Environmental Activities

The Brother Group helps society achieve sustainable development, by positively and continuously considering the environmental impact of all aspects of our business operations.

INDEX

Scope of report: Brother Industries, Ltd. and its global group companies (including those in Japan)
Covered period: April 1, 2013 to March 31, 2014
Guideline used as a reference: GRI's "Sustainability Reporting Guidelines Version 4.0"

Message from the Management (Environment)

Achieving a Sustainable Society

Speeding up environmental conservation activities

While Europe, North America, and Asia achieve economic growth in the course of further modernization, the impact of environmental problems (including global warming) has become more evident than ever before. To cope with climate change on a global scale, as exemplified by the frequent floods and extra strong typhoons that have been affecting Asia and Oceania, we urgently need to learn from Mother Nature and create a material cycle process.

At the Brother Group, we established a company-wide environmental organization in 1991, and have conducted various environmental conservation activities to help achieve a sustainable society. To globally facilitate these activities, the Brother Group created the "Brother Earth" environmental logo and slogan in 2010. Based on a unified message of "Working with you for a better environment," we make coordinated efforts with our partners and our customers.

Results in FY2013

In FY2013 (April 1, 2013-March 31, 2014), we continuously upgraded our framework to quickly meet new laws and regulations enacted in different regions; actively acquired environmental labels in respective countries and met new standards; cut CO_2 emissions to achieve mid-term targets by FY2020 (April 1, 2020-March 31, 2021); and protected the ecosystems of forests and oceans at more than 30 locations around the world, involving 22 facilities of the Brother Group.

Steady progress has been made toward fulfilling the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015)

Regarding technologies for printers and all-in-ones, we developed "Low Energy Standby," whereby the standby power remains very close to zero; and "Coatless Surface" technology which derived from molding technologies to achieve a glossy finish on products, among other developments. These new technologies cut CO_2 emissions by approximately 400,000 t-CO_2 during a three-year period from FY2010 (April 1, 2010-March 31, 2011). CO_2 emissions from business sites in Japan were cut by 23.4% (absolute value) from FY1990 (November 21, 1989-November 20, 1990) levels, as planned. CO_2 emissions from manufacturing facilities outside Japan were cut by 26.9% (per unit of sales) from FY2006 (April 1, 2006-March 31, 2007) levels. The mid-term targets for CO_2 emissions reduction by FY2020 were achieved seven years ahead of schedule.

Evaluations by third-party organizations

Working on these environmental conservation activities, the Brother Group scored 78 points* (grade: B) in the Carbon Disclosure Project (CDP) and was ranked 36th in the Nikkei Environmental Management Survey (in the manufacturing industry).

*: The score represents the evaluation points based on our response to the CDP's request for information.
The average score in its survey of 500 global companies and 500 Japanese companies was 81 and 71 points, respectively.

Ensuring a long and successful future

To become a company trusted by customers and to ensure a long and successful future, the Brother Group will positively and continuously consider the environmental impact of all aspects of its business operations in accordance with the Brother Group Global Charter.

Brother Industries, Ltd.
Representative Director & President
Toshikazu Koike

July 2014

Face to Face Talk: Taking on New Challenges for the Next Phase of Growth

Today, the Brother Group has over 40,000 employees of various nationalities in more than 40 countries and regions. In the world of rapid change, what should Brother do to grow sustainably as a global company that is well accepted by society? Brother Industries' President Toshikazu Koike invited Keiko Takeshita, who is a popular actress appearing in films and TV shows and actively involved in social contribution and environmental activities while bringing up two children, to discuss Brother's CSR management.

Keep alert even when you are successful, and actively take on challenges

Koike: You were born in Nagoya City where Brother Industries' head office is located. What Brother products do you remember in your childhood?

Takeshita: My family used a Brother sewing machine. I used Brother typewriters in typewriting lessons when I was in 12th grade. The main products today are totally different from back then.

Koike: I remember you served as the Chief Pavilion Director of Japan Pavilions at the 2005 World Exposition in Aichi, Japan.

Takeshita: Yes. I took a photograph with my children and had it printed on a T-shirt. I've brought the T-shirt today.

Koike: The printer was exhibited at the Brother pavilion. The colors haven't faded over the nine years. In fact, the T-shirt printer is one of the products that I suggested we develop. At that time, I was the president of the sales company in the U.S., and I thought that inkjet printing would make T-shirts more comfortable to wear than those printed with the conventional method.

Face to Face Talk : Taking on New Challenges for the Next Phase of Growth

Takeshita: What a surprise! I didn't expect to meet the person who started the project to develop the printer.

Koike: In those days, Brother was expanding globally as a communications and printing equipment manufacturer. The lineup of printers and All-in-Ones was expanded for the SOHO (small office/home office) market. Brother's business grew rapidly in Europe and the U.S.

Takeshita: You wrote in your book*1 that one must not get carried away with success. This applies to actors and actresses, too. When they are just starting, they receive good support, but if their films become popular, then they'll be closely watched by the mass media. If they get carried away, they may lose control of themselves. It's important not to become complacent with success.

*1: Solution Is Inside Us - 60 Management Philosophies of Toshikazu Koike, President of Brother (Naoyuki Takai, Kodansha Company Ltd.)

Koike: Exactly. Today, two thirds of our sales come from the printing-related business including printers, All-in-Ones, and electronic stationery. As smartphones and tablets spread, the need to print on paper will continue to decrease. Our results were good last fiscal year due partly to the weaker yen. In the long term, our top priority is to create a new business that will become our next core business, and that's why I encourage employees to have a sense of crisis and take on challenges. The Mid-Term Business Strategy "CS B2015" is under way based on the theme of "Back to Growth" toward 2015. We will drive the growth of the group by continuing to create products that surprise customers and contribute to society.

Takeshita: Brother has been around for a long time, but is changing dramatically. What is the basis of the corporate culture?

Koike: The Brother Group Global Charter is the basis of all our activities. All group companies and employees must base their daily decisions-making and actions on the Charter's Basic Policies and Codes of Practice. The Global Charter also states that we must put the customer first, everywhere, every time, and live the motto "At your side.," honor individuals and diversity regardless of gender and nationality, and take action with a challenging spirit. The Global Charter, which was translated into 27 languages, guides the daily work of more than 40,000 employees. We strive to ensure a long and successful future by having a challenging spirit.

A global company with collaboration among diverse people

Takeshita: It must be tough to share the policy with as many as 40,000 people. At the 2005 World Exposition in Aichi, Japan, I learned the importance of diversity in nature, and the same applies to personal relationships. By working with others, I understand the importance of respecting individualities and working together. I don't have specific suggestions, but I think we should try to recognize differences and explore what we have in common.

Face to Face Talk : Taking on New Challenges for the Next Phase of Growth

Koike: At Brother Industries, we have about 80 foreign employees. With more than 80 percent of our products manufactured outside Japan, we need to work with employees outside Japan in all of our operations including development, production, sales, and services. That's why we exchange staff with facilities outside Japan through the trainee program, for example. We have been creating opportunities for intercultural exchange by recruiting international students in Japan and directly hiring employees from outside Japan. When it comes to communication, experience matters. For example, a person who seems difficult to get along with at first may turn out to be a very interesting person.
I think Japanese employees in their 20s should work outside Japan for three to five years, but we have not fully attained this goal. We still have a long way to go to develop global human resources.

Takeshita : You often travel abroad. Is it because you value communication with fellow staff?

Koike: Yes. I value communication with staff. The weekly message from the president, which covers financial results, organizational structure, events, and the President's Awards, is translated into 10 languages and distributed via the intranet. In 2005, I started an in-house blog in which I write about personal topics, and I've posted nearly 750 times in the past decade. By writing the blog and showing that I am just an average Joe, I hope employees will feel closer to me, and will understand my commitment to life and philosophy. I visit overseas facilities once or twice a month and talk with local employees. One employee asked me directly, "How come you climbed all the way to the top while so young?" I answered, "It was just a fluke." Some questions are tough, such as, "What is your future product strategy?" I try to answer every question if time allows. About six times a year, we organize in-house presentations by a video conferencing system, which is our product, to connect the main venue with other facilities in Japan. I talk to about 1,000 managers about financial results, annual management plans, and events in the group, in particular.

Takeshita : I guess you write the blog during short breaks. How do you schedule your work each day?

Koike: I always think of the people who count on me. This is the source of motivation. I do not need a rest while I am on stage and watched by others.

Takeshita : You would not be able to survive on an uninhabited island.

Koike: No. I may suddenly lose motivation if other people no longer expected me to take the lead.

Takeshita : Changing the subject, Brother Industries is among the top companies in the Great Place to Work® survey*2. How do you support working women?

Koike: We offer maternity leave, childcare leave, and shorter work hours, just as other companies do. But, most of our female employees who take childcare leave come back to work for us. We have about 25 female managers, one of whom was appointed as the first female general manager. But we still lag behind Europe and the U.S., where husbands and wives are expected to play equal roles in raising children. In Japan, women are unable to demonstrate their full potential due partly to traditional practices and their modesty.

Face to Face Talk: Taking on New Challenges for the Next Phase of Growth

Takeshita: At home, I am an ordinary mother. When my children were small, they asked me, "Why are you on TV while father is cooking in the kitchen?" It's hard work raising kids, but I learned how to allocate time and prioritize tasks while asking my husband for help and hiring babysitters and housekeepers. At work, I received time-saving tips as well as encouragement from other working mothers, "You may feel overwhelmed, but you'll survive." It seems that the time when you must work the hardest at your job also coincides with the time when you raise children. That means you must work at 120 percent of full capacity — 60 percent at home plus 60 percent at work.

*2: Brother Industries, Ltd. (BIL) has been ranked among the best 20 companies in the surveys conducted by the Great Place to Work® Institute Japan for five consecutive years. In the survey in 2013, BIL was ranked 13th (among 220 Japanese companies).

Practicing "At your side." as a corporate citizen, based on the keyword of "continuity"

Takeshita: Brother has been supporting the reconstruction effort since the Great East Japan Earthquake.

Koike: We operate in many countries and regions around the world. If a major disaster strikes in one of the areas in which we operate, we immediately respond in some way. Because the Great East Japan Earthquake wreaked unprecedented havoc, it is crucial to continue to assist the reconstruction. To date, we have given away T-shirts featuring the Chinese character "kizuna," which literally means "ties," to employees who donated money. The Kizuna Fund was established so that employees can voluntarily make donations. Our employees helped people in the disaster areas find both a reason for living and also work by using sewing machines. They also helped organize a musical and sell specialty products. These activities are done as the Brother Group. The other day, we commended employees who volunteered in supporting the reconstruction after the earthquake under the Volunteer Award program. And last year, both the company and employees gave donations for reconstruction projects after the typhoon that hit the Philippines.

Takeshita: I serve as the goodwill ambassador of the Japan Association for the World Food Programme*3. After the earthquake, we received massive support from the United Nations World Food Programme, mainly in the form of food and tents. Before the earthquake, Japan had always been the one to help other countries, so I felt both glad and shocked to find messages in overseas newspapers asking for support to save children in Japan. It showed the importance of mutual support, as well as immediate action and cooperation. After the Great Hanshin-Awaji Earthquake in 1995, I was involved in poetry reading events in Kobe in memory of the victims. In 2012, I started to read poems in Sendai. The affected areas and the damage are so extensive in the Tohoku region that local areas and cities must work closer together than ever.

Koike: Your work embodies our "At your side." spirit to support the affected areas. Your father worked for the government, and later became a lawyer and helped the socially vulnerable. You seem to have inherited his DNA, as I understand you have been actively involved in environmental protection projects.

Face to Face Talk: Taking on New Challenges for the Next Phase of Growth

Takeshita: I have accepted some opportunities to volunteer. One of them is at Furano Shizenjuku (NPO Furano Field) organized by So Kuramoto, the playwright of Kita No Kuni Kara (a TV drama series). The project focuses primarily on two goals: restoration of a former golf course into a natural forest, and environmental education. In a program called "three-generation family camp," families consisting of grandparents, parents, and children camp out overnight in the wild. One reluctant child who did not like insects at first caught a dragonfly and showed it to me the following morning.

Koike: Under the slogan of "Brother Earth," the Brother Group has been working to develop energy-saving products, reduce the environmental impact of its manufacturing factories through the Eco Factory project, conserve the biological diversity, and raise funds for environmental conservation activities through the Brother eco point program in which points are awarded for eco-conscious actions taken by employees in their daily life. Various activities are underway at facilities around the world, and environmental education programs are also organized. We are the ones who are responsible for protecting the environment for future generations.

*3: The Japan Association for the World Food Programme is a specified nonprofit corporation that supports the WFP whose mission is to eradicate hunger and poverty. This organization serves as the contact in Japan to support the WFP.

Increasing supporters around the world

Takeshita: Talking about the next generation, young people should take on challenges without worrying about making mistakes. In today's information society, children are surprisingly knowledgeable. But as with experiencing nature, simply knowing of something is not the same as fully understanding it. I want children to take the initiative and experience things with their five senses so that they can develop new ideas. I think this is the starting point in any field.

Koike: Mistakes are an opportunity to enrich lives. As president, I expect young employees to take on challenges and make many mistakes. I enjoy seeing them use their experience to make progress. They should embrace challenges, even tough ones, and make mistakes rather than thinking too much and losing their spirit of adventure. I often tell them that many company leaders have gained their experience by working on various challenges and making mistakes. Even if employees make mistakes, the ultimate responsibility lies with the top management who allowed them to take on the challenge. Employees should not be prevented from working on their preferred projects or from being promoted because of such mistakes. I encourage them to take full advantage of their personal networks as well as the company's assets and technologies. A company that has diverse employees in terms of personalities, backgrounds, and ways of thinking is more likely to prosper than a company which employs clones, no matter how skilled they are.

Takeshita: Diversity is the source of dynamism.

Face to Face Talk: Taking on New Challenges for the Next Phase of Growth

Koike: Brother is a global company. True communication and globalization cannot be attained unless our Japanese employees understand and accept the values and customs of different countries. I lived in the U.S. and experienced business there for more than 20 years, so I'm often considered as an American who looks Japanese. Deep down, I believe in being kind-hearted just like Tora-san the vagabond, the main character in the film series Otoko Wa Tsurai Yo (It's Tough Being a Man). In my view, personal relationships transcend national borders.

Takeshita: I appeared in the series three times as leading ladies with whom Tora-san falls in love. I adore Tora-san!

Koike: I want to be a softhearted and gentle person, and to value personal connections. Meanwhile, I have been lucky in business. I have a duty to pass on my experience in business and management to younger staff and help prevent them from making the same mistakes. In Japan, the birthrate is falling and the population is aging rapidly, so to survive, we need to adapt our company to the global market. The solution is to increase customers and employees who are devoted to Brother around the world.

Face to Face Talk: Taking on New Challenges for the Next Phase of Growth

Representative Director & President Brother Industries, Ltd.

Toshikazu "Terry" Koike

Profile

Born in 1955 in Ichinomiya City, Aichi Prefecture, and graduated from Waseda University (Political Science and Economics). Toshikazu "Terry" Koike joined Brother Industries, Ltd. in 1979, and was transferred to Brother International Corporation (U.S.A.) in 1982. Koike went on a sales tour across the U.S. with a printer prototype when Brother's main products were typewriters and sewing machines, etc., thus building the foundation for Brother's info-com devices business. He was appointed as Director & President of Brother International Corporation (U.S.A.) in 2000, and returned to Japan in 2005. Koike has been Representative Director & President of Brother Industries, Ltd. since 2007. He is nicknamed Terry, and publishes a broad range of information, from President's messages to personal experiences via an in-house blog on a company intranet. He enjoys various hobbies including wine tasting, music, hiking, visiting historic sites, playing golf, watching sports, and playing Japanese chess (shogi). Koike has stored 9,000 tunes ranging from 70s' folk songs to the latest hits on his iPod. He goes to concerts when time permits. His motto is "positively, pleasantly and powerfully."

Face-to-Face Talk guest

Actress

Keiko Takeshita

Profile

Born in Nagoya, Aichi, Japan, and graduated from Tokyo Woman's Christian University, Keiko Takeshita made her first TV appearance when in the 10th grade. She made her formal debut in 1973 on a TV drama series. Subsequently, she appeared in many popular TV programs including a quiz show and TV dramas, radio programs, films and theater, and has been popular among a wide range of audiences.
She won various awards for her TV and stage performances, including the Japan Academy Prize for Best Supporting Actress, Best Actress in a Leading Role in the Asian Television Awards, and the individual award in the 42nd Kinokuniya Theater Awards. She was appointed as the Chief Pavilion Director of Japan Pavilions at the 2005 World Exposition in Aichi, Japan, and to date, continues to be actively involved in charitable work, environmental conservation and cultural promotion activities. She currently serves as the vaccine ambassador of the Japan Committee Vaccines for the World's Children, goodwill ambassador of the Japan Association for the World Food Programme, cultural ambassador of the Kyoto National Museum, and instructor of the Furano Shizenjuku (NPO Furano Field), etc.

Highlights of FY2013

Strategy and Approach

Environmental strategy

The Brother Group aims to fulfill its corporate social responsibilities at ever higher levels through continuous commitment to environmental challenges, to raise environmental activities to be amongst the best in the industry, and to instill a strong sense of pride so that employees feel truly proud to be part of the Brother Group.

To achieve these goals, the strategy focuses on three points:

1. Continuously reducing the environmental impact
   - Reducing the overall environmental impact of the Brother Group
   - Reducing the environmental impact of business sites in Japan
2. Enhancing business competitiveness
   - Further improving the environmental performance of products
   - Seizing business opportunities by complying with laws and regulations
   - Ensuring that eco-friendly products appeal to customers through website information
3. Increasing the brand value
   - Publically presenting the "Brother Earth" statement
   - Actively conducting global social contribution activities
   - Publicizing overall environmental activities on the web

Our goals in 2015

- Brother is recognized as an "environmentally conscious company" by customers.
- Brother is recognized as an "environmentally conscious company" by local communities.
- Employees of the Brother Group are all environmentally conscious and have achieved the Brother Mid-term Environmental Action Plan.

To implement the strategy, the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015) was formulated under the slogan of "Brother Earth," and activities are continuously under way to achieve the targets set in the plan.

Brother's environmental strategy aims to achieve high level standards and Brother actively participates in evaluations by third-party organizations, including the Carbon Disclosure Project (CDP) (Brother scored: 78 points*) and the Nikkei Environmental Management Survey (Brother's ranking in the manufacturing industry: 36th) in Japan. Brother Industries, Ltd. (BIL) won the Gold Prize of the 2014 Aichi Environmental Award for its overall accomplishments in environmental activities.

*: The score represents the evaluation points based on our response to the CDP's request for information. The average score in its survey of 500 global companies and 500 Japanese companies was 81 and 71 points, respectively.

In-depth report

▶**Brother Group's Environmental Strategy** http://www.brother.com/en/eco/management/index.htm
▶**Mid-term Environmental Action Plan** http://www.brother.com/en/eco/management/action_plan/index.htm
▶**Internal Environmental Management Structure** http://www.brother.com/en/eco/management/organization/index.htm
▶**Environmental Commendation and Awards** http://www.brother.com/en/eco/management/award/index.htm
▶**In-depth Data** http://www.brother.com/en/eco/performance/data/index.htm

Highlights of FY2013

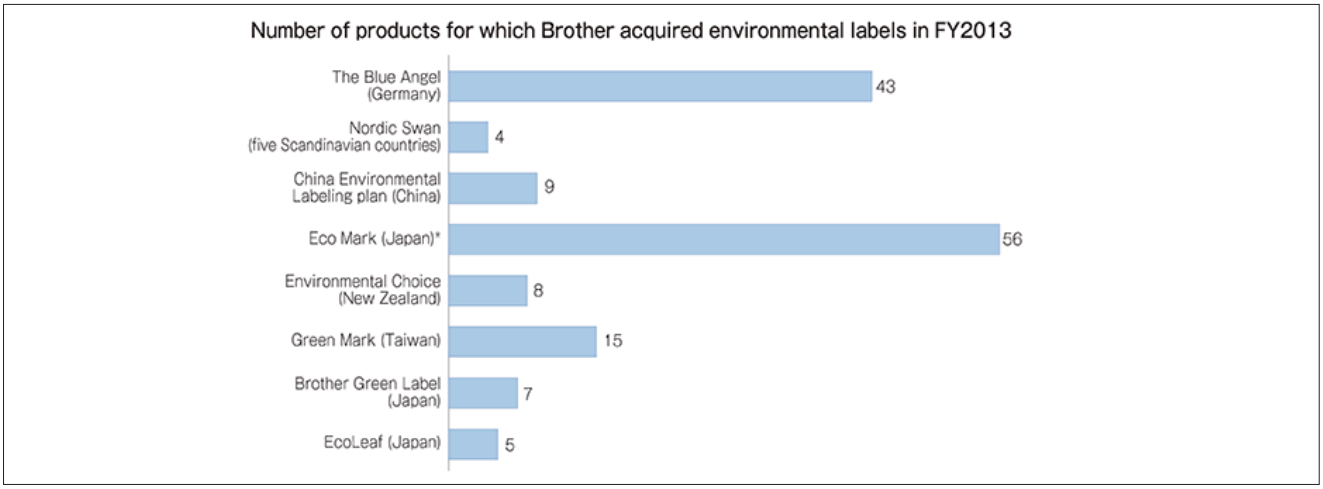
Creating Eco-conscious Products

Reducing impact throughout life cycles based on top-class eco-conscious designs

The Brother Group is committed to creating eco-conscious products, primarily focused on reducing energy consumption in line with the basic policy of the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015) . The Brother Group has been working on top-class eco-conscious designs in respective product categories by actively acquiring environmental labels in respective countries and meeting new standards based on the basic policy.

Activity highlights in FY2013

Actively acquiring environmental labels in respective countries and meeting new standards



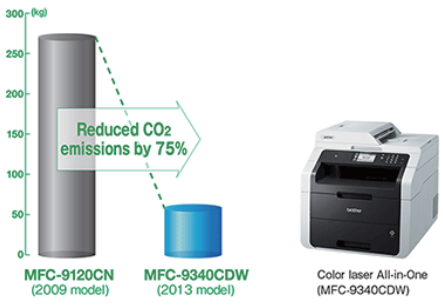
*: Including 28 consumables

Improving the energy-saving performance of products

[Brother's activities] Reducing CO_2 emissions from products during operation

The global warming impact (in CO_2 equivalent) of the color laser All-in-One MFC-9340CDW released in 2013 is approximately 75% lower than that of the MFC-9120CN released in 2009 (271.5 kg => 67.9 kg)*. (The environmental impact is based on the assumption that 48,000 sheets are transmitted and received during a five-year period.)

*: CO_2 emissions equivalent to total electricity consumption during a five-year period: The CO_2 conversion coefficient is the value released by the Federation of Electric Power Companies of Japan in FY2011 (April 1, 2011-March 31, 2012).



In-depth report

▶**Environmental Considerations within Product Life Cycles** http://www.brother.com/en/eco/product/index.htm
▶**Environmental Labels Acquired** http://www.brother.com/en/eco/product/label/index.htm
▶**In-depth Data** http://www.brother.com/en/eco/performance/data/index.htm

Highlights of FY2013

Cutting CO_2 Emissions on a Group Basis

Advancing CO_2 emissions reduction throughout business operations

As a global company developing its business in different countries and regions across the world, Brother recognizes its commitment to prevent global warming as a top priority to be addressed. For CO_2 emissions, the Brother Group set the mid-term target with 2015 set as a milestone to be achieved towards a longer term target for FY2020 (April 1, 2020-March 31, 2021). Specifically, in Brother Group 2015 Mid-term Environmental Action Plan (2011-2015), targets are to reduce CO_2 emissions by 1% per annum for eight business sites in Japan (absolute value) and manufacturing facilities outside Japan (per unit of sales) (excluding the U.S.).*

Midterm targets for FY2020

- Cutting CO_2 emissions by 30% (absolute value) from FY1990 (November 21, 1989-November 20, 1990) levels at eight business sites in Japan by FY2020
- Cutting CO_2 emissions by 20% (per unit of sales) from FY2006 (April 1, 2006-March 31, 2007) levels at manufacturing facilities outside Japan (excluding the U.S.) by FY2020

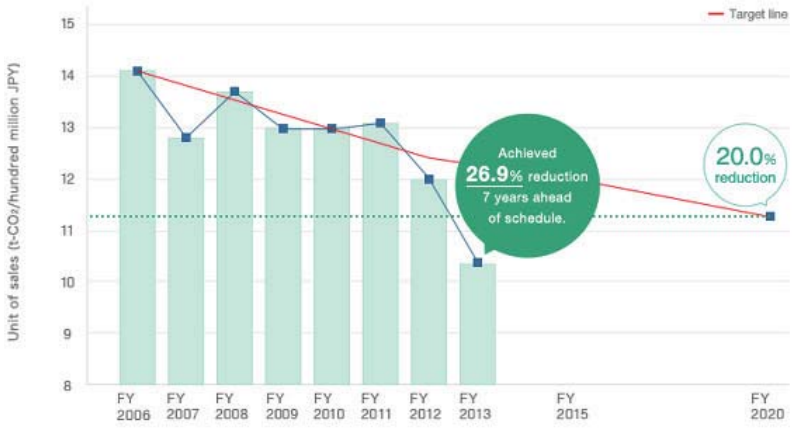
*: Manufacturing facilities in the U.S. constitute part of sales facilities.

Activity highlights in FY2013

For eight business sites in Japan, CO_2 emissions remained unchanged (± 0 tons) from the previous fiscal year. However, reduction by 23.4% from the FY1990 levels (absolute values) was achieved as planned.

For manufacturing facilities outside Japan, the mid-term targets by FY2020 (reduction by 20% from the FY2006 levels) were achieved seven years ahead of schedule (26.9%) primarily due to energy conservation activities (air conditioning, lighting, and power source) and a recovery in sales.

Changes in CO_2 emissions from manufacturing facilities outside Japan (per unit of sales)



Highlights of FY2013

Cutting CO_2 Emissions on a Group Basis

Calculating greenhouse gas emissions based on ISO14064-1 (Scope 1 and Scope 2)

In FY2013, eight business sites in Japan and Mie Brother Precision Industries, Ltd. were subject to verification for the first time by a third party organization for Scope 1 and Scope 2 based on ISO14064-1, and acquired certification for the accuracy of data. The table below shows the calculation results for (i) the direct emissions of greenhouse gases attributed to emission sources managed by the Brother Group (Scope 1) and (ii) indirect emissions of greenhouse gases attributed to the purchase of electricity etc. (Scope 2). The calculation was performed based on the GHG Protocol (a globally used index) using emissions coefficients by country and region applied to respective business sites.

	FY2011	FY2012	FY2013
Scope 1 (t-CO_2)	8,077	10,619	10,348
Scope 2 (t-CO_2)	78,134	82,769	88,283

In-depth report

▶CO_2 emissions reduction activities
http://www.brother.com/en/eco/facility/index.htm

▶List of ISO 14001-certified Facilities and History of Auditing for ISO 14064
http://www.brother.com/en/eco/facility/iso_14001/index.htm

▶In-depth Data
http://www.brother.com/en/eco/performance/data/index.htm

Highlights of FY2013

Complying with Laws and Regulations around the World

Complying with environmental laws and regulations around the world

The Brother Group is committed to complying with laws and regulations in all the countries and regions where Brother operates. The Brother Group is developing activities in accordance with its policy and environmental targets defined in the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015) to promote contamination prevention and reduction of environmental impact quickly.

With its commitment to complying with laws and regulations, the Brother Group can quickly respond if any action is needed for a product, thereby enhancing sales and service activities.

Activity highlights in FY2013

Globally complying with regulations on chemical substances

・Ensuring compliance with relevant laws (including REACH, RoHS, and TSCA) that regulate chemical substances contained in products

Number of fluorescent X-ray measurements performed to comply with EU RoHS	More than 100,000

Globally complying with energy-saving regulations on products

・Complying with relevant energy-saving laws and regulations on products (including ErP, Russia's product regulations, South Korea's energy law, China's Energy Label, and Japan's energy saving law) with top-level energy-saving performance

Disclosing overall environmental information regarding products

・Disclosing product information (100%) to the sales facilities of the Brother Group in accordance with The Eco Declaration (ECMA370)

Promoting green procurement

・Revising the green procurement standards (in June 2013 and January 2014)
・Sending notices in advance regarding additional substances subject to REACH-SVHC
・Disseminating information and auditing suppliers to raise awareness of suppliers and group companies regarding green procurement and thereby promote legal compliance

Number of chemical substances (groups) subject to investigation in green procurement	185 substances (groups)
Number of requests made to conduct investigations regarding green procurement and the REACH Regulation	More than 82,000

In-depth report

▶Compliance with Environmental Laws and Regulations on Products
http://www.brother.com/en/eco/regulation/index.htm

▶Green Procurement
http://www.brother.com/en/eco/regulation/green_procurement/index.htm

▶In-depth Data
http://www.brother.com/en/eco/performance/data/index.htm

Highlights of FY2013

Communication with Stakeholders

Enhancing information disclosure on the web and through interactive communication

Based on the basic policy set out in the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015) , the Brother Group is committed to developing environment-related communication. It actively participates in social contribution activities in collaboration with many stakeholders, and is expanding its network of these activities.

Activity highlights in FY2013

1. Publicizing (i) environmental technologies employed in new products and (ii) eco-conscious factories

Power regeneration technology (for reusing surplus energy as electric power) was introduced on the brotherearth.com, Brother's special website.

Brother's manufacturing facilities that are taking extensive energy conservation measures were introduced on the brotherearth.com, Brother's special website.

2. Implementing environmental and social contribution activities involving employees at 33 facilities

At Brother International Corporation do Brasil, Ltda., employees planted seedlings using eco points earned.

Nefsis Corporation employees cleaned up a beach and collected 254.5 kg of waste.

