



Reducing and Eliminating Paper Consumption


A Best Practice Guide for Corporate Offices

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1.0 Paper Reduction & Elimination – The Quick Guide

Here is our quick tips guide to massively reducing paper consumption in your office by running a sustained paper reduction campaign. Further detail can also be found by clicking on the  next to highlighted text where displayed.

1.1 Project Preparation

1.1.1 Establish Campaign Team & Create Organisation Commitment

- Appoint a campaign manager
- Establish a cross functional team
- Define campaign objectives
- Create a campaign logo and slogan
- Obtain management commitment to objectives

1.1.2 Identify Current Paper Consumption

- Define your campaign scope
- Collect data from print data sources
- Collect data from paper procurement sources
- Summarise print and paper consumption data

1.1.3 Analyse Data and Identify Reduction / Elimination Opportunities

- Research best practices in reducing paper consumption
- Identify each driver for paper consumption
- Identify “quick-win” opportunities
- Identify long term paper saving actions
- Prioritise work effort, investment requirements and returns
- Determine environmental impact and ROI

1.1.4 Set Targets and Communicate to the Organisation

- Set aggressive targets for paper reduction
- Obtain management commitment
- Communicate campaign targets and actions to the organisation

1.1.5 Develop Project Plan

- Develop a standard project plan

1.2 Best Practice Tips to Reduce Paper Consumption

Standard Chartered have identified these practices through research and our own internal sources. Although we have not applied these universally within our organisation, we have adopted many of these and continue to increase the adoption in the markets in which we operate. All of these best practices need to be adapted for your specific business needs, industry, regulatory environment and required internal controls.

1.2.1 Conduct a Paper Audit

- Eliminate unused reports via a print audit
- Review paper record retention policies within laws/regulations/policies

1.2.2 Review Paper Type and Size

- Consider 65GSM paper over 85GSM paper
- Consider recycled paper over normal paper
- Use smaller size paper / packaging

1.2.3 Review Print Output Formatting

- Reduce default font size in templates
- Reduce default line spacing
- Reduce margins
- Eliminate redundant text from templates
- Reduce header / footer size
- Reformat reports/spreadsheets to fit a full page
- Reduce report detail
- Default double sided print
- Fit to page (spreadsheets)
- Multiple slides per page (for slide presentations)

1.2.4 Consolidate Print Output

- Merge/combine multiple reports outputs for the same recipient
- Reduce envelopes by mailing reports/outputs together

1.2.5 Reduce Print Frequency

- Consider to:
 - Convert daily reports/output to weekly/monthly
 - Convert weekly reports/output to monthly/quarterly/yearly
 - Convert monthly reports/output to quarterly/yearly

1.2.6 Adopt Fax & Copier Best Practices

- Default duplex copying
- Use stick on labels/eliminate cover sheets
- Shutoff confirmation receipts if not needed
- Resize images to fit page
- Maintain copiers to avoid jams

1.2.7 Re-use Paper

- Adopt re-usable envelopes for internal mail
- Save and re-use paper packaging
- Re-use paper printed on one side only

1.2.8 Implement Responsible Print Guidelines

- Develop guidelines aligned to your specific business
- Communicate guidelines internally

1.2.9 Change Print Behaviour

- Implement paperless meetings using laptops, projectors and portable devices
- Implement paperless training environments
- Discourage printing attachments in meeting invitations
- Add print campaign message to email signatures
- Add print campaign message in header / footer of attachments
- Install print campaign message on printer displays
- Encourage use of print preview to eliminate waste
- Encourage use of print selected pages to eliminate waste
- Educate staff on the environmental impact of print

1.2.10 Deploy Paper Saving Hardware

- Install multi-function devices (print, scan, copy)
- Install image scanners to replace paper workflows
- Install fax gateway solution
- Install printer based pin-code / access card readers
- Install duplex enabled printers and default double sided printing
- Install data projectors in meeting rooms
- Install wireless LAN to support paperless meetings
- Make use of mobile/portable devices
- Consider digital pens
- Adopt eReaders for your organisation instead of paper

