



Toyota Industries Report 2011

Environmental Initiatives

| | |
|--|-----------|
| An Interview with the Chief Environmental Administrator | P 52 - 54 |
| Global Environmental Commitment | P 55 |
| Overview of the Fifth Environmental Action Plan | P 56 - 57 |
| Summary of the Fourth Environmental Action Plan | P 58 - 59 |
| Environmental Management | P 60 |
| Curbing Global Warming | P 61 - 62 |
| Resource Utilization / Reduction in Environmental Risk | P 63 |
| Environmental Communication | P 64 |
| Biodiversity | P 65 |
| TOPICS | P 66 |
| ■Environmental Data | |
| Business Activities and Their Environmental Impact / Trends in Environmental Performance | P 67 |
| Soil and Groundwater Pollution Countermeasures / Environmental Accounting and On-Site Verification | P 68 |



Masafumi Kato
Senior Managing Director

An Interview with the Chief
Environmental Administrator

Doing What We Can—Our Own Approach to “CO₂ Cancel” Was Born from That Desire

Having completed the Fourth Environmental Action Plan at the end of fiscal 2011, Toyota Industries has proceeded to renew its efforts under the new Fifth Environmental Action Plan, starting from fiscal 2012.

Many environmental problems, including global warming, are becoming even more serious, and companies are also required to work even harder to counter these problems. Amid such circumstances, we asked Masafumi Kato, Senior Managing Director and chief environmental administrator, to review what we have done and achieved under the Fourth Environmental Action Plan and how Toyota Industries will carry out environmental conservation activities through the new plan.

Looking Back on the Fourth Environmental Action Plan

Q Fiscal 2011 was the final year of the fourth plan (fiscal 2007 - fiscal 2011). How do you sum up the outcome of this five-year program?

Kato: The Fourth Environmental Action Plan placed strong emphasis on globalization and consolidated management, and we extended the scope of the plan to include both Toyota Industries and consolidated subsidiaries in and outside Japan. We successfully attained all the numerical targets set forth in the plan, and I believe that the activities in the past five years have allowed us to build a global foundation to tackle environmental issues.

Q What initiatives did efforts focus on during the five-year period?

Kato: In production activities, we have implemented a range of initiatives under the belief that reduced environmental impact directly results in lower costs.

First of all, we placed the highest priority on reducing CO₂ emissions. Over the course of five years, society's concerns regarding global warming have risen significantly, making CO₂ reduction essential for business activities.

To fulfill our responsibility, we formed a Company-wide cross-sectional committee to specifically handle issues related to the reduction of CO₂ emissions. While lowering CO₂ emissions by means of large-scale investments, we made Company-wide efforts to reduce energy loss by augmenting our internal ESCO* activities and raising awareness among employees to reduce waste. Through these activities, we achieved a marked improvement in this area.

On the product development front, we kept pace with the general trend toward eco-conscious products. By focusing on 3Es (energy, environmental protection and ecological thinking) and developing unique technologies that anticipate future needs, we successfully created products with excellent environmental performance.

In the automobile field, development efforts were devoted to reducing size and weight as well as improving the efficiency of our electric compressors, inverters and converters, which are major components of electric-powered vehicles such as hybrid vehicles (HVs) and electric vehicles (EVs). We also accelerated development of charging stands in order to contribute to the enhancement of a charging infrastructure, which

is vital to promoting greater use of electric-powered vehicles. In addition, we focused on lowering environmental impact by developing highly fuel-efficient, clean diesel engines that meet fuel-efficiency and emissions standards in Europe and other regions.

In the materials handling equipment field, we developed diesel-powered internal-combustion hybrid lift trucks with considerably lower fuel consumption and CO₂ emissions compared with conventional diesel-powered lift trucks, thereby achieving the world's top-class environmental performance. These hybrid lift trucks have already gained high market recognition as environment-conscious products. (For more details, see TOPICS on page 66.)

* ESCO stands for Energy Service Company. ESCO activities involve providing comprehensive services related to energy conservation and supporting energy conservation activities.

Environment-Related Issues in Society in the Future

Q The targets set forth in the fourth plan have been achieved. What will be the environment-related challenges in the future?

Kato: The growing world population is expected to have an increasingly negative impact on the global environment. Although the world is becoming steadily warmer, the international community still fails to take corrective actions and agree on the international targets for reducing CO₂ emissions other than those defined in the Kyoto Protocol. There are concerns regarding the depletion of natural resources, including water and rare earth metals, which are essential in manufacturing. Also, the loss of biodiversity is increasing as a result of what human beings have done to the natural environment. Companies must take these issues more seriously and take actions accordingly.

Toyota Industries' Response to These Issues

Q How should Toyota Industries address these issues?

Kato: In line with the global trend, greater efforts will be channeled into achieving a sustainable society. As a corporate citizen, Toyota Industries is pursuing manufacturing that emits less CO₂, uses less resources and places importance on caring for nature.

As a first step, we fully revised our Global Environmental Commitment and clearly defined basic policies in promoting this form of manufacturing and the direction that our activities should follow.

The revised commitment specifies four priority areas: a low-carbon emission society, a recycling-based society, a society in harmony with nature and promotion of environmental management. The first three are necessary to make a sustainable society a reality, while the fourth area forms the foundation for our activities in these three areas. Placing the highest priority on a low-carbon society to curb global warming, we will further reinforce our initiatives to reduce CO₂ emissions.

Q What changes will this trend toward a low-carbon society entail in Toyota Industries' major business fields?

Kato: Looking at the current automobile industry, vehicles that use gasoline and other fossil fuels are the mainstream. But the types of vehicles are diversifying, namely HVs, EVs, biofuel vehicles and fuel-cell vehicles. The markets for HVs and EVs, in particular, are growing rapidly and are expected to lead the entire automobile market over the medium term.

HVs and EVs have the potential to expand the role of vehicles. For example, an EV currently operates on electricity stored in its battery. In the future, the vehicle may store electricity and supply it to homes and offices. An automobile could become not only a means of transportation but also serve as an energy base.

In the materials handling equipment field, environmental response is also an important theme, as evidenced by an increase in the proportion of electric-powered lift trucks. The trend toward electrification is expected to continue.

Interviewers



Akio Yoshikane
Office Manager,
Environment Office,
Plant Engineering &
Environment Dept.



Yoshiaki Oda
Group Manager, Product
Environment Group,
Environment Office,
Plant Engineering &
Environment Dept.



Hideki Torii
Group Manager, Planning
Group, Environment
Office, Plant Engineering
& Environment Dept.



Yusuke Tsuji
Planning Group,
Environment Office,
Plant Engineering &
Environment Dept.



How should Toyota Industries contribute to a changing society?

Kato: Growth of the electric-powered vehicle market presents a great opportunity to expand our business in that we develop motors, inverters and other components that support the evolution of such vehicles. We will contribute to the advancement of electric-powered vehicles in the form of improved fuel and electricity efficiencies by reducing size and weight as well as improving the efficiency of our existing products.

Innovation in vehicle-related technologies and development of a charging infrastructure play important roles in promoting the electrification of vehicles. Although we have been working on the development of charging stands, we are now extending the scope of our R&D to provide value-added products compatible with social needs.

Capitalizing on technologies and know-how cultivated in the existing business domains, we intend to enter into such fields as energy generation and energy storage, and create products that will benefit society.

We are committed to offering clean, safe and superior products in each of our business fields while continuing to develop products for the growing electric-powered vehicle market.