3. Increasing the number of participants in the Brother eco point program

Brother eco point program in place in 43 countries and regions

In-depth report

- ▶Environmental Communication Activities http://www.brother.com/en/eco/communication/index.htm
- ▶Brother Eco Point Program http://www.brother.com/en/eco/communication/eco_point/index.htm
- ▶Biodiversity http://www.brother.com/en/eco/communication/biodiversity/index.htm
- ▶In-depth Data http://www.brother.com/en/eco/performance/data/index.htm

Corporate Environmental Strategy and Management

Brother Group's Environmental Strategy

Accelerating activities to play our part in achieving a sustainable society under the slogan of "Brother Earth"

The Brother Group focuses on delivering eco-conscious products that take the environment into consideration throughout a product's life cycle, and encourages every Brother employee to participate in conserving the global environment.

The Brother Group's environmental conservation activities date back to the Brother Group Environmental Policy ("Environmental Policy") that was formulated in 1993. The Brother Group Global Charter ("Global Charter") was established in 1999 to provide the foundation for all Brother Group activities in the global marketplace. In the Global Charter, the Brother Group promises to play its part to help society achieve sustainable development by actively and continuously considering the environmental impact of all aspects of its operations.

To boost these efforts, the Brother Group created the "Brother Earth" logo and slogan in 2010. Under Brother Earth, each Brother Group employee has been further committed to various activities based on a unified message of "Working with you for a better environment."

In 2012, the Brother Group Principles of Social Responsibility were established to define the responsibilities that group companies are expected to assume and the fundamental concept of action for environmental conservation.

Brother Earth
Working with you for a better environment

Brother Group's environmental policy and environmental activities

Basic philosophy

The Brother Group shall positively and continuously act to decrease the environmental impact of all aspects of our business operations so that society can achieve sustainable development.

Basic environmental policy

Concern for the environment shall be the cornerstone of all operations. Safety and environmental impact shall be prime considerations at every stage of a product's life cycle, from design, development, manufacturing, customer usage, and disposal, to reuse and recycling.

Corporate Environmental Strategy and Management

Brother Group's Environmental Strategy

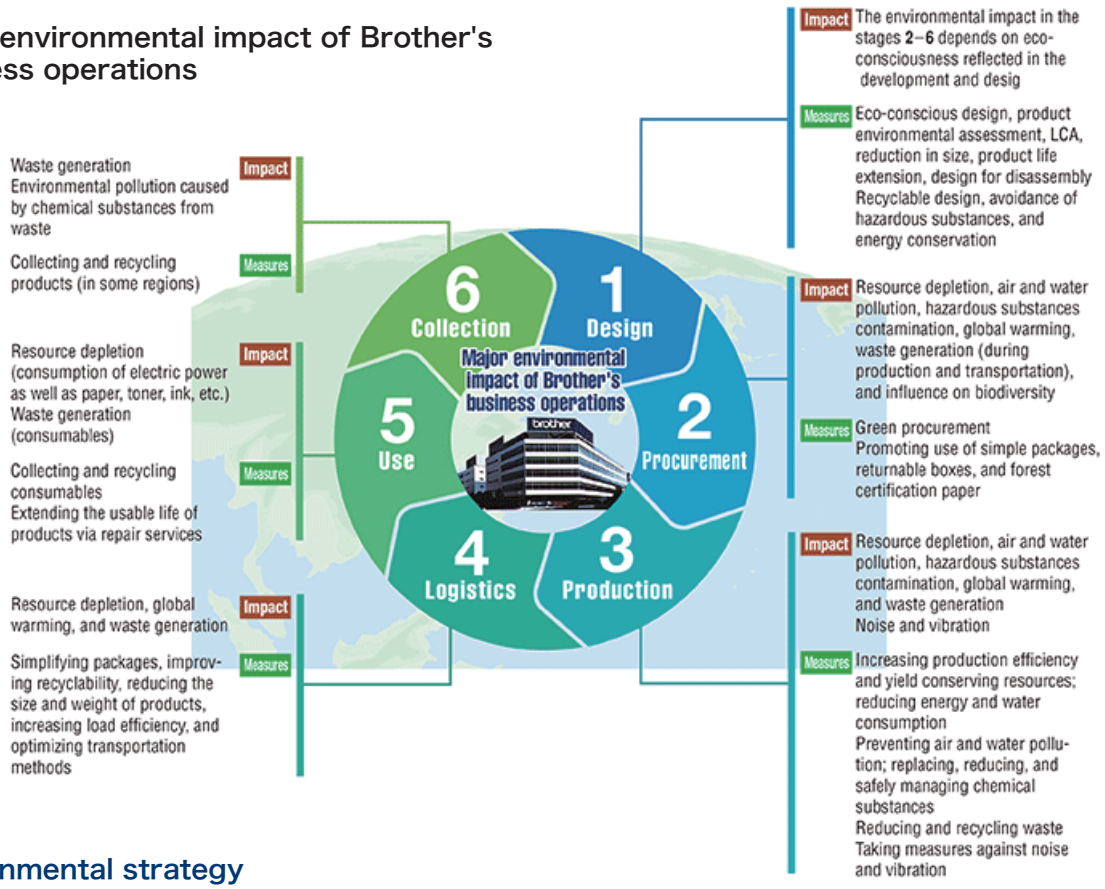
Action Guidelines and specific environmental activities

Action guidelines	Specific environmental activities
1. We will set environmental targets in all areas (manufacturing, production, and service) and continuously improve their environmental aspects.	Both manufacturing and sales facilities acquired ISO 14001 certification, and strive to reduce environmental impact by conserving energy and reducing CO_2 emissions.
2. We will not limit our activities to the observation of laws and regulations in all countries where we conduct business, but will also act with a strong moral responsibility to prevent pollution and reduce environmental impact.	A rigorous management framework ensures compliance with environmental laws and regulations in respective countries, prevents oversight and omissions, and enables a quick response.
3. We will always consider waste reduction by more efficient use of resources and recycling of products, and will also avoid creating contamination by hazardous substances when designing and developing both technologies and products.	In developing products, eco-consciousness is considered in various aspects, for example;(e.g. energy conservation performance, use of hazardous chemical substances, and ease of recycling).
4. While respecting voluntary activities by each company of the Brother Group, we will also exercise our environmental duties as a united group.	Activities are promoted based on the Brother Group Mid-term Environmental Action Plan , which is the plan for the entire group.
5. We will enhance the environmental understanding and awareness of all employees through activities such as environmental education and PR.	Various educational opportunities are offered to enhance eco-consciousness (including training programs for new employees, technical training programs for engineers, and e-learning programs for all employees).
6. We will actively disclose our environmental efforts to our customers, local communities, and other interested parties to further foster understanding.	Proactive efforts are made to publicize Brother's activities, such as touring facilities with environmental features, participating in exhibitions, offering lessons at elementary schools and other educational institutions, and planting seedlings.
7. We will endeavor to reduce our impact on the ecosystem and to conserve biodiversity in all our operations.	Biodiversity conservation activities include the procurement of biodiversity-conscious raw materials and the use of FSC-certified paper. Projects for the restoration/conservation of forests or other natural habitats are promoted.

Corporate Environmental Strategy and Management

Brother Group's Environmental Strategy

Major environmental impact of Brother's business operations



Environmental strategy

The Brother Group aims to fulfill its corporate social responsibilities at ever higher levels through continuous commitment to environmental challenges, to raise environmental activities to be amongst the best in the industry, and to instill a strong sense of pride so that employees feel truly proud to be part of the Brother Group.

To achieve these goals, the strategy focuses on three points:

1. Continuously reducing the environmental impact
   - ・Reducing the overall environmental impact of the Brother Group
   - ・Reducing the environmental impact of business sites in Japan
2. Enhancing business competitiveness
   - ・Further improving the environmental performance of products
   - ・Seizing business opportunities by complying with laws and regulations
   - ・Ensuring that eco-friendly products appeal to customers through website information
3. Increasing the brand value
   - ・Publically presenting the "Brother Earth" statement
   - ・Actively conducting global social contribution activities
   - ・Publicizing overall environmental activities on the web

Our goals for 2015

- ・Brother is recognized as an "environmentally conscious company" by customers.
- ・Brother is recognized as an "environmentally conscious company" by local communities.
- ・Employees of the Brother Group are all environmentally conscious and have achieved the Brother Mid-term Environmental Action Plan.

Corporate Environmental Strategy and Management

Brother Group's Environmental Strategy

To implement the strategy, the Brother Group Mid-term Environmental Action Plan was formulated under the slogan of "Brother Earth," which sets ambitious environmental targets to be achieved by 2015. Steady progress has been made.

Brother's environmental strategy aims to achieve high level standards and Brother actively participates in evaluations by third-party organizations, including the Carbon Disclosure Project (CDP) (Brother scored: 78 points*) and the Nikkei Environmental Management Survey (Brother's ranking in the manufacturing industry: 36th) in Japan. Brother Industries, Ltd. (BIL) won the Gold Prize of the 2014 Aichi Environmental Award for its overall accomplishments in environmental activities.

*: The score represents the evaluation points based on our response to the CDP's request for information. The average score in its survey of 500 global companies and 500 Japanese companies was 81 and 71 points, respectively.

Brother Earth

In 2010, the Brother Group created the "Brother Earth" logo and slogan which symbolizes the group's environmental activities, with a unified message of "Working with you for a better environment," to facilitate various activities.

*: This video is from YouTube.

To appeal to society at large, Brother Earth, Brother's special website on the environment, was launched to simply present Brother's wish and the activities it does to protect the earth.

"5R" concept - the key to reducing environmental impact

From 1999, the Brother Group has been conducting environmental activities based on the "5Rs," which adds "Refuse" and "Reform" to the "Reduce," "Reuse" and "Recycle" 3Rs as the basis for establishing a recycling-oriented society. "Reform" in particular is an original idea from Brother for creating value by introducing novel approaches and ideas for changing the state of a waste material.

"5R" Concept

Refuse	Avoid purchase of environmentally burdensome materials whenever possible
Reduce	Reduce waste material
Reuse	Reuse waste material without processing
Reform	Reuse materials in a different form
Recycle	Reuse materials as resources

Corporate Environmental Strategy and Management

Mid-term Environmental Action Plan

Brother Group 2015 Mid-term Environmental Action Plan (2011-2015)

A milestone toward 2020

In the fourth year of the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015), we have set ambitious targets under the slogan of Brother Earth. To contribute to the creation of sustainable society, we have been accelerating efforts in the creation of eco-conscious products, reduction in environmental impact attributed to business operations, compliance with laws and regulations in respective countries, and environmental and social contribution activities.
Regarding CO_2 emissions which contribute to global warming, the action plan provides the mid-term targets concerning reductions which are to be achieved by FY2020 (April 1, 2020-March 31, 2021): cut CO_2 emissions by 30% (absolute value) from FY1990 (November 21, 1989-November 20, 1990) levels at eight business sites in Japan; and cut CO_2 emissions by 20% (per unit of sales) from FY2006 (April 1, 2006-March 31, 2007) levels at manufacturing facilities outside Japan (except the USA)*1.

Mid-term targets by FY2020

(1) Cut total CO_2 emissions by 30% from FY1990 levels at eight business sites in Japan by FY2020 (absolute value)
(2) Cut CO_2 emissions by 20% (per unit of sales) from FY2006 levels at manufacturing facilities outside Japan (except the USA) by FY2020

To achieve the mid-term targets by FY2020, the Brother Group has been working to reduce CO_2 emissions by 1% per annum at eight business sites in Japan (absolute value) and at manufacturing facilities outside Japan (except the USA) (per unit of sales). In particular, the Brother Group is committed to attaining the top levels of energy-efficient product performance in the industry.

Notably, manufacturing facilities outside Japan cut CO_2 emissions by 13.7% in FY2013 (April 1, 2013-March 31, 2014) (per unit of sales) from the previous fiscal year, achieving the target of a 20% reduction seven years ahead of schedule. Activities will be continuously implemented to cut CO_2 emissions on a group basis. Meanwhile, the Brother Group started to comply with Corporate Value Chain (Scope 3) Accounting and Reporting Standard*2 which defines the environmental impact outside the group.

By achieving the action plan, the Brother Group will (1) fulfill corporate social responsibilities at ever higher levels through continuous commitment to environmental challenges, (2) raise environmental activities to among the best in the industry, and (3) instill a strong sense of pride so that employees feel truly proud to be part of the Brother Group.

*1: USA (a manufacturing facility outside Japan) constitutes part of a sales facility.
*2: This international standard for calculating greenhouse gas emissions applies to indirect greenhouse gas emissions in the supply chain related to business operations.

Corporate Environmental Strategy and Management

Mid-term Environmental Action Plan

Basic policy

1. Making a commitment to creating eco-conscious products, primarily focused on reducing energy consumption
   ▶[Environmental target] Eco-conscious products
   http://www.brother.com/en/eco/management/action_plan/index.htm#target01
2. Working on reducing group CO_2 emissions
   ▶[Environmental target] Reducing environmental impact of business sites
   http://www.brother.com/en/eco/management/action_plan/index.htm#target02
3. Quickly complying with laws and regulations across the world, eliminating risks, and expanding business opportunities
   ▶[Environmental target] Complying with laws, regulations and social trends
   http://www.brother.com/en/eco/management/action_plan/index.htm#target03
4. Disclosing environmental information, enhancing interactive communications with stakeholders.
   ▶[Environmental target] Environmental communication
   http://www.brother.com/en/eco/management/action_plan/index.htm#target04

Environmental targets (2011-2015)

1. Eco-conscious products

1-1. Actively acquiring environmental labels in respective countries and meeting new standards
- (1) Ensuring that requests are met from sales facilities to acquire Blue Angel, Eco Mark, ENERGY STAR, Nordic Swan, EPEAT, and China's Ten Circle Mark, etc.
- (2) Complying with new standards (from 2012) of Blue Angel and Eco Mark, and continuously acquiring the labels

1-2. Improving the energy-saving performance of products
- (1) Complying with various energy-saving standards including ENERGY STAR, Blue Angel, Eco Mark, China's Energy Label, and Japan's Top Runner Target Program Standards, etc. for all applicable products
- (2) Achieving top-level energy-saving performance in the industry for respective categories

1-3. Complying with emissions (e.g., TVOCs, UFPs, noise) standards
- (1) Complying with standards with sufficient margins
- (2) Also complying with new standards including those of Blue Angel and new German law (UFP)

1-4. Increasing the percentage and volume of recycled materials used
Complying with an ever-broader range of standards for all applicable products

1-5. Increasing reusability and recyclability (both for main units and consumables)
- (1) Promoting design for reducing man-hours required in the reuse process, and cutting the number of replacement parts and costs, in the consumables reuse business
- (2) Expanding the scope of parts for which materials derived from a closed recycling system can be used

1-6. Reducing logistics costs and CO_2 emissions by promoting optimization of packaging
- (1) Both optimizing the packaging for reducing logistics costs and reducing CO_2 emissions attributed to logistics
- (2) Promoting the selection of appropriate materials and reduction in size and weight

Corporate Environmental Strategy and Management

Mid-term Environmental Action Plan

*: The numbers in "Environmental targets" in the chart below correspond to the numbers in the text.

Environmental targets*		Targets for FY2013	Achievements in FY2013	Self evaluation
1-1	(1)	Acquiring environmental labels for all applicable products	Achieved	Achieved
	(2)	Complying with Blue Angel's new standards (UFP)	Compliance with new standards has been ensured.	Achieved
1-2	(1)	Complying with energy conservation standards for all applicable products	Achieved	Achieved
	(2)	Achieving the top levels of energy-saving performance in the industry	Achieved in all categories	Achieved
1-3	(1)	Complying with emission standards for all applicable products	Achieved	Achieved
	(2)	Complying with Blue Angel's new standards	Achieved	Achieved
1-4		Complying with EPEAT standards for all applicable products	Achieved	Achieved
1-5	(1)	Ink cartridge recycling rate: 50% or more	Achieved	Achieved
	(2)			
1-6	(1)	Optimizing packages	Continued in FY2014 (April 1, 2014-March 31, 2015)	Not evaluated in a single year
	(2)			

▶Creating Eco-conscious Products http://www.brother.com/en/eco/highlight/index.htm#product
▶Environmental Considerations within Product Life Cycles http://www.brother.com/en/eco/product/index.htm
▶In-depth Data http://www.brother.com/en/eco/performance/data/index.htm

2. Reducing environmental impact of business sites

For business sites in Japan and manufacturing facilities outside Japan, compliance with the Brother Group 2015 Mid-term Environmental Action Plan will serve as the basis of activities.

2-1. Reducing CO_2 emissions of the entire group
Reducing total CO_2 emissions of the entire group (business sites in Japan, and manufacturing and sales facilities outside Japan, except logistics) by 1% per annum (per unit of sales)

2-2. Reducing CO_2 emissions of eight business sites in Japan
Reducing CO_2 emissions by 1% per annum; reducing total CO_2 emissions by 25% from FY1990 levels by FY2015 (absolute value)

2-3. Reducing CO_2 emissions of manufacturing facilities outside Japan (excluding the USA)
Reducing CO_2 emissions by 1% per annum (per unit of sales)

2-4. Reducing CO_2 emissions in logistics
Setting emissions management standards, and reducing CO_2 emissions by 1% per annum (per basic unit)

2-5. Reducing water consumption at manufacturing facilities
Reducing water consumption by 5% from FY2010 (April 1, 2010-March 31, 2011) levels by FY2015 (per unit of sales)

Corporate Environmental Strategy and Management

Mid-term Environmental Action Plan

2-6. Ensuring global management of environmental conservation activities at manufacturing facilities outside Japan
Building a framework for globally managing (i) compliance with environmental laws and regulations in countries where manufacturing facilities are based and (ii) proper waste treatment, etc.

2-7. Acquiring ISO 14001 certifications
Acquiring ISO 14001 certifications at new manufacturing and sales facilities

*: The numbers in "Environmental targets" in the chart below correspond to the numbers in the text.

Environmental targets*	Targets for FY2013	Achievements in FY2013	Self evaluation
2-1	Achieving 1% reduction from FY2012	Achieved 11% reduction from FY2012	Achieved
2-2	Same as above	CO_2 emissions increased partly due to extremely hot weather. Due to the energy conservation activities, CO_2 emissions remained unchanged from FY2012 (± 0%). The mid-term targets for FY2020 (FY2013 target: reduction by 23.0% from FY1990 levels) were achieved (23.4%).	Not achieved
2-3	Same as above	Achieved 13.7% reduction from FY2012 primarily due to energy conservation activities (air conditioning, lighting and power source) and a recovery in sales. The mid-term targets for FY2020 (FY2013 target: reduction by 15% from FY2006 levels) were achieved seven years ahead of schedule (26.9%).	Significantly achieved
2-4	Setting CO_2 emissions reduction targets for logistics	Targets have been set.	Achieved
2-5	No targets set for a single year	Achieved 16.1% reduction from FY2010	Achieved
2-6	Same as above	Monitoring the list of applicable laws and regulations related to production activities and confirmation of compliance for all manufacturing facilities	Not evaluated in a single year
2-7	Xing Inc. acquired ISO 14001 certification.	Sales facilities: 5 (Xing Inc. and four other facilities)	Achieved

▶Cutting CO_2 Emissions on a Group Basis http://www.brother.com/en/eco/highlight/index.htm#warming
▶CO_2 Emission Reduction Activities http://www.brother.com/en/eco/facility/index.htm
▶In-depth Data http://www.brother.com/en/eco/performance/data/index.htm
▶List of ISO 14001-certified Facilities and History of Auditing for ISO 14064 http://www.brother.com/en/eco/facility/iso_14001/index.htm

Corporate Environmental Strategy and Management

Mid-term Environmental Action Plan

3. Complying with laws, regulations and social trends

3-1. Globally complying with regulations on chemical substances
- (1) Ensuring compliance with relevant laws (including REACH, RoHS, and TSCA) that regulate chemical substances contained in products
- (2) Developing a strategy for managing chemical substances contained in products, and attaining industry-leading low levels by FY2015

3-2. Globally complying with energy-saving regulations on products

Complying with relevant energy-saving laws and regulations on products (including ErP, Russia's product regulations, South Korea's energy law, China's Energy Label, and Japan's energy saving law) with top-level energy-saving performance

3-3. Fulfilling manufacturers' broadening scope of responsibilities
- (1) Increasing the accuracy of data submitted to the authorities to comply with WEEE/Packaging Directive, etc.
- (2) Globally building a closed recycling system for products
- (3) Globally expanding the consumables recycling system and aiming to develop the system to involve respective regional sales headquarters

3-4. Disclosing overall environmental information regarding products
- (1) Globally disclosing information regarding products' environmental impact
- (2) Disclosing product information in accordance with The Eco Declaration (ECMA370)

3-5. Using certified paper

Promoting the use of certified paper including FSC certified paper

3-6. Promoting green procurement
- (1) Enhancing the auditing and education of suppliers, increasing eco awareness, and thereby ensuring legal compliance
- (2) Building a framework for managing places of origin, illegal logging, recycling, etc. of paper used as packaging materials

Corporate Environmental Strategy and Management

Mid-term Environmental Action Plan

*: The numbers in "Environmental targets" in the chart below correspond to the numbers in the text.

Environmental targets*		Targets for FY2013	Achievements in FY2013	Self evaluation
3-1	(1)	Ensuring compliance with regulations regarding chemical substances contained in products	Achieved	Achieved
	(2)	Activities to attain the top levels in the industry	Ongoing development in line with the strategy	Not evaluated in a single year
3-2		Complying with energy conservation regulations for products	Achieved	Achieved
3-3	(1)	Continuing to weigh products when they are shipped from factories and to confirm changes in weight, in an effort to increase the accuracy of data submitted to the authorities	Continued to weigh products when they were shipped from factories and to confirm changes in weight, in an effort to increase the accuracy of data submitted to the authorities	Achieved
	(2)	Establishing a global system	Continued in FY2014	Not evaluated in a single year
	(3)	Launching recycling systems at respective sales facilities (RHQs)	Same as above	Not evaluated in a single year
3-4	(1)	Disclosing 100% of new product information to sales companies	Achieved	Achieved
	(2)			
3-5		No targets set for a single year	Started to use FSC certified paper for catalogues prepared by sales companies in Japan	Not evaluated in a single year
3-6	(1)	Revising the green procurement standards, disseminating information (e.g. sending a notice about additional REACH-SVHCs in advance), and conducting audits at suppliers to raise awareness of suppliers and group companies about green procurement and ensure legal compliance	Achieved	Achieved
	(2)	Conducting investigations to confirm the recycling rates of packaging materials at target factories (five factories) Complying with EU timber regulations	Continued with investigations to confirm the recycled content of packaging materials with assistance from five factories. Conducted investigations to confirm legality of target packaging materials and products, and confirmed legality.	Achieved

▶Complying with Laws and Regulations around the World http://www.brother.com/en/eco/highlight/index.htm#regulation
▶Compliance with Environmental Laws and Regulations on Products http://www.brother.com/en/eco/regulation/index.htm
▶In-depth Data http://www.brother.com/en/eco/performance/data/index.htm

Corporate Environmental Strategy and Management

Mid-term Environmental Action Plan

4. Environmental communication

1. Promoting Brother Earth in combination with marketing activities
   Ensuring eco-consciousness in developing new products and businesses, distributing environmental information via websites (including social media), and publicizing environmental commitments by promoting the Brother Earth planetarium dome, etc.
2. Promoting environmental and social contribution activities focusing on conserving biodiversity
   Globally conducting environmental and social contribution activities for conserving biodiversity with the involvement of employees in respective regions, posting key activities on Brother's special website on the environment to be covered by Click for the Earth donations, and encouraging the participation of stakeholders.
3. Promoting prevention of global warming by raising the environmental awareness of employees
   Globally promoting the Brother eco point program , measuring the level of environmental contribution by respective facilities, and raising the environmental awareness of employees, thereby consistently achieving CO_2 emissions reduction targets on a group basis.

*: The numbers in "Environmental targets" in the chart below correspond to the numbers in the text.

Environmental targets*	Targets for FY2013	Achievements in FY2013	Self evaluation
1	Promoting (i) environmental technologies built into new products and (ii) environmentally friendly manufacturing facilities Disseminating information through brotherearth.com, Brother's special website on the environment	Promoted "power regeneration technology" (the top-class energy conservation technology in the machine tool industry) and Eco Factories (eco-friendly factories)	Achieved
2	Continuing environmental and social contribution activities involving customers and employees at 22 facilities worldwide	Implemented in 33 facilities	Achieved
3	Number of individuals participating in the Brother eco point program: 17,000 (+15% from FY2012)	Number of individuals participating in the Brother eco point program: 21,440 (+45% from FY2012)	Achieved

▶Communication with Stakeholders http://www.brother.com/en/eco/highlight/index.htm#communication
▶Environmental Communication Activities http://www.brother.com/en/eco/communication/index.htm
▶In-depth Data http://www.brother.com/en/eco/performance/data/index.htm

Corporate Environmental Strategy and Management

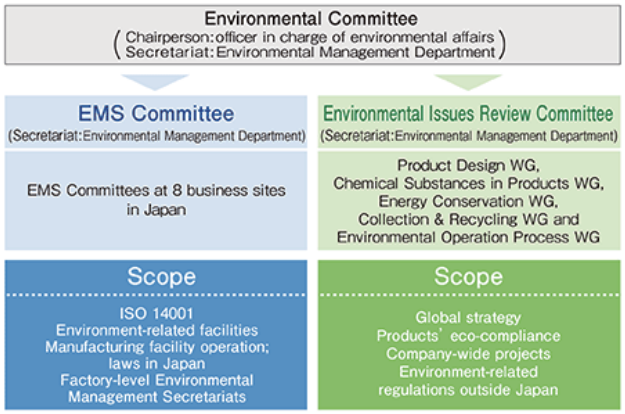
Internal Environmental Management Structure

Environmental management framework

Globally managing environmental issues throughout the group, led by the Environmental Committee

The Brother Group promotes global environmental management according to the Brother Group Environmental Policy. Specifically, the officer in charge of environmental affairs instructs respective departments at head office as well as in-house companies to determine policies and implement measures.

Brother Group environmental management framework



Environmental Committee

The Environmental Committee is the decision-making body for environmental affairs. It is chaired by the officer in charge of environmental affairs and other executive officers from business segments responsible for development, technology, production, and general affairs. Committee meetings are held four times a year.

▶Brother Industries, Ltd. governance framework
http://www.brother.com/en/csr/brothergroup/governance/index.htm#org_chart

EMS (environmental management system) Committee (secretariat: Environmental Management Dept.)

This committee has control over the EMS subcommittees set up in head office and manufacturing facilities in Japan. The committee monitors ISO 14001 operations at these facilities and compliance with laws and regulations in Japan, while constantly following up improvement activities.

Respective business sites and major group companies

These entities have dedicated staff responsible for environmental management activities. The staff identify and report (i) progress in fulfilling specific policies and targets set by the Environmental Committee and (ii) compliance with environmental legislation.

Corporate Environmental Strategy and Management

Internal Environmental Management Structure

Environmental Issues Review Committee (secretariat: Environmental Management Dept.)

This committee draws up and reviews specific policies and measures relating to global strategy, products' eco-compliance, companywide projects, and global environment-related regulations.

Working Groups (WGs)

The following working groups In Japan serve as task forces responsible for their respective themes.

- ・Product Design WG: Reviews and determines various standards for eco-friendly product design.
- ・Chemical Substances in Products WG: Ensures compliance with regulations on chemical substances contained in products, primarily the RoHS Directive.
- ・Energy Conservation WG: Focuses on improvements in the energy performance of products.
- ・Collection & Recycling WG: Focuses on the collection of products and recycling of consumables.
- ・Environmental Operation Process WG: Addresses the establishment of environmental eco-compliance operation and environmental information systems for the entire group.

Environmental communication promotion framework

Global CSR & Brand Strategy Conference

The Global CSR & Brand Strategy Conference is held where the top management discusses the Brother Group's CSR management. At the annual conference, the progress of global environmental activities under Brother Earth is confirmed, and the future vision is shared.

Environmental management system

Practicing the PDCA (Plan - Do - Check - Act) cycle in line with ISO 14001

Under our mid-term management plan, the Brother Group creates the Brother Group Mid-term Environmental Action Plan every three to five years, based on which Brother Industries, Ltd. and manufacturing and sales facilities in respective countries set annual plans and carry out environmental activities as part of their business operations. The progress and performance (results) of plans are checked based on reports and internal audits from each facility, and the findings are then reflected when planning for the following year.

In operating the environmental management system for environmental protection activities, compliance with laws, regulations, and standards is ensured, and the ISO 14001-based PDCA (Plan - Do - Check - Act) cycle is practiced.

ISO 14001 certification has been obtained by all group manufacturing facilities*, with Brother Industries (U.K.) Ltd. being the first to be certified in 1996. Brother Industries (U.K.) Ltd., a sales facility in U.K., obtained certification in 1996, followed by other many sales facilities.

*: When a new business site is established, activities are implemented in compliance with ISO 14001 upon commencement of operations, and ISO 14001 certification is immediately obtained.

▶List of ISO 14001-certified Facilities and History of Auditing for ISO 14064
http://www.brother.com/en/eco/facility/iso_14001/index.htm

Corporate Environmental Strategy and Management

Internal Environmental Management Structure

Environmental audit

The Brother Group annually conducts internal audits of environmental issues to confirm that manufacturing facilities in and outside Japan effectively follow the environmental management system in conformance with ISO 14001. For facilities in Japan, internal audits are conducted by the Environmental Management Dept. of Brother Industries, Ltd. For overseas facilities, internal audits are conducted by departments in charge of environmental affairs at the respective facilities.

These internal audits check compliance with relevant laws and regulations, the progress of annual plans, the effectiveness of the environmental management system, and consistency with ISO standards. Corrective measures are implemented immediately when any nonconformance is found, and the effectiveness of such corrective measures is checked by follow-up audits.

