

UBE Group

# CSR Report 2013

Focusing on Harmonious Coexistence with All Stakeholders



**UBE INDUSTRIES, LTD.**



#### **Thoroughly Safe Operations and Stable Supply**

As part of its role as a global, socially responsible corporation, UBE Corporation Europe, S.A. (UCE) works to ensure safe operations and the stable supply of products while being always mindful of the environment. The company goes beyond compliance with the OHSAS 18001 certification it already holds to carry out safety activities that meet an even higher standard. Under the UCE Safety Policy, UCE proactively cooperates with partner companies and is fully committed to safe factory operation.



#### **A Development Structure to Meet Customer Needs**

In recent years, the Research and Development (R&D) Center has been strengthening its functions and collaborating with operations in Japan and Thailand in order to swiftly and appropriately respond to customer demand. The center advances the globalization of R&D and develops products that are competitive and environment-friendly. Also, to cultivate human resources who can contribute to the development of chemistry, it carries out initiatives that include R&D Center tours and providing support for institutions of higher education.



#### **Utilizing Diversity to the Fullest Extent**

UCE has continued to expand its business from Europe to Latin America, welcoming the opportunity to work with the diverse cultures unique to each of the more than 80 countries flourishing in those regions. At UCE, employees from Spain, Germany, Japan, France, Portugal, Romania, Brazil and many other countries bring their own national identities, knowledge, and values to the table. We are responding to the diversifying marketplace as we try to utilize each individual's ability to the fullest extent.



#### **Contributions to Infrastructure Development**

UCE continually strives to contribute to local infrastructure development. For example, we have invested in new expansion of a port in Castellón, constructing a raw material cargo-discharge facility. At the opening ceremony for the new facilities, UCE received praise from local authorities as "a company that leads Castellón de la Plana while contributing to local communities, overall product quality and the environment."

## Special Feature: The UBE Group's CSR in Spain

### Major Business Bases Responsible for Global Development

In terms of volume, the UBE Group is a world-class manufacturer of caprolactam, a raw material used in the production of nylon and one of its core businesses. Along with our Japanese and Thai bases, the UBE Group in Spain (UCE)\* helps us maintain that status. UCE's main facilities are located in Castellón de la Plana, Valencia, a city of around 180,000 people on the Mediterranean coast. This region is famous for Valencia oranges, and the locals use ammonium sulfate, a byproduct of caprolactam, as a fertilizer.

UBE and Proquimed (PQM), UCE's precursor, met in 1993. Looking to expand its caprolactam business, UBE took an equity stake in PQM. At the time, PQM was facing a harsh business environment; however, by 1996 it was able to become a wholly owned subsidiary, accelerating its global market-oriented strategy. Through efforts that included systematically implementing improvements to facilities and technologies, ramping up production capacity and rolling out new related products UCE was able to achieve business expansion, becoming a solid foothold in Europe for the UBE Group.



El Periódico Mediterráneo (July 12, 2012)

### Strong Competitiveness through Diversity

UCE's main businesses are caprolactam, nylon resins, ammonium sulfate, liquid fertilizers and fine chemical products. Capitalizing on the diversity of this lineup, we are steadily progressing toward globalization.

In 2010, we established a local subsidiary in Brazil to expand our operations in Latin American markets. When moving into a new market, we place priority on understanding the regional culture and local needs while actively drawing on local employees' knowledge and strengths to ensure complete compliance with the various regulations unique to each local community. In the near future, we are considering entering markets in Turkey, Africa and other economies expected to expand, taking advantage of the geographically advantageous positions of our worldwide operations.

Realizing that securing excellent personnel will be absolutely essential to ensuring that UCE outperforms its competitors in new markets, the company has adopted fair recruitment standards that enable it to assemble personnel diverse in terms of nationality, academic background, technical ability and age. In the last few years, as the number of women in Spain seeking employment after university has increased, so has the number of highly capable women employed at UCE. In fact, the Product Liability and Quality Assurance section is made up entirely of female employees.

Going forward, it will be necessary for UCE to step up its presence on the global stage and to utilize diversity in its efforts to realize sustainable growth. We have further deepened our collaborative production, marketing, technology and development activities in Japan, Spain and Thailand, and in 2011 we established our lithium-ion battery electrolyte development structure at UCE. Initiatives that enhance the Group's synergy are the drivers of

innovation and a source of the UBE Group's strong competitiveness.

### UCE's Contributions to the Development of Local Communities

The UBE Group's founding philosophy of "living and prospering together" has been taken up and put into practice by UCE.

UCE established a CSR Department in 2008 and has been promoting various CSR activities, including those related to environmental protection. Working with funds set aside for this purpose, the department handles social contributions to local communities, directing funds for donations, sponsorships, volunteering and other activities.

We are also making significant social contributions in the form of job creation. Due to the economic crisis of the last few years, Spain's unemployment rate has risen to over 25% and become a serious social problem. Against this backdrop, in 2012 UCE kicked off operations at a new factory producing polycarbonatediol, which is used in such products as automobile interior materials, and highly dispersive large-grain ammonium sulfate. More recently, UCE resolved to strengthen its business capabilities by increasing production facilities for high value-added nylon, which will also have the effect of creating new employment opportunities.

UCE will continue striving toward even greater competitiveness in global markets while promoting strict compliance, harmonious coexistence with local communities and the further strengthening of its CSR activities.

\* The UBE Group in Spain comprises five UBE Group companies under the controlling company Ube Corporation Europe, S.A. (UCE):

- UBE Corporation Europe, S.A. (Spain)
- UBE Chemical Europe, S.A. (Spain)
- UBE Engineering Plastics, S.A. (Spain)
- UBE Europe GmbH (Germany)
- UBE Latin America Serviços Ltda. (Brazil)

# Embracing the Spirit of Living and Prospering Together in Spain





# Toward Harmonious Global

(From left) Pepe Sansano, Fertilizers & RM Purch. Manager/Christopher Passe, Nylon R&D/Pilar González, Safety & Environment Engineer/José Miguel Gil, Head of IT Dept./Belén Manjón, Purchasing & Contracts/

## The Philosophy of “Living and Prospering Together”

**Pablo Cruz:** Thank you for gathering here today despite your busy schedules. First, I would like to ask everyone how you interpret “living and prospering together,” the UBE Group’s founding philosophy and the core concept of its CSR.

**Santiago Bretón:** I think that “living and prospering together” begins with mutual understanding. Because UCE is a chemical manufacturer, I think there are people who feel concerned about its impact on the environment and safety of nearby local communities. To alleviate those concerns, it is important to familiarize them with our company.

**Christopher Passe:** In Castellón de la Plana, where there are a lot of local businesses, a global corporation like ours, which is headquartered in Japan, is not a familiar presence.

**Pepe Sansano:** And that is exactly why active communication with the local residents is so important.

**Pilar González:** I think it is critical for UCE to communicate with local people so that they understand how we contribute to local communities through job creation and how we maintain highly transparent operations, which follow environmental regulations.

## CSR Initiatives

**Cruz:** How do you practice these CSR activities in each of your departments?

**Sansano:** In the Marketing Department, striving to understand and consider the local cultures of the various countries we visit, especially developing nations, plays a part in avoiding risk. In our marketing activities, we follow the laws of each country as well as the regulations and rules of the Group.

**Passe:** In my department, we work toward developing safe and environment-friendly products to raise the satisfaction levels of our customers.

**Belén Manjón:** In my department, we have been cooperating with Japan and Thailand for about five years to globally unite our logistics. We’ve learned a lot from one another as we collaborate with each base, and have come to know which practices are important from an international perspective.

**José Miguel Gil:** In the IT Department, we are currently furthering the development of UCE’s infrastructure. Specifically, development is linked to energy conservation, cost reductions and the more effective placement of personnel.

**Manjón:** And we are requesting our suppliers and importers implement their own CSR activities as well.

**Sansano:** As for our business partners, it is vital that we not simply make requests; we must strive to get them to understand that CSR activities will also benefit them.

**Cruz:** What are your feelings on UCE’s environmental protection efforts?

**González:** Now that we’ve successfully adapted to the dizzyingly fast changes in environmental regulations of the past few years, we’re working to go even further. One example is biodiversity preservation. Through employee-driven projects that include planting trees and wildlife protection, we’re aiming to raise awareness of biodiversity.

## Moving toward the Realization of Sustainable Growth

**Cruz:** How should UCE overcome the crisis of economic stagnation in Spain?

**Sansano:** I think diversity in personnel as well as global marketing and other activities make UCE more stable and trustworthy.

**Passe:** On the other hand, I sometimes feel that the speed of the Group’s decision making could be improved.

**Bretón:** You might feel that way due to differences in decision-making methods used here as compared with those applied in Japan. I



# Coexistence

Pablo Cruz, Moderator/Santiago Bretón, Production Senior Manager

think, however, that while speed is important, so too is taking each step with confidence.

**Gil:** I think raising efficiency through unification is also crucial. In the IT department, the same software is functioning separately at each business base, which is inefficient.

**Manjón:** I think it would be better if we had a more globally unified system that would enable us to overcome national barriers, and we are now seeing that kind of trend. Specifically, one of the objectives stated in the UBE President's message for this year is to "maximize the global strength of the UBE Group."

**González:** To keep up with changes in markets and achieve business objectives, we not only need capital investment at factories, but we also need to promote the kind of investments that increase communication speed.

**Gil:** In Spain, Thailand, Japan or anywhere else, we are employees of the UBE Group. I think that if, going forward, more UCE employees could work in Japan and Thailand or vice versa, it would enhance communication and contribute to our further development as a global corporation.

## To Be a Better Company

**Cruz:** Does your office environment help or hinder your work?

**Manjón:** I'm currently an expectant mother, but I have the same responsibilities as before and I am able to get permission to go for checkups without hassle.

**Bretón:** I think there is a need to work harder toward mutual understanding between the Company's departments.

**Passé:** I agree. The Nylon R&D Department has been holding lectures to introduce our work to other employees, and we're planning to continue to do so going forward.

## The Image of the Future to Which We Should Aspire

**Cruz:** Finally, I'd like to get a word from everyone on their future image of UCE.

**Gil:** I'd like UCE to be a dynamic company capable of keeping up with the changes in the market environment so as to be able to give back to our stakeholders.

**Manjón:** I think UCE should become a company capable of criticizing itself.

**Sansano:** I think the image UCE should have is that of a company that works to deepen mutual understanding and acts in accordance with shared values.

**Passé:** I want it to become a global company where we can work with a smile.



## After the Round Table Discussion: Closing Remarks from Javier Miguel, Director in Charge of CSR

CSR is an essential element for corporations and always needs to be considered no matter the country in which business is done. It is important to fulfill our social responsibilities as a corporation by not focusing only on short-term results, but thinking with a broad, long-term perspective.

We receive various messages from UBE, such as on its corporate culture and philosophy or policies. Internalizing those messages while still realizing our uniqueness is key to our growth.

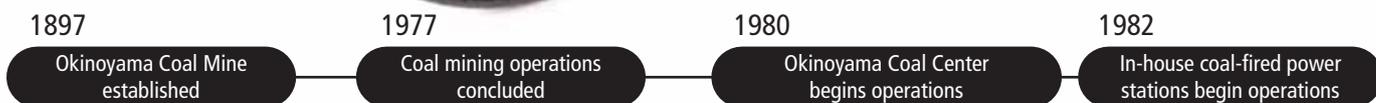
We hope the opinions exchanged at this round-table discussion will provoke interest throughout the UBE Group, so that we can work as "one team, one company."

Going forward, we aim to maintain advanced factories that duly consider such factors as safety and the environment, and will develop our business with an optimized product portfolio to generate stable profits. Above all else, we strive to be a sustainable company by remaining a place where employees are proud to work.



# Responding to Diversifying Energy Demand

## Initiatives of the Ube Group



- 1887: Japan's first coal-fired power plant completed
- 1946: Public-private system for increasing coal production established to revitalize domestic industry

- 1973: First Oil Shock
- 1979: Second Oil Shock

### From Beginnings in Coal Mining—"Creating Industries with Infinite Possibilities from the Finite Resources of Coal"

The UBE Group began with the Okinoyama Coal Mine, established by Sukesaku Watanabe in 1897. Espousing the philosophy of "creating industries with infinite possibilities from the finite resources of coal," Watanabe founded a number of related companies in the Ube area. While working to achieve energy self-sufficiency through coal mining, he also helped advance the chemical industry by providing coal as a raw material. At its height in 1940, the mine's annual coal output reached produced 3 million tons. With the arrival of the oil era in the latter half of the 1950's, however, UBE began gradually closing its mines, and, with the closure of the Taimei Mine in 1977, the Group concluded its 80-year history of coal mining.



Electric powered headframe at the Okinomiya Coal Mine

### Ahead of the Competition in Returning to Coal

With the conclusion of its coal mining operations, the UBE Group turned for a time to oil as a raw fuel. However, with the advent of the first oil shock in 1973, UBE was one of the first companies to import foreign coal, advancing a shift toward coal-powered facilities, including (1) switching from oil to coal power at cement factories, (2) constructing in-house thermal power facilities that use pulverized coal and (3) beginning operations at Ube Ammonia Industry, Ltd.'s coal gasification ammonia production facilities.

Responding to Japanese industrial demand for foreign coal, in 1980 UBE began operating the Okinoyama Coal Center fuel coal import transshipment station to handle the import and sale of coal. The Okinoyama Coal Center has a coal storage capacity of 2.8 million tons, and has handled over 140 million tons of coal to date.

Coal-fired power and the Okinoyama Coal Center remain a source of cost competitiveness for the Group's core factories, which are based in Ube, Yamaguchi Prefecture.



Okinoyama Coal Center

### Responding to Changing Times: Deregulation of Electric Power and Preventing Global Warming

Following the deregulation of the wholesale electric power supply business in 1995, UBE drew on its preexisting infrastructure, technology and know-how to construct a 216 MW power generation plant and entered the wholesale electric power business (the IPP\*1 business) in March 2004. In addition, in line with the partial deregulation in March 2000 of the retail electric power supply business, in 2002 UBE's various on-site power generating plants began supplying some of their excess power to PPS\*2 and other buyers.



Biomass fuel production facilities

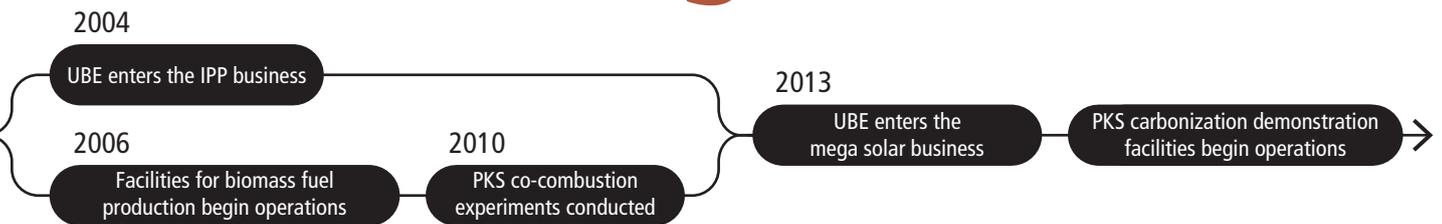
At the same time, recent years have seen a rise in public calls for the prevention of global warming, and the large CO<sub>2</sub> burden created by burning coal has become a major issue.

In response and taking advantage of the RPS\*3 law introduced in April 2003, since July 2006 UBE has been reducing

The UBE Group's Pioneering Initiatives to Address Diversifying Energy Demand

The UBE Group is advancing pioneering initiatives to address diversifying energy demand while employing the technological prowess it has honed over time to reduce the emission of greenhouse gases, a source of global warming. The Group will continue to contribute to society by meeting the needs of the times.

# with Pioneering Initiatives



- 1992: The United Nations Conference on Environment and Development (Earth Summit)
- 1997: The Kyoto Protocol is adopted at COP3\*

- 2011: The Great East Japan Earthquake
- 2012: Japan's Feed-in Tariff for Renewable Energy takes effect

\*The Third Session of Conference of the Parties to the United Nations Framework Convention on Climate Change

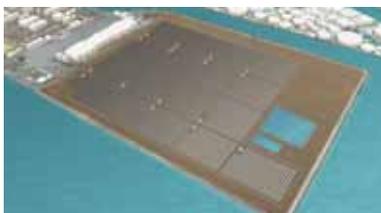
CO<sub>2</sub> emissions by making effective use of alternative fuels, mainly scrap wood chips, in place of coal at its 216 MW power generation plant. UBE's power plants use 80 thousand tons of biomass per year (equivalent to 100 thousand tons of CO<sub>2</sub>) and have a biomass co-firing ratio of 9% (caloric base), one of the industry's highest such ratios for pulverized coal-fired boilers.

### Actively Taking on Electricity Shortages Resulting from the Great East Japan Earthquake and Renewable Energy

Since the Great East Japan Earthquake, electricity has been in short supply throughout Japan. Having implemented exhaustive power-saving measures at all of its factories and increased the efficiency of coal-fired electricity generated in-house by utilizing exhaust heat at the UBE Cement Factory,<sup>\*4</sup> UBE has increased the amount of excess electricity generated in-house and is able to provide it to buyers outside the Group, thereby contributing to the stabilization of the domestic electric power supply.

Furthermore, to respond to electricity shortages and price increases, UBE is planning to create a 12 MW exhaust heat power generation facility at the Kanda Cement Factory.

Spurred by the adoption of Japan's Feed-in Tariff for Renewable Energy (the FIT system<sup>\*5</sup>) in July 2012, UBE established U.S. Power Co., Ltd. as a joint venture with Showa Shell Sekiyu K.K. The 21.3 MW mega solar power facilities currently being constructed in Ube, Yamaguchi Prefecture, are scheduled to begin operations in July 2014. These facilities



Artist's rendering of the U.S. Power facility

will supply 25 million kWh of electricity annually, equivalent to the amount used by 6,900 households,<sup>\*6</sup> contributing to the expansion of renewable energy in Japan.

Furthermore, UBE plans to use the findings of its 2010 PKS (palm kernel shell) co-combustion experiments and apply its proprietary carbonizing technologies to bring into practical use the production of biomass fuels from easily pulverizable processed PKS and other materials. By doing so, the Company hopes to supply these fuels not only within the Group, but also to outside companies.

By tackling today's energy-related changes head-on, the UBE Group is securing a stable platform for business continuity in Japan through electricity while working to preserve the Earth's environment through the use of renewable energy.



Low-temperature carbonized PKS (left) and raw PKS (right)

- \*1. IPP: Independent Power Producer
- \*2. PPS: Power Producer & Supplier
- \*3. RSP (Renewable Portfolio Standard): A system that requires electricity supply companies to produce a specified fraction of their electricity from renewable energy sources, such as solar, wind and biomass power generation.
- \*4. A joint power-saving initiative conducted in fiscal 2010 by UBE's Cement & Construction Materials Company and Energy & Environment Division. This initiative received the Director-General's Prize from the Agency for Natural Resources and Energy (in the Successful Case of Energy Conservation Category) at the fiscal 2010 Grand Prize for Excellence in Energy Efficiency and Conservation, sponsored by the Energy Conservation Center, Japan.
- \*5. FIT (Feed-in Tariff): a system under which electricity supply companies are required to purchase electricity generated from renewable sources at a fixed price.
- \*6. Equivalence to power needs of ordinary households is calculated as approximately 6,900 households' worth, based on the consumption of 3,626.4 kWh per household (source: "Graphical Flip-chart of Nuclear & Energy Related Topics", The Federation of Electric Power Companies). Annual reduction of CO<sub>2</sub> is estimated at 8,300 tons, calculated as a reduction of 334.0 grams of CO<sub>2</sub> per kWh (source: Japan Photovoltaic Energy Association, "Industry Rules for Expression").

# Message from the President



“The founding philosophies of the UBE Group are “living and prospering together” and “creating industries with infinite possibilities from the finite resources of coal.” These philosophies, espoused by founder Sukesaku Watanabe, have been passed down continuously over the Group’s 116 year history to today. All of us at UBE take pride in these traditions. We will grow into a group with an even stronger presence by continuing to exercise our founding philosophy and adhere to our Group vision when taking on challenges.”

*Michio Takeshita.*

Michio Takeshita

Ube Industries, Ltd. President and Group CEO, Representative Director

In 2013, we established the new medium-term management plan Change & Challenge—Driving Growth. The basic strategies of this plan are to strengthen the revenue base to enable sustainable growth, maximize the global strength of the UBE Group, and address and be part of the solution for resource, energy and global environmental issues. Under these three basic strategies, UBE will increase its corporate value and respond to stakeholder expectations through its global business activities.

Furthermore, building on the spirit of our founding philosophy and Group vision (see p. 12), we have reaffirmed the following core UBE Group values:

- (1) Provide customers with added value as a manufacturer and contribute to global society
- (2) Create and enhance new value by actively seeking new challenges
- (3) Comprehend essential issues deeply and act swiftly, thoroughly and in a timely manner.

All of us at UBE share these three values as we implement Change & Challenge.

## The UBE Group’s CSR

CSR is an approach to corporate management that defines such management as a company’s actions to fulfill its role as a member of society. It is of the utmost importance that the UBE Group grows and develops sustainably. Reinforcing the profit base, addressing global environmental issues and coexisting with and contributing to local communities are all indispensable to such growth. In particular, with regard to social contribution, it is important to think seriously about what kinds of activities make sense for us and will be useful to local communities, and then to systematically implement those activities.

In Ube, Sakai, Chiba, Spain, Thailand and all the other locations where the UBE Group maintains business bases, this policy does not waver. Growing in vitality along with local communities through the consistent application of this approach is what “living and prospering together” is all about. By supporting and participating in local activities and exchanges with schools, our business bases develop ever closer communication with their local communities. However, it is now necessary to not only engage in new initiatives, but also to reflect on our activities thus far and ask ourselves what we can do to deepen mutual understanding even further.

Going forward, as a member of many local communities, UBE will cooperate with stakeholders to be even more proactive in engaging in meaningful social contribution that best utilizes the Company’s abilities and characteristics.

## Responding to and Addressing Global Environmental Issues

The initiatives we have in place to deal with global environmental issues are evolving day by day. As part of its CSR, UBE actively engages in activities aimed at realizing a sustainable society that include working to cut greenhouse gas emissions, reduce electricity and other energy consumption, and preserve biodiversity. Going forward, we must pursue such efforts not only at bases in Japan, but globally, in a unified way across the UBE Group. Biodiversity is a broad theme; in thinking about what we can do through UBE’s business activities, we will first work to systematically grasp the impact of UBE’s business activities on biodiversity.

The UBE Group has many environment-friendly technologies and products. In businesses related to next-generation energy, these include the use of ceramics and PKS (palm kernel shells). Businesses that contribute to reduced energy use and environmental impact

include cement, which uses waste materials, as well as recycled compounds and environment-friendly coating materials. We will continue to promote the growth of these and other businesses that improve and protect the environment, including materials for treating exhaust gas, water and soil, and synthetic fragrances that do not use natural resources. Simultaneously, we will strive to create new technologies and products to further expand UBE businesses that contribute to the environment.

### Looking Back on the Previous Medium-Term Management Plan

In fiscal 2010, the first year of the plan, we made progress that exceeded the plan's forecasts. However, UBE's business environment has deteriorated since the latter half of 2011, and results for fiscal 2012 were considerably below initial targets. Still, we were able to meet our fiscal 2012 targets in terms of net D/E ratio and other financial indicators.

We have experienced severe changes in the external environment, like the Asian currency crisis and the financial crisis of 2008. However, what we have seen since the second half of 2011 is not a temporary dip in conditions, but a major shift in the very composition of markets. I believe it will be difficult to recover unless we squarely accept these changes. The key to improving results lies in adjusting not only the way we operate our businesses, but also the way we think.

### The New Medium-Term Management Plan: Change & Challenge—Driving Growth

We launched our new medium-term management plan at the beginning of fiscal 2013. In deciding on the title, we thought about what would be necessary to achieve recovery in business results and to get our businesses onto a growth trajectory. The environment surrounding UBE's businesses is changing significantly. Advancing our R&D and marketing or business strategy merely as extensions of what we have done in the past will not be sufficient to keep up with external changes, nor would such an approach be likely to improve results or move us onto a growth trajectory. Thinking about the need for the UBE Group to face the changes in its environment directly and adapt accordingly, I first came up with the word "change." However, change alone is not enough. I think that it is important to keep a forward-looking attitude, carefully and deliberately considering which direction to move in, deciding which hurdles to clear, and actively taking on new goals and challenges. That is the meaning I wanted to express with the title "Change & Challenge." With those two words in mind, we aim to create a corporate climate that steadily puts these ideas into action.

### New Basic Strategy: Maximize the Global Strength of the UBE Group

One of the basic strategies laid out in the new plan is to maximize the global strength of the UBE Group. There is a tendency, not only

within UBE, but in Japan in general, to think within the binary framework of "Japan" and "overseas." We must first look at the entire "global" picture, within which Japan is one area. In that sense, UBE's globalization is still incomplete.

In order to secure the global expansion of the Group's products, it will be vital to improve the Groupwide distribution of human resources and marketing structures, so that we can make the fullest use of them. To support these initiatives, I hope that we can globally share and make use of such Group marketing assets as internal customer and application information while further deepening collaboration among Group companies by utilizing and developing human resources to be more our adaptive to the scope of our operations, which now span the globe.

August 2013

### New Medium-Term Management Plan: Change & Challenge—Driving Growth (FY2013–FY 2015)

#### Basic Strategies

- Strengthen the revenue base to enable sustainable growth**
  - Maintain a strategic emphasis on cash flow while increasing proactive investment to achieve sustainable growth over the medium- and long-term
  - Concentrate on capital investment for strategic growth businesses and expand global businesses
  - Core platform businesses: Actively invest in segments anticipated to deliver increased earnings
  - Accelerate efforts to develop and foster new businesses, focusing on energy and the environment
- Maximize the global strength of the UBE Group**
  - Strengthen global marketing
  - Share and use information and marketing assets, and strengthen collaboration among Group companies
  - Pursue global R&D
- Address and be part of the solution for resource, energy and global environmental issues**
  - Contribute to a sustainable society by energetically executing initiatives to decrease greenhouse gas (GHG) emissions, reduce electricity and other energy consumption, and conserve biodiversity
  - Develop and popularize technologies that help to expand the use of renewable energy while conserving resources and reducing environmental impact

#### Numerical Targets

		Targets for Fiscal 2015
Key Figures	Operating income	¥ 55.0 billion +
	Equity capital	¥270.0 billion +
Management Indicators	Operating margin	7% +
	Return on total assets (ROA)	7% +
	Return on equity (ROE)	12% +

# Corporate Profile

## Corporate Profile

Company Name: Ube Industries, Ltd.

Founded: June 1, 1897

Consolidated: March 10, 1942

President and Group CEO: Michio Takeshita

Capital: ¥58.4 billion (as of March 31, 2013)

No. of Employees: 11,090 (consolidated) 4,072 (unconsolidated)  
(as of March 31, 2013)

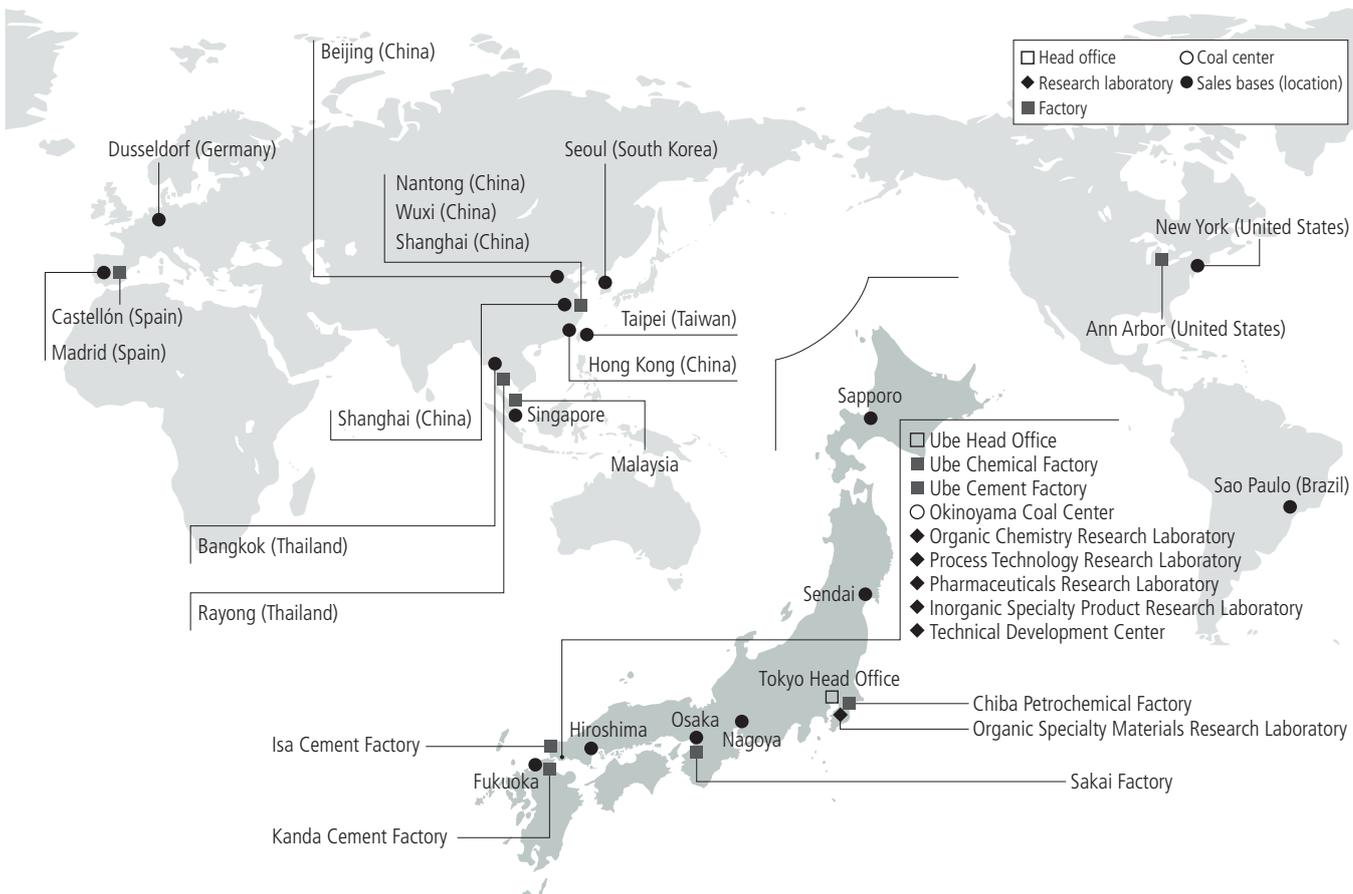
## Business Profile

Business Segment Name	Main Products
Chemicals & Plastics	Nylon resins, caprolactam (a basic raw material for nylon), synthetic rubber, ammonia
Specialty Chemicals & Products	Specialty products such as battery materials and polyimide, fine chemicals
Pharmaceutical	Drug discovery, manufacturing of pharmaceutical active ingredients and intermediates
Cement & Construction Materials	Cement, ready-mixed concrete, construction materials, recycling of resources, calcia/magnesia
Machinery & Metal Products	Molding machines, industrial machinery
Energy & Environment	Coal, electric power

