sustainability projects. The findings provided input to a series of engagement programmes in 2012 and 2013 which were aimed at different staff groups at different levels.

At the end of our five-year Stakeholder Engagement Plan between 2008 and 2012, the engagement process was reviewed and it was decided that rather than conducting a comprehensive stakeholder engagement exercise annually, it would be more efficient and beneficial to undertake this every other year, with smaller engagements being done during the gap years.

From November 2013, a series of surveys and interviews were conducted to form a baseline of stakeholder opinions from different external and internal groups, including a general online staff survey. A more detailed analysis will be provided in the next report.

## We Suggest!



In 2012, we launched a special edition of "We Suggest", a regular internal campaign where staff organised themselves in teams and make creative suggestions on what the company can do to become more innovative and successful. This time, the campaign was given a sustainability theme. The aim of the programme was to reach out to staff across the network and encourage them to come up with ideas to embed sustainable development practices in their day-to-day work. Around 100 suggestions were received from teams around the world. Five suggestions were shortlisted, and a team-building offsite session was held in Kunming, the People's Republic of China in 2013 to prepare the final presentations to Directors. The CX Cargo Manchester Team won the competition with its suggestion on the "removal of 88 pallet stops on cargo aircraft". The removal of these pallet stops would lead to a decrease in fuel use and carbon emissions. The relevant departments are reviewing the proposals in more detail.



In 2013, we participated in the Earth Hour I Will If You Will campaign, where we asked senior managers to pledge an environmental/charitable or fun act if a number of their team members or colleagues pledged to do their own environmental acts. Our COO at the time, Ivan Chu, pledged to drive an electric vehicle instead of his regular company car for a week if staff signed up to their own environmental pledges. Managers from departments and teams in Hong Kong and outports joined to rally participation. This campaign won the "Most Replicable Activity" at the 3<sup>rd</sup> Swire Sustainable Development Forum, which will then be applied to other Swire operating companies.



Carbon trading has been a prominent topic in the aviation industry, with different emissions trading schemes being proposed and debated the world over. However staff may not necessarily understand their principles and how these schemes may affect our business. Hence, to raise awareness and knowledge in this area, two interactive workshops in the form of a simulation exercise were held in 2013. The objective was to bring an initial appreciation of carbon trading to staff and build capacity on environmental market issues.



## Engaging with Our Diverse, Mobile Workforce

Our team is very unique in that it is widely dispersed around the world and consists of very diverse cultures, background and languages. We work with multiple trade bodies based in different countries with specific union regulations, and we uphold freedom of association for our staff. Industrial relations continue to be an important issue, however we are actively working with the various groups to continue to enhance communication and consultation to ensure views are heard and acted upon appropriately.

### Ground Staff

Nearly 40% of Cathay Pacific and Dragonair's employees are ground-based, either at our offices, cargo hubs, or airports. Each of these groups has a staff consultative committee that meets regularly for a two-way flow of ideas with the Personnel Department and management on a range of issues, such as company policy, employee welfare and staff facilities.

We conduct a company-wide Organisational Alignment Survey of ground staff in Hong Kong and throughout the Cathay Pacific and Dragonair outport network approximately every 18 months. Undertaken by an independent survey provider, the survey assesses how well the company is set up to turn strategies and plans into effective action, and provides valuable insights to help the company become more resilient and able to sustain success in the long term.

Based on feedback from the last survey in 2011, we made improvements to the performance management process. This aimed to support a more quality-based conversation between managers and staff at all levels of our organisation. This revamped process, which was renamed the Performance and Development Management Process, carried a stronger development focus, as we wanted managers and staff to review expectations, performance and career planning openly so that everyone could clearly understand what was expected, and felt motivated to do their best.



## Engaging with the Information Management and Technology Department Staff

At CX, the Information Management and Technology (IMT) Department is a team of 650 full-time employees. It is one of the department's goals to inform and engage with this team productively and effectively on a regular basis.

In 2012, six 'town hall' meetings were organised where external speakers shared details regarding the latest developments in the IT field, and included a question and answer session with senior management. Also, for the first time, communication opportunities were offered in the form of the more intimate setting of a 'skip-level' coffee meeting (where managers are one or more levels above the team members). These were limited to under 20 people at a time to encourage questions and interaction with the department Director, and have proven to be very popular with staff. Project managers also ran briefings on new IT initiatives being implemented to enable staff to gain a better understanding. An internal opinion poll was carried out to further improve two-way communication, and to gauge staff's understanding on the department's values and performance. There was a high response rate.