1.2.11 Deploy Paper Saving Software

- Implement electronic invoicing / statements
- Implement other electronic channels (e.g. Internet Banking)
- Eliminate duplicate/obsolete records from mailing lists
- Adopt electronic billing from suppliers
- Consolidate invoices / mailing
- Adopt electronic forms
 - Approvals, purchase orders, applications
- Implement electronic workflow software
- Educate staff on the use of standard software (e.g. PC Memo over paper notes)
- Consider specialist Paper Saving software
 - Refer Appendix A
- Enhance system interfaces to eliminate/reduce internal printing needs
- Automate manual processing steps generating paper in your business processes

1.2.12 Review Other Sources of Office Paper Waste

- Newspapers
- Magazines
- Books
- Notepads
- Business cards
- Calendars
- Washrooms
- Kitchens
- Annual Reports
- Brochures
- Marketing
- Manuals
- Envelopes
- Other Stationery
- Packaging
- Invitations
- Tissues
- Sticky Notes
- Outsourced print
- Supplier Invoices / Delivery Notes
- Etc.

1.3 Project Execution

1.3.1 Campaign Reporting

- Manage campaign schedule, risks and issues
- Track progress against targets using print/procurement data sources

1.3.2 Communications

- Communicate progress to management
- Communicate progress to staff
- Celebrate and reward success stories
- Share best practices between departments
- Continue staff education

1.3.3 Continuous Improvement

- Revisit targets periodically towards pursuit of a paperless office
- Sustain the focus and continue communications

1.4 Re-Invest Your Savings

1.4.1 Ways to Invest Your Savings

- Consider to plant trees
- Sponsor other environmental initiatives
- Convert to recycled paper (usually higher cost)
- Invest in more paper saving technology
- Invest in environmental education for your staff

2.0 Standard Chartered and the Environment

Standard Chartered PLC, Listed on both the London Stock Exchange and the Hong Kong Stock Exchange, ranks among the top 25 companies in the FTSE-100 by market capitalisation. The London-headquartered Group has operated for over 150 years in some of the world's most dynamic markets, leading the way in Asia, Africa and the Middle East. Its income and profits have more than doubled over the last few years primarily as a result of organic growth, supplemented by acquisitions.

Leading by example to be the right partner for its stakeholders, Standard Chartered is committed to building a sustainable business over the long term that is trusted worldwide for upholding high standards of corporate governance, social responsibility, environmental protection and employee diversity. It employs over 70,000 people, nearly half of whom are women, The Group's employees are of 125 nationalities, of which 68 are represented among senior management.

Many of our markets are already suffering from extreme weather conditions such as devastating floods, severe droughts, snowstorms and heatwaves. Climate change is making them more frequent and more dangerous. We are conscious of our responsibility to reduce our direct impact on the environment. We work with employees, customers and other stakeholders to raise awareness, stimulate action and reduce their impact on the environment. We set ambitious targets to minimise our own carbon footprint. We finance businesses and projects that will reduce emissions and help people adapt to climate change.

