

# THE GREEN OFFICE HANDBOOK





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# Introduction

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## What is a Green Office?

A greener workplace can mean a lighter ecological footprint, a healthier and more productive place to work, and also a meaningful way to reduce your corporate overheads. Implementing a light environmental management system for your office is also a way to inspire staff and board members and help build corporate identity.

## Four good reasons to Green your Office

- ✓ Reduce your company's ecological footprint
- ✓ Reduce corporate expenses
- ✓ Enhance the company's image among staff, stakeholders, board members
- ✓ Be an example in your industry

## Major milestones and Outputs

- ✓ Green Office EMS (Environmental Management System) in place
- ✓ Improved and reduced energy consumption
- ✓ Reduced paper consumption
- ✓ Recycling/waste management system in place
- ✓ Supplier guidelines developed and implemented
- ✓ Trained staff



# Eight steps towards a greener office

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1. Obtain internal commitment and support
2. Appoint a Green Office Team and/or Coordinator
3. Audit your office current environmental impacts
4. Define Sustainability Policy & Sustainability goals
5. Define green office key indicators
6. Develop an action plan
7. Communicate and train staff
8. Assess, review and report



# Step 1

## Obtaining Internal Commitment and Support

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### Management Support

Management support will make an enormous difference to successfully introducing a green office programme to any organisation. So as a first step, you will need to gain the support of top management or company owners.

- ✓ Determine which decision-makers need to support your program

Who has the ability to make decisions about operations, purchasing, products, packaging, and services?

- ✓ Collect information and ideas to present to management to demonstrate the issues

Gather together information to help validate your aim to reduce waste and pollution, to conserve resources and to improve your social responsiveness.

Show how your organisation is contributing to these problems. For example, find out how much paper you use each year or note down what equipment is left on overnight unnecessarily.

- ✓ Highlight potential savings from green office initiative

The most common benefits cited from operational improvements is savings in purchasing and you may also benefit from:

- Reduced operational costs (e.g. energy bills)
- Reduced purchasing costs (e.g. stationery costs, printing costs)
- Improved staff morale & public image
- Determine how key groups will respond to changes in your improved internal operations. Today's public is concerned about environmental issues. Your efforts to green your office may translate into positive public relations.



## Employees Support

Staff will be asked to change the way they currently work, so their support is vital. To help get staff support:

- Distribute information about the state of the environment and the general impacts work practices are having on the environment;
- Organise a presentation to the staff and clearly communicate what they will be asked to do and why.
- Introduce staff to some green office tips and set up an ideas box to allow them to put suggestions forward.
- Look around for environmental or sustainability models that might be of interest to you and your organisation.

## Step 2

### Appoint Green Office Team/Coordinator

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Form a team or name one coordinator who will be responsible for the implementation, reporting and follow-ups of the Green Office.



## Step 3

### Audit your Office Current Environmental Impacts

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Use the audit to look at each aspect of your office. Determine how your activities affect the environment, assess the significance of the impacts and look at options to make low cost and no cost improvements.

This provides a baseline against which any improvement can be measured.

You may also decide to use outside consultants for a more formal audit. There are a number of companies that conduct environmental audits. They will also look at aspects such as raw materials used, products, energy, waste, transport, and the general work environment.

#### Energy consumption

- ✓ Check your office energy bills – see if there are any noticeable changes in consumption over the last 6/12 months.
- ✓ Check to see if equipment is left switched on when it is not being used for long periods of time or after staff has gone home.
- ✓ Check if office/corridors lights are switched off after office hour
- ✓ Check to what temperature is set for air conditioning

#### Water consumption

- ✓ Check your office water bills – see if there are any noticeable changes in consumption over the last 6/12 months
- ✓ Check how often is the water left running in the washrooms/kitchens or check out for water leaks
- ✓ Check what kind of drinking water is available in the office – e.g. bottled water, water dispenser



## Paper consumption

- ✓ Review current paper consumption with the purchasing department
- ✓ Check how much paper is your office currently using
- ✓ Check how often paper is used on only one side
- ✓ Check what quality of paper is used for office use and material/brochure printing

## Purchasing

- ✓ Find out about current purchasing policies

## Waste

- ✓ Check what types of waste is being put into rubbish bins.