In addition, the IMT team was involved with two successful initiatives in 2012, including a Bake Sale for the Sunnyside Club, a charity for mentally and physically challenged children in Hong Kong; and a Hong Kong-wide beach clean-up on Lantau, where numerous staff, family and friends from the CX IMT team collected 500kg of garbage and debris from Shek Pai Wan, Lamma Island.

## Engaging with the Directors



Since 2012, a number of staff activities with the airline's Directors have been organised to allow staff to engage directly with Directors in an informal and casual setting outside of the workplace. In 2013, the following activities took place:

- Saturday at the bowling alley with Finance Director Martin Murray and former Director Cargo, now Director People, Nick Rhodes, joined by 51 staff;
- Beachside dining in Lantau Island with Director Information Technology Joe Locandro and former Director Personnel, William Chau, with 60 staff attending;
- Coastal clean-up with Director Corporate Affairs Chitty Cheung, Director Flight Operations Richard Hall and former Director Sales and Marketing, now COO, Rupert Hogg, along with 90 staff joining the event;
- Hiking with Ivan Chu who was Chief Operating Officer at the time, Nick Rhodes, who was Director Cargo at the time, Rupert Hogg, who was Director Sales and Marketing at the time and Director Engineering Chris Gibbs, with 30 staff in attendance.

## HKIA Service Touches Customers' Hearts



The Heart Awards is a recognition programme that acknowledges our staff's outstanding service or other performance beyond the call of duty at the Hong Kong International Airport (HKIA), to both internal and external customers. In 2013, awards were given to more than 200 staff who received compliments from passengers and their superiors alike in the past year after demonstrating consistently excellent service. In addition, the HKIA team voted for both individual team awards, recognising those who have shown great handling skills and support in assisting passengers, especially during operational disruptions.

## Flight Crew

We proactively engage with our flight crew on the many aspects that concern their well-being, and are constantly working to improve our support to them wherever we can. To assist and support our flight crew relating to benefits, sickness, rostering, general welfare and on areas of a technical or operational nature, Cathay Pacific and Dragonair have put in place an extensive support infrastructure.

At CX, there are a number of industrial issues which we regularly address in different ways. The two primary issues for many employees, pay and working hours, are equally critical to our flight crew. Issues related to retirement and recruitment largely stem from a combination of legacy issues and constantly changing legislation around the world. In the last 30 years, our crew team has expanded rapidly (from a crew of just over 300 to nearly 3,000), and attached to this growth is a spectrum of differing terms and conditions from various phases of recruitment over the years. Hence, one of the key challenges for us as a company is to seek to be consistent and fair in the way we treat our crew, whilst being compliant with a range of local laws, and balancing the needs of employees and the business. We value our crew and therefore one of our goals is to strive to offer the most attractive working conditions and packages available to them. We started negotiations with the Hong Kong Aircrew Officers Association (HKAOA) in late 2013 and these are still ongoing. These are primarily negotiations related to pay and rostering, with other topics also included. We also continue with bargaining sessions in Australia working towards our first Enterprise Agreement. At Dragonair, work is in progress on various fronts including agreements that are periodically reviewed, such as rostering practices. Moreover, crew member representatives work closely with Dragonair on various Committees to provide feedback on meal selections, hotels, rostering and scheduling.

On the communications side, we maintain a number of channels with our flight crew to provide both technical and personal support and information dissemination. These include weekly management updates, news on the fleet, training and the various basings, auditorium question and answer sessions, online feedback forms to specific operational and technical teams, and Crews News, a quarterly news and lifestyle magazine.

Auditorium sessions remained popular in 2013, with topics covering the following:

- Aviation weather services, by the Hong Kong Observatory
- Medium and long term development (midfield concourse construction and planning for the three-runway system), by the Hong Kong International Airport
- Cathay Pacific advertising over the last 20 years
- "What's in the Kitchen", by Cathay Pacific Catering Services
- The Asiana 214 response, by the CX Corporate Contingency Planning team



Fleet offices hold regular dinners so crew from the same fleet can meet in a more informal setting. At Dragonair, communications with crew take the form of twice-monthly fleet forums and 'town hall' meetings with the management, in addition to regular bulletins from the General Manager Operations.

In order to support our Dragonair crew on medical issues, we work closely with the Corporate Medical Department and a dedicated Occupational Health Specialist who looks after the airline. Various talks and forums were held to increase awareness and knowledge on issues such as responding to epidemics.