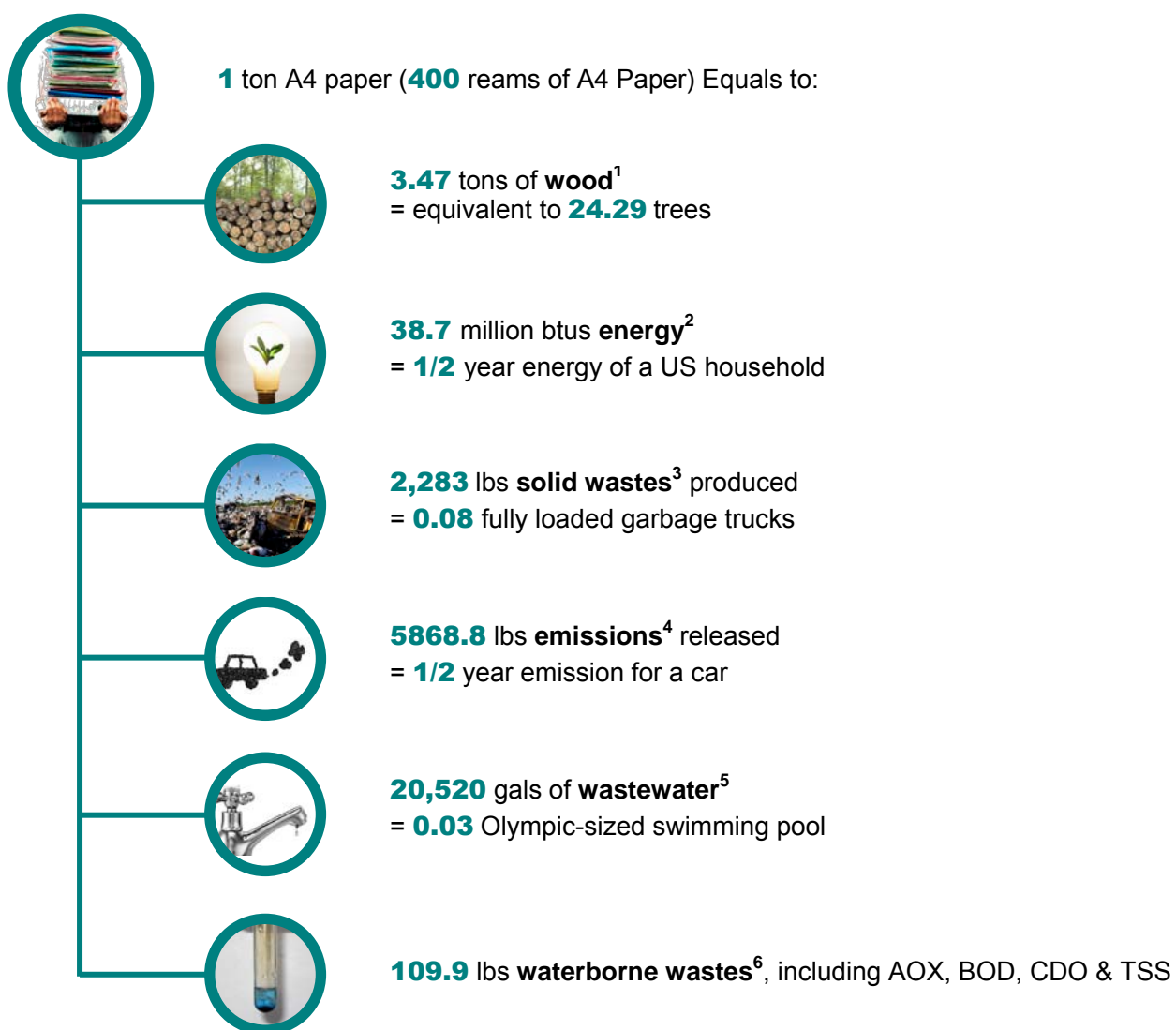
One of the greatest direct contributions we can make to protect the environment is reducing paper consumption. This paper contains the best practices we have collected in our efforts to reduce our own paper consumption. We have prepared this document in the hope that it may help other organisations to do the same. This document may be freely distributed.

3.0 The Environmental Impact of Paper Consumption

Paper consumption is one of the most direct and visible impacts to the environment made in corporate offices. Rapid technology advances mean creating electronic alternatives to paper based output can be very cost effective. Whilst technology is helping to reduce consumption, wasteful print practices and behaviour within an organisation is usually one of the largest sources of consumption.

The environmental impact of paper consumption is very significant.

Some Green Facts on paper:



Translate this now into what this means for your business. Reducing office paper consumption can have a major positive impact on our environment.

