

CSR Activity Report (CSR Guideline Activity Reports)

Social Contribution Activities as a Good Corporate Citizen

Proactively participate in local communities and the larger society in order to contribute to development in a way befitting a good corporate citizen.



Basic Approach

As the foundation of its business activities, Toray Group works to build ties with local communities and contribute to society through its core businesses. Embracing a corporate philosophy of contributing to society as the ultimate objective of its corporate activities, Toray Industries, Inc. has worked to foster social development since its founding. The Group's Corporate Missions were set out in 1995 and include "For society: To establish ties and develop mutual trust as a responsible corporate citizen." Social contribution activities were included in Toray Group's CSR Guidelines established in 2004, and these activities have been a part of the Group's CSR activities ever since.

Today, the Group is working to achieve the Toray Group Sustainability Vision, which calls for solving social issues by expanding its Sustainability Innovation Business. These efforts are driven by the Medium-Term Management Program, Project AP-G 2025, and the Long-Term Corporate Vision, TORAY VISION 2030.

While contributing to society through these business activities, the Group also aims with its CSR Roadmap 2025 to promote social contribution activities uniquely suited to the Toray Group as a materials manufacturer and to implement activities that help solve global issues such as those addressed by the United Nations Sustainable Development Goals (SDGs).¹ The focus for these social contribution activities has been set on three priority areas, namely "science and technology promotion," "environment and communities," and "health and welfare." As indicated in the Toray Group Sustainability Vision, the Group works to increase people's interest in the environment. Toward this end, Toray develops educational support activities in such areas as science, the environment, and career education. The Group contributes to the development of future generations and actively supports the improvement and development of science and technology and promotion of science education through the activities of Toray science foundations around the world.

Established by resolution of the Board of Directors, the Toray Group Social Initiative Policies state, "Using company awards and other measures, we will create a culture that encourages employees to participate in society in constructive ways such as engaging in voluntary activities with an eye to local needs." Accordingly, employees who wish to engage in volunteer work may take advantage of internal support systems such as absence from work and leave. Those who engage in volunteer activities are also eligible for special awards presented by each business site and plant. In fiscal 2022, awards were presented to the department that most actively promoted social contribution activities, employees who donated blood more than 30 times, and an employee who coaches a local youth soccer team.

¹ The Sustainable Development Goals (SDGs) were adopted in September 2015 at the UN Sustainable Development Summit attended by more than 150 Heads of State. These 17 goals and 169 targets are worldwide objectives to be reached by 2030.

Related Policies

Toray Group Social Initiative Policies Revised Sep 2020

- 1. Based on its Corporate Philosophy of "Contributing to society through the creation of new value with innovative ideas, technologies, and products," we will contribute to sustainable development of local and global society as a good corporate citizen, while continuously supporting social initiatives among employees.
- 2. We will pursue original programs dedicated to the improvement of social welfare in local communities, international exchange through traditional culture, sports promotion, and especially the advancement of science.
- 3. Using company awards and other measures, we will create a culture that encourages employees to participate in society in constructive ways such as engaging in voluntary activities with an eye to local needs.
- 4. We will examine all marketing and advertising activities from the perspective of social contribution before finalizing them.

Priority Areas for Social Contribution



Science and Technology Promotion: Toray Group strives to live up to its corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products” by providing innovative technologies and advanced materials. The Group is committed to taking on the challenge of innovation across all of its corporate activities. That is why the Group must develop and retain human resources who can generate this continual innovation. Also, via the Toray science foundations around the world, the Group is providing research grants, promoting science education, and fostering public interest in science, looking to make a long-term contribution.

Environment and Communities: Toray Group is pursuing the Sustainability Innovation Business that help solve global issues relating to the environment, resources and energy. Utilizing its expertise and human resources, the Group is continuously engaged in environmental conservation activities while collaborating with local communities.

Health and Welfare: Toray Group’s Sustainability Innovation Business contribute to better medical care and longevity, foster public health, and support personal safety. To help build a world where people everywhere can live long, healthy lives, the Group promotes sports and cancer screening awareness. Individual business sites support education programs for children and social welfare initiatives.

Social Contribution and the Sustainable Development Goals

Toray Industries has from the beginning engaged in corporate activities with the ultimate purpose of contributing to society, viewing itself as a public entity. The Company considers the growth of its business as an indication that it has earned the recognition and support of society as a corporation that is endeavoring to practice its philosophy of contributing to society.

In 1955, Toray Industries established the company principle that “Toyo Rayon contributes to communities” as an explicit statement of its founding principles. From around that time, everyone at Toray Industries, from management to employees, began pursuing diverse initiatives to realize the philosophy of contributing to society. These activities ranged from making donations to various organizations and institutions, providing humanitarian assistance and financial aid to disaster-stricken areas, and inviting students to visit Toray’s manufacturing sites and providing them with informational materials.

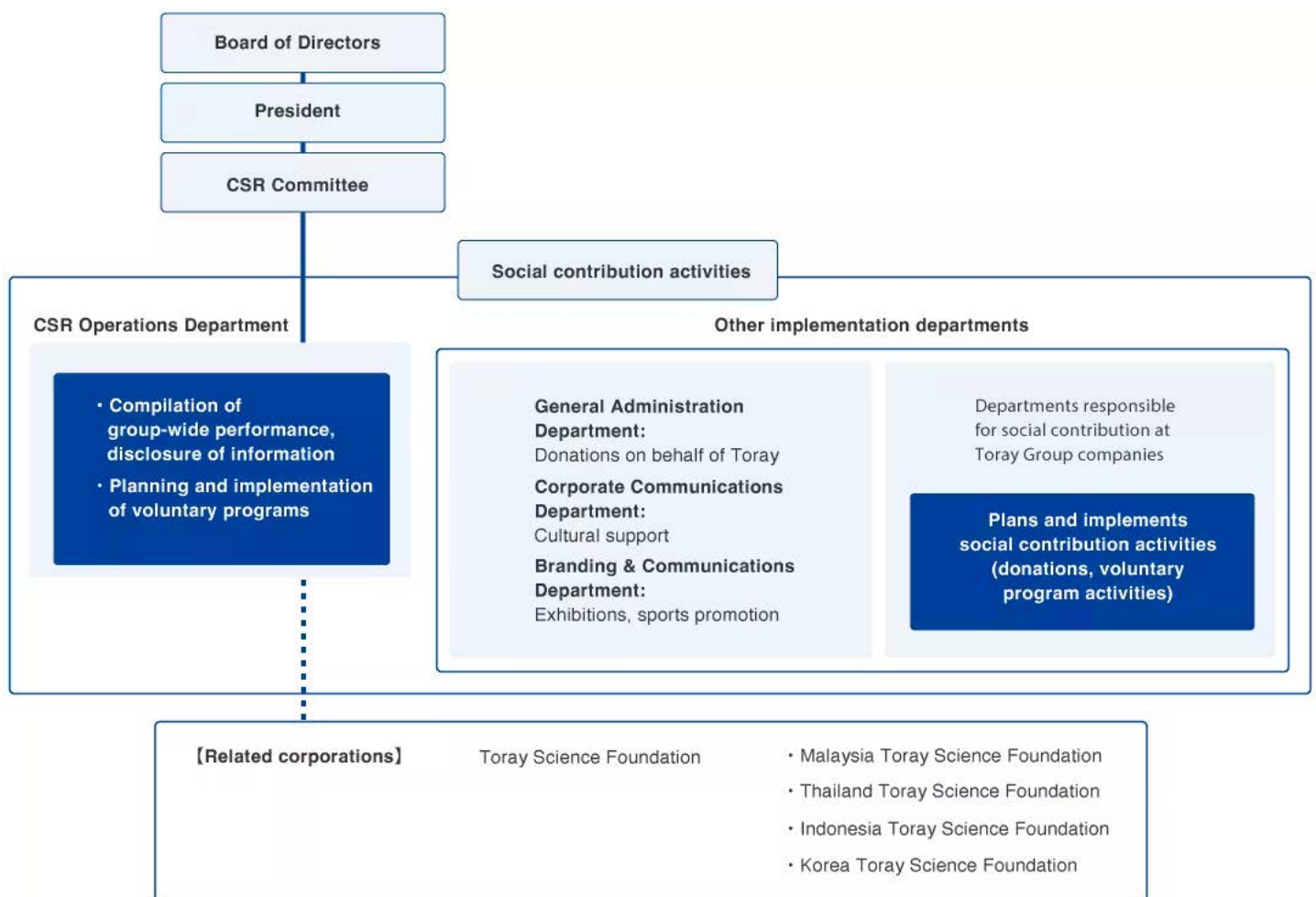
In 1986, Toray Industries established the corporate philosophy of “Contributing to society through the creation of new value with innovative ideas, technologies and products,” which carries on the core concept of the previous company principle. Toray Group pursues this corporate philosophy by emphasizing the social contributions of its businesses in making business decisions. The Group considers every aspect of its corporate conduct and the conduct of its employees through the lens of contributing to society. It is for this reason that Toray Group’s core businesses naturally align with the United Nations Sustainable Development Goals (SDGs), whose themes include resolving global environmental issues and contributing to health and longevity.

