Best practices for a greener postal sector

Berne, Switzerland – 27 April 2011

UPU
UNIVERSAL
POSTAL
UNION

Table of contents Page

Forewords

With more than 600 000 post offices worldwide, the postal sector operates the largest physical distribution network on the planet. Over 1.5 million vehicles as well as countless motorcycles and airplanes are used daily to deliver those services, covering billions of kilometres every year. The postal operators and their 5.5 million employees consume electricity, water, paper and other sources of energy in their daily operations, all of which have an impact on the environment.

Many posts are today engaged in reducing this impact. The Universal Postal Union, a United Nations specialised agency, also plays its part. By means of the UPU's global inventory of greenhouse gas emissions, the organization is helping the designated postal operators of its 191 member countries to calculate the impact of their operations. It also provides guidance on mitigation. This Best Practices guide aims at showing examples of pro-environment policies, actions, behaviour and products. By disseminating these success stories, the UPU is committed to helping the postal sector lead by example in the fight against climate change. In this regard, I would like to thank Japan for providing the International Bureau of the UPU with the necessary human and financial support in order to conduct this study.

Edouard Dayan
Director General

I am very pleased that the International Bureau of the Universal Postal Union has compiled "Best Practices for a Greener Postal Sector," which is a collection of the environmental activities of postal operators.

The government of Japan believes that environmental issues are some of the most important challenges the world faces today and that the postal sector should take environmental measures that are both effective and on a global scale. To enable this, it has provided the UPU with financial assistance and human resources since 2010. The government of Japan hopes that momentum conducive to reducing the burden on the environment will be developed in the lead up to the September 2012 Doha Congress.

In that sense, publishing "Best Practices" is very timely and appropriate. "Best Practices" clearly points out what measures are being taken by the postal operators around the world in the various processes of their activities and what effects those activities generate. Therefore, I believe that "Best Practices" should serve as a reference for postal operators when they implement environmental activities.

I very much hope that the UPU International Bureau continues to advance fruitful research so as to achieve a greener postal sector.

Toru Fukuoka
Director-General of the Postal Services Policy Planning Department
Information and Communications Bureau
Ministry of Internal Affairs and Communications, Japan

Introduction

In April 2007, the Universal Postal Union's Sustainable Development Project Group developed a list of 20 priority actions for postal operators. The actions include meeting the following environmental challenges[1]:

– measuring the volume of harmful emissions generated by postal vehicles, and taking action to reduce fuel consumption;

– developing postal infrastructure which has the lowest possible environmental impact;

– using renewable electricity where possible and developing the use of on-site renewable energy sources;

– saving on energy and developing awareness-raising activities to educate staff;

– developing products that consume fewer natural resources;

– developing a global approach to waste management (sorting, recycling and recovery of main waste), based on the waste management hierarchy.

In May 2008, the UPU and the United Nations Environment Programme (UNEP) signed a new agreement to cooperate in cutting CO_2 emissions generated by members of the postal sector.

The 24th Universal Postal Congress in Geneva in 2008 adopted a recommendation (C 27/2008) inviting the designated postal operators of member countries to promote initiatives aimed at reducing the negative impact of their activities on the environment. Another resolution (C 34/2008) recognized the importance of adopting a programme for the postal sector to reduce greenhouse gas (GHG) emissions.[2]

Climate change is regarded as one of the most serious threats to the environment. Scientists agree that the climate is affected by the accumulation of greenhouse gases such as carbon dioxide, and are calling for major commitments to remedy this situation.

Global warming knows no boundaries: it is a global challenge and one that the international community as a whole (states, businesses and members of the public alike) must address. Combating climate change calls for efforts and synergies at the highest level. And the postal sector has every intention of playing its full part.[3]

The global postal network is the world's largest physical distribution network. Every day, Posts deliver billions of pieces of mail processed in thousands of postal facilities and use countless trucks, motorcycles, aircraft, boats and trains to deliver mail and goods. And all these post offices and other buildings, together with their 5.5 million employees, consume electricity, water and paper, which all have an impact on the environment.

The UPU is working with its member countries, their designated postal operators, the restricted postal unions representing different regions, the United Nations and other international organizations to properly measure greenhouse gas emissions generated by postal activities and find ways to reduce them.

Many postal operators already have elaborate environment programmes in place and use electric vehicles, or have rationalized delivery routes, established energy budgets, or made their buildings more environmentally friendly.[4]

These positive steps should be made more widely known to the public and should be properly appraised. The purpose of this paper on best practices is to share information on positive initiatives taken by postal operators in order to inspire others to change the way they do business. In this regard, the UPU's role will be that of a catalyst.

The UPU has chosen the activities of operators based on the following criteria.

[1] Milestones: UPU's involvement in protecting the environment and responding to climate change (www.upu.int/nc/en/activities/sustainable-development/environment/environment-upus-commitment.html)
[2] www.upu.int/en/activities/sustainable-development/sustainable-development-key-documents.html
[3] GHG Inventory standard for the postal sector (www.upu.int/en/activities/sustainable-development/environment/environment-key-documents.html)
[4] Greening the Post (www.upu.int/en/activities/sustainable-development/environment/environment-key-documents.html)

Making a difference: activities whose adoption will serve to improve the environmental performance of operators.

Long-lasting sustainable effect: activities whose impact is not temporary but long-lasting.

Scope for replication: best practices should be easily replicable for other operators. Each country has its own different characteristics (size, population, geography, level of development, etc.), which operators should take into account when deciding to emulate an activity.

Though operators are already paying attention to sustainable development, they still have potential to be greener. This guide should serve as a reference to operators to encourage them to do more and better.

1 Environmental policy and certification

To achieve sustainable development, each actor should reduce the burden on the environment of all aspects of economic activity. It is therefore important that organizations and companies establish policies and objectives relating to the environment and work to implement and achieve them.

Companies are expected to exercise corporate social responsibility (CSR). According to the United Nations Industrial Development Organization (UNIDO), "CSR is generally understood as being the way through which a company achieves a balance of economic, environmental and social imperatives, while at the same time addressing the expectations of shareholders and stakeholders".[5] In other words, companies should not only pursue profits but also define their responsibility and actively reduce their burden on the environment. It is therefore important to have a comprehensive environmental policy in place.

With the growing interest in CSR, many companies believe they are paying sufficient attention to the environment. Neutral evaluations by third parties are therefore necessary. At the same time, the process of acquiring certification can help companies to improve their capabilities.

This is also true in the context of the postal sector, and there are several examples of postal operators that have put in place general environmental policies and are certifying environmental management.

1.1 Green policy

A number of postal operators have established a general environmental policy and are looking to operate their businesses in a sustainable way. Policy includes components at various levels, such as an overall vision, an action plan and concrete targets.

First of all, a policy should include a vision setting out general company-wide perspectives.

Canada[6]

In its environment policy, Canada Post has defined the following environmental principles:

– protecting the environment by conducting business in a socially responsible manner and by integrating environmental protection into the way the Post operates;

– complying with applicable environmental standards and regulations and establishing an environmental management structure that will ensure compliance;

– conserving resources through the implementation of energy conservation strategies and recycling programmes, and by encouraging the purchase and use of supplies that are recycled, recyclable, reusable, renewable or otherwise environmentally sustainable;

– managing the ongoing reduction of environmental risks and issues;

– making employees at all levels responsible for complying with the environment policy.

[5] www.unido.org/index.php?id=o72054
[6] www.canadapost.ca/cpo/mc/aboutus/corporate/socialresponsibility/environmentalpolicy.jsf

South Africa[7]

In 2008, the South African Post Office established an environmental policy with the following six pillars:

– protecting and enhancing the environment;
– avoiding adverse effects;
– using and managing resources efficiently;
– considering environmental issues early;
– contributing to sustainable outcomes by partnering with others;
– continuous improvement of environmental performance.

Morocco[8]

The Moroccan Post has committed itself to implementing an environmental policy to operate its business by:

– positioning sustainable development as the central goal of the institution;
– controlling and evaluating the environmental impact of its business;
– complying with laws and legislation concerning the environment;
– contributing to the awareness of society to environmental problems and efforts to protect the environment;
– preserving natural resources by reducing water consumption, electricity and raw materials;
– improving working conditions for its staff in terms of standards of health and safety; and
– sharing its environmental experience with all stakeholders.

An action plan is also an important component of a policy.

Samoa[9]

Samoa Post has launched a sustainable development action plan, the main targets being:

– Reduction of energy consumption: introducing small-engined vehicles that save petrol, and revising delivery routes to reduce costs and seeing how it hits its bottom line.
– Creating awareness of social issues: company obligations to the community.
– Saving the environment through waste reduction: recycling paper, saving electricity, promoting eco-driving, reducing printing needs, etc.