Key Points of the Fifth Plan



The fifth plan introduces a new approach to "CO₂ cancel." What is its aim?

Kato: Our CO₂ reduction activities under the fourth plan focused on reducing energy consumption per unit of sales in production activities and raising the energy efficiency of each product. With the issue of CO₂ emission reductions drawing increasing public attention, the fifth plan defines total CO₂ emission reduction targets we must achieve in our production operations and products. At the same time, we use this "CO₂ cancel" approach to integrate the achievements made in these two areas. (For more details, see "Overview of the Fifth Environmental Action Plan" on pages 56 and 57.)

Under the banner of "CO₂ cancel," we will share the common goal throughout Toyota Industries, raise employee awareness and make Company-wide efforts to reduce CO₂ emissions.



How do you perceive Toyota Industries' initiatives to protect biodiversity?

Kato: We have been conducting various activities based on the belief that the most effective way of protecting biodiversity is to curb global warming. While maintaining this approach, we will become more directly involved in the protection of biodiversity. Specifically, we will undertake a wider range of initiatives such as the development of biotopes, which provide a greater living space for plants and animals.



What about human resources development?

Kato: The fifth plan sets out challenging targets for each action item, including the reduction of CO₂ emissions. Achieving these targets requires the actual involvement of each and every employee. The development of capable people goes hand in hand with the development of a sustainable society.

It is true that we must develop internal experts in environment-related issues, but we first need to train every employee to work in an eco-conscious way. I believe raising the level of awareness of our workforce will translate into a bigger force for changing our company.

As part of this effort, as of April 2011 we launched an internal system to give "eco points" to employees who have undertaken environment-friendly activities. Through this point system, we give every employee a chance to both think about and take action for the environment.

Global Environmental Commitment

As one tenet under our Basic Philosophy, Toyota Industries works to contribute to regional living conditions and social prosperity and also strives to offer products and services that are clean, safe and of high quality. Accordingly, we established the Global Environmental Commitment, a specific environmental

action guideline, to be shared and implemented throughout the Toyota Industries Group.

We fully revised the Global Environmental Commitment to clearly show our Group-wide determination to contribute to the realization of a sustainable society.

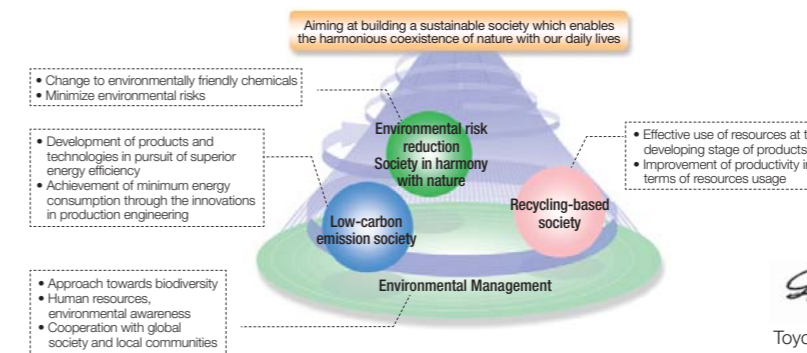
Global Environmental Commitment

[Basic Environmental Philosophy]

- We will strive for the preservation of the Environment across all of our business activities and will work to develop, establish and promote technologies that are compatible with both the environment and economic activity, aiming to create a rich natural environment for future generations while establishing a sustainable society which enables the harmonious coexistence of nature with our daily lives.

[Guiding Principle]

- We will continue to set challenging targets for further reduction of the environmental impact of our business operations, while at the same time listening carefully to the voices of our customers and stakeholders and acting in compliance with the letter and spirit of laws and regulations.
- We will place the following four items as the highest priority among environmental activities and proactively work on each item.
 - Establishing a low-carbon emission society;
 - Setting the prevention of global warming as our highest priority,
 - We will press forward the development of products and technologies for pursuing superior energy efficiency throughout the lifecycle of products.
 - We will seek to minimize our CO₂ emissions by means of reducing the energy consumption of all our business operations.
 - Establishing a recycling-based society;
 - We will promote the effective use of resources at the developing stage of products.
 - We will seek to minimize our resource consumption and to implement production activities that reduce the amount of unwanted substances.
 - Reducing environmental risk and establishing a society in harmony with nature;
 - We will strive to use more environmentally friendly chemical substances in our products.
 - We will seek to minimize environmental risks by working to develop environmentally burden free production activities.
 - Promoting environmental management (preservation of diversity, development of environmental specialists);
 - We will evaluate and understand how business operations impact biodiversity and take actions based on the results.
 - We will develop environmental specialists who can take the initiative, and extend environmental awareness not only to our employees, but also to their families and communities.
- We will aim to foster greater communication and teamwork within a wide range of partnerships, including those with customers and suppliers, in order to promote sustainable management of the environment. In addition, the Toyota Industries Group will act as an upstanding corporate citizen, taking an active part in the planning of activities that contribute to various regional communities as well as to our global society.



February 15, 2011

Toyota Industries Corporation

Overview of the Fifth Environmental Action Plan

Working toward "CO₂ Cancel"

With an eye to achieving a sustainable society that provides a prosperous life in harmony with the natural environment, we have devised the Fifth Environmental Action Plan for the period from fiscal 2012 to fiscal 2016. Among important environmental issues drawing increasing public attention, the Toyota Industries Group

has specified four key areas on which to concentrate our efforts: 1) establishing a low-carbon emission society; 2) establishing a recycling-based society; 3) reducing environmental risk and establishing a society in harmony with nature; and 4) promoting environmental management.

1. Establishing a Low-Carbon Emission Society

| Segments | Action Policies | Specific Actions | FY2013 Targets | | | | | |
|------------|--|---|--|------------------------------------|-----------------------------|----------------|-----------------------------|------|
| | | | Subject | Scope | Control Items | Base Year (FY) | Targets | |
| Products | Reduce CO ₂ emissions by 10% ¹ from major products to be developed during the period covered by the fifth plan | | | | | | | |
| | In the Automobile, Materials Handling Equipment and Textile Machinery businesses, develop technologies and products that will contribute to reduction of CO ₂ emissions | <Automobile Business> •Develop technologies that respond to electrification of vehicles •Improve energy efficiency of car air conditioners •Develop technologies to enable weight reduction <Materials Handling Equipment Business> •Improve fuel efficiency of internal-combustion lift trucks •Reduce energy loss in electric-powered lift trucks and improve energy efficiency of components <Textile Machinery Business> •Reduce electricity consumption by reducing air consumption •Reduce electricity consumption by lowering windage loss load | | | | | | |
| | Develop energy conservation technologies in R&D field | •Develop new technologies to contribute to energy saving of automobiles | | | | | | |
| Production | Promote energy reduction and energy conservation through innovative production engineering | <Energy-derived CO ₂ emissions> •Promote visualization of energy loss •Further promote Company-wide reduction activities and accelerate thorough, horizontal deployment •Develop innovative technologies to reduce CO ₂ emissions <CFCs> •Look for alternative materials | CO ₂ emissions •Energy-derived CO ₂ •5 gases ³ •CO ₂ from logistics | Non-consolidated | Total emissions | 1991 | Minus 10% (FY09-13 average) | 1.15 |
| | Promoting measures to curb global warming | •Promote horizontal deployment of technologies to curb global warming •Reinforce and expand ESCO ⁵ activities | | Consolidated subsidiaries in Japan | Eco-efficiency ⁴ | 2006 | 1.02 | |
| Logistics | Reduce CO ₂ emissions through green logistics | •Promote modal shift •Reduce the number of transportation vehicles by promoting mixed transport among business divisions | CO ₂ from logistics | Non-consolidated | Total emissions | 1991 | Minus 15% | 1.06 |
| | | | | Overseas subsidiaries | Eco-efficiency | 2007 | 1.06 | |