While the SDGs have recently become the focus of international development efforts, Toray Group has been working since the beginning to resolve global social issues like these, as it strives to live up to its corporate philosophy.

Structure

Since April 2012, Toray Industries has positioned the CSR Operations Department as a specialized department focusing on social contribution activities. The department is responsible for planning and promoting its own voluntary programs implemented independently, as well as aggregating CSR performance across Toray Group. Policy related to CSR activities and major CSR initiatives are discussed by the CSR Committee. Policy is communicated to Toray Group sites in and outside Japan through CSR discussion meetings held with each company and department, as well as at meetings attended by representatives from each country where the Group operates outside Japan that are held to promote activities suitable for the particular circumstances of each country and company.

Social Contribution Activities Operational Structure



CSR Roadmap 2022 Targets

CSR Roadmap goals

1. As a member of society, implement social contribution activities that help to solve the global issues addressed by the SDGs and other initiatives
2. Voluntarily and continuously engage in the priority areas of “science and technology promotion,” “environment and communities,” and “health and welfare”

Main Initiatives and Key Performance Indicators

	KPI
(1) Implement social contribution activities at the appropriate scale	10-①
(2) Actively engage in social contribution activities that are distinctive of Toray Group, focusing on science and technology promotion	-
(3) Promote social contribution activities in collaboration with stakeholders such as local communities and non-profit organizations	-
(4) Educate employees in Toray Group in order to instill the significance of social contribution, and encourage each site to continually participate voluntarily and actively in social contribution activities	10-②
(5) Develop a wide range of educational support activities such as sending employees to teach science, environmental, and career education classes at schools	10-③
(6) Support the improvement and development of science and technology and the promotion of science education through the activities of Toray science foundations in and outside Japan	-
(7) Share information with internal and external stakeholders on Toray Group’s social contribution activities via websites and other means	-

Key Performance Indicator (KPI)	Target			Fiscal 2022 Result
	Fiscal 2020	Fiscal 2021	Fiscal 2022	
10-① Social contribution expenditure (% change from average expenditure over last six years)	100% or higher	100% or higher	100% or higher	113%
10-② Social contribution activities (number)	2,500 or more	2,500 or more	2,500 or more	1,952
10-③ Beneficiaries of educational support activities such as science classes for schools and career education (number)	15,000 or more	15,000 or more	15,000 or more	15,730

Reporting scope : Toray Group

Related Materiality for CSR

- Developing in Collaboration with Stakeholders

* Click [here](#) for the Materiality View of CSR Roadmap 2025 (PDF:392.4KB).

[PDF](#)

Looking to the Future

Toray Group was founded with a commitment to contribute to society. With the CSR Roadmap 2022, the Group worked to build relationships of trust with local communities by taking initiatives in the priority areas of “science and technology promotion,” “environment and communities,” and “health and welfare.” The unprecedented circumstances, however, presented by the COVID-19 pandemic limited the implementation of the Group’s regular social contribution activities. With the CSR Roadmap 2025, the Group reinstates its designated scale of social contribution activities over the long term and continues to voluntarily implement its ongoing efforts, while educating Group employees to promote an understanding of the significance of contributing to society. As a good corporate citizen, Toray will continue to actively participate in and contribute to the development of society and local communities.

Click [here](#) for the main initiatives and KPIs for CSR Guideline No. 10 “Social Contribution Activities as a Good Corporate Citizen” during the CSR Roadmap 2025 period (fiscal 2023–2025).

[PDF](#)

CSR Activity Report (CSR Guideline Activity Reports) - Social Contribution Activities as a Good Corporate Citizen

Fiscal 2022 Results (Data edition)

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(4)(5)(6)(7)

Social contribution expenditure (% change from average expenditure over last six years)

■Reporting scope ■Target in fiscal 2022
Toray Group 100% or higher

Result in fiscal 2022

113%

Social contribution activities (number)

■Reporting scope ■Target in fiscal 2022
Toray Group 2,500 or more

Result in fiscal 2022

1,952

Beneficiaries of educational support activities such as science classes for schools and career education (number)

■Reporting scope ■Target in fiscal 2022
Toray Group 15,000 or more

Result in fiscal 2022

15,730

As a good corporate citizen, Toray Group is helping to promote the sustainable development of local and international communities based on its corporate philosophy. The Group also supports the social contribution activities of its employees under the Toray Group Social Initiative Policies.

The CSR Roadmap 2022 sets KPIs for social contribution expenditures, such as donations and personnel expenses associated with social contribution activities, and Toray Group maintains initiatives at the designated scale. Consolidated social contribution expenditures in fiscal 2022 were 1.86 billion yen, while such expenditures were approximately 1.07 billion yen at Toray Industries alone. This figure is 113% of average expenditures over the last six years (fiscal 2016-2021, 1.64 billion yen), surpassing the target of 100% or higher set in the CSR Roadmap 2022.

In fiscal 2022, the main beneficiaries were Toray Science Foundation, Toray science foundations in Malaysia, Thailand, Indonesia, and the Republic of Korea, and sponsorship of the Shanghai International Marathon. In fiscal 2022, Toray Industries Inc., on behalf of Toray Group, donated approximately 220million yen to Toray Science Foundation. Toray Group companies outside Japan donated approximately 260 million yen to Toray science foundations around the world.

In its CSR Roadmap 2022, Toray Group sets KPIs for the number of social contribution activities to be implemented in order to ensure that the Group continues to actively contribute to society. In addition, the roadmap sets KPIs for the number of beneficiaries of educational support activities, such as science classes for schools and career education, with the aim of developing a solid educational support program, which has been a long-term Toray Group focus.

The number of social contribution activities implemented in fiscal 2022 was 1,952, short of the target of 2,500 or more.

