

SUSTAINABILITY INFORMATION ABOUT THE PRINT MEDIA INDUSTRY

The Forestry Industry

- Forest-based industries as a whole are a key part of the solution to mitigate climate change e.g. Finland grew 100,000 m³ of trees and used only 60,000 m³ in 2007.⁽¹⁾
- Forests are growing at a rate of 6,450 km²/year in Europe.⁽²⁾
- The main trunk of a tree is used for the construction industry whereas thin branches, offcuts, bark, and branches can be used for the manufacture of paper. The leaves and other waste are used to produce valuable bio-fuels used to generate energy to power production. Without paper, construction timber prices would rise significantly
- It is estimated that there are 25% more trees in the developed world today than in 1901.⁽³⁾
- 95% of global land use change emissions are caused by deforestation in tropical developing countries due to land clearing for agriculture and human habitation needs.⁽⁴⁾
- Sustainable forestry accreditation bodies such as PEFC and FSC covers 15% of all world forests and 60% of all paper supply.

The Pulp & Paper Industry

Pulp and Paper Manufacturers are reducing their carbon footprint and use of precious resources by:⁽⁵⁾

- Reducing energy consumption per tonne of paper production by 21% since 1990.
- Reducing Green House Gas emissions per tonne of paper by 22% since 1990.
- Using their waste for by-products such as asphalt, bricks, tiles, DVD cases, hybrid plastic/ wood building products, oven trays, pharmaceuticals, margarine, and biodiesel.
- Sourcing up to 46% of their energy needs from biofuels, reducing CO₂ emissions caused by fossil fuel generated energy.
- Reducing water used per tonne of production by up to 63% since 1990 through actions such as recycling water up to 5 times before being treated and returned to the environment.
- Lowering the amount of wood pulp used per tonne of paper produced by up to 40% through the use of organic fillers and coatings.
- Producing, in some countries, the largest amount of renewable energy.

The Printing Industry

The Printing Industry has adapted to climate change through the following achievements:-

- Make ready times have reduced from an average of 2 hours to 15 minutes since 1990, reducing paper waste by 80%.
- Current printing machine technology is up to 60% more energy efficient than 20 years ago.⁽⁶⁾
- Use of CTP and auto blanket washing has reduced solvent and water use by approx. 90% compared to 1990.⁽⁷⁾
- Development of waterless offset ink/ waterless printing has reduced liquid waste from developing fluid and waste water from plate dampening whilst enabling quicker registration and colour matching, reducing "make-ready" waste.
- Large chemistry change from solvent based ink to vegetable/soy based inks.

The Recycling Industry

- 77% of newsprint is recycled in Australia, one of the highest in the world.
- 70% of catalogues and magazines are recycled in Australia.
- Australians recycle approximately 46% of their overall generated waste, growing by 825% over the past 7 years.⁽⁸⁾
- In 2006 waste paper and board collections totalled approximately 2.5 million tonnes, of which around 1.5 million tonnes was used domestically and 1 million tonnes exported, mainly to China and India.⁽⁹⁾
- 48% of the Australian paper manufacturing sectors fibre needs come from recycled paper.⁽¹⁰⁾
- Paper companies are diversifying into waste management across all products to ensure quality of recovered fibre.
- 50% of paper made in Europe is from recycled fibre.
- The biggest containerised export from US to China is recycled fibre.
- Employment in the "extended" paper industry, including all supply chains from forestry to recycling = 350,000 – 3.3% of Australia's total employment.⁽¹¹⁾

Printed Media vs Online Media

- Reading a newspaper every day produces 20% less carbon than viewing a PC for just 30 minutes.⁽¹²⁾
- An entire edition of a weekly magazine uses less energy than 2 months normal use of a dishwasher.
- Australia's per capita consumption of paper = 200kgs pa = 72kgs of CO₂ emissions, versus operating a plasma television 5 hours per day x 6 days per week = 450kgs CO₂ emissions.⁽¹²⁾
- Google bought an old paper mill in Scandinavia to house its servers.

- (1) Finish Forest Industries
- (2) Harvestia
- (3) Phil Lawrence
- (4) Stern Review
- (5) APFA – Paper naturally sustainable
- (6) Heidelberg Aust / GAMAA
- (7) Kodak / Phil Lawrence
- (8) ABS – Australia's Environment: issues and trends
- (9) Visy, PaperRound
- (10) FWRDC / A3P
- (11) Accumulation of industry information
- (12) Swedish Royal Institute of Technology
- (13) Pulp and paper manufacturing and paper industry estimates and accounting
- (14) Computer energy costs from Choice Australia, May 2008 and conversion coefficients from the Australian Greenhouse Office Factors and Methods Workbook, December 2007

University studies in Sweden are now proving a positive carbon emission position to the environment for the collective impact of the industries before mentioned when considering the following :-

1. carbon sequestration and storage growth of forests that serve the industries,
2. timber substitutes for other construction materials,
3. primary and secondary biofuels production and
4. recycling and waste management.

CASE STUDY: Print versus Online – the Stern Review

The Stern Review on the Economics of Climate Change is a report released on 30th October 2006. Written by Sir Nicholas Stern, Head of the Government Economic Service for the British Government, it is one of the most important social works of our time, discussing the effect of climate change and global warming on the world economy.

As a 700 page document, the Stern Review provides a powerful example of how paper and print compares to the online environmental footprint:



* 85 grams is the maximum, because once it's printed, it's printed and can be read and used over and over again without new CO₂ emissions.⁽¹³⁾
 # This does not account for any emissions associated with creating the computer file or emailing it.⁽¹⁴⁾

These figures do not take into account the greater recycling ability of printed material versus electronic communication.