## Fiscal 2012 Topics

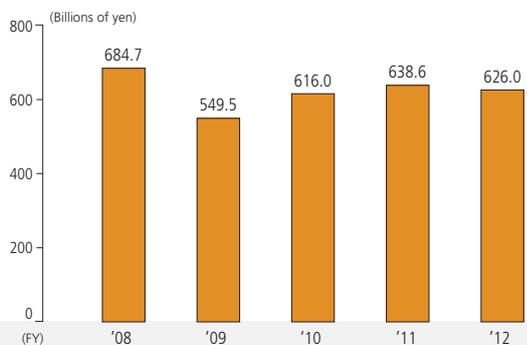
April 2012	<ul style="list-style-type: none"> <li>Work begins at the Sakai Factory on the expansion of production facilities for separators used in lithium-ion secondary batteries</li> <li>Agreement reached for business tie-up with Toyo Machinery &amp; Metal Co., Ltd. to produce die-casting machines</li> </ul>
May	<ul style="list-style-type: none"> <li>Capital alliance reached between UBE Chemicals (Asia) Public Co., Ltd. and IRPC Public Company Limited of Thailand</li> <li>Super eco-ship <i>Kou Zan Maru</i> receives the Grand Environmental Logistics Award at the 13th Grand Annual Environmental Logistics Awards, hosted by the Japan Federation of Freight Industries</li> </ul>
July	<ul style="list-style-type: none"> <li>Local subsidiary established in India</li> </ul>
August	<ul style="list-style-type: none"> <li>Expansion of phase one synthetic rubber manufacturing facilities at Chiba Petrochemical Factory completed</li> </ul>
October	<ul style="list-style-type: none"> <li>Planned expansion of nylon 6 resin manufacturing facilities in Spain announced</li> </ul>
January 2013	<ul style="list-style-type: none"> <li>Sludge drying equipment installed at the Isa Cement Factory begins operations</li> </ul>
February	<ul style="list-style-type: none"> <li>Discontinuation of Sakai Factory's caprolactam production facilities as of March 2014 announced</li> <li>Received the Nippon Keidanren (Japan Business Federation) Chairman's Prize for the effective use of recycled plastic with color-adjusting resin recycling technology at the 22nd Grand Prize of the Global Environment Award</li> </ul> 
March	<ul style="list-style-type: none"> <li>Malaysian synthetic rubber production joint venture with LOTTE CHEMICAL Group of South Korea established</li> <li>Merger of Ube Machinery Corporation, Ltd. and Ube Techno Eng Co., Ltd announced</li> <li>Joint venture with Showa Shell Sekiyu K.K. for sales of electric power generated by a mega solar power plant established</li> </ul>

## Business Bases in Japan and Overseas

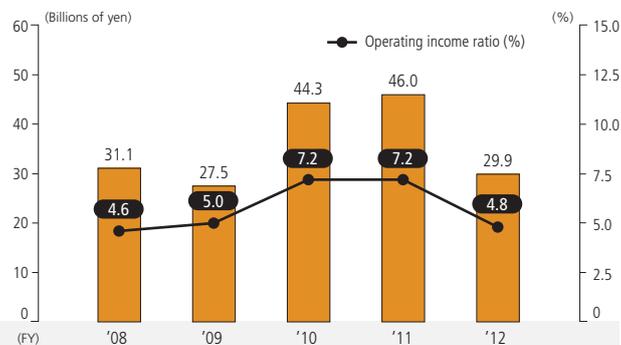


## Major Financial Data (Consolidated)

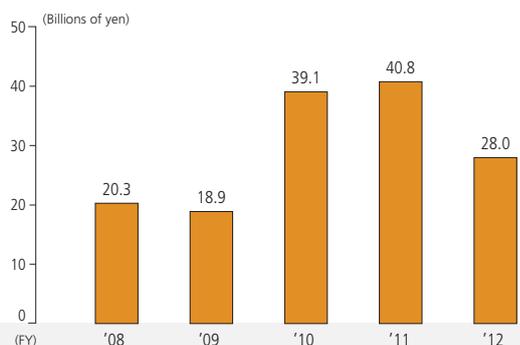
### Net Sales



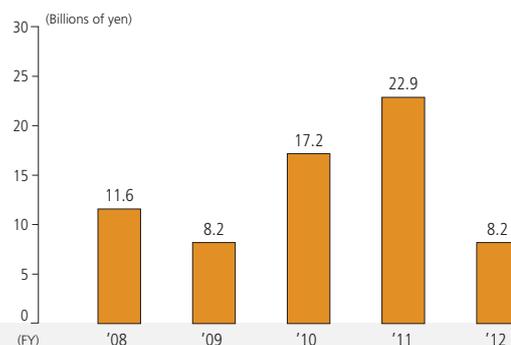
### Operating Income and Operating Income Ratio



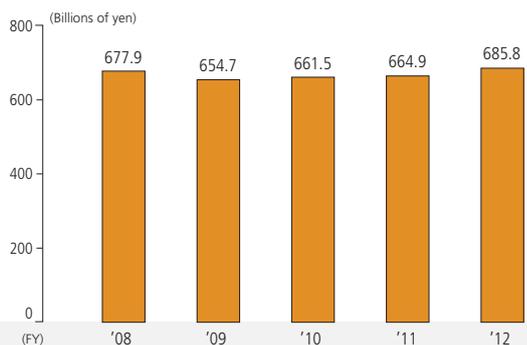
### Ordinary Income



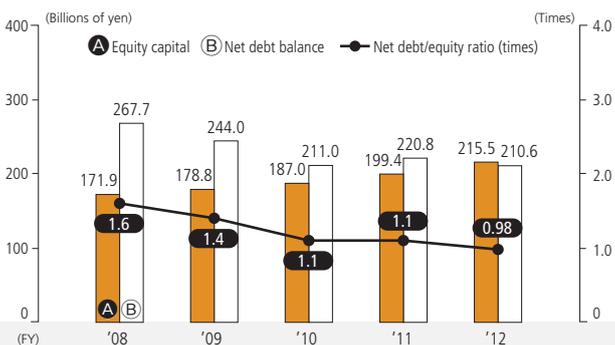
### Net Income



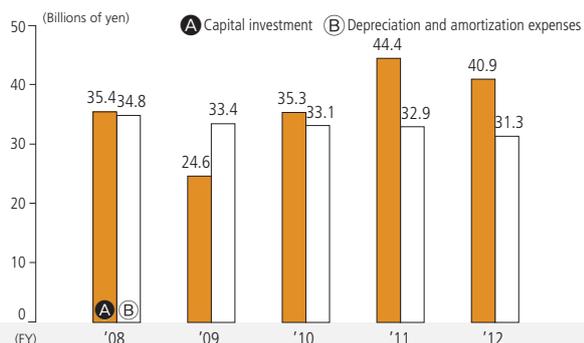
### Total Assets



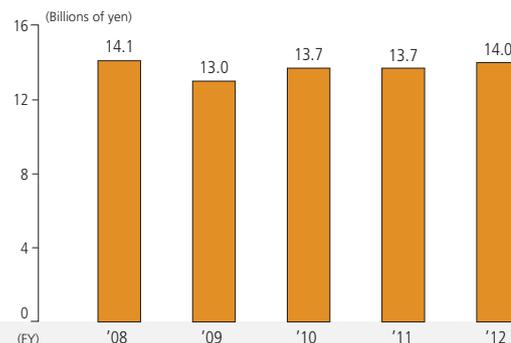
### Equity Capital, Net Debt and Net Debt/Equity Ratio



### Capital Investment, Depreciation and Amortization Expenses



### R&D Expenditures



# The Spirit of “Living and Prospering

This is UBE’s founding philosophy and core CSR concept and has been passed down for over 115 years

## ■ Promoting the Management Philosophy, “Living and Prospering Together” to Create Ideal Local Communities

Sukesaku Watanabe, the founder of UBE Kosan, was a businessman who loved his hometown. Strongly believing in the importance of maintaining close links with local communities while pursuing business development, Watanabe undertook various initiatives to upgrade the civil and social infrastructure of the region. Such initiatives included establishing an electric company that provided the region’s first electric lighting, constructing water supply facilities and railroads, and setting up schools to foster the development of human resources. Sukesaku Watanabe’s favorite phrase, “living and prospering together with the local community,” forms the basis of the UBE Group’s CSR activities.

## ■ Promoting the Management Philosophy “Creating Industries with Infinite Possibilities from the Finite Resources of Coal” to Foster a Frontier Spirit

Anticipating a future in which there would be no coal left to mine, Watanabe espoused the philosophy of “creating industries with infinite possibilities from the finite resources of coal” in order to ensure the continuing prosperity of local communities. Consequently, he focused his efforts on making the transition from the coal mining industry to new, developing industries. In particular, Sukesaku Watanabe had the foresight to use soil removed from mines to create waterfront landfills that could serve as industrial sites. In addition, he established harbor jetties and railroads while opening steel, cement and chemical factories. Such facilities currently form the foundation of the UBE Group. In line with Watanabe’s philosophy of taking on new business challenges, UBE cultivates a corporate culture that encourages a spirit of challenge that fosters a frontier spirit in every employee.

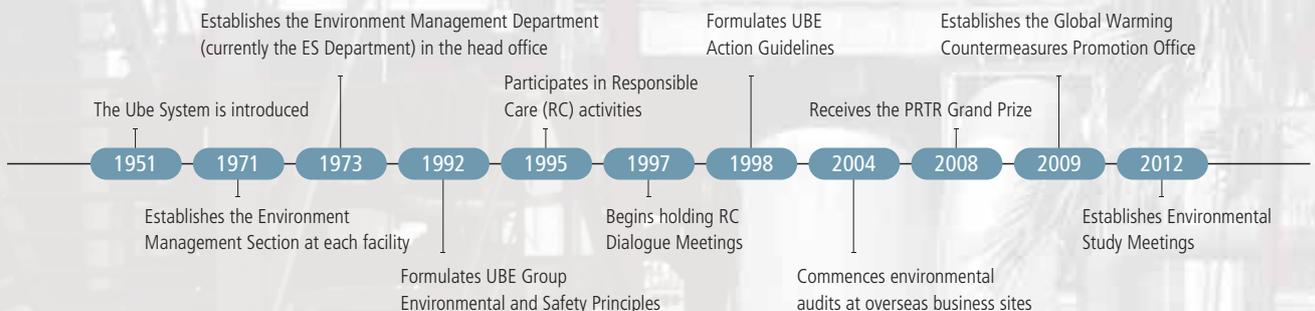
## ■ Undertaking the “Ube System” Pollution Prevention Initiative through Dialogue with Industry, Government, Academia and Citizens

Japan’s period of rapid economic growth produced air and other types of industrial pollution in a number of places. Ube City was no exception. With a spirit of autonomy that emphasizes independent action to protect one’s community, however, in 1951 Ube City launched a pollution prevention committee chaired by the mayor and comprising representatives from industry (including UBE), government, academia and members of city council. The proactive dialogue and information disclosure that took place among these parties led to the formulation of independent pollution prevention measures and constitute the beginning of what is now known as the Ube System. These efforts predated the Japanese government’s Environmental Pollution Prevention Act by 15 years.

During a visit to the United States around that time, then UBE Vice President Kanichi Nakayasu was astonished to find out how the city of Pittsburgh had solved its severe air pollution problem in a very short time period. Having studied this accomplishment, immediately upon his return to Japan Nakayasu began promoting an environmental pollution initiative spearheaded by measures to control dust emissions. Ever since, the UBE Group has steadily implemented voluntary environmental preservation measures at all Group factories.

In 1997, Ube System environmental protection initiatives were globally recognized, with Ube City being awarded the Global 500 Award by the United Nations Environmental Programme (UNEP).

### Environmental Protection Initiatives



Caprolactam Plant in Spain

# Together with Local Communities”

## Group Vision: Wings of Technology and Spirit of Innovation

That’s our DNA driving our global success. The Ube Group will embrace a frontier spirit in seeking to achieve coexistence with the global community driven by the limitless possibilities of technology, while continuing to create value for the next generation.

The UBE corporate philosophy, “living and prospering together with the local community,” and a spirit of unremitting self-reform comprise the UBE Group vision. This Group vision is being passed along to every employee. The UBE Group’s strengths lie in business activities centered on product manufacturing through the use of original technology as well as a proactive approach that meets the needs of the age. Expanding these strengths worldwide, we will work to realize sustainable development around the globe with the aim of achieving “global coexistence.”

The UBE Group works to achieve sustainable business and social development by positioning its **Basic CSR Policy** at the center of its business activities. In so doing, we are fulfilling our responsibility to maintain coexistence between business and society. In addition, we adhere to **UBE’s Action Guideline** in order to realize proactive CSR activities and, in turn, attain the trust of all stakeholders.

### UBE Group Basic Policies for CSR

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- Continually improve profits and earnings and maintain a sound financial position in order to increase corporate value
- Provide products, services, and systems that contribute to safety and the environment, reduce the use of harmful materials and waste, and institute policies for the prevention of global warming in order to contribute to the conservation of the global environment
- Establish compliance procedures to improve corporate governance and create a better working environment as a part of our activities to contribute to society

Established July 2005

### Nine Chapters of the UBE Action Guidelines

---

#### Chapter 1 Corporate Mission and Social Responsibility

We will strive to create new value and achieve sustainable growth as a corporation, while actively fulfilling our corporate social responsibilities in contributing to the sound growth of society.

#### Chapter 2 UBE Group and the Law

We will comply with applicable legislation and our company regulations, conducting ourselves as a member of a sound society. We will refrain from any ties or transactions with antisocial forces, and will not bow to the unreasonable demands of antisocial forces.

#### Chapter 3 Business Activities and Creating Value

We will develop and supply technologies, products and services that are safe and serve useful purposes, in order to earn the confidence of the public.

#### Chapter 4 Fairness and Integrity

We will strive to promote fair and open competition while executing our work with integrity as we pursue our business activities both at home and abroad.

#### Chapter 5 Safety and the Environment

We are committed to safety, and will actively and voluntarily implement initiatives to conserve the global environment as an issue facing all humankind.

#### Chapter 6 UBE Group and Human Rights

We will respect human rights and create healthy and positive workplaces that are comfortable to work in, as we pursue our business activities both at home and abroad.

#### Chapter 7 UBE Group and Information

We will strive to protect information and engage in appropriate disclosure of corporate information, while actively and thoroughly facilitating communication with society.

#### Chapter 8 UBE Group and the International Community

We will contribute to the growth of the regions we are involved in, as a member of the international community.

#### Chapter 9 Summary: Building a Firm Foundation of Corporate Ethics

We will build a firm foundation of corporate ethics, based on the Ube Action Guidelines and through close cooperation between UBE Group companies and our business partners.

Revised July 2009

# CSR Management

## CSR Promotion System

We have established the Group CSR Committee as a top-level decision-making body with regard to the UBE Group's Basic CSR Policies. It is composed of members of the Group Management Committee and is chaired by the Group's CEO (president). The Group CSR Committee makes decisions on and revises important matters related to the Group's Basic CSR Policies and CSR promotion activities, and it assesses the results of the Group's CSR-related activities.

### ● Group CSR Committee System

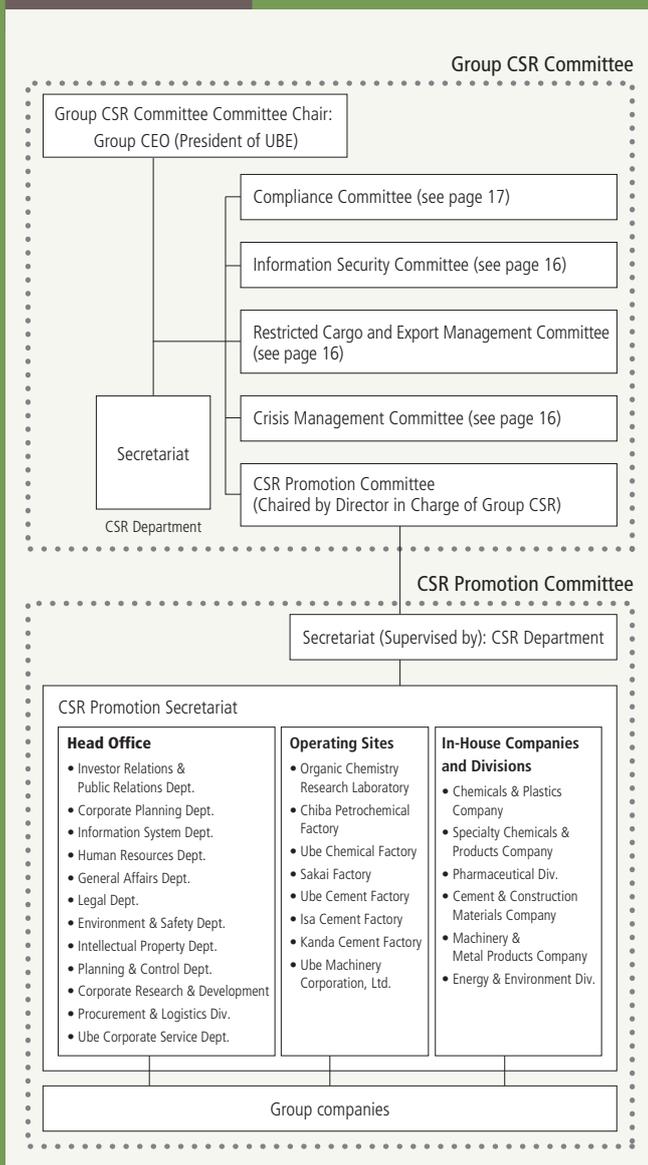
With the idea that CSR is an integral part of its management, the Group CSR Committee establishes the CSR matrix, and five specialized committees undertake deliberations, reporting and revisions related to specific action plans. Through this system, the Group aims to harmoniously coexist with society by promoting fair corporate activities that deepen the level of trust between the Group and its numerous stakeholders, including shareholders, customers, suppliers, employees, local communities and governments.

### ● Significance of the UBE Group CSR Matrix

The CSR matrix clarifies the contents of CSR issues, broken down by stakeholder, that must be addressed by every UBE Group executive and employee based on the Group's CSR Mission.

The UBE Group thoroughly promotes Groupwide awareness of its CSR matrix, while the Group CSR Committee regularly makes revisions to specific initiatives listed in the CSR matrix.

## CSR Promotion System



## UBE Group's CSR Mission

The UBE Group increases corporate value and contributes to stakeholders through fair corporate activities. At the same time, the Group maintains business continuity and sustainable growth as it harmoniously coexists with society over the long term.

### Shareholders

- Continuous improvement of corporate value
- Stable and appropriate provision of dividends
- Appropriate information disclosure

### Customers

- Provision of products and services that are safe, of high quality and useful, at reasonable prices
- Prompt response to customer needs

### Suppliers

- Fair and unbiased trade

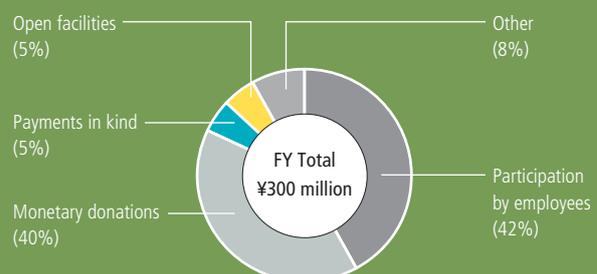
### Employees

- Appropriate salaries
- Stable employment
- Human resource development
- Sharing of information and targets
- Support for higher quality of life

### Local communities and government

- Stable and fair employment
- Appropriate tax payment
- Contribution to and dialogue with the local communities

## Breakdown of spending on Social Contribution Activities in FY2012 (By Type)



UBE Group's CSR Matrix (Items for medium- and long-term initiatives broken down by stakeholder)

Basic policies	Items for medium- and long-term initiatives	Page included	Groupwide organization	Primary department in charge	
<b>Corporate governance and internal control</b> ● To establish highly transparent corporate governance and an efficient and disciplined enforcement system ● Ensure ongoing business operations by formulating a business continuity plan (BCP)	Shareholder	<ul style="list-style-type: none"> <li>Enhancement of corporate governance and internal control</li> <li>Stable and appropriate provision of dividends</li> <li>Further strengthening of profit base and improvement of financial structure</li> </ul>	15, 16 19	<ul style="list-style-type: none"> <li>General Meeting of Shareholders</li> <li>Board of Directors</li> <li>Internal control system</li> <li>Outside directors</li> <li>Group Strategic Management Committee</li> <li>Crisis Management Committee</li> </ul>	<ul style="list-style-type: none"> <li>Corporate Planning Dept.</li> <li>Auditing Dept.</li> <li>General Affairs Dept.</li> </ul>
	Customer	<ul style="list-style-type: none"> <li>Assurance of fair trade and competition</li> </ul>	18		
	Supplier	<ul style="list-style-type: none"> <li>Fair and unbiased purchasing</li> </ul>	20		
	Employee	<ul style="list-style-type: none"> <li>Awareness of management policies</li> <li>Better understanding of CSR activities</li> <li>Business performance based on assigned roles</li> <li>Cultivate a sense that employees have a stake in management operations (through stock options, etc.)</li> </ul>	11 13 12 20		
	Local community, society and government	<ul style="list-style-type: none"> <li>Appropriate tax payments</li> <li>Maintain an appropriate relationship of trust with government agencies and other bodies</li> </ul>	20		
<b>Compliance</b> ● To comply with corporate ethics and social norms without fail ● To comply with laws, regulations and contractual obligations ● To eliminate the presence of antisocial elements	Shareholder	<ul style="list-style-type: none"> <li>Prevention of insider trading</li> <li>Appropriate and timely disclosure of information</li> </ul>	19	<ul style="list-style-type: none"> <li>Compliance Committee</li> <li>Hold conferences regarding the Act against the Delay in Payment of Subcontract Proceeds, etc. to Subcontractors and the Law for Securing the Proper Operation of Worker Dispatching Undertakings and Improved Working Conditions for Dispatched Workers</li> <li>Restricted Cargo and Export Committee</li> </ul>	<ul style="list-style-type: none"> <li>Legal Dept.</li> <li>Procurement &amp; Logistics Div.</li> <li>Corporate Planning Dept.</li> </ul>
	Customer	<ul style="list-style-type: none"> <li>Compliance with related laws and regulations, including the Antimonopoly Act</li> <li>Strict confidentiality of customer information, etc.</li> </ul>	17~18		
	Supplier	<ul style="list-style-type: none"> <li>Respect for intellectual property</li> <li>Compliance with related laws and regulations, including the Act against the Delay in Payment of Subcontract Proceeds, etc. to Subcontractors and the Law for Securing the Proper Operation of Worker Dispatching Undertakings and Improved Working Conditions for Dispatched Workers</li> <li>Refusal to deal with antisocial elements</li> </ul>	19 18		
	Employee	<ul style="list-style-type: none"> <li>Promotion of understanding and awareness (including overseas subsidiaries) of the Action Guidelines for Business Conduct, etc., thorough compliance education and improvement of compliance-related systems (reporting, consultations, etc.)</li> <li>Provision of thorough compliance training as well as information on laws and regulations that must be adhered to and the upgrading of compliance-related systems (reporting, consultations, etc.)</li> </ul>	12 17~18		
	Local community, society and government	<ul style="list-style-type: none"> <li>Compliance with related national laws, regulations and ordinances, more stringent prefectural standards, and other agreements</li> </ul>	17~18		
<b>Environment, safety, and quality</b> ● To conduct business activities in consideration of the environment ● To provide high-quality products manufactured in a safe manner ● To disclose environmental and product safety information	Shareholder	<ul style="list-style-type: none"> <li>Promotion of better understanding of environment-, safety- and quality-oriented management</li> </ul>	31	<ul style="list-style-type: none"> <li>Group Environment and Safety Committee</li> <li>Group Product Safety Committee</li> <li>Crisis Management Committee</li> </ul>	<ul style="list-style-type: none"> <li>Environment &amp; Safety Dept.</li> <li>General Affairs Dept.</li> </ul>
	Customer	<ul style="list-style-type: none"> <li>Development and provision of products and services that help reduce environmental impact</li> <li>Provision of safe, secure, high-quality products and services</li> <li>Compliance with related laws and regulations</li> </ul>	47~52 45 41, 45		
	Supplier	<ul style="list-style-type: none"> <li>Implementation of more measures for the reduction of environmental impact</li> <li>Clarification of product safety and quality requirements</li> <li>Promotion of green purchasing</li> <li>Promotion of CSR procurement</li> </ul>	31~45 20		
	Employee	<ul style="list-style-type: none"> <li>Improvement of education and awareness concerning the environment, safety and health, quality, and energy conservation</li> <li>Realize safe and comfortable workplaces</li> </ul>	23 25,46		
	Local community, society and government	<ul style="list-style-type: none"> <li>Compliance with environment-, product-, and service-related laws and regulations</li> <li>Proactive measures to reduce environmental impact</li> <li>Ensure the safety and security of the local community</li> <li>Consider ways to ensure biodiversity preservation</li> <li>Public disclosure of product safety information (hazards, laws and regulations, handling methods, etc.)</li> </ul>	45 35, 37~38 31-46, 53-54 39 45		
<b>Information disclosure and communication</b> ● To disclose information to stakeholders appropriately and in a timely manner and expand communication channels with them ● To appropriately manage information	Shareholder	<ul style="list-style-type: none"> <li>Disclosure of information about management status, CSR and risks</li> <li>Provision of appropriate information to investors and analysts</li> <li>Organization of a general meeting of shareholders in an open manner</li> </ul>	10 19 19	<ul style="list-style-type: none"> <li>Information Security Committee</li> </ul>	<ul style="list-style-type: none"> <li>Information System Dept.</li> <li>General Affairs Dept.</li> <li>Investor Relations &amp; Public Relations Dept.</li> </ul>
	Customer	<ul style="list-style-type: none"> <li>Provision of appropriate information about products, services, and safety</li> <li>Protection of personal information</li> </ul>	45 16		
	Supplier	<ul style="list-style-type: none"> <li>Clear statement of procurement policies</li> <li>Promotion of communications</li> <li>Appropriate administration of confidential information</li> </ul>	20 12 16		
	Employee	<ul style="list-style-type: none"> <li>Promotion of in-house communications</li> <li>Disclosure of information about working conditions</li> <li>Management of information security and protection of privacy</li> <li>Promotion of better understanding of the treatment of intellectual property rights</li> </ul>	20 24 16 19		
	Local community, society and government	<ul style="list-style-type: none"> <li>Promotion of better communication with the local community, society, government and related organizations (through the UBE-i-Plaza, RC Regional Dialogue and the publication of local newsletter "Tsubasa," etc.)</li> <li>Establishment of favorable relations with mass media companies</li> </ul>	20, 21 19		
<b>Human rights and labor</b> ● To respect the human rights of people who are affected by the Group's corporate activities ● To respect the human rights of employees, including those of partner companies	Shareholder	<ul style="list-style-type: none"> <li>Promotion of better understanding of and increased support for human rights</li> </ul>	22, 24	<ul style="list-style-type: none"> <li>Personnel Policy Committee</li> <li>Human Rights Education Promotion Committee</li> </ul>	<ul style="list-style-type: none"> <li>Human Resources Dept.</li> </ul>
	Customer	<ul style="list-style-type: none"> <li>Consider people with disabilities when providing information about products and services</li> <li>Provision of advertisements that are not disagreeable to consumers</li> </ul>	C4		
	Supplier	<ul style="list-style-type: none"> <li>Provision of equal trading opportunities</li> </ul>	20		
	Employee	<ul style="list-style-type: none"> <li>Improvement of the personnel system to enable a variety of employees to display their abilities</li> <li>Improvement of health and safety at workplaces and better health management by employees</li> <li>Sincere dialogues with employees and the labor unions</li> <li>Discontinuance of discriminatory employment practices and provision of equal employment opportunities</li> <li>Education on respect for human rights</li> </ul>	22, 23 25 24 23, 24 24		
	Local community, society and government	<ul style="list-style-type: none"> <li>Creation and assurance of employment</li> <li>Diversity in hiring</li> <li>Compliance with labor-related laws and regulations</li> <li>Discussion and dialogue toward the creation of a society with high respect for human rights</li> </ul>	23, 24 18 22, 24		
<b>Social contribution</b> ● To conduct social contribution activities toward the creation of a sound and sustainable society	Shareholder	<ul style="list-style-type: none"> <li>Promotion of better understanding of and increased support for corporate social contribution activities</li> </ul>	13, 21, 26~30	<ul style="list-style-type: none"> <li>CSR Promotion Committee</li> </ul>	<ul style="list-style-type: none"> <li>CSR Dept.</li> </ul>
	Customer	<ul style="list-style-type: none"> <li>Promotion of better understanding of corporate social contribution activities</li> </ul>			
	Supplier	<ul style="list-style-type: none"> <li>Promotion of better understanding of corporate social contribution activities</li> </ul>			
	Employee	<ul style="list-style-type: none"> <li>Encouragement of and support for voluntary participation in social activities</li> </ul>	24		
	Local community, society and government	<ul style="list-style-type: none"> <li>Promotion of social contribution activities</li> <li>Better understanding of corporate social contribution activities</li> </ul>	13, 21, 26~30		

# Corporate Governance and Internal Control

## Initiatives to Establish and Maintain Corporate Governance

### ● Board of Directors

Three outside corporate directors have been appointed to the Board of Directors to bring a third-party perspective to decision making, thereby ensuring transparency and objectivity in management. Composed of seven corporate directors, of whom three are appointed from outside the Company, the Board of Directors is chaired by a director who, in principle, is not an executive officer. In addition, UBE has positioned a Nominating Committee and an Evaluation and Compensation Committee as subsidiary entities of the Board of Directors, allowing greater flexibility in the activities of the Board. Both of the committees are chaired by outside directors.

### ● Executive Officer System

In June 2001, UBE adopted an executive officer system with the aim of separating governance and management functions. The management team currently consists of 24 executive officers, of whom three are also directors. Executive officers carry out business operations in accordance with management policies determined by the Board of Directors, using authority delegated to them by the President and Representative Director. To realize flexible personnel matters with regard to directors and fully enforce a performance-related pay system, corporate director and executive officer terms of service last for one year.

### Basic Policies

- To establish highly transparent corporate governance and an efficient and disciplined enforcement system
- Ensure ongoing business operations by formulating a business continuity plan (BCP)

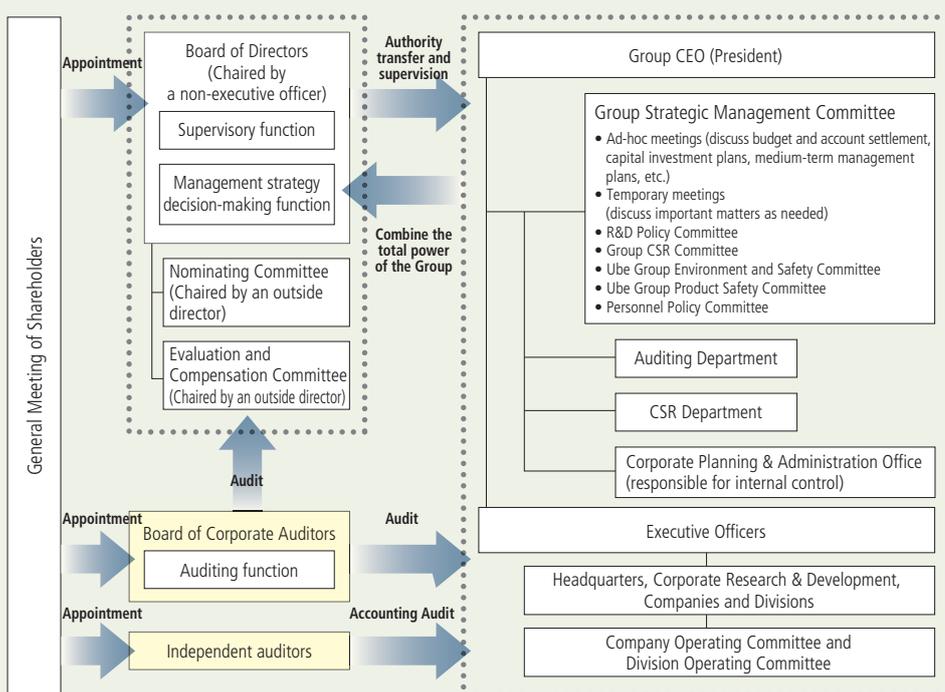
### ● Audit System

Internal audits are conducted by UBE's Auditing Department, which reports directly to the CEO. Audits cover the entire UBE Group, including UBE's overseas subsidiaries. By checking the status of internal control and compliance with laws and regulations as well as adherence to manuals, UBE endeavors to identify potential risk across all areas of its business activities. Moreover, as a member of companywide risk management organizations such as the Compliance Committee, the head of the Auditing Department collaborates with each committee and is working to strengthen risk management systems.