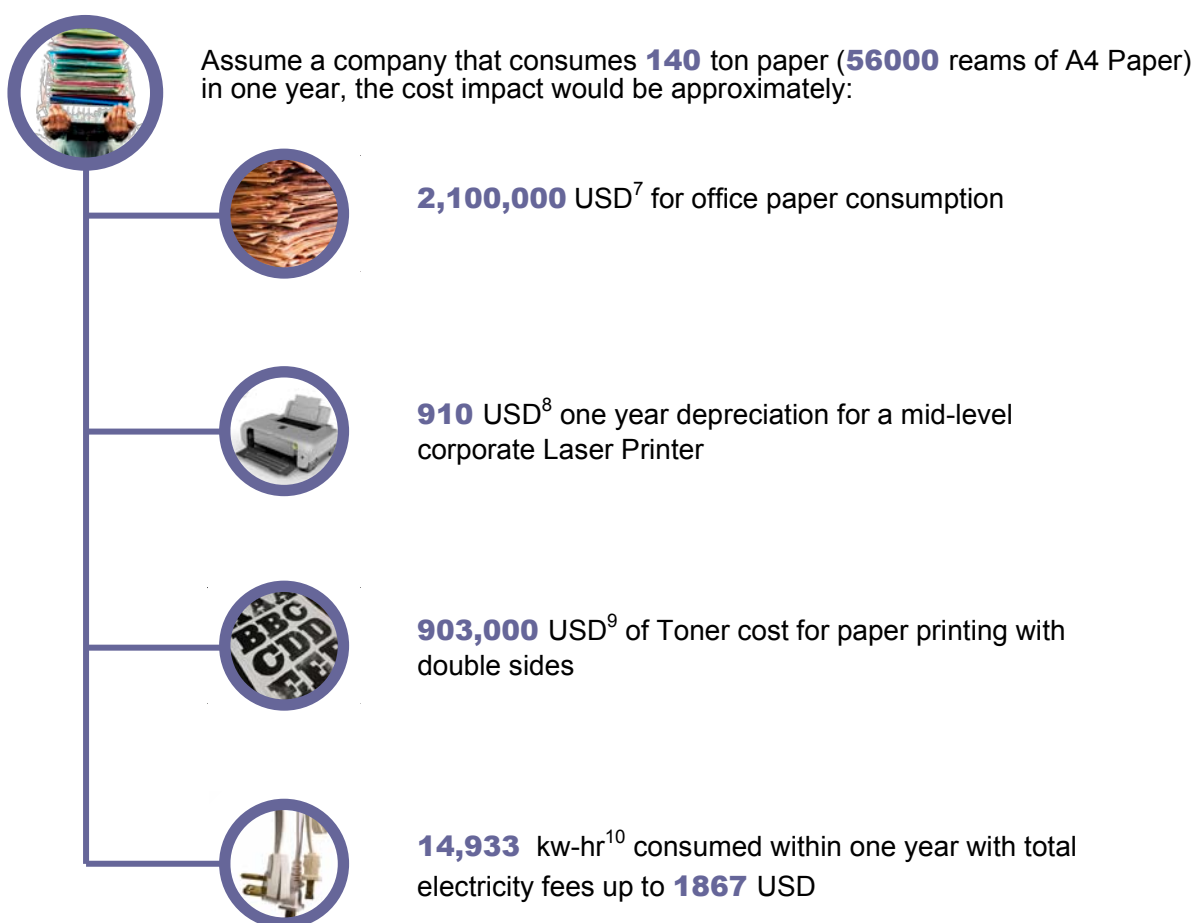
Footnotes:

- 1) Wood use measures the amount of wood required to produce a given amount of paper. The number of typical trees assumes a mix of hardwoods and softwoods 6-8" in diameter and 40' tall.
- 2) Solid Waste includes sludge and other wastes generated during pulp and paper manufacturing, and used paper disposed of in landfills and incinerators. 1 fully-loaded garbage truck weighs an average of 28,000 pounds (based on a rear-loader residential garbage truck).
- 3) The average household uses 91 million BTUs of energy in a year.
- 4) Emissions, including carbon dioxide (CO₂) from burning fossil fuels and methane from paper decomposing in landfills, contribute to climate change by trapping energy from the sun in the earth's atmosphere. The unit of measure is CO₂ equivalents. The average car emits 11,013 pounds of CO₂ in a year.
- 5) Wastewater measures the amount of process water that is treated and discharged to a mill's receiving waters. Wastewater volume indicates both the amount of fresh water needed in production and the potential impact of wastewater discharges on the receiving waters. 1 Olympic-sized swimming pool holds 660,430 gallons.
- 6) Waterborne Wastes include AOX (Absorbable Organic Halogens), BOD (Biochemical Oxygen Demand), CDO (Chemical Oxygen Demand), TSS (Total Suspended Solids)

4.0 The Cost Impact of Paper Consumption

If saving the environment isn't a compelling enough reason to start a paper reduction campaign in your company, then the cost savings you can achieve might be. Often the full costs associated with print and copy, are not completely visible. These costs consist of the paper itself, ink and toner, maintenance, energy consumption, capital cost/expense and depreciation.

Some Cost Estimates on Print & Copy:



So in one year, total cost for paper printing in this company would amount to more than **3 million** USD.