These actions have contributed favourably to Samoa Post's profitability. YTD results up to May 2010 were as follows:

– Fuel and oil expenses – reduced by 54% compared to YTD budget.
– Computing and equipment – reduced by 53% compared to YTD budget.
– Electricity – reduced by 12% compared to YTD budget.

Based on the visions and action plans, operators set concrete targets.

Great Britain

Royal Mail has set a target of reducing transport-related CO_2 emissions by 20%. Between 2003 and 2008, the road transport element of its mail operation's CO_2 emissions was reduced by 13.4%. During the same period, the CO_2 emissions relating to air and rail transport were reduced by 11.5%.[10]

[7] www.sapo.co.za/Documents/annualreport10/SAPO%20AR%202010.pdf
[8] www.bam.net.ma/
[9] UPU Sustainable Development Project Group Newsletter, No. 16, July 2010 (www.upu.int/en/activities/sustainable-development/sustainable-development-newsletters.html)

New Zealand

New Zealand Post has set several concrete targets for environmental performance which include reduction of GHG emissions. The Post has a goal of reducing GHG emissions by 12% between 2008 and 2012. It achieved 3.6% and 5.2% reductions in 2008–2009 and 2009–2010 respectively.[11]

Lessons learned:

– A successful policy has several components that include vision, action plan and specific targets.

– It is important to consider indirect cost-cutting effects and indirect environmental effects.

– To ensure direct effects, specific measures should be taken. Generally, policy-making processes and policy-implementation processes are different; parties responsible for the implementation process should therefore be clarified.

– An environmental policy can enhance the operator's public image.

– There can be a long-lasting sustainable effect.

– Although operators all work in different environments and under different conditions, actions should be replicable.

1.2 Certification of green management

Certifications from independent neutral entities can demonstrate that an organization is sustainable.

According to the International Organization for Standardization (ISO), certification involves the issuing of written assurance (a certificate) by an independent external body which has assessed a management system and verified that it conforms to the requirements laid down in the standard.[12]

The two main bodies considered as the most relevant for environmental certifications are GRI (Global Reporting Initiative) and ISO.

GRI, founded in 1997, is a network-based organization which has established one of the most widely used frameworks for reporting sustainability. The GRI Reporting Framework includes the principles and performance indicators that organizations can use to scale and announce their economic, environmental and social achievement.[13]

As of February 2011, more than 2,600 organizations from over 70 countries had registered themselves for the GRI Reports List.[14]

ISO is an international standard-setting body composed of representatives from 159 national standards organizations.[15]

As a standard for environment management, ISO 14001 provides the requirements for environmental management systems (EMS).

ISO 14001 requires organizations to:

– identify and control the environmental burden of their activities, products or services;

– improve their environmental performance regularly;

– implement a systematic approach to setting environmental objectives, and to achieving them and demonstrating that they have been achieved.[16]

[10] www.upu.int/en/activities/sustainable-development/environment/environment-posts-actions.html
[11] www.nzpost.co.nz/about-us/sustainability/our-achievements/results
[12] www.iso.org/iso/iso_catalogue/management_and_leadership_standards/certification.htm
[13] www.globalreporting.org/AboutGRI/WhatIsGRI/
[14] GRI Reports List (www.globalreporting.org/ReportServices/GRIReportsList/)
[15] en.wikipedia.org/wiki/ISO
[16] www.iso.org/iso/iso_14000_essentials

One limitation of ISO 14000 is its cost, especially for small and mid-size companies. An ISO certification is generally valid for three years, after which it has to be renewed.[17]

Organizations in various fields aim to acquire certification, and the postal sector is no exception. When an operator acquires certification, this proves that it has the ability to manage environmental issues effectively. At the same time, operators can improve their environment management ability through the certification process. The following are examples of operators with ISO 14001 and GRI certification.

Slovakia

Slovenska Posta was awarded the ISO 14001 Environment Management Certificate in 2005 for its implementation and use of an environment management system. It has set up a special company intranet site for its employees where all the company's environment documents are published.

Germany

DHL's sites and mail processing centres are certified ISO 14001, which guarantees that the environment is respected in the daily management of the buildings. Efforts focus mostly on fuel and electricity consumption.[18]

GRI

In February 2010, the following postal operators registered for the GRI Reports List: Australia Post, Canada Post, CTT (Portugal), Deutsche Post (Germany), Magyar Posta (Hungary (Rep.)), New Zealand Post, Poste Italiane (Italy), Posten (Sweden), Swiss Post, TNT (Netherlands) and USPS (United States of America).[19]

Portugal

CTT published its corporate responsibility report in alignment with the GRI G3 guidelines in 2006. The GRI index provides a standardized method for reporting organized by topic.[20]

Lessons learned:

– Although certification comes with a price, operators could save in the long run.
– Operators review their postal processes according to certification requirements.
– Business advantages: as suppliers, large customers can sometimes insist that operators be certified.
– The environmental effect is indirect.
– There can be a long-lasting sustainable effect.
– In the process of acquiring certification, operators can improve their environmental management capabilities.
– There can be the side effect of enhancing the organization's public image

1.3 Using carbon offsetting to achieve neutrality

Carbon offsetting is the last part of a global process involving GHG emission measurements and GHG emission reductions. Carbon offsetting can be done through financing projects (emission reduction or carbon sink in another part of the world) or by buying credits directly from the market, either generated by projects or from CO_2 surplus quotas.[21]

[17] en.wikipedia.org/wiki/ISO_14000
[18] www.upu.int/en/activities/sustainable-development/environment/environment-posts-actions.html
[19] GRI Reports List (www.globalreporting.org/ReportServices/GRIReportsList/)
[20] https://www2.ctt.pt/fectt/wcmservlet/ctt/institucional/grupoctt/resp_social/en/relatorio.html
[21] Feasibility – Communication kit (www.upu.int/en/activities/sustainable-development/environment/carbon-offsetting.html)

Emitters (operators in the case of the postal sector) can thus cancel out their GHG emissions by participating in carbon-offsetting activities. There are examples of operators offering carbon-offsetting products to achieve their environmental goals.

Finland

Itella (Finland) aims to reduce its CO_2 emissions by 30% by 2020 (compared with 2007). To achieve this target, Itella is improving its energy efficiency and using renewable energy sources with lower emissions in all of its operations, and is offering customers carbon-neutral products by means of a carbon-offsetting scheme.[22]

Lessons learned:

– By using carbon-offsetting schemes, operators comply with national and international commitments.

– As a side effect, operators can also enhance their public image.

2 Measuring environmental impact

The next step is to measure environmental impact.

"Measuring" means quantifying one's own impact on the environment, such as consumption of energy and natural resources, and emission of greenhouse gases (GHG) and waste. To be sustainable, accurate measurement is necessary.

As far as measurement is concerned, the UPU must encourage its member countries, and the postal sector it represents, to lead the way on their side. In this regard, the UPU has developed a specific programme, the Greenhouse Gas Global Overview and Mitigation Project (GGOM), designed to measure the postal sector's carbon footprint and encourage initiatives to reduce its impact on climate change, particularly through the exchange of sound environmental practices. The first two global greenhouse gas inventories for the postal sector are part of this.

On the basis of the first inventory, the UPU estimated the world's Posts emissions at 26 million tonnes of greenhouse gases in 2008.[23]

Measuring one's own footprint is the first step towards cutting the emissions of the postal sector as a whole.

Brazil

ECT Brazil specialists received training from the Getulio Vargas Foundation, a non-profit institution with a technical/scientific and educational focus, accredited by Brazil's Ministry of the Environment and the World Resources Institute as the only institution authorized to adapt the GHG Protocol Corporate Standard to the Brazilian corporate reality, and to help with the technical and institutional training of representatives from Brazil's public and private sectors, with a view to setting up the CO_2 inventory and putting in place emission management measures.

TNT Planet Me[24] [25]

TNT launched its "Planet Me" programme in 2007 to raise awareness of climate change and serve as a framework for TNT's efforts to reduce CO_2 emissions. Its primary objective is to reduce the environmental impact of the company's operations and to boost its financial performance by improving fuel efficiency.

[22] www.itella.fi/english/comprehensivesolutions/green/environmentalprogram/
[23] Posts produce at least 26 million tonnes of CO_2 emissions annually, UPU's first global inventory reveals (www.upu.int/en/activities/sustainable-development/environment/environment-press-review.html)
Note: For this estimation, the UPU has measured the GHG emissions produced by the operation of postal buildings and vehicles.
[24] group.tnt.com/aboutus/ourbusiness/environment/planetme/index.aspx
[25] planetme.tnt.com/index.asp?page_id=2

Planet Me comprises the following three focus areas:

– Count Carbon – Measuring and monitoring CO_2 performance.