## Transportation to work and business travel

- ✓ Find out how many business miles are travelled every year and by what form of transport.
- ✓ Survey how many people use public transportation, cycle or drive to work.

## Communicating

- ✓ Talk to other staff about their ideas to greening the office, such as saving energy or reducing waste.





## Step 4

### Define Sustainability Policy & Sustainability Goals

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The organisation should establish an Environmental Policy to state the following:

- Minimise the use of natural resources and lessen the impact on the environment.
- Meet or exceed all applicable regulations on the environment at all locations
- Purchase non-polluting and energy efficient technologies wherever possible
- Set its own standards and targets where no relevant government regulation exists
- Establish an action plan with a regular review of progress
- Measure progress against set targets for resource efficiency and pollution reduction
- Assist suppliers and customers to promote greener products and services
- Report fully the environmental performance of the organisation to stakeholders and communities in a clear and concise annual report

Once drafted, the policy should be accepted by the Executives, Trustees, Board members or equivalent. This will then be part of the company's policy on the environment.

To implement such policy staff time and resources will be required to make the next step in drafting an action plan, defining responsibilities and reviewing the progress of any action taken.



## Step 5

### Define Green Office Key Indicators

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Based on the audit and the evaluation of the office environmental impact, the company needs to define at least 3 key indicators that will be instrumental in monitoring progress. Two of the key indicators should include energy use, and paper use, and then additional indicators could be staff travel, commuting, water use, office supplies and equipment and/or recycling.



## Step 6

### Develop an Action Plan

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Once the policy is in place and the key indicators defined the company must develop a plan that links to its policy objectives.

The plan should cover the following aspects:

- Activity (e.g. printing, photocopying etc)
- Action required to improve the activity
- Person in charge
- Target
- Date that the action should be done by
- Resources required to complete the activity
- Measurement and monitoring

### Energy Use

The greenest energy is the energy we save.

Instant messaging, audio and video conferencing, and other innovative workflow tools make effective telecommuting a reality. Telecommute, hold phone conferences, or otherwise work from home, it'll save time and cost.

#### Computers, electronic devices and chargers

Optimizing the energy settings for computers and other devices can be more than a modest energy saver. A light flashing on your monitor shows that it is still on and is wasting energy:

- ✓ Switch off your monitor every time you are away from your desk for 30 minutes. "Standby" settings or plugged mobile phone charger even turned off continue to



- ✓ draw power. With on/off switch, the whole desktop setup can be turned off at once.
- ✓ If you are using a laptop, turn it to standby mode when you are away for 30 minutes.
- ✓ Shut down your computer every time you are away from your desk for a couple of hours or more.
- ✓ Put computer to sleep mode rather than use screen savers
- ✓ Change the settings (Start > Control panel > Display) to automatically switch off monitors and/or shut down when not in use.

### Lighting

- ✓ Replace all light bulbs with energy saving ones
- ✓ Install motion-sensor lighting in the office.<sup>1</sup>
- ✓ Turn off lights in spaces that are unoccupied.
- ✓ Make the most of natural light. Don't block it with filing cabinets, plants or blinds that are permanently shut!
- ✓ Switch off lights when you are last to leave rooms and when they are not needed.
- ✓ Turn off lights in the toilets, kitchen, meeting rooms etc. when not needed.

### Heating, cooling and other equipment

- ✓ Make sure external doors and windows are closed and do not allow the cool air- conditioned to escape from the office.
- ✓ When replacing the office air conditioner, choose energy efficient air conditioners, which use less power with the same cooling effect
- ✓ Set the air conditioning temperature at 25 °C
- ✓ Water coolers/heaters, vending machines and boilers can be connected to timer switches or simply turned off so that they are not constantly in use over evenings and weekends.

### Printing and photocopying

- ✓ Printers, scanners, and other peripherals that are only used occasionally can be unplugged until they're needed.
- ✓ Switch off the copier and the printers overnight<sup>2</sup>

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<sup>1</sup> Motion sensor lighting can reduce your average energy consumption by as much as 33%.