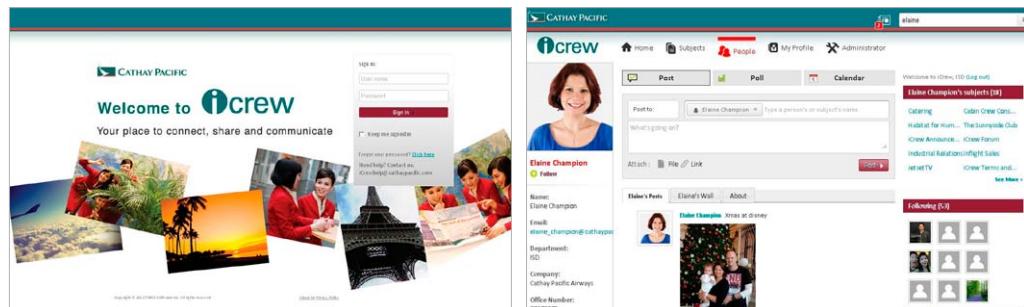
### Cabin Crew – Cathay Pacific

**Communication and Consultation** As part of our frontline team, the Cathay Pacific cabin crew provides invaluable input to the way we serve customers. Their views are important to us, and consultation and feedback are a key focus. We do this by strengthening existing crew forums, including yearly Inflight Service Managers (ISM) forums, consultative groups, the Premium Service Ambassadors, Economy Class Service Ambassadors, Cabin Quality Specialist groups, and workshops tailored to the different categories of crew.



At Cathay Pacific, the Cabin Crew Consultation Group has been holding bi-monthly meetings since 2001, and comprises a diverse range of cabin crew led by the Cabin Crew Relations & Communications Section. In addition to helping with Crew Forums, the group is also consulted on a regular basis. For instance, in 2012, they helped with the launch of the new Premium Economy Cabin, giving feedback on the service flow and passenger proposition. This year, they continued to help with crew rostering and lifestyle schemes as well as bringing important issues to management's attention.

In 2013, a new website and mobile phone application exclusively for Cathay Pacific Cabin Crew was launched. "iCrew" was designed to help crew quickly access relevant and up-to-date news and information using a computer, smartphone or tablet, no matter where they are in the world. There are approximately 4,500 active users of the app.



## The World's Best Cabin Crew



In 2013, Cathay Pacific cabin crew were voted the "World's Best Cabin Crew" in the World Airlines Awards run by Skytrax.

"I believe that the Cathay Pacific team is the best and it is fantastic to see that our passengers see it the same way", said John Slosar, Chairman of Cathay Pacific, who was Chief Executive at the time.

"The individual attention that our crew give our passengers makes them feel special each time they fly with us, making a real difference to their journeys", added Director Service Delivery Philippe de Gentile-Williams.

At CX City, the crew lounge was decorated with a signature board, cartoon cut-outs of crew, balloons, a red carpet and an arch that welcomed cabin crew as they checked in for their flights.

**CONNECT Survey** The CONNECT crew engagement survey has been conducted bi-annually since 2007. We gather thoughts on what is important to crew members, and how well management is doing at meeting their expectations in their work environment. Many changes have been made as a result of the survey, such as adjusting the rostering schemes so that they suit our crew's lifestyle needs better, and creating a Flight Purser workshop. More than 4,000 cabin crew provided comments through the last survey in 2012, which comprised 47% of our crew community. The next one will be carried out in 2014.

**Meeting the needs of our cabin crew** In recognition of our large and expanding inflight team and increasingly complex service environment, the following are some of the areas where initiatives are ongoing with the aim of meeting crew requirements and to better cater for their needs:

- **Lifestyle and rostering** – We work to provide safe, comfortable and convenient layover arrangements, as well as looking at flight patterns to ensure that they meet Hong Kong Civil Aviation Department standards and crew lifestyle needs. In 2013, based on feedback from crew, we introduced the "high hours scheme" where crew who wished to work more hours could opt for this. At the same time, we began trialing a route-specific scheme so crew that wanted to operate on one specific route during a certain month, could do so. These initiatives on flight request systems provide more flexibility on crew rosters. We also schedule days off on crew's birthdays where possible, and give crew the option of choosing three priority days off per year.

The Work-Life Enhancement Leave (WEL) scheme was created especially for cabin crew to provide flexibility in their roster at certain times in their life to better manage their work and lifestyle needs, and one which allows crew to balance and fulfill their work and personal responsibilities at the same time. This scheme was trialed in Q4 of 2012, where crew could apply for two weeks' unpaid leave each month. This proved to be very popular, and was rolled out as a permanent scheme in 2013.