2. Establishing a Recycling-Based Society

| Segments | Action Policies | Specific Actions | FY2013 Targets | | | | | |
|------------|---|---|---------------------------|------------------|----------------|----------------|---------|------|
| | | | Subject | Scope | Control Items | Base Year (FY) | Targets | |
| Products | Implement initiatives to promote 3R (reduce, reuse and recycle) design for effective resource utilization | •Reduce use of resources through standardization, modularization and reduction of parts •Reduce use of resources through weight and size reductions | | | | | | |
| Production | Enhance resource productivity | <Packaging materials> •Reduce use of timber-derived packaging materials <Resources> •Reduce the volume of discarded materials by taking action at the source, such as improving yields and other measures •Promote internal reuse | Packaging material volume | Non-consolidated | Eco-efficiency | 2007 | 1.06 | |
| | | | Waste generation volume | In Japan | | | | 1.13 |
| | | | | Non-consolidated | Eco-efficiency | 2006 | 1.12 | |
| | | | Consolidated subsidiaries | | | | 1.16 | |

3. Reducing Environmental Risk and Establishing a Society in Harmony with Nature

| Segments | Action Policies | Specific Actions | FY2013 Targets | | | | | |
|------------|---|---|---------------------------|------------------------------------|-----------------------------------|----------------|------------------------|--|
| | | | Subject | Scope | Control Items | Base Year (FY) | Targets | |
| Products | Reduce exhaust emissions to improve air quality in urban areas in all countries and regions | •Develop engines that meet future regulations •Investigate chemical substances contained in products and manage switching over of SVHC ⁶ and other substances of concern to other substances | | | | | | |
| | Manage chemical substances contained in products | | | | | | | |
| Production | Further reduce emissions of substances of concern | •Reduce emissions of substances of concern mainly from painting processes – Review painting conditions | VOC ⁷ emission | Non-consolidated (automobile body) | Emission volume per unit of sales | – | 24 (g/m ²) | |
| | Minimize environmental risks | •Firmly establish the use of a preliminary review system – Incorporate measures to reduce environmental impacts in the business planning stage •Reduce risks related to wastewater •Enhance risk communication with relevant organizations and local residents | | | | | | |

4. Promoting Environmental Management

| Segments | Action Policies | Specific Actions | FY2013 Targets | | | | |
|----------|---|---|----------------|-------|---------------|----------------|---------|
| | | | Subject | Scope | Control Items | Base Year (FY) | Targets |
| General | Reinforce CO ₂ reduction activities for "CO ₂ cancel" | •Further reduce CO ₂ emitted from production activities in plants •Reduce CO ₂ emissions by achieving improved efficiency in newly developed products Aim to cancel out CO ₂ emissions of Toyota Industries through these two activities | | | | | |
| | Augment and promote consolidated environmental management | •Build a global environmental management system and promote related activities to: – Comply with environment-related laws and reduce environmental risks in each country – Achieve the highest-level performance in each country | | | | | |
| | Enhance and promote environmental education and enlightenment activities | •Develop environmental specialists to lead internal environment-related activities •Plan and promote enlightenment activities that can also be undertaken at home | | | | | |
| | Improve eco-conscious brand image | •Reinforce environmental activities according to the contents and results of Survey of Environmental Oriented Management Index to pursue higher brand image | | | | | |
| | Augment activities related to protection of biodiversity | •Identify the impact of business activities on biodiversity and reinforce initiatives by defining specific goals | | | | | |
| | Promote sustainable plant activities | •Build a plant environment in harmony with nature by promoting energy reduction and energy conservation through innovative production engineering, by reducing energy loss and by using renewable energy and other means | | | | | |

*1: Target products Toyota Industries develops and produces. The CO₂ reduction volume is calculated based on the method Toyota Industries determined using FY2011 levels as the baseline.

*2: Details undisclosed due to confidential information and other reasons

*3: Greenhouse gases other than CO₂, including methane (CH₄), dinitrogen monoxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆)

*4: Eco-efficiency = Production efficiency in subject year / Production efficiency in base year

Production efficiency = Production indicator (Net sales or production volume, etc.) / Environmental impact of production activities

*5: Short for Energy Service COmpany, ESCO provides comprehensive services related to energy savings and supports energy-efficient activities.

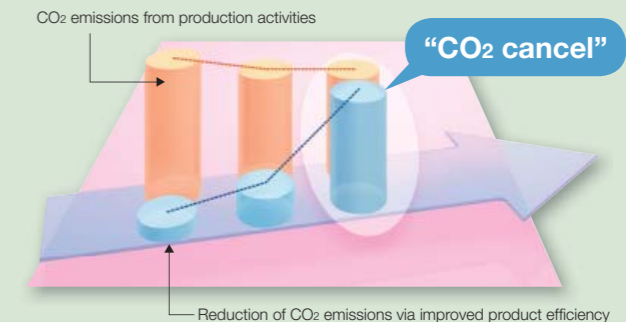
*6: Substances of Very High Concern

*7: Volatile Organic Compounds

*8: Specific targets are set separately and progresses are disclosed via the Company Website or Toyota Industries Report and other media.

"CO₂ Cancel"

"CO₂ cancel" means to offset CO₂ emissions from production activities at plants by reducing CO₂ emissions via improved product efficiency and other means. We have set this approach as a new environmental target starting from the Fifth Environmental Action Plan.



Summary of the Fourth Environmental Action Plan

In the Fourth Environmental Action Plan (from fiscal 2007 to fiscal 2011), Toyota Industries laid out specific action items and numerical targets of the entire Toyota Industries Group in four key areas: curbing global

warming, resource utilization, reducing environmental risk factors and consolidated management. As a result of concerted efforts, we successfully achieved all designated targets.