## Paper Use

Demand for paper accounts for about half of the commercial timber cut worldwide. While some of this timber is grown in well managed forests, too much of it comes from illegal logging and the irresponsible destruction of old-growth and high conservation value forests.

The WWF Guide to Buying Paper<sup>3</sup> provides guidance on how as a purchaser you can help reduce the environmental footprint of paper production.

### Buying paper

- ✓ Use paper with post-consumer recycled fibre

Wood fibres from collected waste paper materials can be reused four or five times before the fibres become too worn out to bind together. Products made from recycled fibres are available in a wide and expanding range of paper grades. Using such paper is a very effective way to lessen your environmental impact.

If your office ships packages, reuse boxes and use shredded waste paper as packing material.

- ✓ Use FSC (Forest Stewardship Council) - certified paper<sup>4</sup>

Your absolute priority should be to purchase papers based on fibres from well-managed forests. The easiest way to do this is to ask for paper that is certified under a credible forest certification scheme. WWF acknowledges that several schemes have made contributions to improving forest management, but currently recommends that buyers ask specifically for FSC certification, as this system best meets WWF's key requirements of responsibility, transparency, international consistency and balanced multi-stakeholder governance.

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<sup>2</sup> A photocopier left on overnight wastes enough energy to make 5,300 A4 copies.

<sup>3</sup> The WWF Guide to Buying Paper is downloadable from [www.panda.org/papertoolbox](http://www.panda.org/papertoolbox)

<sup>4</sup> For more information about FSC, visit [www.fsc.org](http://www.fsc.org)



### ✓ Reduce excessive paper consumption

The most obvious way to reduce your environmental footprint — and cut costs at the same time — is to use less paper. Design packaging to contain as little fibre as possible. Switch to the lowest grammage that meets your functional requirements — changing from 80 to 70 grams per m<sup>2</sup> reduces your paper consumption by 14%, while moving from 100 to 80 grams per m<sup>2</sup> cuts consumption by 20%.

- Avoid making multiple copies of large documents
- Always proof the document on screen before printing
- Set all your printers and copiers to print double sided
- Choose the correct font size for your printing and reduce the point size of your text may save lots of paper, use the function 'shrink to fit' to use the paper adequately. <sup>5</sup>
- Consider changing the margin sizes, especially on drafts
- Print multiple pages per sheet for presentations and the like.
- Use the size reduction feature offered on many copiers. Two pages of a book or periodical can often be copied onto one standard sheet.
- Reduce the use of fax cover sheets
- Run meetings electronically by using LCD equipment to project agendas and papers rather than having everyone bring hard copies. You can also take notes on scrap paper or record minutes directly into your laptop.
- Instead of printing a web page, bookmark it or save the page.
- If you only need the page you are working on, go File > Print > and click on 'Current Page' on the 'Page range' section.
- If you only need a specific number of pages, go File > Print > and put the page numbers in on the 'Page range' section.
- If you do print something, retrieve it immediately. This helps to avoid the need for printing it again (because it has gone walkabout etc.)
- Reduce the length of emails for printing: when replying to e-mail messages most users have Outlook set to 'Include original message text'. A long exchange can lead to several pages of text, which can waste paper when printing the most recent message.

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<sup>5</sup> Software like Greenprint helps eliminate blank pages from documents before printing and can also convert to PDF for paperless document sharing



To insert the original email into your response (for reading and printing if necessary), do this:

- select 'Tools' on the Outlook menu bar
- select 'Options', then 'Preferences'
- select 'E-mail Options'
- Under 'On replies and forwards' choose 'Attach original message'.

If you are not using Outlook, ask your IT department to help you configure your email system.

### Using paper

- Encourage staff to share and circulate copies of reports rather than issuing separate copies
- Re-use paper that's already printed on one side by manually feeding it into copiers and printers for draft documents. A box containing paper that has only been used once can be placed at printers.
- Once-used paper can also be reused in plain paper fax machines
- Do not use notebooks, but use the back of the draft or unwanted paper. Even with a double-sided printer there is likely to be plenty of spare paper to use.
- Re-use internal and external envelopes
- Paper towels are often a major source of waste. Display a reminder for people to use only one each time or replace them with cloth towel.