- **On the Job** – We endeavour to make our cabin crew's working environment efficient and comfortable, and hence have introduced enhanced inflight dining options and resting amenities. Our crew was also integral in the development and implementation of the defect-free cabin campaign, which is an ongoing and long-term working group with ISMs, the Engineering and Cabin Quality & Standards teams, to maintain the high standards of our cabins.
- **Recognition and Support** – We have increased interaction and engagement to recognise the efforts of cabin crew through receptions, top performers' dinners, crew cocktails, bi-monthly crew forums, ISM and Senior Purser workshops to discuss ideas and issues. We have also recruited a team of Performance Development Assistants to strengthen the support for the line management teams and bonding with crew. Jetset TV, launched in 2011, is a lifestyle magazine in a monthly video format, where crew are responsible for developing story ideas, script-writing, producing and presenting on topics that are of interest to them. In 2012, an episode of Jetset TV Kids attracted considerable attention. It filmed children of our cabin crew having a taste of their parents' job in the mock up cabins. In 2013, we extended this as a fundraising activity for Operation Santa Claus, where CX staff could donate money so that their children could participate in a CX uniform – themed photo shoot, which was also an extremely popular event.
- **Additional benefits** – These include extension of some layovers at new destinations, and a number of organised outings.



Cathay Pacific not only cares about its employees but also their families. This video shows kids of our cabin crew learning about what their parents really do at work.



**Flight Attendants' Union** Every year, salary reviews are conducted and any adjustments are made at the corporate level. Discussions between the Flight Attendants' Union and Cathay Pacific management took place at the end of 2013, and an agreement was reached by both parties. The dialogue on mutually important matters continues.

**Charitable work** Our cabin crew are active and enthusiastic in contributing to charitable causes. Some highlights included: In October 2013, more than 40 cabin crew and ground staff from the Inflight Services Department joined together to take part in the annual Pink Walk for Breast Health, organised by the Hong Kong Breast Cancer Foundation. More than HK\$15,000 was raised by the team. Our crew has been participating in this activity since 2012. In 2013, around 30 crew members, together with the General Manager Cabin Crew went to Cambodia with the charity Habitat for Humanity to build houses for those in need whilst raising US\$400 .

Continuing from 2012, enormous team spirit was displayed through a flash mob performance at the HKIA and Cathay City, in support of the charity Operation Santa Claus. Two hundred cabin crew, 40 HKIA ground staff and four pilots volunteered in 2013, raising HK\$380,000.

### Cabin Crew – Dragonair

One of Dragonair's key objectives of cabin crew engagement is to enhance the relationship between management and crew, as well as amongst crew themselves.



What is so special about our crew is their strong 'can do' spirit, and we want to maintain that by making it an enjoyable workplace. We need to take care of them so that they can focus on taking care of our passengers.

**Alvin Yuen**

Manager, Operations and Cabin Crew Relations,  
Dragonair

To facilitate communication and engagement, Dragonair host crew forums once or twice a month, as well as regular appreciation dinners. Other key channels are the monthly Cabin Crew Newsletters (CCNL) and the quarterly DragonTV, a crew-produced video that feature personnel interviews and behind-the-scenes stories. Regular group visits are also organised for crew to enhance their job knowledge. In 2013, we continued to organise familiarization trips to the Airport Police.

In 2013, a new mobile application specifically created for Dragonair cabin crew, i-KA, was launched. The aim was to facilitate swifter communication and create a platform for better engagement for a non-office based workforce. It contained direct links to the most up-to-date cabin crew newsletters, breaking news, events calendars, flight timetables, crew manuals and guidelines. It is also linked to the grooming and putonghua apps. It serves as a reference point for essential information that may be needed by cabin crew. Some information can also facilitate crew to serve passengers more efficiently, such as the "inflight sales" function which indicates where each inflight sales products are stored. The app has proved to be very popular, with over 80% uptake since its launch.

Other Dragonair initiatives also included:

**Cabin Crew Help Desk** With the growth of the cabin crew community, Dragonair is always looking for proactive ways to provide personalised care and attention to them. Two new Cabin Crew Help Desks/Hotlines were established in February 2012 at our Hong Kong and Shanghai bases. Four specialists, who are senior Flight Attendants themselves, are available around the clock at each base, ready to attend to crew issues, answer enquiries and offer support. They also engage with younger crew by sharing inflight experiences and knowledge on operational procedures. We are preparing to set up a new Help Desk for these leaders themselves in 2014, supported by the Operations Team.

**Cabin Crew Support Team (CCST)** This team has been in place for six years, and comprises over 20 crew from different ranks and bases. They meet monthly to discuss operational issues, how the service can be more effective, and how to improve occupational health and safety in the cabin. In addition, they are involved with crew communications and rostering projects. This is also a platform whereby the company can obtain feedback on new ideas. To give crew a wider perspective on how the business operates, the CCST acts as a channel to disseminate information about the decision and logistical processes involved in facilitating changes and improvements.

