

Environmental **ADVOCACY**

Sustaining the Earth for Future Generations

At present the human race is confronted by the question of its own global legacy. Whether the current generation chooses to live sustainably — conserving its natural resources, nurturing the Earth's biodiversity and protecting the air and water — will define the quality of living for future generations.



by Kurt Repanshek

Across the world, individuals, foundations and corporations are taking the lead in making a difference.

In the case of our collective impact on the environment, it has become clear that we must follow a path toward sustainable development, minimizing the human ecological footprint and producing meaningful, measurable change. And many entities worldwide are taking this responsibility to heart. The issues are manifold, and require manifold solutions.

For example, many people take for granted the availability of fresh water. A twist of the faucet instantaneously delivers a flow of water. It quenches our thirst, helps us clean and cook, and fills our pools and hot tubs. But a large portion of the world's population doesn't have access to safe, pure water on a daily basis.

And biodiversity — an issue we often hear discussed on radio and television, or read about in peri-

odicals — increasingly strikes close to home. The plight of polar bears in the Arctic or giraffes in Africa may move us, but beyond that, the loss of biodiversity has an impact on the ecosystem that we are just beginning to understand, with consequences for us as a species.

Then there's climate change, a topic that's headline news these days — and one that generates ongoing controversy over its extent, its consequences, and its susceptibility to our efforts to alter its course.

Fortunately, we're not starting from scratch in dealing with these problems, and we have a wealth of human resourcefulness on our side. Across the world, individuals, foundations and corporations are taking the lead in making a difference.

MAKING A DIFFERENCE

Canon

A Picture of Environmental Stewardship

In an instant, with just the slight touch of your finger, an image is captured, possibly forever. The setting, perhaps of a meadow of colorful wildflowers, a golden sunset or a beaming wedding party, has not been disturbed, while a memory has been preserved. And if you used Canon's EOS Rebel XSi camera to take that picture, few resources have been used in its creation.

Being as environmentally benign as possible these days is everyone's responsibility. Canon strives to achieve that goal throughout its entire product lifecycle, whether you're taking pictures or making copies. The company approaches this challenge from the three perspectives of produce, use and recycle, searching for and employing the best environmental and product efficiencies. Those responsibilities begin with the initial stage of product design for Canon's cameras, copiers, printers and industrial equipment and continue through to reuse or recycling wherever possible.

Approaching Transportation Afresh

This isn't anything new. Six years ago Canon established an Environmental Logistics Working Group with the intent of reducing the company's emissions of carbon dioxide (CO₂), a key greenhouse gas that contributes to global warming. One step the group suggested and which Canon took was to shift how it delivers and receives its materials, components and products. Shipments via trucks and aircraft were switched, as much as possible, to railroads and cargo ships due to their comparatively lighter environmental impacts. In Japan, the company uses regional ports to shorten

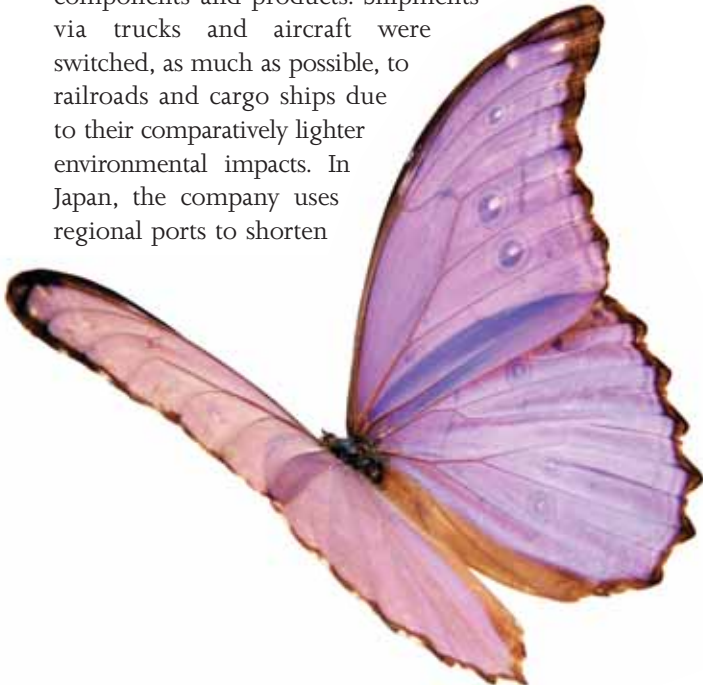


Photo: @Patrick Pagnano / Shot with Canon's EOS Rebel

the distance imports and exports must travel, while on the west coast of North America it promotes direct delivery to outlets rather than relying on intermediaries.