Audit results in Japan, together with the status of legal compliance and performance (results), are presented to the Environmental Committee. In the environmental audit in FY2013 (April 1, 2013-March 31, 2014), it was confirmed that the PDCA cycle is properly practiced and there were no serious accidents or problems to report.

Environmental training for employees

The Brother Group's ISO 14001-certified facilities offer environmental training programs for all employees as well as job specific training related to specific tasks and functions.

Essential environmental training is provided every year to raise eco-awareness and facilitate operations. Examples include environmental training programs for all new recruits joining Brother; e-learning-based training programs for all employees; training programs for production and procurement staff at manufacturing facilities, for example, the management of chemical substances contained in products, process control guidance and auditing at suppliers.

Corporate Environmental Strategy and Management

Environmental Commendation and Awards

Environmental commendation by external entities

Brother Industries, Ltd.

In January 2014, Brother Industries, Ltd. (BIL) won the Gold Prize of the 2014 Aichi Environmental Award* under the auspices of the Aichi Prefectural Government, Japan.

BIL's contribution to society and track record of environmental management were highly evaluated. BIL has been committed to manufacturing products featuring functions to reduce environmental impact, including the Low Energy Standby technology built into printers and all-in-ones. A proprietary environmental information system is also in place to ensure that management standards comply with regulations in respective countries.

*: The Aichi Prefecture Environment Award is designed to solicit applications from companies, organizations, etc. that work on advanced and effective technologies, businesses, activities, or education programs to promote the recycling of resources and reduce environmental impact. Excellent practices are commended and publicized to establish new production styles and lifestyles as part of culture and to help facilitate the formation of a sound material-cycle society.

Brother International Corporation (U.S.A.)

In June 2013, Brother International Corporation (U.S.A.) (BIC (USA)) won the Excellence Award in the Energy and Renewable Resources category of the Governor's Environmental Stewardship Awards program under the auspices of the Tennessee Department of Environment and Conservation for its environmental conservation efforts at the distribution center in the State of Tennessee.
In 2012, the distribution center of BIC (USA) obtained certification under the International ENERGY STAR program* mainly for the following energy and electricity conservation activities:

・Introduced an automatic lighting control system
・Introduced a closed-loop-controlled air-conditioning system
・Took measures to thermally insulate the roof and windows
・Introduced two photovoltaic generation systems (about 60 kW each)

*: In the U.S., a building program (covering all types of corporate buildings) is in place for certification under the International ENERGY STAR program. BIC (USA) was certified in the unrefrigerated warehouse category.

In July, Brother International Corporation (U.S.A.) was commended by RideWise (one of New Jersey's designated transportation management associations) for its activities to carpool to work, and won the Silver Prize.

Year	Month	Country	Name of awarding entity/award	Award title	Name of company that won the award
2014	January	Japan	2014 Aichi Environmental Award under the auspices of the Aichi Prefectural Government	Gold Prize	Brother Industries, Ltd.
2013	July	U.S.A.	RideWise Award under the auspices of the State of New Jersey	Silver Prize	Brother International Corporation (U.S.A.)
	June	U.S.A.	Governor's Environmental Stewardship Awards under the auspices of the Tennessee Department of Environment and Conservation	Excellence Award Category: Energy and Renewable Resources	

Corporate Environmental Strategy and Management

Environmental Commendation and Awards

Business sites and departments winning "5R Award" in FY2013 under Brother Group's internal environmental commendation system

In FY2008 (April 1, 2008-March 31, 2009), the Brother Group started the "5R Award," a commendation system for environmental activities for all group companies. The aim was to stimulate and improve the level of environmental activities of the entire group. Applications are solicited from May to July. Evaluations are made based on CO_2 emission reduction from the previous fiscal year, unique or characteristic aspects of activities, possibility of horizontal development, ease of implementation, etc.

In FY2013 (April 1, 2013-March 31, 2014), seventeen applications were received. The winners were business sites and departments which tackled problems that all corporations have to face and achieved results. The CO_2 Reduction Contribution Award introduced last year was presented to four business sites* that significantly reduced CO_2 emissions.

In November 2013, 5R Award winners from Asia, Europe and the Americas made presentations about their activities and received commendations at the Brother Group presentation meeting, which was attended by more than 3,000 people from group companies.

*: Brother Industries (Shenzhen), Ltd., Brother International Corporation (U.S.A.), Zhuhai Brother Industries, Co., Ltd., Brother Sales, Ltd.

FY2013 "5R Award"

Award title		Business sites / departments
5R Award (Reduction in CO_2 Emissions)	Category: Manufacturing	Brother Industries (Shenzhen), Ltd.
	Category: Large Offices	Brother International Corporation (U.S.A.)
Judge Selection 5R Award (Reduction in CO_2 Emissions)		Zhuhai Brother Industries, Co., Ltd.
5R Award (Products)		IE Development Dept. of Brother Industries, Ltd.
5R Award (Products)		Brother (China) Ltd.
Judge Selection 5R Award (Environmental Contributions)		Brother International (Aust.) Pty. Ltd.

Corporate Environmental Strategy and Management

Environmental Commendation and Awards

The main activities and accomplishments of the award-winning business sites from previous years are outlined below.

5R Award (Reduction in CO_2 Emissions) (Category: Manufacturing)

Brother Industries (Shenzhen), Ltd. cut CO_2 emissions in FY2012 (April 1, 2012-March 31, 2013) by 19% compared to the previous fiscal year (per unit of sales) by actively improving its equipment, etc. and raising employees' environmental awareness.

Temperature sensor for activating an exhaust fan when the temperature is 35°C or higher

Major electricity/energy conservation activities

- ・Reviewed the number of connected printers and PCs
- ・Provided insulating material around the cylinder of the molding machine
- ・Replaced elevator lights with LEDs
- ・Reviewed the system and reduced the number of environmental impact measuring instruments
- ・Ensured electricity conservation of PCs in the office
- ・Installed a temperature sensor to an exhaust fan in the electricity distribution room to control the operation time of the fan

▶**Environmental impact data of Brother Industries (Shenzhen), Ltd. [PDF/110KB]**
http://download.brother.com/pub/com/en/eco/pdf/2014/data_bisz.pdf

5R Award (Reduction in CO_2 Emissions) (Category: Large Offices)

In FY2012, Brother International Corporation (U.S.A.) reduced its consumption of electricity, natural gas, and diesel fuel. Electricity consumption was cut by 3.3% from FY2011 (April 1, 2011-March 31, 2012)*.

The distribution center obtained certification under the International ENERGY STAR program in the unrefrigerated warehouse

Major electricity/energy conservation activities

- ・Reduced the number of air handler units in the warehouse requiring cooling units
- ・Introduced a total energy monitoring system to identify unnecessary energy consumption
- ・Reduced the total number of lights by about 25% by removing unnecessary lights

*: Power generation by photovoltaic generation systems not included

▶**CO_2 reduction activities by the Brother Group: Brother International Corporation (U.S.A.)**
http://www.brother.com/en/eco/facility/index.htm#examples

Corporate Environmental Strategy and Management

Environmental Commendation and Awards

Judge Selection 5R Award (Reduction in CO_2 Emissions)

In FY2012, Zhuhai Brother Industries, Co., Ltd. cut CO_2 emissions by 13% from FY2011 (per unit of sales) by actively improving the equipment and reducing waste through monthly energy conservation patrols.

Major electricity/energy conservation activities
・Reduced the number of lights in passageways
・Replaced the boiler for drinking water with a reverse osmotic membrane pure water system
・Introduced an air-conditioning control system
・Equipped air conditioners with inverters
・Reduced power generation by using a private power generator

▶CO_2 reduction activities by the Brother Group: Zhuhai Brother Industries, Co., Ltd.
http://www.brother.com/en/eco/facility/index.htm#examples

5R Award (Products)

The IE Development Dept. of Brother Industries, Ltd. was evaluated for its commitment to obtaining Blue Angel certification for the Business Inkjet All-in-One series and achieving low energy standby.

▶We just want to hear customers say, "Glad I chose a Brother!"
http://www.brother.com/en/eco/special/special1/index.htm

▶Special Stories "Low Energy Standby"
http://www.brotherearth.com/en/story/standby.html

5R Award (Environmental Contributions)

Brother (China) Ltd. was evaluated for its accomplishments in its project to prevent desertification in Inner Mongolia.

▶Environmental Activities: Brother (China) Ltd.
http://www.brother.com/en/eco/communication/biodiversity/index.htm#asia_02

Corporate Environmental Strategy and Management

Environmental Commendation and Awards

Judge Selection 5R Award (Environmental Contributions)

Since February 2010, Brother International (Aust.) Pty. Ltd. (BIA) has been carrying out the Australia eco point program in which points are awarded to employees for eco-conscious actions. This intranet-based program sets monthly themes on which employees can work on their own initiative, to encourage environmental activities.

Following FY2011, themes in FY2012 included paper recycling, waste reduction, and electricity and water saving. Employees' efforts led to a reduction in power consumption, as well as waste reclamation (by 54%).

Points earned through these activities are converted to money, which is then donated to the local Lane Cove National Park. Some of the money has been used to purchase tools and necessary equipment for maintaining the trees and park.

BIA employees also participate in the planting of seedlings at the national park, as well as marine and endangered species ecosystem surveys conducted by Earthwatch, a non-profit organization.

BIA was highly evaluated for the high percentage of employee participation in the eco point program, continued involvement in diverse activities, and contribution to local communities.

▶Environmental Activities: Brother International (Aust.) Pty. Ltd.
http://www.brother.com/en/eco/communication/biodiversity/index.htm#asia_07

President's Award

In 1998, the Brother Group started the President's Award, a commendation system for all group companies. The award is intended to boost employees' motivation and challenging spirit by recognizing their efforts and accomplishments made throughout the year. The evaluation indices include reduction in CO_2 emissions and activities to improve the environment.

Commendation under the Brother eco point program

In April 2008, the Brother Group launched the "Brother eco point program" to help raise the environmental awareness of employees, and extended the program to facilities outside Japan from FY2009 (April 1, 2009-March 31, 2010).
Facilities in Japan and the U.S. as well as Brother Industries (U.K.) Ltd. created their own commendation systems to encourage such activities. As of March 2014, the Brother eco point program is in place in 43 countries and regions, involving 21,440 employees, which accounts for more than half of the Brother Group's workforce (up 45% from FY2012).

Corporate Environmental Strategy and Management

Timeline for Environmental Milestone Achievement

Year	Month	Main Environmental activities
1991	September	・Company-wide environmental organization is established for each product division.
1993	May	・Brother's First Environmental Action Plan (Voluntary Plan) is formulated. ・Use of CFC 113 and trichloroethane in the production processes of Brother Industries, Ltd. (BIL) facilities and wholly-owned subsidiaries' facilities are completely banned (including total abolishment of all chlorinated solvents).
1994	February	・Brother's first white paper on the environment is issued (issued annually until 1999).
1995	February	・A new environmental management organization is started at BIL with the Facility Manager and Secretariat of the Environmental Management Committee of Facility spearheading the initiative.
1996	July	・Brother's Second Environmental Action Plan (Voluntary Plan) is formulated.
	December	・Brother Industries (U.K.) Ltd. obtains ISO 14001 certification.
1997	February	・Kariya Manufacturing Facility of BIL obtains ISO 14001 certification.
	December	・Brother Industries (Johor) Sdn. Bhd.*1 obtains ISO 14001 certification. (Currently: Brother Industries Technology (M) Sdn. Bhd.)
1998	March	・Brother Industries Technology (M) Sdn. Bhd. obtains ISO 14001 certification.
	August	・Mizuho Manufacturing Facility of BIL obtains ISO 14001 certification.
1999	September	・Environmental Report is issued for the first time. (Environmental Report 1999) 
	October	・Buji Nanling Factory, Brother Corporation (Asia) Ltd. obtains ISO 14001 certification. (Currently: Brother Technology (Shenzhen) Ltd.)
	November	・Hoshizaki Manufacturing Facility of BIL obtains ISO 14001 certification. ・Minato Manufacturing Facility of BIL obtains ISO 14001 certification. ・Xian Typical Brother Industries, Co., Ltd.*2 obtains ISO 14001 certification. (Currently: Brother Machinery Xian Co., Ltd.)
	December	・Brother's Third Environmental Action Plan (Voluntary Plan) is formulated.
2000	September	・Environmental Report 2000 is issued.
	October	・Taiwan Brother Industries, Ltd. obtains ISO 14001 certification.
	December	・Momozono Manufacturing Facility of BIL obtains ISO 14001 certification.

*1: Brother Industries (Johor) Sdn. Bhd. was integrated into Brother Industries Technology (M) Sdn. Bhd. in 2004.
*2: Xian Typical Brother Industries, Co., Ltd. merged with Brother Sewing Machine Xian Co., Ltd. in 2010. The new company is named Brother Machinery Xian Co., Ltd.

Corporate Environmental Strategy and Management

Timeline for Environmental Milestone Achievement

Year	Month	Main Environmental activities
2001	March	・Headquarters/Research & Development Center of BIL obtains ISO 14001 certification.
	July	・Zhuhai Brother Industries, Co., Ltd. obtains ISO 14001 certification.
	August	・Environmental Report 2001 is issued.
	September	・Laser Printer HL-2460/2460N is awarded the Blue Angel Label of Germany.  HL-2460/2460N
	December	・Participates as exhibitor in Eco-Products 2001.
2002	April	・Zero emission is achieved at major facilities in Japan.
	August	・Environmental Report 2002 is issued.
	September	・Laser Printer HL-7050 becomes the world's first printer awarded the TCO '99, an international environmental label.  HL-7050
	November	・Headquarters and sites of BIL in Japan obtain multiple site ISO 14001 certification.
	December	・Brother Group Fourth Environmental Action Plan is formulated and announced at the Brother Global Conference. ・Brother Tennessee* (Brother Industries (U.S.A.) Inc.) obtains ISO 14001 certification. *: Registered facility name when ISO 14001 certification was acquired ・Participates as exhibitor in Eco-Products 2002.
2003	April	・Personal Facsimile FAX-1100CL becomes first in the home-use facsimile industry to be awarded the EcoLeaf label managed by JEMAI.  FAX-1100CL
	July	・Environmental Report 2003 is issued.
	December	・Participates as exhibitor in Eco-Products 2003. ・Mie Brother Precision Industries, Ltd. obtains ISO 14001 certification.
2004	April	・Brother Green Procurement Management System starts operation. ・BIL starts company-wide environmental education by e-learning.
	May	・BIL becomes the first in the facsimile business to obtain the System Certification of the EcoLeaf.
	June	・Brother Industries(Shenzhen), Ltd. obtains ISO 14001 certification.
	July	・2004 Environmental & Social Report is issued.
	November	・Brother issues its first self-certification of the EcoLeaf label to the MFC-620CLN.  MFC-620CLN
	December	・Participates as exhibitor in Eco-Products 2004.

Corporate Environmental Strategy and Management

Timeline for Environmental Milestone Achievement

Year	Month	Main Environmental activities
2005	February	・Brother U.K. Ltd. obtains ISO 14001 certification.
	July	・Registers in Team -6% membership*1. ・Takes part in EPOC "ECO talk session" at citizen's pavilion of 2005 World Exposition Aichi, Japan*2. ・2005 Brother Group Social & Environmental Report is  *1  *2
	December	・Participates as exhibitor in Eco-Products 2005*3 ・Brother Sewing Machine (Shanghai) Co., Ltd.*4 obtains ISO 14001 certification.  *3
2006	March	・Brother International (Nederland) B.V. obtains ISO 14001 certification.
	April	・Brother Group Fifth Environmental Action Plan is formulated.
	May	・Brother Logitec Ltd. obtains ISO 14001 certification.
	June	・Brother Sewing Machine Xian Co., Ltd.*5 obtains ISO 14001 certification. (Currently: Brother Machinery Xian Co., Ltd.) ・Brother International Corporation (Canada) Ltd. obtains ISO 14001 certification.
	July	・Corporate Social Responsibility Report 2006 is issued. ・Eco Report 2006 is issued.
	December	・Participates as exhibitor in Eco-Products 2006.
2007	March	・Brother International Europe Ltd. obtains ISO 14001 certification.
	June	・Corporate Social Responsibility Report 2007 is issued.
	July	・Brother International (NZ) Ltd. obtains ISO 14001 certification.
	December	・Receives System Certification in the printer and facsimile business under the EcoLeaf eco-label ・Participates as exhibitor in Eco-Products 2007.
2008	January	・Brother Italia S.p.A. obtains ISO 14001 certification.
	March	・Brother International GmbH obtains ISO 14001 certification. ・Brother International Corporation (U.S.A.) obtains ISO 14001 certification. ・Brother Iberia, S.L.U. obtains ISO 14001 certification.
	April	・Brother Group 2010 Mid-term Environmental Action Plan (2008-2010) is formulated. ・Brother Finland Oy obtains ISO 14001 certification. (Currently Brother Finland, Brother Nordic A/S Denmark, branch in Finland)
	May	・Brother International (Aust.) Pty. Ltd. obtains ISO 14001 certification.

*4: Brother Sewing Machine (Shanghai) Co., Ltd. transferred its business to Brother Machinery Xian Co., Ltd. in 2010.
*5: Xian Typical Brother Industries, Co., Ltd. merged with Brother Sewing Machine Xian Co., Ltd. in 2010. The new company is named Brother Machinery Xian Co., Ltd.

Corporate Environmental Strategy and Management

Timeline for Environmental Milestone Achievement

Year	Month	Main Environmental activities
2008	June	・Brother France SAS obtains ISO 14001 certification. ・Participates as exhibitor in Integrated Exhibition of the Environment in Celebration of the Hokkaido Toyako Summit in 2008. ・Brother Group Corporate Social Responsibility Report 2008 is issued.
	July	・Brother Norge A.S. obtains ISO 14001 certification. (Currently: Brother Norway, branch of Brother Nordic A/S) ・Brother International (Sweden) A.B. obtains ISO 14001 certification. (Currently: Brother Sweden, branch of Brother Nordic A/S, Denmark)
	August	・Brother International Singapore Pte. Ltd. obtains ISO 14001 certification. ・Brother International Corporation (Ireland) Ltd. obtains ISO 14001 certification. ・Brother International (Danmark) A/S obtains ISO 14001 certification. (Currently: Brother Nordic A/S)
	September	・Brother (Schweiz) AG obtains ISO 14001 certification.
	October	・Brother Industries (Slovakia) s.r.o. obtains ISO 14001 certification.
	November	・Brother Sales, Ltd. & Brother International Corporation obtain ISO 14001 certification. (Two companies acquired integrated authentication with Brother Industries, Ltd.)
	December	・Brother (China) Ltd. obtains ISO 14001 certification. ・Participates as exhibitor in Eco-Products 2008.
2009	March	・Brother Industries (Vietnam) Ltd. obtains ISO 14001 certification. ・Brother International (Belgium) NV/SA obtains ISO 14001 certification. ・A solar power generation system (100 kWh) is introduced at the Kariya Manufacturing Facility.
	April	・Brother Internationale Industriemaschinen GmbH obtains ISO 14001 certification. ・Brother International Austria GmbH obtains ISO 14001 certification. (Currently: Brother International GmbH (Austrian Branch)) ・Brother International de Mexico, S.A. de C.V., Brother International Corporation do Brasil, Ltda., Brother International de Chile, Ltda., and Brother International Corporation de Argentina S.R.L. acquire integrated certification of ISO 14001 with Brother International Corporation (U.S.A.).
	June	・Brother Corporate Profile 2009 is issued. ・The CO_2 reduction target for FY2020 is added to the Brother Group 2010 Mid-term Environmental Action Plan (2008-2010), and activities are launched.
	December	・Participates as exhibitor in Eco-Products 2009. ・Five models of printers (including HL-5350DN) and seven models of multi-function centers (including MFC-8380DN) obtain Nordic Swan eco label certification.

Corporate Environmental Strategy and Management

Timeline for Environmental Milestone Achievement

Year	Month	Main Environmental activities
2010	January	・Registers as a member of the Challenge 25 Campaign (switching from "Team Minus 6%").
	February	・Brother International Philippines Corporation obtains ISO 14001 certification.
	May	・"Brother Earth," a logo and slogan symbolizing the Brother Group's environmental activities, is created. ・Brother International (Gulf) FZE obtains ISO 14001 certification.
	July	・HL-5340D, HL-5350DN, HL-5380DN, MFC-8880DN, and MFC-8890DW become the first Brother products to obtain Environmental Choice New Zealand certification.
	October	・MFC-J6510DW, MFC-J6710DW, and MFC-J6910DW become the world's first inkjet printers to obtain Nordic Swan eco label certification. ・Brother exhibits its products at the tenth meeting of the Conference of the Parties (COP 10) as a company taking part in the Ink Cartridge Return Project.
	November	・GT-541 and GT-782 (garment printers) obtain Oeko-Tex Standard 100 certification.
	December	・Participates as exhibitor in Eco-Products 2010.
2011	February	・Brother International (HK) Ltd. obtains ISO 14001 certification.
	March	・Brother Industries (U.S.A.) Inc. and Brother International del Peru S.A.C. acquire integrated certification of ISO 14001 with Brother International Corporation (U.S.A.).
	April	・Brother Group 2015 Mid-term Environmental Action Plan (2011-2015) is formulated. ・Brother Nordic A/S acquires integrated certification of ISO 14001 with Finland, Norway, and Sweden branches. ・Brother U.K. Ltd. wins the Queen's Award.
	May	・Brother Industries, Ltd. wins the FY2010 Environmental goo Award in the category of Environmental and Social Reports.
	December	・Participates as exhibitor in Eco-Products 2011
2012	February	・Brother Sales, Ltd. wins the Certification Test for Environmental Specialists (Eco Test) Promotion Award 2011.
	May	・Brother (China) Ltd. wins the Eco Label Contribution Award from the China Environmental United Certification Center Co., Ltd. under the jurisdiction of the State Environmental Protection Administration. ・The Brother Group is recognized as the first Eco First company in the printer industry under the auspices of the Ministry of the Environment, Government of Japan. ・Brother Polska Sp. z o.o. obtains ISO 14001 certification.
	August	・Brother Industries Saigon, Ltd. obtains ISO 14001 certification.
	December	・Participates as exhibitor in Eco-Products 2012.

Corporate Environmental Strategy and Management

Timeline for Environmental Milestone Achievement

Year	Month	Main Environmental activities
2013	March	・Brother International (NZ) Ltd. is audited for ISO 14064 certification.
	April	・Brother LLC obtains ISO 14001 certification. ・Brother International Hungary Kft. obtains ISO 14001 certification. ・Brother International CZ s.r.o. obtains ISO 14001 certification.
	June	・Brother International Corporation (U.S.A.) wins the Excellence Award in the Energy and Renewable Resources category of the Governor's Environmental Stewardship Awards program.
	July	・Brother International Corporation (U.S.A.) wins the RideWise Award (Silver Prize). ・XING Inc. obtains ISO 14001 certification. ・Brother Industries, Ltd. (business sites in Japan) is audited for ISO 14064 certification.
	December	・Participates as exhibitor in Eco-Products 2013. ・Brother Machinery Shanghai Ltd. obtains ISO 14001 certification. ・Brother Mobile Solutions, Inc. and Nefsis Corporation obtain multiple site ISO 14001 certification with Brother International Corporation (U.S.A.).
2014	January	・Brother Industries, Ltd. wins the 2014 Aichi Environmental Award (Gold Prize)
	April	・Brother Industries (Philippines), Inc. obtains ISO 14001 certification.
	May	・FAX-2840 becomes the first desktop black-and-white All-in-One to be certified under the Carbon Footprint of Products (CFP) program in Japan.

▶List of ISO 14001-certified Facilities and History of Auditing for ISO 14064
http://www.brother.com/en/eco/facility/iso_14001/index.htm

Creating Eco-conscious Products

Environmental Considerations within Product Life Cycles

Setting ever higher targets for reducing environmental impact at each stage

The Brother Group is committed to reducing environmental impact at all stages of the life cycle of its products. This is the guiding principle of the group's manufacturing activities.

Since each of the stages are closely interlinked in terms of environmental impact, continuous efforts are required to make incremental improvements and to achieve technological innovation. The Brother Group aims to make such efforts throughout its operations in order to continuously deliver eco-conscious products to customers.

The Brother Group 2015 Mid-term Environmental Action Plan (2011-2015) sets ever-higher targets for each of these stages to accelerate efforts. Specific activities include enhancing eco-conscious design processes and green procurement, continuous reduction in environmental impact at manufacturing facilities (such as CO_2 emissions and water consumption), reduction in CO_2 emissions in logistics (for example, by optimizing packaging), further improvements in energy-saving performance during product use, and enhancement in the reusability, recyclability, and collection system for either products or consumables.

1. Development and design

Basic policy

Brother products are developed and designed to:
・comply with laws and regulations of the various countries and regions where sold;
・be compact and lightweight to conserve resources;
・achieve the top levels of energy conservation performance in the industry;
・manage hazardous chemical substances, as defined in the Brother Green Procurement Standards;
・be easily recycled at the end of life; and
・meet emission standards.
It is essential to apply at the design stage, environmental considerations for the entire life cycle of a product. For certain key criteria in the product environmental assessments, target values are set at the initial stage of development and design. Improvements must be achieved when compared with those products of the previous generation.

Creating Eco-conscious Products

Environmental Considerations within Product Life Cycles

Measures

Brother Industries, Ltd. (BIL) conducts product environmental assessments at key stages of development and ensures eco-conscious design by addressing the product life cycle from material procurement, production, products use and through to the collection and recycling at the end of life. Also, BIL actively acquires environmental labels in respective countries.

Product environmental impact assessment flow

Product environmental impact assessments and Life Cycle Assessment (LCA)

BIL conducts product environmental impact assessments in order to evaluate the impact that products have on the environment. There are 41 assessment items. For key criteria, improvement must be achieved at the product development stage.

Key Criteria for environmental impact assessment

- Size and weight
- Parts reuse/recyclability, disassembly/dismantling, avoidance of difficult-to-disassemble structures, integration of resin materials
- Hazards during production or use
- Size, weight and recyclability of packaging materials
- Material labeling, compliance with related laws and environmental labels

We conduct an LCA that quantitatively provides numerical data for the "degree of impact on the environment" at each stage of its life cycle. Environmental load characteristics and improvement points are identified and the improvement effect is confirmed for each product. Evaluation results are released on the BIL website showing the products which have acquired various environmental labels and under the name of the EcoLeaf environmental label managed and operated by the Japan Environmental Management Association for Industry.
From January 25, 2007, the LCA information has been shared internally on the intranet of BIL. March 2014 saw detailed LCA information published in-house for 67 products (six products were newly released in FY2013). These are used by the responsible departments and business partners to encourage the development of eco-conscious products. The Brother Group will continue to reduce the environmental impact of products by using LCA techniques.

▶Story behind the development of Low Energy Standby technology
http://www.brotherearth.com/en/story/standby.html

▶Story behind the development of Coatless Surface
http://www.brotherearth.com/en/story/coatless.html

▶Story behind the development of Power Regeneration System
http://www.brotherearth.com/en/story/power-supply-regenerative.html

Creating Eco-conscious Products

Environmental Considerations within Product Life Cycles

2. Procurement

Basic policy

We check parts and materials that are used to make products, to ensure:
・they do not contain hazardous materials, and
・they are made via an eco-friendly process.
In this way, we give priority to purchasing parts and materials.

Measures

Brother works with suppliers and uses the IT-based Brother Green Procurement Management System to manage data on chemicals and promote the use of alternative parts/substances. This is regularly updated in response to the candidate list substances of very high concern defined within the REACH Directive.

▶Compliance with Environmental Laws and Regulations on Products
http://www.brother.com/en/eco/regulation/index.htm

3. Production

Basic policy

All manufacturing facilities of the Brother Group have ISO 14001 environmental management systems. Products are manufactured within that global system with due consideration being given to:
・ensuring efficient use of materials, energy, and water resources, etc.;
・reducing pollutants released into the atmosphere and wastewater;
・preventing the generation of waste; and
・recycling waste generated.

Measures

Electrical power consumption and CO_2 emissions are reduced by ensuring all manufacturing facilities efficiently run equipment.
The factories are also focusing on reducing the volumes of process waste and any waste generated is treated within the scope of zero landfill.

▶Environmental Management System
http://www.brother.com/en/eco/management/organization/index.htm#01
▶CO_2 Emission Reduction Activities
http://www.brother.com/en/eco/facility/index.htm
▶Zero Waste Emission Activities
http://www.brother.com/en/eco/facility/waste/index.htm
▶Reducing Water Consumption
http://www.brother.com/en/eco/facility/water/index.htm
▶Preventing Pollution
http://www.brother.com/en/eco/facility/pollution/index.htm

[Example] Our commitment is to make our factories more eco-conscious - "Eco Factory"

http://www.brotherearth.com/en/news_detail/320.html

Creating Eco-conscious Products

Environmental Considerations within Product Life Cycles

4. Packaging and logistics

Basic Policy

Brother is committed to:
・reducing product packaging and waste where possible; and
・reducing CO_2 emissions in distribution and transport.

Measures

・We are applying simpler and smaller packaging.
・We are combining product categories when arranging shipments to maximize loads.
・We continue to review distribution routes.

[Brother's activities] Adapting to high-cube containers

The external dimensions of packages are fixed to maximize the efficiency of shipping products in conventional containers or high-cube containers, to reduce CO_2 emissions associated with product shipping.

The loading efficiency of the MFC-9460CDN (released in 2011) was increased by approx. 18% when compared with the MFC-9450CDN (released in 2009) and this was achieved by reducing the packaging size and using high-cube containers.

▶CO_2 Emission Reduction Activities
http://www.brother.com/en/eco/facility/index.htm

5. Use

Basic policy

Consideration for our customers use of our products:
they do not consume excessive energy; and
our products can be used safely, conveniently and comfortably.
We also endeavor to disclose overall environmental information about products.

Measures

We are strengthening development of eco-friendly products focusing on energy conservation.