**Charitable events** In 2013, Dragonair cabin crew participated in the first ever Dragonair Charity Singing Contest, in support of community flights to Kathmandu, Nepal. Thirty finalists and their families were selected to join the two trips in July and August with the ISD management team and local ground staff. There, they visited an elderly home and three orphanages, including one for children infected with HIV. Over HK\$20,000 was raised through the singing contest, part of which was used to buy supplies, groceries and sundry items such as rice, oil and toothbrushes. Crew also donated unused overcoats, cardigans as well as windbreakers from our old uniforms which had been phased out, winter blankets, children's socks, towels and stationery, along with 20 bags of items donated by Dragonair cabin crew. The airline also sponsored two gas cylinders and a water pump at the centres.



"I am so proud to see the kids in Kathmandu having such a positive attitude despite their living standards. This definitely makes me realize the importance of appreciation." A participating crew member.



### The Extraordinary Service of Our People



Every year, we recognise the extraordinary service of both Cathay Pacific and Dragonair staff through our annual Betsy Awards.

In 2013, the top winner was Cathay Pacific Customer Services Officer Louis Lo who provided assistance to the family of a passenger who sadly passed away following a heart attack en route to Australia from Rome. His help with the arrangements was greatly appreciated by the passenger's wife.

For their team effort, Dragonair Chief Purser, Tolmira Taipo, Maizy Lock and their teams received the Betsy Award. Tolmira's team resolved an unpleasant situation in the Business Class cabin on a flight to Shanghai in a discreet and professional manner, while Maizy and her team's vigilance helped arrest two suspects on a flight from Phnom Penh to Hong Kong.



*Cathay Pacific Careers  
"Jobs on the Ground"  
(Playlist)*



*Michelle Tsang,  
Assistant Manager,  
Cargo Product*



*Hanson Lau,  
Technical Services  
Engineer, "A Day  
in the Life of  
an Engineer"*



*Richard Xing,  
Technical Services  
Engineer, "Engineering  
at Cathay Pacific"*



*Richard Clausen,  
Senior First Officer,  
Cathay Pacific "A Day  
in the Life of a Pilot"*



*Dennis Chen, Being  
a Second Officer*



*Meet Our Cadets  
and Pilots*

## 2 Recruitment

As a major employer which supports Hong Kong, we endeavour to demonstrate good corporate citizenship. We provide equal opportunities to individuals regardless of gender, race, national or ethnic origin, religion, cultural background, social group, disability, marital status, family status, sexual orientation, age or political opinion. We have adopted formal mechanisms through which employees can make a complaint of discrimination or harassment in any form.

The practice of undertaking local recruitment in the communities in which we operate has been in place for the past 25 years. If the required skills are available locally, we will give priority to the local labour market, before searching internationally. Vacancies are first opened internally to our staff, then to the local community, and then finally, overseas. Most of our overseas hiring relates to skills or experience that is not readily available in the local labour market.

A series of new videos introducing the career opportunities available to ground-based staff was produced this year. This series features a range of staff from the engineering, IT, airport customer services and other professional streams.

We offer specific programmes to build staff competencies and careers in the following areas:

Career Choices	Brief Description
<b>Management Trainee</b> (Part of John Swire & Sons Hong Kong, the majority shareholder of Swire Pacific Limited, also the majority shareholder of Cathay Pacific Limited)	<ul style="list-style-type: none"> <li>Summer internships through the John Swire &amp; Sons Hong Kong programme</li> <li>To nurture our next generation of business leaders</li> <li>Three-year development programme, with classroom training, workshops, and attachments to different units of our business within and outside of Hong Kong</li> </ul>
<b>Engineering Trainee Programme</b>	<ul style="list-style-type: none"> <li>A 30-month development programme, with classroom-based aircraft training alongside practical experience in postings to different engineering sections</li> <li>Engineering internships with two intakes: Summer and Winter seasons interning for eight weeks</li> </ul>
<b>Cadet Pilot</b>	<ul style="list-style-type: none"> <li>A 60-week development programme for becoming a commercial pilot</li> <li>Residential course at a specialised facility in Australia</li> </ul>



**Grace Hui, Flight Attendant, takes us along her flight from Hong Kong to Sydney, where she works in-flight with her team to deliver world class services to passengers.**

#### Career Choices

##### Flight Attendants ▶

#### Brief Description

- A three-year contract to train as a safety officer, caring team player and ambassador for Hong Kong

##### Customer Services Officer ▶

- A nine to 12-month development programme on customer service skills within airside duty, and technical check-in procedures training on landside

##### IT Trainee Programme ▶

- Launched in 2013 and opened for application from November 2013 to January 2014
- Scheduled to start in September 2014
- 10 trainees rotating through a range of IT disciplines and business units
- Opportunity to work their way up the career ladder depending on their performance and opportunities available
- One-on-one mentoring and support to develop technical skills such as cloud computing, mobile apps, RFID tag technology and web-based activities



**Careers on the Ground – Customer Services at Hong Kong International Airport**



**Sammy Yeung,**  
Supervisor, shows us how she and her colleagues make passengers' journeys a little smoother and easier.