Footnotes:

7) 0.075USD for one page of A4 paper

8) 5 years of depreciation period for 4540USD

9) According to ISO standard for printout volume, one X644X11P type Cartridge costs 3520 RMB/516USD and prints 32000 one-side A4 paper

10) 800W as unit power consumption, 3000 page/hr for one printer, 0.1USD for electricity power unit price

5.0 The Results Your Organisation Can Achieve

5.1 Case Study One

Standard Chartered China “Save Our Forests” Campaign

In August 2009, Standard Chartered China launched a campaign to reduce their direct environmental impact, by significantly cutting paper consumption. The best practices contained in this paper, were collected in the course of the planning, research and execution of the campaign. Standard Chartered China is continuing to increase their adoption of these best practices, in the continuous pursuit of the campaign objectives.

Project Objectives

- Reduce paper consumption by 25% within 1 year
- Reduce paper consumption by 50% within 2 years
- Generate savings to fund further technology investment
- Generate savings to give back to the environment
- To make a positive, direct impact on the environment

Project Scope

- All Standard Chartered China staff and premises
- All print and copy generated internally
- All outsourced print and copy usage

High Level Approach

- Project Champion assigned
- Best practices research undertaken
- Consumption data and procurement sources analysed
- Savings targets established and actions identified
- Management committee sponsorship obtained
- Cross functional team formed with departmental “paper saving champions”
- Campaign commenced and action items executed
- Ongoing progress tracking, technology enhancement and behavioural change
- Recognised and rewarded success stories

Major Sources and Initiatives for Paper Saving

- Active staff education and awareness
- Customer adoption of electronic statements
- Adoption of imaging and paperless workflow technology
- Printer rationalization and multi-function devices
- Defaulting duplex printing
- Reformatting print output
- Strong communications and progress tracking

Results

- 38% reduction achieved by end 2009 (within 5 months)
- Campaign is continuing towards 50% goal in two years

Reinvestment

Standard Chartered China elected to reinvest a share of the savings in planting **6000** trees through Shanghai Roots & Shoots, an environmental education nonprofit that runs a tree planting program in Inner Mongolia, China.

www.jgi-shanghai.org | www.mtpchina.org



Project Team

5.2 Case Study Two

Standard Chartered China eStatement / eAdvice Campaign

Financial institutions are amongst the largest paper consuming Organisations within all industries. Traditionally, a large component of the paper consumption within financial institutions, is driven by the regular delivery of customer statements and advices. Typically, these statements are issued monthly for consumers. Corporate customers often require daily advices for various transactions.

With advances in technology and customers increasingly showing preference for electronic communications, Standard Chartered China developed an electronic Statement & Advice service. The eStatement/eAdvice service allows customers to receive their account statements and transaction advices via encrypted email. Not only does the service help the environment, delivery is almost instantaneous which is greatly appealing to customers and avoids delivery times through traditional physical mail.

Key Achievements:

As at April 2010:

- **93.3%** of individual customers and **27.2%** of corporate customers have signed up for the service.
- More than **95%** of staff have signed up for eStatements.
- **837,806** sheets of paper (approx. 101 trees) have been saved from corporate customers since launch.
- Approximately **3,000,000** sheets per annum are being saved from individual customers.

Standard Chartered China are expecting significant further uptake from corporate clients in 2010 – many of whom are equally focused on saving paper and reducing their own direct environmental footprint.

6.0 Creating the Culture for Success

One of the most critical components that will ultimately impact the success of your campaign, is the values and culture of your organisation. In the Case Studies mentioned in section 5.0, a large contributing factor to the successful results is the internal culture. Standard Chartered assesses individual performance not only against job objectives, but also against our values. Making a contribution to the environment and to the community through our many Corporate and Social Responsibility (CSR) programs is strongly encouraged.

Your organisation values and culture and receptiveness to change, will have a direct impact on the success of your program. Some questions you may ask to test your Organisational readiness for success:

- Do you have a strong campaign champion within your organisation?
- Do you have strong management sponsorship for the campaign?
- Are your senior management prepared to lead by example?
- Does your organisation recognize and reward environmental achievements?
- Is your organisation willing to re-invest the savings?

If your answer no to any of these questions, don't let that be a disincentive to start your campaign. However, if you are in a position to answer yes to all or most of these questions, your organisation is probably in a very good position to be able to achieve great results from a paper saving campaign.