Due to the prolonged impact of the COVID-19 pandemic, which led to restrictions on social activities both in and outside of Japan, the number of social contribution activities decreased over the three years (fiscal 2020 – fiscal 2022) of the CSR Roadmap 2022. While limiting social activities, the Group has identified regions and timeframes in which activities could be resumed in order to gradually increase its social contribution activities. This resulted in a greater number of activities implemented in fiscal 2022 than in fiscal 2020 (1,625) and fiscal 2021 (1,710), although these activities did not return to pre-pandemic numbers.

With the number of COVID-19 cases declining, the beneficiaries of educational support activities numbered 15,730 (4,399 more than the previous year), higher than the Group target of 15,000 or more. This was due to the return of Toray science classes for schools and plant tours in various locations.

Related Information

> [Toray Science Foundations around the World](#)

Breakdown of Expenditure in Fiscal 2022

Culture, art, and other

8 %

Environment, communities

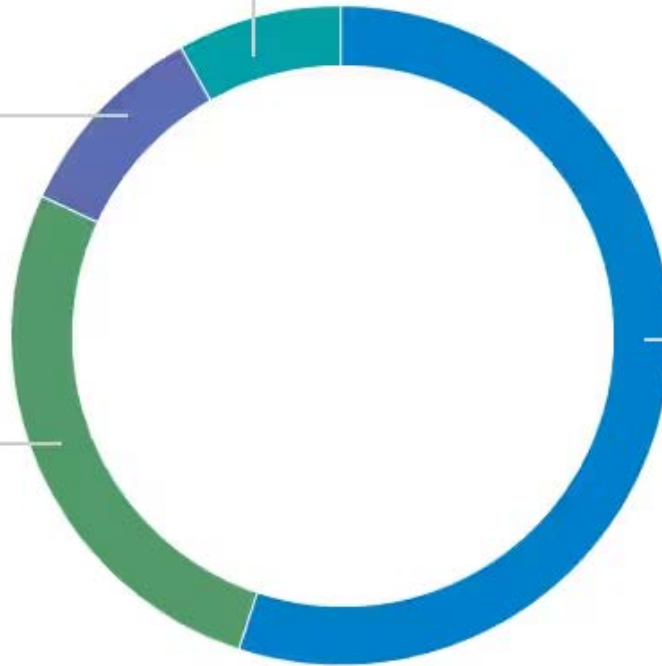
10 %

Health, welfare, sports

27 %

Academics,
science research,
education

55 %



Click [here](#) for the main initiatives for CSR Guideline 10, "Social Contribution Activities as a Good Corporate Citizen" in CSR Roadmap 2022.

CSR Activity Report (CSR Guideline Activity Reports) - Social Contribution Activities as a Good Corporate Citizen

Activities Carried Out in Fiscal 2022

Toray Group's Educational Support Activities

CSR Roadmap 2022
Main Initiatives (1)(2)(3)(4)(5)(7)



Toray Group conducts educational support activities to guide those who will become the leaders of a sustainable world. These activities include science and environmental programs to spark more interest in science among elementary and junior high school students, as well as career education and Toray plant tours.

Supporting Science Education in Schools (Sending Employees to Teach Classes, Providing Educational Materials)

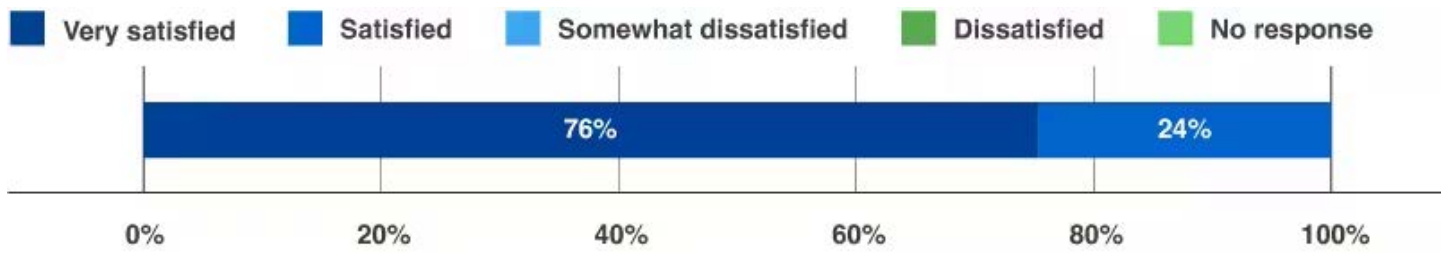
In order to raise awareness of the environment and interest in the sciences, Toray Group has developed environmental education and science experiment programs that employ some of its products. Delivering these programs, Toray Group employees teach classes at local elementary, junior and senior high schools. In fiscal 2020 and 2021, in-person classes conducted by Toray instructors at schools were limited by strict measures to prevent the spread of COVID-19. In fiscal 2022 however, as the general number of cases decreased, the Group expanded its science classes for schools while maintaining an adequate level of pandemic safety measures.

The teachers who hosted school visits by Toray instructors completed a survey, which revealed an extremely high level of satisfaction with the program. One teacher noted that during the pandemic, it was not possible to invite guest instructors, so the students and teachers really looked forward to the Toray science class. The same teacher said that, as a working member of society, the lesson's message resonated. Another host teacher indicated that the Toray instructor explained not only advanced materials but also the nature of their work, and many students remained engaged and asked questions after the lesson. A third teacher noted that it is difficult for teachers to educate their students about real-world efforts to help achieve the SDGs, so the lesson was a valuable learning opportunity. A similar survey of Toray employees who taught classes at schools revealed that they were extremely satisfied with the program. They indicated that it increased their motivation and provided a good opportunity to renew their appreciation of Toray Group initiatives.

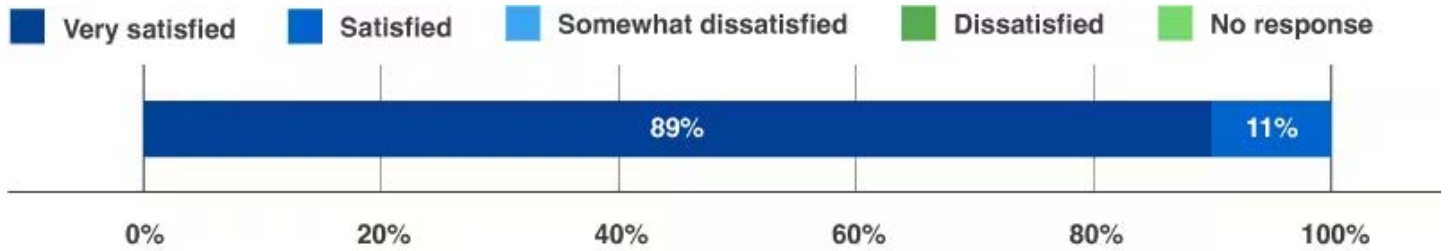
The Group also provided teaching materials and lent laboratory equipment made with Toray advanced materials to 58 elementary, junior high, and senior high schools across Japan that the Group was unable to visit, for their use in lessons on science, chemistry, and the SDGs. Toray's educational programs have been well received by many teachers for the fact that they help students understand through experiments how science and technology contribute to solving global environment problems.