– Code Orange – Improving the CO_2 efficiency of operational activities.

– Choose Orange – Engaging personnel to adopt sustainable behaviour at work and home.

As part of the programme, TNT has made a commitment to improve CO_2 efficiency by 45% by 2020 across its global operations.

Lessons learned:

– By measuring impact, operators acknowledge their figures and set concrete targets.

– By measuring impact, operators can take concrete reducing measures.

– As a side effect, the operator's public image can be enhanced.

3 Mitigation action

The next step is to take mitigation action.

CO_2 is emitted in every process of an economic activity, so a range of different actions may be taken in various areas. If a company can reduce its energy and fuel consumption, this could also help it cut costs. This means that the company can be more sustainable and can strengthen its own financial and business position at the same time.

The postal sector has complex processes for delivering postal items. Operators emit GHGs at various stages of processes such as collection, sorting and distribution. This means they have various options for reduction in their daily operations.

3.1 Direct mitigation action

Here are a few examples of operators reducing their energy consumption through direct actions.

Lebanon

In main cities like Beirut, Liban Post uses small-engined motorcycles, instead of cars or vans, for mail distribution and some collections. Small vehicles emit less.

Around 100 distribution circuits out of 235 are operated by motorcycles and 10 on foot. Post offices mainly use vans to perform mail handling and large-volume pick-ups or deliveries.

The difference in fuel consumption between the motorcycles and cars currently used amounts to some 60% (car 150 km/20 l compared to motorcycle 390 km/20 l).

In addition, the cost of insurance and annual taxes are lower for motorcycles than for cars.

Philippines

Philpost has introduced a fuel coupon allocation system which enables fuel consumption per office to be identified. Each office is provided with a fixed monthly authorized fuel allocation.

At the end of each month, the Office of the Assistant Postmaster General for Administration issues every office with a fuel coupon for the coming month equivalent to the authorized allocation.

The system was introduced in the late 1990s. According to a key official handling fuel loading, the system's reporting enables fuel requirements to be predicted more accurately.

Viet Nam

VNPT sets fuel consumption limits for transport and electric generators. These limits, which are defined through surveys, help to raise awareness of the need to control consumption and promote economies among staff.

VNPT attempts to achieve fuel consumption of 20 litres per 100 kilometres.

El Salvador

Correos de El Salvador has changed 75% of its incandescent tubes from 40 W to 21 W in order to reduce the consumption of electricity. In addition, Correos imposed restrictions on the hours of use of air conditioning equipment. These actions cut electricity consumption by 9% between April and October 2010.

Uruguay

Correo Uruguayo has followed an energy savings plan based on government directives since 2005. In that year, the Ministry of Industry, Energy and Mining (MIEM) put in place mandatory energy saving measures and efficiency plans, in particular in the public sector.

The work focused not only on the application of mandatory measures for equipment usage, but also on communication policies that emphasized awareness, commitment on the part of middle and senior management, and the voluntary commitment of all employees.

Thanks to the major efforts made, the MIEM's objectives, revised annually, have been achieved each year.

The plan for the head office and sorting plant calls for the almost complete replacement of incandescent and mercury vapour bulbs with low-energy bulbs, and the replacement of a significant percentage of fluorescent lamps using magnetic ballasts with those using electronic ballasts.
To disseminate the cost-saving measures, the plans are accompanied by a communication plan, involving staff meetings, posters in the workplace, e-mail, the in-house magazine, and the company intranet.

In addition, there are examples of operators reducing their consumption of natural resources like water through direct action.

El Salvador

Correos de El Salvador is working to reduce its consumption of water by means of reduced-capacity pipes, which lead to an 80% reduction in water consumption.

Philippines: Use of water-efficient taps/toilets

As part of its environmental conservation initiatives, Philpost is slowly replacing the tank-filled valve flushing mechanisms in toilets with more water-efficient mechanisms available in the Philippine market. It is also introducing new taps that provide a regulated water flow, stopping when a certain amount has been consumed. Broken-down mechanisms have already been replaced with water-efficient mechanisms. There has been a significant reduction in water consumption since 2007.

Lessons learned:

– Direct effect: through direct mitigation actions, operators can reduce consumption of energy and natural resources.

– At the same time, operators can cut costs.

3.2 Transportation

According to the Intergovernmental Panel on Climate Change (IPCC), globally, transportation (including road, aviation and shipping) represented 13.1% of man-made CO_2 emissions in 2004.[26]

[26] www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf

For the postal sector, vehicles or transportation is one of the major sources of GHG emissions. Posts possess large numbers of vehicles and are often the largest fleet in their country. USPS, for example, has a fleet of 218,684 vehicles.[27] According to the UPU's estimates, there are more than one million postal vehicles operating daily around the world.[28]

3.2.1 Organizing postal processes

By reorganizing postal processes, operators can improve their efficiency while cutting emissions at the same time.

Here are two examples of operators reorganizing their postal processes as part of their business strategies.

Mauritius

After participating in the GHG inventory implemented by the UPU International Bureau, Mauritius Post started a rationalization of mail routes. The number of routes was reduced from 22 to 16 in order to increase operational efficiency. At the same time, Mauritius Post has centralized its delivery service. The centralization process involves the "clustering" of three or four neighbouring offices to one large delivery centre. The number of delivery offices has been reduced from 90 to 47.

Through these actions, Mauritius Post has achieved a decrease in the mileage covered by postal vehicles and reduced fuel consumption, and at the same time improved the efficiency of deliveries of postal items.

The Post estimates that there has been a 25% reduction in CO_2 emissions from its fleet.

Norway

In April 2009, Norway Post's major road transport route between Oslo and Bergen became fully rail-based. As a result a total of 1,250 trucks have been replaced by rail.[29]

Lessons learned:

– Operators have been able to cut costs.
– Side effect: operators can eliminate redundant processes.
– From a business strategy standpoint, reorganizing redundant processes is important to strengthen the organization's foundations.
– No contradiction between business approach and environmental approach.

3.2.2 Vehicles

According to UNEP, road transport is responsible for the lion's share of transport-related emissions, representing more than 70% within the sector. Between 1987 and 2004, emissions from road transportation increased by 46.5%.[30]

In addition, in 2007, around 806 million cars and light trucks were on the road around the world[31], and over 60 million vehicles were produced globally in 2009.[32]

As environmental awareness grows, various types of "green vehicles" with high energy efficiency and alternative fuels are being developed and are coming onto the market.

Typical types of green vehicles are hybrid, electric, ethanol, hydrogen, CNG (compressed natural gas), plug-ins (vehicle with a gasoline engine and an electric motor that plug into the grid to recharge), and biodiesel.[33]

[27] www.usps.com/communications/newsroom/postalfacts.htm
[28] Greening the Post (www.upu.int/en/activities/sustainable-development/environment/environment-key-documents.html)
[29] Postal Technology International, March 2010
[30] www.unep.org/publications/ebooks/kick-the-habit/Default.aspx?bid=ID0E1MAC#ID0E4NAC
[31] en.wikipedia.org/wiki/Automobile
[32] oica.net/category/production-statistics/
[33] www.greencar.com/

In the postal sector, more than one million vehicles are used each day for operations.[34] Actions to reduce emissions from vehicles are thus very important for operators.

There are a number of good examples of Posts reducing emissions from vehicles through daily maintenance.

Tanzania (United Rep.)

Tanzania Post checks emission levels of vehicles and carries out regular repair and servicing of motor vehicles. Thanks to these efforts, the operator's fuel consumption fell by 4% in financial terms between 2009 and 2010.

In addition, several operators have introduced green vehicles with the aim of cutting emissions.

Electric battery powered:

– France.

– La Poste leads an intercompany order group that has committed to ordering 50,000 electric vehicles by 2011. La Poste could eventually add 10,000 of these vehicles to its mail and parcel delivery fleet.

This initiative should give rise to an economically viable, technically and financially competitive supply of electric vehicles.[35]

United States

Although electric vehicles represented only a small fraction of the USPS delivery fleet in 2008, together with other types of alternative-fuel vehicles they constituted nearly 20% of its 220,000 vehicles – about 43,000 – representing the largest civilian fleet of alternative fuel-capable vehicles in the world.[36]

Bi-fuel vehicles

Italy

With over 1,300 bi-fuel (methane/petrol) vehicles, Poste Italiane has the largest methane fleet in Europe.[37]

Biodiesel vehicles

Brazil

In 2009, Empresa Brasileira de Correios e Telégrafos (ECT) used over 200 biodiesel vehicles in its operations.