**Kenneth Lee,**  
Application Manager



**Cherry Lui,** IT Project Manager



**Joe Locandro,**  
IT Director

### 3 Training and Career Development

We promote a culture of continuous learning. Our staff are responsible for their own professional and career development. We support this by investing heavily in extensive formal training, online learning, seminars and forums.

Managers conduct performance reviews for all staff as part of our performance development and management process. We also support ongoing vocational education and career breaks for staff members who wish to pursue external activities to further enhance their careers.

#### People Development

In 2011, our 'People Development' team was set up to provide a greater focus on people development across the network. People Development supports the company's leadership pipeline in the identification and development of staff who demonstrate high potential and performance, as well as identifying suitable career development opportunities. A formal leadership and management development curriculum has been delivered to relevant staff at all levels in both Hong Kong and outports.

#### Learner's World

Learner's World is our online training platform that allows staff to independently access training, without the constraint of time and place. It offers both personal development and work-related training. It is also a key platform for our compliance-based training.

An online learning course on cultural awareness has been available since 2006, covering issues such as taboos, social norms, languages, values and religions, different ways of greeting people and reflections on cultural sensitivity. This is aimed at demonstrating the importance of respect and sensitivity to other cultures to avoid any behaviour that some passengers might find offensive.

There are online Mandarin and English courses which focus on specific requirements that support various job functions. In addition to these, there are a number of generic courses on effective communication available for all staff.

The Hong Kong Personal Data (Privacy) Ordinance was amended and came into effect from 1 April 2013. As such, the Company amended its Personal Data (Privacy) Policy to comply with the new amendments and developed a new online training module which employees must complete.

#### Equipping Our Airport Teams Worldwide

Our Airports Training and Development Centre (ATDC) is responsible for driving and enabling the development of skills and competencies required of airport teams worldwide. ATDC works closely with local airport training coordinators, supervisors and managers to ensure training and development approaches, programmes (both technical and behavioural) and capabilities are optimised.



Since 2009, we implemented a five-year strategy to: support the achievement of standards via new hire programmes; cultivate service and irregular operations handling capabilities; develop leaders to manage the business and grow teams; and foster a day-to-day learning culture.



### Creating a Learning Culture for Our Cabin Crew

Cabin crew compose a significant proportion of our staff and in many ways represent the diverse culture of our business. In 2013, we had 9,435 cabin crew from 14 countries. Of this, 5,310, or 56%, were from Hong Kong.

To enable our team to provide the highest quality of service to our customers, the Cathay Pacific Inflight Service Training and Development team provide cabin crew with a comprehensive training and development programme using a 'blended learning approach' that focuses on knowledge, skills and attitude development. This includes induction and promotion training, annual refresher courses, job coaching, web-based learning and external workshops. We offer a series of voluntary learning options, whereby the employee is able to decide the extent of their additional training. These include workshops and briefings. Our cabin crew may also be given an opportunity to participate as trainers and to take part in marketing events and office secondment programmes, allowing them to understand how other parts of our business are run.

To enhance cabin crew induction and training, renovation of the Airbus A340 cabin mock-up to an A330-300 configuration with new products was completed in 2012. It is a two-cabin mock-up with real aircraft seats, functioning overhead lockers, real toilet and almost fully functioning galley. Business class is equipped with the latest Regional Business Class product (launched in September 2012) and Economy Class is fitted with our Aries (fix back shell) seats for the regional product. The Boeing B777 aircraft mock up was also installed with the new Premium Economy and Economy Class products. The simulated environment helps to improve the training quality and new product knowledge, and crew's servicing skills are greatly enhanced. Over the past few years, our ISMs and Senior Purser have attended workshops focusing on leadership and service excellence. In 2013, a series of flight attendants' workshops were introduced to provide developmental opportunities for those who have completed four years of service. These workshops focused on enhancing interaction styles, especially in terms of cultural sensitivity.