## Water use

- Display information near water sources encouraging water saving when people are washing their hands
- Install water saving devices such as water faucet



## Office Supplies and Equipment

### Save toner

Draft quality printouts use less toner. Select 'draft' printouts when using the 'Print' command on your computer – this is usually changed under Printer Options on the Windows Print Dialog box.

It is even possible to set the printers to make draft prints by default.

### Use green materials

Use pens and pencils made of recycled materials, and refillable pens and markers are preferable to disposable ones. Use cloth towels in the bathroom and kitchen. Buy in bulk so that shipping and packaging waste are reduced, and reuse the shipping boxes. Get Organic or Green Food certified coffee, tea and food for the office.

Ask everyone to bring in a mug or glass from home and keep some for visitors so that you reduce or eliminate the use of paper cups.

## Recycling/Disposal

Recycle as much as you can!

- Make sure recycling bins are provided, easily accessible and visible so that recycling is just as easy as throwing paper away. Put a recyclable box beside copiers and printers
- Recycle all toners cartridge – ask your supplier about their “take-back” policy
- Check what items can be recycled. All paper including used office paper, newspapers and cardboard, plastics, cans & glass, compostable materials, mobile phones & batteries, office equipment.

### Re-use Office Supplies

- Set-up a stationery 'share centre' to share staplers, hole punches etc. – rather than owning one each - and 'exchange spot' for unwanted stationery.
- Reuse file indexes.





### Return to Sender

- Ask suppliers to take unwanted packaging back for reuse.

## Staff Travel

To reduce some of the air traveling<sup>6</sup>, think of alternative mode of transportation. An efficient way to reduce air traveling is also to use audio or videoconferencing for meetings.

Ultimately, for the air travel your organization cannot avoid, purchase carbon offsets for corporate travel<sup>7</sup>.

## Commuting

To ease some of the strain of commuting, several options are available: Takepublic transport – Provide a comprehensive access map to the office including of the nearest subway and bus stations

WalkorCycle – Promote walking and cycling as a healthy and environmentally friendly way to come to the office

Carpool – Facilitate an office carpooling by running a survey among the staff and set up a platform for information sharing with all.

Lastly, staff incentives can also help foster good habits. Some employers are even giving a bonus for those who bike to work.

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<sup>6</sup> If you are travelling within Europe, you can use WWF Travel Helper that will help you choose the most environmentally friendly travel option.

<sup>7</sup> When the emission of carbon can't be avoided or reduced, offsetting is the most practical way to minimize air travel negative impact. Offsetting your emissions means fixing a price to the cost of a polluting activity, such as flying, driving a car, heating or cooling. Carbon credits act like certificates that represent a reduction of greenhouse gases in the atmosphere and can be traded, purchased or sold in the international markets. WWF recommends buying carbon credits from Gold Standard certified projects such as those offered by Climate Friendly ([www.climatefriendly.com](http://www.climatefriendly.com)).



If there are no good and immediate ways to phase out fuel-powered cars, promote hybrid technology and encourage the staff to drive smart by following these simple recommendations:

- Keep an economical speed range
- Avoid driving with a cold engine
- Shorten engine idling time
- Avoid sharp speed changes
- Put in proper gear to avoid lower gear running at high speed
- Use lubricating oil with the lowest viscosity
- Change motor oil regularly and on time
- Keep windows shut when driving at high speed
- Keep proper tire pressure

## Redesigning the Workplace

Greening the space in which you work has almost limitless possibilities. Start with good furniture, good lighting, and good air.

Incandescent bulbs can be replaced with compact fluorescents or LED lighting. Make use of natural daylight, not only is natural daylight a free source of lighting for the office but it also helps improve staff productivity and satisfaction.