Others

Great Britain

Thanks to the introduction of over 300 double decker trailers, Royal Mail can now carry 50% more mail in one vehicle. This has already reduced its annual mileage by 7.6 million miles, saving 7,000 tonnes of CO_2.[38]

[34] Greening the Post (www.upu.int/en/activities/sustainable-development/environment/environment-key-documents.html)
[35] 2009 sustainable development overview, La Poste (France) (www.laposte.fr/Le-Groupe-La-Poste/Developpement-Durable/Rapport-2009)
[36] www.usps.com/postalhistory/_pdf/ElectricVehicles.pdf
[37] www.poste.it/en/azienda/press_room/company_profile_en.pdf
[38] www.royalmail.com/portal/rm/content3?catId=94900754&mediaId=94900755

Lessons learned:

– Keeping vehicles in good condition through daily maintenance is quite effective in reducing emissions.

– New vehicles are more energy-efficient than older generations of vehicles.

– Investment in alternative vehicles is needed.

– Do not buy alone!

3.2.3 Driver behaviour solutions

In reducing emissions from vehicles, drivers' cooperation is essential. To achieve energy-efficient driving, drivers need to avoid sudden accelerations and braking, avoid idling of an engine, and drive at fuel-efficient speeds.

Posts have a high ratio of delivery staff, including many drivers. Here are a few examples of operators providing drivers with training in eco-driving.

Belgium

BPost trains its van drivers to drive ecologically, which allows the operator to save 5–7% on fuel. Around 2,300 employees have already taken the course, which represents 40% of all relevant staff.[39]

France

La Poste has slashed its fuel consumption, cut its CO_2 emissions by 8% on average, and given 60,000 postmen and women eco-driving lessons, which among other things have reduced the number of road accidents involving postal vehicles. Through its Mobigreen subsidiary the group has been working on a full range of eco-driving services – awareness raising and training – in order to transmit its know-how and experience to any private or public organization that uses vehicle fleets and wants its staff to employ eco-driving techniques.[40]

Between 2007 and 2009, La Poste achieved cost savings of 10 million EUR.

Hungary (Rep.)

Since 2009, Magyar Posta has organized a "Green Day" conference in the field of logistics each year. During these conferences, participants can listen to talks on environmental protection and vehicle operations, and on the closing day of the conference an eco-driving contest is held.

A trained driver who uses an environmentally friendly driving style may reduce the fuel consumption of the vehicle by as much as 5–10%, translating into a reduction in emissions. Magyar Posta estimates that these conferences have resulted in 20 million forints (HUF) of savings.

Lessons learned:

– Direct reduction of emissions: operators achieve energy-efficient driving and reduce fuel consumption.

– Direct cost cutting.

– Improvement of working conditions – and of drivers' safety.

3.2.4 Technological approaches

The use of new technologies such as information and communication technology (ICT) has the potential to bring about significant reductions in GHG emissions. Here are a few examples.

[39] De Post/La Poste Annual Report 2009 - annual report 2009 (www.bpost.be/site/nl/docs/postgroup/annual_reports/Annual_Report_2009.pdf)
[40] UPU Sustainable Development Project Group Newsletter, No 15, April 2010 (www.upu.int/en/activities/sustainable-development/sustainable-development-newsletters.html)

Greece

In November 2008, Hellenic Post installed an integrated fleet management system based on telematic technologies. The aim was to improve customer service, cut the costs of transport operations, increase productivity, and improve security.

The system is based on 550 in-vehicle GPS devices, telecommunication equipment (antennas), operational and administration software, and a geographical mapping platform containing data on the country's road network.

At a glance, the fleet monitoring system provides a continuous real-time overview of the company's fleet, and offers reporting tools for the operations department. Last but not least, it provides private and business customers with accurate information on the time of vehicles' arrival at and departure from specific points of interest (letter boxes, post offices, etc.). In this context, it will be used in the future for the provision of special services (e.g. dynamic and ad hoc pick-ups and deliveries) which require awareness of fleets' location and status.

The system offers a well-designed and simple web-based graphical user interface. As such, it does not require high computer literacy and users are able to familiarize themselves with it within a very short time.

Denmark

Post Danmark has a tool for optimizing route planning in the countryside and in towns which limits the number of kilometres driven according to pre-specified estimates. The tool is based on a geographical information system which collects and processes digital maps. This information is then combined with information about delivery points in Denmark. Following its implementation in 2007, the system reduced the number of kilometres driven by car by 2.5 million kilometres. Today, the system is used continuously to streamline Post Danmark's routes and the number of kilometres driven.[41]

Slovakia

1,625 vehicles (97.7%of the total fleet) are equipped with GPS. The aim is to increase drivers' safety and the security of carried items, and to eliminate the misuse of vehicles for non-postal purposes. The implementation of GPS led to a 6.34% reduction in fuel consumption in 2009.

Lessons learned:

– Operators achieve high energy efficiency in their driving.
– Costs are cut.
– Reorganization of postal processes can contribute to this process.

3.3 Buildings

According to the IPCC, buildings accounted for 7.9% of man-made CO_2 emissions around the world in 2004.[42]

There are over 660,000 post offices around the world.[43] In addition, operators possess many other premises such as sorting centres, headquarters, etc. For example, USPS has over 36,000 buildings, representing over 140 million m^2 of floor space. Buildings are one of the major sources of GHG emissions for the postal sector. Reducing emissions from postal buildings is therefore also important.

A number of countries have adopted general policies or legal frameworks aimed at ensuring that attention is paid to the environment in the construction and renovation of buildings, and there are various examples of green buildings that have resulted from such policies.

[41] www.postdanmark.dk/cms/en-us/files/sustainability_report.pdf
[42] www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf
[43] UPU Statistics

Viet Nam

All postal buildings are built or renovated under national regulations aimed at defining management methods, economics and efficiency.

Hungary (Rep.)

Hungarian law requires buildings to satisfy certain energy conditions. Since 1 January 2009 it has been compulsory to issue an energy certificate for any new building. For existing buildings, such certification will remain voluntary until 31 December 2011.

If the building does not attain category "C", then the certification must contain recommendations, either for immediate measures to reduce energy consumption, or for renovation or modernization work that will lead to increased energy efficiency in the longer term.

The proposals must relate to cost-efficient solutions and be realistic and feasible, and must state which energy category the building will then fall into once the improvement measures are in place.

In addition, a separate legal act prescribes how to determine energy characteristics on the basis of energy use.

Postal operators have regulations for sector-specific issues.

Canada

In 2009, Canada Post registered three new building projects for Leadership in Energy and Environmental Design (LEED) certification. LEED is an internationally accepted benchmark for the design, construction and operation of high-performance and environment-conscious buildings. Building to LEED Canada criteria helps Canada Post reduce GHG emissions, lower overall energy costs, and reduce its impact on the environment. It also benefits its employees and its customers by providing safer and healthier workplaces.[44]

Some operators have incorporated environmentally friendly elements into new or renovated buildings. Renewable energy (solar power for example) is used in some cases. In addition, location, especially distance from public transport, is often taken into consideration.

United States[45]

A USPS building in New York has been developed with a "green roof". It will reduce the amount of polluted storm water runoff into the New York municipal water system by as much as 75% in the summer and 40% in the winter. The green roof is more energy efficient than a traditional roof and is projected to save the operator 30,000 USD on annual heating and cooling costs.

Netherlands

TNT opened its first CO_2 emission-free depot in 2009. The adoption of sustainable solutions within this building has resulted in energy savings of more than 70%. The building is designed to allow in as much daylight as possible, reducing the amount of artificial light required, and produces its own energy through more than 300 solar panels. Water is pumped from the ground for heating and cooling, and rainwater is collected for flushing eco-toilets.[46]

Singapore

SingPost embarked on a green initiative in November 2006, focusing on the optimization of the chiller plant of its then eight-year old headquarters, Singapore Post Centre. The project, which cost 1.9 million Singapore dollars, was completed in June 2007.

[44] www.canadapost.ca/cpo/mc/aboutus/corporate/socialresponsibility/initiatives.jsf)
[45] Postal Technology International, March 2010
[46] June 2009, Postal Technology International

Employing a total system approach in retrofitting its central chilled water plant room, SingPost made enhancements to the piping system and replaced conventional motors with high efficiency ones. A new 24-hour web-based monitoring system was introduced at the same time, enabling better visibility and management of the entire system resulting in optimal availability.[47]

Togo

Togo Post is looking to operate solely on solar energy. The offices in Guérin-Kouka and Elavagnon, Est-Mono, have been operating on solar energy since 2003, and those in Mandouri and Pagala have been doing so for two years now. The operator decided to pursue this policy not only for the obvious environmental reasons, but also because solar energy offers a solution to the inadequacies of the traditional electricity grid. Moreover, solar energy is a way to bring Internet to cities and towns that have no electricity, thus enabling the SPT to offer its clients access to banking services and express transfers, which are increasingly being provided electronically.[48]

Lessons learned:

– Eco efficiency: operators achieve efficient energy consumption in their buildings.
– Cost cutting: operators cut costs in the long run.
– Green building is user friendly and also serves to improve working conditions.