Results of Questionnaire on Science Classes and Teaching Materials Provided by Toray Group

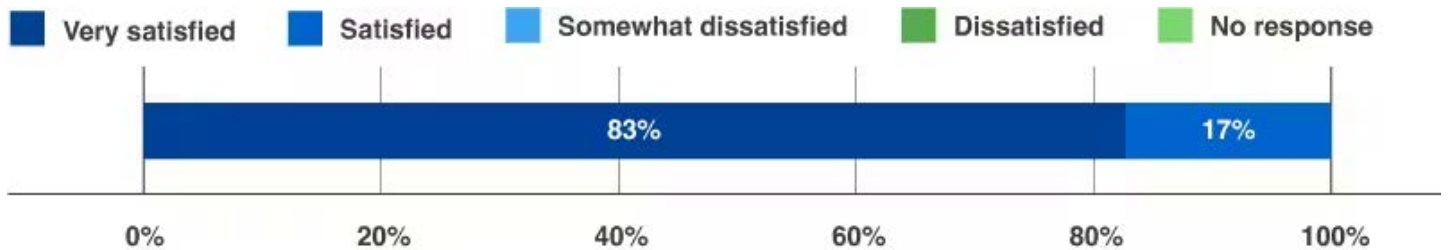
Satisfaction level among teachers



Satisfaction level among Toray Group instructors



Satisfaction with classes using materials provided by Toray



Education Support Activities for Career Education, Company Tours, and Other Programs

In addition to science experiment lessons and environmental education programs, Toray Group collaborates on career education and hosts office and plant tours in response to requests from local schools, boards of education, and non-profit organizations. Along with lessons that feature Toray Group's SDG initiatives, Toray Industries provided career-related talks to junior high and high school students by explaining job descriptions at Toray. The instructors also shared stories from their own school days, and covered other topics that would be useful for students when considering their future career paths. The company also welcomed local elementary, junior high, and senior high school students for company visits and plant tours. The use of web-based tools also expanded, and the company assisted junior high and senior high school students in their exploratory learning and career interviews. Among group companies in Japan, Toray Research Center Inc. collaborated with an active learning program at a technical college, providing online lectures and technical advice for group work. Other group companies in Japan carried out a range of activities such as career-related talks and plant tours for young people.

Group companies outside Japan also give career-related talks and plant tours to local students and provide education to foster awareness of safety, disaster prevention, and the environment. For example, in Malaysia, Toray Industries (Malaysia) Sdn. Bhd held a lecture on the current corporate culture of Japanese companies for university students studying business or the cultures of East Asian countries (Japan, South Korea, and China). Toray Textiles Central Europe s.r.o. in the Czech Republic also actively welcomed local students for plant tours.

The Toray Industries volleyball team, Toray Arrows, has been involved in supporting children's physical development through volleyball clinics and on-site instruction at elementary school physical education classes.



To help with exploratory learning programs at junior high schools in Tokyo, employees conducted face-to-face and online interviews with students. (Toray Industries, Inc.)



Local elementary school tour the Shiga Plant. The students asked many questions, such as, "What kind of things do you make at the plant?" and "What is your company concerned about when it comes to the environment?" (Toray Industries, Inc. Shiga Plant)



Plant tour for students from a nearby high school. After the tour, the students interacted with senior employees. (Toray Industries, Inc. Okazaki Plant)



Lecture event featuring women from the manufacturing industry, hosted by a nearby technical high school. The Toray employee spoke about her own experiences, including the nature of her work and its rewards. (Toray Industries, Inc. Okazaki Plant)



An educational event for elementary school students organized by Wanpaku Daigaku at a local community center. Toray employees helped students conduct filtration experiments using hollow fiber membranes in order to learn how to purify water. (Toray Industries, Inc. Nasu Plant)



Local high school students on a plant tour. The students also got a chance to actually see and touch products made from Toray materials, such as wigs and tennis rackets. (Toray Monofilament Co., Ltd.)



Career-related talk at a nearby junior high school. To help the students imagine their future careers, the Toray employee shared specific anecdotes about her work and how she approaches her job. (Toray Engineering Co., Ltd.)



Toray Group employee lectures on Japanese corporate culture. [Toray Industries (Malaysia) Sdn. Berhad]



Vocational talk at a local junior high school. The Toray employee talked about having a career as an athlete and the significance of work. (Toray Arrows men's volleyball team)



Volleyball clinic for a youth organization in Mishima City. Toray employees worked to bring out the individuality of each child while conveying the joy of volleyball. (Toray Arrows men's volleyball team)



In response to a request from the local board of education and the Shiga Prefecture Volleyball Association, the Toray Arrows women's volleyball team held volleyball classes at elementary schools. Through volleyball, growing children learned how to think and move their bodies, and promote teamwork. This involves not giving up, cooperating with each other, covering each other, and connecting. (Toray Arrows women's volleyball team)

Related Information

> [Developing the Next Generation of Talent](#)

Promoting Communication Between Education and Business Worlds

Through its participation in the Business Training for Japanese School Teachers program offered by the Keizai Koho Center, Toray Industries' Mishima Plant in Shizuoka Prefecture has welcomed some 10 teachers each year since 1994. The business-related training includes lectures on safety and environmental conservation at the plant, as well as a plant tour to provide an understanding of Toray's corporate activities as a manufacturer. Moreover, there are lectures and discussions on management and human resources development based on the approach that "The success or failure of a company is decided by its people—employees shape its destiny." The knowledge that these teachers gain allows them to help broaden their students' education.

(Toray Industries, Inc. Toray Human Resources Development Center, Mishima Plant)



Teacher Training

Workshops at the Science Museum

Since 2012, Toray Industries has been conducting two workshops, which use filtration experiments to examine the importance of the Earth's water, and the amazing properties of fibers, at the Science Museum located in Kitanomaru Park in Tokyo, every day that the museum is open. In fiscal 2022, approximately 6,300 people, from young children to adults, attended the workshops.

Supporting the Biology Olympiad

Since 2007, Toray Industries has helped to send students to the International Biology Olympiad (IBO) through the Japan Science Foundation. The Company's aim is to help develop the next generation of leaders in the life sciences. The 33rd IBO was hosted by Yerevan, Armenia. The four high school students chosen as the representatives for Japan all won medals (1 gold, 1 silver and 1 bronze medal, as well as an award of excellence).



The four students representing Japan and the local guide who assisted them during their stay (Photo courtesy of the Japan Biology Olympiad Committee)

Aozora Science School

Since 2015, Toray Industries has organized the Aozora Science School,¹ a hands-on learning program to foster children's interest in and an affinity for science by offering fun activities to learn about science in the natural environment. In fiscal 2022, 270 elementary school students, the largest number to date, participated in the program. The activities included a daytrip to an outdoor classroom at Okutama Field, on the site of a closed school in Okutama (greater Tokyo), as well as online classes that were popular the previous year.

In the outdoor classroom, the children learned about the wonder of trees by observing and experiencing the forest, while listening to a talk by a forest expert. They also created natural dyes using plants from the forest and made their own original model airplanes while learning how they fly and the characteristics of materials used to make them. By enjoying themselves in a thriving natural habitat, the students learned about the importance of protecting the richness of life on land, which is one of the SDGs, and the fact that forests are also connected to the rich ecosystems of the ocean. Aozora Science School helps students realize the importance of creating a sustainable world, while also helping them develop a love for science.

In the online classroom, students learned using experiment kits sent to them in advance. In addition to learning about the wonder of trees with the kit, they also conducted a "water dance experiment," which was popular the previous year. This involved dripping water on a Toray water-repellent textile and observing how water drops roll around on the fabric surface. There was also a "seed plane experiment," in which they used knowledge about plant growth as inspiration to make model airplanes.