Greening your company's building can save money and have huge environmental impacts (buildings accounts for roughly 30% of total CO<sub>2</sub> emissions). Solar water heating, green roofs, low-flow toilets and waterless urinals can all lighten the office footprint on the planet.<sup>8</sup>

Furniture (especially particle board), carpeting, and paint are common sources of volatile organic compounds (VOCs), a family of chemicals that are frequently "offgassed." VOCs have been linked to birth defects, endocrine disruption, and cancer.

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<sup>8</sup> LEED has developed a certification program for existing buildings. For more information, visit <http://www.usgbc.org>



Especially if your office is well-insulated (which it should be for energy purposes) toxins can't get out easily. Greenguard is a non-profit certifier of products that help maintain healthy interior air. Herman Miller, Haworth, Knoll, Keilhauer, all offer Greenguard certified furniture options.

Furniture can be manufactured from recycled materials as well as recyclable. Herman-Miller and Steelcase have adopted the Cradle-to-Cradle protocol for many of their office chairs.

The Forestry Stewardship Council (FSC) certifies wood that has come from sustainably harvested forests or is reclaimed. When your office is looking for new desks, bookshelves, dividers, etc., source sustainable wood products that do not contain formaldehyde or other harmful VOCs.

## Doing More...

### Lunch time

Bringing lunch to work in reusable containers is likely the greenest way to eat at work. Getting delivery and takeout almost inevitably ends with a miniature mountain of packaging waste. When you go out for lunch, go to places which are within walking distance and remember to bring your own chopsticks/spoon instead of using disposable ones.

### Satellite office

Arrange for a satellite office to be set up closer to employees' homes to reduce the environmental impact generated from commuting to work.

### Green investment

Encourage corporate financial investment in green products, companies, and banks.



## Step 7

### Communicate and Train Staff

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It can take a few weeks, even months of planning to get to the stage of launching the programme, but good preparation is vital. A successful launch is a great way to inspire the rest of the organisation, suppliers or stakeholders.

- ✓ Make sure that it is informative as well as enjoyable!
- ✓ Outline objectives of the programme – why you are doing it and who is responsible
- ✓ Cover financial aspects and the actions expected from others
- ✓ Display examples of logos and equipment you will use
- ✓ Display funny reminders on how to use copier, printers, switch off lights etc....
- ✓ Introduce the working group and staff involved
- ✓ Ask for feedback!



## Step 8

### Assess, Review and Report

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The process of analysing and reporting results of any programme tends to be done on a regular, monthly, six-monthly or yearly basis (depending on what you are measuring). Refer to the plan you have developed in your early stage and assess how often reporting should be done based on the target date set.

This is the time when you might find areas that need improving.

- Do staff really know what to do or do they need reminding?
- Is the system too complex?
- Do people want more feedback about how their efforts are making a difference?
- Can you reward staff in some way?



## Conclusion

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Once the Green office has been successfully set up and that the staff is fully supportive, it is crucial to keep the project alive through regular internal communication. An idea box could be an efficient way to keep the staff involved and providing tips for staff & green office coordinators on regular basis would also lead the way towards continuous improvement.

Once a year, the Green Office Manager will need to assess the project implementation, the compliance with the companies' sustainable policy and review progresses. The assessment should be confined in a report available for staff.

Another way to keep the concept of environmental protection and sustainability alive is to distribute the WWF Singapore bi-annual newsletter to your staff, participate in WWF's activities and take an active part in WWF's conservation projects.



# Information sources

WWF's Finland Green Office programme

WWF's Guide to Buying Paper

[www.greenoffice.org](http://www.greenoffice.org)

[www.treehugger.com](http://www.treehugger.com)

Friends of the Earth

Scottish Environment Protection Agency

[www.davidsuzuki.com](http://www.davidsuzuki.com)

[www.climatecrisis.com](http://www.climatecrisis.com)

LEED certification <http://www.usgbc.org/>

<http://www.greenguard.org>

[www.climatefriendly.com](http://www.climatefriendly.com)

[www.myclimate.org](http://www.myclimate.org)

[www.nativeenergy.com](http://www.nativeenergy.com)

[www.tricoronagreen.com](http://www.tricoronagreen.com)



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**Why we are here.**

To stop the degradation of the planet's natural environment and  
to build a future in which humans live in harmony with nature.

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