Environmental labels and energy-saving standard compliance marks awarded to environmentally friendly products

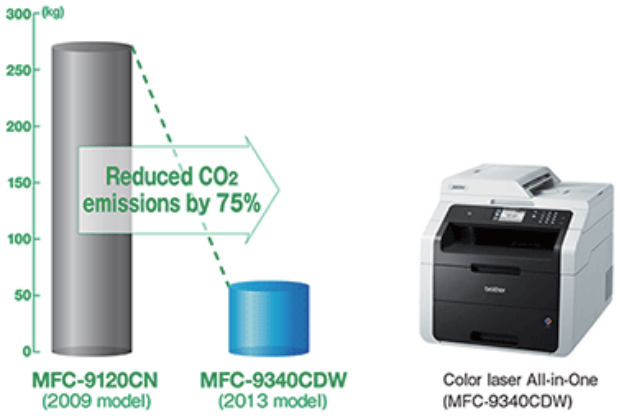
Creating Eco-conscious Products

Environmental Considerations within Product Life Cycles

[Brother's activities] Reducing CO_2 emissions from products during operation

The global warming impact (in CO_2 equivalent) of the color laser All-in-One MFC-9340CDW released in 2013 is approximately 75% lower than that of the MFC-9120CN released in 2009 (271.5 kg ⇒ 67.9 kg)*. (The environmental impact is based on the assumption that 48,000 sheets are transmitted and received during a five-year period.)

*: CO_2 emissions equivalent to total electricity consumption during a five-year period: The CO_2 conversion coefficient is the value released by the Federation of Electric Power Companies of Japan in FY2011 (April 1, 2011-March 31, 2012).



[Brother's activities] Ink- and paper-saving functions of inkjet All-in-Ones

Book Copy

When you copy pages from a book, Book Copy automatically adjusts skew and eliminates the dark shadow appearing near the spine. This feature also helps save the use of ink.

- Auto Deskew
- Spine Shadow Elimination
- Dark Shadow Elimination

Ink Saving Mode

Ink Saving Mode emphasizes outlines and lightens colors in order to reduce the amount of ink consumed.

*The picture is for illustration only.

Page Layout

This feature can print multiple pages (two to four pages) on a single sheet. By using automatic duplex printing with Page Layout (4-in-1/2-in-1 printing), you can reduce the amount of paper consumed to as little as one-eighth.

*The picture is for illustration only.

PC Fax Sending/ Receiving

This feature allows you to send/receive faxes from your networked PC. You can eliminate unnecessary printing to conserve paper.

Fax Preview

When receiving faxes, you can preview them on a liquid crystal display to choose if you need to print them or not. Thus, Fax Preview helps eliminate unnecessary printing to save paper.

*Only on models with fax feature.

▶We just want to hear customers say, "Glad I chose a Brother!" (Special Story 1 in the 2013 "Environmental Activities")
http://www.brother.com/en/eco/special/special1/index.htm

▶Contributing to office work with a new fusing technology (Special Story 2 in the 2013 "Environmental Activities")
http://www.brother.com/en/eco/special/special2/index.htm

▶Environmental Labels Acquired
http://www.brother.com/en/eco/product/label/index.htm

Creating Eco-conscious Products

Environmental Considerations within Product Life Cycles

6. Collection and recycling

Basic policy

As considerations for the end of life of a product, we make efforts to:

・collect and recycle products and consumables at end of life; and

・design products so that they can be easily recycled.

Measures

・Ink cartridges consumed in Japan: The "Ink Cartridge Return Project" is under way in collaboration with printing product manufacturers.

・Toner cartridges, drum units, and P-touch tape cassettes consumed in Japan: Brother's own collection and recycling system is in place.

・Toner and ink cartridges consumed outside Japan: Collection and recycling systems have been introduced in many countries and regions.

・In Europe, products are collected and recycled in accordance with the WEEE Directive. In Australia and New Zealand, products are collected and recycled on a voluntary basis. Regarding corporate customers in Japan, used Brother products (fax machines, printers, and All-in-Ones) are collected and recycled in collaboration with business partners.

[Brother's activities] Conducting eco activities through the Bellmark campaign (Japan)

Brother Sales, Ltd. joined the Bellmark campaign in April 2011 in order to (i) actively participate in social contribution activities via support for education and (ii) improve the collection rate of used cartridges and promote recycling.

Process for awarding Bellmark points

Examples of products in the Bellmark campaign

[Brother's activities] Promoting the reuse of monochrome toner cartridges

Mie Brother Precision Industries, Ltd. works on reusing toner cartridges for monochrome laser printers.

Collected used toner cartridges undergo sorting, disassembly, cleaning, and parts replacement for reuse. To further reduce environmental impact, the company shares information with recycling facilities in Europe and the Americas as needed, and is continually improving the methods of reusing toner cartridges.

Process for reusing toner cartridges

▶Collection and Recycling http://www.brother.com/en/eco/product/recycling/index.htm

Creating Eco-conscious Products

Environmental Labels Acquired

Actively acquiring environmental labels from around the world

A yardstick for use when selecting products, and helping reduce their overall environmental impact of society

Environmental labels indicate that the selected product shows consideration for the environment, and provide customers helpful information when selecting eco-conscious products. Environmental labels come in three types (Type I, II and III) standardized by the International Organization for Standardization (ISO) or a compliance label that indicates that the product complies with specific performance criteria.

There are various environmental labels in the countries and regions around the world in which the Brother Group operates. The respective labels (which are based on different eco-conscious requirements and standards) are considered to meet stakeholders' environmental requirements and the Brother Group actively acquires the labels in the countries and regions where its products are sold.

Under this policy, targets have been set in the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015) to acquire specific environmental labels including Blue Angel, Eco Mark, Nordic Swan, EPEAT, and China's Ten Circle Mark, and quick efforts have been made to fulfill the targets.

Below are the main environmental labels acquired by Brother products.

Type I labels

Awarded based on specific criteria judged by third party organizations

The Blue Angel (Germany)

This eco-label is issued by the Federal Environmental Agency and the German Institute for Quality Assurance and Labeling. In July 2008, the MFC-6490CW and DCP-6690CW were the first inkjet All-in-Ones in the world to be certified in the ink-jet category. In January 2013, the standard was revised and upgraded (including addition of the UFP standards). Brother worked to comply with the new standard for both new and current products. As a result, Brother acquired the label for 43 models in FY2013 (April 1, 2013-March 31, 2014).

▶List of products that acquired Blue Angel [PDF/0.2MB]
http://download.brother.com/pub/com/en/eco/pdf/blue_angel.pdf

Nordic Swan (five Scandinavian countries)

This eco-label is administered primarily by the Nordic Ecolabelling Board, and is used in five Scandinavian countries (Norway, Sweden, Denmark, Finland, and Iceland). 12 Brother models, mainly black-and-white laser printers and All-in-Ones, were first awarded the label in 2009. Brother acquired the label for four models in FY2013.

▶List of products that acquired Nordic Swan [PDF/0.2MB]
http://download.brother.com/pub/com/en/eco/pdf/nordic_swan.pdf

Creating Eco-conscious Products

Environmental Labels Acquired

China Environmental Labeling plan (China)

This government-run eco-label (the Ten Circle Mark) is issued by the China Environmental United Certification Center under the jurisdiction of the State Environmental Protection Administration. Brother acquired the label for nine models including color laser All-in-Ones and black-and-white laser printers in FY2013.

▶List of products that acquired Ten Circle Mark [PDF/0.2MB]
http://download.brother.com/pub/com/en/eco/pdf/china_environmental.pdf

Eco Mark (Japan)

This eco-label is issued by the Japan Environment Association. It is awarded to products that minimize environmental load and aid environmental protection across their entire life cycle (from production to disposal). Brother acquired the label for 28 models and 28 consumables in FY2013.

Products having acquired environmental labels in Japan

▶All-in-Ones http://www.brother.com/en/eco/product/label/mfc/index.htm
▶Printers http://www.brother.com/en/eco/product/label/printer/index.htm
▶Label Printers http://www.brother.com/en/eco/product/label/ptouch/index.htm

Environmental Choice (New Zealand)

This eco-label was introduced by the national government of New Zealand, and is issued by New Zealand Ecolabelling Trust. Brother acquired the label for eight models including color All-in-Ones and black-and-white laser printers in FY2013.

Copying machines, printers, fax machines and multifunctional devices.
Licence No. 2407031

▶List of products that acquired Environmental Choice [PDF/0.2MB]
http://download.brother.com/pub/com/en/eco/pdf/environmental_choice.pdf

Green Mark (Taiwan)

This eco-label was introduced in Taiwan by the Environmental Protection Administration, and is issued by the Environment and Development Foundation. Brother made progress and acquired the label for 15 models of laser products in FY2013.

▶List of products that acquired Green Mark [PDF/0.2MB]
http://download.brother.com/pub/com/en/eco/pdf/green_mark.pdf

Korea Eco-label (South Korea)

This eco-label is issued by the Korea Environment Industry & Technology Institute that was established in accordance with the Development of and Support for Environmental Technology Act. Brother acquired the label for color All-in-Ones and black-and-white laser printers, etc.

▶List of products that acquired Korea Eco-label [PDF/0.2MB]
http://download.brother.com/pub/com/en/eco/pdf/korea_eco_label.pdf

Creating Eco-conscious Products

Environmental Labels Acquired

Type II labels

Self-declared labels by businesses

Brother Green Label (Japan)

In October 2001, Brother Industries, Ltd. (BIL) established voluntary environmental standards for products and created the Brother Green Label to recognize products that satisfied related certification standards.

Products having acquired environmental labels in Japan

- ▶All-in-Ones http://www.brother.com/en/eco/product/label/mfc/index.htm
- ▶Printers http://www.brother.com/en/eco/product/label/printer/index.htm
- ▶Personal Facsimiles http://www.brother.com/en/eco/product/label/fax/index.htm
- ▶Label Printers http://www.brother.com/en/eco/product/label/ptouch/index.htm
- ▶Domestic Sewing Machines http://www.brother.com/en/eco/product/label/hsm/index.htm
- ▶Industrial Sewing Machines http://www.brother.com/en/eco/product/label/ism/index.htm
- ▶Machine Tools http://www.brother.com/en/eco/product/label/machine/index.htm

Type III labels

Awarded to products whose environmental load is shown quantitatively by LCA (Life Cycle Assessment)

システム認定
No.2004-12

EcoLeaf (Japan)

This eco-label is awarded to products that disclose quantifiable information about their environmental characteristics. It is managed and issued by the Japan Environmental Management Association for Industry. BIL has received "System Certification"* in the Printer and Facsimile Business (registered name) and is working on acquiring the EcoLeaf label for main products. Brother acquired the label for 5 models in FY2013.

*: Approval system for product environmental data collection systems. The Japan Environmental Management Association for Industry verifies and certifies that businesses that make EcoLeaf labels have the system needed to make them, and that the system is functioning properly and effectively.

Products having acquired environmental labels in Japan

- ▶All-in-Ones http://www.brother.com/en/eco/product/label/mfc/index.htm
- ▶Printers http://www.brother.com/en/eco/product/label/printer/index.htm
- ▶Personal Facsimiles http://www.brother.com/en/eco/product/label/fax/index.htm

Carbon Footprint (Japan)

Carbon Footprint* is a mechanism to visualize the emissions of greenhouse gases (in CO_2 equivalent) from procurement of raw materials to disposal and recycling of products. It is issued by the Japan Environmental Management Association for Industry. In May 2014, FAX-2840, MFC-8520DN, and MFC-8950DW became the first desktop black-and-white laser All-in-Ones, and HL-5440D, HL-5450DN, and HL-6180DW became the first desktop black-and-white printers, to acquire the label.

*: Short for "Carbon Footprint of Products." The environmental impact is calculated quantitatively by using the LCA technique. Businesses and consumers share awareness about actions to reduce CO_2 emissions. Consumers are motivated to pursue a low-carbon lifestyle by utilizing the visualized information.

Products having acquired environmental labels in Japan

- ▶All-in-Ones http://www.brother.com/en/eco/product/label/mfc/index.htm
- ▶Printers http://www.brother.com/en/eco/product/label/printer/index.htm

Creating Eco-conscious Products

Environmental Labels Acquired

Conformance label

International ENERGY STAR Program (the U.S., Japan, EU, Canada, Australia, New Zealand, and Taiwan)

This is an international energy saving program for office equipment. Its logo is awarded to products that meet the energy-saving standards.

▶List of products that qualify the standards of International ENERGY STAR program [PDF/0.2MB]
http://download.brother.com/pub/com/en/eco/pdf/energy_star.pdf

Energy Conservation Certification (Energy saving label) (China)

This eco-label is from China. It recognizes products for their energy-saving performance.

Oeko-Tex Standard 100 (including Europe, the U.S., and Japan)

This international standard is intended to protect consumers from harmful substances and chemical substances, etc. contained in textile products (including garments) that may affect health.

Green purchasing laws

Products complying with the Law on Promoting Green Purchasing (Japan)

In April 2001, the Law on Promoting Green Purchasing came into effect. This law requires that national governmental organizations purchase green products and that regional governmental organizations and private business and individuals try to do the same. By affixing our own eco-label to Brother products that meet the standard, BIL is promoting environmental activities to customers.

Products having acquired environmental labels in Japan

▶All-in-Ones http://www.brother.com/en/eco/product/label/mfc/index.htm
▶Printers http://www.brother.com/en/eco/product/label/printer/index.htm
▶Personal Facsimiles http://www.brother.com/en/eco/product/label/fax/index.htm

RoHS Directive

Compliance with the RoHS Directive

The EU (European Union) enforced the RoHS (Restriction on the use of certain Hazardous Substances in electrical and electronic equipment) Directive in July 2006. All Brother products, excluding machine tools, for all markets in the world are compliant with the RoHS Directive. Products only for the Japanese market are labeled with our own eco- label to show they are compliant with the RoHS Directive.

Creating Eco-conscious Products

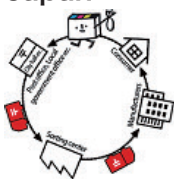
Collection and Recycling

Efforts to Improve Recycling

With the "end of life" of products in mind, the Brother Group has been working to (i) increase reusability and recyclability of products and consumables and (ii) build recycling systems in accordance with laws and regulations in respective countries.

Brother Group's collection and recycling efforts

Japan



Brother Sales, Ltd.

Jointly collecting ink cartridges via post offices

Mie Brother Precision Industries, Ltd.

Promoting the reuse of monochrome toner cartridges

North and South America

Brother International Corporation (U.S.A.)

Promoting the collection and recycling of toner cartridges in North and South America

Europe

Brother International Europe Ltd.

Collection and recycling system of consumables in Europe

Brother Industries (U.K.) Ltd.

Recycling monochrome/color toner cartridges

Brother Industries (Slovakia) s.r.o.

European toner cartridges are refurbished by the in-house recycling center in Slovakia.

Asia/Oceania

Brother International Singapore Pte. Ltd.

Jointly collecting used ink cartridges in Singapore

Brother International (Aust.) Pty. Ltd.

Participation in a non-profit organization's zero landfill waste program

Brother International (NZ) Ltd.

Used consumables and products collected and recycled

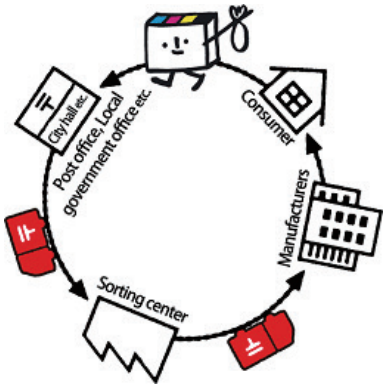
Creating Eco-conscious Products

Collection and Recycling

Brother Sales, Ltd. [Japan]

Jointly collecting ink cartridges via post offices

In Japan, printing product manufacturers and sellers have collection boxes at retail outlets to collect used ink cartridges. In order to further improve the collection rate in January 2007, the Brother Group along with other printing product manufacturers and sellers launched an "Ink Cartridge Return Project" with post offices. Collection began at 3,638 post offices across the country in April 2008.*1 The project has been a success as ink cartridges can be recycled by depositing them in the collection boxes at post offices*2 regardless of the manufacturer. Recently, local government offices have started to install collection boxes.



Recycle process of "Ink Cartridge Return Project"

Used toner cartridges and drum units from printing products are collected free of charge. Requests are accepted via the company website, telephone, or fax. In the Brother eco point program, points are automatically awarded for every consumable returned, and seedlings are planted according to the number of points earned.

"Ink Cartridge Return Project" won the Excellence Award in the 13th Green Purchasing Awards by the Green Purchasing Network in September 2011.

In collaboration with business partners, Brother Sales, Ltd. collects Brother products (fax machines, printers, and All-in-Ones for businesses), and Brother Industries, Ltd. recycles them.

*1: Since November 2008, Brother Sales, Ltd. has been collecting ink cartridges as a certified, wide-area waste disposal agent, as defined in the revised Waste Management and Public Cleansing Act, under the guidance of the Ministry of the Environment, Government of Japan.
*2: Not all post offices participate in this project.

Mie Brother Precision Industries, Ltd. [Japan]

Promoting the reuse of monochrome toner cartridges

Mie Brother Precision Industries, Ltd. started to work on refurbishing toner cartridges for monochrome laser printers in FY2009 (April 1, 2009-March 31, 2010) based on recycling expertise gained in Europe.

Collected used toner cartridges undergo sorting, disassembly, cleaning, and parts replacement for reuse. To further reduce environmental impact, the company shares information with recycling facilities in Europe and the Americas and is continually improving the methods of refurbishing toner cartridges.
Collected used color toner cartridges are delivered to Brother Industries (U.K.) also BISK Ltd. for recycling.


Process for reusing toner cartridges

Monochrome toner cartridges

Creating Eco-conscious Products

Collection and Recycling

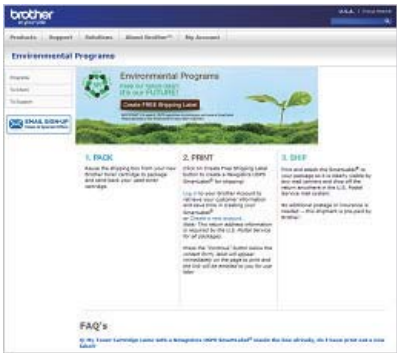
Brother International Corporation (U.S.A.) [North and South America]

Promoting the collection and recycling of toner cartridges in North and South America

In the U.S., the project is undertaken by collection and recycling contractors. The system is administered in accordance with state and federal laws.

The website of Brother International Corporation (U.S.A.) (BIC (USA)) explains how to return used toner cartridges. Some of the collected toner cartridges are sorted and reused, whilst others that cannot be reused are recycled through the WtE (thermal waste-to-energy technologies) process.

Used toner cartridges are collected in Canada via local sales facilities.



Website for collecting toner and ink cartridges (U.S.)

Brother International Europe Ltd. [Europe]

Collection and recycling system of consumables in Europe

In Europe, the website page for recycling consumables provides information about how to return consumables. There are various methods using collection labels included in the packages, collection boxes, and prepaid envelopes. The scheme is available for the EU and is translated into 25 languages.

While these collection systems are not designed to accept used products, Brother ensures compliance with the Waste Electrical and Electronic Equipment (WEEE) Directive.

Portal site for recycling (Europe)

▶**For more information, please refer to the guide for returning used consumables in Europe.**
http://www.brother.eu/g3.cfm/s_page/160370/s_name/brotherrecycleportal

Creating Eco-conscious Products

Collection and Recycling

Brother Industries (U.K.) Ltd. [Europe]

Recycling monochrome/color toner cartridges

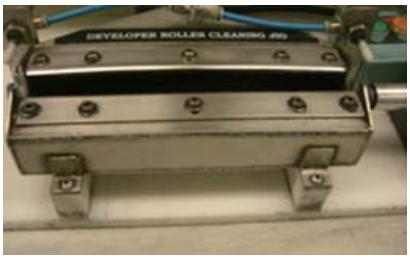
Brother Industries (U.K.) Ltd. (BIUK) refurbishes used color toner cartridges for printing devices.

To facilitate work to reuse development rollers, which are difficult to replace, special tools for cleaning rollers were designed and introduced. BIUK also evaluated the first toner filling machine to be introduced and supplied in Europe. Today, BIUK serves as the Brother Group's technology center for toner cartridge recycling.

Toner cartridges that cannot be refurbished are fully recycled in the U.K. and Slovakia. However, it was found that the volume of this plastic material exceeds the amount required for production in the region.

Consequently, re-evaluations tests were conducted to incorporate the recycling of these plastic materials in other regions.
In Malaysia, closed-loop material recycling* is performed to produce new cartridges.

*: Closed-loop material recycling refers to a recycling process in which collected products are reused as materials to manufacture the same products of the same quality.



Roller cleaning unit

Toner filling machine

Brother Industries (Slovakia) s.r.o. [Europe]

European toner cartridges are refurbished by the in-house recycling center in Slovakia

In November 2006, Brother Industries (Slovakia) s.r.o. was established as a new recycling facility in Krupina, Slovakia, to meet the ever-increasing volume of toner cartridges collected for recycling.

Toner cartridge inspection by
Brother Industries (Slovakia) s.r.o.

Creating Eco-conscious Products

Collection and Recycling

Brother International Singapore Pte. Ltd. [Asia/Oceania]

Jointly collecting used ink cartridges in Singapore

On December 1, 2011, Brother International Singapore Pte. Ltd. (BIC (S)) launched "Project Homecoming" to collect used ink cartridges in Singapore in collaboration with four other printer manufacturers (Canon, Dell, Seiko Epson, and Lexmark International).

This project originated with the "Ink Cartridge Return Project" in Japan conducted by six companies (the above five companies plus Hewlett-Packard Japan, Ltd.) in collaboration with Japan Post Holdings Co., Ltd. This is the first joint project for printer manufacturers to collect used ink cartridges outside Japan.

In Singapore, collection boxes have been placed in 13 branches of the National Library, which are visited by many people daily, with cooperation from the National Environment Agency and the National Library Board. Collected ink cartridges are disassembled and then materials such as plastics and metals are recycled.

"Project Homecoming" logo mark

Collection box

Brother International (Aust.) Pty. Ltd. [Asia/Oceania]

Participation in a non-profit organization's zero landfill waste program

Brother International (Aust.) Pty. Ltd. (BIA) is participating in the Cartridges 4 Planet Ark (C4PA) program implemented in 2003 by Planet Ark, an NPO founded in 1991, to recycle ink cartridges, toner cartridges and drum units.

Brother International (NZ) Ltd. [Asia/Oceania]

Used consumables and products collected and recycled

Brother International (NZ) Ltd. (BINZ) is working with an experienced recycling contractor, to collect and recycle used consumables and products.

Complying with Laws, Regulations and Social Trends

Compliance with Environmental Laws and Regulations on Products

Complying with environmental laws and regulations in various countries with full collaboration of the supply chain

In recent years, various laws and regulations have been introduced at both the national and regional levels and legal and regulatory restrictions have been rising year after year. Legislation covers such areas as reducing power consumption during product use, as well as environmental and health impacts.

As a global company with operations in many countries, the Brother Group, under the Brother Group 2015 Mid-term Environmental Action Plan (2011- 2015), believes that compliance with laws and regulations is the foundation of environmental risk management and product competitiveness.

To fulfill the environmental targets of "Globally complying with regulations on chemical substances and energy-saving regulations on products," The Brother Group is committed to continuously strengthening its framework for responding to developments of laws and regulations in respective regions and offering eco-conscious products before new regulations come into force. In procuring parts and materials, suppliers are asked to deliver parts and materials in accordance with the green procurement standards. Also, the Brother Group conducts audits on suppliers every three years to check their management systems and operations. Suppliers are required to make the necessary improvements.

Compliance with the Law on Promoting Green Purchasing

The Japanese Law on Promoting Green Purchasing came into force in April 2001, requiring the state and other entities to purchase products that comply with the law. Businesses and citizens are also encouraged to purchase such products which cause less environmental impact. In FY2008 (April 1, 2008-March 31, 2009), the Brother Group set a binding goal for all products subject to the law to meet its requirements. As a result, all products released since FY2009 (April 1, 2009-March 31, 2010) comply with the law.

Complying with Laws, Regulations and Social Trends

Compliance with Environmental Laws and Regulations on Products

Compliance with the RoHS Directive in different countries

RoHS, which is an EU directive introduced in July 2006, bans the use of hazardous substances in electrical and electronic equipment. In response to this directive, the Brother Group worked with suppliers to build Brother's unique environmental information system, which is used to investigate, avoid, and manage chemical substances contained in products. Later in 2007, China RoHS came into force, requiring the labeling with information on the contents of hazardous substances for electronic information products sold in China.
In 2008, the South Korea WEEE/RoHS came into force, requiring manufacturers to: restrict the use of hazardous substances contained in electrical and electronic products; set content standards for such substances; recycle products; and collect packaging materials. The Brother Group promptly complied with these new laws by utilizing the environmental information system.

FY2009 saw new regulations come into force or conventional regulations tightened in different countries and regions, for example, enforcement of the Turkey RoHS, the EU regulation regarding restriction of the use of PFOS (perfluorooctane sulfonates, organic fluorine compounds), as well as the addition of restricted substances under the Canadian Environmental Protection Act (CEPA), which is intended to control hazardous substances. In the US, the Brother Group ensured compliance with the Toxic Substances Control Act (TSCA, which regulates commercially used chemicals) and the California Proposition 65 (a law requiring the listing and labeling of hazardous substances). The Brother Group succeeded in promptly meeting all of these regulations.

In FY2010 (April 1, 2010-March 31, 2011), the Brother Group complied with the Serbian WEEE & RoHS and RoHS in the Ukraine.
In FY2011 (April 1, 2011-March 31, 2012), in emerging countries including China, Southeast Asia, and India, local sales facilities joined local manufacturers' associations and actively conducted information gathering and lobbying activities, thus strengthening communications with the authorities in respective countries. A framework is now in place in this region for the compliance with environmental laws and regulations.

In FY2012 (April 1, 2012-March 31, 2013), the Brother Group complied with the WEEE & RoHS in India and RoHS in Vietnam.

Complying with Laws, Regulations and Social Trends

Compliance with Environmental Laws and Regulations on Products

Compliance with the REACH Regulation

REACH is the EU Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals. It came into force in June 2007 for all chemical substances that are manufactured or imported. Phased registration deadlines are set depending on the substance and its volume band. The Brother Group completed pre-registration of chemical substances covered by the regulation by FY2008.

In EU countries, manufacturers are required to (i) report SVHC (Substances of Very High Concern) content in products, (ii) disclose information regarding SVHCs when selling products to retailers and (iii) respond to inquiries from consumers within 45 days. The Brother Group improved the environmental information system to facilitate the investigation of SVHC content. In FY2009, the Brother Group set up a system for collecting data from suppliers to improve disclosure of information on SVHC content.

In FY2010, the Brother Group developed a system for calculating the SVHC content in products and reporting it to the appropriate agency as necessary. Meanwhile, SDSs (safety data sheets) have been translated into EU languages and have been publically released on the website.
In FY2012, the SDSs were revised to comply with the revised REACH Regulation.

▶Safety Data Sheet (SDS) http://sds.brother.co.jp/sdsapp/index.html

Compliance with the Ecodesign Directive

The Ecodesign ErP Directive (formerly, the EuP Directive, which came into effect in 2005, and was revised in 2009) was set up as a framework for the eco-conscious design of energy-related products sold in the EU, to help prevent global warming. The Brother Group uses the data in the environmental information system to calculate LCA (life-cycle assessment) results and facilitate eco-conscious design, thereby ensuring quick compliance with the directive.

Relevant procedures for product environmental impact assessments were updated for "imaging equipment (Lot 4)," "standby and off-mode losses (Lot 6)" and "external power supply (Lot 7)" (these are categories into which Brother's products fall) to put in place a framework for compliance.
Arrangements are underway to comply with "networked standby losses of energy using products" (Lot 26) that will be introduced in 2015.

Countries outside the EU have increasingly introduced laws and regulations requiring eco-conscious design and set energy conservation standards in respective product areas. The Brother Group has taken quick action to meet these laws and regulations.

In the U.S., energy conservation standards were established for each product area in accordance with the Energy Policy Act of 2005. The Brother Group met the standards for external power supply products. Meanwhile, the Brother Group ensured compliance with similar energy conservation standards in other countries including Australia and Canada. In South Korea, the Brother Group complied with energy conservation standards for printers, All-in-Ones, and AC adapters based on the Energy Use Rationalization Act.

Complying with Laws, Regulations and Social Trends

Compliance with Environmental Laws and Regulations on Products

Compliance with the WEEE Directive, etc.

The WEEE Directive requires the collection and 3Rs (Reduce, Reuse and Recycle) of used electrical and electronic equipment. Member countries, distributors, producers, and other entities are required to fulfill the requirements in the design, sorting, collection, and recycling phases. The Brother sales offices in Europe are members of a compliance organization or scheme in their country. Compliance organizations recover and recycle WEEE on behalf of companies to meet the requirements and targets set within the Directive. In Australia and New Zealand, the Brother Group works on collection and recycling on a voluntary basis.

In FY2009, the Brother Group ensured compliance with the Enforcement Ordinance of the Act on the Promotion of Saving and Recycling of Resources in South Korea. A collection and recycling system for Brother's products was developed in Japan in collaboration with partners, and commenced in FY2012. In the US, a collection and recycling system is operated by contractors in accordance with state and federal laws.

Efforts to prevent illegal logging

The EU Timber Regulation came into force in 2013. The regulation prohibits placing timber products (including paper products) derived from illegally harvested timber on the EU market. The regulation also requires traders to conduct investigations and assessments of suppliers to prevent mixing of illegally harvested timber. The Brother Group collected information from suppliers about inkjet and thermal paper as well as product package boxes, and confirmed the legality of timber used as a raw material.

Complying with Laws, Regulations and Social Trends

Green Procurement

Green procurement policy

Prioritizing substance management in parts and materials

Under the "Brother Group Global Charter", the Brother Group began implementing green procurement activities from 2001 in which we prioritize substance management in parts and materials for all products that we sell.