The corporate auditor organization consists of four corporate auditors, of whom two are appointed from outside the Company. The task of corporate auditors is to ensure that directors and executive officers perform their duties appropriately by attending important meetings, including meetings of the Board of Directors, by examining important approval documents and by receiving reports on operations from directors and other officers.

The corporate auditors and the Auditing Department regularly exchange information, and when the auditors conduct audits, some of the Auditing Department staff will accompany and support them as required. The auditors and the Auditing Department thus work in close cooperation with each other. The corporate auditors also regularly meet the independent auditors to hear about their auditing plans and to obtain information about the implementation status. In addition to receiving audit reports from the Group's corporate auditors, audit training sessions and exchanges of opinions are held regularly for the purpose of improving the quality of the audits.

## Corporate Governance Structure



### Decision-Making System

- **Board of Directors**  
On behalf of shareholders, the Board of Directors discusses and makes decisions on the issues provided for by the Companies Act, the basic policies of the Company and important enforcement issues from medium- to long-term perspectives.
- **Group Strategic Management Committee**  
The Group Strategic Management Committee is responsible for discussing and making decisions on key matters concerning resource allocation, items that need to be adjusted from an overall Group perspective, and other key matters that affect the Group as a whole in accordance with the Group Management Guidelines and Group Strategic Management Committee rules.
- **Company Operating Committee and Division Operating Committee**  
The Company Operating Committee and the Division Operating Committee are responsible for discussing and making decisions on key matters, such as business strategy, at their respective levels. They engage in these activities for Ube Industries and other UBE Group companies in accordance with the Group Management Guidelines and Company/ Division Operating Committee rules that govern their operations.

## Risk Management Systems

The UBE Group is developing and reinforcing its risk management system so that it can implement appropriate measures to identify and assess the probability and impact of risks that might prevent the attainment of its business objectives.

In order to deal with specific types of risks, we have established the Group Environment and Safety Committee and the Group Product Safety Committee. For the entire Group, these two committees formulate and actively implement policies concerning the environment and safety, and product safety, respectively. In addition, the Group has established the following committees to deal with individual risk categories.

### ● Information Security Committee

Due to the digitization of a wide range of information, companies are facing the risk of information leakage, falsification and loss, and these risks are having a serious influence on their corporate activities. The UBE Group has established information security policies to ensure information security, and it is raising employees' awareness of these policies and monitoring their compliance. We have also established information security rules and regulations to ensure appropriate information management.

In addition, UBE provides information security training via e-learning for all employees once a year as well as opportunities to learn about the latest information security measures.

### ● Restricted Cargo and Export Management Committee

We constantly reinforce awareness within the Group of the fact that the basic requirement of export management is to prevent the illegal export or supply of goods and technologies that are subject to export controls under laws and regulations designed to maintain international peace and stability, such as Japan's Foreign Exchange and Foreign Trade Act.

### ● Crisis Management Committee

In order to deal with environment- and safety-related accidents and disasters, including those at factories, and occupational injuries, the UBE Group established crisis management regulations, a crisis management manual and other measures to respond to emergencies that could occur either in Japan or overseas. Through such measures, the Group maintains a system that enables rapid and appropriate responses to a variety of incidents, thus minimizing the impact on its business operations. Moreover, the Overseas Crisis Management (OCM) committee has been established within the Crisis Management Committee to take charge of crisis management for employees who are on business trips or working overseas.

## Response to Disasters and Business Continuity Plans (BCP)\*1

In terms of preparedness for a major earthquake in the Tokyo metropolitan area or the Tonankai and Nankai regions that lie south of it, in fiscal 2011 we made major revisions to measures to ensure the safety of our employees and to our BCP based on lessons learned from the Great East Japan Earthquake. In fiscal 2012 we made further revisions to our BCP based on drills and tests. We will continue to enhance such BCP activities in preparation for disasters, including earthquakes in the Tokyo metropolitan area and Tonankai and Nankai regions.

We are also improving our BCP and manual for responding to future outbreaks of new influenza strains in accordance with the "Governmental Action Plan" and "Countermeasure Guidelines" under Japan's Special Measures Act to Counter New Types of Influenza. In the event of an outbreak, we seek to ensure the safety of employees and their families, prevent the spread of viruses and minimize the impact of an outbreak on corporate activities.

Furthermore, considering the enormous impact industrial disasters have had on Japan in recent years, we are revising the Groupwide response structure for dealing with the unlikely event of an explosion, fire, or other such incident at an UBE factory.



Yukiyasu Kaneko, Manager, General Affairs Department,  
General Affairs Group



### From BCP to BCM\*2

According to recent external surveys, approximately 45% of Japanese companies have already instituted BCPs. Their motivations for adopting BCP also vary from an abstract notion of BCPs being part of a CSR approach to more specific realizations such as that BCP allows a company to fulfill its responsibilities to its customers and that existing customers require us to produce it.

Nevertheless, despite the effort put into creating BCPs, without the firm establishment of business continuity management (BCM), involving actually carrying out regular drills to test, evaluate and improve the plans, such plan is worth no more than the paper it is written on.

What we need is creative, useful drills that exercise not only the body, but also the mind. Every year, the UBE Group carries out BCP drills that make use of the body, mind and heart. It then applies evaluations of these drills to improve its BCP in preparedness for an earthquake occurring in the Tokyo metropolitan area. We will continue these efforts in order to create truly practical BCP while simultaneously pursuing BCM that will ensure that we are able to respond effectively to an earthquake in the Tonankai or Nankai region, an outbreak of a new strain of influenza and other disasters.

## Glossary

\*1. BCP (business continuity plan): A plan made to minimize the suspension of business in the event of a disaster and to recover its functions as early as possible to ensure business continuity.

\*2. BCM (business continuity management): Continuous management to improve responsiveness to crises and help BCPs take root within the organization through such activities as regular drilling in order to evaluate and improve the effectiveness of BCPs.

# Compliance

## Basic Policies

- To comply with corporate ethics and social norms without fail
- To comply with laws, regulations and contractual obligations
- To eliminate the presence of antisocial elements

## Measures to Ensure Compliance

In order to continue to grow through its business activities, a company must not pursue profit alone; it must also strive to be a sound organization that is recognized as beneficial by society. As such, the assured compliance with laws as well as societal standards and rules is a necessary precondition to corporate viability.

Based on this understanding, the UBE Group continually works to make organizational improvements, to this end electing compliance officers as well as establishing a Compliance Promotion Division and an internal notification system. The Group also works to cultivate an organizational culture that does not create or tolerate compliance violations through compliance training for employees and executive officers and the distribution of relevant information.

## Clarifying and Increasing Awareness of Guidelines That Ensure Compliance

### ● Increasing Awareness of UBE Action Guidelines (see page 12)

To raise awareness of the UBE Action Guidelines, which are behavioral standards for all Group employees and executive officers, the Group posts the guidelines along with easy to understand explanations on its intranet and distributes a booklet version to executive officers and employees. The Group has also created a case example guidebook available via the Group's intranet that details how the UBE Action Guidelines apply in

specific situations that employees are likely to encounter. Through these and other measures, the UBE Group is working to find creative ways to present easy to understand real-life situations and how employees should react in order to heighten compliance awareness.

Moreover, the Group is working to ensure a common corporate ethical baseline by distributing an English-language version of the UBE Action Guidelines to all overseas Group companies.

### ● Measures to Eliminate Antisocial Elements

The means used by organized crime groups and other antisocial elements to secure funding grow more sophisticated every year. As a company, it is critical to take full measures to ensure that we are not inadvertently doing business with such elements. Therefore, the UBE Group takes a firm stance in dealing with all antisocial elements. The Group takes precautionary measures, one of which has been the establishment of a Basic Policy with Regard to Anti-Social Elements that it has posted on its website. This policy declares within the Group and to the world that we will have absolutely no dealings with antisocial elements. The Group also has created a manual explaining how to refuse business with such groups and what to do if contacted with illegitimate demands by such groups. Since November 2012, we have also been holding seminars and workshops on these topics for employees involved in sales, purchasing and general affairs.

### Overview of Systems Ensuring Compliance

#### ● Compliance Officer (CO)

Two directors have been appointed as Compliance Officers (one of whom was appointed as Chief Compliance Officer). Their task is to promote and ensure compliance throughout the UBE Group by supervising compliance-related activities.

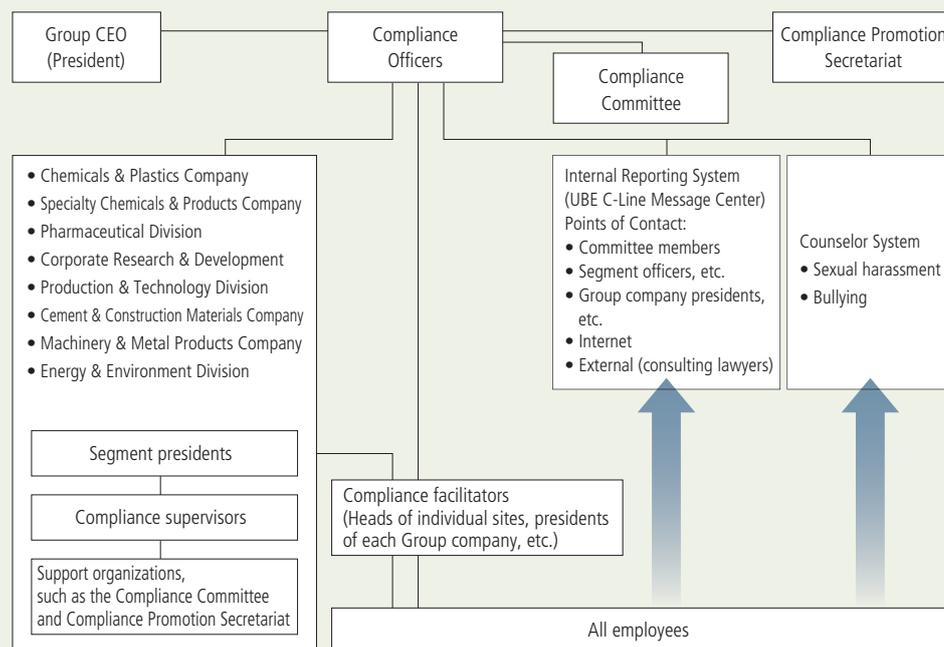
#### ● Compliance Committee

The Compliance Committee advises the Compliance Officers and deliberates on important compliance-related issues. To ensure transparency, a legal adviser (a consulting lawyer) has been invited to serve as an outside committee member.

#### ● Compliance Promotion Secretariat

This unit administers compliance-related activities under the direction and supervision of the CO.

### Compliance System



## Organizational Control Measures

### ● Clarifying the Individuals and Departments Responsible for Ensuring Compliance

The UBE Group appoints two executive officers to function as compliance officers (CO) who are charged with ensuring compliance groupwide. In addition, we established the Compliance Promotion Secretariat within the UBE Head Office to develop and implement compliance policies. The Group has also established a Compliance Committee comprising employees from each of UBE's divisions and offices as well as consulting attorneys to act as an advisory body to the COs. To ensure compliance, the Compliance Committee approves annual business plans and reviews their implementation, exchanges information on compliance violations, and discusses preventive measures.

### ● UBE C-Line Internal Notification System

With the goal of quickly identifying and rectifying compliance problems, we established the UBE C-Line Internal Notification System as a hot line that enables executive officers and employees to immediately report compliance-related problems. These reports are handled by the Compliance Promotion Secretariat, which works in cooperation with the parties involved to conduct rapid and careful fact gathering and work toward a solution.

## Training and Awareness Raising Measures

### ● Providing Information on Compliance

Because many compliance violations stem from a lack of awareness of laws and other rules, the UBE group promotes the correct understanding of relevant laws among its employees and executive officers. In particular, we have a dedicated webpage on the Group's intranet that provides

Number of Internal Notifications (Fiscal 2012)

Classification	Number of cases
(1) Human relationship issues in the workplace (bullying and sexual harassment, etc.)	1
(2) Labor management issues in the workplace (inappropriate administration of work hours, etc.)	0
(3) Business conduct issues in the workplace (improper actions, etc.)	1
(4) Combination of (1) to (3)	1
Total	3



e-learning



Winning compliance slogan poster

practical guides and information on amendments to such laws as the Antimonopoly Act and the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors.

### ● Online Training via e-Learning

Twice a year, we hold online training sessions using e-learning materials that focus on actual compliance-related incidents that have happened or could happen within the Group. These materials cover themes ranging from issues important to all executive officers and employees, including bullying, sexual harassment, copyright infringement and insider trading, to more specialized problems, including industrial waste treatment, the handling of regulated export items and unfair subcontractor transactions.

### ● Compliance Workshops

In addition to individual study via e-learning, UBE trainers hold workshops focusing on themes covering all areas of compliance at offices and facilities groupwide. In fiscal 2012 we held 56 such workshops, with around 1,000 executive officers and employees participating.

### ● Awareness Raising and Training on Individual Laws

Since 2006, we have annually held conferences to exchange information and promote strict compliance with the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors, bringing together managers in charge of purchasing and manufacturing as well as our legal department. The Group also provides opportunities for executive officers and employees to learn more about legal regulations covered by e-learning. Such opportunities include open lectures within the Group on such legal regulations as the Antimonopoly Act, the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors and the Unfair Competition Prevention Act.



Koichi Tanaka, Manager, Legal Department  
(Compliance Promotion Secretariat)



### Raising Compliance Awareness by Building Relationships of Trust

Recently, the Compliance Promotion Secretariat has been receiving many inquiries from various companies and divisions within the UBE Group asking if there are any compliance problems with plans they want to implement and what kinds of compliance issues they should look out for. I feel that this really shows the success of our efforts to emphasize the importance of compliance over the past few years.

Still, the Compliance Promotion Secretariat sometimes ends up having to put the brakes on business plans. For this reason, it is vital that we work to build relationships of trust with business divisions so that, when an issue arises, they will discuss the matter openly with us. To do so, we give particular care to the ways we communicate with business divisions on a daily basis, working, for example, to not simply say no to ideas because they cause compliance issues, but work together with business divisions to think of other approaches that won't lead to problems.

# Information Disclosure and Communication

## Relationships with Shareholders and Investors

### ● Interactive Communication through IR Activities

UBE always conducts its IR activities in good faith, striving to promote understanding of the UBE Group's management strategy and business conditions in capital markets and to implement transparent management in order to earn the trust of the market. To this end, we are disclosing information related to management strategy and business conditions in a timely, appropriate and fair manner. In addition, we are actively increasing opportunities for interactive communication with market participants, such as shareholders, investors and securities analysts, thereby promoting mutual understanding and incorporating market perceptions and evaluations into our management.

The following were the main IR activities conducted in fiscal 2012.

- Results briefings for institutional investors and securities analysts (Held after full-year results were announced)
- Web-based conferences for institutional investors and securities analysts (Held on the days that quarterly results were announced)
- Overseas IR (Individual visits to institutional investors in Europe, the United States and Asia: Three times)
- Small meetings held with the President (One time)
- Individual interviews with institutional investors and securities analysts (Approximately 240 per year)

UBE creates many opportunities for direct dialogue with investors in and outside Japan, including conferences and individual meetings. In addition, UBE also provides a wide range of information through its website.

As of 2013, we have changed the title of the semiannual financial report published for individual investors from *Stockholder Communication* to *UBE Business Report*, and are working to communicate UBE's business details and strategies in a way that is even clearer. UBE will continue to adhere to its commitment to timely, appropriate and fair information disclosure, and it will enhance interactive communication with investors.

### ● Ordinary General Meeting of Shareholders

UBE holds its ordinary general meeting of shareholders in Ube City, Yamaguchi Prefecture, where the Company was founded, in late June of every year. More than 1,000 shareholders attend this meeting each year. With the aim of creating an open, easy to understand event, we hold business briefings after the meeting that help shareholders understand UBE's business, including a brief explanation by the president of what progress has been made in the medium-term management plan.



107th Ordinary General Meeting of Shareholders

### Basic Policies

- To disclose information to stakeholders appropriately and in a timely manner and expand communication channels with them
- To appropriately manage information

### ● Dividend Policy

UBE regards the payment of dividends to shareholders as an important responsibility to be fulfilled by the Company for its shareholders and makes it a fundamental policy to pay dividends at a level that is commensurate with its earnings results. At the same time, we must also bear in mind the need to maintain an adequate level of retained earnings in order to ensure future business development and secure profits for shareholders on a medium- and a long-term basis. We determine the amount of dividends to be paid to shareholders based on these overall considerations. In line with the new medium-term management plan, we are aiming to increase the payout ratio from the 20% to 25% range to more than 30%. In fiscal 2012, UBE paid dividends of ¥5 per share.

### ● Ratings

Under the previous medium-term management plan, UBE set "sustained improvement of its financial position" as one of its key management priorities, and, as a result, its financial indicators have steadily improved. UBE's current rating with the Japan Credit Rating Agency, Ltd. is A- ("minus"), and that with Rating and Investment Information, Inc. rose one notch from BBB+ ("plus") to A- ("minus") in February 2013.

### ● Socially Responsible Investment (SRI) Index Rating

UBE has been selected by the FTSE4Good Global Index, a leading SRI index, since 2004. This index measures the performance of companies that meet globally recognized corporate responsibility standards in terms of environmental measures as well as employment, labor and human rights issues and is thus important as an investment selection standard for investors deeply concerned with CSR. In addition, Morningstar Japan K.K. has selected UBE to be included in the "Morningstar Socially Responsible Investment Index" (MS-SRI) since 2009. In this SRI index, the social character of companies is comprehensively rated in the four areas of corporate governance, the environment, social contributions and use of human resources. Out of some 1,000 companies considered in 2012, UBE was one of 150 selected for inclusion in the index.

## Intellectual Property Initiatives

UBE's Intellectual Property Department and R&D and business divisions work together to advance intellectual property-related activities globally, including at overseas bases. The purpose of this approach is to construct and utilize a strong network of patents, a source of UBE's competitiveness.

In Japan, UBE works to effectively utilize intellectual property, to this end adopting a system of managers in charge of patent acquisition as well as information managers in addition to searching for new intellectual property in R&D laboratories and offices and promoting human resource development via education on patent information searching. Overseas, the Group is building cooperative relationships in the area of intellectual property with its main production bases. We have launched basic intellectual property education for development and sales staff as well as intellectual property-related operational support at all overseas bases.

UBE is also working with universities and other institutions on patent information search education, for which one of the members of its Intellectual Property Department received the FY2013 Commissioner of the Japan Patent Office Award.

## UBE Engages in Purchasing Activities That Thoroughly Adhere to Its Purchasing Policies

### ● Approach to Green Purchasing\*1

In line with the Law on Promoting Green Purchasing, the UBE Group encourages its employees to choose eco-friendly products when purchasing stationery goods, copy paper, work uniforms and toner. We aim to increase the use of eco-friendly copy paper to 100%; UBE's percentage already stands at over 99%, exceeding the Group's target of 75%. In addition, vegetable oil-based ink has been used to print this CSR report on paper certified by the FSC.\*2 Through these efforts, the UBE Group's green purchasing rate has improved to 74%.

### ● Measures Concerning Green Procurement

Under its previous medium-term management plan, the Group pursued the adoption of CSR procurement.\*3 In fiscal 2011, we surveyed suppliers to determine the current status of their CSR activities, and in March 2013 we established a CSR procurement policy and guidelines that we published on our website. Going forward, we will advance CSR procurement to effect improvements at all steps of the supply chain.

#### Basic Purchasing Policies

##### Fair and Unbiased Transactions

We are committed to treating our suppliers in a fair and unbiased manner based on free competition and constantly search for opportunities to deal with new suppliers. We will cooperate with suppliers on a fair and equal footing and promote mutual understanding and relations of trust over a long-term basis.

##### Objective Selection of Suppliers

We will choose suppliers from the viewpoint of economic rationality by comprehensively examining their quality, prices, and delivery schedules.

##### Compliance with Laws and Regulations, and Confidentiality

We will comply with all related laws and regulations and with social norms, and we will protect all the confidential information obtained in our purchasing activities.

##### Green Procurement and Purchasing

We will choose environment-friendly products in our purchasing activities.

##### CSR Procurement

UBE is advancing CSR Procurement at all stages of the supply chain, including with suppliers, to increase its social credibility.

The UBE Group gives priority to suppliers that meet the following criteria.

- Have in place an internal framework for promoting CSR
- Emphasize quality and maintaining a stable supply
- Conduct business in a fair manner that honors corporate ethics, laws and societal standards
- Prioritize environmental considerations
- Exercise respect for human rights and safety and hygiene management
- Emphasize contributing to and communicating with society as well as information management and disclosure

#### Glossary

\*1. Green purchasing: To purchase products and services that have minimal environmental impact from suppliers who are committed to reducing their environmental impact, considering not only the quality and price of the products, but also the environment

\*2. FSC: Forest Stewardship Council

\*3. CSR Procurement: The procurement of goods and other items by companies using a set of criteria based on the status of supplier's CSR measures.

\*4. Please refer to page 32

## Internal Communication

With the aim of improving its CSR, the UBE Group encourages internal communication. We convene corporate briefings for corporate officers and managers as well as roundtable meetings for corporate officers and employees. The casual exchange of opinions among participants is a characteristic of these gatherings. In fiscal 2012, we held corporate briefings 13 times, with 1,406 participants, and roundtable meetings 17 times, with 196 participants. In addition, the Group utilizes its intranet, internal publications and other forms of communication to deepen mutual understanding. Such efforts foster the development of a sense of unity within the Company and increase employee morale.

## Communication with Local Communities, Society, Government and Individual Organizations

### ● Responsible Care (RC)\*4 Regional Dialogue Meetings

The local member companies of the Japan Chemical Industry Association (JCIA) RC Committee hold RC Regional Dialogue meetings every two years, and every year in the Ube district, with the purpose of building relationships of trust with local residents.

We held the 10th annual RC Regional dialogue meeting in the Ube district in January 2013. Following a plant tour and explanation of RC activities undertaken in the last year, there were presentations on various topics, including one from the Yamaguchi Prefectural Disaster Prevention and Crisis Management Office about strengthening disaster prevention systems. Afterward, group discussions on the management of chemical substances and security and disaster prevention measures were held. Additionally, in the Chiba district the 9th annual RC Regional Dialogue meeting was held in February of the same year.



Guest Message

Masao Ukita, Director, Ube Environmental Community (NPO)



### Looking Forward to the Further Expansion of Dialogue Meetings with Local Communities

The dialogue meeting organized by the Ube branch of the JCIA RC Committee (comprising UBE and five other companies) was held for the tenth time in fiscal 2012. Since the days of our predecessor organization, the Ube Environmental Club, our organization has acted as a mediator between the factories and the local community. With observers from prefectural and city environmental safety departments and chemical factories in other areas, these meetings serve as an extremely valuable forum for dialogue between industry, government, academia and citizens. The main themes include chemical substances, odors and waste materials. I hope that in the future more local companies in other industries and small- to mid-sized businesses will participate as well.

● **Tours of Local Industrial Facilities**

The UBE Group participated in tours of local industrial facilities entitled "Social Tours for Grownups" in fiscal 2012. These tours are conducted by a local council established to promote industrial tourism in the cities of Ube, Mine and Sanyoonoda. Various tours were undertaken at UBE Group facilities, with 1,360 participants. Activities included a tour showcasing the production and history of cement (Isa Cement Factory and highlighting roads used exclusively by UBE) and another highlighting the Okinoyama Coal Mine and its founder Sukesaku Watanabe (UBE-i-Plaza and the Okinomiya Coal Mine electric powered mine shaft).

● **Participation in Local Events**

In fiscal 2012, the Chiba Petrochemical Factory participated in the Goi-Rinkai Festival in June and Group employees in the Chiba district held the Fifth Annual UBE Friendship Festival in October.

The Ube Chemical Factory held the "The Seventh UBE Chemical Summer Festival" in August 2012, which welcomed over 3,000 people. In addition, several UBE Group companies displayed exhibits at the Yamaguchi Ikiiki Eco Fair held in October 2012. This fair was part of Kirara Product and Exchange Fair 2012, the largest event of its kind held in Yamaguchi Prefecture. In November 2012, more than 1,000 participants comprising UBE Group employees and their families participated in the 61st Ube Festival, and their club received the highest award in the dance club contest.

● **Business Facility Tours**

We invite various stakeholders, beginning with nearby schools, to tour our business facilities. In fiscal 2012 alone, the number of people participating in tours at the Company's comprehensive information center, UBE-i-Plaza, reached 7,625. In July 2012, the Chiba Petrochemical Factory held a facility tour for 125 local elementary school students. Between June 2012 and February 2013, the Sakai Factory also held facility tours for 154 students attending three nearby technical high schools.

● **Volunteering in Afforestation and Flower Campaigns**

UBE employees participated in volunteer afforestation activities at Kirarahama, Yamaguchi City in October 2012, trimming grass around the trees planted during the 63rd Annual National Tree-Planting Ceremony. In December 2012, the UBE Group participated in the Fifth Forest Creation Experiential Activity for Water Conservation, held in the Akiyoshidai International Art Village, sponsored by the Mine City Office of Yamaguchi Prefecture's Agriculture, Forestry & Fisheries Department, with 78 employees taking part in the thinning and logging of bamboo.

Employees also voluntarily plant flowers within the premises of UBE Group sites. In fiscal 2012, the Ube Chemical Factory once again competed in flowerbed contests held by Ube City, winning the Chamber of Commerce Award in both spring and fall of that year.



Goi-Rinkai Festival



Sakai Factory tour for technical high school students



Kirara Afforestation Volunteering

Publication of local newsletter *Tsubasa*

In November 2012, the UBE Group began issuing *Tsubasa*, a newsletter aimed at increasing communication with local residents. This newsletter was created to deepen communication with local communities and is being distributed regularly to the residents of Ube, Yamaguchi Prefecture, delivering information that is relevant to them. *Tsubasa* helps to correctly convey a wide array of information about the UBE Group concerning such topics as the products being made at its factories, environmental and safety measures, and the ways that the Company fulfills its role in society. The newsletter is published twice a year, in May and November, and distributed directly to people's mailboxes, inserted in newspapers, and offered through both UBE-i-Plaza and UBE's website. We will continue to use the newsletter to bring up a variety of topics while remaining responsive to the concerns of the community.



Deliveries are conducted with help from the Tegoya Independence Support Center and other facilities for the disabled in Ube City



"We are Libertas Ube, Ltd., in charge of design and printing. We are working passionately to produce *Tsubasa* so that local communities can get to know more about the many facets of UBE."

**Libertas Ube, Ltd.**

Established 22 years ago, Libertas Ube, Ltd. is the central company of the UBE Group's network supporting the employment of people with disabilities. With printing operations as its pillar, the company also performs digitization and custodial work for Group companies. Hoping to deepen normalization, Libertas Ube advances various activities focused on the employment of people with disabilities and has received Certification of Good Standing as an Employer of Persons with Disabilities and is a Yamaguchi Certified Business That Promotes the Employment of People with Disabilities. Showing that disabilities are just one aspect of a person and do not keep them from exercising their talents, the company hopes to create a society in which all people can work and live safely together.



First issue

# Human Rights and Labor

## Fundamental Philosophy

### Respect for Human Rights

In its Action Guidelines for Business Conduct, the UBE Group will respect human rights and develop healthy, bright and motivating workplaces. We regard respect for human rights as a fundamental rule guiding the corporate activities of the UBE Group.

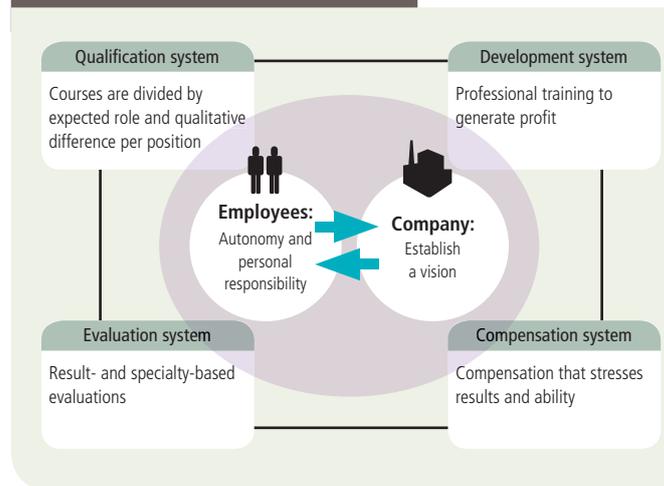
### Ideal Personnel

The UBE Group gives top priority to human resources among its management assets, and it is committed to developing highly skilled professionals who can act independently and produce results. The basic image that the UBE Group promotes for individual employees is that of someone who has unparalleled skills, sets their own goals, works independently and takes on new challenges while being unafraid of change.

### Basic Policies

- To respect the human rights of people who are affected by the Group's corporate activities
- To respect the human rights of employees, including those of partner companies

## The Interconnecting Aims of Each System



## Personnel System

UBE has introduced an evaluation system that incorporates a goal management system and a performance-based component. By organically linking the development, evaluation, qualification and compensation systems, and impartially evaluating individual efforts, UBE seeks to create a workplace that is challenging and motivating for every employee.

## Human Resource Development

### Initiatives

In order to develop superior human resources, we must enhance development in the following key areas: 1) On-the-Job Training (OJT); 2) Instructor-Led Training (Off-the-Job Training); and 3) Self Improvement Support Programs. At the same time, for career development, we have instituted a support system so that all UBE employees can fully exercise their

abilities in carrying out their work. Under this system, employees prepare "Career Development Sheets" and "Employee Development Plan Reports," opportunities are provided for interviews with their superiors and, when necessary, the employees are rotated to enable them to gain a broad perspective and learn specialized skills.

### Strengthening Global Human Resource Development

Given that the proportion of overseas business development is expected to steadily increase, training and retaining employees who can perform on the global stage has become an issue for the UBE Group. We have been taking steps to further enhance our global human resource development, for example, strengthening employee awareness related to globalization, expanding opportunities to gain overseas experience and carrying out global training programs.

In addition, human resources managers from Thailand, Spain and Japan gather at the Group's annual Global Human Resources Meeting to exchange information on human resources development and personnel systems in each country. Through reviews of personnel exchanges between the three countries, the establishment of global personnel policy and other

## Training System Overview

		Career Education		Training by Theme		International Business Personnel Development		Support for Self-Improvement	Independent Training	Affiliates		
Executives		New executive training										
Manager		Management leader (GI) training		Line management training	Refresher courses	Theme-based training as needed	Global business leader training program		Various types of home-study courses and assistance for acquiring official certifications	Company- and division-specific training	Group company new executive training	
		Middle-rank management training					Business English training	Overseas MBA programs				Cultural sensitivity training
		New management training										
Generalist 1	Key 1	New supervisor training		Elder training			Overseas trainee system	TOEIC exams				
	Key 2	Key employee twentieth-year training										
	Key 3	Career design training										
Generalist 2	Key 4	Key employee tenth-year training										
	Key 5	Generalist third-year training										
Generalist 3	Key 6	Follow-up training for generalists										
		Follow-up training for key employees										
	Key 7	Training for newly hired generalists										
		Training for newly hired key employees										

\*Key: Key employee

activities, these meetings help us respond to globalization on the human resources front.



Global Human Resources Meeting in Spain

● **Environment and Safety Education**

We provide employees with practical education on the environment and safety and encourage all employees to acquire necessary knowledge, practical skills and relevant qualifications, such as the public certification required for the operation of equipment in factories.

In addition, we have incorporated mental health education into career education courses (training for new managers, etc.) to ensure that employees receive appropriate training according to their particular circumstances. We have also included the elements of environmental impact assessment in our in-house documents that are circulated for managerial decision making on capital investment and in written proposals submitted for improvement activities to be conducted within the organization, aiming to raise the environmental awareness of all employees.

**Diversification of Employment**

UBE recruits and employs personnel from a wide array of fields regardless of gender or social background. Each UBE employee is able to fully exercise his/her abilities to make a useful contribution to the Group's various work settings.