In both the outdoor and online classrooms, the children were full of questions and lively opinions. They demonstrated a high level of awareness, a natural sense of wonder, and were amazed by their learning discoveries.

¹ Aozora Science School is a hands-on educational camp designed by Toray Industries, supervised by Leave a Nest Co., Ltd. and provided by JTB Corporation.



Learning about the wonder of trees from a forest expert





Students participating online



Smiling participants gather outdoors.

Related Information

- > [Aozora Science School official website \(Japanese site\)](#) 
- > [Aozora Science School Facebook page \(Japanese site\)](#) 

Toray Science Foundations around the World

CSR Roadmap 2022
Main Initiatives (1)(2)(6)(7)



Toray Group has outlined a corporate philosophy of “contributing to society through the creation of new value with innovative ideas, technologies and products,” which the Group delivers on by practicing innovation. In order to continuously deliver innovation, the Group must secure and develop talented human resources. For this reason, the Group takes a long-term perspective on human resource development. One way it does this is by contributing to the promotion and support of basic science and science education in society, which is one of the main social contribution activities of the Group, through the activities of Toray Science Foundation and Toray science foundations in Malaysia, Indonesia, Thailand, and the Republic of Korea.

Related Information

> [Toray Science Foundations around the World](#)

Toray Science Foundation

Toray Science Foundation was established way back in 1960 to help advance science, technology and culture. The Foundation created quite a stir when it was first established, as it was a pioneering foundation of its kind, and its activities continue to win high praise today. Its support activities include grants and prizes in the fields of basic science and science education that are offered by no other similar organizations. The Foundation celebrated the 60th anniversary of its founding in June 2020.

60th Anniversary Event and 2022 Presentation Ceremony

In February 2023, the Toray Science Foundation chose the latest recipients of the 63rd Toray Science and Technology Prizes, Toray Science and Technology Grants and the 54th Toray Science Education Prizes. In March 2023, in addition to the 2022 presentation ceremony, a 60th anniversary commemorative event was also held, after being postponed in an effort to prevent the spread of COVID-19 infections. At the 60th anniversary event, congratulatory speeches were made by Kyoto University professors Dr. Tasuku Honjo and Dr. Shinya Yamanaka, who are both Nobel Prize winners and previous recipients of Toray Science and Technology Grants. At the presentation ceremony, the Minister of Education, Culture, Sports, Science and Technology and the President of the Japan Academy gave congratulatory remarks. Toray Science and Technology Prizes were awarded to Dr. Toshio Ando (Distinguished Professor, Kanazawa University) and Dr. Ikue Mori (Director and Professor, Neuroscience Institute, Graduate School of Science, Nagoya University). They and the science educators who were awarded Toray Science Education Prizes, including the Minister of Education, Culture, Sports, Science and Technology Prize, received certificates, medals, and prize money. Grants totaling 130 million yen were awarded to 11 recipients of Science and Technology Grants.



Speech by Toray Industries President and Toray Science Foundation Chairman Akihiro Nikkaku



Dr. Tasuku Honjo (left, pre-recorded video) and Dr. Shinya Yamanaka (right, online) gave congratulatory speeches at the anniversary event.



Presentation ceremony



Dr. Toshio Ando

Development of high-speed atomic force microscopy and its application to protein research

Dr. Ando developed a high-speed atomic force microscope and succeeded in capturing video images of the movements of individual proteins and their interactions with other molecules. This achievement has been globally acclaimed as contributing an essential technology for biophysical research at the molecular level of proteins and nucleic acids.



Dr. Ikue Mori

Fundamental principles of the neural circuit regulating animal behavior

Using *C. elegans*, Dr. Mori clarified the operating principles of animal neural circuits and information processing from sensory input to behavioral output and constructed mathematical modeling of neural circuit activity. This achievement has been recognized internationally and has become an important foundation for current brain science research.

Junior and senior high school science education is a particular focus of the Toray Science Foundation. Mr. Takahiro Suzuki, a teacher at Otsuma Ranzan Junior and Senior High School, received the Toray Science Education Award in the name of the Minister of Education, Culture, Sports, Science and Technology. This award recognizes teachers who have achieved remarkable educational results through creativity and ingenuity.



Mr. Takahiro Suzuki

Brass plating method for beautiful copper plates using aluminum foil and surfactants

Mr. Suzuki succeeded in creating beautiful brass plating on a copper plate by employing a unique method using aluminum foil and surfactants. The method can be used as an excellent and safe plating experiment and has been recognized as an outstanding teaching tool.

Related Information

> [Toray Science Foundation](#) 

Malaysia Toray Science Foundation (MTSF)

In November 2022, MTSF held the 29th Malaysia Toray Science Foundation Presentation Ceremony in Kuala Lumpur. MTSF awarded a total of 341,000 ringgit (equivalent to approx. 10.38 million yen) in prize money and grants to a total of 30 Malaysian recipients, including two scientists, 13 young researchers, and 15 science educators.

It was the first in-person Presentation Ceremony in three years and was hosted by MTSF Chairman Omar and Teh Hock Soon, Chief Representative for Malaysia. Katsuhiko Takahashi, Japanese Ambassador to Malaysia, and Hideki Hirabayashi, Senior Vice President at Toray Industries, were also in attendance.

In his congratulatory speech, Ambassador Takahashi warmly congratulated the award recipients and praised MTSF for its significant contribution to the development of science and technology in Malaysia over the past 29 years. Senior Vice President Hirabayashi also gave an address on behalf of President Nikkaku, who is honorary chairman of MTSF. He talked about how the COVID-19 pandemic has rapidly changed people's lives; reminded the audience of the importance of continual innovation; and expressed his belief that science, technology, and innovation will continue to be important for the well-being and long-term survival of humankind.



Senior Vice President Hirabayashi giving his congratulatory speech



Commemorative photo with award winners

Related Information

> [Malaysia Toray Science Foundation](#) 

Indonesia Toray Science Foundation (ITSF)

The 29th Indonesia Toray Science Foundation Presentation Ceremony was held in March 2023. ITSF awarded one Science and Technology Prize, 18 Science and Technology Research Grants, and 10 Science Education Prizes totaling 1.055 billion rupiah (equivalent to approx. 9.5 million yen).

Mitsuo Ohya, Executive Vice President at Toray Industries, was in attendance, and the event began with an address from ITSF Chairman Dr. Laksana Tri Handoko, who also serves as Chairman of Indonesia's National Research and Innovation Agency. Congratulatory video messages were presented from Kenji Kanasugi, the Japanese ambassador to Indonesia, and Nadiem Makarim, Indonesia's Minister of Education, Culture, Research, and Technology.



Mitsuo Ohya, Executive Vice President at Toray Industries, delivering a congratulatory address



Commemorative photo with award winners

Related Information

> [Indonesia Toray Science Foundation](#) 

Thailand Toray Science Foundation (TTSF)

The 29th Thailand Toray Science Foundation Presentation Ceremony was held in March 2023. TTSF awarded two Science and Technology Prizes, 20 Science and Technology Research Grants, and seven Science Education Prizes totaling 5.42 million baht (equivalent to approx. 20.81 million yen) in prize money and grants.