In 2002, the Brother Group formulated the Brother Group Basic Environmental Policy, made specific requests to suppliers, and issued the Brother Group Green Procurement Standards. The Green Procurement Standard specifies the requirements for specified chemical substances, requiring suppliers to comply with the standards for parts and materials delivered to the Brother Group.

Green procurement efforts

Quick compliance with environmental laws and regulations in various countries

The Brother Group Green Procurement Standards have been updated to comply with various countries' environmental laws and regulations, the scope of which are constantly being extended. In 2003, we worked on the compliance for the six prohibited substances*1 named in the EU RoHS Directive from parts and materials. Then, in November 2006, we updated our Green Procurement Standards to manage 24 substance groups specified by the electric and electronic industries of Japan, the US and EU in JIG*2. From FY2008 (April 1, 2008-March 31, 2009), we began testing for the substances regulated by the EU PFOS Regulation*3 and REACH Regulation.

The Brother Group worked with suppliers to develop Brother's unique environmental information system, which is used to investigate, avoid, and manage chemical substances contained in products. A new system was introduced in May 2012, ensuring compliance with laws and regulations in various countries.

To help build a sustainable society, the Brother Group requests its suppliers to actively work on biodiversity conservation and formulate plans for cutting greenhouse gas emissions.

*1: Lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs), polybrominated diphenyl ethers (PBDEs)
*2: JIG: Joint Industry Guide for Material Composition Declaration for Electronic Products jointly issued by Japan, the US and EU, with the objective of making it more efficient for businesses in the electric and electronic equipment industries to check for chemical substances in products and parts, establishing standards for parts suppliers to identify specified chemical substances and responding to related inquiries; enforced in May 2005.
*3: PFOS Regulation: Prohibits the marketing of products that contain more than the specified amount of perfluorooctane sulfonates in the EU on or after June 27, 2008.

Brother Group Green Procurement Standards

▶Green Procurement Standards Japanese (version 7.5) [PDF/1.0MB] http://download.brother.com/pub/jp/eco/pdf/gpsj_ver7_5.pdf
▶Green Procurement Standards English (version 7.5) [PDF/993KB] http://download.brother.com/pub/com/en/eco/pdf/gpse_ver7_5.pdf
▶Green Procurement Standards Chinese-simp (version 7.5) [PDF/534KB] http://download.brother.com/pub/com/cn/eco/pdf/gpssc_ver7_5.pdf
▶Green Procurement Standards Chinese-trad (version 7.5) [PDF/1.4MB] http://download.brother.com/pub/com/cn/eco/pdf/gpstc_ver7_5.pdf
▶Green Procurement Standards Vietnamese (version 7.5) [PDF/1.1MB] http://download.brother.com/pub/com/vn/eco/pdf/gpsv_ver7_5.pdf

Reducing Environmental Impact

CO_2 Emission Reduction Activities

Activities to reduce CO_2 by conserving energy

Mid-term targets by FY2020 (April 1, 2020- March 31, 2021)

Reducing emissions of CO_2 and other greenhouse gases that are the main contributors to climate change is a critical challenge for modern society. The Brother Group set the target of reducing emissions from eight business sites in Japan by 30% from FY1990 (November 21, 1989-November 20, 1990) levels (absolute value), and reducing emissions from manufacturing facilities outside Japan (excluding the U.S.)* by 20% per unit sales from FY2006 (April 1, 2006-March 31, 2007) levels, by FY2020, and has been conducting activities worldwide.

Since FY2013 (April 1, 2013-March 31, 2014), efforts have been made to cut CO_2 emissions on a group basis. In addition, the Brother Group started to meet the Scope 3 requirements covering environmental impacts outside the group.

*: Manufacturing facilities in the U.S. constitute part of sales facilities.

CO_2 emissions reduction targets in the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015)

As a milestone toward achieving the mid-term targets by FY2020, the Brother Group has set CO_2 emissions reduction targets in the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015).

To achieve the mid-term targets, the Brother Group has been working to reduce CO_2 emissions by 1% per annum at eight business sites in Japan (absolute value) and at manufacturing facilities outside Japan (except the USA) (per unit sales). In particular, the Brother Group is committed to attaining industry-leading energy efficiency of its products.
In the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015), the emissions coefficient as defined in the Act on Promotion of Global Warming Countermeasures is used to calculate the emissions in and outside Japan. The CO_2 emissions reduction rate is evaluated on an annual basis.

Brother Group's results of activities in FY2013

The Brother Group's CO_2 emissions in Japan come mainly from the electricity used by offices, while the group's CO_2 emissions overseas are attributed mainly to the use of electricity and fuel at factories and offices. The Brother Group has been increasing the efficiency of air conditioning and lighting, and ensuring the efficient operation of production equipment at factories, in order to reduce electricity usage and CO_2 emissions.

At the eight business sites in Japan, the operation load of electricity- and gas-powered air conditioning equipment increased because of the high temperatures from May 2013. In addition, the production volume of parts and products increased at manufacturing facilities, leading to increased electricity consumption. As a result, the emissions were ± 0 tons (0%) from the previous fiscal year in CO_2 equivalent, and Brother could meet the target level set in the mid-term targets by FY2020. However, Brother failed to meet the target for FY2013 (1% reduction from the previous fiscal year in absolute value) set in the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015).

Reducing Environmental Impact

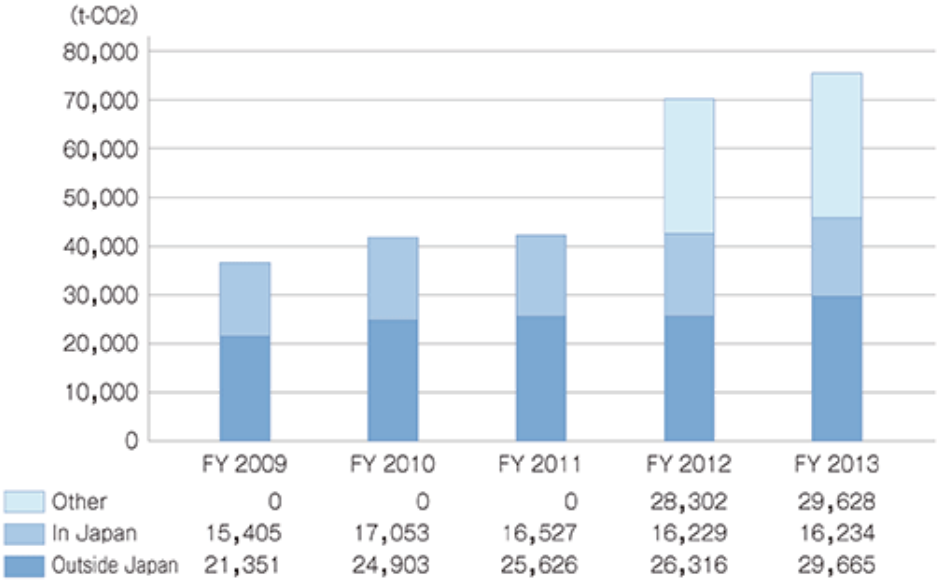
CO_2 Emission Reduction Activities

Manufacturing facilities outside Japan cut CO_2 emissions by 13.7% from the previous fiscal year (per unit sales). In terms of the FY2013 target in the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015), a 1% reduction from the previous year (per unit sales) was achieved. In terms of the mid-term targets by FY2020, CO_2 emissions were cut by 26.9% from the FY2006 levels, achieving the targets seven years ahead of schedule.

Management standards for reducing CO_2 emissions in logistics were established as planned by the end of FY2013 (April 1, 2013-March 31, 2014). Subsequently, efforts will be made to achieve the target for reducing emissions by 1% per unit sales, per annum.

▶CO_2 reduction activities by the Brother Group http://www.brother.com/en/eco/facility/index.htm#examples
▶Brother Group's CO_2 reduction activities in logistics http://www.brother.com/en/eco/facility/index.htm#examples_logi

Changes in CO_2 emissions of the Brother Group



	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Other	0	0	0	28,302	29,628
In Japan	15,405	17,053	16,527	16,229	16,234
Outside Japan	21,351	24,903	25,626	26,316	29,665

*: CO_2 emissions are calculated based on the "Review results regarding calculation of greenhouse gas emissions" by the Ministry of the Environment, Japan. The list of emissions coefficients defined in the Order for Enforcement that came into force in December 2002 was applied for the calculations. The scope of aggregation was expanded in FY2012 (April 1, 2012-March 31, 2013). The results are managed from FY2013.

Reducing Environmental Impact

CO_2 Emission Reduction Activities

Scope of aggregation

FY2009	Eight entities of Brother Industries, Ltd. (BIL) (head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, and Distribution Center) and nine group companies (Brother Industries (U.K.) Ltd., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Xian Typical Brother Industries, Co., Ltd.,*1 Brother Sewing Machine Xian Co., Ltd.,*1 Brother Machinery Shanghai Ltd.,*2 Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., and Brother Industries (Vietnam) Ltd.)
FY2010	Added two group companies (Mie Brother Precision Industries, Ltd. and Brother Industries (Slovakia) s.r.o.) to the scope of FY2009
FY2011	Same as FY2010
FY2012	Added group companies (Nissei Corporation, Brother Sales, Ltd., XING Inc., and Brother Industries Saigon, Ltd.) and 52 sales companies outside Japan to the scope of FY2011
FY2013	Added a group company (Brother Industries (Philippines), Inc.) to the scope of FY2012

*1: Xian Typical Brother Industries, Co., Ltd. (name changed to Xian Brother Industries, Co., Ltd. in October 2009) merged with Brother Sewing Machine Xian Co., Ltd. in 2010. The new company is named Brother Machinery Xian Co., Ltd.
*2: Brother Sewing Machine (Shanghai) Co., Ltd. transferred its business to Brother Machinery Xian, Co., Ltd. in 2010.

▶Performance Data Material Balance http://www.brother.com/en/eco/performance/index.htm
▶Performance Data In-depth Data http://www.brother.com/en/eco/performance/data/index.htm

Calculating greenhouse gas emissions based on ISO14064-1 (Scope 1 and Scope 2)

In FY2013, eight business sites in Japan and Mie Brother Precision Industries, Ltd. were subject to verification for the first time by a third party organization for Scope 1 and Scope 2 based on ISO14064-1, and acquired certification for the accuracy of data. The table below shows the calculation results for (i) the direct emissions of greenhouse gases attributed to emission sources managed by the Brother Group (Scope 1) and (ii) indirect emissions of greenhouse gases attributed to the purchase of electricity etc. (Scope 2). The calculation was performed based on the GHG Protocol (a globally used index) using emissions coefficients by country and region applied to respective business sites.

	FY2011	FY2012	FY2013
Scope 1 (t-CO_2)	8,077	10,619	10,348
Scope 2 (t-CO_2)	78,134	82,769	88,283

Scope of aggregation

FY2011	Eight entities of Brother Industries, Ltd. (BIL) (head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, and Distribution Center) and 14 group companies (Brother Industries (U.K.) Ltd., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Xian Typical Brother Industries, Co., Ltd.,*1 Brother Sewing Machine Xian Co., Ltd.,*1 Brother Machinery Shanghai Ltd.,*2 Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., Brother Industries (Vietnam) Ltd., Mie Brother Precision Industries, Ltd., Brother Industries (Slovakia) s.r.o., Nissei Corporation, and Brother Sales, Ltd.), and 27 sales companies outside Japan
FY2012	Added group companies (XING Inc. and Brother Industries Saigon, Ltd.) and 25 sales companies outside Japan to the scope of FY2011
FY2013	Added a group company (Brother Industries (Philippines), Inc.) to the scope of FY2012

*1: Xian Typical Brother Industries, Co., Ltd. (name changed to Xian Brother Industries, Co., Ltd. in October 2009) merged with Brother Sewing Machine Xian Co., Ltd. in 2010. The new company is named Brother Machinery Xian Co., Ltd.
*2: Brother Sewing Machine (Shanghai) Co., Ltd. transferred its business to Brother Machinery Xian, Co., Ltd. in 2010.

Reducing Environmental Impact

CO_2 Emission Reduction Activities

CO_2 reduction activities by the Brother Group

Brother Industries, Ltd.(Japan)

At Brother Industries, Ltd. (BIL), the Energy Conservation Working Group reviewed management standards for power-intensive equipment including: lighting and air conditioning equipment, humidifiers, clean rooms, compressors, and constant temperature/humidity chambers. They identified locations that required improvements through energy conservation patrols and other means, to enhance electricity/energy-saving activities.
Since 2011, business sites of BIL have been working on the following electricity/energy conservation activities, by taking supply-demand measures in cooperation with the electric supply companies and cutting peak electricity demand in summer.

- Cool Biz (no tie, no jacket) (in summer)
- Switching off the lights of advertising towers at business sites (continuing with part of this activity this year)
- Ensuring to observe air conditioning temperature settings (summer: 28°C, winter: 20°C)
- Introducing the most efficient LED fluorescent lamps
- Removing ceiling lights where possible and installing individual canopy (string) switches
- Switching off lights where unnecessary
- Setting the illuminance levels for lighting in common spaces to the necessary minimum (e.g., corridors, passages, elevator halls, stairwells) and adjusting the occupancy sensor timer settings to reduce the duration in which lights are on
- Eliminating the use of air conditioning in common spaces (e.g., corridors, passages, elevator halls, stairwells)
- Unplugging or switching off the main power of power strips for office equipment (e.g., PCs, LED monitors) when employees go home
- Requiring employees to submit special air conditioning area applications to use rooms with temperature settings different from the standard setting
- Turning off beverage vending machines in turn every two weeks or every month (in summer)
- Switching off toilet seat heaters and adjusting warm water temperatures (in summer)
- Switching off hand driers
- Reducing the number of hours in which tea dispensers are available and reducing the number of hot water dispensers
- Adjusting the hot water temperatures of electric water heaters (in winter) (switching off in summer)


Removing fluorescent lights where possible


LED fluorescent lamps and canopy switches

Reducing Environmental Impact

CO_2 Emission Reduction Activities

CO_2 reduction activities by the Brother Group


Catalytic combustion facility

In FY2013 (April 1, 2013-March 31, 2014), the fuel used in the catalytic combustion facility (for removing the odor of solvent generated in the production process) was changed from LPG to city gas at the Kariya Manufacturing Facility, reducing CO_2 emissions by about 96 tons per annum.

To reduce electricity consumption, the air conditioning equipment was replaced with new equipment, and the clean room air intake and exhaust were adjusted. Thermal insulation coating was applied to the roofs and external walls of manufacturing facilities.
Meanwhile, the operation load of electricity- and gas-powered air conditioning equipment increased because the temperature remained high from May 2013. In addition, the production volume of parts and products increased at manufacturing facilities, leading to increased electricity consumption. As a result, the emissions were ± 0 tons (0%) from the previous fiscal year in CO_2 equivalent, and Brother could not meet the target of reducing 1% from the previous fiscal year.

A photovoltaic power generation system (generation capacity of about 100 kW) is in place at both the Mizuho Manufacturing Facility and the Kariya Manufacturing Facility. The power generated in FY2013 was 231 MWh, and the total generated since the systems were installed is 1,927 MWh. In FY2014 (April 1, 2014-March 31, 2015), another photovoltaic power generation system of the same scale will be introduced at the Mizuho Manufacturing Facility to help cut the peak electricity demand in summer.

Nissei Corporation(Japan)


Newly introduced air compressor

When adding air compressors, Nissei Corporation introduced an inverter type air compressor (that automatically reduces the motor speed when the demand for compressed air is low to save energy). To reduce unnecessary operation of air compressors due to air leakage while compressed air is used, the air piping is inspected and repaired periodically. For equipment that is likely to cause an air leakage, operation rules were changed to remove the air piping whenever it is not used.

To reduce the electricity consumed by lighting, fluorescent lamps used in exit signs (which are kept on all the time) were replaced with LED lamps which consume little electricity. In areas where the illuminance is too high, about 900 lamps were removed where unnecessary to optimize the illuminance. Various activities are under way to reduce electricity consumption.

Reducing Environmental Impact

CO_2 Emission Reduction Activities

CO_2 reduction activities by the Brother Group

Brother International Corporation (U.S.A.) (North and South America)

In 2012, the logistics center of Brother International Corporation (U.S.A.) (BIC (USA)) in Tennessee was certified under the International ENERGY STAR program* for the following energy/electricity conservation activities in particular.

・Introducing an automatic lighting control system
・Introducing an air conditioning control system (closed loop control type)
・Introducing thermal insulation measures for roofs and windows
・Introducing two photovoltaic power generation systems (power generation capacity of each: about 60 kW)

Photovoltaic power generation systems set up at two locations

In FY2011 (April 1, 2011-March 31, 2012), photovoltaic power generation systems were installed at two locations on the premises. The total power generation capacity is about 120 kW, and the electricity generated added up to 167 MWh in FY2013 (about 1.8% of the total electricity consumption at this site).

In the warehouse area, extra-large fans were fixed to the ceiling to keep employees cooler in summer. In winter, warm air is circulated on the floor surface to increase the heating efficiency and reduce fuel consumed by the boiler. In FY2013, the energy consumption was reduced by about 20 MWh.

Ceiling equipment in the warehouse area
Ceiling fan (left) and extra-large fan (right)

*: In the U.S., a building program (covering all types of corporate buildings) is in place for certification under the International ENERGY STAR program.

▶Brother Group's environmental commendation system http://www.brother.com/en/eco/management/award/index.htm

Brother Industries (U.K.) Ltd.
Brother Industries (Slovakia) s.r.o. (Europe)

Brother Industries (U.K.) Ltd. (BIUK) and Brother Industries (Slovakia) s.r.o. reduced the electricity consumption of toner dust exhaust systems, which had been in operation at 100% output in standby mode during toner cartridge production, by introducing (i) inverter control of exhaust fans and (ii) automatic open/close units for regulating valves in exhaust ducts.

BIUK also created skylights in the ceiling of its warehouse to reduce the electricity consumed by lighting. The natural lighting from the skylights reduced the lighting hours, resulting in an electricity reduction of approximately 17 MWh per annum.

Daylight from the ceiling (BIUK)

Reducing Environmental Impact

CO_2 Emission Reduction Activities

CO_2 reduction activities by the Brother Group

Taiwan Brother Industries, Ltd. (Asia)

Taiwan Brother Industries, Ltd. replaced fluorescent lamps with LED lamps which consume little electricity and are long-lasting (energy conservation of about 60%). Fluorescent lamps were removed in areas where illuminance is too high based on the in-house standard. Meanwhile, equipment operation rules have been changed to minimize the operating hours of equipment that consumes much electricity. For example, air compressors are stopped 10 minutes before the end of each day, and the air conditioning equipment for controlling the temperature in the electricity room is stopped in winter.

Brother Industries Technology (M) Sdn. Bhd. (Asia)

Brother Industries Technology (M) Sdn. Bhd. has been working to reduce the electricity consumed by lighting. Electric bulbs were replaced with LEDs, and automatic control (using timers and occupancy sensors) were introduced so that lights are lit when and where necessary.


Energy conservation control system

To reduce the electricity consumed by air conditioning, an energy conservation control system was introduced to reduce the operation of compressors in outdoor units while maintaining the indoor air conditioning capacity.

In addition, to reduce electricity consumed by air compressors, the pressure loss of the air piping was reduced by increasing the piping size.

Zhuhai Brother Industries, Co., Ltd. (Asia)

Zhuhai Brother Industries, Co., Ltd. has been systematically replacing old and inefficient air conditioning equipment with energy-saving equipment to reduce electricity consumption. In FY2013, part of the air conditioning equipment was replaced with new equipment. Fluorescent lamps were removed in areas where illuminance is too high based on the in-house standard to reduce electricity consumed by lighting.


Solar water heater

A solar water heating system was introduced to harness solar heat (renewable energy) for hot water supply and thereby reduce electricity consumed by the electric water heater.

Reducing Environmental Impact

CO_2 Emission Reduction Activities

CO_2 reduction activities by the Brother Group

Brother Machinery Xian Co., Ltd. (Asia)

Brother Machinery Xian Co., Ltd. built a new manufacturing facility, and transferred production from the old manufacturing facility in FY2013. The new facility was designed to give priority to energy conservation to minimize CO_2 emissions from the outset.

Energy conservation feature	Details
Natural lighting	Roof windows are provided, and lighting is controlled by sensors depending on the indoor illuminance.
Thermal insulation	The walls and roofs are thermally insulated to reduce (i) heat transmitted to the interior (solar radiation heat and outdoor heat) and (ii) heat radiated from the interior to the exterior, thus reducing unnecessary electricity consumed by air conditioning.
Total heat exchanger	In the production areas that require temperature control, the outdoor air is taken in via a total heat exchanger to reduce the air conditioning load and hence electricity consumption.
Dirivent fan	The fan produces a strong air stream to spread the hot air from the heater in the manufacturing facility, achieving a uniform temperature in the working area.
Highly efficient lighting equipment	The most efficient fluorescent lamps at the time of construction were installed.
Automatic lighting using occupancy sensors	In areas used by many people for short periods of time (e.g. bathrooms, stairways, break rooms, and changing rooms), occupancy sensors automatically switch the lights on and off, avoiding forgetting to turn off the lights.
Integrated management system	An integrated management system automatically turns off the air conditioning and lighting when and where unnecessary (e.g. during breaks and after work).

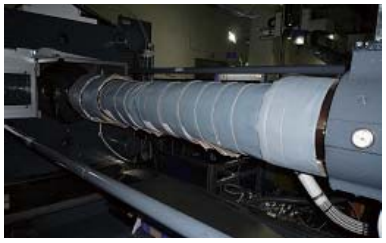
Reducing Environmental Impact

CO_2 Emission Reduction Activities

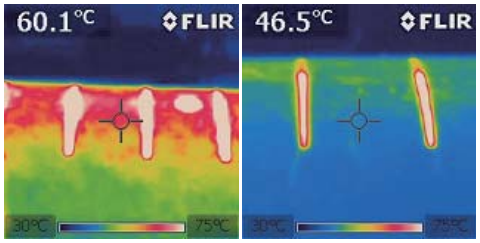
CO_2 reduction activities by the Brother Group

Brother Industries (Shenzhen), Ltd. (Asia)

Brother Industries (Shenzhen), Ltd. installed thermal insulation covers on the heaters of all injection molding machines (where possible), thus reducing the heat radiated from heaters, and the resulting air conditioning (cooling) load and electricity consumption.
Metal covers are placed on the thermal insulation covers for safety. Measurements of the surface temperature with infrared thermography confirmed that the temperature of radiated heat was reliably lowered.
For old and small independent air conditioning units, the coolant containing R-22 (which depletes the ozone layer) was replaced with R-22-free energy-saving coolant.
In the office, independent light switches were introduced so that the lights can be turned off whenever unnecessary. Thus, efforts are being made to reduce electricity consumption.
Thermal insulation cover installed on a heater of an injection molding machine.



Comparison of surface temperature of the metal cover



Without thermal insulation cover (left), with thermal insulation cover (right)

Brother Industries (Vietnam) Ltd. (Asia)

Brother Industries (Vietnam) Ltd. replaced fluorescent lamps with LED lamps to reduce electricity consumption (by about 50%). Meanwhile, air conditioning efficiency was improved to reduce the electricity consumed by air conditioning. A new system was introduced to cool outdoor units by automatically spraying water when the outdoor temperature exceeds 30°C. An energy-saving system was also installed to control the operation of compressors in outdoor units while maintaining the indoor air conditioning capacity.

LED lamp

Water spraying on outdoor units

Reducing Environmental Impact

CO_2 Emission Reduction Activities

CO_2 reduction activities by the Brother Group

Brother Technology (Shenzhen) Ltd. (Asia)

Brother Technology (Shenzhen) Ltd. replaced old centralized air conditioning equipment with highly efficient air-cooled inverter-controlled equipment. Also, for old and small independent air conditioning units, the coolant containing R-22 (which depletes the ozone layer) was replaced with R-22-free energy-saving coolant.

Energy-saving coolant

An energy-saving control system was introduced to reduce the operation of compressors in outdoor units while maintaining the capacity of the air conditioning equipment and comfort indoors. Electricity consumption has been successfully reduced.

Also, thermal insulation film was applied on windows and thermal insulation coating was applied on roofs, both of which curb the rise in indoor temperature caused by solar radiation heat and hence the electricity consumed by air conditioning equipment for cooling.

Brother International Singapore Pte. Ltd. (Asia)

Brother International Singapore Pte. Ltd.'s energy conservation activities focused on (i) settings to automatically turn off PCs and (ii) employees' overtime hours.
As a result, the electricity consumption in FY2013 (April 1, 2013-March 31, 2014) was reduced by about 9 MWh (about 7% of the total at this site).

Brother Commercial (Thailand) Ltd. (Asia)

Brother Commercial (Thailand) Ltd. replaced 352 lamps in the office and service center with energy-efficient LED lamps. Ongoing energy conservation activities include turning off and removing lights whenever and wherever unnecessary, introducing lighting fixtures fitted with sensors, and promoting the eco point program.
As a result, the electricity consumption in FY2013 was reduced by about 8 MWh (about 4% of the total at this site).


LED fluorescent lamps used in the office and service center

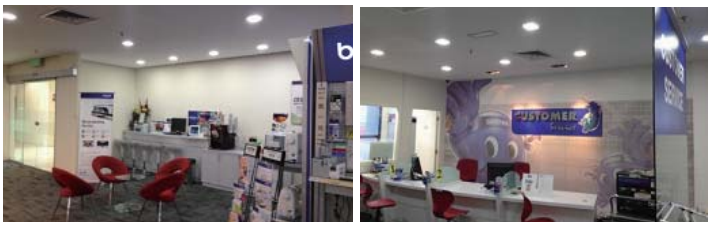
Reducing Environmental Impact

CO_2 Emission Reduction Activities

CO_2 reduction activities by the Brother Group

Brother International (Malaysia) Sdn. Bhd. (Asia)

Brother International (Malaysia) Sdn. Bhd. replaced lamps in the showroom and service center with energy-efficient LED lamps. Ongoing energy conservation activities include turning off and removing lights whenever and wherever unnecessary.
As a result, the electricity consumption in FY2013 was reduced by about 11 MWh (about 17% of the total at this site).



LED lamps used in the showroom and service center

Brother International Philippines Corporation (Asia)

Brother International Philippines Corporation replaced lamps with energy-efficient LED lamps.
As a result, the electricity consumption in FY2013 was reduced by about 3 MWh (about 2% of the total at this site).

Brother (China) Ltd. (Asia)

Brother (China) Ltd. has been working on energy conservation activities, including turning off and removing lights whenever and wherever unnecessary and promoting the eco point program.
As a result, the electricity consumption in FY2013 was reduced by about 18 MWh (about 14% of the total at this site).

Brother International (India) Private Ltd. (Asia)

Brother International (India) Private Ltd. has been working on energy conservation activities, including turning off and removing lights whenever and wherever unnecessary.
As a result, the electricity consumption in FY2013 was reduced by about 10 MWh (about 13% of the total at this site).

Brother International (Aust.) Pty. Ltd. (Oceania)

Brother International (Aust.) Pty. Ltd. has been working steadily on energy conservation activities, including turning off lights and removing lights where possible, introducing lights equipped with sensors, and reviewing temperature settings and setting timers of air conditioning equipment.
As a result, the electricity consumption in FY2013 was reduced by about 26 MWh, which is equivalent to about 8% of the total electricity consumption of the site.

Reducing Environmental Impact

CO_2 Emission Reduction Activities

Efforts in logistics

The Brother Group set management standards for reducing logistics-related CO_2 emissions in FY2013 (April 1, 2013-March 31, 2014) and for reducing CO_2 emissions by 1% per unit sales per annum after FY2013.

Efforts in Japan

In Japan, the New Comprehensive Program of Logistics Policies (2009-2013) was approved at a government cabinet meeting in July 2009. This program takes into consideration the trend of measures against global warming and includes targets to achieve logistics with less environmental impact. Systematic and comprehensive efforts have been made to develop logistics measures.

The Brother Group has been reviewing delivery routes and adjusting the delivery service frequency, etc. as necessary to increase the efficiency of logistics in Japan. The logistics network was rearranged to unload products shipped from manufacturing facilities outside Japan (including those in China and ASEAN countries) at the Port of Tokyo and the Port of Osaka, which are closely located to large market areas, instead of the Port of Nagoya, which had been used before. In addition, some products are unloaded at the Port of Yokohama, which is close to customers and the group also started delivering products from warehouses in Yokohama. Truck transportation was reduced and delivery distances were significantly reduced by increasing warehousing facilities. As a result, CO_2 emissions were cut by about 38% per shipped weight. The Brother Group has successfully kept CO_2 emissions low ever since. Meanwhile, six external warehouses that had been used to store service parts were integrated into one factory, and the logistics and reverse logistics facilities for some products were consolidated to eliminate the need for transport between warehouses. In total, the volume of transport was reduced by about 10%.

3PL* is also used in the sales logistics of Brother products. It is noteworthy that sales logistics are undertaken by companies that are committed to reducing CO_2 emissions (e.g., use of small hybrid delivery trucks).

*: 3PL (third party logistics) refers to an outsourcing service in which contractors propose, comprehensively undertake, and implement the most efficient planning of logistics strategies and installation of logistics systems on behalf of shippers.

Reducing Environmental Impact

CO_2 Emission Reduction Activities

Efforts at facilities outside Japan

Brother's manufacturing facilities in China and Southeast Asia produce nearly all Brother products. Many of these manufacturing facilities are located in industrial parks near ports that are served by container ships, thus the products can be shipped to overseas markets. The manufacturing facilities also employ containers with higher loading capacity to increase the loading efficiency and reduce the number of containers required.

Sales facilities in respective regions have been stepping up efforts to track logistics-related CO_2 emissions, from unloading at ports to delivery warehouse and retailers, and analyze the data, so that future CO_2 emissions reduction measures can appropriately reflect local conditions.