● **Employment of People with Work Experience**

The UBE Group proactively focuses on hiring mid-career workers who have expertise and knowledge in technological areas in which the Group's human resources are insufficient. After entering the Group, these mid-career workers exercise their abilities by using the experience gained at their former workplaces.

● **Hiring Foreigners**

With globalization continuing to increase, UBE Head Office and facilities in Japan need to become more international. Accordingly, we will expand personnel exchanges with the Group's non-Japanese employees based overseas and actively hire foreigners in Japan in order to provide opportunities for employees to use their experience with different value systems and cultures.

● **Employment of People with Disabilities**

The UBE Group actively undertakes measures to promote the employment of people with disabilities Groupwide. To this end, the Group leverages relevant expertise accumulated by our special-purpose subsidiary, Libertas Ube, Ltd.

**UBE's Employment Status**

FY	2010	2011	2012
New graduates	87	136	147
New graduates deployed as generalists	38	50	55
Mid-career employees	64	38	84
Percentage of people with disabilities (annual average (%))	2.12	2.02	1.92

**UBE Employee Data (as of March 31, 2013)**

FY	Number of employees	Average age	Average number of years at UBE
Male	3,526	41.0	15.6
Female	546	38.9	12.9
Total (average)	4,072	40.7	15.2

**Developing Human Resources Who Can Perform on the Global Stage**

● **Global Human Resource Training**

Since fiscal 2011 UBE has been improving global human resource development by expanding the scope of training it provides. The main thrusts of these efforts are (1) increasing foreign language ability, (2) increasing opportunities for overseas work experience, (3) strengthening abilities to deal with cultural differences and (4) developing global business leaders. In line with these goals, we have enhanced our selection of foreign-language correspondence learning materials, held business English courses, made overseas training available for more employees and set up new training programs for learning to deal with cultural differences as well as for developing global business leadership.

In fiscal 2012, we enhanced the content of the global business leader training introduced in the previous year and recruited participants from overseas UBE Group companies for such training, welcoming a total of 24 participants: 14 from Japan and 10 from other countries. The participants, from a range of cultural backgrounds and value systems, stimulated



Global business leader training

one another in unique ways over the course of the training program. The training helped participants understand what constitutes practical leadership in a global environment, while allowing them to create a strong global network.

● **Human Resource Exchange with Overseas UBE Group Companies**

We regularly dispatch trainees from Japan to UBE Group companies overseas and accept employees from UBE Group companies overseas at Group companies in Japan. By providing opportunities for overseas work experience of one to three years, we hope to develop young employees who have global mindsets.

## Quality Working Environments

In order to enable employees to fully display their abilities, the Group promotes comfortable working environments that maintain a good work-life balance while accommodating a variety of different work styles.

### ● Respect for Human Rights at Workplaces

We have established the Human Rights Education Promotion Committee, which provides human rights education to employees, including training for company officers, training separated by workplace and rank, and external training courses. We implement Groupwide training programs via e-learning to ensure that all employees have a proper understanding of and fully recognize human rights issues. Such initiatives help ensure comfortable work environments where employees respect and work comfortably with each other.

### ● Work-Life Balance

#### Childcare and Nursing Care Leaves

To maintain a good balance between employees' work and private lives, UBE has introduced a childcare and nursing leave system. In addition, depending on how much time they require to take care of their children or other family members, employees can work shorter or flextime hours as well as take time off or limit the number of overtime hours worked.

In accordance with the Law for Measures to Support the Development of the Next Generation, we raised the following three initiatives under our three-year medium-term action plan from fiscal 2010 onward: 1) Expand systems that promote shorter working hours to facilitate child rearing; 2) Increase childcare leave; and 3) Encourage male employees to take childcare leave. We began sequentially implementing these initiatives in fiscal 2011.

#### Incentives for Taking Annual Paid Vacations

As an incentive for getting employees to systematically take annual paid vacations, not only do we ask employees to set scheduled vacation dates in advance for every six-month period, but we also take steps to reduce actual working hours by setting an annual paid vacation incentive day.

#### Flexible Working Systems

We have introduced flextime, self-managed work\* and other systems to enable employees to work in a flexible and efficient manner. We are also committed to appropriately managing employees' working hours. For example, we demand that departments with long overtime work hours implement measures to reduce these hours and arrange consultations between employees and industrial doctors.

\* A system that entrusts employees to voluntarily make decisions regarding how to undertake their duties and the allocation of work time in order to achieve work-related goals.

### ● Leave for Volunteer Activities

The Group has established a system that enables UBE employees to use accumulated leave time for volunteer activities that contribute to society or local communities.

### ● Relationship with the Labor Union

UBE has been maintaining a favorable labor-management relationship based on a collective labor agreement concluded with its labor union. The two parties exchange opinions frankly and discuss matters at various labor-management meetings attended by top management, which helps

management raise employees' awareness of its policies and plans and helps the labor union members have their opinions reflected in the corporate management policies.

#### Usage of Work-Life Balance System (Fiscal 2012)

System	Description	Number of employees who used it
Childcare leave	<ul style="list-style-type: none"> <li>Such leave can be taken until the day before a child's first birthday (in accordance with legal standards, the period of leave may be extended by up to six months).</li> <li>Can be used for seven continuous days.</li> </ul>	40 (including 9 men)
Paternity leave	<ul style="list-style-type: none"> <li>Employees whose wives have given birth can take four days of leave (must be taken within the three months following the child's birth).</li> </ul>	97 (76.3% of those eligible)
Shortened working time	<ul style="list-style-type: none"> <li>Until children complete the third grade of elementary school, work time can be shortened by up to two hours per day, on an as-needed basis.</li> </ul>	13
Child nursing leave	<ul style="list-style-type: none"> <li>Until children complete the third grade of elementary school, employees can take leave to nurse children. Five days per year for one child or ten days for two or more children can be taken per year.</li> <li>Employees can use this leave in half-day units.</li> </ul>	3
Refresh leave	<ul style="list-style-type: none"> <li>Employees over the age of 50 who have worked at UBE for over 15 years can take five days of "refresh" leave.</li> <li>A ¥100,000 support stipend is paid when leave is taken.</li> </ul>	114 (81.4% of those eligible)



Staff Message

Teerawat Inpota of Thai Synthetic Rubbers Co., Ltd.,  
Production Technology Division, Polymers Development Center,  
Synthetic Rubber Group, Fundamental Technology Team



#### Looking Back on My First Year in Japan

I'm scheduled to work at the Chiba Petrochemical Factory for a total of three years, starting in June 2012. This is not my first time in Japan, but it is my first time actually working here. When I arrived, I was worried about my Japanese-language ability and whether I'd be able to communicate well with my coworkers.

However, now that I've been here a year, I feel a lot less anxious, thanks to the friendliness and kindness of all my coworkers. Although there is still a language barrier, they are always willing help me out when I have a problem, speaking not only in Japanese, but also sometimes mixing in English when they explain things about work or living in Japan. They've also been kind enough to invite me to a number of sporting events and parties, and provided many opportunities to meet new people and learn about Japanese culture. I'm glad that I've had the chance to work at UBE. I've encountered endlessly fascinating culture and many kindhearted people. These experiences cannot be bought with money. As members of the same UBE Group, I'm sure that staff in Japan and Thailand will continue to be good partners.

## Developing a Comfortable Workplace and Undertaking Initiatives to Maintain Employee Health

### ● Meet and Greet Campaign

We implement the Meet and Greet Campaign throughout the Group to foster employee mental health and comfortable workplaces. Through this campaign, we are encouraging all employees to exchange words of greeting and encouragement as a way of promoting better communication at the workplace. In fiscal 2012, the Meet and Greet Campaign was undertaken throughout the Group.

### ● Mental Health Care

The UBE Group works together with industrial physicians, nurses and other health specialists to maintain the mental health of its employees. In fiscal 2012, we conducted participatory mental health training sessions at various facilities for new employees, mid-level non-managers, new managers and mid-level managers with a focus on prevention and the aim of better meeting the different needs of employees according to their various roles. We also conducted mental health training at branches and Group companies. In addition, we are working with personnel departments to enhance programs that help employees return to work and to support mental health maintenance plans at all facilities.

### ● Measures Concerning the Elderly

We are taking measures to encourage older employees to live in a healthy manner both while working at UBE and into retirement. As part of these efforts, we provide health education for employees when they reach 50 years of age.

### ● Measures to Counter Lifestyle-Related Diseases

In fiscal 2012, efforts to provide instruction on improving lifestyle habits—based on the Ministry of Health, Labour and Welfare’s specified health checkups and specified health guidance measures—again yielded beneficial results for a significant number of employees. In addition, we continued to raise employee awareness about the importance of good dietary habits with the help of nationally registered dietitians. In fiscal 2012, the Group worked to improve the rate of canteen usage at its Company dormitories and further expanded the healthy meal options it serves to employees at all canteens. Furthermore, in order to provide delicious, nutritionally balanced foods at all Group canteens, the canteen management section, industrial health staff, and contracted food service providers have together formed the Canteen Meal Committee.

### ● Classes on Quitting Smoking

Seminars on quitting smoking held at various offices and facilities attracted over 118 participants, who learned about the positive effects of quitting, techniques for quitting and support systems for those who want to quit. After the seminar, more employees said that they wanted to try to quit. In addition, on the recommendation of the Workplace Health and Sanitation Committee, the entire Tokyo Head Office was designated as a non-smoking zone in 2012.



Meet and Greet Campaign at the Organic Specialty Materials Research Laboratory (Chiba)



Mental health training at the Nagoya Branch



Taste testing exchange event for employees at the three dormitories in the Ube district



Seminar on quitting smoking at the Ube Cement Factory



Satomi Yabuki, Human Resources Department,  
Medical Office in Tokyo Head Office



### Working as a Provider of Tomorrow’s Vitality

At the medical office of the Tokyo Head Office, we manage the health of employees. We aim to be like the nurse’s office at school. Not, of course, in the sense of being a place to go to skip class, but as the place to go to talk about things you can’t talk about with teachers or classmates. About oneself, about family, or about work. Something similar to that. I believe that people often feel somewhat better just by talking through their concerns with someone. Whatever employees want to talk about, we listen sincerely and offer support. I hope that, as a medical office, we can support and encourage each and every employee to protect the invaluable health of his or her body and mind.

# Social Contribution

## Basic Policy

- To conduct social contribution activities toward the creation of a sound and sustainable society

### Support of Culture and Art

UBE supports the activities of the UBE Foundation and the Watanabe Memorial Culture Association in the form of regular donations and human support.

#### ● The UBE Foundation

The UBE Foundation (Director: Hiroaki Tamura) was established in 1959 as the Watanabe Memorial Science Foundation at the bequest of the late Takaji Watanabe, the founding chairman of UBE. The Watanabe Memorial Science Foundation was renamed the UBE Foundation in 1997. In 2010, the UBE Foundation was certified as an organization operating in the common interest by the Japanese Cabinet Office and registered as a foundation incorporated in the public interest. In Japan, the Foundation aims to promote academic research activities, improve research facilities and assist academic researchers in their activities in order to contribute to the future development of academic culture.

In fiscal 2012, the 53rd annual Ube Foundation Grant was awarded to 11 recipients from a total of 136 applicants. At the awards ceremony held in June 2013, Professor Naoki Toshima (Director, Advanced Materials



The UBE Foundation's research grant presentation ceremony

Laboratory) of Tokyo University of Science, Yamaguchi, gave the keynote address entitled "Tomorrow's Chemistry: The Development of Nanochemistry."

#### ● Watanabe Memorial Culture Association

Established in 1936 as a private bequest of the late Sukesaku Watanabe, the founder of UBE, the Watanabe Memorial Culture Association (Director, Hiroaki Tamura) was founded to support a variety of cultural and art-related activities that include lectures and concerts. These efforts are undertaken with the aim of enhancing the well-being of Ube City residents and cultivating local culture.

In December 2012, UBE provided grants to the Ube City Folk Orchestra and the Ube Music Appreciation Society in order to contribute to the cultural development of the Ube area. We donated ¥500,000 to both the Watanabe Memorial Book Collection within the Ube City Library and the Watanabe Memorial Culture Association Picture Book Collection in February 2013. The Watanabe Memorial Book Collection, established in the Ube City Library in 1953, contains 2,170 volumes, primarily in the field of art. Moreover, the Picture Book Collection for kindergartens and child-care centers contains 3,348 volumes. In March 2013, Ube donated sponsorship funds to the Ube Citizen Educational Lecture program.



UBE donated sponsorship funds to the Watanabe Memorial Book Collection

### Social Capital That Revitalizes Local Communities: the History of UBE and Music

Every year since 2008, UBE has invited the Japan Philharmonic Orchestra to Ube City for a charity concert held at the Watanabe Memorial Hall. The hall, which was designed by architect Togo Murano and constructed by UBE as a bequest of UBE founder Sukesaku Watanabe, was completed in 1937. In 2005 the Watanabe Memorial Hall was designated an Important Cultural Property of Japan. Boasting not only beautiful historic architecture but also excellent acoustics, the hall has long enjoyed attention from performers worldwide.

Since the formation of the Ube Music Appreciation Society in 1946, the hall has hosted performances by famous groups and performers from Japan and around the world, including Yehudi Menuhin (violin),

In line with its founding philosophy of "living and prospering together," the UBE Group has been investing since its foundation in the creation of numerous forms of local infrastructure with a desire to develop Ube City.

Lazare Lévy (piano), the Vienna Boys' Choir and six performances by the Japan Philharmonic Orchestra between 1978 and 1991.

The outstanding reputation of the Watanabe Memorial Hall as a concert venue is one reason that Ube has come to be known as a city rich in music.

The UBE Group Charity Concert, now in its sixth year, has come to be one of the staple annual events of autumn in Ube City.

The Watanabe Memorial Hall is also the venue for the "Happy End at the 9th's 'Ode to Joy'" (specially cosponsored by UBE), held annually in December, now in its seventh year. The event has become an end of the year seasonal tradition in Ube City.



Watanabe Memorial Hall



Charity Concert Poster

● **Charity Concert by the Japan Philharmonic Orchestra**

Based on the philosophy of “living and prospering together,” Ube Industries has been inviting the Japan Philharmonic Orchestra to perform in Ube City since 2008. With the purpose of contributing to the enrichment of local culture through music, we held the fifth UBE Group Charity Concert featuring the Japan Philharmonic Orchestra in October 2012. The day before their performance, members of the Japan Philharmonic Orchestra participated in a “hands on concert” held by the Watanabe Memorial Culture Association for patients admitted to Ube Industries Central Hospital and the Yamaguchi University Hospital. We also opened the Charity Concert’s dress rehearsal, free of charge, to 500 students from local elementary and junior high schools and, for the first time, 50 students from local schools for the disabled, as well as their respective guardians and teachers.

The proceeds from the fifth UBE Group Charity Concert were donated to help fund recovery efforts following the Great East Japan Earthquake as well as to the local community and schools at a presentation ceremony held in December 2012. In addition, five municipal junior high schools in Ube City were each given a wind instrument, while the Ube City Folk Orchestra and the Ube Music Appreciation Society received monetary donations.

**Education and Social Contributions**

● **Chemistry Experiment Events for Children**

Every year, UBE invites schoolchildren to attend chemistry experiment programs. The purpose of such activities is to help children experience the fascinating world of chemistry by introducing them to UBE’s advanced technologies.

In fiscal 2012, Ube’s Organic Chemistry Research Laboratory hosted the Summer Holiday Junior Science Lesson, in which participants learned

about the mysterious world of light and color. In Tokyo, the Organic Specialty Materials Research Laboratory and the Electronic Components & Materials Business Unit gave children the opportunity to enjoy creating their own original bookmarks using high-performance plastics (polyimide).

In August 2012 and February 2013, the Aerospace Materials Business Group provided opportunities for students at Jutoku Senior High School in Gunma and Hamaderaishizu Elementary School in Sakai City to conduct experiments using its thermally resistant materials and thereby learn about how satellites are designed to withstand heat. At Tsukuba Science Edge 2013, an event for junior and senior high school students, the group again helped students to conduct experiments.

● **Internships**

As part of its CSR activities, UBE undertakes internships for graduate, technical college and high school students. In fiscal 2012, we accepted 12 interns from ten technical colleges and universities located in the Chugoku, Shikoku and Kyushu regions. These interns were given the opportunity to receive five days’ of practical training at the Ube Chemical Factory, Ube Cement Factory and UBE Industries Power Generation Plant, all of which are located in the Ube district. The Chiba Petrochemical Factory and Sakai Factory also accepted interns.

In addition, an Ube area laboratory accepted graduate students for internships that extended for several months. These internships focused on specific research themes.

● **Ube Industries Central Hospital**

Since 2004, doctors at the Ube Industries Central Hospital have held 36 public seminars about medical care in local communities. In 2012, the hospital’s Director Fukumoto held a seminar on health and happiness in old age for 100 elderly participants in the Koto school district of Ube. The seminar addressed such concerns as becoming bedridden and dementia, focusing on avoiding lifestyle-related diseases in order to maintain health and independence, on approaching life positively and on cultivating the necessary mind-set for living in harmony with others.



① “Hands on concert” (Ube Industries Central Hospital)  
 ② 24th annual Summer Holiday Junior Science Lesson (Ube)  
 ③ Dream/Chemistry-21 Children’s Chemistry Experiment Show (Tokyo)  
 ④ Interns at Sakai Factory  
 ⑤ Lecture by Ube Industries Central Hospital Director

### Initiatives in the United States

UBE America Inc. (UAI) participates in the Japanese Firms Association of Colorado (JFA) through its branch office located in Denver, Colorado.

In cooperation with the city of Denver, JFA plants 50 cherry trees in Colorado parks each year. 2012 saw the 100th anniversary of a gift of over 3,000 cherry trees from Japan to the United States in 1912. To mark the occasion, JFA planted seven trees donated by the Japanese government in addition to its own, for a total of 57 cherry trees. JFA's annual activities have been recognized by the city of Denver and elevated to the status of master plan. Under this plan, cherry tree planting over the next five years will focus on parks in which trees were planted in fiscal 2012.

### Initiatives in Spain

In fiscal 2012, the UBE Group in Spain (controlling company: Ube Corporation Europe, S.A. (UCE)) continued existing initiatives and events rooted in local communities and expanded the range of its activities through the suggestions of employees.

#### ● Social Contribution Activities

In December 2012, around Christmas time, UCE collected food and clothing within the company and donated it to the NGO Father Ricardo's Community Kitchen, which support local people in necessity.

UCE also collected plastic bottle caps within the company to raise money for the treatment of a girl with infantile cerebral palsy, in addition to making donations to the Red Cross and UNICEF and other organizations.

Company blood drives, begun in 2012, were held once again, with many employees participating.

#### ● Facility Tours and Events

In fiscal 2012, a total of more than 100 local high school students studying chemical engineering and related fields and their "teachers" in stead of instructors visited UCE facilities.

In July, the opening ceremony for new harbor facilities and a factory producing large-grain ammonium sulfate and polycarbonatediol (PCD) in Castellón was attended by over 250 guests, including the president of Valencia, the central government's administrative vice minister of Industry, Energy and Tourism, community and local government officials, and newspaper reporters.

In November 2012, UCE participated in the Japan Week festival, a cultural exchange event, which was held in Valencia for the first time.

#### ● Exchanges with High School and Universities and Support for Cultural Activities

UCE sponsors international conferences hosted by local universities, including the 40th International Conference on Coordination Chemistry and the 3rd International Workshop on Transition Metal Clusters in 2012.

In fiscal 2012 we supported a painting contest for high school students. With the aim of increasing students' understanding of chemistry, we also held factory tours for high school students and teachers and distributed chemistry experiment sets. In addition, UCE continued its support for masters programs at Jaume I University in Castellón.

Furthermore, under the theme of creating environment-friendly communities, we support the EcoPlanet Contest for junior high school students as well as electric vehicle experiments at high schools in Castellón de la Plana and sponsor the Francisco Tárrega International Guitar Competition. Through these and other efforts, UCE contributes significantly to local education and cultural initiatives.



- ① Planting cherry trees in the United States
- ② Christmas charity activities in Spain
- ③ Tour for high school students in Spain
- ④ Opening ceremony for large-grain ammonium sulfate and polycarbonatediol (PCD) factory and new harbor facilities in Castellón de la Plana
- ⑤ EcoPlanet contest in Spain

● Support for Sports

We continued to support volleyball, soccer, handball, basketball and other sports clubs in fiscal 2012. In recognition of this support including its sponsorship of the 3rd Castellón International Marathon, UCE also received a Best Company award at the 16th annual Sports Gala, hosted by the Valencia Sports Journalists Society.

**Initiatives in Thailand**

The UBE Group's bases in Thailand (UBE Chemicals (Asia) Public Co., Ltd., Thai Synthetic Rubbers Co., Ltd., UBE Fine Chemicals (Asia) Co., Ltd.) are actively promoting communication with local residents, based on the idea that the UBE Group is an integral part of the community. In December 2012, the Group received the Thai Ministry of Industry's CSR-DIW Continuous Award for the fourth time.

● Environmental Management

Our management system in Thailand complies with ISO 9000, ISO 14000 and OHSAS 18000 and has AJA Registrars certification. In addition to certification by third-party organizations, we are working to receive government recognition for compliance that goes beyond legal requirements. In July 2012 we received an award for excellence in safety, workplace hygiene and labor environment for the ninth consecutive year from the Thai Ministry of Labor.

● Interacting with Local Communities

In December 2012, we held CSR Day 2012, with the theme of creating the safest workplace possible. We welcomed 318 employees and 142 participants from suppliers to activities designed to increase safety awareness and presentations of our goals based on our safety policy. The event also featured locally catered food and drink.

● Social Contribution Activities

We conducted a number of social contribution activities in Thailand in fiscal 2012, including setting up mobile public health clinics once a month and carrying out the Happy School Project, which involves such services as painting school buildings and improving their restrooms. In June, we received recognition from the Thai Ministry of Natural Resources and Environment for our support and cooperation with the government's project for coexistence of industry and communities, based on the green belt we established between our factories and local communities in Rayong Province. In July, we planted 500 young mangroves in Chanthaburi Province, and in August we supported forestation activities in Rayong. In September, UBE donated 1,000 kg of fertilizer for the care of the young trees.

● Sports Promotion

More than 50 children of employees and from local communities participated in soccer summer camps held at local schools in March and April 2012. From April to May we supported the 11th Annual UBE-Plauk-Ket Cup soccer tournament. In December 2012, together with a local running club in Rayong Province, we co-hosted the Rayong Marathon, in which some 3,000 runners participated, including around 160 UBE employees.

● Exchanges with Universities

UBE Chemicals (Asia) Public Co., Ltd. has set up an internship system, and welcomed 86 students over the course of fiscal 2012. In March, we donated 1,000,000 baht to Map Ta Phut Technical College's vocational chemical engineering practice training project, making 2012 the fifth year that UBE has donated to the college. Furthermore, in February 2013, the company was certified as a supporting company of the Eastern Thailand Universities Network's Industry Academia Cooperative Education Program.



① Volleyball team in Spain  
 ② The Happy School Project in Thailand  
 ③ Mangrove planting in Thailand  
 ④ Soccer summer camp in Thailand  
 ⑤ Receiving certification from the Eastern Thailand University Network

# UBE Group Social Contribution Activities

## Ube Steel Co., Ltd.

Manufacturing base: Ube Factory (Ube City)

### ● Environmental Business Initiatives

Ube Steel produces casting and billets that are used for making metal products, but another face of the company is the business of disposing of industrial waste. Our electric furnaces, which melt down scraps and other materials to make iron products, can also melt down plastic and other industrial waste instantly.

It's already been twelve years since we obtained a permit to dispose of industrial waste, back in February 2001. In addition to melting, reforming and thus recycling raw material scraps, we aim to create a melting treatment system for waste that can safely achieve zero emissions while sending virtually nothing to landfills and other final disposal sites. Iron and steel slag, produced as byproducts, are recycled in-house or sold for reuse in such applications as material for road beds, and our environment-friendly electric furnace-oxidized slag has received recycled product certification from Yamaguchi Prefecture. Furthermore, Ube Steel has been certified as a Yamaguchi Eco Factory Business for its sustained efforts to recycle and curb the production of industrial waste.

We are also engaged in exchanges with local communities. We accept bus tours of factories and industrial facilities, and participate in such events as the annual Yamaguchi Ikiiki Eco Fair held in Yamaguchi Kirara Expo Memorial Park and the Ube Festival.

Going forward, Ube Steel will continue to advance efforts to reduce energy and natural resource use to prevent global warming and promote the formation of a recycling society.



Author: Satoshi Orisaki, Manager, Steelmaking Manufacturing Department

## Ube Film, Ltd.

Production bases: Onoda Factory (Sanyoonoda City), Tochigi Factory (Sano City), Narita Factory (Sanbu District, Chiba Prefecture), Kyushu Factory (Kasuya District, Fukuoka Prefecture)

### ● Business Rooted in Local Communities and Environment-Friendly Products

In April 2014, Ube Film will mark the 50th anniversary of its founding as a processed polyethylene film manufacturer. We manufacture and market a wide array of packaging materials, from industrial materials to household products, including packaging for fertilizer and chemical goods; films for agricultural use; stretch film for cargo packaging; POLYWRAP and KITCHEN PACK; ECO SOFT shrink film for wrapping prepared foods; and SPERREN industrial-use multilayer barrier film.

In addition to the safety and convenience of POLYWRAP, which can be used directly on the food surface, we take into consideration the elimination of additives and other factors related to safety after use. We deliver a product that is friendly to both humans and the environment, using a polyolefin resin base that does not emit dioxins or chlorine gas when recycled or incinerated.

In accordance with corporate policy, we have set goals related to occupational safety and hygiene, environmental preservation, product quality and safety, and facilities safety. We are working with all employees to make improvements in these areas and enhance the management system to pursue business activities that contribute to the sound development of society.

Sanyoonoda City, where Ube Film is located, is home to Kirara Beach, which is said to be the site of one of the 100 most beautiful sunsets in Japan. To protect this lovely area, we participate in cleanup activities around factories and the Small Kindness Movement's campaign to clean up the Japanese archipelago. We also accept interns from universities in Yamaguchi Prefecture, providing workplace experience. Going forward, we will continue to work to reduce industrial waste and incinerated garbage produced by factories, cut back energy use and greenhouse gas emissions, and pursue environment-friendly product manufacturing.



Author: Yoshitaka Fujita, Manager, Administration Division



Bus tours of industrial facilities



Yamaguchi Ikiiki Eco Fair



Campaign to Clean Up the Japanese Archipelago



Yamaguchi Ikiiki Eco Fair



Onoda factory as seen from Ryuoan Park



(above) New KURUTTO PACK plastic containers  
(below) Redesigned Hello Kitty KITCHEN PACK plastic bags

# Initiatives for Environment and Safety

At the UBE Group, conserving the environment and protecting health and safety come first in its business operations. This emphasis is necessary in order to provide products and services that make people's lives better and to achieve solid and sustainable growth.

## UBE Group Environmental and Safety Principles

As members of society, corporations must be fully conscious of their responsibilities regarding contributions to society, environmental preservation and the maintenance of health and safety in carrying out their corporate activities. The UBE Group shall pursue the following vision in order to fulfill its leadership role and shall work to improve the safety and the quality of the environment among all of its Group companies through the publication of performance reports and the implementation of dialogues with society.

- **Operational Safety**

Ensuring operational safety shall be the priority in all areas and activities under UBE's commitment to respect human life.

- **Process Safety**

Maintenance of process safety shall be part of its basic mission as a manufacturer.

- **Environmental Preservation**

As a responsible corporate citizen, the UBE Group shall act positively to protect and improve both community and regional conditions and work for the preservation of the global environment.

- **Product Safety**

The UBE Group shall pursue its corporate responsibility in providing its customers and the public with safe and reliable products.

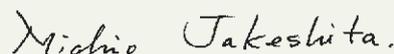
- **Health Management**

The UBE Group recognizes that maintaining and promoting the health of its employees is the basis of corporate and social vitality.

Revised in April 2010

Michio Takeshita

President and Group CEO, Representative Director



# Environment and Safety Management

## Environment and Safety Promotion System

The UBE Group has established the Group Environment and Safety Committee and the Group Product Safety Committee as the top decision-making organizational units for the promotion of the “Environmental and Safety Principles.” These committees—which consist of the members of the Group Strategic Management Committee and are chaired by the CEO—determine and review the Group-level policies and measures relating to the environment, occupational safety, health and product safety.

Both of these Group committees have established subcommittees for each segment. These subcommittees are involved in translating the policies of Group-level committees into concrete initiatives appropriate to segment business activities. In addition to its segment subcommittees, the Group Environment and Safety Committee maintains five other subcommittees charged with implementing activities across the Group based on a specific area of responsibility.

## Responsible Care Management System

Aiming for continuous improvement in areas related to the environment, occupational safety and health, the UBE Group pursues responsible care (RC)<sup>\*1</sup> initiatives not only in chemicals-related segments, but also in the Cement & Construction Materials, Machinery & Metal Products and Energy & Environment segments, as well as all other business areas.

With the aim of achieving constant improvement, RC is undertaken according to the Plan-Do-Check-Action (PDCA) cycle. Specifically, the UBE Group systematically implements the following management cycle each year:

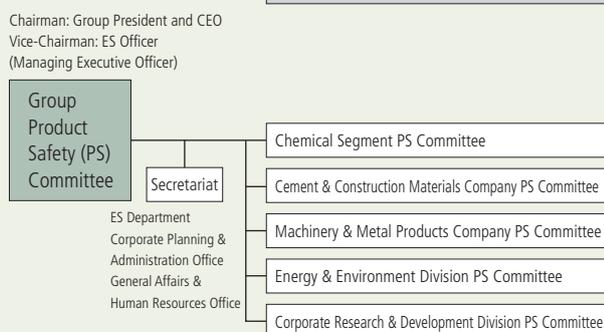
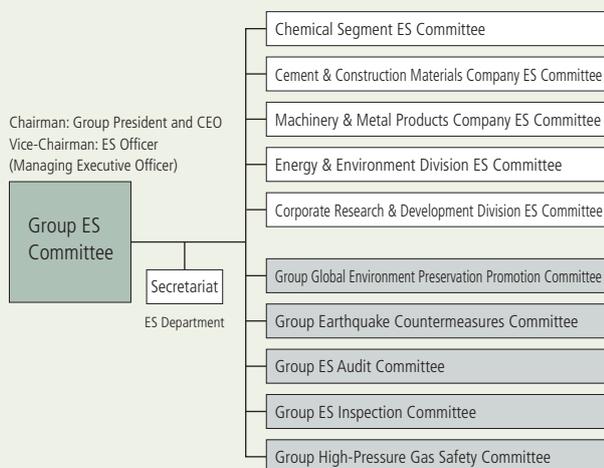
- P: Measures to be applied during the fiscal year are established through deliberations and decisions made by the Group Environment and Safety Committee. Each office and facility formulates action targets and schedules for the year based on these measures.
- D: Each office and facility autonomously carries out activities in accordance with its schedule.
- C: The status of implementation is checked through environment and safety audits as well as inspections, and problem areas are identified.
- A: Each office and facility makes corrections to problem areas identified in audits and inspections.

Audit and inspection results are reported to the Group Environmental and Safety Committee and then reflected in the next fiscal year’s measures. The same procedures are implemented with regard to product safety.