The greater reliance on rail transportation has led to Canon being one of the first Japanese companies to attain corporate "Eco Rail Mark" certification, a designation bestowed by Japan's Ministry of Land, Infrastructure and Transport on companies whose efforts to ship products by rail contribute to a reduction in global warming. By shipping nearly 8,500 truckloads of cargo via rail in 2007, the company reduced its CO₂ emissions tied to transportation by 3,840 tons. These efficiencies led to a 24% reduction in CO₂ emissions per unit of net sales in 2007, compared with the 2000 result.

Keeping a Product Line Green

Changes in transportation are just one approach Canon uses to reduce its overall greenhouse gas emissions. It also achieves environmental savings in how its products function in the hands of consumers. For instance, its color multi-function products rely on a proprietary on-demand fixing technology to reduce warm-up time to 38 seconds for its Color imageRUNNER C3480/C3480i and enable recovery from sleep mode in just 15 seconds. These improvements, along with making happier customers, enable the machine to achieve a weekly power consumption reduction of roughly 75% from Canon's conventional printers that rely on roller-fixing methods.

Canon has greatly reduced its environmental impact by saving resources in component production, reducing power consumption and CO₂ emissions. From the development and design stages, Canon strives to attain 65% recyclability and 75% recoverability for its products, as stipulated by the European Union's Waste Electrical and Electronic Equipment Directive (WEEE Directive). Additionally, the company has continued to reduce the use of hazardous substances in its products. While the use of mercury in fluorescent lamps for printers and lead in scanner lenses currently is not banned



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under the EU's RoHS standard, which pertains to the use of hazardous substances in electrical and electronic

equipment, Canon already substitutes parts and materials in its products that do not contain either substance.

Combined, these manufacturing advances have led to easier and more successful recycling of Canon products. Not only does the company utilize a global network of recycling centers, with locations in Europe, the U.S., Asia and Australia, but it also promotes "inverse manufacturing." Through this process, products at the end of their lifecycle are disassembled and the parts and even products refurbished and reused whenever possible. In Japan the company has been remanufacturing used copiers since 1998, and in 2007 it added color multi-function printers (MFPs) to that line.

Canon's commitment to recycling extends at least to 1990, when it began collecting used toner cartridges. Since then it has collected 190,000 tons of toner cartridges globally. All collected cartridges are employed as reused parts in new products, and Canon now achieves 100% recovery. This accomplishment has reduced Canon's use of new materials by 110,000 tons and cut its CO₂ emissions by 310,000 tons since 1990.

Canon's environmental efforts haven't gone unnoticed. In 2007, Canon was honored with the Chairperson's Award from the Eco-Products Awards Steering Committee in Japan. Furthermore, Canon U.S.A., Inc. received the U.S. Environmental Protection Agency's ENERGY STAR® Award for Excellence in Product Labeling. The award recognizes Canon's high percentage of products qualifying for the ENERGY STAR® labeling program.

Canon's Global Perspective

Since 1996, a year before the Kyoto Protocol was adopted, Canon has concentrated on reducing its environmental footprint with an eye on cutting global warming. Through its most recent improvements in the company's policy of produce, use and recycle, Canon reduced its overall 2007 greenhouse gas emissions by 12% per unit of net sales compared to 2000 levels. Additionally, the company cut its waste outsourced for recycling by 40%.

As with pictures captured by the EOS Rebel XSi camera, Canon's efforts to be a corporate leader in environmental stewardship are just the latest in a series. Moving forward, the company expects further refinements and efficiencies across its operations that will enable it to continue to lower its cumulative impact on the environment.