Regarding transportation of products to sales facilities in the U.S., the U.S. arrival port for unloading was changed for some products, thereby reducing distances traveled by sea, facilitating transshipping from sea to land, and enabling Brother to transport more by railway (with less environmental impact). The ratio carried by rail was increased, almost eliminating the use of trucks for urgent shipments. Since FY2011, efforts have been made to improve respective operations by optimizing order placement cycles and transporting orders by pallet.

At the same time, a transport management system was introduced to load different products (orders received from various customers) with optimal combinations and to increase the cargo loading efficiency per truck. As a result, the transport frequency was reduced by 25% from the results of FY2009 (April 1, 2009-March 31. 2010).

Products manufactured in Southeast Asia had been transported to sales facilities via Brother International Singapore Pte. Ltd. In 2011, this system was replaced by direct delivery from manufacturing facilities to reduce marine transportation distances, etc.

In China and the Asian region, delivery trucks of less than three tons were replaced with larger ones to increase efficiency. As a result, CO_2 emissions were reduced by about 140 tons in FY2013 from the previous year.

Reducing Environmental Impact

CO_2 Emission Reduction Activities

Brother Group's CO_2 reduction activities in logistics

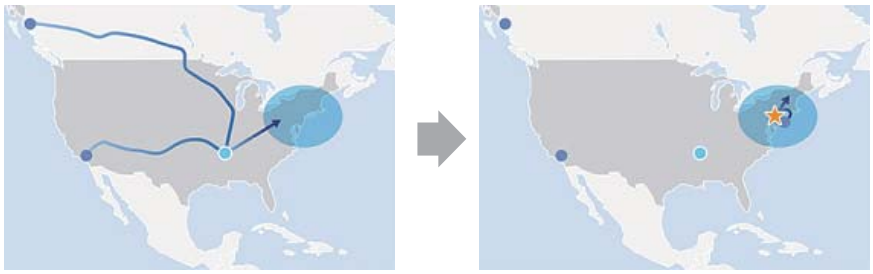
Brother Logitec Ltd. (Japan)

Brother Logitec Ltd., a group company in charge of logistics operations for Brother products in Japan, considers reduction in environmental impact attributed to logistics as an important management challenge. Thus, the company has been promoting various efforts to ensure green logistics. Measures include improving the cargo loading efficiency, optimizing transportation routes by using digital tachographs (device to continuously record the operations of trucks) to meet varying transportation quantities, and improving fuel efficiency by requiring drivers to drive economically and turn off their engines when stopped. As a result, fuel economy was improved by 5% in FY2010 from the previous year, and has been maintained at this level. Biofuel refined from 100% used edible oil from cafeterias has been in use since 2012, and one truck owned by Brother is exclusively run on such biofuel. In FY2013, biofuel consumption was 680 liters. The use of biofuel helped reduce CO_2 emissions into the atmosphere by 1.8 tons, compared with the use of light oil. The number of vehicles fueled solely by biofuel will be increased to cut CO_2 emissions further.

Brother International Corporation (U.S.A.) (North and South America)

In April 2014, Brother International Corporation (U.S.A.) (BIC (USA)) established the New Jersey Logistics Center (Cranbury), a new facility on the east coast of the U.S. This logistics center has reduced the distance that products are transported from the manufacturing facility primarily to the northeastern part of the U.S.
BIC (USA) expects the logistics center will help reduce CO_2 emissions by about 10%.


New Jersey Logistics Center (Cranbury)


Reducing transport distances

Reducing Environmental Impact

CO_2 Emission Reduction Activities

Brother Group's CO_2 reduction activities in logistics

Brother Industries (U.K.) Ltd. (Europe)

Brother Industries (U.K.) Ltd. improved the transport efficiency by increasing the container loading rate and replacing delivery trucks of less than three tons with larger ones.

Improving the container loading rate
(70% on the left, 95% on the right)

Brother International GmbH (Europe)

Brother International GmbH has used inland waterways to transport non-time sensitive shipments from Rotterdam in the Netherlands to Munchengladbach in Germany.
Transportation by inland waterways has helped replace the use of trucks for transportation. As a result, CO_2 emissions in FY2013 were reduced by approximately 125 tons when compared to those for truck transport.

Transport vessel

Brother France SAS (Europe)

Brother France SAS met the pallet height restrictions as requested by business partners. (Pallets are the platforms used for loading cargo.)
Double-deck trailers (with two-stage loading space) were introduced to increase cargo loading and transport efficiency, in collaboration with a logistics company. As a result, CO_2 emissions were cut by 46% compared with conventional trailers.

Double-deck trailer

Reducing Environmental Impact

Zero Waste Emission Activities

Building a recycling framework

Ensuring activities to curb waste generation and emissions

To help use resources effectively and prevent resource depletion, the Brother Group ensures activities are carried out to curb waste generation, reduce emissions, and achieve "zero landfill waste" (meaning that less than1% of waste generated at factories is sent to landfill). In our operations, respective business sites follow the ISO 14001 framework (under which they are certified), thereby systematically and continuously working to reduce waste.

In FY2003 (April 1, 2003-March 31, 2004 for business sites in Japan; and January 1, 2003-December 31, 2003 for facilities outside Japan), manufacturing facilities outside Japan and business sites in Japan started to share waste data using a common format and began to monitor the overall status. Efforts have been made to maintain and promote zero landfill waste at respective manufacturing facilities.

Results of the Brother Group's activities in FY2013

All the manufacturing facilities (except for Brother Industries Saigon, Ltd. which started production in 2012) and business sites in Japan maintained zero landfill waste. Emissions significantly increased in FY2013 (April 1, 2013-Marchi 31, 2014) because Nissei Corporation (which became a subsidiary in January 2013) was included.

Details of the Brother Group's activities in FY2013

Main activities at business sites in Japan

In FY2001 (April 1, 2001-March 31, 2002), the Brother Group's business sites in Japan achieved zero landfill waste, and work is continuing to prevent the generation of landfill waste at business sites.

Main zero waste activities at business sites in Japan

・Promoting the recycling of polyethylene (PE) and polypropylene (PP) used as packaging materials and resin parts that are waste from the repair process. These materials are reused a again as raw materials
・Using garbage bags derived from recycled PE pellets (manufactured by recycling operators)
・Using paper derived from confidential documents (recycled by a specialized collection contractor through shredding and liquefying processes)
・Sharing information within the company about office furniture such as desks, chairs, and shelves that is no longer needed in respective divisions to promote reuse from other offices who can use them
・Turning food waste from the cafeteria of the Mizuho Manufacturing Facility, which has large kitchen equipment, into compost through a specialized collection contractor; recycling waste edible oil as biofuel and using it in the logistics division within the group

In FY2013, the new activities described below were launched.
・Repairing damaged wooden pallets (which were to be disposed of) and recycling them in-house
・Ensuring separation of resin materials (i.e. indirect materials used in manufacturing that were disposed of as waste) and recycling them as materials

Reducing Environmental Impact

Zero Waste Emission Activities

Main activities at business sites outside Japan

Focusing on waste generation, all the manufacturing facilities worked to reduce and recycle waste and achieve zero landfill waste. Major sales facilities also worked toward obtaining/maintaining ISO 14001 certification and promoting waste reduction activities.

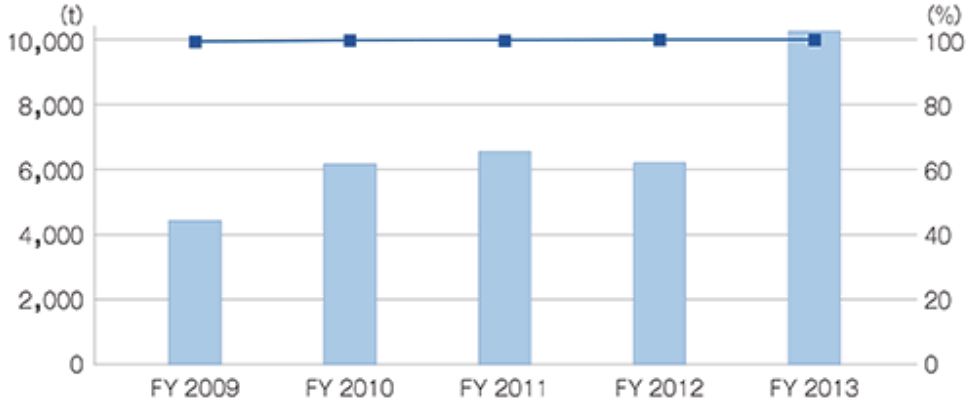
Main zero waste activities at manufacturing facilities outside Japan

- Sending used work clothing to be recycled into sleeve covers, aprons and shoe covers for visitors. Reusing bags previously used for parts delivery as garbage bags to raise awareness about waste reduction
- Significantly reducing waste paper by changing the evaluation patterns in printing tests for printers and replacing application documents with electronic files at manufacturing facilities, etc.
- Significantly reducing packaging-related waste by replacing packaging boxes for parts with returnable containers and increasing the density of parts packaged in innovative packaging styles, etc.
- Improving collection boxes for used printer cartridges and upgrading equipment to repair scratches on the resin case surfaces, to improve the refurbishment rate for toner cartridges and to address waste generation

Main zero waste activities at sales facilities outside Japan

- Acquiring ISO 14001 certification at main sales facilities, and promoting waste reduction activities
- Ensuring separation of waste by type, and raising awareness about zero waste activities
- Having separated waste appropriately recycled by a specialized contractor to effectively utilize resources

Changes in waste volume of the Brother Group



*: The significant reduction of waste in FY2009 was caused by decreased production resulting from the economic downturn.

Reducing Environmental Impact

Zero Waste Emission Activities

Scope of aggregation

FY2009	Eight entities of Brother Industries, Ltd. (BIL) (head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, and Distribution Center) and nine group companies (Brother Industries (U.K.) Ltd., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Xian Typical Brother Industries, Co., Ltd.,*1 Brother Sewing Machine Xian Co., Ltd.,*1 Brother Machinery Shanghai Ltd.,*2 Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., and Brother Industries (Vietnam) Ltd.)
FY2010	Added two group companies (Mie Brother Precision Industries, Ltd. and Brother Industries (Slovakia) s.r.o.) to the scope of FY2009
FY2011	Same as FY2010
FY2012	Same as FY2011
FY2013	Added three group companies (Brother Industries Saigon, Ltd., Brother Industries (Philippines), Inc., and Nissei Corporation) to the scope of FY2012

*1: Xian Typical Brother Industries, Co., Ltd. (name changed to Xian Brother Industries, Co., Ltd. in October 2009) merged with Brother Sewing Machine Xian Co., Ltd. in 2010. The new company is named Brother Machinery Xian Co., Ltd.
*2: Brother Sewing Machine (Shanghai) Co., Ltd. transferred its business to Brother Machinery Xian, Co., Ltd. in 2010.

Reducing Environmental Impact

Reducing Water Consumption

Brother Activities to reduce water consumption in different regions around the world

Enhancing efforts by setting new reduction targets

Securing safe water resources is an important environmental challenge for the global community. The Brother factories have been working to save water consumption to fulfill its responsibilities as an operator of many manufacturing facilities in Asia. In the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015) (now in its fourth year), a target of reducing water consumption by 5% from FY2010 (April 1, 2010-March 31, 2011) levels by FY2015 (April 1, 2015-March 31, 2016) (per unit of sales) has been set, and efforts have been stepped up to meet this target.

Brother Group's results of activities in FY2013 (April 1, 2013-March 31, 2014)

In FY2013, Brother Industries Saigon, Ltd. and Brother Industries (Philippines), Inc. were added to the scope of aggregation. Thus, water consumption increased by about 26,000 m3 in total (business sites in Japan and manufacturing facilities outside Japan combined). However, in per unit sales, a 13.7% reduction was achieved from the previous fiscal year (a 16.1% reduction from FY2010), successfully attaining the target. With the target of a 5% reduction by FY2015 already achieved, the Brother Group will further implement measures to save water in FY2014 (April 1, 2014-March 31, 2015).

Details of the Brother Group's activities in FY2013

Main activities at business sites in Japan

At the Kariya Manufacturing Facility, the fuel for the odor control equipment (catalytic combustion) was changed from LPG to city gas, primarily to cut CO_2 emissions. The five large LPG tanks (500 kg each) on the ground were removed, and the water spray for cooling the tanks became no longer necessary, leading to a reduction in water consumption.

Main activities at facilities outside Japan

Activities to reduce water consumption at manufacturing facilities outside Japan started in FY2009 (April 1, 2009-March 31, 2010). Replacement of air conditioners, advancement of activities through QC circle activities and an extensive review combined with the optimization of water for sinks and toilets, in particular, produced substantial results.
The main measures to reduce water consumption taken by Taiwan Brother Industries Ltd., Zhuhai Brother Industries, Co. Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries (Shenzhen) Ltd. and Brother Industries Technology (M) Sdn. Bhd. are described below.

Reducing Environmental Impact

Reducing Water Consumption

・Replacing the faucet valves with lever-type faucet valves allow the water flow to be easily adjusted. Combined with the introduction of shower-type water-saving devices in faucets to reduce the water flow, this leads to reduced consumption
・Replacing water-cooled air-conditioning equipment with air-cooled inverter air conditioning equipment in line with energy conservation activities, and preventing the dispersion and evaporation of water in cooling towers to eliminate waste
・Collecting wastewater drained from central air conditioning and using this wastewater for flushing the factory toilets: Daily water consumption was reduced by 6m3 (1,440m3 annually)
・Reducing toilet reservoir tanks to optimize water consumption by inserting plastic bottles filled with water
・Posting the monthly water consumption results on the factory bulletin board to encourage employees to reduce water consumption (This was combined with posters for raising awareness)
・Implementing water meters on each floor to accurately monitor monthly consumption. Investigating and analyzing the reasons for changes to take effective action
・Inspecting faucets and pipes every day and immediately repairing any damage to eliminate water leakage, etc.
・Reducing the time of the roof leak inspection on container cars (continuous water spraying using a shower) to one minute (with a timer set up); conducting only visual inspections in the case of short-distance transport
・Collecting rainwater in a storage tank for use in cleaning up drains etc. and thereby reducing water consumption by about 20 L/month


Faucet before taking water-saving measures

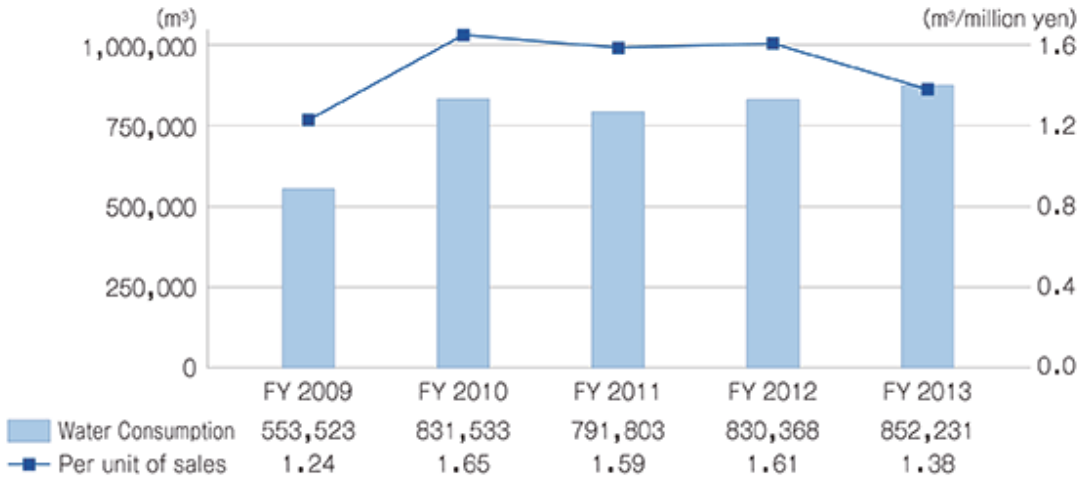

Faucet after taking water-saving measures


Rainwater storage tank (Taiwan Brother Industries, Ltd.)

Reducing Environmental Impact

Reducing Water Consumption

Changes in water consumption at the Brother Group



Scope of aggregation

FY2009	Eight entities of Brother Industries, Ltd. (BIL) (head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, and Distribution Center) and nine group companies (Brother Industries (U.K.) Ltd., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Xian Typical Brother Industries, Co., Ltd.,*1 Brother Sewing Machine Xian Co., Ltd.,*1 Brother Machinery Shanghai Ltd.,*2 Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., and Brother Industries (Vietnam) Ltd.)
FY2010	Added three group companies (Nissei Corporation, Mie Brother Precision Industries, Ltd., and Brother Industries (Slovakia) s.r.o.) to the scope of FY2009
FY2011	Same as FY2010
FY2012	Same as FY2011
FY2013	Added two group companies (Brother Industries Saigon, Ltd. and Brother Industries (Philippines), Inc.) to the scope of FY2012

*1: Xian Typical Brother Industries, Co., Ltd. (name changed to Xian Brother Industries, Co., Ltd. in October 2009) merged with Brother Sewing Machine Xian Co., Ltd. in 2010. The new company is named Brother Machinery Xian Co., Ltd.
*2: Brother Sewing Machine (Shanghai) Co., Ltd. transferred its business to Brother Machinery Xian, Co., Ltd. in 2010.

Reducing Environmental Impact

Preventing Pollution

Preventing pollution associated with different sources

To become an environmentally advanced company, the Brother Group is committed to continually reducing environmental impact under the Brother Group Environmental Policy, throughout the life cycle of products (from procurement of parts and materials to development, design, use, collection, reuse, and recycling), placing priority on maintaining compliance with legal regulations and preventing environmental pollution in the respective countries/regions in which Brother operates.

Managing and reducing chemical substances

In Japan, Brother Industries, Ltd. (BIL) manages the amounts of chemical substances handled, consumed and released at business sites and is working beyond the scope of the chemical substances subject to the PRTR (Pollutant Release and Transfer Register) Law, to reduce the use of chemical substances. Treatment of PCBs (polychlorinated biphenyls) is underway in accordance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes.

Transformers and capacitors that contain PCBs are collected at one place, strictly controlled, and delivered to certified contractors for treatment. The treatment of equipment contaminated with high-concentration PCBs was completed, with the exception of (i) partly damaged equipment and (ii) small equipment that was not suited for treatment units. Equipment contaminated with low-concentration PCBs, treatment is underway with contractors certified by the Minister of the Environment.

Manufacturing facilities outside Japan have identified applicable laws and regulations in respective regions within ISO 14001 systems. Management frameworks have also been established to ensure local environmental management.

The Brother Green Procurement System is in operation with collaboration from suppliers to carefully select parts, materials, and production process materials to prevent contamination with harmful chemical substances.

▶Flow of Substances Subject to PRTR at BIL (FY2009-FY2013) [PDF/131KB]
http://download.brother.com/pub/com/en/eco/pdf/2014/chemistry.pdf

Concept of pollution prevention

BIL gives high priority to preventing environmental accidents by reviewing target facilities and processes and switching to alternatives that are less likely to cause pollution. When managing existing facilities, activities to prevent pollution include setting and complying with voluntary management targets through ISO 14001.

Reducing Environmental Impact

Preventing Pollution

Preventing air pollution

Replacing fossil fuel-fired boilers and heaters with electric or city gas-fired boilers and heaters has reduced the impact of emissions to the environment. In fact, city gas has a low CO_2 emission coefficient. Thus, efforts are underway to prevent air pollution.

The risks of soil and underground water contamination have been reduced due to the abolishment of heavy oil-fired boilers at all business sites of BIL including employees' dormitories.

Solar water heaters and heat pump equipment have replaced the oil boilers used for employees' dormitories at manufacturing facilities outside Japan. The electricity supply for Brother Technology (Shenzhen) Ltd. and Brother Industries (Shenzhen), Ltd. in Huanan, China, had been private power generation systems (fuelled by heavy oil). They were replaced by the city's public utility service, thus reducing the risk of air pollution, CO_2 emissions and underground water pollution.

A catalytic combustor was introduced in 1994 to the coating process at the Kariya Manufacturing Facility to reduce VOC (volatile organic compounds) emissions. Exhaust gases are burned to control VOC emissions and prevent odors. Ongoing measures also include switching to materials with low organic solvent content and reducing consumption.

Preventing water pollution

Wastewater treatment facility
(Brother Machinery Xian Co., Ltd.)

Measures to prevent water pollution include wastewater treatment facilities introduced at manufacturing facilities, such as at the Kariya Manufacturing Facility (in Japan) to treat its wastewater with the latest membrane separation activated sludge process (in FY2011 [April 1, 2011-March 31, 2012]), Brother Industries Saigon, Ltd. (in Vietnam) to treat wastewater from the parts cleaning process, Brother Machinery Xian Co., Ltd. (in China) to treat its pre-coating surface treatment wastewater, Taiwan Brother Industries, Ltd. to treat pre-coating surface treatment wastewater, and Brother Industries (Vietnam) Ltd. (which expanded its factory in 2012) to replace the conventional wastewater treatment facility with a biofilm type facility. The increased treatment capacity has significantly lowered the environmental impact values of wastewater. At Brother Machinery Vietnam Co., Ltd., which was established in 2013, a new wastewater purification plant was introduced. Waste heat generated in the manufacturing facility is utilized to remove the water content of the wastewater from the coating pretreatment process, reducing the volume to sludge. By eliminating the waste fluid, the solid waste is appropriately treated. Other business sites do not have specified activities that cause significant environmental impact. At sites without sewage infrastructure, facilities have been installed to clean sewage and treat the resulting wastewater. These facilities comply with regional standards in accordance with the ISO 14001 facility management procedure.

As part of Brother's preventative measures, we periodically conduct exercises to assess for potential incidents such as hazardous wastewater flowing into sewage or permeating into soil. Other specific preventative measures include equipping wastewater treatment facilities with systems which constantly monitor COD (chemical oxygen demand) and installing oil traps for wastewater from cafeterias, to cope with an oil outflow accident. Values of BOD (biochemical oxygen demand) and n-hexane extracts (an index of the oil content in water, etc.) are regularly measured and monitored.

Reducing Environmental Impact

Preventing Pollution

Preventing soil contamination

In 1997, BIL launched surveys for contamination of soil and underground water by organochlorine compounds and hazardous heavy metals that the company used historically. Pollutant leakage prevention and remediation measures have been undertaken in zones that were found to have been contaminated. All contaminated zones, when found, have been reported to the local government (the City of Nagoya) that has jurisdiction over this issue.

When selling or modifying land owned by BIL, soil analyses have been conducted in accordance with legally prescribed standards.

When purchasing land outside Japan and planning the construction of manufacturing facilities from FY2010 (April 1, 2010-March 31, 2011), historic land use surveys and soil analyses have been conducted in order to identify and verify the pollution status.

Preventing generation of noise, vibration, and offensive odors

BIL takes great care to prevent the generation of noise, vibration and offensive odors, so as not to cause inconvenience to local communities including homes, schools, and pedestrians. To prevent the generation of noise and vibration, facilities that cause noise or vibration such as chillers and exhaust outlets are installed or relocated as far away within the manufacturing facilities as possible. To prevent the generation of offensive odors, filters and/or deodorizing equipment are provided at exhaust outlets at various facilities, including coating facilities. Measures in the coating process also include switching to paints with lower organic solvent content (which gives rise to offensive odor) and reducing the consumption of paints. For measures to prevent noise and offensive odors, facilities that cause noise and offensive odors are buried underground. For example, an underground type water tank has been employed at the new wastewater treatment facility that was built at the Kariya Manufacturing Facility in FY2011. In particular, noise and offensive odors are measured when facilities are built, and then constantly monitored after construction is complete.

Reducing Environmental Impact

Environmental Accounting

For greater efficiency in our environmental activities

Concept of environmental accounting

The Brother Group performs environmental accounting as an effective means to improve the efficiency of environmental management on an ongoing basis. The Brother Group monitors annual investments and expenses related to environmental activities, quantitatively assess their effectiveness, and then uses the results to plan environmental activities to be carried out the next fiscal year.

Calculation results for FY2013

Environmental improvement costs and expenses

The Brother Group (business sites in Japan) spent JPY 229 million on environmental improvement activities, up approximately 14% from the previous year. Manufacturing facilities outside Japan spent JPY 169 million, up approximately 220% from the previous year.

Expenditures and labor costs for various environmental improvement activities were JPY 737 million, down approximately 3%, for the facilities in Japan, and JPY 116 million, down approximately 5%, for those outside Japan.

Environmental investments in Japan focused primarily on (i) equipment related to energy conservation and (ii) improvement of the system for collecting environmental information related to respective parts and materials used in products.

Environmental investments by manufacturing facilities outside Japan increased significantly due to efforts to replace old air conditioning equipment and increase efficiency at multiple manufacturing facilities.

Reducing Environmental Impact

Environmental Accounting

Classification		Details of main activities and their effects	Investment (unit: JPY million)		Expenses (unit: JPY million)	
			In Japan	Outside Japan	In Japan	Outside Japan
1.Business area cost	1)Pollution prevention cost	Pollution prevention measures (including air, water, vibration and noise)	3 (3)	0 (0)	29 (-15)	34 (0)
	2)Global environmental conservation cost	Global warming prevention (energy-saving) measures	109 (101)	169 (116)	61 (1)	5 (-29)
	3)Resource circulation cost	Recycling and reduction in waste generation	1 (0)	0 (0)	77 (1)	30 (7)
2.Upstream/ downstream cost	Costs incurred to reduce environmental impact when procuring parts and materials and after selling products	Green procurement activities; collection and recycling of used products/consumables	5 (5)	0 (0)	99 (-15)	1 (0)
3.Administration cost	Costs incurred by activities that contribute indirectly to reducing the environmental impact of business operations	Establishment, administration, and maintenance of the ISO 14001 system; environmental training for employees; disclosure of environmental information; greening and cleanup of manufacturing facilities and their surrounding areas	98 (-81)	0 (0)	323 (-5)	42 (16)
4.R&D cost	R&D costs for reducing environmental impact	Development of eco-conscious products and technologies; implementation of product environmental assessments; design improvement	2 (-12)	0 (0)	132 (8)	0 (0)
5.Social activity cost	Costs of environmental conservation that is not directly linked with corporate activities	Support for environmental conservation groups and organizations; support for environmental activities by local citizens; information services	11 (11)	0 (0)	12 (2)	3 (1)
6.Cost to deal with environmental damage	Costs incurred to restore the natural environment (including soil remediation)	Soil contamination surveys; soil remediation	0 (0)	0 (0)	3 (1)	0 (0)
Total			229 (28)	169 (116)	737 (-23)	116 (-6)

Figures in parentheses show increases/decreases in the amount from the previous fiscal year.

Reducing Environmental Impact

Environmental Accounting

Environmental improvement effects and economic effects in FY2013

Environmental improvement effects remained almost unchanged from the previous year in Japan, while CO_2 emissions and water consumption increased at manufacturing facilities outside Japan. CO_2 emissions increased due to (i) addition of Brother Industries Saigon, Ltd. (BISG) to the scope of aggregation and (ii) introduction of resin molding machines at Brother Industries (Vietnam) Ltd. to expand in-house production. Water consumption increased due to the addition of BISG to the scope of aggregation. The main economic effects were (i) operating income from recycling of waste and (ii) reduction in waste treatment cost due to resource-saving and recycling. The decrease in cost reduction rate outside Japan is attributed to a decrease in the reduction effect achieved by recycling activities.

Content of environmental effects		Classification of index to measure environmental effects		In Japan	Outside Japan
Effects resulting from business area cost	Effects related to resource input into business operations	Total energy input	(kL: converted into crude oil quantity)	10,715 (39)	17,051 (1,882)
		Water input	m^3	104,890 (-8,561)	612,757 (4,317)
	Effects related to environmental impact and waste released from business operations	Release into atmosphere	CO_2(t-CO_2/year)	16,033 (0)	28,034 (2,489)
			NOx(Kg/year)	2,031 (8)	3,329 (182)
			SOx(Kg/year)	8 (-1)	81 (9)
		Generation of waste	Amount of waste generation (t)	1,937 (-86)	4,362 (289)
			Landfill waste (t)	0 (0)	5 (3)

Figures in parentheses show increases/decreases in the amount from the previous fiscal year.

Content of economic effects involving environmental effects*		In Japan (unit: JPY million)	Outside Japan (unit: JPY million)
Income	Operating income from recycling of waste generated from main business operations	6.8 (2.1)	41.5 (3.5)
Cost reduction	Reduction in energy cost by energy-saving	1.4 (0.3)	26.3 (2.0)
	Reduction in waste treatment cost due to resource-saving and recycling	29.3 (1.8)	31.9 (-19.2)
Other	Publicity effects, such as newspaper reporting, calculated in terms of advertising expenses	3.7 (2.9)	3.1 (-13.4)
Total		41.2 (7.2)	132.9 (-27.1)

Figures in parentheses show increases/decreases in the amount from the previous fiscal year.

*: Economic effects derived from environmental effects are those that can be calculated in monetary terms from among the effects derived from the environmental activities. Effects that cannot be calculated based on solid grounds (i.e., assumed effects and accidental effects) are not calculated.

Reducing Environmental Impact

Environmental Accounting

Scope of aggregation

Eight business sites in Japan (including head office)*1 and 10 manufacturing facilities outside Japan*2: Target period is from April 1, 2013 to March 31, 2014.

*1: Head office, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, Distribution Center (Aggregate only environmental effects for Distribution Center)

*2: Brother Industries (U.K.) Ltd., Brother Industries (Slovakia) s.r.o., Taiwan Brother Industries, Ltd., Zhuhai Brother Industries, Co., Ltd., Brother Machinery Xian Co., Ltd.*3, Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd., Brother Industries Technology (M) Sdn. Bhd., Brother Industries (Vietnam) Ltd., and Brother Industries Saigon, Ltd.