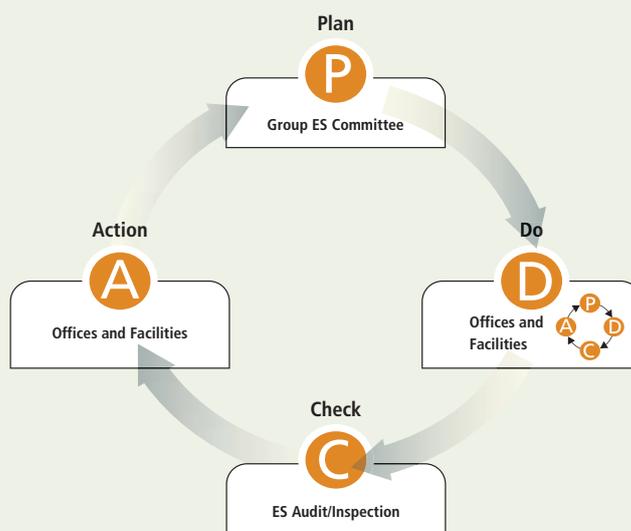


An environmental safety inspection at Isa Cement Factory

### Organization of Environment and Safety (ES) Committee



### PDCA Management Cycle



### Glossary

\*1. RC (responsible care): Under RC, corporations that manufacture and/or handle chemical substances work voluntarily to preserve “safety, health and the environment” throughout product life cycles, from the development of chemicals through their manufacture, distribution, use and final consumption to disposal. These commitments must be clearly reflected in the corporations’ management policies. Activities are carried out in the areas of environmental protection (protect people’s health and the natural environment worldwide); disaster prevention (work to prevent disasters at facilities and counter natural disasters); occupational safety and health (ensure the safety and health of workers); chemicals and product safety (clarify chemical products’ properties and handling methods and thereby protect the safety and health of all handlers, including customers, while preserving the environment); and logistics safety (strive to prevent logistics-related accidents and disasters). Pursuant to these activities, communication in these areas is undertaken (announce activity details and results and promote social dialogue).

## Outline of Environment and Safety Activities

The UBE Group's Medium-Term Environmental & Safety Goals (Fiscal 2010–2012)

Continuously improving the quality of responsible care (RC) activities

To achieve its Medium-Term Environmental and Safety Goals, the UBE Group improves its environment and safety activities through the PDCA cycle, in line with its Responsible Care Code, each fiscal year.

Fiscal 2012 evaluation: Targets and plans were achieved or mostly achieved in all categories.

Responsible Care Code	Medium- to Long-Term Targets and Plans/Measures for Fiscal 2012
Management Systems	<ol style="list-style-type: none"> <li>1. Deepen management systems Changed Head Office audits and inspections from once per year to once every two years. These activities are supplemented by division audits and inspections, which promote division autonomy and deepen management systems (streamline audits and inspections).</li> <li>2. Strictly maintain compliance and promote proper understanding of laws and regulations among business facility managers</li> <li>3. Share environmental and safety information</li> </ol>
Environmental Preservation	<ol style="list-style-type: none"> <li>1. Promote measures to prevent global warming &lt;Greenhouse gas reduction (fiscal 2015 targets)&gt; 1-1. [Energy-oriented] CO<sub>2</sub> emissions: Down 15% compared with the fiscal 1990 level 1-2. [Energy-oriented + Non-energy-oriented (excluding waste-oriented)] CO<sub>2</sub> emissions: Down 20% compared with the fiscal 1990 level &lt;Greenhouse gas reduction (initiatives to be taken until fiscal 2012)&gt; 1-3. [Energy-oriented] CO<sub>2</sub> emissions: Down approximately 270,000 tons (Initial target: Reduction of approximately 180,000 tons) 1-4. Monitoring of CO<sub>2</sub> emissions at offices and factories by the GHG<sup>*1</sup> management system 1-5. Quantitative assessment of CO<sub>2</sub> reduction effects with regard to the UBE Group's products from the c-LCA<sup>*2</sup> and Scope 3<sup>*3</sup> viewpoints</li> <li>2. Reduce environmentally hazardous substance emissions (fiscal 2012 targets) 2-1. Voluntarily reduced emissions of 12 chemical substances (Fiscal 2012 target): Down 70% compared with the fiscal 2000 level 2-2. Reduce the amount of industrial waste for final disposal externally (Fiscal 2012 target): Down 80% compared with the fiscal 2000 level</li> <li>3. Promote green purchasing<sup>*4</sup></li> <li>4. Undertake measures to preserve biodiversity</li> </ol>
Process Safety and Disaster Prevention	<ol style="list-style-type: none"> <li>1. Reduce facility accidents 1-1. Review the Groupwide management structure 1-2. Implement countermeasures related to the deterioration of facilities and reflecting lessons learned from the Great East Japan Earthquake</li> </ol>
Occupational Safety and Health	<p>&lt;Health management&gt;</p> <ol style="list-style-type: none"> <li>1. Curb non-occupational injuries and illnesses</li> <li>2. Respond to regular health check results</li> </ol> <p>&lt;Occupational safety&gt;</p> <ol style="list-style-type: none"> <li>1. Eliminate occupational accidents 1-1. Increase safety awareness and ability to perceive risks in small groups for safety, aiming for zero accidents 1-2. Reconfirm managerial duty to give adequate consideration to occupational safety 1-3. Strengthen measures for partner companies (enhance safety instruction for construction-related partner companies)</li> </ol>
Chemicals and Product Safety	<ol style="list-style-type: none"> <li>1. Compliance with chemical product control laws in and outside Japan (the Chemical Substances Control Law, the Industrial Safety and Health Law, REACH<sup>*5</sup>, TSCA and laws of South Korea, China and Taiwan)</li> <li>2. Operation of new system to comply with Japanese laws (construction of system, education, information sharing, auditing)</li> <li>3. Safety management of chemical substances/compliance with the revised Industrial Safety and Health Law (GHS<sup>*6</sup> labeling)</li> <li>4. Apply SDS<sup>*7</sup> labeling for compliance in the EU (CLP regulation), United States (OSHA), and Asian countries/Improve labeling</li> <li>5. Continue quality and product safety audits, expand related offices (with priority given to legal compliance)</li> <li>6. Thorough loss cost management</li> <li>7. Raw materials management using manifests for environmentally hazardous materials (including radioactive pollution)</li> </ol>
Transportation Safety	<ol style="list-style-type: none"> <li>1. Secure transportation safety 1-1. Maintenance/revision of Yellow Card, Container Yellow Card<sup>*8</sup> and Transportation Label 1-2. Compliance with laws in and outside Japan on the transport of hazardous materials/Compliance with the revised IBC Code<sup>*9</sup> 1-3. Compliance with new systems for aviation security</li> </ol>
Dialogue with Communities	<ol style="list-style-type: none"> <li>1. Promote dialogue with communities</li> <li>2. Improve information disclosure and transparency</li> </ol>

## Glossary

- \*1. GHG: Greenhouse gas—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC and SF<sub>6</sub>—specified in the Kyoto Protocol
- \*2. c-LCA: carbon life cycle analysis is a method for assessing the volume of CO<sub>2</sub> emissions over a product life cycle and includes the total amount of CO<sub>2</sub> emitted during raw material procurement, manufacturing, distribution, utilization and disposal
- \*3. Scope 3: Indirect emissions of CO<sub>2</sub> such as those that occur during material procurement, transport and product use. CO<sub>2</sub> produced directly by manufacturing falls under Scope 1, while indirect emissions resulting from energy use fall under Scope 2.
- \*4. Green purchasing: To purchase products and services that have minimal environmental impact from suppliers who are committed to reducing their environmental impact, considering not only the quality and price of the products, but also the environment.
- \*5. REACH: Regulation covering chemical substances enforced in the EU in June 2007 (REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals)
- \*6. GHS: Globally Harmonized System of Classification and Labeling of Chemicals, a universally standardized hazardous chemical classification system used in preparing SDS and container labels
- \*7. SDS: Safety Data Sheet, documentation containing the product name, physicochemical properties, hazard and toxicity information, usage, and related laws and regulations
- \*8. Yellow Card: A warning label that includes an emergency response guideline number and UN number, used in case of an accident under conditions where other information formats would be impractical because of mixed loading or small-order transportation
- \*9. IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk. Stipulates requirements for the transport of dangerous liquids.

Fiscal 2012 Activity Report		Pages Included
1-1. Head Office and divisions conducted environment and safety audits of 19 facilities/Group companies 1-2. Conducted quality/product safety audits of 13 facilities/Group companies 1-3. Conducted audits of industrial waste haulers and disposal contractors 2. Promoted understanding of regulations by disseminating external information and references 3. Post occupational accident-related information on a dedicated page on the Company intranet		32
1-1. Reduced 18% compared with the fiscal 1990 level 1-2. Reduced 23% compared with the fiscal 1990 level  1-3. Reduced CO <sub>2</sub> emissions by approximately 260 thousand tons (reflecting the implementation of planned measures) in fiscal 2012, thanks to investment in energy-saving equipment 1-4. Ascertained the status of energy consumption and CO <sub>2</sub> emissions volume over the medium- to long-term through the GHG management system 1-5. Review CO <sub>2</sub> emissions at all stages of the supply chains for all business operations  2-1. Reduced 80% compared with the fiscal 2000 level 2-2. Reduced 73% compared with the fiscal 2000 level 3. The UBE Group's green purchasing rate: 74% 4. Ascertained the impact of preserving biodiversity through business activities and participated in forest protection initiatives		37, 38
		40
		44
		20
		39
1-1. Launched the Process Safety Management Liaison Group and Accident Information Liaison Group to promote sharing and utilization of information 1-2. Review management method for corrosion of the outside of pipes; examine future direction of damage estimates and countermeasures for major earthquakes		46
1. Undertook activities related to measures for mental health 2. Undertook activities related to the utilization health risk classifications, measures for lifestyle-related diseases, the elderly, overwork and dietary improvement by making use of health check results		25
1-1. Introduce workplace evaluations (of small groups for safety) at all facilities and Group companies. Receive evaluations from outside organizations 1-2. Conduct evaluations of divisions by level to clarify weak points; post suggestions for improvement 1-3. Adopt capabilities assessments for individuals in charge of construction sites who are employed by construction-related partner companies of the Chemicals & Plastics, Cement & Construction Materials and Machinery & Metal Products segments		46
1. Promoted REACH product registration. Developed an integrated export record system in-house and conducted registrations and follow-ups in and outside Japan; advanced construction of a management system for chemical products in China 2. Tracked and made adjustments as necessary to use of new system to promote its establishment, conducted related in-house training 3. Spread awareness of workplace labeling methods, including at Group companies 4. Continued creating and updating SDS and labels to comply with the laws and regulations of various countries 5. Conducted audits of 13 office/facilities 6. Implemented measures to reduce loss costs at various offices and facilities 7. Continued environment-related substance management in raw materials purchasing		45
1. Responded to revisions in international regulations of dangerous goods 1-1. Maintained and revised Yellow Cards, Container Yellow Cards and transportation labels. Checked all Yellow Cards at three chemical factories 1-2. Submitted new information on designated of hazardous materials to the United Nations 1-3. Implemented security measures for air cargo in order to become a specified cosigner under the new system		45
1-1. Held the 9th RC Dialogue meeting in the Ube District 1-2. Held the 9th annual RC Regional Dialogue meeting in the Chiba district 1-3. Published local newsletter <i>Tsubasa</i> (released semiannually)		20
2. Published <i>UBE Group CSR Report 2012</i> and received third-party verification related to RC		21
		55

## Environmental Accounting

Since fiscal 1999, the UBE Group has employed environmental accounting as a tool for quantitatively understanding and evaluating the costs and effects of environmental preservation in Group business activities while promoting more efficient sustained environmental preservation.

The results for fiscal 2012 are as shown in the following tables.

### ● Environmental Preservation Costs

Capital investment amounted to ¥4,700 million. This was primarily attributable to the installation of sludge drying equipment and ash pretreatment facilities at cement factories as well as the installation of an electrostatic precipitator at Ube Material Industries, Ltd.

Costs decreased ¥160 million compared with fiscal 2011 to ¥11,650 million.

### ● Economic Effect

The income effect amounted to ¥1,120 million. This figure includes proceeds from the sale of marketable waste. The savings effect was ¥6,420 million, due to promoting the reuse of raw materials and energy conservation.



Sludge drying equipment at the Isa Cement Factory



Electrostatic precipitator at Ube Material Industries, Ltd.

### Environmental Preservation Costs

(Unit: ¥100 million)

Category	Main Activity	Capital Investment			Costs			
		FY2011	FY2012	Difference	FY2011	FY2012	Difference	
Cost by business area	Pollution prevention	Costs of investing in and maintaining air and water pollution prevention facility	6.5	12.6	6.1	50.8	47.7	(3.1)
	Global environment preservation	Costs of investing in and maintaining energy-saving facility	4.3	9.5	5.2	5.9	4.4	(1.5)
	Resource recycling	Costs of recycling and reducing industrial waste	23.7	24.0	0.3	38.8	42.3	3.5
Upstream/downstream costs	Costs of container/packaging recycling, green purchasing	0.0	0.2	0.2	6.1	7.0	0.9	
Costs of management activities	Costs of acquiring, running and maintaining environmental management systems	0.1	0.0	(0.1)	5.4	5.1	(0.3)	
Research and development costs	R&D costs of environment-friendly products and technologies	0.6	0.5	(0.1)	6.1	5.9	(0.2)	
Costs of social activities	Costs of greening and beautifying offices/facilities and their surroundings	0.0	0.2	0.2	2.3	1.9	(0.4)	
Costs of cleaning up environment damage	Payment of environment-related levy	0.0	0.0	0.0	2.7	2.2	(0.5)	
Total		35.2	47.0	11.8	118.1	116.5	(1.6)	

### Economic Effect

(Unit: ¥100 million)

Category	Income Effect	FY2011	FY2012	Difference
Income Effect	Proceeds from sales of marketable waste products	12.1	11.2	(0.9)
Saving Effect	Savings achieved through resource recycling and energy conservation	66.2	64.2	(2.0)

#### UBE Group Environmental Accounting Method

- Companies covered: UBE Group companies (Except for Ems-Ube, Ltd. and UBE-MC Hydrogen Peroxide, Ltd., only consolidated subsidiaries from "Companies covered" on page 57).
- Calculations are based on Environmental Accounting Guidelines (Ministry of the Environment 2005 edition).
- The economic effect is the effect obtained in fiscal 2012 as a result of environmental protection activities. This is limited to what can be calculated rationally and excludes hypothetical calculations, such as the avoidance of the cost of cleaning up environmental damage.
- Internal transactions within the UBE Group are set off and eliminated.

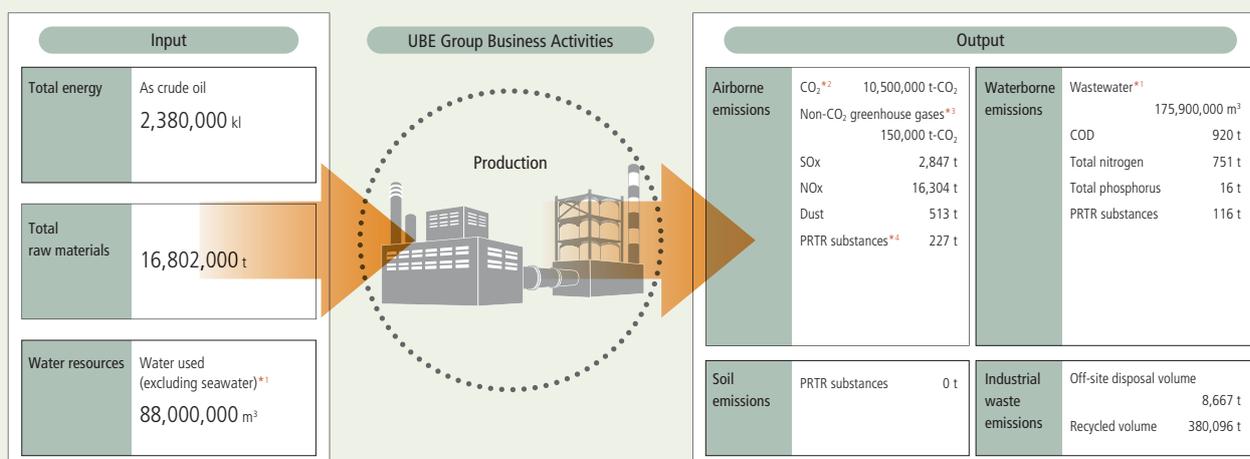
## Environmental Performance

The UBE Group recognizes that environment-oriented business practices are vital to its ongoing growth. We will continue to promote measures to prevent global warming, reduce emissions of chemical substances and industrial waste, and use waste and resources effectively in order to continuously foster business activities that contribute to the formation of a recycling-based society.

### Glossary

- \*1. The difference between the "water used" and "wastewater" is because wastewater includes seawater.
- \*2. Indicates total CO<sub>2</sub> emissions (excluding emissions from waste)
- \*3. CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC, and SF<sub>6</sub>
- \*4. PRTR Law designated 462 substances (See page 41 for reference).

### Overview of UBE Group Environmental Impact in Fiscal 2012



\*See "Companies covered" on page 57 for details on the scope of UBE Group performance data.

### Fiscal 2011 and 2012 Environmental Impact Data by Factory

(Unit: tons/year)

	SOx Emissions		NOx Emissions		Dust Emissions		COD Emissions		Total Nitrogen Emissions		Total Phosphorus Emissions		Industrial Waste Off-Site Disposal Volume	
	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Chiba Petrochemical Factory	4	1	33	40	0.3	0.2	6	8	2	2	0.1	0.1	8	8
Sakai Factory	0	0	165	159	29	20	167	163	229	235	6	4	49	42
Ube Chemical Factory	1,471	1,850	3,797	3,424	119	113	421	455	467	447	7	7	323	303
Ube Cement Factory	47	38	1,469	1,501	45	64	8	8	—	—	—	—	0	0
Isa Cement Factory	343	338	7,663	7,039	187	188	0	0	—	—	—	—	0	0
Kanda Cement Factory	3	4	2,526	2,444	47	60	1	2	1	1	0	0	12	22
Okinozawa Coal Center	—	—	—	—	—	—	—	—	—	—	—	—	30	1
Ube Film, Ltd.	—	—	—	—	—	—	—	—	—	—	—	—	1	0
Ems-Ube, Ltd.	0	0	5	5	0	0	10	6	2	1	0	0	0	0
Ube Ammonia Industry, Ltd.	545	508	365	446	3	5	189	275	72	61	4	4	51	319
UBE-MC Hydrogen Peroxide, Ltd.	—	—	—	—	—	—	0.2	0.2	0	0	0	0	0	0
Ube-Nitto Kasei Co., Ltd.	1.7	2.4	1.8	2.4	0.2	0.3	0.5	2.0	0	0	0	0	26	17
Meiwa Plastic Industries, Ltd.	—	—	—	—	—	—	0.1	0.1	0	0	0	0	10	10
Ube Material Industries, Ltd.	116	93	1,263	1,169	51	50	—	—	—	—	—	—	19,609	3,934
Ube Board Co., Ltd.	0.6	0.2	7	7	3	3	0.2	0.4	0.2	0.2	0	0	144	940
Ube Machinery Corporation, Ltd.	0	0	—	—	—	—	0.9	1.0	1.1	1.3	0.1	0.2	98	85
Fukushima, Ltd.	1	1	29	29	0.1	0.1	0	0	0	0	0	0	35	26
Ube Steel Co., Ltd.	14	13	43	40	17	10	0.6	0.5	0	0	0	0	3,140	2,466
Thailand	7	2	31	61	14	16	64	75	45	38	5	5	1,365	1,033
Spain	221	74	378	565	11	22	234	92	272	67	2	2	12,051	8,170

# Measures to Prevent Global Warming

## New Medium-Term Management Plan Change & Challenge—Driving Growth

### Reducing Greenhouse Gases

CO<sub>2</sub> Reduction Targets for the Domestic UBE Group

1. CO<sub>2</sub> emissions from energy use: Reduce 15% compared with fiscal 1990 levels by fiscal 2015
  2. Total CO<sub>2</sub> emissions from energy use and non-energy-use (excluding emissions from waste): Reduce 20% compared with fiscal 1990 levels by fiscal 2015
- Steadily implement measures to reduce energy use, expand reuse of waste materials and work toward further CO<sub>2</sub> reductions in factories at the product manufacturing stage.
  - Reduce CO<sub>2</sub> generated by use of finished products that employ the UBE Group's main products and continue to work to monitor the amount of CO<sub>2</sub> emissions at all stages of Group's supply chains.
  - Consider CO<sub>2</sub> reduction targets for all UBE facilities, including those outside Japan, and enhance Groupwide efforts to reduce emissions of greenhouse gases.

### Development of Environment-Friendly Technologies and Products

The UBE Group seeks to promote R&D and commercialization of technologies and products that serve to reduce resource and energy use and protect the global environment. We are continuing to work toward the target set forth in the previous medium-term management plan of expanding sales by businesses that contribute to the environment to ¥120 billion in fiscal 2015.

UBE has set its own clear guidelines with regard to environment-friendly technologies and products.

#### • Renewable energy-related materials, technologies and businesses

Battery materials such as electrolytes and separators for use in lithium-ion batteries; materials for solar and wind power applications, such as polyimide and ceramic powder; materials for fuel cells such as gas separation membranes; new biomass fuels such as PKS; and the megasolar business

#### • Materials and technologies that help reduce energy use and environmental burden

Ceramic powder and other materials used in LEDs; polyimide varnish and other materials for organic EL; synthetic rubber and nylon resin; molding machines; aerospace materials and other materials and technologies used in automotive and airplane weight reduction; environmental coating materials; and generation of electricity using exhaust heat at cement factories

#### • Products and technologies that preserve and improve the environment

Recycling technologies including the use of waste materials in cement and the recycling of resins; products that replace naturally-derived products such as Heliofresh; and exhaust and water purification agents such as magnesia

## Measures to Reduce Greenhouse Gases

### • CO<sub>2</sub> Emissions and CO<sub>2</sub> Emission Intensity Index

The Group's CO<sub>2</sub> emissions in fiscal 2012 decreased 4% compared with fiscal 2011. The CO<sub>2</sub> emission intensity index remained on par with fiscal 2011.

### • Energy Consumption and Energy Consumption Intensity Index

The Group's energy consumption in fiscal 2012 decreased 4% compared with fiscal 2011. The energy consumption intensity index was on par with fiscal 2011.

### • Efforts in Logistics

The UBE Group began the Logistics Re-engineering Project in fiscal 2007, aiming to improve efficiency of sales-related logistics. As part of this project, in fiscal 2012 we worked to increase the load ratio for trucks, tankers and tank barges, shifted to use of export ports nearer to factories in order to shorten domestic transportation distances, and changed to larger-scale vehicles. Going forward, we will continue to advance joint transport operations within the Group and further modal shifts\*<sup>1</sup> to decrease both environmental burden and costs.

In addition, we are continuing Groupwide initiatives to improve the efficiency not only of product and materials transportation, but also of the collection and transport of logistics equipment, such as flexible bulk containers and pallets.

### • Efforts in Factories

The UBE Group is working to reduce energy consumption through far-reaching energy-saving measures being undertaken in all factories. In fiscal 2012, through the expanded use of waste materials in cement factories, a shift to electric inverters, a reduction in the use of steam and other initiatives, we reduced our CO<sub>2</sub> emissions by approximately 90,000 tons. The completion of liquefied carbon dioxide manufacturing facilities in the Ube District in the latter half of 2013 is expected to make possible a further 40,000 ton reduction in annual CO<sub>2</sub> emissions.

In June 2012, we adopted a combustion control system to regulate the pressure of the boiler steam that drives the turbine at our 216 MW power generation plant, thus reducing the amount of coal consumed. Consequently, we reduced our fiscal 2012 energy use by the equivalent of 4,700 kl of crude oil (equivalent to 16,000 tons of CO<sub>2</sub>). In February 2013, we installed the same system at our 145 MW power plant to achieve even greater energy savings.

As one part of efforts to reduce CO<sub>2</sub> emissions and be more environment-friendly, Ube Steel Co., Ltd., has changed from light gas oil to biodiesel fuel (fuel refined from used frying oil and other vegetable oils) to power its forklifts. The gradual adoption of biodiesel was approved by

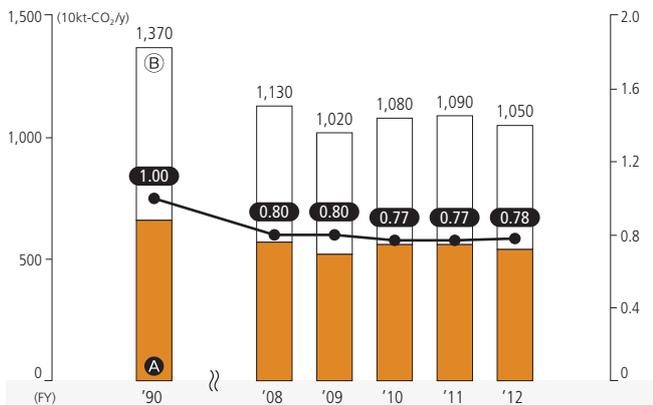
## Glossary

\*1. Modal shift: A shift from truck transport to rail and domestic shipping-based transport that uses less energy per amount transported.

\*2. GHG (Greenhouse Gas): CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC and SF<sub>6</sub> are six greenhouse gases specified in the Kyoto Protocol.

\*3. Joint Crediting Mechanism: A scheme in which the absorption or reduction in emission of greenhouse gases realized in developing countries through the use of Japanese technologies, products, systems, services and infrastructure can be used to help Japan achieve its quantitative greenhouse gas reduction goals.

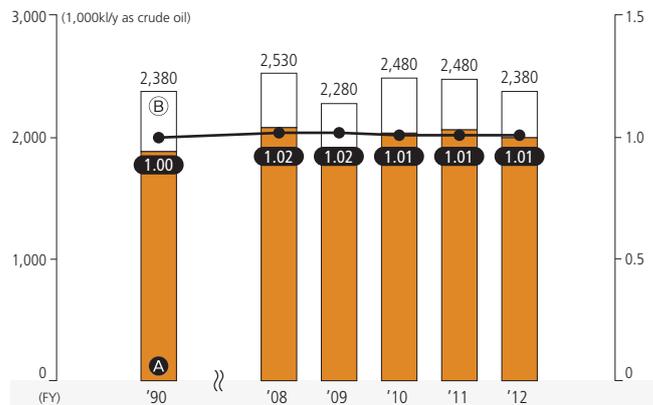
CO<sub>2</sub> Emissions and CO<sub>2</sub> Emission Intensity Index



Ⓐ Energy-based CO<sub>2</sub> emissions Ⓑ Non-energy-based CO<sub>2</sub> emissions (excluding emissions from waste)  
● CO<sub>2</sub> emission intensity index (fiscal 1990 basis)

The volume of CO<sub>2</sub> emissions is calculated based on the Act on Promotion Measures to Cope with Global Warming.

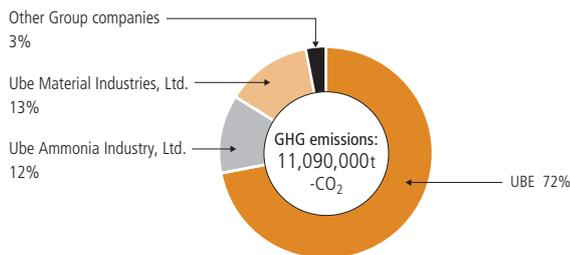
Energy Consumption and Energy Consumption Intensity Index



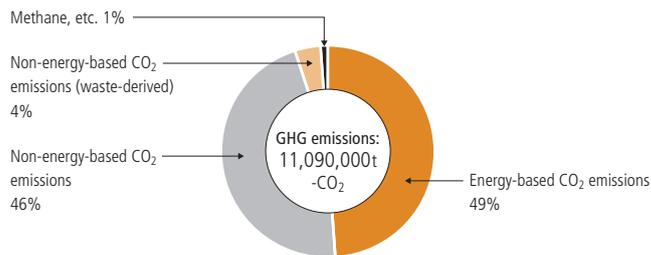
Ⓐ UBE Ⓑ Group companies ● Energy intensity index (fiscal 1990 basis)

The volume of energy consumption is calculated based on the Act on the Rational Use of Energy.

GHG\*2 Emissions for UBE Group by Company (Fiscal 2012 Results)



GHG\*2 Emissions for UBE Group by Type of Gas (Fiscal 2012 Results)



Yamaguchi Prefecture in January 2013, following which the ratio of biodiesel in the fuel mix was slowly increased. The operation of the forklift engines was carefully monitored, until 100% biodiesel use was achieved in March. In fiscal 2013, we will further advance the use of biodiesel, with the plan of replacing all of the approximately 8,400 liters of light gas oil (equivalent to 22 tons of CO<sub>2</sub>) used annually in forklifts with biodiesel.



Stages of biodiesel fuel refinement (source: Earth Creative Co., Ltd.)



Heavy machinery used in the recycling business at Ube Steel Co., Ltd.

● Joint Crediting Mechanism\*3 Initiatives

Ube Shipping & Logistics, Ltd. was commissioned by the Incorporated Administrative Agency New Energy and Industrial Technology Development Organization (NEDO) to conduct a study of a Global Warming Countermeasure Technology Promotion Business project aimed at improving the efficiency of marine transport of cement in Indonesia. Specifically, the project aimed to reduce the energy used by the cement transport ships of Indonesian shipping company PT Indobaruna Bulk Transport by adopting a system for optimizing shipping plans using meteorological and hydrographic forecasts, thus reducing CO<sub>2</sub> emissions that arise during marine shipping of cement.

In the 2012 survey, the systems were installed on three vessels, and their effectiveness was examined based on calculations of potential CO<sub>2</sub> emission reduction on each shipping route. Ube Shipping & Logistics, Ltd. also participated in a conference on the Joint Crediting Mechanism held in Indonesia in February 2013, reporting on its business and engaging in a lively Q&A session. The UBE Group will continue to promote the spread of energy-saving technologies around the world and support measures to prevent global warming.

# Preserving Biodiversity

## Preserving Biodiversity

It is estimated that, including species that have not yet been discovered, there are some 30 million species living on the earth. As one of the many life forms on the planet, we enjoy the rich bounty of nature and refer to this abundance of biodiversity as "ecosystem service," or gifts from Mother Nature.

However, due to climate change, environmental pollution and the over-use of natural resources, the earth's environment is being damaged, and its biodiversity is in great peril.

The UBE Group works systematically to grasp the impact of its business activities on biodiversity, from raw material procurement to product development and production. We strive to minimize that impact to preserve biodiversity, while also participating actively in such activities as forest preservation.

## Advancing Activities through Environmental Study Meetings

As part of its Environmental and Safety Principles, the UBE Group acts positively to protect and improve both the regional and global environments. To this end, in March 2012, we established environmental study meetings as a Companywide body for understanding and evaluating the impact of UBE's business activities on biodiversity, collecting and sharing information, and determining themes for future activities. These meetings also examine the development of products and technologies that minimize impact on biodiversity and the cultivation of businesses that benefit the environment.

## Partnership to Promote the Declaration of Biodiversity of Keidanren (Japan Business Federation)

Fully approving the Declaration of Biodiversity of the Keidanren, UBE is a participating as a partner to promote this initiative with the aim of establishing more proactive measures to preserve biodiversity.



- ① Preparing for a controlled burn on the Akiyoshidai Plateau
- ② Forest Creation Experiential Activity for Water Conservation

## The UBE Group's Measures

In fiscal 2012, UBE Group Employees contributed approximately 1,600 man-hours to initiatives to preserve biodiversity, and the Group spent some ¥13 million on efforts that included forest maintenance and tree planting at former limestone quarries.

### ● Efforts to Protect Forests in the Kotou River Basin

Most of the water that the Ube district factories use comes from the Kotou River, which begins in Mine city. The eleven companies (including five UBE Group companies) and two water departments that use this water have established a council to undertake maintenance activities of the forests' regenerative functions\*<sup>1</sup> in the area surrounding this water source.

In fiscal 2012, 78 UBE Group employees participated in the fifth annual Forest Creation for Water Conservation (held each autumn by the Yamaguchi Prefecture Mine Agriculture and Forestry Office), thinning and harvesting bamboo in approximately two hectares of forest. Furthermore, UBE employees participated in activities to protect and nurture the Akiyoshidai plateau in Mine (hosted annually from autumn to winter by the Akago Area Community-Building Council), working with local residents to prepare and conduct controlled burns. In addition, some of the management of forest and water sources undertaken by Yamaguchi Prefecture is supported by fees paid by UBE for the water it uses in its factories. The UBE Group will continue to provide continuous support for maintenance of forests and natural landscapes around the source of the Kotou River.