7.0 Send Your Feedback

We welcome your feedback on this paper. We aim to update it with any new ideas and innovations that eliminate paper consumption or reduce paper waste.

Note: you will receive an automated reply from this email address. Your success stories will be shared with our staff who helped research and write this paper and to contribute to future updates.

Email: savepaper@sc.com

Appendix A – Some Useful Links

www.greenprint.com

www.papercut.com

www.rightfax.com

www.plasticlogic.com

www.edf.org/papercalculator

http://www.panda.org/how_you_can_help/greenliving/at_the_office/reducing_paper/

<http://www.paperlessalliance.com/>

<http://www.rootsandshoots.org/campaigns/trees/about>

http://www.sanwa-newtec.co.jp/english/products/rp_rp_3100_e.html

Appendix B – Our Carbon Calculator

Our Carbon Calculator is a unique tool that can be used to measure carbon dioxide (CO₂) emissions by households in more than 50 countries.

<http://www.standardchartered.com/sustainability/environment/carbon-calculator/en/index.html>

Our Carbon Calculator is a unique tool that can be used to measure carbon dioxide (CO₂) emissions by households in more than 50 countries.

CO₂ is one of the main greenhouse gases linked to climate change and is emitted through daily activities. Use the Carbon Calculator to calculate your household's carbon emissions and get advice on how to reduce them.

Quick >> **Detailed >>**

Choose the quick calculator. Or if you have them handy, your household bills might have information on them to help you get a more detailed calculation.

- Country
- Home
- Private Vehicles
- Public Transport
- Flights
- Reductions

0.00 tCO₂

Appendix C – Best Practices Further Details

1. Conduct A Paper Audit

Unused reports are a common source of paper waste. A paper audit usually consists of validating the business purpose of printed reports with each report recipient. These days, technology has advanced to the point printed reports are often not necessary. Without periodic review, organisations may find they are printing reports that are no longer used or required for their business or instances of duplicate reports.

Paper record retention policies, laws and regulations can be one of the single greatest reasons why organisations consume paper. These policies and associated practices should be reviewed periodically to validate the need for print and also explore the acceptability of electronic alternatives.

Organisations may find they are printing on A3 paper instead of A4 paper for example, when smaller size paper options are adequate. For some industries, office packaging can contribute significantly to paper waste. Choosing smaller packaging design or redesigning the packaging itself can be a great way to reduce paper consumption.

2. Paper Source

GSM in the context of paper stands for grams per square metre. It is a measure of the paper weight. Lighter weight paper uses less fibre and results in a significantly lower environmental impact. Considering 65GSM paper over 85GSM paper for example is a great way to reduce your environmental impact, even if the amount of print itself is not reduced.

There is a significant amount of material available highlighting the benefits of using recycled paper. Environmental Defense Fund's Paper Calculator will help you quantify the benefits of better paper choices. The Paper Calculator shows the environmental impacts of different papers across their full lifecycle. Click <http://www.edf.org/papercalculator/> to find out more.

3. Print Output Formatting

All these best practices can be enabled through output formatting changes (may require IT support), software or hardware settings. If unsure how to enable these, use the help screens within your software or consult the printer manufacturer. To maximise the benefits here, defaulting the optimal settings is recommended and ongoing user training / education on these features is advisable.

4. Consolidate Print Output

Envelopes can be a less visible source of paper consumption. Organisations can substantially reduce envelope consumption by:

- merging multiple outputs generated for the same recipient (may need IT support)
- combining multiple outputs into a single envelope (which also reduces mailing costs); and
- re-timing the frequency of outputs to enable consolidation.

For certain types of print output, eliminating envelopes completely may be an option, depending on the sensitivity of the information and ability to format the print output.

5. Reduce Print Frequency

The benefits in this step can be very fast to realise. Think of the potential savings here:

- Changing weekly output to monthly could save more than 75%
- Changing monthly output to quarterly, could save up to 66%
- Changing daily output to weekly, could save up to 86%

Each organisation has unique customer requirements. Reducing print cycles and frequency may be the next best alternative if electronic output is not an option.