4 Green procurement

Procurement is the process by which the resources (goods and services) required by a project are acquired. It includes development of the procurement strategy, preparation of contracts, selection and acquisition of suppliers, and management of the contracts.[49]

According to the European Union, Green Public Procurement (GPP) is defined as "a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured."[50]

A procurement process has a big impact. For example, DHL Group spent 7.7 billion EUR on procurement in 2009[51]. So the demand side can have influence on the supply side. By giving preference to products with a lower impact on the environment, the demand side can contribute to sustainable consumption and production.

One general belief about green materials is that they cost a lot. However, this perception is not always correct. If external environmental factors are taken into account, green materials can be seen as less costly.

In the postal sector, a number of operators now have green procurement policies.

United States of America[52]

In 2008, USPS formed a Green Purchasing Team. The team, which included supplier representatives, developed the USPS Green Purchasing Plan 2008–2010, which sets out a number of environmental criteria to be considered when buying green, selling green and being green. The USPS Green Purchasing Team has actively worked to educate and inform customers and suppliers about the operator's Green Purchasing Plan.

[47] www.singpost.com.sg/downloads/media/press_release/08/PR20080807_ASEAN.pdf
[48] UPU Sustainable Development Project Group Newsletter, No 15, April 2010 (www.upu.int/en/activities/sustainable-development/sustainable-development-newsletters.html)
[49] www.apm5dimensions.com/content/procurement-0
[50] ec.europa.eu/environment/gpp/what_en.htm
[51] www.dp-dhl.de/reports/2009/gb/en/group-management-report/procurement.html
[52] www.usps.com/green/report/2008/Our_Environment7.html

In 2008, USPS spent more than 251 million USD on environmentally preferable products, including remanufactured automobile parts, retread tyres, recycled content paper products, custodial products and "Cradle to Cradle" certified shipping boxes and envelopes.

In addition, there are examples of Posts paying special care to the purchase of specific materials and services.

Paper

Belgium

Since the end of 2009, 100% of the paper BPost (Belgium) uses for its own needs is recycled or comes from responsibly managed forests (bearing the FSC (Forest Stewardship Council) label, for example). In 2008 this percentage was still 68%. In 2009, around 95% of postage stamps were printed on FSC paper. That percentage will rise to 100% in 2010.[53]

Postal facilities

Germany

DHL purchased 288 new, eco-friendly mail sorting machines. The new sorting machines for standard and compact letters will reduce DHL's CO_2 emissions by nearly 5,000 tonnes per year, and they also use 55% less energy.[54]

Services

Rwanda

The ONP (Office national des postes) has subcontracted the cleaning service and facilities for waste disposal. During the tender process for this contract, bidders were requested to present their plan for waste disposal. Biodegradable waste is separated from other waste, to comply with the directives of the Rwanda Environment Management Authority.

The waste is treated at a specialist treatment site set up by the Kigali city authorities.

Germany

DHL is one of Deutsche Bahn's first key accounts to use its new, climate-friendly Umwelt Plus (environment plus) ticket for all business trips. This means that 100% of the electricity used comes from renewable energy sources. The agreement with the German train operator was concluded with retroactive effect as of 1 January 2009. The 74,319 tickets used in 2009 thus resulted in savings of around 2,134 tonnes of CO_2 emissions.[55]

Lessons learned:

– Through the green procurement process, operators have influence on suppliers.
– Suppliers develop products and services with less impact on the environment, and this could help to make society as a whole more sustainable.
– If external environmental factors are taken into account, the cost of environmentally responsible goods is not so high.

[53] www.bpost.be/site/nl/docs/postgroup/annual_reports/Annual_Report_2009.pdf
[54] www.dp-dhl.com/reports/2009/gb/en/group-management-report/procurement-2-2.html
[55] www.dp-dhl.com/reports/2009/gb/en/group-management-report/procurement-2-2.html

5 Using renewable energy

Renewable energy is energy derived from natural resources like sunlight, wind, rain, tides, and geothermal heat. It is naturally replenished and renewable.[56]

Renewable energies offer a number of great advantages. Firstly, the sources of renewable energy are clean, meaning that they have a much lower environmental impact than conventional energy. And secondly, renewable energy will not run out, while sources of conventional energy are finite and will one day be exhausted.[57]

In 2008, renewable energy supplied 19% of global final energy consumption, counting traditional biomass, large hydropower, and "new" renewables (small hydro, modern biomass, wind, solar, geothermal, and biofuels). Of this 19%, traditional biomass, used mainly for cooking and heating, accounts for about 13%, hydropower represents 3.2%, and other renewables account for 2.6%. Global renewable energy capacity grew at rates of 10 to 60% per year for many technologies between 2004 and 2009.[58]

Renewable energy is thus gaining in importance around the world, and the postal sector is making use of it.

5.1 Solar energy

Solar energy is the energy derived from the sun in the form of solar radiation. Solar-powered electrical generators rely on photovoltaics and heat engines.[59]

Photovolataics is used to produce electricity in over 100 countries, and is a growing power-generation technology. Photovoltaic capacity increased by 60% a year between 2004 and 2009.[60]

Here are two examples of the postal sector utilizing solar power for its operations.

Hungary (Rep.)

Magyar Posta has used solar energy in its national logistics centre since the end of 2008. Thirty-six solar collectors measuring 62 m^2 are located on the flat roof of the toilet block. The solar collector system controls have been linked to the building monitoring system. The system is estimated to save 4,300 m^3 of natural gas per year. The solar collector system has cut energy consumption by 36.7% and CO_2 emissions by 13%.

In 2009, Magyar Posta saved about 20,000 kWh by using solar energy.

Tanzania (United Rep.)

In Tanzania, some post offices have been using solar energy for lighting, running of computers and fax machines, etc., for some 10 years. For Tanzania Post, the only cost associated with solar energy is the initial investment (installation). With no ongoing expenses, the system eventually pays for itself.

5.2 Hydro/geothermal

Other renewable energies, like hydro and geothermal power, likewise have great potential.

[56] en.wikipedia.org/wiki/Renewable_energy
[57] www.renewableenergyworld.com/rea/tech/why
[58] REN21 (2010). Renewables 2010 Global Status Report p. 15 (www.ren21.net/Portals/97/documents/GSR/REN21_GSR_2010_full_revised%20Sept2010.pdf)
[59] en.wikipedia.org/wiki/Renewable_energy
[60] www.ren21.net/Portals/97/documents/GSR/REN21_GSR_2010_full_revised%20Sept2010.pdf

Hungary (Rep.)

Veresegyház is a town with rich thermal water resources. In that town, the thermal water is distributed to customers and public institutions (local authorities, kindergartens, post offices, etc.) through a three-circuit network.

The incoming thermal water is used for heating and hot water. During the summer months it easily satisfies the hot water demands of the post office. In the winter, the energy requirements over and above this are covered by two gas boilers, which operate as auxiliary heat supplies with the help of an automatic temperature regulator.

In 2009 Magyar Posta saved about 80,000 kWh of energy by using thermal water.

Slovenia

Recently Posta Slovenije installed new heating systems in some buildings. In the new heating system, 25% of energy consumption comes from renewable resources, and geothermal heating is the main source of energy. The difference in consumption of energy between normal heating mode and heating with geo-probes and geothermal pumps is about 25%.

Brazil

One hundred percent of the electricity bought and consumed by the Post comes from hydropower plants. It is important to note that electricity generated from hydropower is considered one of the cleanest forms of energy in the world.

Lessons learned:

– Renewable energy depends on geographical conditions, so local circumstances should be taken into consideration when introducing new types of energy.
– To use renewable energy, investment in technological tools is necessary. (Solar panels for solar energy are a typical example.)
– Operators can improve their public image by using renewable energy.

5.3 Green electricity

Renewable energy contributed 18% of global electricity production in 2008.[61]

Aside from utilizing those renewable energies, some operators purchase electricity which is generated by environmentally-responsible methods. For example, the U.S. Environmental Protection Agency defines green power (green electricity) as "electricity produced from solar, wind, geothermal, biogas, biomass, and low-impact small hydroelectric sources".[62]

Here are a few examples of Posts using green electricity.