### ● Afforestation Activities at Limestone Quarries

Approximately eight million tons of limestone are extracted annually from the three mining sites (Isa, Maruyama and Amagoi) that currently serve the Isa Cement Factory. The quarry of the Kanda Cement factory provides an additional one million tons per year. This limestone has a wide range of uses as an ingredient used to manufacture cement, calcined lime, lime hydrate and exhaust gas desulfurization materials.

We undertake afforestation activities that involve planting mountain cherry, longstock holly and other native trees in barren areas after limestone mining ceases as well as sowing seeds to protect slopes that are used as a dumping ground for top soil. While taking steps to coexist in harmony with the surrounding environment in the years ahead, we will work to preserve this region's abundant forest by minimizing the impact of our mining operations.

## Glossary

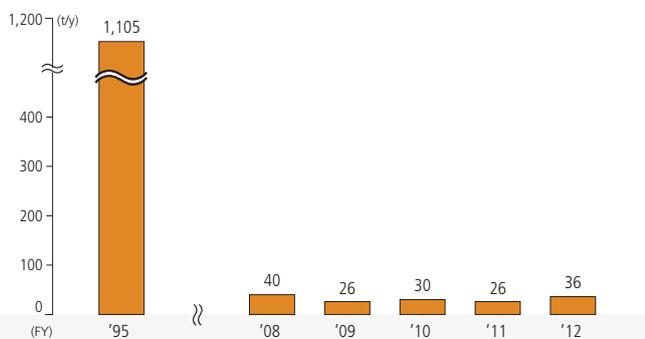
\*1. Regenerative functions of water sources: The existence of healthy forest ecosystems reduces the rise in water volume in rivers (direct runoff) due to heavy downpours while ensuring that the water supply is maintained at a stable minimum volume (base discharge) during droughts.

# Management of Chemical Substances

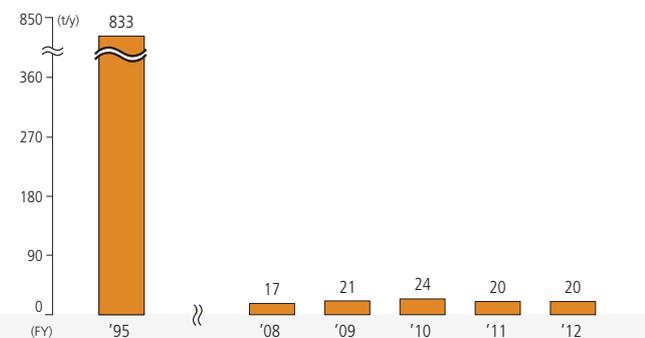
## Reducing Atmospheric Emissions of Chemical Substances

The Japan Chemical Industry Association (JCIA) has introduced measures to reduce atmospheric emissions of 12 designated priority chemical substances.\*<sup>1</sup> UBE handles six of these 12 in the form of synthetic raw materials and solvents—benzene, 1,3-butadiene, acrylonitrile, 1,2-dichloroethane, chloroform and dichloromethane—and in fiscal 2012 achieved a 97% reduction in total emissions of these substances compared with fiscal 1995. Regarding benzene and 1,3-butadiene, which are suspected to be particularly harmful, the Group achieved reductions of 98% and 95%, respectively.

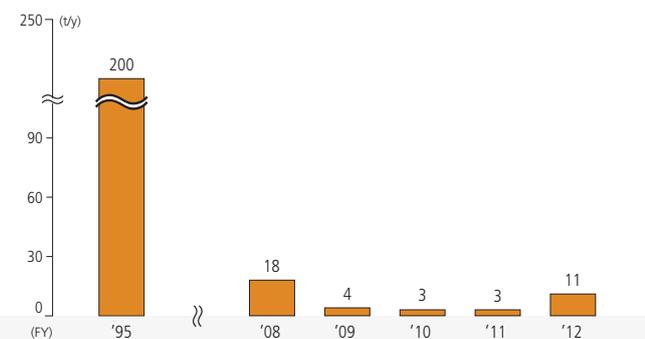
### Total Emissions Volume of Six Harmful Air Pollutants



### Benzene Emissions Volume



### 1,3-Butadiene Emissions Volume (Chiba Petrochemical Factory)



### Medium-Term Emission Reduction Plan (Fiscal 2010—Fiscal 2012)

Reduce emissions of 12 voluntarily selected chemical substances by 70% compared with fiscal 2000 by fiscal 2012

## Voluntary Medium-Term Plan for Reducing Chemical Substance Emissions

The UBE Group achieved an 80% reduction from the fiscal 2000 level in total emissions of the following 12 voluntarily selected chemical substances.

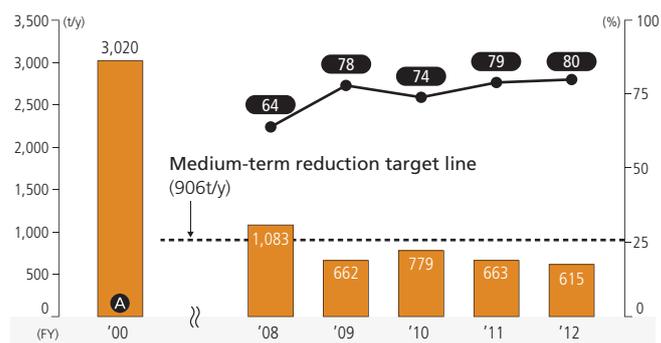
### ● 10 volatile organic compounds (VOC)\*<sup>2</sup>

Xylene, vinyl acetate, cyclohexane, dichloromethane, toluene, 1,3-butadiene, butyl alcohol, n-hexane, benzene, methyl alcohol

### ● 2 other chemical substances

Ammonia, caprolactam

### Emissions and Reduction Rate of 12 Voluntarily Selected Toxic Substances



● Total emissions ● Reduction rate (%)



VOC emission prevention equipment at the Sakai Factory

## Glossary

\*1. Among the 22 harmful air pollutants listed by the Japanese Ministry of the Environment's Central Environmental Council, the Japan Chemical Industry Association has designated 12 as priority chemical substances and has implemented a voluntary plan to control emissions of these substances within the chemical industry.

\*2. Volatile Organic Compounds: Organic chemicals that evaporate or sublime easily, entering the atmosphere as gases. Factories in Japan use some 200 such substances.

## Chemical Substance Registration

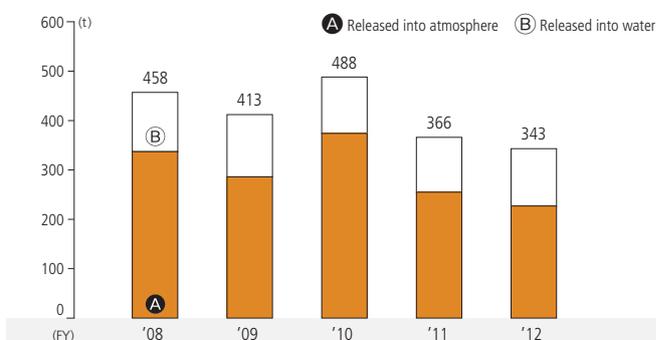
### ● Pollutant Release and Transfer Register\*1 (PRTR) System

Among the 462 substances subject to reporting under the Japanese PRTR Law, the UBE Group handles 60 and UBE handles 48. Compared with fiscal 2011, the total emissions volume of such substances by the UBE Group and UBE decreased 6.1% and 0.9%, respectively, due to improvements in manufacturing processes.

### ● PCB (Polychlorinated Biphenyl)

Regardless of whether they are currently in use or no longer in use, the UBE Group appropriately stores and manages PCB-containing transformers, condensers and fluorescent lighting stabilizers in its factories in accordance with the Law Concerning Special Measures against PCB Waste. The Group is advancing treatment of PCB-containing items in coordination with the Japan Environmental Safety Corporation, and plans to dispose of all such items in an appropriate and safe manner by July 2016.

Emissions Volume of PRTR Substances



### Total Volume of PRTR Substances Emitted/Transferred in Fiscal 2012 by the UBE Group

(Unit: t)

	Handling Volume	Emissions Volume				Increase/Decrease Rate Compared with Fiscal 2011 (Total emissions)	Transfer Volume
		Atmosphere	Public Water	Soil	Total		
UBE	388,550	121.2	104.2	0.0	225.4	(0.9%)	922.2
Other Group companies	27,372	106.2	11.7	0.0	117.9	(14.7%)	782.3
Amount (UBE Group)	415,923	227.4	115.9	0.0	343.3	(6.1%)	1,704.5

Transfer volume: Volume externally treated as waste

### Individual Emission/Transfer Volumes in Fiscal 2012 (UBE Group PRTR Substances)

(Unit: t)

Ordinance Designation Number	Chemical Substance	CAS No.	Handling Volume	Emissions Volume				Increase/Decrease rate Compared with Fiscal 2011 (Total emissions)	Transfer Volume
				Atmosphere	Public Water	Soil	Total		
300	Toluene	108-88-3	873	77.3	14.0	0.0	91.4	(6.2%)	312.0
76	$\epsilon$ -caprolactam	105-60-2	209,427	0.0	86.6	0.0	86.6	12.3%	420.2
80	Xylene	—	205	37.5	0.0	0.0	37.5	(23.8%)	19.7
400	Benzene	71-43-2	79,827	20.5	0.4	0.0	20.9	1.8%	0.0
53	Ethylbenzene	100-41-4	24	17.3	0.0	0.0	17.3	(2.8%)	7.8
134	Vinyl acetate	108-05-4	3,946	16.4	0.0	0.0	16.4	(21.0%)	0.0
213	N,N-dimethylacetamide	127-19-5	374	15.5	0.0	0.0	15.5	(46.4%)	145.1
392	n-hexane	110-54-3	269	14.3	0.0	0.0	14.3	(20.4%)	61.1
351	1,3-butadiene	106-99-0	98,435	11.1	0.0	0.0	11.1	230.1%	0.0
389	Hexadecyl-trimethyl-ammonium chloride	112-02-7	8	0.0	7.9	0.0	7.9	(7.9%)	0.0
104	Chlorodifluoromethane	75-45-6	7	7.2	0.0	0.0	7.2	(7.8%)	0.0
405	Boron compounds	—	49	0.8	2.3	0.0	3.1	(1.0%)	1.5
243	Dioxins	*	—	361.7	1.2	0.0	362.9	43.9%	0.4

Notes: 1. CAS No.: Chemical Abstract Service registry number. 2. \*: Contains various compounds 3. Unit for dioxins: mg-TEQ/year

## Glossary

\*1. PRTR (Pollutant Release and Transfer Register): Involves conducting voluntary surveys to assess the volume of chemical substances that are emitted into the environment (atmosphere, water, soil) and transferred outside in the form of waste from company facilities during business activities and reporting survey findings to national and other governments while undertaking full public disclosure. The aim of PRTR is to take steps to control and reduce environmental burdens through the appropriate use and management of chemical substances.

# Measures to Prevent Air and Water Pollution

## Measures to Prevent Air and Water Pollution

### Measures to Prevent Air Pollution

The UBE Group monitors atmospheric pollutants at the source, and pollution control is undertaken according to levels established in agreement with governments and its own voluntary air pollution prevention management standards. All of these measures are reflected in our factory operations.

### Measures to Prevent Odors

The UBE Group is working together with governments on odor countermeasures, installing odor reducing equipment and building proprietary odor monitoring systems.

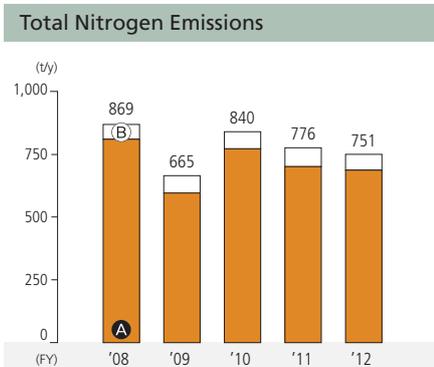
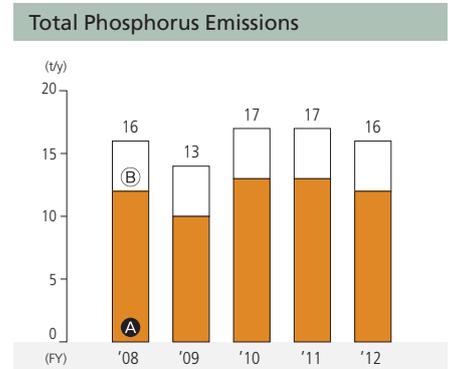
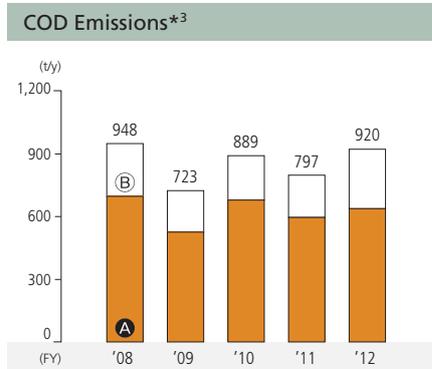
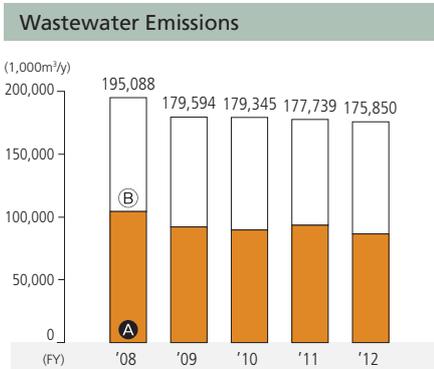
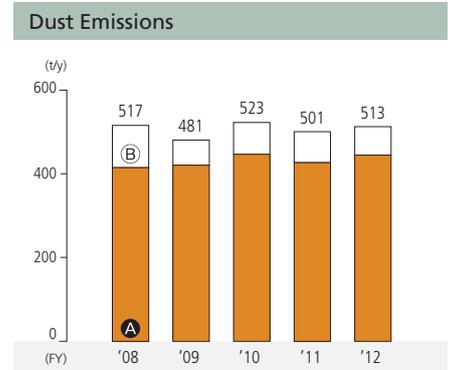
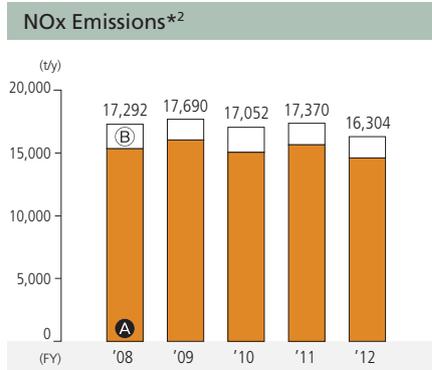
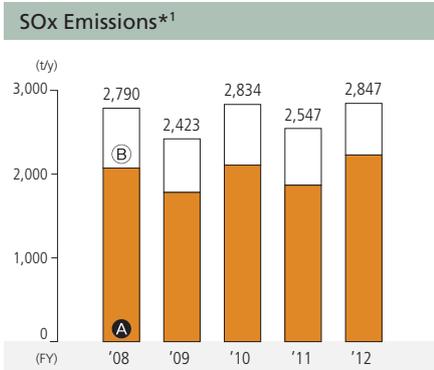
### Measures to Prevent Water Pollution

The UBE Group has installed systems to monitor water quality. In addition, UBE Group factories, which can have an impact on public water quality, purify wastewater through the use of wastewater treatment facilities.

### Measures to Prevent Soil and Ground Water Pollution

The UBE Group complies with the regulations set forth in the Soil Contamination Countermeasures Law and ordinances established by local governments.

Ⓐ UBE Ⓑ Group companies



Reference: Please refer to page 36 for environmental impact data by factory

## Glossary

\*1. SOx: Sulfur oxides originate in the sulfur (S) component of fuels. Boilers are the main source of SOx.

\*2. NOx: Nitrogen oxides originate in the nitrogen (N) components of fuel and air when a fuel is combusted in the air. Boilers and cement kilns are the main sources of NOx.

\*3. COD (Chemical Oxygen Demand): This is an indicator of water pollution by organic substances and represents the amount of oxygen consumed in the chemical oxidation of organic matter.

# Effective Use of Waste

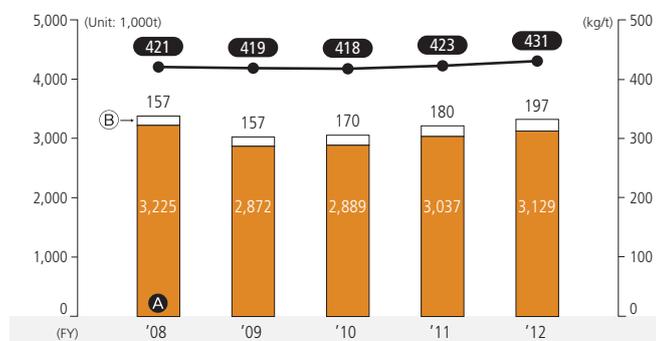
## Waste Recycling at Cement Factories

Waste can be reused as a raw material (material recycling) and an alternative fuel (thermal recycling) in the cement-making process. For this reason, a wide variety of waste is treated at cement factories. Cement kilns reach a very high internal temperature in the calcining zone (1,450°C), where substances that cannot be disposed of by ordinary incinerators can be burned and degraded. The kilns also offer a large waste-processing capacity. Ash produced by incineration can be used as an alternative to clay, a component of cement, eliminating the need for final disposal sites for incineration ash.

The three UBE cement factories actively accept and reuse various waste materials, such as blast furnace slag,\*1 from both inside and outside the UBE Group. In fiscal 2012, the UBE cement factories made effective use of around 3.33 million tons of waste and byproducts. Of this, 3.25 million tons was sourced from outside of the UBE Group. This is one way the UBE is significantly contributing to the formation of a recycling-based society. Beginning in fiscal 2012, we have been operating sludge drying equipment at the Isa Factory as well as ash pretreatment and closed sludge injection facilities at the Ube Factory.

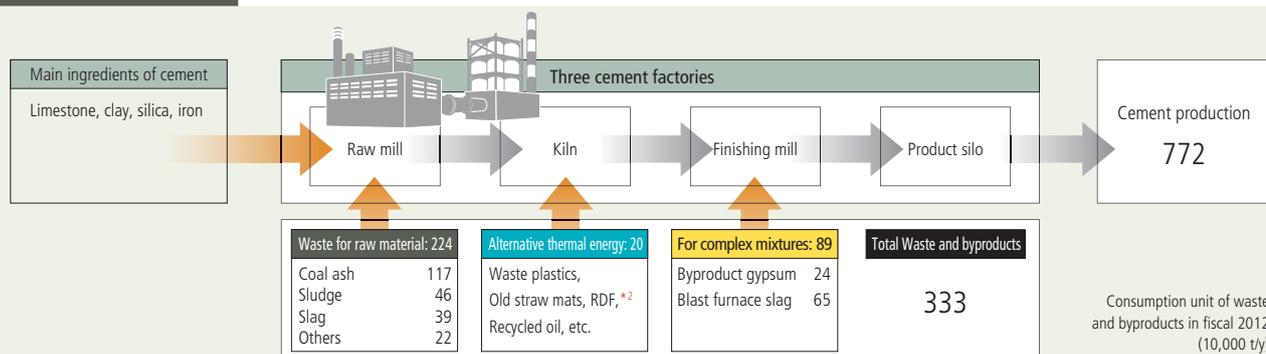
UBE will continue to strengthen its systems for dealing with a variety of waste and expand its recycling business.

### Waste and Byproduct Consumption Volume



● (A) Waste and byproducts for raw materials (Unit: 1,000t)  
● (B) Waste for alternative thermal energy (Unit: 1,000t)  
● Usage volume per ton of cement (kg/t)

### Flow of Cement Production



Akihiko Yoshida, Deputy General Manager, Paperboard Business and Plant Manager, Otake Mill, Nippon Paper Industries Co., Ltd.



### Recycling Waste as Cement

At Nippon Paper Industries' Otake Mill, we manufacture many kinds of paper and paperboard, from paper used in cardboard to high-grade white paperboard, book paper and white roll paper.

Since our new energy boiler, which is fueled mainly by coal, went into operation in 2009, we've been sending the coal ash to UBE Industries to be reused in cement. We also send plastic scraps that accumulate during the paper recycling process to be recycled there.

We're looking forward to continuing to work with UBE to address the social issues of reducing waste and advancing recycling.

### Cement Factory History of Waste Treatment Facility Installations

	Alternative Thermal Energy	For Raw Material
1998	Kanda Factory: Waste oil treatment facility	Isa Factory: Chlorine bypass system
1999		Ube/Kanda Factories: Waste water receiving treatment facility
2000	Ube Factory: Waste plastic treatment facility (1st train)	
2001		Ube Factory: Sewage sludge treatment facility
2002	Kanda Factory: Waste plastic treatment facility (1st train)	Isa Factory: Sewage sludge waste treatment facility (1st train) Ube Factory: Chlorine bypass system Ube/Isa/Kanda Factories: Meat and bone meal treatment facility
2003	Isa Factory: Waste plastic treatment facility (1st train)	
2004	Isa Factory: Wood chip combustion facility for in-house power generation Isa Factory: Waste plastic treatment facility (2nd train)	
2005		Kanda Factory: High-chlorine bypass system
2006	Kanda Factory: Waste plastic treatment facility (2nd train)	
2007	Ube Factory: Waste plastic treatment facility (2nd train)	Isa Factory: Sewage sludge waste treatment facility (2nd train)
2008	Isa Factory: Waste plastic treatment facility (3rd train)	Kanda Factory: Waste for raw material loading facility
2009	Kanda Factory: Waste plastic treatment facility (3rd train)	Kanda Factory: Ash pretreatment facility
2011	Kanda Factory: Waste plastic pretreatment facility	
2012	Isa Factory sludge drying equipment	Ube Factory: Ash pretreatment facility Ube Factory: Closed sludge injection facility

### Glossary

\*1. Blast furnace slag: A byproduct of the process of smelting iron to produce pig iron, produced when metallic iron is separated out from molten iron ore in a furnace

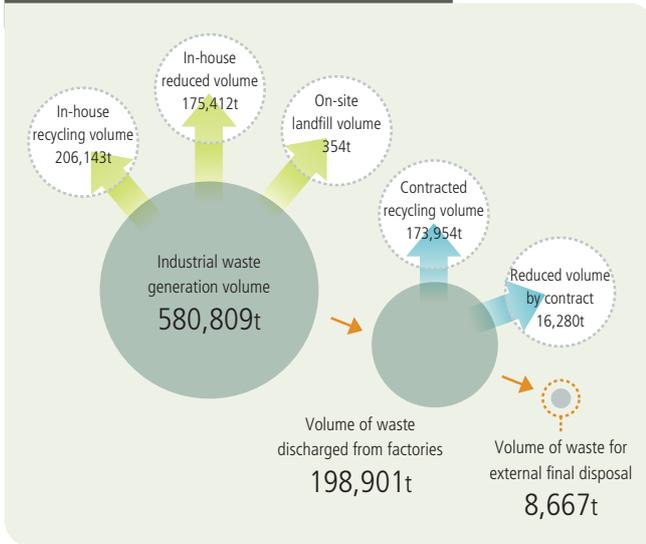
\*2. Refuse Derived Fuel (RDF): Solid fuel made by compressing waste plastic, scrap wood and general garbage

# Reduction of Industrial Waste

## Medium-Term Waste Reduction Plan

By fiscal 2012, the UBE Group plans to have reduced the volume of industrial waste for external final disposal by 80% compared with the fiscal 2000 level.

## Overall Flow of Industrial Waste in Fiscal 2012



## Industrial Waste Reduction Volume

The entire UBE Group strives to recycle industrial waste and reduce its final disposal volume.

### Industrial Waste Generation Volume

Industrial waste is generated by many sources. Chemical factories primarily generate sludge, waste oil and waste plastic; on-site power plants generate coal ash; and machinery factories mainly generate waste oil and inorganic waste.

### Industrial Waste Recycling Volume

Most of the internal industrial waste produced by each Group factory is recycled in-house.

### Volume of Industrial Waste Discharged from Factories

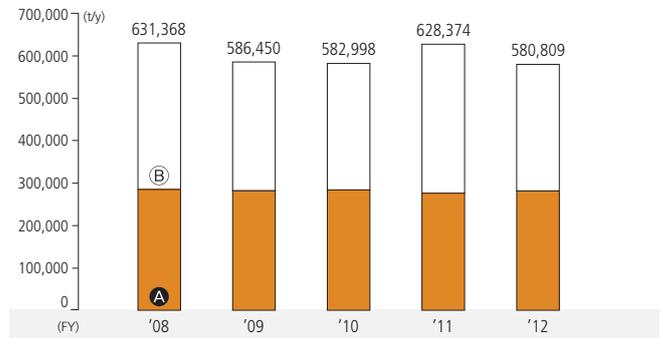
When contracting waste treatment or disposal to outside companies, the UBE Group utilizes industrial waste management forms (waste manifest system) in compliance with waste treatment and clean-up laws and carefully manages the entire process.

### Volume of Industrial Waste for External Final Disposal

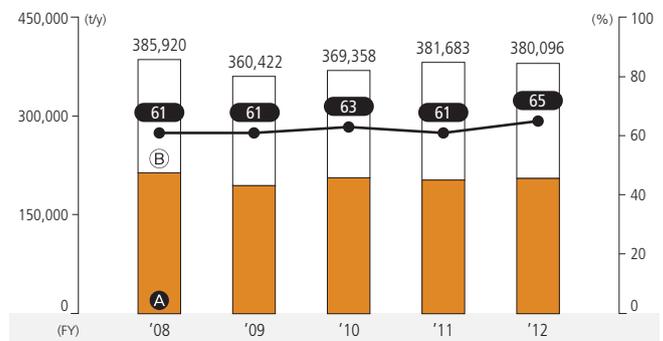
In fiscal 2012, we recorded a 73% reduction in industrial waste for final disposal, falling short of our target of 80%. This was due in part to the fact that the actual amount of industrial waste generated exceeded predictions. We will continue to work toward reduction in fiscal 2013 and onward.

Ⓐ UBE Ⓑ Group companies ● Group waste recycling ratio (%)

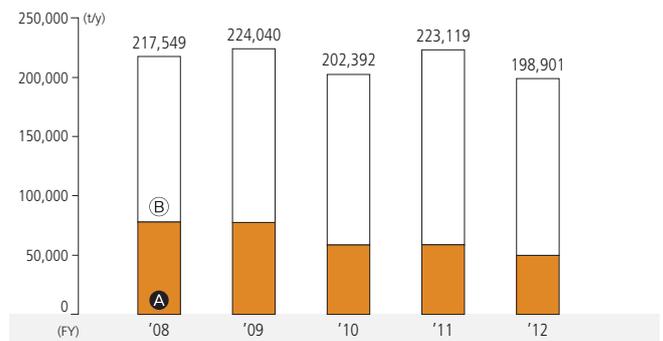
## Industrial Waste Generation Volume



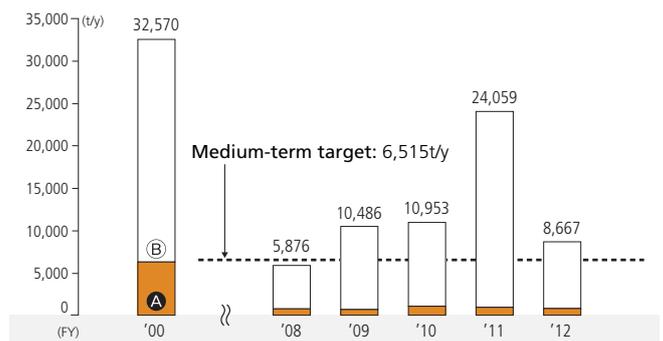
## Industrial Waste Recycling Volume and Ratio



## Volume of Industrial Waste Discharged from Factories



## Volume of Industrial Waste for External Final Disposal



# Product Safety and Quality Assurance

## Product Safety and Quality Assurance Initiatives

### ● Safety Data Sheet (SDS)

To ensure the safe use of our chemical products, we actively provide SDSs for all of our products to our customers and disclose them on our website. In addition, employees can access our product SDS database. This database provides employees with information that includes data on product hazards and toxicity, relevant laws and regulations, and storage and disposal procedures. We continually update SDSs based on the REACH Regulation, CLP\*<sup>1</sup> and other relevant regulations.

### ● Product Labels

A GHS label listing cautionary measures to be taken during handling is attached to every product container. Moreover, we have fully adopted the Container Yellow Card labeling system.

### ● Transportation Safety

Based on the annual plans of the Group Product Safety Committee, we undertake measures to prevent transportation accidents and improve the quality of transportation operations. Such measures include maintaining Yellow Card\*<sup>2</sup> and other transportation labeling systems as well as conducting disaster drills.

### ● Response to Customers' Green Procurement\*<sup>3</sup>

Particularly in the electric and electronic device and automotive industries, we are seeing advances in products designed for easier recycling and the reduced use of harmful materials. As a provider of raw materials, UBE is responding enthusiastically to its customers' green procurement efforts. With regard to its own raw materials procurement, the Company has set internal standards, and monitors procured parts, materials and products for harmful materials.



Safety summary sheet



Hideyuki Nakamura, Quality Assurance Manager,  
Production Headquarters, Ube Machinery Corporation, Ltd.



### Promoting Product Quality and Safety to Provide Excellent Products Worldwide

The Machinery & Metal Products Company's business extends from molding machines, such as die-casting machines and injection molding machines; to industrial products, such as pulverizing equipment and bridge members; steelmaking; and machinery servicing. As our customer base spreads from within Japan to North America, Europe, Asia, the Middle East and, in recent years, South America, the demand for safe, high quality, environment-friendly equipment is greater than ever.

To ensure that we respond precisely to the laws of each country and the extreme demands that users make of our products, we carefully research the laws of the countries in which we do business to ensure total compliance. Furthermore, we work to achieve product development, design and production that are friendly to both people and the environment by implementing product safety risk assessments. Through strict inspections, various efforts to reduce avoidable harm and other activities aimed at increasing quality, we work to ensure and improve product quality and safety in order to provide excellent products worldwide.

### ● Participation in Chemical Safety Management Initiatives in Japan and Overseas

UBE has been actively gathering and communicating hazard information about its chemical products, taking part in the International Council of Chemical Associations (ICCA) HPV Program\*<sup>4</sup> and the Japan Challenge Program.\*<sup>5</sup> Since fiscal 2011, we have been participating in the JCIA's Japan Initiative of Product Stewardship (JIPS)\*<sup>6</sup> (the domestic version of the ICCA's GPS\*<sup>7</sup>), while promoting the gathering and communication of hazard information and risk assessments. In fiscal 2012, we published safety summary sheets\*<sup>8</sup> for eight substances on the GPS web portal. We also actively support the ICCA in its voluntary Long-Range Research Initiative, which focuses on the effects of chemical substances on human health and the environment.

## Glossary

\*1. CLP Regulation: A new EU regulation pertaining to classification, labeling and packaging that facilitates the introduction of GHS within the EU. (CLP stands for Classification and Labelling and Packaging)

\*2. Yellow card: A card for use in case of an accident during transport that displays product information, including product name, relevant laws, attributes, handling procedures, accident response procedures and emergency contact information

\*3. Green procurement: Procurement of materials conducted by companies based on their individual safety and environmental criteria established to meet the requirements of relevant legal regulations, including the EU RoHS Directive that restricts the use of certain hazardous substances in electrical and electronic equipment

\*4. High Production Volume Chemicals Program (HPV): An international chemical safety management initiative that gathers safety information about, conducts toxicity assessments of, and shares information regarding mass-produced chemical substances. Begun by the OECD, it is now carried out by the ICCA

\*5. Japan Challenge Program: The Japanese version of the High Production Volume Chemicals (HPV) Program that gathers and communicates information on the hazards and toxicity of chemical substances. In Japan, the Japan Challenge Program covers chemical substances produced in quantities of 1,000t/yr or more

\*6. Japan Initiative of Product Stewardship (JIPS): Voluntary risk management of chemical substances promoted by the JCIA

\*7. Global Product Strategy (GPS): An initiative for voluntary chemical substance risk management promoted by the ICCA with the goal of minimizing the impact of chemical substances on the environment and people by 2020

\*8. Safety Summary Sheet: A document summarizing the results of in-house chemical substance risk assessments that reflects the results of GPS initiatives, published on the ICCA's GPS website

# Occupational Safety/Health, Process Safety and Disaster Prevention

## Measures to Prevent Occupational Accidents

To prevent occupational accidents, the UBE Group promotes risk-assessments of facilities and operations. In addition, we implement measures in a lateral manner in this area by storing occupational accident-related information on a database that is accessible on a dedicated page of the Company's intranet. Aiming to achieve zero accidents, we undertake initiatives to eliminate occupational accidents through small safety groups established at every factory.