We also continued with our Inflight Service Managers' (ISM) workshops and annual forums. In 2013, modules included workshops dealing with unruly passenger behaviour inflight de-escalation techniques. In addition, voluntary workshops were also offered on areas such as wine tasting, servicing the First Class cabin, public address and grooming.



Our cabin crew was required to complete a new e-learning module, which covered a new corporate policy in 2013 on "Flight Time Limitation". This is a Civil Aviation Department (CAD)-approved policy on flight and duty time as well as rest requirements for all staff on board an aircraft. This policy is to ensure all operating staff on board an aircraft have adequate rest at the beginning of their flight duty and when needed, rest periods during the flight so that they are able to carry out their responsibilities to satisfactory level of efficiency and safety.

The Flight Purser workshops, which were introduced in 2012, focused on exploring concepts that aim to help with personal development, such as developing key life skills, taking up new roles in life, and exploring ways to achieve better work-life balance. We believe that these useful skills will benefit the crew and in turn, the company. A key ingredient of the initiative is the commitment of senior management to be present at every workshop to provide recognition and appreciation to the Flight Purser for their work.

In addition to strengthening our service philosophy, business awareness, service and interpersonal skills, we provide annual training sessions refresher on disability awareness and occupational safety for all crew. Leadership and management skills training are provided to senior crew to support them in managing and mentoring the younger generation of crew. To encourage ongoing development, we provide voluntary learning programmes that cater to both our crews' work and personal lives.

In 2011 and 2012, Dragonair trialed the Cabin Crew Mentorship Programme which was designed to enhance the professionalism and service quality of our crew. In 2012, we ran four Mentor Development Workshops training 21 mentors to help develop our younger crew leaders. The feedback collected from both mentors and mentees in the pilot programmes were very encouraging. In 2013, we ran two Mentor Master Classes as the second stage of mentor development. During these sessions, the experienced mentors shared and exchanged ideas on improving the mentoring process and the programme itself.



We had many valuable discussions that were not only limited to our profession. Her kindness, patience and care really made a difference to me. On top of that, she also demonstrated how a professional cabin crew member should act from the inside out, from the bottom of our hearts. I truly appreciate it.

**Vicky Wong**

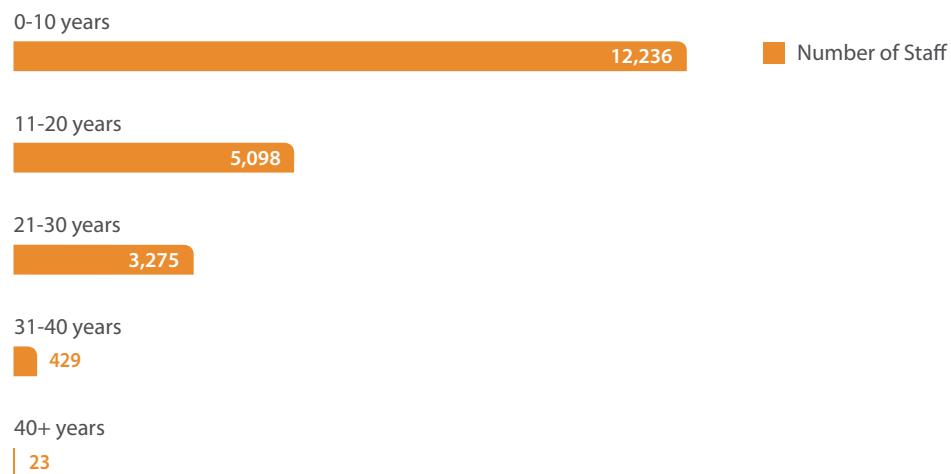
Senior Purser,  
on her relationship with mentor Sandy Wong

In March 2012, we launched a Smartphone app on Putonghua-learning, the first in the airline industry. This "Putonghua-to-go" app allowed our crew to learn anytime and anywhere. As part of the Grooming Campaign and in preparation for the new uniform rolled out in 2013, an app on grooming was also made available. In addition, we will provide training on presentation skills to increase crew confidence when presenting at promotion interviews.

### Retaining Talent

Cathay Pacific values the long-term commitment our staff makes to the delivery of their work and to service excellence, which is important to the sustainability of our business. We are proud of our 'family-oriented' culture and encourage staff to see the long-term value of working with us. We acknowledge the diversity of needs and values that each generation of staff presents, and we work hard to respond to and meet those needs.

### Years of Service (2013)



Note: Cathay Pacific Airways only.

## 4 Cathay Pacific Group Benefits

We offer a comprehensive and flexible package of staff benefits. A dedicated onsite Benefits Services Centre caters for all Hong Kong-based staff benefits information needs, whilst outport staff can approach their local People Departments for benefits-related queries.