| Items | Segments | Action Policies | Specific Actions | Targets | | Results/Achievements | Assessment |
|------------------------|--|---|--|---|---|---|--|
| | | | | Control Items | Level | | |
| Curbing Global Warming | Products | Automobile-related products: Promote the development of technologies that achieve the best fuel-efficiency performance in each country and region | <ul style="list-style-type: none"> Develop technologies to reduce vehicle weight Develop engines to meet fuel efficiency targets set during the product planning stage Develop high-efficiency car air-conditioning compressors | *1 (Unannounced quantitative targets) | | <ul style="list-style-type: none"> Developed plastic glazing featuring half the weight of glass Developed lighter upper automobile body consigned by Toyota Motor Corporation Developed impact-absorption CFRP*2 crush box Improved fuel efficiency of diesel engines Developed high-efficiency variable-displacement compressors Commenced development of next-generation variable-displacement compressor | ○ |
| | | Non-automobile-related products: Promote the development of technologies that achieve the best energy efficiency in the industry | <ul style="list-style-type: none"> Develop technologies to improve the energy efficiency of lift trucks Develop industry-leading, energy-saving technologies for textile machinery Improve the energy efficiency of industrial engines | | | <ul style="list-style-type: none"> Improved fuel efficiency for new lift trucks Developed diesel-powered hybrid lift trucks that halve fuel consumption Reduced air consumption of air-jet looms Reduced electricity consumption of high-speed ring spinning frames Improved heat efficiency of engines for gas heat pumps | ○ |
| | | Promote the development of devices for clean energy vehicles | <ul style="list-style-type: none"> Further improve the performance of devices for hybrid vehicles Develop devices for the next generation of fuel-cell vehicles | | | <ul style="list-style-type: none"> Serialized electric compressors Made DC-DC converters for hybrid vehicles more compact and lighter weight Made onboard AC inverters more compact Developed ordinary charging stands Developed air compressors and hydrogen pumps for fuel-cell vehicles | ○ |
| | | Reduce greenhouse gases throughout products' lifecycles | <ul style="list-style-type: none"> Steadily reduce lifecycle environmental impact through implementation of LCA*3 for all products Develop products with high eco-efficiency Develop car air-conditioning compressors that use refrigerants with low global warming potential | | | <ul style="list-style-type: none"> Implemented LCA for major products of all business divisions Developed high-efficiency variable-displacement compressors Developed compressors featuring new refrigerant compliant with European environmental regulations | ○ |
| Production | Promote energy reduction and energy conservation through innovative production engineering | <Energy-derived CO ₂ emissions> | <ul style="list-style-type: none"> Streamline production processes Optimize supplied energy Promote introduction of alternative energy sources | Emission volume per unit of sales | <Non-consolidated> 35% reduction vs FY1991 | <Non-consolidated> 52% reduction vs FY1991 | ○ |
| | | <CFCs> | <ul style="list-style-type: none"> Review production process Look for alternative materials | | <Consolidated> 10% reduction vs FY2004 | <Consolidated> 15% reduction vs FY2004 | ○ |
| | Promote initiatives worldwide to curb global warming | <ul style="list-style-type: none"> Conduct energy diagnoses for consolidated subsidiaries Promote widespread use of technologies that curb global warming | Eco-efficiency | <Non-consolidated> 30% improvement vs FY1991 | <Non-consolidated> 52% improvement vs FY1991 | ○ | |
| Logistics | Reduce CO ₂ emissions through green logistics | <ul style="list-style-type: none"> Promote modal shift Devise green logistics guidelines and strengthen cooperation with business partners | | <Consolidated> 10% improvement vs FY2004 (Except CO ₂ from logistics) | <Consolidated> 18% improvement vs FY2004 (Except CO ₂ from logistics) | ○ | |
| Resource Utilization | Products | Further promote the use of designs that are based on the Designs for Recycling concept | <ul style="list-style-type: none"> Steadily improve recyclability by firmly establishing recyclability assessments for all products Develop products that are easy to dismantle and recycle | *1 | | <ul style="list-style-type: none"> Implemented recyclability assessments for major products Created recycle design guidelines Developed recycling technologies within plastic glazing window manufacturing processes | ○ |
| | | Enhance resource productivity | <ul style="list-style-type: none"> Reduce the volume of discarded materials by taking action at the source, such as improving yields and other measures Promote internal reuse | | | Eco-efficiency | <Non-consolidated> 5% improvement vs FY2004 |
| | Raw Materials | Reduce use of groundwater | <ul style="list-style-type: none"> Promote recycling of wastewater Reduce use of water | Groundwater use (total amount) | <Non-consolidated> 50% reduction vs FY2004 | <Non-consolidated> 73% reduction vs FY2004 | ○ |
| | Waste | Reduce total environmental impacts of waste disposal | <ul style="list-style-type: none"> Eliminate landfill disposal at all consolidated companies Establish measures to evaluate environmental impact of waste disposal | Landfill volume | <Consolidated> Less than 1% vs FY1999 (Applies to production sites in Japan) | <Consolidated> 0.2% vs FY1999 (Applies to production sites in Japan) | ○ |

| Items | Segments | Action Policies | Specific Actions | Targets | | Results/Achievements | Assessment |
|-------------------------------------|------------|--|--|----------------------|---|--|------------|
| | | | | Control Items | Level | | |
| Reducing Environmental Risk Factors | Products | Promote stricter control of and further reduction in the use of substances of concern | <ul style="list-style-type: none"> Eliminate use worldwide of the four substances of concern (lead, mercury, cadmium and hexavalent chromium) (some parts are exempted) Increase the number of substances of concern that are subject to controls | *1 | | <ul style="list-style-type: none"> Discontinued use of four substances of concern, excluding those exempted Devised operational rules for management systems for substances of concern check sheet Established chemical substances management system Complied with gas emissions regulations for lift trucks | ○ |
| | | Reduce exhaust emissions to improve air quality in urban areas in all countries and regions | <ul style="list-style-type: none"> Develop high-efficiency clean diesel engines Introduce top-performing, low-emissions lift trucks | | | | |
| | Production | Minimize environmental risks | <ul style="list-style-type: none"> Establish environmental risk assessment systems at the planning stage (incorporate measures to reduce environmental impacts in the business planning stage) Ensure appropriate management of chemical substances in accordance with social conditions Enhance risk communication with stakeholders such as related organizations and local residents | Environmental impact | <Non-consolidated> 10% reduction vs FY2004 | <Non-consolidated> 52% reduction vs FY2004 | ○ |
| | | Further reduce emissions of substances of concern | <ul style="list-style-type: none"> Reduce emissions of air pollutants, including VOC*4 Expand use of water-soluble and powdered coatings Introduce VOC removal equipment Reduce emissions of water contaminants | | <Consolidated> 5% reduction vs FY2004 (Applies to production sites in Japan) | <Consolidated> 51% reduction vs FY2004 (Applies to production sites in Japan) | ○ |
| Consolidated Management | General | Strengthen cooperation with business partners | <ul style="list-style-type: none"> Business partners: <ul style="list-style-type: none"> Further promote Environmentally Preferable Purchasing (EPP) Improve environmental performance by supporting the establishment and promotion of environmental management systems (EMS) Enhance management of substances of concern Group companies: <ul style="list-style-type: none"> Promote consolidated environmental management by enhancing mutual communication <ul style="list-style-type: none"> Thorough environmental compliance (all companies) Establish EMS (sales and service companies) Introduce EPP and environmental accounting (production companies) Improve environmental performance and enhance external environmental communication (production companies) | *5 | | <ul style="list-style-type: none"> Issued and distributed 4th edition of EPP guidelines Supported establishment of environmental management system for business partners Implemented SOC*6 monitoring Established Environmentally Friendly Product Certification System | ○ |
| | | Fulfill responsibilities as a corporate citizen through two-way communication and social contribution activities | <ul style="list-style-type: none"> Promote social contribution activities that contribute to preservation of biodiversity Implement environmental education for local residents and communication activities with local communities | | | <ul style="list-style-type: none"> Held regular meetings for business partners in Japan Implemented compliance audits | ○ |
| Social Contribution | General | Actively disclose environmental information | <ul style="list-style-type: none"> Provide environmental information concerning products Enhance Social & Environmental Report | *5 | | <ul style="list-style-type: none"> Reported details of yearly activities through <i>Toyota Industries Report</i> Integrated annual report and social and environmental report Communicated opinions of chief environmental administrator to specify environmental visions and directions | ○ |
| | | Promote social contribution activities that contribute to preservation of biodiversity | <ul style="list-style-type: none"> Engaged in tree thinning at <i>Kaisha-no-Mori</i> Participated in Present from the Forest Program promoted by environmental NGO Friends of the Earth Japan Dispatched staff for environmental classes (elementary schools in Nagoya) | | | ○ | |

*1: Details undisclosed due to confidential information and other reasons

*2: Carbon Fiber Reinforced Plastics

*3: Life Cycle Assessment

*4: Volatile Organic Compounds

*5: Specific targets are set by year and disclosed via *Toyota Industries Report* and other media.