Finland

Itella aims to reduce carbon dioxide emissions in all of its activities. One step in this direction is switching to electricity generated using renewable energy sources in its sorting centres, which typically use a lot of electricity.

The proportion of green electricity will be increased gradually: in 2010, the proportion was 80%; as of 2011, 100% of the electricity used by Itella in Finland will be green. Thanks to green electricity, Itella will be able to reduce its carbon dioxide emissions in Finland by 15%.[63]

[61] REN21 (2010). Renewables 2010 Global Status Report p. 16 (www.ren21.net/Portals/97/documents/GSR/REN21_GSR_2010_full_revised%20Sept2010.pdf)
[62] www.epa.gov/greenpower/gpmarket/index.htm
[63] www.itella.fi/english/comprehensivesolutions/green/environmentalprogram/buildings.html

Italy

Today, 50% of all electrical energy consumed by Poste Italiane already comes from renewable sources (according to RECS – Renewable Energy Certificate System parameters).[64]

Germany

Since January 2009, all new contracts for Deutsche Post DHL buildings in Germany have to specify that energy will be generated from renewable energy sources such as wind or water power. The vast majority of the operator's buildings are powered with green electricity. With approximately 8,000 sites in Germany, Deutsche Post DHL is one of the largest users of electricity.[65]

Lessons learned:

– Green electricity is sometimes more expensive than traditional fossil fuels.
– It has a lower impact on the environment, reducing GHG emissions generated from energy consumption.
– It can enhance operators' reputation, a great advantage in corporate social responsibility terms.

6 Green products

Consumers expect environmentally responsible products and services for companies.

This is also the case for the postal sector, whose main product is postal mail. In 2008, around the world, over 411 billion domestic letter-post items were transmitted.

Total postal traffic worldwide is estimated to be around 550 million kilogrammes per year. Of that total, packages make up 15% and parcels 50%.[66] Packaging accounts for much of this volume.

If operators were to think more carefully about their products, adverse impact on the environment would be reduced. To be a more sustainable operator, providing environmentally responsible products is important.

6.1 Letters

In 2008, 411 billion domestic letter-post items and five billion international letter-post items were sent around the world. Though the number of letters has been declining recently, they still remain a primary product for the postal sector.

On average, revenue from letters represented about 40% of the income of postal operators in 2008.[67]

Tanzania (United Rep.)

Economy Label is a piece of paper pasted on the envelope for re-addressing purposes. It enables one envelope to be used several times, resulting in a reduction in waste paper.

Lebanon

Plastic re-usable envelopes (able to be used more than 15 times) have been introduced, with a positive impact in environmental and budgetary terms.

6.2 Parcels

In 2008, around the world, over five billion domestic parcels and over 46 million international parcels were sent. Revenue from parcels represented about 17% of the income of postal operators on average in 2008.[68]

[64] www.poste.it/en/azienda/press_room/company_profile_en.pdf
[65] www.dp-dhl.com/en/responsibility-online_report_2010/environment/sustainable_sourcing.html
[66] EDI providing end-to-end airmail visibility (www.upu.int/en/activities/letter-post/transport/upu-iata-cooperation.html)
[67] Reinventing the Postal Sector in an Electronic Age P323

Japan

Japan Post Services sells sturdy cardboard packaging that can be used up to 100 times.[69]

By replacing cardboard and wooden boxes with this robust packaging, packaging costs can be cut by 30–40% and CO_2 generated through the process of making and disposing of boxes can be reduced by 70%.

United States of America

USPS supplies "Cradle to Cradle" certified packaging in services such as priority and express mail. This certification means that a product is designed with materials that are safe for human health and the environment.[70]

Lessons learned:

– Reusable envelopes and packaging can reduce consumption of natural resources and waste emissions.

– By providing eco-responsible products, operators can enhance their reputation.

– Consumers can be encouraged to become more sustainable.

6.3 Carbon-neutral delivery/products

"Carbon-neutral" means that net zero carbon emissions are achieved for a specific product or service and there is no negative impact on the environment. If a consumer buys a carbon-neutral product he or she may pay a surcharge to acquire carbon credit in some cases. The surcharge will be invested in carbon-offsetting projects. This means that the GHG resulting from the product will be cancelled out completely and the consumer can achieve carbon-neutrality.

Here are a few examples of carbon-neutral products and services.

Germany

Since 2006, Deutsche Post DHL has offered carbon-neutral GOGREEN products.

DHL offsets the CO_2 emissions generated during the transportation and handling of customers' shipments through climate protection projects.

In 2009, DHL offset 38,500 tonnes of CO_2 for its customers and sent more than 700 million GOGREEN shipments.[71]

To offset carbon emissions, DHL has launched a climate protection project in Lesotho, which will involve the introduction of 10,000 firewood and stainless steel stoves, which reduce CO_2 emissions by 80% compared with conventional stoves. As a result, firewood consumption will be diminished and deforestation and soil erosion will also be reduced. This project is expected to generate 20,000 carbon credits annually, and the credits will be used for GOGREEN customers.[72]

Finland

Since 1 February 2011, Posti has been offering carbon-neutral delivery for all letters, cards, publications and direct mail without any extra charges for customers. In addition to the active reduction measures by Itella, the

[68] Reinventing the Postal Sector in an Electronic Age P323
[69] UPU Sustainable Development Project Group Newsletter, No. 15. April 2010 (www.upu.int/en/activities/sustainable-development/sustainable-development-newsletters.html)
[70] www.usps.com/green/eco.htm
[71] www.dp-dhl.com/en/responsibility-online_report_2010/environment/green_solutions/eco-friendly_productsandservices.html
[72] www.dhl-brandworld.com/en/brand-news/item/120-deutsche-post-dhl-initiates-own-climate-protection-project.html

remaining emissions are compensated through participation in climate projects that replace the use of fossil fuels and produce renewable energy through wind or biogas.[73]

Switzerland

Swiss Post enables letters, parcels and goods to be mailed on a carbon-neutral basis through its "pro clima" scheme. For domestic items, customers pay a surcharge of 1 to 10 Swiss centimes to achieve carbon neutrality.

In 2010, the operator sent around 70 million items with a "pro clima" surcharge, which amounted to about 350,000 CHF in total. Swiss Post uses the collected surcharges to support a wind farm project in New Caledonia which enables a total of 27,000 tonnes of CO_2 to be offset.[74] [75]

Lessons learned:

– Consumers are able to make more environmentally responsible choices if offered carbon-neutral products.
– Business advantages: eco-conscious consumers will give preference to these products.
– By offering carbon-neutral/carbon-offsetting services, operators comply with national and international commitments.
– Side effect: operators can enhance their public image.

7 Waste management

Waste management is also an important process for economic activities. There are a range of different processes involved in disposing of waste: collection, transportation, land-filling, recycling, incineration, and composting. Even in the waste disposal processes, GHGs are generated.

According to UNEP, 3 to 5% of global manmade GHG was emitted by the waste management sector in 2005. That is almost equal to the current emissions from international aviation and shipping.[76]

In the postal sector, there are examples of operators paying attention to the final disposal of their products and trying to reduce waste emissions.

In addition, thanks to the postal network's unique ability to reach the public, some operators act as recycling hubs.

7.1 Overall policies on waste management

Here are a few examples of operators which have put in place general waste management policies for the sake of sustainable development.

Philippines

Philippine Postal Corporation adopted a waste disposal segregation policy in 2007. Bins for waste segregation were deployed at strategic locations throughout the headquarters complex, and personnel were encouraged to recycle paper and office supplies. Recyclable waste is sold and the proceeds are used to provide social assistance to staff.

[73] www.posti.fi/english/thepostsservices/green/entergreenera.html
[74] www.swisspost.ch/post-startseite/post-konzern/post-medien/post-medienmitteilungen.htm?viewId=3828&year=2011&checksum=03EE732C33F3D0E410E86F8CFBC4F02B&newsId=84961
[75] www.post.ch/en/post-startseite/post-dossier-nachhaltigkeit/post-dossier-nachhaltigkeit-oekologische-verantwortung/post-pro-clima/post-pro-clima-preise.htm
[76] www.unep.org/resourceefficiency/News/PressRelease/tabid/428/language/fr-FR/Default.aspx?DocumentID=653&ArticleID=6850&Lang=en

In 2009, at Philpost headquarters, the Office of the Assistant Postmaster General for Administration started recycling biodegradable waste into compost/fertilizer. The compost is used to fertilize the garden outside the HQ. The amount of compost produced is minimal for now.