6. Adopt Fax & Copier Best Practices

Similar to printer technology, advances are being made rapidly in copy technology. Most copiers these days provide advanced capabilities to help organisations reduce print. If your copier does not provide these capabilities, consider the cost and environmental impact of replacement with an updated model. For conventional fax machines, many of these capabilities also exist although they may be more difficult to enable. Refer to section 7.11 for further information on electronic fax gateway solutions.

7. Re-Use Paper

Some of these practices such as reusable envelopes have been adopted for years in many companies for internal mail and packaging. If your organisation is not printing sensitive information, keeping trays of used paper that is only printed on one side, can be an excellent way of reducing paper consumption.

There are some major advances in technology taking place in this space. The advent of eReaders is a development that may eventually reduce print here further. During our research, we also identified at least one organisation that

has invented a re-usable paper alternate using thermal printing. The text/print is automatically erased and overwritten, each time the “paper” is re-used. We have provided a link to the manufacturer’s site (Sanwa) in Appendix A.

8. Implement responsible print guidelines

Having a set of guidelines for responsible printing is not essential, but it is a great way of formalising your company views on acceptable print. Most organisations these days have a far greater awareness of environmental issues and a sincere desire to adopt environmentally sensitive business practices. Developing print guidelines linked to your organisation environment policy and use of company resources, is a great way to ensure awareness is raised. Guidelines can be communicated in a visible form in areas where staff may think actively about print decisions. E.g. on or next to printers/copiers, in meeting rooms etc. Some organisations may even wish to go the extent of creating a formal print policy.

9. Change Print Behaviour

Many organisations may start from the perspective that most print is “structural and systemic” and that changing print behaviour may not have a significant impact on your campaign results. Whilst each organisation will be different in this respect, education and changing behaviour is one of the most essential elements of running a paper reduction campaign. To sustain results, it is therefore essential that communications and education is ongoing, even once targeted paper reduction targets are achieved. It is very easy for old habits to return.



A sample of education message on printer displays

Each organisation will have a different appetite for the volume and type/method of communications and how far they are prepared to go in order to achieve their targets.

10. Deploy Paper Saving Hardware

To stay abreast of the technology advances in paper saving technology is difficult. Green Technology is the target of enormous investment and virtually all of the major hardware suppliers are giving environmental issues major focus. It is reasonable to assume many of the traditional players in print, fax and copy, will continue to innovate and assist organisations to further reduce their paper consumption.

These technologies are all worth considering:

- Multifunction devices, to encourage scanning over printing and copying
- Access Card readers / pin pads that hold print jobs and purge if not collected, can eliminate wasteful print output being left at printers
- Standalone scanners encourage electronic transmission and support paperless workflow
- Fax gateway (<http://www.faxgateway.com>) and web fax (<http://web-fax.com/>) solutions eliminate paper faxes and can send faxes via email or other electronic means
- Duplex print is enabled on most printers these days, but worth checking your printer fleet and ensuring duplex is the defaulted print setting
- Data projectors in meeting rooms and having some lightweight portable projectors encourages paperless meetings
- Convenient network access via LAN/Wireless may also help reduce the need for paper
- Digital pens that convert written text to digital text are not widely adopted, but suitable for some businesses
- Mobile devices and eReaders are growing rapidly in popularity as a replacement for paper

There have been some major advances in portable and eReader technology. Plastic Logic (www.plasticlogic.com / www.que.com) have recently developed one of the most interesting technology advances in this space with the launch of the "QUE".

11. Deploy Paper Saving Software

Just like the hardware space, almost on a daily basis we are seeing advances in paper saving software – many from smaller businesses.

Market ready technologies include:

- Standard feature in desktop office software mentioned earlier (eg. Fit to page, multi page print)

- Enterprise print management software (e.g. Papercut – www.papercut.com)
- User based desktop print optimisation software (e.g. Greenprint – www.printgreener.com)
- Electronic billing and invoicing, which can be enabled through most ERP software packages and third party solutions
- Electronic workflow and content management can be used to “Green your Business Processes”, using technologies like Sharepoint and Filenet

Another simple source of saving is training your users to make better use of standard desktop software – e.g. PC or handheld based memo pads. These are one of the best ways to avoid the masses of paper generated by corporates at conferences, training and events and make better use of laptop computers used widely in corporates.

Million Tree Project



Standard Chartered Participates in The Million Tree Project to Prevent Desertification in Inner Mongolia



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