At the Presentation Ceremony, Toray Industries President and TTSF Honorary Chairman Akihiro Nikkaku delivered a congratulatory message to the award winners and expressed his support for the promotion of science and technology in Thailand through TTSF's activities. He expressed his desire for TTSF to contribute to the country's development and to work with the Thai people to help realize a more sustainable world. As guest of honor, Japanese Ambassador to Thailand Kazuya Nashida indicated that he was impressed by the efforts of the TTSF over the past 29 years. The ceremony concluded with a speech from the President of the Privy Council, General Surayud Chulanont, who, as the Chairman of the Ceremony Committee, expressed his deep appreciation for Toray's business activities in Thailand over the years and for TTSF's contribution to the development of science and technology in Thailand.



Toray Industries President and TTSF Honorary Chairman Akihiro Nikkaku presents his remarks.



Commemorative photo of Science and Technology Prize winners

Related Information

> [Thailand Toray Science Foundation](#) 

Korea Toray Science Foundation (KTSF)

The 5th Korea Toray Science Foundation Presentation Ceremony was held in October 2022. KTSF awarded Science and Technology Prizes to two researchers for their outstanding research results and three-year Research Fund Grants to four young researchers to pursue new research projects. For the first time in three years, the invitees included award winners and their families, as well as politicians, academics, and business partner representatives from in and outside of South Korea. The event was a great success, and included a special lecture by Dr. Morinobu Endo, special honorary professor of Shinshu University, entitled “Material innovation through creative cooperation between Korea and Japan.” Ryoji Noyori, Outside Director at Toray Industries, sent a video message from Japan to congratulate the award winners. He emphasized the importance of collaboration among young researchers and engineers for solving problems facing humankind, such as climate change and energy resource depletion. Toray Industries President Akihiro Nikkaku attended the ceremony in person and gave the welcome address. He expressed his hope that the Foundation will help promote science and technology and nurture scientists and contribute to mutual understanding, friendship and goodwill between the Republic of Korea and Japan.



Toray Industries President and KTSF Honorary Chairman Akihiro Nikkaku gives his speech.



Commemorative photo with award winners

Related Information

> [Korea Toray Science Foundation](#) 



In addition to implementing initiatives to conserve the environment around its production sites, Toray Group companies collaborate with non-profits and municipal governments on ongoing efforts to clean up rivers and shorelines and maintain forests.

7th Toray Group Arakawa Clean Aid

Since 2014, the Toray Industries Tokyo Head Office has partnered with the non-profit Arakawa Clean Aid Forum to hold the Toray Group Arakawa Clean Aid event. This activity involves cleaning up litter along the banks of the Arakawa River, while learning about the impact of rubbish in rivers on the global environment and local ecosystems. However, this activity is not just about picking up trash, but rather gathering and identifying each piece of litter by type on a River Rubbish Survey Card, and then sorting it accordingly. Before the day of the clean-up, participants attended an environmental lecture by the Arakawa Clean Aid Forum. By learning about the current situation for river and marine debris, the impact of garbage on living things, and how living things are connected to our lives, the participants realized the significance of clean-up activities and became more interested in the nature and biodiversity around them. This event is a meaningful way to learn how the problem of plastic waste is connected to our daily lives. At the 7th Arakawa Clean Aid event held in April 2023, 46 participants, including Toray Group employees and their families, carried out clean-up work. During the one-hour activity, they picked up a total of 68 bags of trash (approx. 110 kg), including 27 bags of combustible garbage, one bag of non-combustible garbage, 26 bags of plastic bottles, and 14 bags of cans and bottles. In a questionnaire filled out after the event, the participants expressed their positive feelings about the experience. Comments included: “By participating in the Arakawa clean-up activity after attending the environmental lecture, I gained a more concrete appreciation of the issue,” “I think those who participated in this activity will never litter again,” “I felt a sense of accomplishment when I saw the number of garbage bags we had filled,” and “The children really enjoyed the nature observation activity.”



Plastic bottles and other waste were easy to find.



The nature observation activity enabled participants to observe the various types of crabs that live in the Arakawa River and to think about the importance of preserving biodiversity.



An abundance of microplastics were particularly noticeable during the clean-up.



Group photo of the clean-up participants

Biodiversity Conservation Activities in Green Spaces at Toray Facilities

The Tokai Plant of Toray Industries is promoting activities based on the Toray Group Greening Guidelines in order to maintain and nurture the green space that it has preserved since the start of operations in 1971. The plant's activities include working to protect the rare southern Japanese rice fish (*Oryzias latipes*) that lives in a waterside biotope created on the facility grounds. Employees are also focused on protecting an herbaceous plant called Fujibakama (*Eupatorium japonicum*), as it helps provide a network of ecosystems for the chestnut tiger butterfly (*Parantica sita*), a member of the Danaini subfamily. Based on a deep awareness of the importance of social contribution, the Tokai Plant is expanding its initiatives for biodiversity conservation and ecosystem preservation. As part of these efforts, the plant joined Project Linking Life with One Another,² which aims to form an ecological network of corporate greenbelts along the coast of the Chita Peninsula and foster the next generation of leadership. The project works with students, companies, government agencies, and experts from the local community to engage in activities that promote the coexistence of people and nature and the preservation of biodiversity. The plant is working to develop human resources using its green space, such as giving students access to these spaces for environmental research fieldwork. This also plays an important role as a tool for communicating with the local community. In September 2022, the plant participated in an event called LOVE! GREEN DAY 2022, sponsored by the Project Linking Life with One Another, which allows the public to experience the green spaces of participating companies. The facility welcomed local elementary school students and their parents, who participated in fieldwork activities such as observing living things in the waterside biotope, becoming familiar with the plant's biodiversity initiatives, and learning about the problem of the invasive species, Moso bamboo. The participants were also shown how to make water guns using bamboo that had been removed from the ecosystem. In a survey conducted after the event, the participants provided positive comments such as "Knowing that many companies on the Chita Peninsula are actively protecting the environment makes me feel good about living here" and "I was surprised to see that nature and living creatures are being nurtured with such care on a factory's property." Additionally, the Tokai Plant has been recognized for the purposes its green space activities serve, which are to conserve biodiversity and help develop the next generation of human resources. The plant was certified as Excellent Stage 2 in the MOU (Maintenance, Operation and Utilization) category of the Social and Environmental Green Evaluation System³ (SEGES), a green certification program provided by Japan's Organization for Landscape and Urban Green Infrastructure.

Furthermore, Aichi Prefecture, where the Tokai Plant is located, adopted the Aichi Biodiversity Strategy 2030 in February 2021. This strategy aims to promote initiatives related to biodiversity conservation through collaboration among a variety of entities such as companies, universities, environmental organizations, and government agencies. Companies are expected to play a central role in local communities by contributing to biodiversity conservation through activities such as developing biotopes on company premises and having employees participate in conservation activities. Therefore, in order to promote corporate initiatives related to biodiversity conservation, in 2022, Aichi Prefecture established the Aichi Biodiversity Company Certification Program to recognize companies that are implementing outstanding initiatives in this area. The Tokai Plant is collaborating with university students to conserve the rare southern Japanese rice fish that lives in the plant biotope, along with an herbaceous plant Fujibakama that helps provide a network of ecosystems for the chestnut tiger butterfly. As a result, Toray Industries has been recognized as an Aichi Biodiversity Certified Company.