New Zealand

Waste audits were carried out at 88 sites up to June 2009. These involved many individuals throughout the wider New Zealand Post Group. The data collected formed the basis for the Group's calculation of its waste-to-landfill baseline and the setting of reduction targets for 2009/2010.[77]

United States of America

United States Postal Service employees participate in cross-functional Lean Green Teams which helped USPS reduce energy and material consumption and waste emissions. This led to savings of more than 5 million USD in 2010. The teams also helped USPS recycle more than 222,000 tonnes of material which generated 13 million USD in revenue, and saved an additional 9.1 million USD in landfill fees.[78]

Lessons learned:

– Through these policies, operators raise their staff's awareness of issues surrounding waste.

– They can also reduce the cost of waste disposal.

7.2 Reducing waste

Many operators now avoid excess packaging when supplying their products. Here are some examples of operators discontinuing the use of plastic bags.

Australia[79]

Since July 2009, Australia Post has stopped providing plastic bags for its customers. People are encouraged to use their own reusable bags, and most post offices sell environmentally-friendly reusable bags.

Canada[80]

Canada Post likewise stopped providing plastic bags to customers in September 2009, and offers reusable shopping bags for sale.

Rwanda

In UPU International Bureau circular 168 of 2009, the Government of the Republic of Rwanda announced a ban on the entry of plastic bags into the country. Consequently, the Rwandan Post authorities recommend that postal operators no longer send items wrapped in plastic bags to Rwanda.

Slovenia

Instead of plastic bags, small recycled paper bags have been in use since 2008.

Uruguay

There has been a reduction in the postal operator's use of nylon bags. In 2008, it decided to implement a policy to phase out the use of nylon bags in making up items to be sent to business customers. Nylon bags are now not used at all for this purpose.

[77] www.nzpost.co.nz/about-us/sustainability/our-focus-areas
[78] www.usps.com/green/news/110125_green_teams_save_millions.htm
[79] auspost.com.au/about-us/waste.html
[80] www.canadapost.ca/cpo/mc/aboutus/corporate/socialresponsibility/reusablebags.jsf

Lessons learned:

– Such initiatives can save costs.

– These are eco-friendly solutions.

– They can have the side-effect of improving public health.

7.3 Waste recycling

The next step for waste management is to promote waste recycling. In the postal sector, many operators recycle waste generated by their own activities, including paper, plastics, etc. Paper in particular is one of the most important materials used for the postal sector. In 2008, 390 million tonnes of paper was produced around the world. Special attention is paid by operators to recycled paper.

Lebanon

The Lebanese operator sorts its waste (paper, nylon, glass, food, etc.) and assembles it in appropriate containers, and the recycling and waste management contractor collects it on a daily basis. The paper used in offices is recycled.

All departments at Liban Post headquarters are equipped with recycling bins to collect paper, card and plastic.

In November 2009, the operator launched its paper recycling initiative to collect recyclable material (paper and plastic), and with the help of Sukleen (the national waste management authority) it was able to deliver the large quantities of recyclables collected on a daily basis.

The contractor then recycles the collected materials at local recycling plants and re-distributes them.

Liban Post estimates that 300 to 500 A4 sheets are sent for recycling each day, amounting to between 78,000 and 130,000 sheets, or 390 to 650 kg, per year.

Based on the observations and estimates of the maintenance and cleaning contractors responsible for the waste collection at its headquarters, waste has fallen by up to 25–35%, mainly through people being more conscious of the recycling effort and doing their share in terms of reducing waste, reusing paper and printing less.

Maldives

Since 2009, Maldives Post has been printing internal documents on the back of discarded A4 sheets already used for one-sided printing.

In 2009, 625 reams of A4 paper were used (one realm contains 500 sheets). In 2010, 725 realms were used up to the end of October, but this figure would certainly have been higher still if the Post had not adopted this policy of re-using A4 paper for internal documents.

Uruguay

Paper and cardboard left over from operational processes are currently sold to recycling firms. About 20,000 kg of paper and cardboard are sold to such firms each year.

This accounts for a good percentage of the waste produced by the postal processing centre and some of the waste produced by the head office.

The company hopes to further expand this recycling initiative to cover the entire head office building and to include other offices.

Hungary (Rep.)

Magyar Posta has introduced selective waste collections for some materials. Paper is collected at most of its premises. The Post is continuously expanding the collection of packaging waste and PET bottles. Collected waste is handed over to contracted partners with the appropriate licence for further processing.

Hazardous waste is also collected separately, and forwarded selectively to the central hazardous waste collection points. Licensed partners transport the waste from these points. Under Hungarian law, only companies with an environmental protection authority licence may transport and treat collected waste.

In 2009, Magyar Posta collected 1,242 tonnes of paper, 40 tonnes of synthetic materials, and 111 tonnes of hazardous waste.

Slovenia: Sorting of rubbish

Posta Slovenije sorts and separates paper, empty ink cartridges, empty batteries and other waste. About 75% of waste is recycled.

Korea (Rep.)

Korea Post's mail carriers are now wearing clothes made from fibre recycled from PET bottles. The process involves slicing recycled PET bottles into tiny pieces. The resulting fibres are then refined. Up to 11 recycled PET bottles go to make a uniform, and approximately 389,000 bottles are being used to manufacture 35,000 uniforms.

The new uniforms will lead to a reduction of 22,000 kilogrammes of CO_2 emissions from discarded materials. This is the first time in six years that Korea Post uniforms have been modified.[81]

Lessons learned:

– Operators can reduce waste emissions by recycling.
– Operators can reduce the cost of waste disposal by reducing waste emissions.
– Some operators have benefited from selling recyclables.
– There can be direct financial benefits (money saved through recycling).
– To achieve effective results, creating the right atmosphere and educating staff is also important.
– Operators can enhance their public image through such initiatives.

7.4 Acting as hubs for waste collection

Some operators accept waste not generated by their own operations. Posts possess a large physical network, with a direct interface to the public, so it makes sense for them to serve as hubs for collecting waste.

France

La Poste has joined forces with Love2recycle, a company that gives used digital equipment a second lease of life by recycling or reconditioning and reselling.

The French operator provides customers with free envelopes for them to send their old equipment.[82]

Japan

Japan Post Service participates in a scheme to collect used ink cartridges for recycling with six printer manufacturers.[83] In financial year 2009, 1.3 million used ink cartridges were collected and sent back to the printer manufactures for reuse.

[81] postandparcel.info/35932/environment-news-2/korea-post-shows-a-lot-of-bottle/
[82] UPU Sustainable Development Project Group Newsletter, No 15, April 2010 (www.upu.int/en/activities/sustainable-development/sustainable-development-newsletters.html)

The operator has also set up a service that allows members of the public to send in their old electrical equipment for recycling. This provides a means for the Post to provide a service and encourage recycling while complementing the recycling that it carries out itself.[84]

United States of America

In 1,500 USPS post offices, customers can obtain free mail-back envelopes for recycling inkjet cartridges, mobile phones, PDAs, digital cameras and other similar items. Postage is paid for by a nationally recognized company that recycles, remanufactures and remarkets inkjet cartridges, laser cartridges and small electronic items.

In 2009, about 69,000 kilogrammes of material was recycled through the mail-back envelopes.[85] [86]

Lessons learned:

– Such initiatives can help to reduce collection costs.
– Recycling is improved.
– Posts can enhance their public image.
– Posts can generate new contacts with customers.
– New business opportunities can open up.

8 Raising awareness

Tackling environmental issues calls for concrete action by individuals. So raising the awareness of the public is important, for the postal sector as for any other sector. This awareness raising has two particular aims:

Firstly, the Post is a huge sector which has great potential to become more sustainable by raising awareness within the sector itself.

And secondly, the postal sector has a huge network with a direct public interface. A number of operators have made use of this huge network to raise the awareness of the public.

8.1 Changing the everyday habits of staff

The postal sector has 5.5 million employees around the world. In addition, designated operators are one of the biggest employers in each country. So the sector and operators consume a lot of energy and natural resources. To reduce the total consumption of the sector and of operators, staff cooperation is essential. Here are some good examples of operators raising awareness among their employees.

Cambodia

At Cambodia Post, awareness-raising stickers are displayed in offices and toilets:

– Please turn the light and water off before leaving.
– Save water and electricity, save the environment.
– Love the environment, love ourselves.

Maldives

All staff are informed through office memos, flyers and posters of the need to save water and electricity. Bills for both water and electricity have fallen as a result.

[83] UPU Sustainable Development Project Group Newsletter, No 15, April 2010 (www.upu.int/en/activities/sustainable-development/sustainable-development-newsletters.html)
[84] Postal Technology International, March 2010
[85] www.usps.com/mailpro/2008/marapril/page16.htm
[86] www.usps.com/green/report/2009/services.htm#vending

Mauritius

Circulars and newsletters are issued on a quarterly basis to raise staff awareness of the importance of reducing energy and water consumption. Following the first circulars and newsletters, Mauritius Post's energy and water consumption fell by 10%.