*6: Substances of Concern

Environmental Management

Status of Our Environmental Management System

Toyota Industries has positioned environmental response as one of its most crucial management issues. To more vigorously undertake environmental response efforts, Toyota Industries reorganized its environmental management system (EMS) previously operated independently at respective plants and adopted a Company-wide integrated EMS since fiscal 2009, with the president at the top. The adoption of this EMS has enabled us to quickly reflect the decisions made by management into our business operations.

To maximize the benefit of the integrated EMS, we initiated the Company-wide Regulations Integration Project in fiscal 2011 to consolidate documents that have been developed separately by each business division.

We will continue to work on this elimination and consolidation process and streamline and improve the efficiency of our EMS.

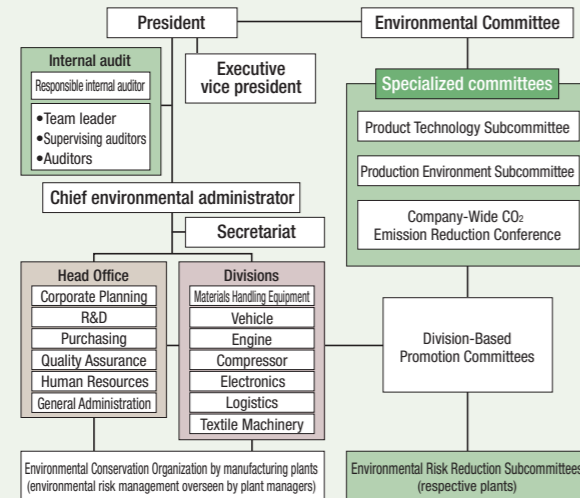
Approach to Environmental Education

Based on the belief that manufacturing starts with nurturing excellent personnel, Toyota Industries regards human resources development as one of its most important management tasks and actively carries out environmental education and enlightenment activities for employees.

Toyota Industries has clarified the environment-related knowledge and skills required for each job category and rank, and accordingly, built an environmental education program. Specifically, we offer rank-based environmental education, introductory courses for environmental management and environmental audits as well as environmental product education.

Based on the latest environmental trends and effectiveness of education, we will review our environmental education programs and continue to promote the development of capable human resources.

Environmental Management Structure



Scope of Group-Wide Environmental Management (As of March 31, 2011)

Non-production companies
Japan: 25
Outside Japan: 92

North America

Production companies: 9
Toyota Industrial Equipment Mfg., Inc. (U.S.A.)
The Raymond Corporation (U.S.A.)
Raymond-Muscatine Inc. (U.S.A.)
North Vernon Industry Corp. (U.S.A.)
Indiana Hydraulic Equipment, Corp. (U.S.A.)
Michigan Automotive Compressor, Inc. (U.S.A.)
TD Automotive Compressor Georgia, LLC (U.S.A.)
Cullman Casting Corporation (U.S.A.)
Lift-Rite Inc. (Canada)

Europe

Production companies: 5
BT Products AB (Sweden)
Toyota Industrial Equipment, S.A. (France)
CESAB Carrelli Elevatori S.p.A. (Italy)
L.T.E. Lift Truck Equipment S.p.A. (Italy)
TD Deutsche Klimakompressor GmbH (Germany)

Asia

Production companies: 5
TD Automotive Compressor Kunshan Co., Ltd. (China)
Toyota Industry (Kunshan) Co., Ltd. (China)
Toyota Industry Automotive Parts (Kunshan) Co., Ltd. (China)
Kirkoskar Toyoda Textile Machinery Pvt. Ltd. (India)
Zhejiang Aichi Industrial Machinery Co., Ltd. (China)

Japan

Non-consolidated: 10 plants
Production companies: 14
Aichi Corporation (Saitama)
TIBC Corporation (Aichi)
Altex Co., Ltd. (Shizuoka)
IZUMI MACHINE MFG. CO., LTD. (Aichi)
Iwama Loom Works, Ltd. (Aichi)
Tokaiseiki Co., Ltd. (Shizuoka)
Tokyu Co., Ltd. (Aichi)
Nagao Kogyo Co., Ltd. (Aichi)
Miduho Industry Co., Ltd. (Aichi)
Nishina Industrial Co., Ltd. (Nagano)
HANDA Casting Company (Aichi)
Unica Co., Ltd. (Aichi)
Hara Corporation (Gifu)
Mino Tokyu Co., Ltd. (Gifu)

Environmental Audits

Toyota Industries implements annual internal environmental audits as well as external audits carried out by an independent third-party institute.

The external audit conducted in fiscal 2011 revealed three minor non-conformances. We are implementing measures to correct them and making efforts for improvement.

As for internal audits, we encourage personnel in managerial positions to participate in our internal auditor education program in order to improve the quality of these audits and upgrade day-to-day operations in each department.

Curbing Global Warming

Products

Reducing Electricity Consumption of Ring Spinning Frames

A pneumatic suction cleaning device in a ring spinning frame removes cotton luffs and threads broken in the spinning process to prevent adverse effects on other remaining threads. For this reason, the device provides continuous suction throughout the spinning process, and it uses as much as about 15% of the total electricity consumption of one spinning frame.

In fiscal 2011, we introduced an inverter-integrated suction motor designed to control the motor rotational speed. The speed is kept low during normal operation and increased to provide the required suction power when thread breakage is detected by a suction pressure sensor. This reduces electricity consumption of the device alone by approximately 35% and that of the entire frame by about 5%.



RX240 series high-speed ring spinning frame

Production

Reducing CO₂ Emissions through Energy JIT Activities

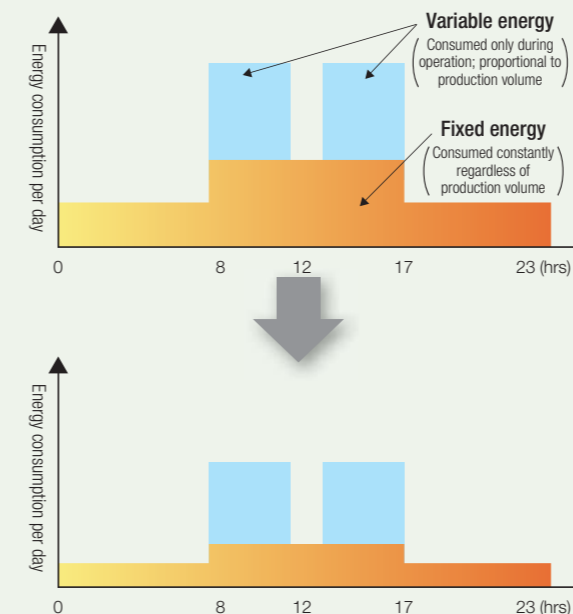
Focusing on inefficient use of fixed energy*, which is necessary regardless of production volume, Toyota Industries has launched an energy just-in-time (JIT) project.