The Group also holds annual safety and health rallies in order to raise awareness of these issues among Group employees and partner companies.

### Measures against Asbestos

Employees who have handled asbestos-related products, including those who are now retired, undergo regular health examinations. As a result of health hazard-related surveys that determine whether or not employees have been exposed to asbestos, the Group cooperates in the submission of industrial accident reports by individuals whose examination results warrant medical attention. The Group also appropriately treats problems at locations where a high rate of asbestos diffusion has been found. In addition, the Group is promoting systematic measures for the disposal and replacement of asbestos materials. Insulation and gasket packing are replaced regularly with substitute materials when piping and reactors are opened.

### Prior Safety Assessment of Chemical Substances

Based on procedures designated in the safety assessment standards, we also perform in advance safety assessments of new chemical substances and chemical substances that we plan to start handling at factories. In fiscal 2012, the UBE Group performed 39 chemical substance safety assessments.

### Enhancing Safety and Disaster Prevention Training

We established a safety training center at the Cement & Construction Materials Company in August 2009. Since then, some 3,000 employees have undergone experiential safety training, which simulates hazardous operations. In addition, the Chemicals & Plastics Segment is working toward the establishment of a safety skills training center, scheduled to open in April 2014, for the purpose of experiential safety training and safety skills training to increase safety-related capabilities.

## Taking Steps to Maintain Process Safety and Safe Operations

### Plant Safety Assessment

The methods stipulated in the plant safety assessment standards are followed when carrying out pre- and post-plant safety assessments of newly installed, additional, or modified facilities. Such assessments are also carried out when relevant laws and ordinances are either established or revised. In fiscal 2012, the UBE Group carried out 106 safety assessments.

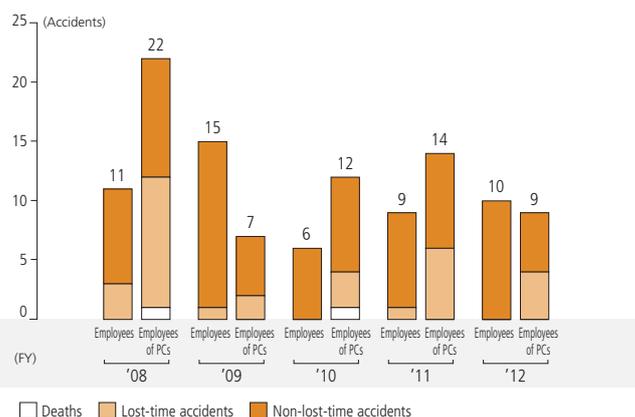
### Emergency Training

The Group systematically implements emergency drills at its facilities. The status of training is posted on a dedicated page of the Company intranet so that it may be of use to an even greater number of people. In addition to mutual workplace checks conducted by safety supervisors, we undertake mutual safety patrols with partner companies.

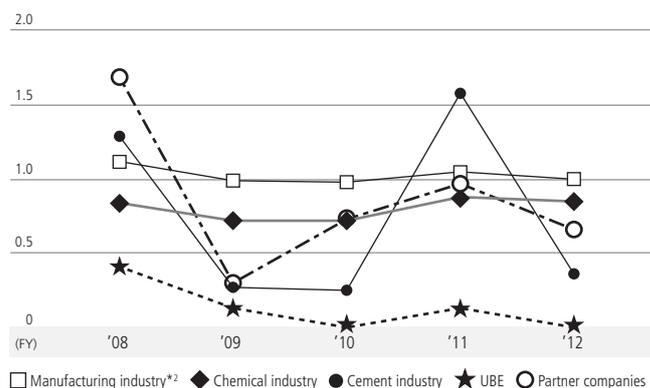
### Environment & Safety Qualification

We encourage employees to obtain legally recognized qualifications (including pollution control supervisor and hazardous material handler) for the safe operation and management of our workplaces.

Number of Occupational Accidents (Involving Employees of UBE and Those from Partner Companies (PCs))



UBE Lost-Time Injury Frequency Rate\*1

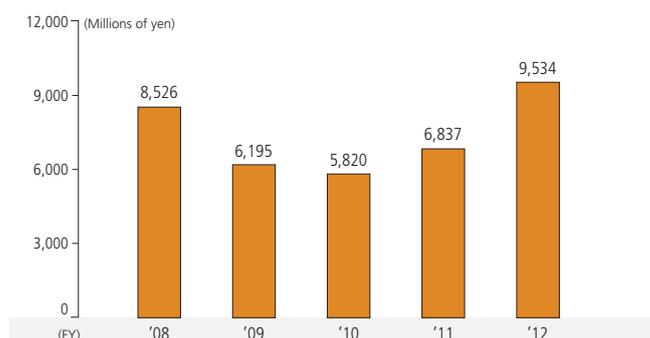


\*1. Frequency rate = (Number of lost-time injuries)/(total work hours) × 1,000,000 hours  
 \*2. Data on lost-time industry frequency rates for the manufacturing, chemical, and cement industries is based on statistics supplied by the Ministry of Health, Labor and Welfare

UBE Group Facility-Related Accidents (including environmental accidents)

FY	2008	2009	2010	2011	2012
UBE	0	4	2	3	3
Group companies	4	3	3	1	3

Occupational Safety, Health and Disaster Prevention Expenditure of the UBE Group



# Socially Valuable Products and Technologies of UBE Group

The UBE Group provides a large variety of products and technologies, ranging from those related to the automobile and information industries to those in use throughout the underlying infrastructure and daily life of modern society. The Group actively promotes projects that enable reductions in CO<sub>2</sub> emissions and the creation of a recycling-based society in all of its business fields and works hard to provide "products and technologies that are friendly to both humans and the environment." Introduced here are some of the UBE Group's products, which total more than 500, and their environment-friendly attributes.

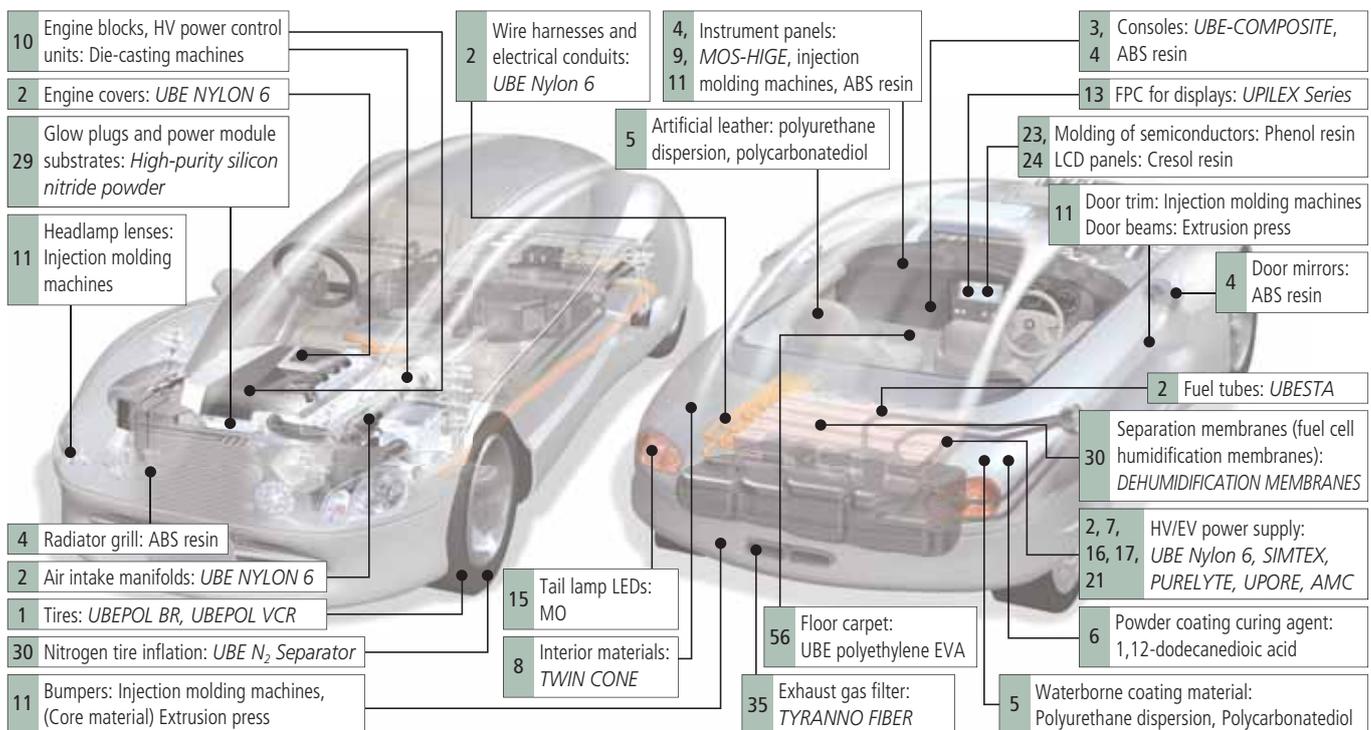
## Legend: Product benefits

-  Reducing CO<sub>2</sub> emissions: Reducing emissions of greenhouse gases known to contribute to global warming
-  Recycling: Reusing waste or improving the quality of waste for effective recycling and utilization of resources
-  Purification of water: Improving the quality of water and sterilizing water to preserve a clean environment
-  Providing environment-friendly products: Producing and using alternative products that have a positive effect on the environment
-  Contribution to health: Supporting the health of people
-  Advanced technology: New technologies that contribute to people's abundant lifestyles

★ Indicates an example of application

## Automotive-Related Fields

UBE supports auto manufacturing with environment-friendly materials and components.



## Chemicals

★ **1**   **Polybutadiene rubber**  
**UBEPOL BR, UBEPOL VCR, UBEPOL MBR**  
 Synthetic Rubber Business Unit

Applications: Automotive tires, footwear, polystyrene quality improvement agent, etc.  
 Features: More elastic and abrasion resistant than natural rubber. Among the wide variety of UBE's specialty products, **UBEPOL VCR** is a groundbreaking product, enabling reduced weight in rubber products.

★ **2**   **Polyamide resin**  
**A. Nylon 6: UBE NYLON 6, TERPALEX**  
**B. Nylon 12: UBESTA, UBESTA XPA**  
 Engineering Plastics Business Unit

A. Applications: Automotive components, including air intake manifolds, food packaging film, etc.  
 Features: Often used for automotive components due to its toughness, good thermal and chemical resistance and better processing, helping to reduce weight and lower fuel consumption. Suitable for food packaging because of its superior oxygen gas barrier properties. Used in the soft packaging of lithium-ion batteries because of its excellent properties as a film.

B. Applications: Tubes, coating, automotive components, etc.  
 Features: **UBESTA XPA** features the same basic properties as nylon, making it lightweight, with high dimensional stability and flexibility at low temperatures. The product's flexibility and transparency effectively realize characteristics that cannot be achieved by plastic or rubber alone.

★ **3**    **Recycle compound UBE-COMPOSITE**  
 RCP Project Promotion Group

Applications: Home appliances, automotive components, chairs, etc.  
 Features: Color-adjusting recycle compound that can change the color tint of waste plastics.

★ **4**   **ABS resin UMG ABS**  
 UMG ABS, Ltd.

Applications: Automotive interior and exterior materials, casing and components for home appliances and IT devices, raw material for wood-based building panels, etc.  
 Features: Glossy, with excellent impact resistance, workability and hardness. Can be formed at low temperatures.

★ **5**   **Raw material for waterborne coating and artificial leather**  
**A. Polyurethane dispersion (ETERNACOLL UW series)**  
**B. Polycarbonatediol (ETERNACOLL UH series)**  
 Fine Chemicals Business Unit

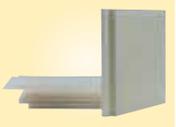
Applications: Automotive waterborne coating, artificial leathers for luxury cars  
 A. Features: As waterborne polyurethane, contributes to the reduction of VOCs (volatile organic compounds)  
 B. Features: Used as the primary material for high-grade polyurethane applications (waterborne coating and highly durable PU resins) that have low environmental impact.

**6**  Powder coating curing agent 1,12-dodecanedioic acid  
Fine Chemicals Business Unit

Applications: Curing agent for powder coating material used for automotive wheels  
Features: As a resin curing agent for powder coating material, helps reduce VOC emissions.

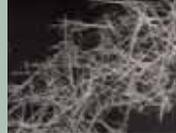
**7**  High-strength polypropylene fiber *SIMTEX*  
Ube-Nitto Kasei Co., Ltd.

Applications: Separators for nickel-hydrogen batteries installed in hybrid vehicles (HV)  
Features: Polypropylene fibers that have undergone highly oriented crystallization through a newly adopted stretching process

**8**  Four-level, hollow honeycomb-structure substrate: *TWIN CONE*  
Ube-Nitto Kasei Co., Ltd.

Applications: Interior materials for automobile luggage racks, etc.  
Features: Optimal for use as an interior material in hybrid vehicles (HV) and electric vehicles (EV) thanks to its unique hollow honeycomb structure, which results in a superior lightweight, strong and noise absorbent design

## Cement & Construction Materials

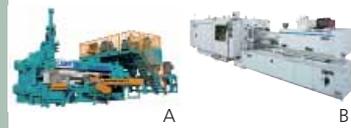
**9**  Basic magnesium sulfate *MOS-HIGE A*  
Ube Material Industries, Ltd.

Applications: Resin filler  
Features: Helps reduce the weight of automotive PP resin components

## Machinery & Metal Products

**10**  Die-Casting Machines  
Ube Machinery Corporation, Ltd.

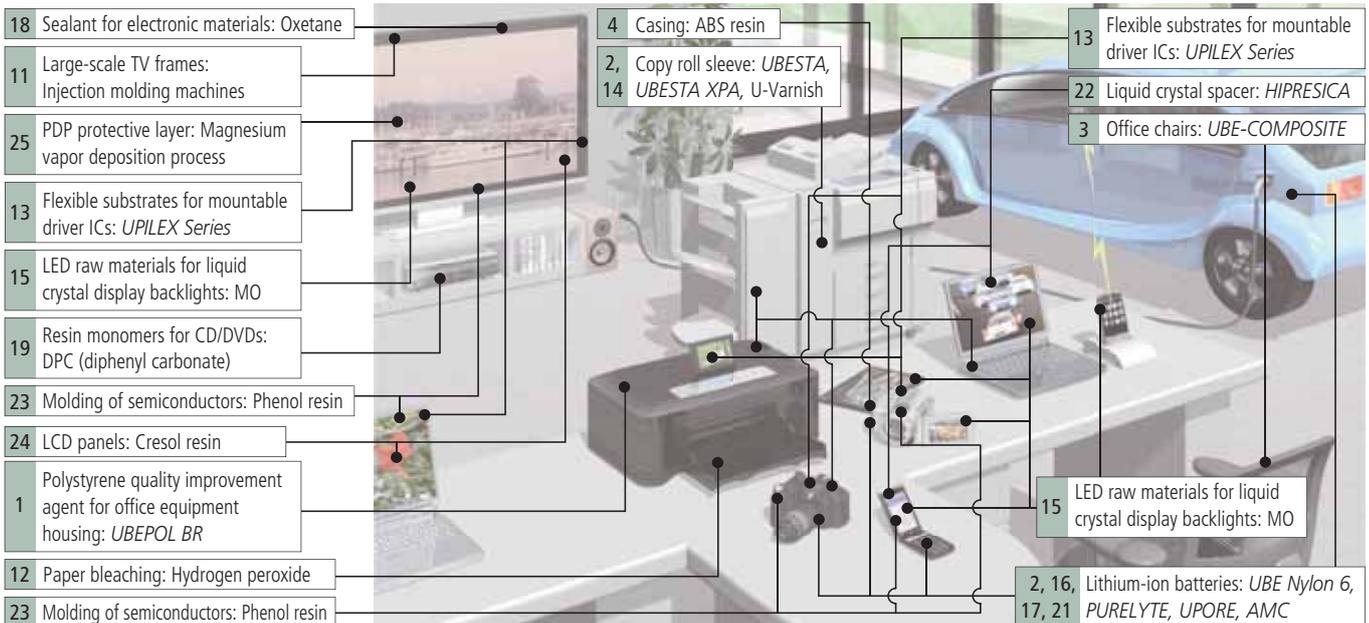
Applications: Automotive aluminum components, including engine blocks and transmission cases  
Features: Achieves higher energy and space efficiencies and greater functionality. Machines are the world's smallest of their kind.

**11**  A. Extrusion presses  
B. Injection molding machines (All-electric IM)  
Ube Machinery Corporation, Ltd.

A. Applications: Aggregate materials for car bumpers and aluminum mesh for window frames  
Features: Capabilities for complex and intricate extrusion molding  
B. Applications: Molding machines for automotive and home appliance plastics, including large-screen TVs and washing machine frames  
Features: These all-electric machines can achieve substantial reduction in energy consumption compared to general hydraulic injection molding machines.

# Information, Electronics and Communications-Related Fields

Sophisticated environmental technologies are the cornerstone of materials that contribute to the foundation of society.



## Chemicals

**12**  Hydrogen peroxide  
UBE-MC Hydrogen Peroxide, Ltd.

Applications: Bleaching and sterilizing of pulp and paper  
Features: Reduced environmental impact of related processes. Generates non-hazardous water and oxygen when decomposed. Replacement for chlorine

**13**  Polyimide film *UPILEX Series*  
Electronic Components & Materials Business Unit

Applications: Base material for ICs used in digital equipment, such as LCD/plasma TVs, cellular phones, and digital cameras  
Features: Well-suited for use as base material for high-resolution circuits due to its high dimensional stability with high heat resistance and rigidity

**14**  Polyimide varnish U-Varnish  
Electronic Components & Materials Business Unit

Applications: Coating for seamless belts used in printing machines  
Features: Due to high-temperature processing, this varnish has high heat and chemical resistance, and forms a coating with excellent electrical resistance

**15**  Metal organic compounds (MO)  
High Purity Chemicals Business Unit

Applications: Raw material for Light-Emitting Diodes (LED), solar cell  
Features: LEDs require less electricity and last longer than conventional lightbulbs.



★ 16 Functional electrolytes for lithium-ion batteries **PURELYTE**  
Specialty Battery Materials Business Unit

Applications: Electrolytes used in lithium-ion batteries installed in items that include mobile phones and personal computers  
Features: Functional electrolytes are designed to customer requirements with the combination of highly purified electrolyte and additives for controlling battery performance.



17 Microporous Polyolefin Film **UPORE**  
Separator Group  
Specialty Battery Materials Business Unit

Applications: Separators for lithium-ion batteries used in mobile phones and computers  
Features: Films manufactured using a dry process that uses neither solvents nor inorganic fillers.



18 Raw material for use in UV-curing coating/adhesive material **Oxetane (ETERNACOLL EHO, OXBP, OXMA, HBOX)**  
Fine Chemicals Business Unit

Applications: Sealant and adhesive for electronic materials  
Features: Used as raw material for UV-curing coating/adhesive material, helping reduce VOC emissions



★ 19 A. DMC (dimethyl carbonate)  
B. DPC (diphenyl carbonate)  
Fine Chemicals Business Unit

A. Applications: Solvent for ink, coatings, adhesives and others  
Features: A solvent of low-toxicity that improves the work environment and the eco-friendly quality of printed materials  
B. Applications: CDs, DVDs and other optical uses, frames for home appliances and other products, polycarbonate resin monomer used in carport roofs, expressway sound insulating boards and other products.  
Features: Contributing to a safer and cleaner production process by not using the poisonous gas, phosgene, during the manufacture of polycarbonate resin



★ 20 1,6-Hexanediol  
Fine Chemicals Business Unit

Applications: As a raw material for dry laminate adhesive for food packaging and also for UV-curing coating used in items including mobile phones.  
Features: Use of 1,6-Hexanediol requires no solvents, which therefore contributes to VOC reduction.



21 Multi-walled carbon nanotubes **AMC**  
Fine Chemicals Business Unit

Applications: Additive to enhance the conductivity of anode and cathode electrodes in lithium-ion batteries, a conductive composite (semiconductor wafer carriers, printer developing rollers, etc.), melt-spun conductive yarn, etc.  
Features: Optimized dispersion and electro conductivity due to temple bell structure, and featuring easy handling



22 Silica particles **HIPRESICA**  
Ube-Nitto Kasei Co., Ltd.

Applications: Spacer for liquid crystal displays  
Features: Providing single dispersal with a spherical shape, this is ideal as a spacer (a gap material used to maintain the liquid crystal at an even thickness), essential to high-performance liquid-crystal displays.



23 Phenol resin **MEH-7851**  
Meiwa Plastic Industries, Ltd.

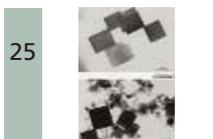
Applications: Sealant for semiconductors used in hybrid vehicles (HV) and electric vehicles (EV), computers and cellular phones, Laminates  
Features: Used to harden epoxy resins. Incombustible due to its special resin structure, eliminating the need to use halogenated flame retardant. Environment-friendly, halogen-free material



24 Cresol resin **MER-7959**  
Meiwa Plastic Industries, Ltd.

Applications: A raw materials of the photoresist used for circuit formation in the LCD panels of LCD TVs, cellular phones and other products  
Features: Proprietary technology is used to realize high-photoresist performance, while contributing to the increasing precision of LCD panels and low energy consumption

## Cement & Construction Materials

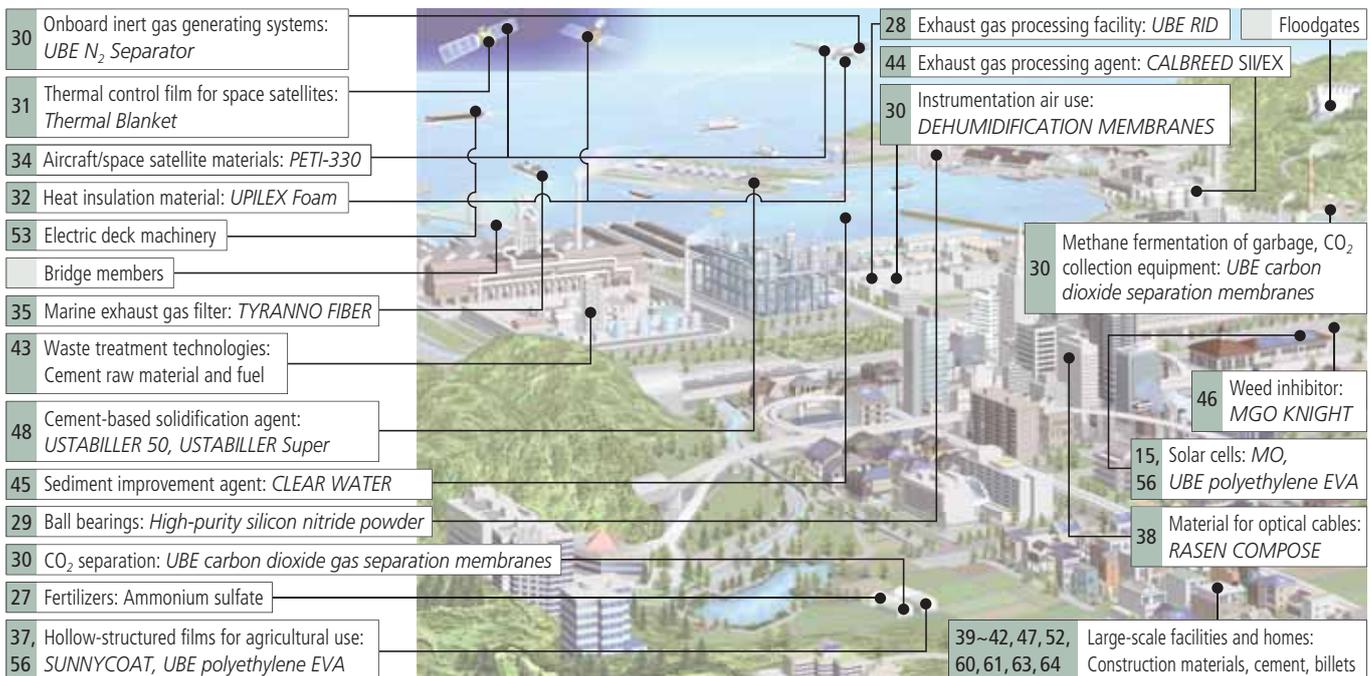


25 Oxidized magnesium, a vapor-deposited, high-purity fine powder **magnesia**  
*High purity & ultrafine single crystal magnesia powder*  
Ube Material Industries, Ltd.

Applications: Base material for PDP protective layers and phosphors  
Features: Produced through a vapor oxide reaction that occurs when high-purity magnesium vapor combines with oxygen

# Industrial and Social Infrastructure-Related Fields

Building the foundations of society through environment-friendly products.



## Research & Development

26



### Photocatalytic fiber

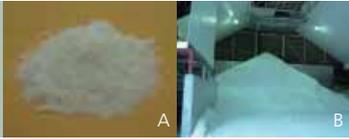
Administration & Planning Department, Corporate Research & Development Division; Marketing Group

Applications: Water and air purifiers

Features: Uses a photocatalytic reaction to break down organic materials and enables the development of people- and eco-friendly purifying systems since no chemical agents are used

## Chemicals

27



### A. Caprolactam B. Ammonium sulfate

Caprolactam Business Unit

A. Applications: Nylon 6 raw material

Features: Produced in Japan, Thailand and Spain. World-class capability.

B. Applications: Raw material for nitrogen fertilizer

Features: Caprolactam byproduct material

28



### Exhaust gas processing facility *UBE RID*

High Purity Chemicals Business Unit

Applications: Capture exhaust emissions from semiconductor/LCD factories

Features: Complete capture of toxic hazardous gases/powders emitted from operations of semiconductor/liquid crystal factories

29



### High-purity silicon nitride powder

Ceramics Group  
Specialty Materials & Products Business Unit

Applications: Ball bearings for wind power generators, glow plugs for diesel engines, power module substrates for automobiles

Features: Wide range of applications because of its excellent durability and ability to prevent electrolytic corrosion

30



### Separation membranes

- A. *UBE organic solvent (alcohol) dehydration membranes*
- B. *UBE carbon dioxide gas separation membranes*
- C. *Nitrogen separation membranes (UBE N<sub>2</sub> Separator)*

Others: *Hydrogen separation membranes; DEHUMIDIFICATION MEMBRANES*

Separation Membranes Group, Specialty Materials & Products Business Unit

A. Applications: Bioethanol dehydration

Features: Effectively dehydrates azeotropic compositions. Membrane separation can increase solvent concentration to more than 99%.

B. Applications: Removes CO<sub>2</sub> from bio-gases (methane)

Features: Removes CO<sub>2</sub> from gases generated by sludge and refuse, increasing the methane concentration

C. Applications: Nitrogen generators for filling tires and explosion protection for mines, oil tankers, etc.

Features: Tire pressure is less likely to drop, increasing fuel efficiency. Explosion protection for oil fields, tankers, etc.

31



### Thermal control film *Thermal Blanket*

Aerospace Materials Business Group

Picture provided by JAXA

Applications: Thermal control material for aerospace applications

Features: Thermal control film made from *UPILEX* film with vapor-deposited aluminum and other materials. Offers superior environmental resistance in outer space and is widely used in Japanese satellites, including the HAYABUSA Asteroid Explorer

32



### Polyimide foam *UPILEX Foam*

Aerospace Materials Business Group

Applications: Thermal insulation and sound and vibration absorption in satellites, airplanes, etc.

Features: Provides thermal, fire and environmental resistance not available in conventional foams.

33



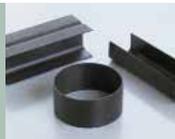
### Liquid ammonia

Industrial Chemicals Business Unit

Applications: Denitration agents

Features: Breaks down nitrogen oxides (NO<sub>x</sub>) produced when coal or heavy oil is burned into harmless nitrogen and water

34



### *PETI-330, PETI Prepreg* polyimide resin for heat-resistant composite materials

Aerospace Materials Business Group

Applications: Composite material primarily used in the aerospace field

Features: Incorporates carbon fibers, has superior heat resistant and mechanical properties, and contributes to weight reduction when substituted for metal alloy parts

35



### SiC Fiber: *TYRANNO FIBER*

Specialty Materials & Products Business Unit  
TYRANNO FIBER Group

Applications: Components for aircraft, automobiles and ships, etc.

Features: Continuous ceramic fibers incorporating silicon, titanium, zirconium, carbon and oxygen and that have superior heat resistant, mechanical and electrical properties

36



### Plastic cardboard *DANPLATE*

Ube-Nitto Kasei Co., Ltd.

Applications: Returnable boxes, delivery containers, etc.

Features: Heavier-duty than paper-based cardboard, plastic cardboard *DANPLATE* can be used repeatedly and is recyclable after use.

37



### Hollow-structured films for agricultural use *SUNNYCOAT*

Ube-Nitto Kasei Co., Ltd.

Applications: Agricultural greenhouse double curtains

Features: Exhibits heat-retention effects with superior middle air layer. Curbs energy consumption for greenhouse heating

38



### Material for optical cables *RASEN COMPOSE*

Ube-Nitto Kasei Co., Ltd.

Applications: Spaces with spiral grooves for optical cables

Features: Ideal for protecting optical fiber and high-density packages. Used in Japan's nationwide optical communications network

## Cement & Construction Materials

39



### Polymer-modified bitumen mineral surfaced roofing *RAM SHEET*

Construction Materials Div.

Applications: Waterproof sheet for roofing

Features: Self-adhesive application at normal temperatures means use of flames or solvents is generally not required.

40



### Gardening material *GREENTHUMB*

Construction Materials Div.

Applications: Light artificial gardening soil

Features: Non-toxic, germ-free artificial soil made from perlite. Facilitates plants' growth by enhancing the airflow and water retention of the soil

41



### Sulfate-resistant mortar *U-ACITECHT N*

Construction Materials Div.

Applications: Cross-section restoration material (maintenance of aging sewage treatment facilities and cisterns)

Features: Renovates and enhances service life for existing social infrastructure

42



### Earthquake-resistant *DESIGN FIT Process*

Construction Materials Div.

Applications: Earthquake proofing reinforcement process

Features: Reinforces and upgrades schools and other existing ferroconcrete structures with steel structure earthquake-resistant bracing reinforcement process that shortens construction lead times and reduces costs.



43

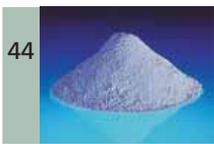


### Waste treatment technologies

- A. High-chlorine bypass system
- B. Sewage sludge treatment facilities
- C. Sewage sludge transport system using JR's containers
- D. Facility to treat incineration ash from household waste
- E. Waste oil/liquid treatment facility
- F. Facility to produce fuel from waste plastic
- G. Biomass wood chip manufacturing facility
- H. Waste plastic pretreatment facility
- I. Sludge drying equipment
- J. Closed sludge injection facilities

Material Recycle Div.