LOVE! GREEN DAY 2022 participants



Participants making water guns using the invasive species Moso bamboo during LOVE! GREEN DAY 2022



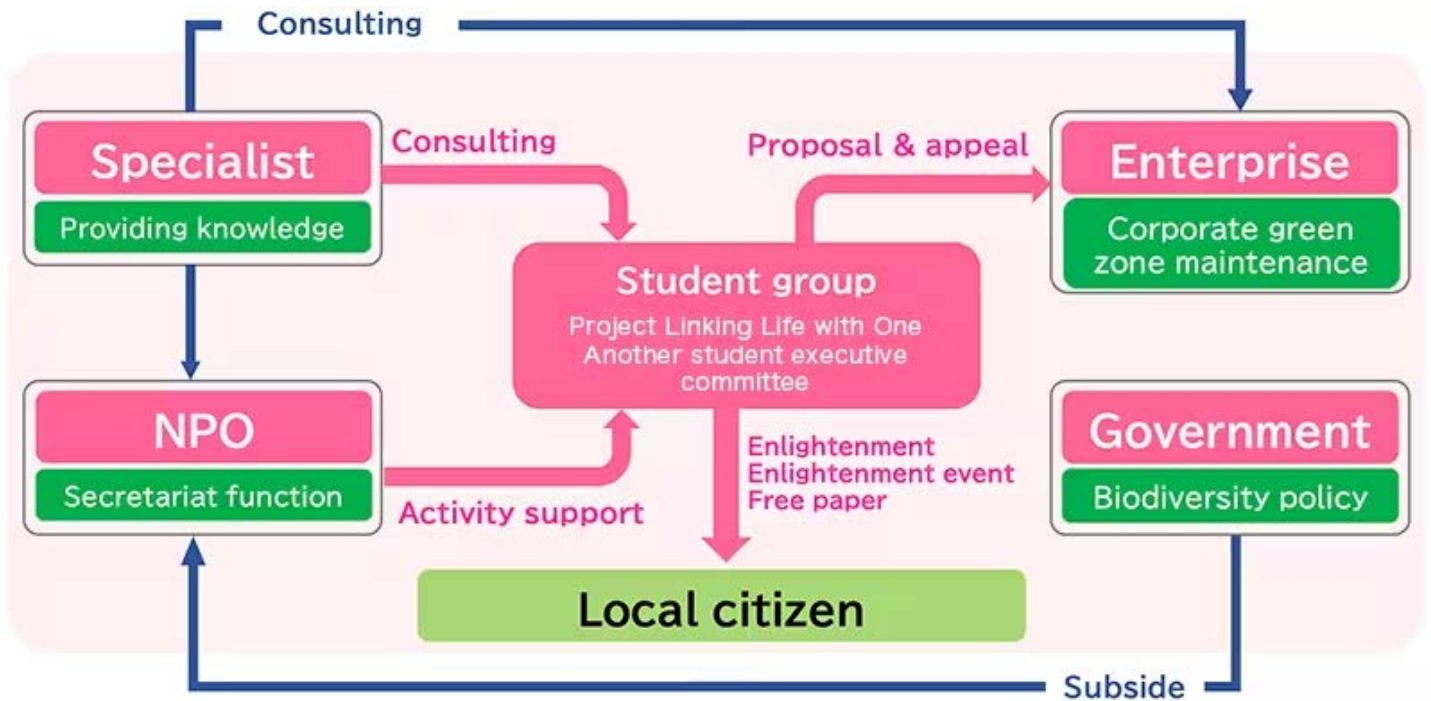
SEGES Excellent Stage 2 certification



Aichi Biodiversity Certified Company logo

2 A project based primarily in the corporate greenbelt along the coast of the Chita Peninsula that aims to form a network of ecosystems and nurture the next generation of leadership. Led by the student members of the Project Linking Life with One Another student executive committee, the project involves the collaboration of 12 companies, local government agencies, non-profit organizations, and experts who work together on a variety of activities to boost biodiversity in corporate green spaces and raise environmental awareness among local residents. The Project Linking Life with One Another student executive committee received the Prime Minister's Award for the 2020 Greening Promotion Movement, which is awarded to individuals and groups that have made outstanding contributions to the greening promotion movement.

Conceptual schematic of Project Linking Life with One Another



3 The Social and Environmental Green Evaluation System (SEGES) evaluates and certifies outstanding corporate green space initiatives that contribute to society and the environment. These initiatives include daily activities and efforts to help alleviate global warming and the heat island phenomenon, as well as conservation of local ecosystems, preservation and creation of good landscapes, building relationships with local communities, and safe and secure urban development. After being evaluated by a third-party review committee, successful candidates are certified by the Organization for Landscape and Urban Green Infrastructure. SEGES consists of three categories. In the SEGES MOU (Maintenance, Operation and Utilization) category, companies are evaluated and certified for outstanding activities to create or conserve their own green spaces. In the SEGES PDC (Planning, Designing and Construction) category, companies are evaluated and certified for outstanding green space environmental planning relating to property development and construction. In the SEGES ESW (Environmental Friendliness, Safety and Well-Being) category, companies are evaluated and certified for their efforts to provide comfortable and safe urban green spaces. As of April 2023, 147 corporate green spaces have been certified.

Environmental Activities at Offices and Plants



Afforestation on the slopes of Mt. Fuji fores is being carried out through a joint labor-management activity in collaboration with the non-profit Mt. Fuji National Trust. The participants first attended a talk on the reasons why it is necessary to plant trees to get a better understanding of the importance of this activity. (Toray Industries, Inc. and Toray Worker's Union)



Employees conducted a clean-up activity along the Kanori River drainage canal near the plant. They performed the work in appreciation of the local people who support the plant on a daily basis. (Toray Industries, Inc. Okazaki Plant)



As part of a clean-up campaign, managers removed litter outside the facility. (Toray Industries, Inc. Ehime Plant)



On the anniversary of the death of Imai Kanehira (a famous Japanese military commander who died in 1184), employees cleaned up around the historic Yoroikake-no-Matsu pine tree (on the plant grounds) and at the commander's grave (offsite). (Toray Industries, Inc. Shiga Plant)



As a practical way to think globally and act locally, employees participated in the Love Earth Clean-up campaign, which was started by local citizens, companies, and government agencies working together. (Toray Industries, Inc. Kyushu Branch)



As part of efforts to welcome visitors to Osaka's Nakanoshima district and beautify the area, employees participated in a clean-up of the district's greenways and sidewalks, working together with other Nakanoshima Mitsui Building tenants, neighboring companies, and local residents. (Toray Alphart Co., Ltd.)



A beach clean-up event was held to help protect the local environment on California's coastline, where trash left behind by visitors or washed ashore by the tide has become a problem. (Toray Membrane USA, Inc.)



In collaboration with the Mexican city of El Salto, employees planted trees along an industrial road near the plant. Planting trees helps to stabilize temperatures in the area, promote rainwater absorption, and maintain water quantity and quality. In addition to enhancing the landscape, trees can also help with ecosystem conservation. (Toray Resin Mexico, S.A. de C.V.)