Under this project, we undertook various activities to achieve a 1,000-ton reduction in our total CO₂

Main Activities

- Develop "Energy JIT Guidelines" that guide the actions of each employee
- Conduct a survey on energy loss when production equipment is not operating
- Turn power off when not needed by attaching a sticker to turn off equipment when not in use

Concept of Fixed Energy and Variable Energy



エンジン事業部 エネルギー JIT Project
～アイドリングストップ宣言～

| 運転モード | 昼休み | 定休日 | 休日 |
|-------------------|-----|-----|----|
| メインフレームOFF (電源切断) | ○ | ○ | ○ |
| 電源待機 | ○ | ○ | ○ |
| 運転 | ○ | ○ | ○ |
| エアマスタバルブ閉 | ○ | ○ | ○ |
| エアマスタバルブ開 | ○ | ○ | ○ |

現在の運転状態に○を記入
変更になったら、修正する

エアマスタバルブ閉は
集中バルブでも可

Sticker to turn off equipment when not in use

emissions in fiscal 2011. By using energy when needed and just as much as needed, we successfully reduced the total CO₂ emissions by 3,091 tons and energy costs by ¥93 million.

We will continue with efforts to identify and totally eliminate unnecessary energy use.

* Energy constantly consumed regardless of production volume

Production

Reducing CO₂ Emissions by Improving Melting and Holding Processes of Aluminum Die Casting

Since fiscal 2004, Toyota Industries' Compressor Division has been working to reduce CO₂ emitted from the melting and holding processes of aluminum die casting.

Previously, aluminum ingots^{*1} purchased from manufacturers and return scrap^{*2} generated from the casting process were melted individually in a melting furnace within each die casting machine^{*3}. In fiscal 2004, we started purchasing hot metal (molten aluminum) and at the same time shifted the melting operation done at each machine to a single central furnace. These efforts have led to a decrease in CO₂ emissions of about 10,000 tons in the six-year period up to fiscal 2009.

In fiscal 2010, the production engineering and manufacturing departments jointly developed a smaller-size molten metal holding furnace based on a proprietary concept. This new furnace releases less heat, thereby reducing electricity consumption by about 70%.

By the end of fiscal 2011, we installed 15 units of this highly efficient, compact furnace and reduced annual CO₂ emissions by 1,350 tons.

We will carry on improvement activities to pursue even higher energy efficiency.

*1: Blocks of refined aluminum

*2: Scrap metal generated from the casting process and recovered for recycling

*3: A machine used to inject molten metal into a die cast

Production

New Eco-Conscious Painting Line Installed at a Swedish Consolidated Subsidiary

BT Products AB (BTP), a materials handling equipment manufacturing subsidiary in Sweden, started operation of a new environmentally designed painting line in November 2009.

This new painting line heats wash water by utilizing residual heat from the public district heating system, which generates heat by incinerating biomass. As a result, BTP has cut down its energy consumption and reduced its annual CO₂ emissions by 322 tons.



BTP's painting line

Production

Nishina Industrial Co., Ltd. Successfully Reducing Standby Energy Consumption

Nishina Industrial, a consolidated subsidiary in Japan engaged in production of hydraulic control devices for construction machinery and industrial vehicles, improved facilities to reduce standby energy consumed by a machining line for control valves for lift trucks.

As a result, since January 2011 Nishina Industrial has been able to monitor the operating status of production equipment and automatically stop or resume operations of oil mist collectors, pipe conveyors and other equipment. Nishina Industrial expects to reduce its annual CO₂ emissions by about 9 tons.

TOPICS

Award Program to Recognize Environmental Improvement Initiatives

In fiscal 2011, Toyota Industries established an internal award program to recognize excellent environmental improvement activities undertaken in production. The program's purposes are to share best practices and raise the level of environment-related activities throughout the Company. In the first year, we received a total of 18 applications from business divisions, with some focusing on cutting energy consumption and others on reducing waste and other aspects. After a review, four projects were selected to receive either a "Best Practice Award" or "Excellent Practice Award."

We will refine this award program to promote the generation of excellent ideas. We also have a plan to encourage those best-practice projects to apply for external environmental awards.



On-site assessment

Resource Utilization

Products

New Onboard Charger for PHVs with Improved Recyclability

An onboard charger is an electric power converter that converts AC voltage used in households into DC voltage to recharge the high-voltage batteries of plug-in hybrid vehicles (PHVs). As compared with the onboard charger fitted in the PHV launched by Toyota Motor Corporation in fiscal 2010, the number of components of the new charger developed during fiscal 2011 is approximately 40% less. Together with its easier-to-dismantle structure, it offers higher recycling efficiency, thereby contributing to more effective resource utilization.

Production

New Wastewater Treatment Equipment Installed in BTP's Painting Line

BTP introduced wastewater treatment equipment in fiscal 2010 to process wastewater generated by all of its painting lines. Wastewater from the washing system is treated and reused within the company. As a result, the total amount of plant wastewater generated has been reduced by 133 cubic meters.

Reduction in Environmental Risk

Products

Chemical Substance Management

Toyota Industries uses a chemical substance management system to accumulate data on materials used and chemical substances contained in all of its products. This system is also used to check if products contain any chemical substances subject to control when new regulations come into effect in a country or region.

As of fiscal 2011, we started reviewing the enormous amount of data accumulated to date by checking the accuracy of information concerning types and amounts of substances contained in our products and applicability of new regulations, and worked to improve data quality. This allows us to quickly and precisely identify the impact of any new regulations on our businesses.

Production

Status of Compliance with Environmental Laws

In fiscal 2011, there were three instances, including effluents from the plant exceeding standard values, at respective subsidiaries within the Toyota Industries Group. These incidents have been reported to the authorities concerned, and corrective measures have already been completed by each of these subsidiaries. Subsequent confirmations have also been made to ensure that there are no recurrences.

We will step up our efforts to prevent environmental risks by sharing information on environment-related incidents throughout the Toyota Industries Group, including their causes and countermeasures taken. We

will also continue to augment Group-wide efforts to minimize environmental impact by conducting contingency training for emergency situations and other proactive measures.

Production

Plant-Wide Efforts to Reduce Risks Related to Wastewater

Under our policy of minimizing environmental risks, Toyota Industries undertakes activities to prevent plant wastewater from being directly released into the surrounding environment. In addition to the individual risk-reducing measures taken at each process that generates high drainage load and at the final stage of wastewater treatment, we are promoting optimum solutions for plants as a whole.

In fiscal 2010, we conducted on-site inspections of the drain systems of all plants to check the possibility of wastewater being released into the surrounding environment and to visualize the overall wastewater-related risks at each plant. Based on the results, we developed guidelines in fiscal 2011, which provide a set of standard procedures for countering wastewater risks, and drew up specific measures to be implemented by each plant. We will continuously promote these measures from fiscal 2012 onwards.



Examination of drain system

Environmental Communication

Holding an Environmental Seminar for Customers

In fiscal 2011, Toyota Material Handling Japan started providing an environmental seminar for customers at the Takahama Plant.

This seminar presents various environmental initiatives undertaken by Toyota Industries and those specifically by the Takahama Plant. The seminar also includes a session to exchange opinions to enhance the level of environmental activities conducted by our corporate customers.

The seminar in fiscal 2011 was well received by participants, who showed an interest in our human resources development through the environmental *dojo* and found the contents very useful in launching their own activities.

We plan to enhance and hold the seminar program more frequently, with the aim of fostering a better understanding of our environmental initiatives among our customers.



At the seminar

Lecture on Environmental Issues



Mr. Manabu Akaike during lecture

Toyota Industries organizes an environmental lecture every year for raising the environmental awareness of our employees.