*3: Brother Machinery Xian Co., Ltd. is a business site established through the merger of Xian Brother Industries, Co., Ltd. (formerly Xian Typical Brother Industries, Co., Ltd.) with Brother Sewing Machine Xian Co., Ltd. in 2010. In the same year, Brother Sewing Machine (Shanghai) Co., Ltd. transferred its business to Brother Machinery Xian Co., Ltd.

▶**Environment Accounting (Detailed Data: FY2009-FY2013) [PDF/225KB]**
http://download.brother.com/pub/com/en/eco/pdf/2014/accounting.pdf

Reducing Environmental Impact

List of ISO 14001-certified Facilities and History of Auditing for ISO 14064

Making continuous improvements by administering the environment management system

All of the Brother Group's manufacturing facilities as well as the sales facilities listed in the table below have acquired ISO 14001 certification (an international standard for environmental management systems) in accordance with the Brother Group Environmental Policy. Environmental improvement activities have been designed in line with the requirements of respective facilities. When a new business site is established, activities are implemented in compliance with ISO 14001 concurrently with the commencement of operations. ISO 14001 certification is immediately obtained in order to maximize the effectiveness of environmental conservation activities.

Meanwhile, the Brother Group is subject to audit based on ISO 14064 that provides guidelines for measuring and verifying emissions of greenhouse gases (GHGs).

History of audit in compliance with or based on ISO 14064-1

History of audit in compliance with or based on ISO 14064-1	Month of audit
Brother Industries, Ltd. (business sites in Japan)	July 2013
Brother International (NZ) Ltd.	March 2013

List of ISO 14001-certified facilities

Name of site		Month of certification
Brother Industries (Philippines), Inc.		April 2014
Brother International Corporation (U.S.A.)(Two facilities listed on the right additionally acquired integrated certification with Brother International Corporation (U.S.A.))	Brother Mobile Solutions, Inc.	December 2013
	Nefsis Corporation	
Brother Machinery Shanghai Ltd.		
XING Inc.		July 2013
Brother International CZ s.r.o.		April 2013
Brother International Hungary Kft.		
Brother LLC		
Brother Industries Saigon, Ltd.		August 2012
Brother Polska Sp. z o.o.		May 2012
Brother Nordic A/S (Four facilities listed on the right acquired integrated certification with Brother Nordic A/S.)	Brother Nordic A/S	April 2011
	Brother Finland, Brother Nordic A/S Denmark, branch in Finland	
	Brother Norway, branch of Brother Nordic A/S	
	Brother Sweden, branch of Brother Nordic A/S, Denmark	

Reducing Environmental Impact

List of ISO 14001-certified Facilities and History of Auditing for ISO 14064

Name of site		Month of certification
Brother International Corporation (U.S.A.) (Two facilities listed on the right additionally acquired integrated certification with Brother International Corporation (U.S.A.))	Brother Industries (U.S.A.) Inc.	March 2011
	Brother International del Peru S.A.C.	
Brother International (HK) Ltd.		February 2011
Brother International (Gulf) FZE		May 2010
Brother International Philippines Corporation		February 2010
Brother Internationale Industriemaschinen GmbH		April 2009
Brother International Austria GmbH(Currently: Brother International GmbH (Austrian Branch))		
Brother International Corporation (U.S.A.) (Four companies listed on the right acquired integrated certification with Brother International Corporation (U.S.A.))	Brother International de Mexico, S.A. de C.V.	
	Brother International Corporation do Brasil, Ltda.	
	Brother International de Chile, Ltda.	
	Brother International Corporation de Argentina S.R.L.	
Brother Industries (Vietnam) Ltd.		March 2009
Brother International (Belgium) NV/SA		
Brother (China) Ltd.		December 2008
Brother Industries, Ltd. (Two companies listed on the right acquired integrated certification with Brother Industries, Ltd.)	Brother Sales, Ltd.	November 2008
	Brother International Corporation	
Brother Industries (Slovakia) s.r.o.		October 2008
Brother (Schweiz) AG		September 2008
Brother International Singapore Pte. Ltd.		August 2008
Brother International Corporation (Ireland) Ltd.		
Brother International (Danmark) A/S(Currently: Brother Nordic A/S)		
Brother Norge A.S.(Currently: Brother Norway, branch of Brother Nordic A/S)		July 2008
Brother International (Sweden) A.B. (Currently: Brother Sweden, branch of Brother Nordic A/S, Denmark)		
Brother France SAS		June 2008
Brother International (Aust.) Pty. Ltd.		May 2008
Brother Finland Oy(Currently: Brother Finland, Brother Nordic A/S Denmark, branch in Finland)		April 2008

Reducing Environmental Impact

List of ISO 14001-certified facilities and history of auditing for ISO 14064

Name of site		Month of certification
Brother International GmbH		March 2008
Brother International Corporation (U.S.A.)	NJ office	
	MA office	
	CA office	
	MIM Industries, Inc.	
	IL office	
Brother Iberia, S.L.U..		
Brother Italia S.p.A.		January 2008
Brother International (NZ) Ltd.		July 2007
Brother International Europe Ltd.		March 2007
Brother Sewing Machine Xian Co., Ltd.*1 (Currently: Brother Machinery Xian Co., Ltd.)		June 2006
Brother International Corporation (Canada) Ltd.		
Brother Logitec Ltd.		May 2006
Brother International (Nederland) B.V.		March 2006
Brother Sewing Machine (Shanghai) Co., Ltd.*2		December 2005
Brother U.K. Ltd.		February 2005
Brother Industries(Shenzhen), Ltd.		June 2004
Mie Brother Precision Industries, Ltd.		December 2003
Brother Tennessee* (Brother Industries (U.S.A.) Inc.) * Registered facility name when ISO 14001 certification was acquired		December 2002
Brother Industries, Ltd.	Acquired integrated certification for the headquarters and manufacturing facilities in Japan	November 2002
Zhuhai Brother Industries, Co., Ltd.		July 2001
Brother Industries, Ltd.	Headquarters/ Research & Development Center	March 2001
Brother Industries, Ltd.	Momozono Manufacturing Facility	December 2000
Nissei Corporation*3		

*1: Xian Typical Brother Industries, Co., Ltd. merged with Brother Sewing Machine Xian Co., Ltd. in 2010. The new company is named Brother Machinery Xian Co., Ltd.
*2: Brother Sewing Machine (Shanghai) Co., Ltd. transferred its business to Brother Machinery Xian Co., Ltd. in 2010.
*3: Nissei Corporation became a consolidated subsidiary of Brother Industries, Ltd. on January 30, 2013.

Reducing Environmental Impact

List of ISO 14001-certified facilities and history of auditing for ISO 14064

Name of site		Month of certification
Taiwan Brother Industries, Ltd.		October 2000
Brother Industries, Ltd.	Hoshizaki Manufacturing Facility	November 1999
Brother Industries, Ltd.	Minato Manufacturing Facility	
Xian Typical Brother Industries, Co., Ltd.*1 (Currently: Brother Machinery Xian Co., Ltd.)		
Buji Nanling Factory, Brother Corporation (Asia) Ltd. (Currently: Brother Technology (Shenzhen) Ltd.)		October 1999
Brother Industries, Ltd.	Mizuho Manufacturing Facility	August 1998
Brother Industries Technology (M) Sdn. Bhd.		March 1998
Brother Industries (Johor) Sdn. Bhd.*2 (Currently: Brother Industries Technology (M) Sdn. Bhd.)		December 1997
Brother Industries, Ltd	Kariya Manufacturing Facility	February 1997
Brother Industries (U.K.) Ltd.		December 1996

*1: Xian Typical Brother Industries, Co., Ltd. merged with Brother Sewing Machine Xian Co., Ltd. in 2010. The new company is named Brother Machinery Xian Co., Ltd.
*2: Brother Industries (Johor) Sdn. Bhd. was integrated into Brother Industries Technology (M) Sdn. Bhd. in 2004.

Addresses of facilities are available here.

▶Brother Group's major facilities
http://www.brother.com/en/corporate/network/index.htm

Communicating Environmental Commitment

Environmental Communication Activities

Enhancing communication with our stakeholders

Under the environmental slogan of "Brother Earth," the Brother Group promises to continuously take positive steps to protect the global environment in all aspects of our business operations, and send a globally unified environmental message.

To implement specific measures, the Brother Group 2015 Mid-term Environmental Action Plan (2011-2015) was formulated to promote efforts through business operations. Notably, one of the important challenges is to "disclose environmental information, and enhance communication with our stakeholders as well as their understanding." As part of such efforts, various environmental communication activities are under way to expand the scope of collaboration with as many stakeholders as possible.

Brother Earth logo and slogan

Main activity targets and results for FY2013 (April 1, 2013-March 31, 2014)

1. Publicizing (i) environmental technologies employed in new products and (ii) eco-conscious factories

Brother developed power regeneration technology to significantly reduce the CO_2 emissions and power consumption of machine tools. Meanwhile, manufacturing facilities have been continuously working to cut CO_2 emissions based on the environmental management system.

These features were promoted on Brother's special website on the environment and websites of respective facilities, etc. Brother's official SNS accounts with Facebook, Twitter, and YouTube were also used to expand the distribution of information.

Brother's special website on the environment featuring power regeneration technology for reusing surplus energy as electric power

2. Implementing environmental and social contribution activities involving employees at 33 facilities

In FY2013, more than 90 activities in total were continuously implemented from FY2012 (April 1, 2012-March 31, 2013) at 33 facilities including those in Japan, Thailand, China, the U.S., the U.K., and Australia, primarily to conserve biodiversity. The activities involved employees and their families, as well as customers, suppliers, and local residents. For activities covered by click donations as described on Brother's special website on the environment, Brother Industries, Ltd. financed the activities depending on the number of clicks.

At Brother International Corporation do Brasil, Ltda., employees planted seedlings using eco points earned.

Communicating Environmental Commitment

Environmental Communication Activities

3. Increasing the number of participants in the Brother eco point program

Under the Brother eco point program that was launched in FY2008 (April 1, 2008-March 31, 2009), eco points are awarded for eco-conscious actions taken by employees and their families. Eco points are also awarded for used consumables collected from customers. Brother works on various environmental contribution activities depending on the number of points earned.
This program has included facilities outside Japan since FY2009 (April 1, 2009-March 31, 2010); as of March 2014, the program is in place in 43 countries and regions, and 21,440 individuals (more than half of Brother's employees; up 45% from FY2012) are participating in it.

Brother eco point program in place in 43 countries and regions

Communicating Environmental Commitment

Brother Eco Point Program

Brother eco point program introduced in 43 countries and regions

Under the Brother eco point program, eco points are awarded for eco-conscious actions by employees and their families. Eco points are also awarded for used consumables collected from customers. Brother carries out various environmental contribution activities depending on the number of points earned. To raise the environmental awareness of employees and thus help prevent global warming, the Brother eco point program was launched in April 2008 for group facilities in Japan, and has been shared by the group's facilities outside Japan.

As of March 31, 2014, the Brother eco point program is in place in 43 countries and regions. In FY2013 (April 1, 2013-March 31, 2014), the number of participants in the eco point program totaled 21,440.

Brother facilities that have introduced the eco point program

Communicating Environmental Commitment

Brother Eco Point Program

Group companies in Japan (Japan)

Accelerating the eco point program through commendations

Brother Industries, Ltd. (BIL) is working with Brother Sales, Ltd. and other group companies in Japan to promote the Brother eco point program. Specifically, eco points are awarded for eco-conscious actions taken by employees and their families, such as refusing plastic shopping bags, saving electricity and water, traveling to a destination on foot, by bicycle or public transportation, and participating in local clean-up activities. A commendation program is in place to boost this program, and each year, participants who earned many points during the past year are commended.

Brother eco point program commendation ceremony for FY2013 (May 2014)

Brother Sales, Ltd. also awards points when used toner and ink cartridges of All-in-Ones and printers are collected.

The points earned are used to fund forest development, such as planting seedlings and thinning trees, which is done by employees and their families as volunteers.

From FY2012 (April 1, 2012-March 31, 2013), a system was introduced to make donations to cover activity expenses both in and outside Japan.

The Brother Group's commitment is not limited to financial contributions such as donations; employees and their families also take eco-conscious actions to minimize CO_2 emissions in daily life. We will continue to encourage the personal involvement of each and every employee in the activities to raise their environmental awareness.

▶Biodiversity
http://www.brother.com/en/eco/communication/biodiversity/index.htm

Communicating Environmental Commitment

Brother Eco Point Program

Brother International Corporation (U.S.A.) (North and South America)

Conducting various conservation activities that cater to regional characteristics

Brother International Corporation (U.S.A.) introduced the intranet-based Brother eco point program to all nine facilities in North and South America in 2010. Under this program, points are awarded for the eco-conscious activities of employees and their family members, and Brother then carries out various environmental contribution activities depending on the number of points earned.

Presented below are the main environmental contribution activities undertaken by employees, etc. in FY2013.

Encouraging participation in the Brother eco point program with a desktop icon

Overview of environmental contribution activities in FY2013 undertaken by respective facilities

Facility name	Date and place	Participants	Overview of activities
Brother International Corporation (U.S.A.)	April 20, 2013 New Jersey: State Basking Ridge Great Swamp National Wildlife Refuge	Employees and their families and friends 20 individuals	Plants of native species were planted along the trail. Plants of non-native species and weeds were removed. 
	April 20, 2013 Illinois: State Elk Grove Village Busse Woods	Employees and their families and volunteers 10 individuals	Participants cleaned the woods to celebrate Earth Day*.
	May 18, 2013 California: State Aliso Creek	Employees and their families and friends 7 individuals	Participants cleaned the river. 

*: Earth Day is a day to think about the global environment.

Communicating Environmental Commitment

Brother Eco Point Program

Overview of environmental contribution activities in FY2013 undertaken by respective facilities

Facility name	Date and place	Participants	Overview of activities
Brother Industries (U.S.A.) Inc.	April 20, 2013 Tennessee A park in the Bartlett area	Employees and their families 25 individuals	Participants worked on maintenance and conservation of the park by cleaning the park and removing non-native species etc. 
	October 13, 2013 Tennessee Memphis Shelby Farms	Employees 15 individuals	Participants helped raise funds for maintaining the park.
Brother International de Mexico, S.A. de C.V.	November 9, 2013 Mexico City Xochitla Park	Employees 78 individuals	Participants helped protect several endangered plant species in Mexico. 

Communicating Environmental Commitment

Brother Eco Point Program

Overview of environmental contribution activities in FY2013 undertaken by respective facilities

Facility name	Date and place	Participants	Overview of activities
Brother International Corporation do Brasil, Ltda.	April 13, 2013 São Paulo Águas de São Pedro City	Employees 46 individuals	Participants cleaned the woods to celebrate Earth Day. 
	October 26, 2013 São Paulo Embu das Artes City	Employees 57 individuals	Seedlings were planted to help absorb CO_2 emissions. 
Brother International Corporation de Argentina S.R.L.	December 12, 2013 Buenos Aires Carilo	26 individuals	Participants cleaned the beach, and collected 20 kg of waste. 
Nefsis Corporation	October 26, 2013 California: State San Diego	Employees and their families 30 individuals	Participants cleaned the beach, and collected 254.5 kg of waste. 

Communicating Environmental Commitment

Brother Eco Point Program

Seven facilities in China (China)

Encouraging eco-conscious actions with systems customized for various types of employment

In China, Brother (China) Ltd., Brother International (HK) Ltd., Brother Machinery Shanghai Ltd., Brother Corporation (Asia) Ltd., Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd. (BTSL), and Zhuhai Brother Industries, Co., Ltd. have been carrying out the Brother eco point program in which points are awarded for eco-conscious actions by employees and their family members. These seven facilities operate the program with systems customized for various types of employment.

BTSL employees registering their eco-conscious actions

At BTSL, for example, 12 terminals were set up in a manufacturing facility so that employees who do not use PCs in their jobs can take part in this program. Employees can register their eco-conscious actions via these terminals.

Brother International (Aust.) Pty. Ltd. (Australia)

Setting monthly eco themes to promote eco-conscious actions

Brother International (Aust.) Pty. Ltd. (BIA) launched the Australia eco point program in February 2010 to award points for eco-conscious actions taken by employees. Monthly eco themes are set, and employees are encouraged to practice five eco-conscious actions in line with the themes. The monthly eco themes and eco-conscious actions focus on environmental conservation, resource sustainability at home and work, and waste management systems.
The participation rate in the eco point program in FY2013 was very high at 80%.

Screen to enter eco points

The points earned were converted into cash and donated to the local Lane Cove National Park (to purchase tools and equipment necessary for maintaining the trees and the park), among others.
In FY2013, eco points earned in FY2012 were used to plant 250 seedlings in the Park. This activity was undertaken by BIA employees.

Activity to plant seedlings by employees

Eco points earned in FY2013 will be used to purchase tools and equipment for maintaining the trees.
In FY2013, this program won the 5R Award for environmental contribution(the Brother Group's environmental commendation system) for the second year in a row.

Communicating Environmental Commitment

Biodiversity

Basic policy

The Brother Group began to support biodiversity conservation as part of environmental and social contribution activities. As of March 31, 2014, 33 facilities of the group have been working on activities to protect the ecosystem of forests and oceans at more than 90 locations around the world. To keep the planet in good health, it is essential not only to take measures against global warming but also to ensure the conservation and sustainable use of biodiversity. Therefore, starting in FY2012 (April 1, 2012-March 31, 2013), the Brother Group will work on biodiversity conservation in operations as well, based on an activity policy.

Basic policy

To help build a sustainable society, the Brother Group will endeavor to reduce the impact of its operations on biodiversity and ensure biodiversity conservation through environmental and social contribution activities.

1. Challenges in management	The Brother Group recognizes biodiversity conservation as an important challenge for corporate survival, and works on environmental management.
2. Business operations	The Brother Group identifies the impact of all its operations (including procurement of raw materials) on biodiversity, and constantly endeavors to reduce the impact.
3. R&D activities	The Brother Group gathers information and acquires technologies regarding conservation and sustainable use of biodiversity, and promotes technological development.
4. Social contribution activities	The Brother Group works on biodiversity conservation activities in collaboration with stakeholders including government organizations, local residents, and NGOs.
5. Activities involving all employees	Actions are led by top management, and measures are taken throughout the company to help all employees increase their knowledge about biodiversity and encourage them to work voluntarily on conservation activities.
6. Communication	Details of activities are actively disclosed in and outside the company to raise awareness of biodiversity conservation activities.

Communicating Environmental Commitment

Biodiversity

Brother Industries, Ltd. [Japan]

Supporting biodiversity conservation in Madagascar

The Brother Group aims to contribute to biodiversity conservation around the world. As part of these efforts, Brother Industries, Ltd. (BIL) selected the Republic of Madagascar, an island nation in the Indian Ocean off the coast of East Africa, as a new target area for a three-year period from November 2010 to November 2013, and supported biodiversity conservation.

Nature in Madagascar, the home of rich biodiversity
ⓒConservation International

The island of Madagascar is a global treasure-trove of exceptional and unique biodiversity. The island is home to greater amphibian diversity than any other African country, and most importantly, 99% of amphibians that inhabit Madagascar are found nowhere else on earth. However, about a quarter of the amphibian species in Madagascar have been internationally recognized as being threatened with extinction primarily due to decreasing reproduction rates attributed to environmental changes (e.g. climate change and land conversion) as well as overhunting and international trade to meet demand for these creatures as pets.

Mantella cowani
(an endangered species)
ⓒConservation International

BIL concluded a partnership agreement with Conservation International (CI), an international environmental NGO, to help preserve the endangered species. As part of its biodiversity conservation project in Madagascar, CI has been conducting population studies on Mantella cowani, increasing awareness of amphibian conservation, and promoting collaboration with local communities and government. During the three-year period, the population of this species increased from 450 to 700.

This activity is covered by the Click for the Earth program* which visitors to brotherearth.com, Brother's special website on the environment, can join. All donations made through the Click for the Earth program were used to cover expenses for the activity.

*: Brother donates 1 yen per click on a "Donate" button.

Communicating Environmental Commitment

Biodiversity

Brother Industries, Ltd. [Japan]

Cutting moso bamboo, which hinders the growth of precious forests of broad-leaved trees, in collaboration with local people and others

In November 2013, a total of 29 individuals including the employees of Brother Industries Ltd. (BIL) and their families, Aichi Prefectural Government employees, and local people joined activities to cut moso bamboo trees (Phyllostachys heterocycla f. pubescens) in Chiharazawa (Okazaki City)*1 which is designated by Aichi Prefectural Government as a nature conservation area.

These activities are intended to stop the spread of moso bamboo trees, a fast-growing exotic species, and allow sunlight to reach broad-leaved indigenous trees, such as Stewartia monadelpha and Malus tschonoskii, which are rarely found on the plains. The shoots are removed in April.


Removing shoots


Cutting moso bamboo trees

Moso bamboo removal activities

Year	2010	2011		2012		2013	
Month	September	April	November	April	November	April	November
Activity	Cutting bamboo trees	Removing shoots	Cutting bamboo trees	Removing shoots	Cutting bamboo trees	Removing shoots	Cutting bamboo trees

Activities in Chiharazawa are covered by the Brother eco point program, which has been promoted by BIL with group companies, and from FY2011 (April 1, 2011-March 31, 2012), by the Click for the Earth program*2 which customers can join on brotherearth.com, Brother's special website on the environment. Contributions from the Click for the Earth program each year are used as expenses for conservation activities in the following year.

*1: In 2010, BIL signed an agreement with various entities, including prefectural and local bodies, and has been carrying out environmental conservation activities in Chiharazawa (about 14 hectares). Among the more than 500 nature conservation areas nationwide designated by the national and prefectural governments, this is the first case where a private enterprise has become involved in protecting a nature conservation area as part of its social contribution activities.
*2: Brother donates 1 yen per click on a "Donate" button.

Communicating Environmental Commitment

Biodiversity

Brother Industries, Ltd. [Japan]

Helping restore and conserve forests by planting seedlings and utilizing Brother eco points and Click for the Earth donations

In 2013, employees and their families of Brother Industries, Ltd. (BIL) and Brother Sales, Ltd. as well as customers of Brother Real Estate, Ltd. took part in forest conservation activities at the Brother Forests in Gujo*1, with the help of local people.

In FY2013 (April 1, 2013-March 31, 2014), participants planted seedlings of deciduous trees that produce fruits (including Quercus serrata Murray and Quercus crispula Blume) and Alnus hirsute which easily grows on uncultivated land, as well as Magnolia salicifolia (willow-leafed magnolia), which is designated as the city flower of Gujo. The participants also took care of seedlings that had been planted.

Some seedlings had grown to over four meters in height, and some had grown large leaves and fruits. The green forests have steadily grown over the past six years.

Carefully planting seedlings of native species

Participants of the seedling planting activity

Number of seedlings that have been planted

Year	2008		2009		2010		2011		2012		2013	
Month	6	10	4	10	4	10	4	10	4	10	4	10
Number of seedlings planted	200	302	350	350	350	350	350	350	350	350	250	250

The Brother Forests in Gujo are covered by the Brother eco point program which has been promoted by BIL with group companies, and from FY2011, by the Click for the Earth donation program*2 which customers can join on brotherearth.com, Brother's special website on the environment. The activity funds are used to cover various expenses for (i) planting seedlings and thinning forests, (ii) setting up signboards in the afforested and thinned areas and improving forestry roads, and (iii) conducting soil improvement experiments.

*1: The Brother Forests in Gujo refer to three sites in Gujo City, Gifu Prefecture. In February 2008, a three-party agreement was signed among Gifu Prefecture, Gujo City, and BIL to restore the three forests, as part of "the program to build forests in collaboration with companies" promoted by Gifu Prefecture. In ten years since signing the agreement, we will plant seedlings of indigenous species on a former ski ground (8 hectares) and thin two forests (20 hectares in total) to encourage the growth of healthy forests. Over 10 years, the goal is to plant 7,400 seedlings; of which 3,802 have already been planted (including those planted by Brother Sales, Ltd.).

*2: Brother donates 1 yen per click on a "Donate" button.

▶You are invited to join in Click for the Earth donations (free of charge) for supporting Brother's activities.
http://www.brotherearth.com/en/top.html

Brother Sales, Ltd. [Japan]

Planting seedlings depending on the number of used printer consumables collected

Starting in FY2008 (April 1, 2008-March 31, 2009), Brother Sales, Ltd. has earned eco points for collected used consumables, and has planted seedlings in the Brother Forests in Gujo in proportion to the earned points.

In FY2013, 201 and 106 seedlings were planted in April and October, respectively. From FY2008 to FY2012, 1,071 seedlings were planted.

Planting seedlings in October 2012

Communicating Environmental Commitment

Biodiversity

Brother International Corporation (U.S.A.) [North and South America]

Conducting various conservation activities that cater to regional characteristics

Brother International Corporation (U.S.A.) (BIC (USA)) has been working in partnership with the Arbor Day Foundation, a forest protection organization in the USA, since 2010. Through this partnership, Brother Group companies in the Americas work with the Arbor Day Foundation to restore and develop healthy tropical rainforests, which are cradles of biodiversity, while tackling challenges specific to different regions.
This activity is covered by the Click for the Earth donation program* which visitors to brotherearth.com, Brother's special website on the environment, can join. The donations are used by the Arbor Day Foundation to cover expenses for the conservation activities outlined below.

Restoring national forests by planting seedlings in the U.S

BIC (USA) is supporting the Replanting Our National Forests campaign (one of the partnership programs with the Arbor Day Foundation) through Click for the Earth, to help protect forests threatened by fire, diseases, and insects. National forests in the U.S. provide a valuable habitat for wildlife as well as precious natural resources such as construction materials, clean air, and drinking water. To date, more than 28 million seedlings have been planted through the Replanting Our National Forests campaign undertaken by the Arbor Day Foundation. Many other activities to restore national forests are also under way.

Details of support to environmental conservation activities that have received funding from Brother Click for the Earth donations

Fiscal year	2011	2012	2013
Details of support	10,705 seedlings were planted in the forests of Bayfield, Wisconsin.	10,705 seedlings of longleaf pine and loblolly pine were planted in Manchester State Forest.	7,502 oaks were planted in a national forest in the western part of Tennessee.

BIC (USA) also used funds earned through the Brother eco point program in FY2011 to support the activity.

Details of support to environmental conservation activities that have received funding from the Brother eco point program

Fiscal year	2012
Details of support	10,776 trees of longleaf pine and loblolly pine were planted in Manchester State Forest.

*: Brother donates 1 yen per click on a "Donate" button.

ⓒ Arbor Day Foundation

Communicating Environmental Commitment

Biodiversity

Brother International Corporation (U.S.A.) [North and South America]

Conserving tropical rainforests in Central and South America

Brother International Corporation de Argentina S.R.L., Brother International Corporation do Brasil, Ltda., Brother International de Chile, Ltda., Brother International de Mexico, S.A. de C.V., and Brother International del Peru S.A.C. are helping to protect and restore tropical rainforests in Central and South America through the Rain Forest Rescue program, one of the partnership programs with the Arbor Day Foundation.
Tropical rainforests are home to almost half of all known species, and so this activity also helps to conserve species.

Details of support to environmental conservation activities that have received funding from Brother Click for the Earth donations

Fiscal year	2011	2012	2013
Details of support	More than 305,714 square meters of tropical rainforests in the Maya Forest, Guatemala were protected.	More than 305,714 square meters of tropical rainforests in the Maya Forest, Guatemala were protected	More than 147,335 square meters of tropical rainforests in the Maya Forest, Guatemala were protected.

These facilities also used funds earned through the Brother eco point program in FY2011 to support the activity.

Details of support to environmental conservation activities that have received funding from the Brother eco point program

Fiscal year	2012
Details of support	More than 280,604 square meters of tropical rainforests in the Maya Forest, Guatemala were protected.

ⓒ Erika McDonald

Communicating Environmental Commitment

Biodiversity

Brother International Corporation (U.S.A.) [North and South America]

Developing forest restoration activities in Canada

In the summer of 2005, about 180,000 cubic meters of pine forests in the Province of Manitoba were destroyed by winds exceeding 150 km/h. Brother International Corporation (Canada) Ltd. (BIC(Canada)) helps restore the forests for the benefit of the global environment and future generations (in partnership with Tree Canada* and local organizations) as one of the partnership programs with the Arbor Day Foundation.
This activity helps protect habitats for wildlife, and prevents soil erosion and improves the water quality of the Red River basin.

Details of support to environmental conservation activities that have received funding from Brother Click for the Earth donations

Fiscal year	2011	2012	2013
Details of support	4,538 seedlings of pine were planted.	4,538 seedlings of pine were planted.	3,226 seedlings of pine were planted.

BIC (Canada) also used funds earned through the Brother eco point program in FY2010 (April 1, 2010-March 31, 2011) and FY2011 to support the activity.

Details of support to environmental conservation activities that have received funding from the Brother eco point program

Fiscal year	2011	2012
Details of support	3,125 pine trees were planted in FY2012	1,077 pine trees were planted in FY2013.

*: Tree Canada is a nonprofit organization that conducts various programs in partnership with local communities, government bodies, companies, and individuals to maintain a healthy forest environment in Canada.

▶You are invited to join in Click for the Earth donations (free of charge) for supporting Brother's activities.
http://www.brotherearth.com/en/top.html


ⓒ Tree Canada

Communicating Environmental Commitment

Biodiversity

Brother Industries (U.K.) Ltd. [Europe]

Contributing to reforestation at a former quarry site

Since 2006, Brother Industries (U.K.) Ltd. (BIUK) has supported reforestation activities at the Millennium Eco Centre, an environmental education facility for students located at a former quarry site. Thus far, more than 4,000 seedlings have been planted. The 200 seedlings that were planted back in 2006 have now grown well over one meter tall. In 2009, the activities expanded to involve family members of BIUK employees.

In July 2010, BIUK employees volunteered to build pathways and plant seedlings. While digging the hard ground and planting seedlings based on advice from the Centre's manager, the employees also learned that the forested areas are home to diverse plants and animals. Since FY2011 (April 1, 2011-March 31, 2012), this activity has been covered by the Click for the Earth donation program* which visitors to brotherearth.com, Brother's special website on the environment, can join in.