Mauritius Post promotes waste reduction and use of recycled materials among staff. Posters are displayed in post offices to disseminate products prompting post office staff to consider measures to protect the environment, such as eco-designed products made from recycled paper and other recycled materials.

Tanzania (United Rep.)

A "switch off when not in use" initiative has been in place since the inception of the Tanzania Posts Corporation in 1994. The operator reminds staff of this initiative through post office circulars and notices on staff notice boards. Tanzania Post estimates that these actions cut consumption of electricity by between 2 and 4%.

Lessons learned:

– Direct effect: reduced energy consumption and lower drain on natural resources in daily operations.
– Substantial reductions achieved with relatively low costs.
– Involvement of staff is essential.
– Working conditions can also be improved through such initiatives.

8.2 Raising public awareness

The postal network is the largest physical network in the world, with more than 660,000 post offices. Millions of people visit post offices every day or perform postal operations through Posts' websites. This means that the sector has a potential to reach people around the world and to raise public awareness.

8.2.1 Organizing campaigns

As a part of CSR activities, some postal operators organize and participate in campaigns which raise the awareness of the public.

Viet Nam

Vietnam Post takes part in the Earth Hour and Environment Day campaigns. Earth Hour is an annual international event launched by the World Wildlife Fund to encourage households and businesses to save electricity in non-essential areas for one hour on the last Saturday of every March.

World Environment Day is a United Nations event held each year on 5 June to raise worldwide awareness of environmental issues and encourage political action.

Viet Nam takes part in these global programmes by launching national programmes and campaigns in which Vietnam Post takes an active part. VNPT took part in the National Earth Hour campaign by turning off lights during Earth Hour to save electricity.

VNPT's participation in these activities has helped it to reduce water and electricity consumption in postal production activities.

Botswana[87]

Botswana Post, in common with other countries throughout the world, commemorates the annual World Post Day. An event on the theme of "A postal service committed to green growth" was held at Mmankgodi Village in Kweneng District. In line with the theme, Botswana Post planted trees at three schools, and then donated

[87] www.botspost.co.bw/doc/botswana_post_newsletter09_edited.pdf

further trees to the Mmankgodi community as a way of emphasizing the importance of environmental conservation.

Morocco[88]

Morocco Post sponsors campaigns to raise public awareness of environmental issues.

"Let our beach smile" is an annual campaign designed to offer visitors clean and healthy beaches suitable for recreational activities and water sports.

Under the auspices of the Mohammed VI Foundation, Morocco Post contributes to public health infra-structure and equipment for daily cleaning of the beach, waste collection, etc. This campaign also covers cultural, arts and sports activities.

The next campaign involves planting of trees. To celebrate Earth Day, Morocco Post planted 100 trees in the Bettana area of Salé in 2008.

Thailand[89]

"Thailand Post Youth Camp 2008: Thai Youths for a Green Environment" was a project to educate young people about Thailand's postal business and Thai postage stamps and to instil them with a love of nature and awareness of the crisis of global warming. Camp experiences stressed hands-on learning.

Thailand Post lent support to the project "Earth Conservation with Jaew" initiated by Samsip Yang Jaew, a TV talk show broadcast on Channel 3. All post offices nationwide were turned into drop-off points for used drink containers. The project managed to reduce Thailand's waste by 208 tonnes, the equivalent of 188 tonnes of carbon dioxide that would otherwise have been released into the atmosphere. The used containers were recycled and used to make chairs, tables, and stationery items, all of which were later given to the Border Patrol Police School.

Lessons learned:

– Indirect effect: public becomes environmentally conscious, individuals' behaviour changes.
– Operators enhance their public image.
– Postal offices are positioned as a key infrastructure for public campaigns.

8.2.2 Philately as a public awareness tool

Philately has a long history and a big influence on the public. In 2009, about 7,000 different postage stamps were issued. In 2010, designated operators gained about 27.7 billion USD from postage stamp sales.

To raise the awareness of the public, the postal sector has issued stamps on a number of specific themes.

In 2009, 91 stamps on the theme of global warming were issued and registered in the World Numbering System (WNS), jointly developed by the World Association for the Development of Philately (WADP) and the UPU.[90]

Here are some examples:

– AR005.09: Argentina.
– IS006.09: Iceland.
– AZ011.09: Azerbaijan.

[88] www.bam.net.ma/
[89] www2.thailandpost.com/AnnualReport/en/ANNUAL_REPORT_2008e.pdf
[90] www.wnsstamps.ch/en/stamps?search%5Bsubtheme_id%5D=16261&search%5Btheme_id%5D=6&search%5Byear%5D=2009

In 2010, numerous stamps were issued to mark the "International Year of Biodiversity" and promote efforts to "preserve the polar regions and glaciers", and the UPU International Bureau has invited the designated operators of UPU member countries to include in their 2010 or 2011 stamp programme one or more stamps and philatelic products marking those events.[91]

Aside from stamps, new international reply coupons with the UNEP logo "UNite to Combat Climate Change" have been put into circulation. Ten million reply coupons are expected to be in circulation between 2009 and 2013.[92]

Lessons learned:

– Stamps raise the awareness of the public.

– Issuing stamps is good for businesses.

Conclusions

This publication has aimed to set out some of the best practices followed by postal operators in the area of sustainable development.

The UPU International Bureau hopes that this guide will inspire other operators to be greener in their operations, and thus help to make the postal sector as a whole more sustainable.

For operators, going green can lead to reduced costs and strengthen the foundations of their business, and Posts stand to reap benefits in terms of public image. In other words, even in financial terms the benefits can outweigh the costs.

So what options exist to become a "green Post"?

The first option is to adopt green policies and seek certification. This guide provided examples of operators establishing general environmental policies for the running of their business. Through general policies, operators can achieve indirect cost-cutting effects and indirect environmental effects. To have direct effects, specific measures need to be taken. Policy-making processes and policy-implementation processes are different, so it is desirable to clarify who is in charge of the implementation process. In addition, each operator has its own particular conditions, but actions should be replicable.

Certification by third parties is also important. Operators have to invest a certain sum to obtain certification, but they make savings in the long run. Through the process of acquiring certification, operators can improve their environmental management ability and can enhance their public image.

The second option is to measure one's own environmental impact. By measuring this impact, operators can properly acknowledge their own figures and set concrete targets, and then take concrete reduction measures. In addition, having certification is a great advantage for operators in terms of CSR and their business strategies.

The third option is to work towards mitigation. There are numerous examples of Posts taking mitigating action, which for operators can translate into simultaneous reductions in costs and emissions. Some operators reduce energy consumption by limiting fuel consumption and through other direct measures.

In the transportation field, some operators have reorganized their postal processes. Concerning vehicles, operators can adopt regular maintenance routines and switch to new "green vehicles". In addition, staff education in eco-driving and introduction of new technologies are effective measures. Through these actions, operators can achieve reductions in energy consumption and at the same time improve drivers' safety.

Regarding buildings, operators are now paying much more attention to the environment when building and renovating buildings. Several operators have put in place general policies for premises and build "green

[91] www.upu.int/en/activities/philately/about-philately.html
[92] www.upu.int/en/activities/sustainable-development/environment/environment-upus-commitment.html

buildings" which are both user friendly and worker friendly. Through these actions, operators can reduce GHG emissions from buildings and transportation, and in some cases also cut costs at the same time.

The fourth option concerns procurement, with operators adopting green purchasing policies and procuring environmentally responsible products. This helps to make operators more sustainable in terms of their consumption, and can help suppliers to become more sustainable in providing goods.

The fifth option relates to renewable energy. Some operators use renewable energy like solar power for their operations, while others purchase green electricity. Through such measures, operators can reduce energy consumption and improve their public image.

The sixth option is to supply products that consume fewer natural resources. There are a number of examples of operators offering environmentally responsible products like reusable packaging and carbon-neutral products/services. By offering such products, operators can reduce consumption of natural resources and waste emissions. In addition, operators can enhance their image. And consumers are able to shop sustainably with eco-conscious products.

The seventh option is in the area of waste management. Some operators have general policies for waste management and for improving recycling. In this way, operators can reduce waste emissions. In addition, operators collect third-party waste by acting as hubs for collection. This helps makes waste collection much easier and enhances the Post's CSR.

The eighth option is to take action to raise awareness. By educating staff, operators can achieve a great reduction in energy consumption. At the same time, some operators organize campaigns to raise public awareness. In addition, some operators use stamps to influence the public. Through these actions, operators can boost their public image.

So there is no shortage of options for operators to turn themselves into sustainable, green Posts. We hope this guide will provide them with some inspiration.