In fiscal 2011, to coincide with the 10th Conference of the Parties to the Convention on Biological Diversity (COP 10) held in Nagoya City, Aichi Prefecture, we invited Mr. Manabu Akaike, a member of the Biodiversity Public Relations and Planning Committee of the Ministry of the Environment, to give a lecture on how manufacturers should address biodiversity-related issues.

Mr. Akaike pointed out that the keyword for the 21st century is "comfort," and future manufacturing should incorporate the comfort we feel in natural surroundings.

Through the lecture, we realized that protecting biodiversity entails not only planting trees and conserving wildlife but also carrying out manufacturing that makes the best use of nature and coexists with nature.



Lecture organizer
Hirofumi Sato
Environment Office, Plant
Engineering & Environment Dept.

After the lecture, we received many comments from participants. Among these were that "finding diverse values would serve to create coexistence with nature and further forge a connection with biodiversity" and "generating better ideas from various viewpoints would teach us valuable lessons in our future endeavor for improvements." We will continue to organize environmental lectures to heighten employees' respect for the environment and endeavor to raise the environmental awareness of each and every employee.

Biodiversity

Holding Workshop Using Wood Thinned from Forests

Since fiscal 2010, Toyota Industries has been carrying out tree thinning at *Kaisho-no-Mori* (Kaisho Forest) in Seto City, Aichi Prefecture, under the "TICO Ecocoro Tree Thinning Activity to Cultivate the Spirit of Ecology" project primarily conducted by members of the Toyota Industries Team Leader Association*.

In fiscal 2011, we held the "Ecocoro Workshop," a woodworking workshop using wood thinned from the forest. About 150 children participated and made pencil holders, photo frames and coasters. At the event venue, a panel exhibition explaining the roles of forests and the necessity of pruning and thinning in forests in an easy-to-understand manner allowed children, who will forge the future of our planet, to learn the importance of forest conservation.

We will carry on and enhance such activities to give people a chance to get in touch with nature and become more aware of the importance of protecting the natural environment.

* An autonomous Company-wide organization consisting of approximately 1,700 young leaders at manufacturing sites, the organization carries out cleanup and other community activities, promotes interchanges for self-development and holds recreational activities to deepen interaction among members.



Reception area of "Ecocoro Workshop"



At the workshop

Participating in COP 10 Side Events

COP 10 held in Nagoya, Japan, in October 2010 drew some 13,000 people from 179 participating countries. Toyota Industries took part in side events to demonstrate our approach to protecting biodiversity. In one event organized by the Chubu Economic Federation, we distributed brochures and organized a poster exhibition to illustrate our environmental initiatives, including tree thinning and environmental education for school children.

We will push ahead with initiatives to help protect biodiversity and convey information on activities to our stakeholders in an easy-to-understand way.



Posters promoting Toyota Industries' environmental activities

Progress of Environmentally Friendly Product Certification System

Toyota Industries has been proactively promoting development and design of eco-conscious products. In doing so, in fiscal 2007 we launched the Environmentally Friendly Product Certification System to certify products with outstanding environmental performance. This system consists of an "environmental factor evaluation," which determines a numerical improvement in environmental efficiency of a newly developed product compared with the base product (a product used as a standard for comparison), and a "development process evaluation," which reviews the environment-friendliness of development processes. In fiscal 2008, our certification system won the Chairman's Prize in the Eco-Efficiency Award sponsored by the Japan Environmental Management Association for Industry.

Over a five-year period up to fiscal 2011, nine products have obtained certification under this system. Among them, the GENE0-HYBRID lift truck, which obtained this internal certification in fiscal 2010, won three awards from external organizations for almost halving fuel consumption compared with conventional diesel-powered internal-combustion lift trucks. Our RX240 series high-speed ring spinning frame, which received certification in fiscal 2011, reduces its total electricity consumption by approximately 5% by using

an interior permanent magnet motor* as its drive motor.

We have been also upgrading this certification system in an effort to accelerate development of environment-friendly products.

In fiscal 2009, we extended the scope of certification to include products of Toyota Industries Group companies. As a result, BT Lifter, a hand pallet truck developed by BTP, obtained certification in April 2009.

In fiscal 2011, we newly established the Super Environmentally Friendly Product Certification System. In addition to the conventional certification criteria, the new system places particular emphasis on the "Curbing Global Warming Factor." If a product has a 1.5 times higher figure than the base product, it is certified as super environmentally friendly and expected to make significant contributions to curbing global warming. Certification under the new system is also performed on previously certified products.

We will continue to seek improvements in terms of both product development and certification systems to create even more eco-conscious products.

* A motor with a magnet embedded inside its rotor, offering improved energy savings, high efficiency and high torque



Environmentally Friendly Certified Products

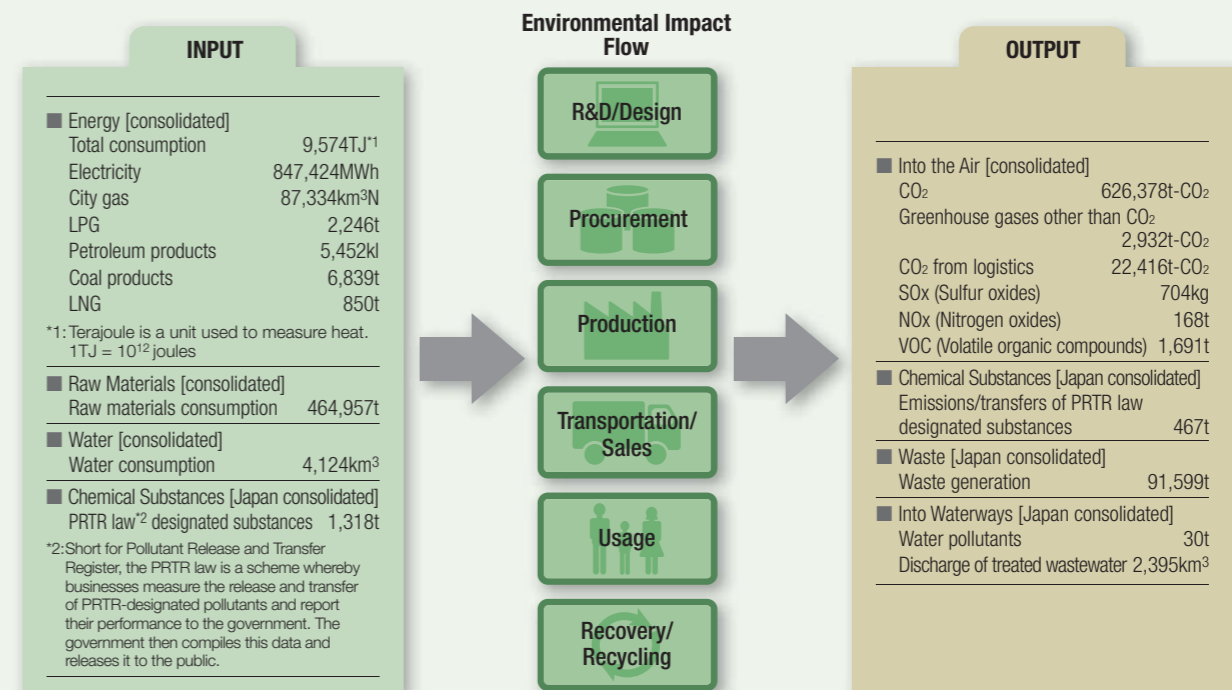
| Fiscal year | 2007 | 2008 | 2009 | 2010 | 2011 |
|--------------------|--------------------------------------|--|--------------------------|--|---|
| Certified products | GENEO internal-combustion lift truck | Rack Sorter P automated storage and retrieval system Shovel loader DC-DC converter | 100W AC inverter (Super) | GENEO-HYBRID diesel-powered internal-combustion hybrid lift truck (Super) BT Lifter (Super) 400W AC inverter (Super) | RX240 series high-speed ring spinning frame |