Planting seedlings

Details of support

Fiscal year	Details
2011	Purchased a container for the Millennium Eco Centre to set up a wooden outdoor classroom, set up a bulletin board for the Butterfly Garden, provided a banner for a bus that was converted into a classroom, and purchased 1,000 trees to be planted.
2012	Built pathways at the Millennium Eco Centre, purchased seedlings, work vests, cotton work gloves, and shovels for planting seedlings, helped to update the website and purchase equipment, etc.
2013	Covered expenses for the biodiversity project and seedling planting activities at the Millennium Eco Centre (e.g. seedling planting activities by four elementary schools, purchase of industrial long range radios, trees, and other equipment).

BIUK is proud to be part of a project for creating natural woodland and new habitats for animals.

*: Brother donates 1 yen per click on a "Donate" button.

▶**You are invited to join in Click for the Earth donations (free of charge) for supporting Brother's activities.**
http://www.brotherearth.com/en/top.html

Communicating Environmental Commitment

Biodiversity

Brother International Europe Ltd. [Europe]

Protecting tropical rainforests in Peru

Brother International Europe Ltd. (BIE) has been carrying out the Cool Earth Eco-Rewards initiative in collaboration with Brother's 20 sales facilities in Europe, and in partnership with Cool Earth, a U.K.-based NPO working to protect the environment of the Amazon Basin since 2009. The Cool Earth Eco-Rewards initiative aims to donate funds raised, depending on the volume of consumables (including toner and ink cartridges) collected, to Cool Earth. The funds are used for activities supported by Cool Earth to protect tropical rainforests and the habitats of endangered species of wild animals in the Republic of Peru.

Since FY2010, donations to Cool Earth have been covered by Click for the Earth donations*1 that can be made from the Brother Group's special website on the environment (brotherearth.com) to expand the scope of support. Funds raised through Click for the Earth donations are used to support these activities.
Cool Earth estimates that Click for the Earth donations help protect 19 endangered species, 8,157 species of animals, and more than 3,268,000 liters of water per year. BIE will continue to support these activities.

Certificate of donation (via Click for the Earth donations) issued by Cool Earth to BIE (May 2014)

Area of tropical rainforests protected through Brother Click for the Earth donations (cumulative total)

Fiscal year	Location	Area protected	Number of trees protected*2	Amount of CO_2 fixed*3
2011	Ene River (Río Ene) valley (Ashaninka Community)	236 acres (approx. 95.5 hectares)	56,640	61,360t
2012		456 acres (approx. 184.5 hectares)	109,440	118,560t
2013		567 acres (approx. 229.5 hectares)	136,080	147,420t
2014		610 acres (approx. 246.8 hectares)	146,400	158,600t

*1: Brother donates 1 yen per click on a "Donate" button.
*2: The number is calculated based on 240 trees per acre.
*3: The number is calculated based on 260 t per acre.

▶You are invited to join in Click for the Earth donations (free of charge) for supporting Brother's activities.
http://www.brotherearth.com/en/top.html

Communicating Environmental Commitment

Biodiversity

Brother Industries (Shenzhen), Ltd., Brother Technology (Shenzhen) Ltd. [China]

Contributing to an environmental conservation program in Shenzhen City

In FY2007 (April 1, 2007-March 31, 2008), Brother Technology (Shenzhen) Ltd. (BTSL) and Brother Industries (Shenzhen), Ltd. (BISZ) started to take part in the annual seedling planting program organized by Shenzhen City.
Since FY2011, the seedling planting program has been funded by Click for the Earth donations*1 that visitors to brotherearth.com, Brother's special website on the environment, can make.

In April of FY2013, part of the donations from Click for the Earth and energy conservation subsidies granted by the City of Shenzhen*2 were used to plant 100 seedlings at the Universiade Park in Longgang District. Ten benches were also donated to the municipal park in July. Furthermore, in November, BISZ employees organized an educational program to raise the environmental awareness of 65 children (elementary school-age or younger) at the Pingshan Experimental School.


Planting seedlings


A donated bench

Number of seedlings that have been planted

Fiscal year	2007	2008	2009	2010	2011	2012	2013
Location	Longcheng Park (in Longgang District)	Longcheng Park (in Longgang District)	Longcheng Park (in Longgang District)	Tanglang Mountain Country Park	Zhongshan Park, Longcheng Park (in Longgang District)	Longcheng Park (in Longgang District)	Universiade Park (in Longgang District)
Number of seedlings planted	100	100	50	100	200	100	100

Since 2009, efforts have been made by BTSL to remove Mikania micrantha*3, a weed designated as one of the "100 of the World's Worst Invasive Alien


ミカニア・ミクランサ

*1: Brother donates 1 yen per click on a "Donate" button.
*2: The subsidies were granted by the City of Shenzhen in recognition for the results of energy conservation activities by BTSL and BISZ after their applications in FY2012.
*3: Mikania micrantha has a serious impact on local ecosystems because this highly adaptable and fast-growing plant hinders photosynthesis of native species while depriving them of water and nutrition, thus causing withering and death.

▶**You are invited to join in Click for the Earth donations (free of charge) for supporting Brother's activities.**
http://www.brotherearth.com/en/top.html

Communicating Environmental Commitment

Biodiversity

Brother (China) Ltd. [China]

Restoring the environment of Inner Mongolia to eliminate sandstorms

Brother (CHINA) Ltd. (BCN) has been working on a project to prevent desertification in Inner Mongolia in collaboration with OISCA*1, a public interest incorporated foundation.

In June 2012, BCN employees visited the Alashan region in Inner Mongolia and planted seedlings of Russian olive (Elaeagnus angustifolia), a plant well adapted to the desert environment, in collaboration with the Alashan Desert Ecological Research and Training Center*2 set up by OISCA and with local junior high school students. In May 2013, about 30 individuals including BCN employees, OISCA staff members, university students from Xian, and local junior high school students planted about 500 seedlings of saxaul (Haloxylon ammodendron)*3 which is resistant to dry weather.

BCN has been promoting the greening of desert areas through donations to OISCA. In addition, BCN has shown long-term commitment to improving the living standards of local agro-pastoral people who make a living by growing plants that are used as raw ingredients for Chinese medicine and by grazing emus (a bird related to the ostrich), etc.

BCN's ongoing activities help mitigate the yellow sand problems by preventing desertification and promoting environmental education for local children. These activities also help make employees more aware of their social and environmental contributions and boost their pride.

Planting seedlings of saxaul (Haloxylon ammodendron)

The surface soil of this low rainfall area is hard and stony.

A desert area after planting seedlings

BCN remains committed to these activities in addition to planting seedlings, cleaning up the environment, and raising funds for greening that it has worked on near its offices in different regions such as Shanghai and Beijing. As a "good corporate citizen," BCN wishes to develop and grow with China.

*1: OISCA is a public interest incorporated foundation in Japan established in 1969 to promote the basic philosophy of the Organization for Industrial, Spiritual and Cultural Advancement-International (an international NGO headquartered in Japan) by working on specific activities. OISCA envisions a world where all people harmoniously coexist by transcending differences and live in harmony with nature.
*2: The Alashan Desert Ecological Research and Training Center in Alashan, Inner Mongolia takes a comprehensive approach to research and popularization of environmental conservation-oriented industries, etc. (e.g., greening activities by planting seedlings, etc., activities to grow herbal plants used as raw ingredients for Chinese medicine to help local residents earn a stable income).
*3: Saxaul (Haloxylon ammodendron) is used as the host of Cistanche salsa (a plant that is completely parasitic on other plants and which is highly valued and appreciated as a Chinese medicine).

▶You are invited to join in Click for the Earth donations (free of charge) for supporting Brother's activities.
http://www.brotherearth.com/en/top.html

Communicating Environmental Commitment

Biodiversity

Brother International (HK) Ltd. [Hong Kong]

Supporting activities to plant seedlings and help improve the global environment

Brother International (HK) Ltd. (BIHK) provided financial support to "Tree Planting Challenge 2014", an event for planting seedlings in Hong Kong on April 27, 2014, and eight employees of BIHK joined this event.

Organized by Friends of the Earth, an international environmental organization, this event aims to conserve the environment of Hong Kong and raise participants' awareness. During the past 10 years, more than 7,000 participants in total have helped plant about 83,000 seedlings. The eight BIHK employees, who participated in this event, climbed (elevation 702 m) carrying 60 seedlings, and planted them in Ma On Shan Country Park which is located around the ninth station of the mountain.

BIHK will continue to support the seedling planting activities.

Since FY2012, this activity has been covered by the Click for the Earth donation program* which visitors to brotherearth.com, Brother's special website on the environment, can join. The donations collected through the Click for the Earth program in each fiscal year are used to cover expenses for planting seedlings in the fiscal year after next.

Details of support to environmental conservation activities that have received funding from Brother Click for the Earth donations

Fiscal year	2013	2014
Location	Ma On Shan Country Park	Ma On Shan Country Park
Number of seedlings planted	30	60

*: Brother donates 1 yen per click on a "Donate" button.

Employees carrying seedlings

▶You are invited to join in Click for the Earth donations (free of charge) for supporting Brother's activities.
http://www.brotherearth.com/en/top.html

Communicating Environmental Commitment

Biodiversity

Brother Commercial (Thailand) Ltd. [Asia / Oceania]

マングローブ林の保護と再生支援活動で、生態系回復の兆し

In FY 2009 (April 1, 2009-March 31, 2010), Brother Commercial (Thailand) Ltd. (BCTL) started to help protect and restore mangrove forests*1 in Samut Sakhon Province.
In November 2013, BCTL employees, dealers, and customers, who had expressed their intention to participate via Facebook, planted 500 mangrove seedlings. This afforestation activity was joined by 230 individuals in total.

Passing seedlings one by one, to be planted and supported by bamboo poles

Participants of seedling planting activities in FY 2013

Number of seedlings that have been planted

Year	2009	2010	2011	2012	2013
Month	Nov.	Nov.	Cancelled due to the impact of flooding	Nov.	Nov.
Number of seedlings planted	120	300		500	500

From FY 2011, this activity is covered by the Click for the Earth program*2, which visitors to brotherearth.com, Brother's special website on the environment, can join. Contributions from the Click for the Earth program in each fiscal year are used as expenses for the afforestation activities in the following fiscal year.

As the mangrove forests grow, the numbers of species of birds and aquatic animals observed have increased. BCTL will continue with this activity.

*1: Mangrove forests are home to a wide range of creatures; the network of mangrove roots reinforces the seashore and serves as a buffer which reduces the impact of tsunami, however in recent years in Thailand, mangrove forests have been rapidly diminishing due to the development of salt and shrimp farms.
*2: Brother donates 1 yen per click on a "Donate" button.

▶You are invited to join in Click for the Earth donations (free of charge) for supporting Brother's activities.
http://www.brotherearth.com/en/top.html

Communicating Environmental Commitment

Biodiversity

Brother International (Aust.) Pty. Ltd. [Asia / Oceania]

Supporting a survey on the biology and ecology of manta rays via Click for the Earth donations

To understand and conserve Australia's unique ocean environment, Brother International (Aust.) Pty. Ltd. and Earthwatch, an NPO involved in conserving the nation's biodiversity, have been working with Dr. Kathy Townsend of the University of Queensland to:

- conduct a survey on the biology and ecology of manta rays (Manta birostris)*1 which are an icon of Australia's oceans and seas and to protect the species; and
- assess the impact of marine debris on sea turtles (endangered species)*2.

A manta ray subject to a biology and ecology survey
© Chris Gillies

Little is known about the biology and ecology of manta rays. For this reason, the research group including Dr. Townsend has been working on Project Manta to understand the behavior, biology, ecology and migration patterns of manta rays and thereby help protect the species. To date, nearly 600 manta rays have been identified in the research project. Information has been gathered regarding the habitats, migration paths, water depths and temperatures that manta rays are well adapted to, and their feeding patterns, thus gradually clarifying the biology and ecology of these creatures.

From FY2011, this activity is covered by the Click for the Earth program*3 which visitors to brotherearth.com, Brother's special website on the environment, can join.

Details of support to environmental conservation activities that have been funded by Brother Click for the Earth donations

Fiscal year	2011	2012	2013
Details of support	Six pop-up satellite archival tags*4 to be attached to manta rays and track their movements were purchased.	Ten acoustic tags*5 to be attached to manta rays and track their movements were purchased, and the safety equipment in the boat was updated.	Pop-up satellite archival tags*4 were attached to 15 manta rays, and acoustic tags*5 were attached to 24 manta rays to survey their behavior.

BIA remains committed to these activities.

*1: Manta rays, the largest species of ray in the world, measure up to seven meters across the pectoral fins.
*2: An overview of the activities is described on page 29 of the 2011 Brother Group Corporate Social Responsibility Report (Environmental Activities) .
*3: Brother donates 1 yen per click on a "Donate" button.
*4: The pop-up satellite archival tags, which are attached to and carried by manta rays, log data of water depth, water temperature, and light intensity, thus assisting research on the migration patterns and marine environment in particular, of manta rays. These tags are designed to self-release automatically on a predetermined date at a predetermined time and float to the surface, to minimize the impact on the rays.
*5: Acoustic tags, which are designed to transmit unique acoustic signals, are attached to manta rays to observe their behavioral patterns. Acoustic signals transmitted from the tags are picked up by receivers placed around Lady Elliot Island (an isolated island located in the southernmost part of the Great Barrier Reef which is designated as a site).

▶You are invited to join in Click for the Earth donations (free of charge) for supporting Brother's activities.
http://www.brotherearth.com/en/top.html

Performance Data

Material Balance

Identifying the environmental impact of business operations

Overview of main environmental impact associated with the Brother Group operations

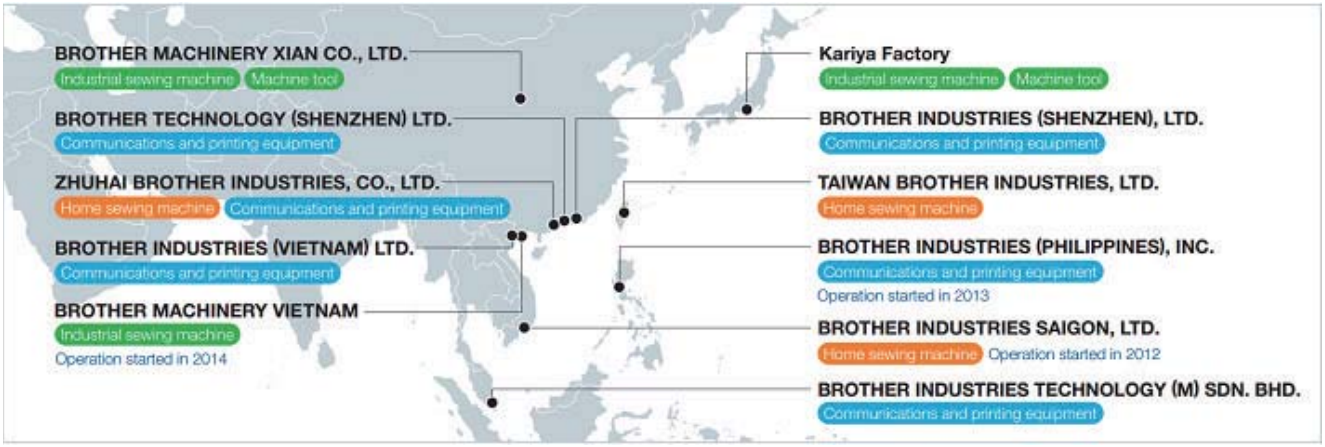
The Brother Group facilities are engaged in processing and assembly to manufacture products. The environmental impacts (including resource consumption, CO_2 emissions, and waste generated) associated with all business operations are quantitatively monitored and summarized to reduce environmental impacts.

Input of Resources, Production & Emission of Substances in FY2013 (April 1, 2013-March 31, 2014)

Resource and energy inputs in FY2013

Resource consumption				Total energy consumption		Water consumption	
Product material		Other materials (main materials)		Crude petroleum equivalent	49,737kL	Total amount of water consumption	852,231㎥
Metal	67,668t	Expanded polystyrene for packaging	3,543t	Breakdown		Clean water	786,696㎥
				Electricity	44,134kL		
Plastic	79,728t	Corrugated fiberboard	30,787t	Steam	0kL	Industrial water	15,987㎥
				LPG/LNG	114kL		
Other	35,588t	Paper	10,614t	City gas	4,069kL	Underground water	49,548㎥
				Oil, etc.	1,420kL		

Brother Group in FY2013 (main manufacturing facilities)



Performance Data

Material Balance

Production & Emission of Substances in FY2013

Brother products		CO_2*		Amount of waste		Water consumption	
Brother products	227,927t	CO_2	75,528t-CO_2	Production-related waste	10,226t	Amount of wastewater	839,477㎥
				Amount of waste recycled	10,221t	Amount of recycled water	194㎥

*: Includes Nissei Corporation, XING Inc., Brother Sales, Ltd. (excluding sales offices), and 52 sales companies outside Japan.

Calculation method

Resource and energy inputs in FY2013		
Resource consumption	Material input amount for main products shipped in FY2013	
Total energy consumption	Total amount of electricity, steam, LPG/LNG, city gas, and oil, etc. consumed at target business sites in FY2013	
	Crude petroleum equivalent	Calculated by converting electricity, oil, etc., city gas, etc., LPG/LNG, and steam into crude petroleum, respectively *: The conversion rate for crude oil equivalent is based on the Table of Standard Calorific Values by Energy Source (February 2002) released by the Agency for Natural Resources and Energy, Government of Japan.
Water consumption	Total amount of water consumed at target business sites in FY2013	
	Clean water	Measurement using a water meter
	Industrial water	Same as above
	Underground water	Same as above

Production and emission of substances in FY2013		
Brother products	Consumption of raw materials per product x number of products shipped in FY2013	
CO_2	CO_2	CO_2 emissions attributed to energy consumption at target business sites in FY2013 (energy consumption x CO_2 conversion factor) *: The CO_2 equivalent values are based on the list of emissions coefficients in the December 2002 Order for Enforcement in the Review Results of Calculating the Emission Amounts of Greenhouse Gases released by the Ministry of the Environment, Government of Japan.
Water consumption	Amount of wastewater	The amount is equivalent to the amount of water intake, or is calculated in accordance with the formula set in respective regions (based on the amount of water intake).
	Amount of recycled water	The amount is calculated based on the results of respective manufacturing facilities.
Amount of waste	Production-related waste	Total amount of waste (including metals, waste plastics, circuit boards, sludge, waste oil/solvents, waste acids/alkalis, glass/ceramics, and batteries) generated in the production process at target business sites in FY2013
	Amount of waste recycled	Amount of production-related waste (above) recycled

Performance Data

Material Balance

Environmental impact data of main facilities within the scope of disclosure

Name of site
▶Business sites in Japan [PDF/156KB] Headquarters, Mizuho Manufacturing Facility, Hoshizaki Manufacturing Facility, Minato Manufacturing Facility, Momozono Manufacturing Facility, Kariya Manufacturing Facility, Research & Development Center, Logistic Center http://download.brother.com/pub/com/en/eco/pdf/2014/data_bil.pdf
▶Nissei Corporation [PDF/108KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_nissei.pdf
▶Mie Brother Precision Industries, Ltd. [PDF/110KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_mieb.pdf
▶Brother Industries (U.K.) Ltd. [PDF/110KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_biuk.pdf
▶Brother Industries (Slovakia) s.r.o. [PDF/111KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_bisk.pdf
▶Taiwan Brother Industries, Ltd. [PDF/111KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_taiwanb.pdf
▶Brother Industries Technology (M) Sdn. Bhd. [PDF/134KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_bitm.pdf
▶Zhuhai Brother Industries, Co., Ltd. [PDF/110KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_zuhaib.pdf
▶Brother Machinery Xian Co., Ltd.* [PDF/105KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_bmx.pdf
▶Brother Industries (Shenzhen), Ltd. [PDF/110KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_bisz.pdf
▶Brother Industries (Vietnam) Ltd. [PDF/110KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_bivn.pdf
▶Brother Technology (Shenzhen) Ltd. [PDF/111KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_btsl.pdf
▶Brother Industries Saigon, Ltd. [PDF/130KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_bisg.pdf
▶Brother Industries (Philippines), Inc. [PDF/105KB] http://download.brother.com/pub/com/en/eco/pdf/2014/data_biph.pdf

*: Brother Machinery Xian Co., Ltd. is a business site established through the merger of Xian Brother Industries, Co., Ltd. (formerly Xian Typical Brother Industries, Co., Ltd.) with Brother Sewing Machine Xian Co., Ltd. in 2010. In the same year, Brother Sewing Machine (Shanghai) Co., Ltd. transferred its business to Brother Machinery Xian Co., Ltd.

▶Environmental impact data for before FY2010 (April 1, 2010-March 31, 2011) is available on the CSR Report PDF Download page.
http://www.brother.com/en/csr/download/index.htm

Performance Data

In-depth Data

Successfully attaining targets in many areas

In accordance with the Brother Group Global Charter, the Brother Group promises to actively and continuously consider the envionmental impact of all aspects of its operations. The Brother Group 2015 Mid-term Environmental Action Plan (2011-2015), whih is a specific roadmap to fulfill its mission, set ambitious environmental targets to be achieved by 2015 in respective areas. In FY2013 (April 1, 2013-March 31, 2014), which is the third year of the plan, employees worked together to achieve the targets, and successfully achieved the targets in many areas.

▶Brother Group's Environmental Strategy http://www.brother.com/en/eco/management/index.htm

Targets and accomplishments in FY2013

▶Brother Group 2015 Mid-term Environmental Action Plan (2011-2015)
http://www.brother.com/en/eco/management/action_plan/index.htm
▶FY2013 targets and achievements (table) [PDF/49KB] http://download.brother.com/pub/com/en/eco/pdf/2014/plan_2013.pdf
▶FY2012 targets and achievements (table) [PDF/86KB] http://download.brother.com/pub/com/en/eco/pdf/2013/plan_2012.pdf
▶FY2011 targets and achievements (table) [PDF/97KB] http://download.brother.com/pub/com/en/eco/pdf/2012/plan_2011.pdf

Priority items	Graph	FY2011	FY2012	FY2013
Eco-conscious products				
Number of products for which Brother acquired environmental labels*1		105 models Including 1 consumable	163 models Including 30 consumables	147 models Including 28 consumables
Blue Angel		26 models	12 models	43 models
Eco Mark		15 models Including 1 consumable*2	64 models Including 30 consumables*2	56 models Including 28 consumables*2
Ten Circle Mark		8 models	35 models	9 models
Reducing environmental impact of business sites	Each graph, refer to page 119.			
Changes in CO_2 emissions: On a group basis*3	Graph1	42,153t-CO_2	70,847t-CO_2	75,528t-CO_2
Changes in CO_2 emissions: Business sites in Japan		16,527t-CO_2	35,891t-CO_2	36,275t-CO_2
Changes in CO_2 emissions: Brother Industries, Ltd. (after reflecting Kyoto Credits)	Graph2	20,396t-CO_2	20,125t-CO_2*4	Industry targets completed in FY2012
Changes in CO_2 emissions: Brother Industries, Ltd. (before reflecting Kyoto Credits)	Graph3	21,729t-CO_2	21,441t-CO_2*4	Industry targets completed in FY2012
Changes in CO_2 emissions: Facilities outside Japan		25,626t-CO_2	34,955t-CO_2	39,253t-CO_2
Water consumption*5	Graph4	791,803m^3	830,368m^3	852,231m^3
Waste generated	Graph5	6,561t	6,200t	10,226t
Recycle rate		99.8%	99.96%	99.95%

*1: This is the number of products that acquired Type I, Type II, and Type III labels.
*2: Excluding tape cassettes for Brother P-touch
*3: In FY2012 (April 1, 2012-March 31, 2013), group companies (Nissei Corporation, Brother Sales, Ltd., XING Inc., and Brother Industries Saigon, Ltd.) and 52 sales companies outside Japan were added to the scope of aggregation in FY2011 (April 1, 2011-March 31, 2012). In FY2013 (April 1, 2013-March 31, 2014), a group company (Brother Industries (Philippines), Inc.) was added to the scope of aggregation in FY2012.
*4: In calculating the data, coefficients in FY2011 were used as substitutes (except for fuel).
*5: The values reflect a retrospective review up to FY2011.

Performance Data

In-depth Data

Priority items	FY2011	FY2012	FY2013
Complying with laws, regulations and social trends			
Number of chemical substances (groups) subject to investigation in green procurement	103 substances (groups)	171 substances (groups)	185 substances (groups)
Number of requests made to conduct investigations to comply with the REACH Regulation in green procurement	More than 50,000	More than 80,000	More than 82,000
Number of fluorescent x-ray measurements performed to comply with EU RoHS	More than 110,000	More than 95,000	More than 100,000
Environmental communication			
Number of facilities that have introduced the Brother eco point program	55 facilities*1	54 facilities	43 countries and regions*2
Number of environmental and social contribution activities in which employees were involved	22 activities	32 activities	More than 90
Cumulative total number of employees who participated in the Brother eco point program	8,803 persons	14,776 persons	21,440 persons

*1: Brother International (India) Private Ltd., which was engaged in activities only in FY2011, is included in the number of facilities on a trial basis.
*2: Due to the expansion of activities, the number of facilities was changed to the number of regions for reporting results.

▶List of ISO 14001-certified Facilities and History of Auditing for ISO 14064
http://www.brother.com/en/eco/facility/iso_14001/index.htm

Results of the green procurement activities of Brother Industries, Ltd.

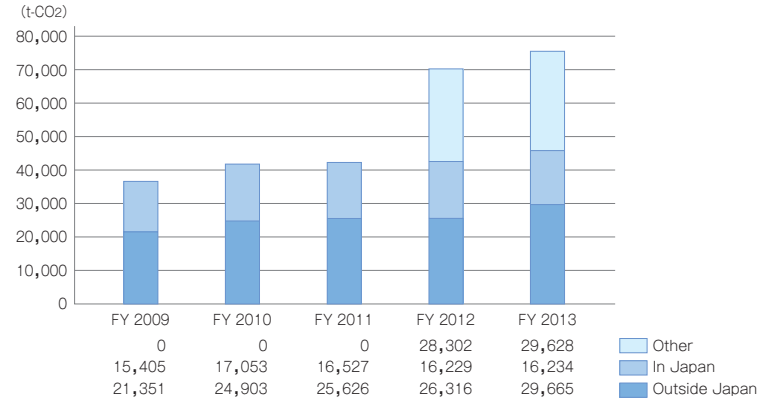
Brother Industries, Ltd. (BIL) joined the Green Purchasing Network in January 1997 and established purchasing guidelines in August 1997. BIL set standards for selecting products (e.g., energy conservation performance, avoidance of hazardous substances, reusability, and recyclability) and designated recommended products in 1998. Efforts have been made to enhance the penetration of the standards within the organization while reviewing the standards as needed. The green purchasing rate, which increased year after year, reached 99.00% in FY2009 (April 1, 2009-March 31, 2010) and 99.97% in FY2010 (April 1, 2010-March 31, 2011). The rate reached almost 100%, based on which we confirmed that the process was fully established. Thus, BIL excluded the rate from the scope of the disclosure of accomplishments from FY2011.

Performance Data

In-depth Data

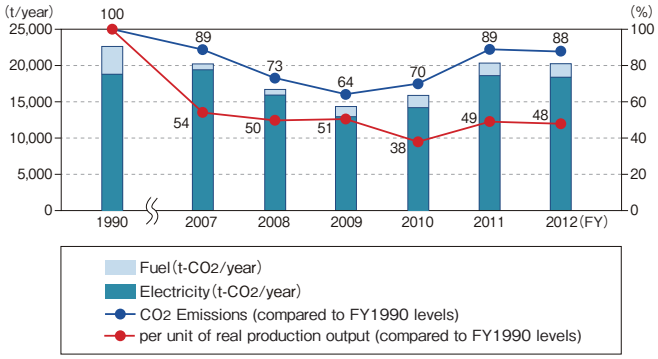
■Graph1

Changes in CO_2 emissions: On a group basis



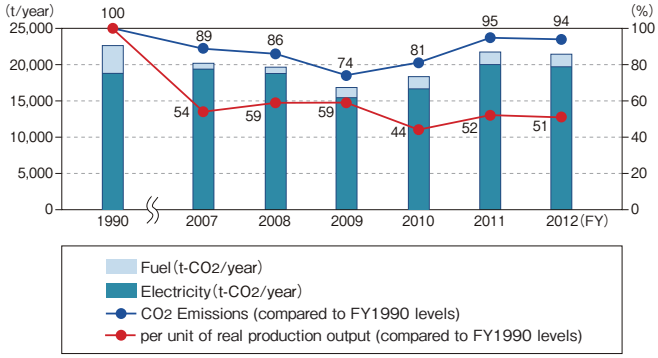
■Graph2

Changes in CO_2 emissions: Brother Industries, Ltd. (after reflecting Kyoto Credits)



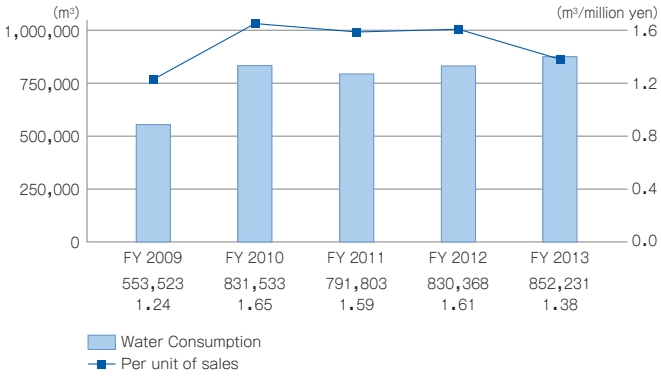
■Graph3

Changes in CO_2 emissions: Brother Industries, Ltd. (before reflecting Kyoto Credits)



■Graph4

Water consumption



■Graph5

Waste generated