### Flexible Benefits: Rightchoice

We are one of the first Hong Kong employers to offer a flexible benefits package, including medical and dental coverage, insurance plans and retirement schemes, which can be tailored to meet our employees' personal circumstances. There is also an option to buy additional leave.

### Staggered Working Hours

Staggered working hours have been in place for all Hong Kong non-operational ground staff since 1996. Section heads and staff are encouraged to work out an arrangement that can be of mutual benefit without adversely affecting the work of the team.

### Employee Welfare

We provide an Employee Assistance Programme (EAP) in Hong Kong and outports which staff and eligible dependents can access. It is free of charge, confidential, and provides professional (including financial and legal) information and counselling on personal and work-related concerns such as relationships, parenting, emotional disturbances, substance dependency, coping with trauma, grief, preparing for retirement or job transitions.

## Response in Difficult Financial Times

While 2013 showed some improvements in the business, it was still a difficult year for Cathay Pacific. Despite this, we provided a discretionary 13<sup>th</sup> month bonus pay and announced a salary increase of 3.9% to 4.5% for eligible staff in Hong Kong, with guidelines provided to our outport staff applicable to their local situations.



All of the fantastic things we have done this year are the result of a determined effort from the best team in the business.

**John Slosar**

Chairman of Cathay Pacific,  
who was Chief Executive 2011-2014

In previous years, during economic downturns, we implemented different Unpaid Leave Schemes as part of our cost saving measures, and offered ex-gratia payments to eligible staff despite the difficulties we faced in the airline industry. This was part of our belief that even during difficult times, keeping our team together was a priority.

## 5 Cultural Diversity

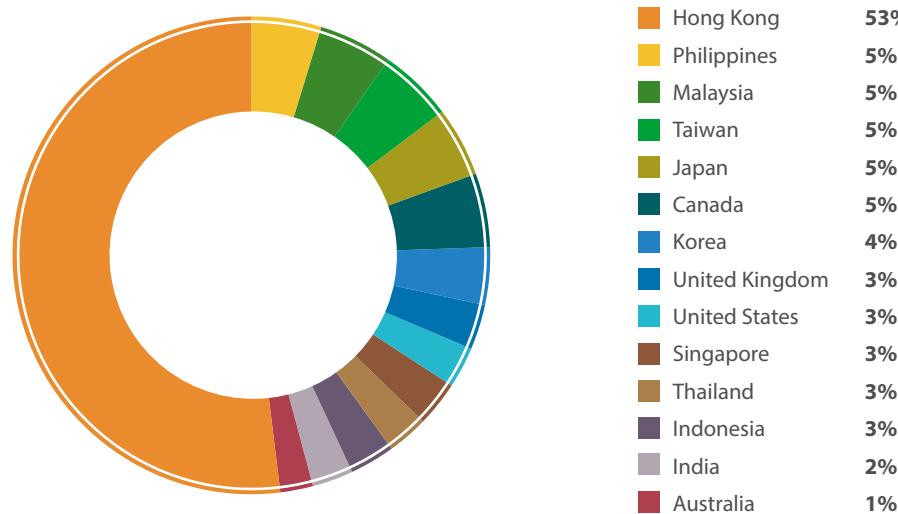
Cathay Pacific supports a work environment which promotes mutual respect and trust. We are proud of our multicultural environment which creates a uniquely rich diversity not seen in many companies in Hong Kong.

In 2013, we employed pilots from more than 30 different countries and cabin crew representing 14 nationalities. Our employees operate in more than 30 countries where we employ local staff.

We are pleased to advocate diversity in our workforce because we believe this promotes an outward-looking international perspective in line with the company's vision.

Any type of discrimination based on background, culture or preference is viewed as a serious matter and is not tolerated by the company.

**Cabin Crew Nationality Mix (%)**



 Want to find out more?  
Go to [Cathay Pacific Catering Services](#).

The following countries have fewer than 10 staff and are not shown on the graph above:

Austria	France	Italy	Spain
Belgium	Germany	Netherland	Sri Lanka
China	Greece	New Zealand	Sweden
Denmark	Ireland	Portugal	Switzerland

 Want to find out more?  
Go to [Hong Kong Airport Services](#).

For further details of our subsidiary companies' engagement and interaction with their employees, please refer to their respective reports:

Cathay Pacific Catering Services  
<http://www.cpcs.com.hk/press/Sustainability%20Report%202012%20ENG.pdf>

Hong Kong Airport Services

<http://www.has.com.hk/cms/images/downloadable/SD%20Report%202013.pdf>