Super : Super environmentally friendly products

External Awards Bestowed on GENE0-HYBRID

| Award | Sponsor | Details |
|---|--|--|
| 11th Logistics Environmental Award | Japan Federation of Freight Industries | Logistics Environmental Technology Development Award |
| 7th Eco Products Awards | Eco Products Awards Promotion Council | Eco Products Awards Promotion Council Chairman's Award |
| 31st Excellent Energy-Saving Device Award | The Japan Machinery Federation | The Japan Machinery Federation Chairman's Award |

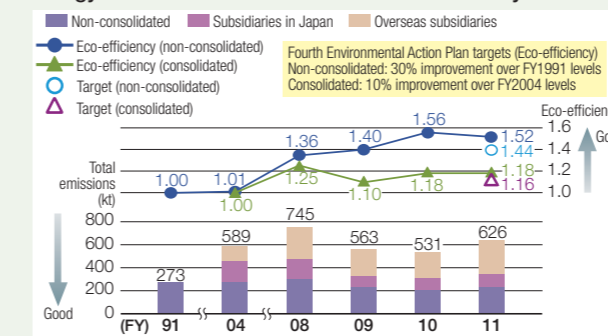
Business Activities and Their Environmental Impact



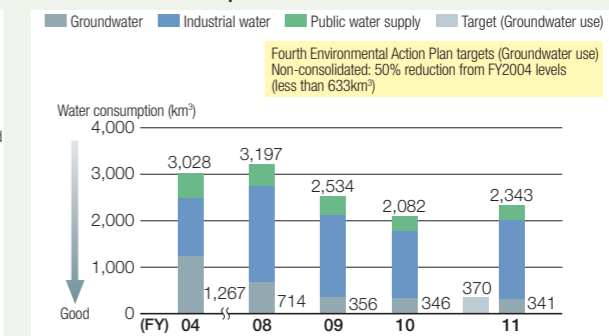
Trends in Environmental Performance

Toyota Industries' principal environmental performance trends are as follows.

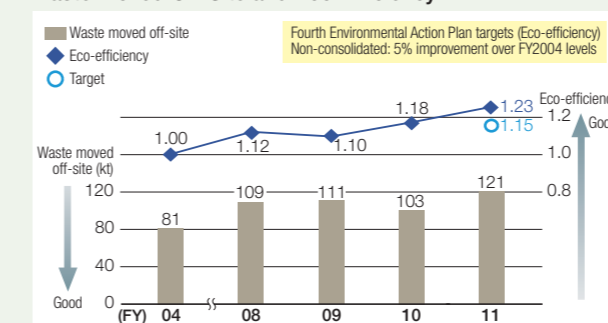
Energy-Derived CO₂ Emissions and Eco-Efficiency



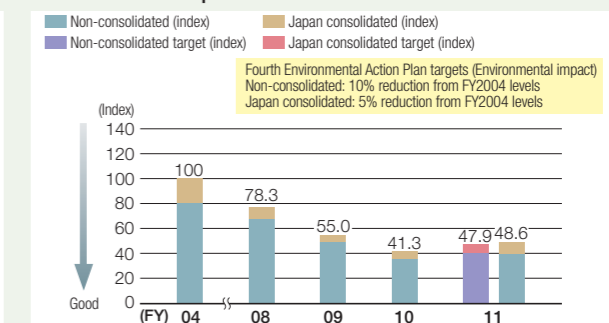
Total Water Consumption



Waste Moved Off-Site and Eco-Efficiency



Environmental Impact Index



Soil and Groundwater Pollution Countermeasures

Toyota Industries carries out surveys and purification of soil and groundwater contaminated from the past use of trichloroethylene. We regularly report the survey results to local government authorities and provide information at local community meetings. As measures to prevent pollution from substances covered by the Soil Contamination Countermeasures Law as well as from grease and oils, we have drilled observation wells at all plants to conduct regular checks.

■ Trichloroethylene Readings (FY2011)

| Plant | Weighted Average Concentration in Groundwater (mg/l) | Current Status |
|--------------|--|---------------------|
| Kariya Plant | 0.41 | Cleanup in progress |
| Kyowa Plant | 0.41 | Cleanup in progress |

Environmental Accounting and On-Site Verification

Fiscal 2011 Environmental Accounting*

Scope of data collection: Toyota Industries Corporation
TIBC Corporation

Data collection period: April 1, 2010 – March 31, 2011

* Environmental accounting data is collected in compliance with the Ministry of the Environment's *Environmental Accounting Guidelines 2005 Edition*.

■ Environmental Conservation Cost (Millions of yen)

| Category | FY2011 | | FY2010 | | |
|------------------------------------|---|----------|------------|----------|-------|
| | Investment | Expenses | Investment | Expenses | |
| Business area costs | Pollution prevention costs | 246 | 1,371 | 485 | 518 |
| | Global environmental conservation costs | 233 | 2,872 | 33 | 3,257 |
| | Resource recycling costs | 20 | 562 | 5 | 433 |
| Upstream/downstream costs | 6 | 4 | – | – | |
| Management costs | 2 | 1,130 | 39 | 720 | |
| Research and development costs | 3 | 152 | 3 | 81 | |
| Social contribution activity costs | 4 | 13 | – | 6 | |
| Environmental remediation costs | – | 9 | – | 5 | |
| Total | 514 | 6,113 | 565 | 5,020 | |
| | 6,627 | | 5,585 | | |

■ Environmental Conservation Benefits

| Environmental Impact | Comparison with Previous Fiscal Year |
|------------------------------|--------------------------------------|
| CO ₂ | 20,953t increase |
| VOC | 84t increase |
| Generation of waste products | 1,076t increase |
| Water | 141,727m ³ increase |
| SO _x | 0.1t increase |
| NO _x | 3t decrease |
| COD (Chemical Oxygen Demand) | 3t increase |

■ Economic Benefits of Environmental Conservation Initiatives (Millions of yen)

| Item | Details | Amount |
|----------------|---|--------------|
| Revenue | Returns from sale of recycled waste products | 3,405 |
| | Energy cost reductions | (616) |
| Cost Reduction | Cost reduction by resource savings (including reductions in amount of water use and wastewater treatment costs) | (41) |
| | Total | 2,748 |

On-Site Verification

In fiscal 2011, Toyota Industries Head Office's Plant Engineering & Environment Department primarily conducted on-site verification of the accuracy and consistency of environmental data included in the *Toyota Industries Report* as follows.

[On-Site Verification Sites]

Anjo Plant: Development and production of electronic components/devices for vehicles

TIBC Corporation: Production of semiconductor package substrates

[Items to be Verified]

1. Adequacy of the scope of data collection; validity of data collection and calculation methods; validity of internal verification
2. Trustworthiness and accuracy of collected/calculated data as well as data reported to the Head Office; accuracy of data provided by the Head Office

[Results]

1. The verified sites retained original data (evidence) for all statistics, which were confirmed valid as were the scope and method of data collection.
2. All discrepancies found during verification have been corrected after respective causes have been identified.
3. Considerations of improvements will be made for data collected using complex collection methods that may result in calculation errors.