In collaboration with the Rotary Yoneyama Memorial Foundation, an organization that supports international students studying in Japan, employees conducted a clean-up activity along Karpal Singh Drive, a beach promenade on the east side of Penang Island. [Toray Group (Malaysia)]



Together with the Penang Green Council, the company held Toray &+™ Recycle Competition 2023 Penang, a plastic bottle recycling contest— for elementary and junior high school students in Penang state. [Toray Group (Malaysia)]



The company provided plant seeds to local organizations and community groups in Tangerang to support a local greening campaign, Go Green. (P.T. Indonesia Toray Synthetics)



In order to help reduce marine waste and protect natural resources on the Bang Pu coast, employees participated with government agencies, industrial organizations, and local residents in the Bang Pu Marine Conservation Project. [Toray Textiles (Thailand) Public Company Limited]





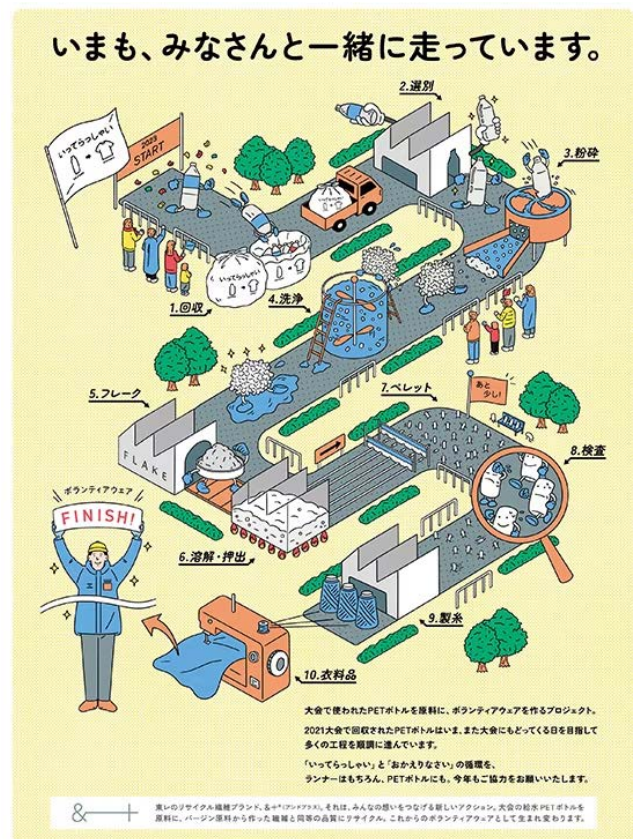
Sponsorship of the Tokyo Marathon and Initiatives for Sustainability

Toray Industries has sponsored the Tokyo Marathon since 2011 as a way to contribute to society through the promotion of sporting events.

The Tokyo Marathon also promotes sustainability initiatives as part of its activities. As an ongoing joint sustainability initiative with the Tokyo Marathon, Toray Industries provides its Ecodear™ plant-based polyester fiber to produce eco-friendly volunteer clothing, as well as carrier bags distributed to runners. At the Tokyo Marathon 2021, held in March 2022, a project was launched to recycle the PET plastic bottles from the water provided to runners on the day of the race for the purpose of making Toray's recycled fiber &+™ for the clothing distributed to marathon volunteers. The plastic bottles collected during the marathon are being turned into &+™ recycled fiber and upcycled as volunteer clothing for the Tokyo Marathon 2024.



Collecting plastic bottles that will be turned into volunteer clothing for future marathons.



東レは、素材で東京マラソン2023を応援しています。

Illustration from the official souvenir program depicts the Tokyo Marathon's &+™ recycling initiative.

Related Information

> &+™ (product site) 

> Realizing a Circular Economy

Promoting Sports Participation by Sponsoring the Shanghai Marathon

Toray Industries and Toray Industries (China) Co., Ltd. are helping to promote sports in China by sponsoring the Shanghai Marathon. The event is designated as a Platinum Label Road Race by World Athletics, a classification reserved for the leading road races around the world. Toray Group has sponsored the event since its second year and currently provides support as a Founding Sponsor, the highest level of sponsorship.

The 2022 Shanghai Marathon, the 26th such event, saw 18,000 participants run through the streets of Shanghai. The event was held with comprehensive COVID-19 prevention measures, including a requirement for all runners and staff to take a PCR test.



Runners at the start of the race



Medal ceremony for the men's full marathon. Toru Kutsuzawa, chairman of Toray Industries (China) Co., Ltd. (second from left), presented the medals.

Supporting Fureai Concerts

CSR Roadmap 2022
Main Initiatives (1)(3)(7)



To support culture, education, and welfare, Toray Industries co-sponsors Fureai Concerts. These concerts at venues across Japan, including elementary schools and social welfare facilities, bring music to the people through music instruction, concerts, and audience participation.

In fiscal 2022, Toray Industries marked the 20th year of these concerts with an invitation-only performance for people with disabilities, which is an annual part of the Fureai Concert program. Volunteers were on hand to assist attendees at the nearest train station and to help guide attendees inside the venue. The concert was thoroughly enjoyed by the many people who came.



Concert performance



Performers and volunteers

Community Contribution Activities as a Good Corporate Citizen

CSR Roadmap 2022
Main Initiatives (1)(3)(4)(7)



Based on the corporate philosophy of “contributing to society through the creation of new value with innovative ideas, technologies and products,” Toray Group contributes to society through its business activities, and in other ways as well.

As a good corporate citizen, the Group supports local Volleyball Clinic to Support Great East Japan Earthquake Recovery

Since 2013, the Tohoku Branch of Toray Industries has used volleyball as a means of providing support for local reconstruction efforts. In June 2022, a volleyball clinic was held for sixth graders at Yamotohigashi Elementary School in Higashi Matsushima City, Miyagi Prefecture. A former member of the Japanese national volleyball team and the Toray Arrows team, Kana Oyama, gave a talk to the sixth graders, and a practical training was provided by fellow former Arrows Azusa Futami, who now works at Toray Engineering Co., Ltd.

During the training, the students enjoyed creative games and practiced tosses and serves using soft volleyballs. The venue was filled with smiles and excited voices. During her talk, Kana Oyama skillfully conveyed to the students the importance of being considerate toward others and using the resulting positive feeling as a way to connect with them.



Ms. Oyama (left) and Ms. Futami (right) answer students' questions.

Support for Regions Flooded by Torrential Rains



To help support recovery after the heavy rains and flooding that occurred in Japan's Hokuriku and Tohoku regions in August 2022, Toray donated 500 units of its LIVMOA™ dust protective clothing, which is both dust-proof and breathable. The presentation was made in Nagai City, Yamagata Prefecture, where Suiki Technos, Ltd., a group company of Suido Kiko Kaisha, Ltd. was contracted to perform maintenance and management work. (Toray Industries, Inc, Suido Kiko Kaisha, Ltd.)

Support for Local Community Development



Toray Group donated a total of 100,000 yuan to a local charity association for community development in Nantong, China. This annual activity began in 2012 and the 11th such donation was made in fiscal 2022. (Five Toray Group companies in the Nantong area[China])



Toray provided Christmas presents for children in need through CASA for Kids' Voice, a volunteer group that advocates in court for children who have experienced abuse or neglect. (Toray Resin Co.)



Rice and cooking oil were donated to a local fire department to help with the establishment of a regional firefighting system. [Toray Plastics (Shenzhen) Ltd.]



Employees provided gifts to a small neighborhood school on Children's Day, expressing wishes for the health and happiness of the children. (Thai Toray Synthetics Co., Ltd.)



Employees make Braille cubes that were donated to Changemakers, a social welfare organization. The Braille cubes are used as teaching tools for visually impaired children that turn learning Braille into a fun game. The company conducts volunteer activities to support visually impaired children every year. (Toray Advanced Materials Korea Inc.)



The company donated experiment kits and other supplies and equipment to nearby schools to help support the education of local children. (Toray International India Private Limited)

Click [here](#) for the main initiatives for CSR Guideline 10, "Social Contribution Activities as a Good Corporate Citizen" in CSR Roadmap 2022.