- A. Features: Capable of treating high-chlorine content waste, such as incineration ash from household waste, automotive shredder residue and solution residue
- B. Features: Facility that uses sewage sludge as cement material
- C. Features: Reduces CO<sub>2</sub> through modal shift. Uses deodorizer-equipped containers to prevent odor leaks
- D. Features: Facility to treat incineration ash resulting from disposal of household waste and digging out old ash at waste disposal sites when renovating the sites for long-term use
- E. Features: Facility to detoxify waste oil and waste liquid
- F. Features: Facility to process waste plastics by crushing and using as alternative fuel
- G. Features: Facility to produce wood chips from waste and thinned woods, which are used as fuel for electric power generation. Contributes to optimization of biomass resources
- H. Features: Uses exhaust heat to desalinate and solidify waste plastic, which it then uses for thermal energy
- I. Features: Facility that processes sludge into thermal energy through drying with exhaust gas
- J. Features: Processes organic sludge



44



### Exhaust gas processing agent

**CALBREED SIIIEX**  
**Sorbalit**

Ube Material Industries, Ltd.

- Applications: Removal of toxic materials contained in exhaust gas
- Features: Exhaust gas treatment agent to improve ability to absorb toxic acid gases emitted during incineration of industrial waste. Ultrahigh exhaust gas agent that features quality improvements that surpass conventional products



★  
45



### Sediment improvement agents **CLEAR WATER**

Ube Material Industries, Ltd.

- Applications: Purification of seawater, sediment improvement agent for farms
- Features: Improves water and sediment quality in fish farms, enclosed water areas, etc.



46



### Weed inhibitor: **MGO KNIGHT**

Ube Material Industries, Ltd.

- Applications: Herbicide, mud prevention
- Features: An environment-friendly herbicide that combines magnesium removed from fresh ocean water and decomposed granite soil



★  
47



### Portland cement Fly ash cement Blast furnace slag cement

Ube-Mitsubishi Cement Corporation

- Applications: Civil engineering and construction processes
- Features: Uses industrial waste, including sewage sludge, blast furnace slag (generated by steel manufacturers) and fly ash (generated by coal-fired power plants), as a part of raw materials and fuels



★  
48



### Cement-based solidification agent

- A. **USTABILLER 50**
- B. **USTABILLER Super**

Ube-Mitsubishi Cement Corporation

- Applications: Soil stabilizing work
- A. Features: Controls the release of hexavalent chromium from stabilized soil during construction.
- B. Features: Controls dust generation during soil stabilization work.

## Machinery & Metal Products



49



### Air Floating Conveyor

Ube Machinery Corporation, Ltd.

- Applications: Carries coal, soil and other materials on a belt supported by continuous air flow
- Features: Since the conveyor belt is fully sealed, neither dust nor fumes leak outside. Maintenance costs are low.



50



### Small fluid bed boiler

Ube Machinery Corporation, Ltd.

- Applications: Incinerates waste that has a high water content
- Features: Efficiently incinerates waste that have high water content, such as sludge and coffee grounds, recovering thermal energy



51



### Kiln exhaust heat recovery equipment

Ube Machinery Corporation, Ltd.

- Applications: Recovers heat that is produced from the body of kilns
- Features: Conventional kilns can be converted at low cost allowing for the recovery of exhaust heat as hot water.



52



### Billets (steel ingots for rolling)

Ube Steel Co., Ltd.

- Applications: Steel material for rolling to produce shaped steel, bar steel, wire rods, etc.
- Features: Manufactured in an electric furnace under a process that recycles steel resources. Environment-friendly, recycled product that uses scrap (main material), as well as industrial waste (e.g., waste plastics), as raw materials and fuels



53



### Electric deck machinery

Fukushima Ltd.

- Applications: Ship deck-mounted machinery
- Features: Electric drive contributes to energy conservation



54



### Energy-saving grab bucket

Fukushima, Ltd.

- Applications: Grab bucket used at waste disposal facilities
- Features: Reduces CO<sub>2</sub> emissions by about 28% compared to the conventional fixed-pump type

## Energy & Environment



55



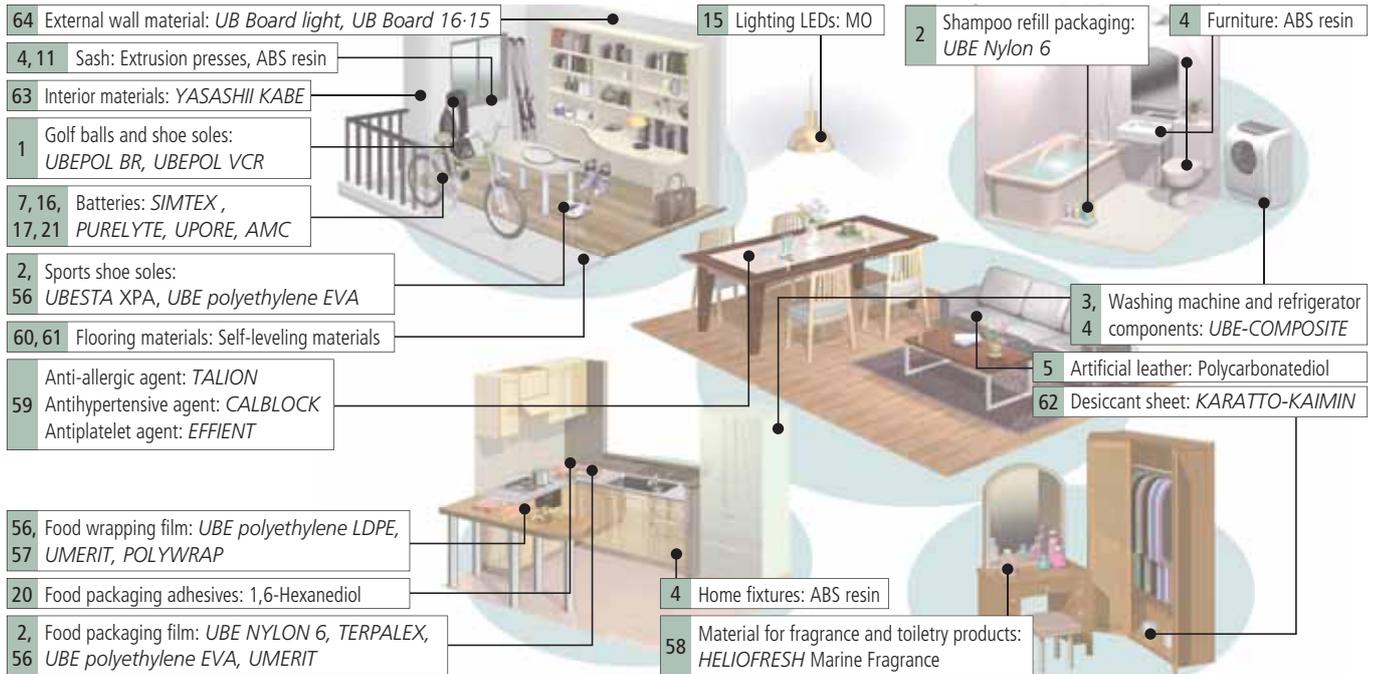
### Facility to produce biomass fuel for power plants

Power Business Unit

- Applications: Dry and grind wood biomass (e.g., waste construction materials) at a dedicated grinding mill so as to use it in co-firing with coal in a pulverized coal boiler
- Features: With a high co-firing ratio (9%, caloric base), achieves a 100,000-ton annual reduction of CO<sub>2</sub> emissions at UBE's IPP power generation plant

# Pharmaceuticals and Lifestyle-Related Fields

UBE Group Products and Technologies are used in all aspects of modern life.



## Chemicals

★ 56   Polyethylene  
 UBE polyethylene LDPE  
 UBE polyethylene EVA  
 Metallocene catalyst HAO-LLDPE UMERIT  
 UBE-MARUZEN POLYETHYLENE Co., Ltd.

Applications: Wrapping films, adhesive film, industrial materials, medical supplies, etc.  
 Features: Has excellent flexibility, workability, strength and transparency and can be sealed at low temperatures

57    A. POLYWRAP  
 B. Shrink film ECO SOFT  
 Ube Film, Ltd.

A. Applications: Food wrapping film  
 Features: Completely additive-free, household-use polyethylene wrap  
 B. Applications: Shrink film for wrapping food trays  
 Features: Non-chlorine film suitable for wrapping prepared foods and processed marine products

58   Material for fragrance and toiletry products:  
 HELIOFRESH, HELIOTROPINE  
 Fine Chemicals Business Unit

Applications: Synthetic fragrance for use in perfumes and toiletries  
 Features: As an alternative to scents made with natural ingredients, this product prevents deforestation of the Sassafras tree (a member of the Laurel family)

59   A. Anti-allergic agent TALION  
 B. Antihypertensive agent CALBLOCK  
 C. Antiplatelet agent EFFIENT  
 Pharmaceutical Div.

A. Applications: Medicine to alleviate allergic reactions such as hay fever  
 Sales: Mitsubishi Tanabe Pharma Corporation  
 B. Applications: Medicine to lower blood pressure  
 Sales: Daiichi Sankyo Co., Ltd.  
 C. Applications: Medicine that controls the buildup of platelets within blood vessels (coagulation of blood)  
 Sales: Daiichi Sankyo Co., Ltd. and Eli Lilly and Co.

## Cement & Construction Materials

60  Self-leveling materials  
 SL FLOW G  
 Tough Leveler G  
 Quick Ceramic Flow  
 Construction Materials Div.

Applications: Flooring material  
 Features: Its rapid-hardening property allows smooth and flat flooring to be completed within a short period, helping to accelerate the entire construction period.

61   F☆☆☆☆ Mark-certified (formaldehyde-free) construction materials  
 Tenba Leveler  
 U-Grout  
 U-MIX  
 Construction Materials Div.

Applications: Plastering, flooring, and walling materials for living areas  
 Features: Obtained the F☆☆☆☆ Mark certification, the most rigorous formaldehyde release standard under a voluntary labeling system in Japan Building Coating Materials Association. Being formaldehyde-free, it has no harmful effects.

59   Dehumidifying material KARATTO-KAIMIN  
 Ube Material Industries, Ltd.

Applications: Desiccant sheet for clothing and bedding  
 Features: The main component is Type-B silica gel, capable of being used repeatedly after drying in the sun.

60   Healthy, humidity-conditioning building material  
 YASASHII KABE  
 Ube Board Co., Ltd.

Applications: Interior materials for rooms with high humidity  
 Features: Primarily made from natural diatomite. Capable of humidity conditioning and absorption and decomposition of VOCs that cause sick building syndrome, helping to maintain a pleasant living environment

61   External wall material  
 UB Board Light  
 UB Board 16-15  
 Ube Board Co., Ltd.

Applications: External wall materials  
 Features: A product that reuses fly ash and other industrial waste in raw materials

## Site Reports (UBE Group's Principal Manufacturing Bases)

### Chiba Petrochemical Factory



**Location:** 8-1 Goi Minami Kaigan, Ichihara City, Chiba Prefecture

**Start of operations:** 1964

**No. of employees:** 261

**Main products:** Polyethylene, butadiene rubber, waterproofing materials

The Chiba Petrochemical Factory is located in Ichihara City, Chiba Prefecture, within the Keiyo Industrial Zone. We produce petrochemical products that support people's lives, including the synthetic rubber used as a raw material for tires and polyethylene for making electrical cable coatings and various types of packaging materials. To fulfill our promise to ensure the safety and security of local communities and customers, we anticipate every possible risk and promote related prevention measures. Regarding our environmental initiatives, we are significantly reducing the factory's environmental impact by ceasing the use of highly harmful solvents and putting in place countermeasures in such areas as exhaust gas and the incineration of waste solvents in boilers. In addition, we regularly monitor the water and gas discharged from the factory in order to identify irregularities early on. With the aim of encouraging interaction between the local community and UBE, we participate in the Goi-Rinkai Festival and hold factory tours as well as other events for local elementary school students. Through these activities, we are promoting active exchanges with the local community.

### Sakai Factory



**Location:** 3-1 Chikko Shinmachi, Nishi-ku, Sakai City, Osaka

**Start of operations:** 1967

**No. of employees:** 319

**Main products:** Caprolactam, ammonia, liquefied carbon dioxide, electrolytes, specialty membranes, separation membranes, polyimide products, recycle compounds

Our factory is located in Sakai City, which as an environment-friendly model city, has announced the "Cool City Sakai" Concept. The factory manufactures chemical products and specialty materials and is taking proactive steps to conserve energy and resources. In 2012, we invited members of the local community to visit the factory in order to exchange opinions and promote interaction with residents. Our goal is to create a facility that contributes to the local community through dialogue with local residents and cooperation with the government, while maintaining safe and secure operations.

### Ube Chemical Factory



**Location:** 1978-10 Kogushi, Ube City, Yamaguchi Prefecture

**Start of operations:** 1933

**No. of employees:** 1,335

**Main products:** Caprolactam, nylon resins, industrial chemicals, fine chemicals, high-purity chemicals, polyimide products, separation membranes, specialty membranes, new materials, active pharmaceutical ingredients, intermediates

As the mother factory for the Company's chemical business, the Ube Chemical Factory produces a wide variety of products in such areas as chemicals, resins, specialty and fine chemicals, and pharmaceuticals, giving due consideration to product quality and the environment. At the same time, we maintain safe and stable operations. In fiscal 2012, we built an independent safety management system. Based on the High Pressure Gas Safety Act, this system requires rigorous in-house confirmation and the auditing of facilities inspection practices, with the aim of reassuring local communities of our factory's safety. We will continue to work tirelessly in unison with all employees as well as partner companies toward constant improvement. In fiscal 2013, the first year of the new medium-term management plan, we will focus on strengthening our earthquake and tsunami countermeasures, enhancing our disaster prevention system and promoting environmental conservation.

### Ube Cement Factory



**Location:** 1978-2 Kogushi, Ube City, Yamaguchi Prefecture

**Start of operations:** 1923

**No. of employees:** 232

**Main products:** Cement, limestone, perlite

The Ube Cement Factory functions as a manufacturing and shipping base for cement and limestone products produced in the Ube and Isa regions. At the same time, this factory is a production base for specialty cement that meets various customer needs. With the collaboration of all our employees, we are recycling waste plastic chips and biomass in our manufacturing processes while reducing energy consumption. The factory seeks to contribute to recovery from the Great East Japan Earthquake, the development of social infrastructure and the construction of a recycling society through the manufacturing of cement and reuse of waste materials. In addition, we constantly work to maintain a safe, reliable, open and clean cement factory for both employees and the local community.

### Isa Cement Factory



**Location:** 4768 Isa, Isa-cho, Mine City, Yamaguchi Prefecture

**Start of operations:** 1948

**No. of employees:** 169

**Main products:** Cement, limestone

Located in Mine City, home of Akiyoshidai Quasi-National Park—famous for its karstic (limestone) topography—Isa Cement Factory has one of the largest cement manufacturing and limestone mining operations in Japan. With our factory and mine situated close to the local community, we have established and operate within voluntary managerial targets that are stricter than existing laws and regulations in such areas as noise, vibrations and water discharge. We also recognize the importance of maintaining smooth communication with the local community. We seek to become an "eco factory trusted by the community" by paying the utmost attention to environmental protection, while participating in various local events and operating factory tours. In recent years, we have received favorable reviews for tours of our industrial facilities, which highlight roads used exclusively by UBE.

Reference: Please refer to page 36 for environmental impact data by factory



**Kanda Cement Factory**

**Location:** 7 Nagahama-machi, Kanda-cho, Miyako-gun, Fukuoka Prefecture  
**Start of operations:** 1964  
**No. of employees:** 115  
**Main products:** Cement

The Kanda Cement Factory is located in eastern Kanda Town, a bustling industrial zone centered mainly on the Kanda international harbor on the Suonada Sea and home to factories of many of Japan's largest companies in such fields as cement, metals, automobiles and electric power. Next year, our factory will mark the 50th anniversary of its founding in 1964, the same year the Tokyo Olympics were held. From the beginning, we've aimed to be a "green factory" that is considerate of the environment, in the spirit of living and prospering together with local communities. A leader in waste treatment, the Kanda Cement factory first installed equipment for processing waste materials as alternative fuel in 2002, and in March 2013 completed construction of facilities for the pretreatment of waste plastic. These facilities are now in active use. While working to further increase the factory's presence, we will continue to focus on prospering together with local communities and on the spread of a culture of safety in cooperation with all employees and our partner companies.



**Okinoyama Coal Center**

**Location:** 1980-29 Okinoyama, Kogushi, Ube City, Yamaguchi Prefecture  
**Start of operations:** 1980  
**No. of employees:** 35  
**Main products:** Storage and distribution of coal and petroleum coke

Although UBE started out in the coal mining business, the Company withdrew from these operations in 1977, after the closure of the Okinoyama Coal Mine in 1967. However, the Okinoyama Coal Center commenced activities in 1980 that focus on such other coal-related businesses as operating Japan's largest fuel coal import transshipment station (annual amount handled: 6 million tons), which provides a stable supply of coal, an important energy source for Japan. In particular, the importance of coal has recently been reevaluated, reflecting uneasiness over nuclear power generation in the aftermath of the Great East Japan Earthquake. Aiming to maintain the trust of the local community, we are working in unison with employees and partner companies in the areas of health and safety, environmental preservation, and process safety and disaster prevention.



**Ube Machinery Corporation, Ltd.**

**Location:** 1980 Okinoyama, Kogushi, Ube City, Yamaguchi Prefecture  
**Start of operations:** 1914  
**No. of employees:** 680

**Main products:** Die-casting machines, injection molding machines, extrusion presses, crushing machine, ceramic machine, transportation equipment, water screen equipment, bridge members, floodgates, steel structures

We are further advancing product manufacturing capabilities that have been passed down over the years. Under the concept of providing excellent products worldwide, we are undertaking technological innovations for such products as die-casting, electric injection molding and crushing machines. At the same time, we are earning the trust and meeting the expectations of customers by working to harmoniously coexist with the local community while providing environmentally friendly products and services that satisfy customers worldwide. In line with our fundamental policy of creating a safe and secure workplace by fostering a culture that places the highest priority on safety, we are promoting activities that increase employee health. In addition, we are striving to create areas that are safe and healthy for all employees to work in by augmenting safety-related activities together with partner companies.



**Thailand**

<b>UBE Chemicals (Asia) Public Co., Ltd.</b>	<b>Thai Synthetic Rubbers Co., Ltd.</b>	<b>UBE Fine Chemical (Asia) Co., Ltd.</b>
<b>Location:</b> Rayong, Thailand	<b>Location:</b> Rayong, Thailand	<b>Location:</b> Rayong, Thailand
<b>Start of operations:</b> 1997	<b>Start of operations:</b> 1998	<b>Start of operations:</b> 2011
<b>No. of employees:</b> 540	<b>No. of employees:</b> 89	<b>No. of employees:</b> 24
<b>Main products:</b> Nylon 6 resin, nylon compound, caprolactam, ammonium sulfate	<b>Main products:</b> Butadiene rubber	<b>Main products:</b> 1,6-hexanediol, 1,5-pentanediol

Established for more than 20 years, UBE's operations in Thailand have office in Bangkok, with production and R&D facilities located in Rayong Province. By maintaining operational excellence, we continue to receive awards from Thai Ministry of Labour and Ministry of Industry for excellence in health and safety. Going forward, we will continue to enhance our safety management systems. As part of our efforts for knowledge support in local communities, we are cooperating with the Thai Ministry of Agriculture and Cooperatives to promote the use of ammonium sulfate fertilizers to palm oil producers, among other efforts to support efficient and sustainable production in compliance with the standards of Roundtable on Sustainable Palm Oil. Furthermore, we are building a network with other neighboring factories to promote ecologically sound industry by reducing solid industrial waste.



**Spain**

<b>Ube Corporation Europe, S.A./Ube Chemical Europe, S.A.</b>	<b>Ube Engineering Plastics, S.A.</b>
<b>Location:</b> Castellón, Spain	<b>Location:</b> Castellón, Spain (adjoining UCE)
<b>Start of operations:</b> 1967	<b>Start of operations:</b> 2004
<b>No. of employees:</b> 298	<b>No. of employees:</b> 41
<b>Main products:</b> Caprolactam, ammonium sulfate and liquid fertilizers, polycarbonatediols, 1,5-pentanediol, 1,6-hexanediol	<b>Main products:</b> Nylon 6 resin, copolymerized nylon

The UBE Group in Spain set a new in-house record for nylon and caprolactam production in 2012, contributing significantly to the Group as a whole. We also saw the opening of a new logistics platform at the nearby harbor and a new factory producing large-grain ammonium sulfate and polycarbonatediol (PCD), making us one of the world's largest manufacturers of a wide range of grades of PCD. Furthermore, through integration of sales, production, logistics, R&D and all other divisions, we are making maximum use of our product portfolio to continually improve responsiveness to our customers, who span four continents. In recent years, we have strengthened inter-company tie-ups aimed at environmental and safety improvement. We have had zero accidents leading to lost-time for six years, one of the best safety scores in our history. Through a water recycling system and efficiency gains in water treatment processes, we are improving the quality of our wastewater. In addition, at the new ammonium sulfate plant, a new pressurized vapor recycling system has helped to reduce the cost of generating water vapor, enabling a 20,000 ton per year reduction in CO<sub>2</sub> emissions.



UCE, which has not had an accident leading to lost time for six consecutive years, received an award in 2012 for being accident-free from the Spanish Chemical Trade Association.

# Third-Party Verification and Opinion

In June and July 2013, UBE received third-party verification of the environment and safety activities outlined in the *UBE Group CSR Report 2012* from the Responsible Care Verification Center. UBE annually receives verification of the trustworthiness of its CSR reports, and it aims to further improve the quality and content of future CSR reports by reflecting the feedback the Center provides in its verification questionnaire and written opinion regarding the verification results.

## *UBE Group CSR Report 2013* Third-Party Verification—Written Opinion

July 3, 2013



Michio Takeshita  
President & Representative Director  
Ube Industries, Ltd.

Junji Takase  
Chief Director  
Responsible Care Verification Center  
Japan Chemical Industry Association

### Objectives of CSR Report Verification

The Responsible Care Verification Center has verified the *UBE Group CSR Report 2013* (hereinafter, "the CSR Report"), created by Ube Industries, Ltd., by providing its opinion regarding the following items, in its capacity as an expert in the chemical industry:

- 1) Rationality and accuracy of the method used to calculate and tabulate the performance indicators (numerical data)
- 2) Accuracy of the information (other than numerical data) provided in the CSR Report
- 3) Performance of Responsible Care (RC) activities
- 4) Characteristics of the CSR Report

### Verification Procedures

- The Center staff visited the head office of Ube Industries, Ltd. and asked questions to verify the rationale of the method the Company used to compile numerical data reported by each of its sites (offices and plants) and to check the accuracy of information provided in the CSR Report. Employees in charge of relevant business operations and those in charge of creating the CSR Report answered the questions of the Center staff and made presentations and explanations covering the documentation used.
- The Center staff also visited the Sakai Factory and asked questions to verify the rationale of the method the sites employed to calculate the numerical data reported to the head office and the accuracy of the numerical data and other information provided in the CSR Report. Factory employees in charge of relevant business operations and those in charge of creating the CSR Report answered the questions of the Center staff, making presentations and providing explanations covering the documentation used. The Center staff also checked the consistency of the items used to verify the material evidence submitted.
- The Center used its sampling method to verify the numerical data and other information contained in the CSR Report.

### Opinions

- 1) Rationale of the method used to calculate and tabulate the performance indicators and accuracy of the numerical data
  - Both the head office and the Sakai Factory calculated and tabulated the performance indicators in a rational manner.
  - Performance-related numerical data within the scope of the survey was precisely calculated and tabulated.
- 2) Accuracy of information contained in the CSR Report, Excluding Numerical Data
  - The information published in the CSR Report was accurate. The Center pointed out that some of the expressions used in the draft CSR Report were not appropriate or easy to understand. These expressions have been corrected in the final version of the report.
- 3) Performance of the Responsible Care (RC) activities
  - The Center commends the following as visible indicators of safety: the adoption of small groups for safety, the workplace atmosphere, the level of awareness in employees of all levels, the adoption of a system for assessing the capabilities of individuals in charge of construction sites employed by partner companies and, as a result of these, individual sensitivity to risk and the depth of the Workplace Safety Committee's activities. Going forward, we hope to see the results of these evaluations put to use in future safety activities.
  - The Center commends the wide range of social contribution activities being carried out, chiefly around the Ube district, as well as the processing of third parties' waste materials by UBE's cement factories.
  - As for the Sakai factory, we commend the efficiently handled oversight of the unified operations of management systems covering the environment, safety, product quality and facilities, as well as the adoption of environmental safety management charts, RC standards checklists and standard formats for RC implementation reports and plans, and the consistent implementation of the PDCA cycle.
- 4) Characteristics of the CSR Report
  - The report clearly shows the global scale of the UBE Group's CSR activities. The special feature about the UBE Group in Spain was particularly vivid in this regard.
  - The ability of the UBE Group to carry out its CSR depends on sustainable growth and development, which, in turn, requires a solid profit base. Therefore, this report also evaluates the economic side of CSR. In this way, the report also serves the UBE Group's investors as a medium of information disclosure.

# Third-Party Expert Comments

The UBE Group welcomes expert comments on its CSR report to enhance objectivity and identify new CSR challenges. We intend to reflect these opinions in future reports and take them into consideration when promoting UBE Group CSR activities.

Katsuhiko Kokubu

Professor of Social and Environmental Accounting  
Graduate School of Business Administration, Kobe University

## A Systematic CSR Report

In the *UBE Group CSR Report 2013*, the Group's corporate philosophy and strategy are clearly expressed, and the significance of the Group's CSR activities is systematically explained. This makes UBE particularly notable and praiseworthy among Japanese companies, whose CSR reports are often somewhat content-poor in these areas. The Group's activities seem sincere and leave a favorable impression. The place of CSR activities in the new medium-term management plan launched in fiscal 2013 is also clear, and I think that we can expect the further development of these activities going forward. The report could perhaps be further enhanced by providing financial indicators related to CSR, along with some kind of numerical targets. I believe that such additions would also lend themselves to an integrated report format, the use of which is especially becoming more common in Europe.

## Communication with Local Communities aimed at Global Coexistence

This year's report includes a special feature consisting of a dialogue between employees of the UBE Group in Spain (UCE). This feature made clear the thoughts of overseas employees of the Company and was quite intriguing. Included in the dialogue was discussion of UCE's responsibilities to local communities as a chemical manufacturer. This is an extremely important issue, and I hope that UBE will continue to pursue activities aimed at communicating with local residents. I believe that contributing to communities is the most important aspect of CSR in Europe, so I look forward to seeing more globally recognized CSR activities from UBE in the spirit of living and prospering together.

## Diversifying Energy Demand and Business Strategy

With its beginnings in coal mining, the UBE Group's relationship with energy runs deep. This year's report includes an article about this, entitled "The UBE Group's Pioneering Initiatives to Address Diversifying Energy Demand" that concludes with detailed explanations of some of the UBE Group's products and technologies. The diversifying of energy sources is a key issue for not only Japan, but the world, so it is important to tackle it proactively. In addition, because time is a major issue in addressing such problems, it is necessary to distinguish between short-term and medium- to long-term initiatives. By then strategically positioning medium- to long-term initiatives as a part of social contribution, as the Company's commitments to society, I believe these efforts will be seen as enhancing UBE's corporate value through its business and evaluated highly. I look forward to seeing the further development of such initiatives.

Katsuhiko Kokubu

Graduating with a PhD from Osaka City University's Graduate School of Business, Dr. Kokubu assumed his current post in 2001 after serving as an associate professor at Osaka City University and Kobe University. Dr. Kokubu also serves as the chairman of Material Flow Cost Accounting (MFCA) ISO/TC207/WG8 Committee established by the Japanese Ministry of Economy, Trade and Industry (METI). Dr. Kokubu has also served many times a member and chairman of various committees overseen by METI and Japanese Ministry of the Environment. In addition, Dr. Kokubu's major publications include *Material Flow Cost Accounting* (Nikkei Publishing Inc.) and *Accounting System Supporting Corporate Decision-Making for Environmental Management* (Chuokeizai-Sha, Inc.).  
Official website: [www.b.kobe-u.ac.jp/~kokubu](http://www.b.kobe-u.ac.jp/~kokubu) (Japanese language only)



## Response to the Third-Party Comments

We very much appreciate Dr. Kokubu's valuable insights with regard to the *UBE Group CSR Report 2013*.

I think that Dr. Kokubu's assessment of the Group's CSR activities as systematic grows out of the fact that such activities, which spring from the UBE Group's founding philosophy of living and prospering together, have become an established part of its corporate activities and have continued unflinchingly up until the present. We will continue to consider the addition of new items in the report including numerical targets, as Dr. Kokubu suggested.

This year's special feature focused on Group companies in Spain, and included a frank roundtable discussion among Group employees there. I'm not sure how well it came across in the limited space of the article, but I do feel that the spirit of living and prospering together, which values communication with local communities, is alive and understood in Spain just as it is in Japan. We will continue to pursue the further development of CSR activities in both countries.

The other special feature dealt with diversifying energy demands. Dr. Kokubu pointed out the importance of time scale and of distinguishing between short-term and medium- to long-term initiatives. He suggested that we advance medium- to long-term initiatives as commitments to society to pursue growth in corporate value through our business operations and bolster the Company's reputation. Under the new medium-term management plan, we are beginning in earnest to work with such new energy sources as solar power and palm kernel shells. It's hard to know exactly how much we can commit to these at this point, but we will keep Dr. Kokubu's suggestion in consideration.

Going forward, we will continue future-oriented business operations and work harder than ever to increase the confidence placed in us by society.

Atsushi Yamamoto

Executive Officer with Responsibility for Group CSR



# Editorial Policy

We began publishing an annual RC report in 1997 to introduce our environmental initiatives. We subsequently changed the name of the report to the *CSR Report*. This year, 16 years after the very first publication of the report, we have created the *UBE Group CSR Report 2013* as our ninth CSR report. In our editing of this CSR report, we have maintained a commitment to producing a readable document that is of interest to readers. The main features of the 2013 edition are as follows:

## 1. Special Feature 1: The UBE Group's CSR in Spain

One of the basic strategies of the medium-term management plan is to maximize the global strength of the UBE Group. UBE Corporation Europe S.A. (UCE), located in Castellón de la Plana, Spain, is an important base for realizing this strategy. This feature focuses on the development of our "living and prospering together" approach into "Global Coexistence," as it highlights UCE's CSR activities in Spain.

## Special Feature 2: The UBE Group's Pioneering Initiatives to Address Diversifying Energy Demand

Ever since the Great East Japan Earthquake, energy has been a pressing issue for Japan. This feature showcases the UBE Group's various pioneering initiatives to help diversify the energy supply.

## 2. Enhance interactive communication:

To clearly show how the public views the UBE Group and to identify new CSR-related issues for the Group, we included "Guest Messages" and other opinions from third parties in this report. By doing this, we aim to realize interactive communication.

## 3. Create an easy-to-read page format:

We structured this report to feature concise content and an easy-to-read design in order to make it satisfactory for all of our stakeholders. We have paid particular attention to the Color Universal Design and have used universal font in this report.

## Scope of This Report

Period covered	Fiscal 2012 (from April 1, 2012 to March 31, 2013) (The report, however, does at times refer to activities conducted in fiscal 2013 and future plans.)		
Companies covered: • The UBE Group (149 companies)	Of which the following companies are covered in the reporting of major financial data (page 9)	Ube Industries, Ltd. and its consolidated companies (92)	Consolidated subsidiaries: 67 Equity-method affiliates: 25
	Of which the following companies are covered in the reporting of environmental performance data	Ube Industries, Ltd.  Other Group companies (11)	Three chemical factories (Chiba, Sakai and Ube) Three cement factories (Ube, Isa, Kanda) Okinoyama Coal Center  Ube Film, Ltd., Meiwa Plastic Industries, Ltd., Ube Ammonia Industry, Ltd., Ems-Ube, Ltd., UBE-MC Hydrogen Peroxide, Ltd., Ube-Nitto Kasei Co., Ltd., Ube Materials Industries, Ltd., Ube Board Co., Ltd., Ube Machinery Corporation, Ltd., Ube Steel Co., Ltd., Fukushima Ltd.
Definitions	UBE: refers to Ube Industries, Ltd. (unconsolidated) The UBE Group: refers to the UBE Group companies, including Ube Industries, Ltd.		
Areas covered	Japan and some locations overseas (including Thailand, Spain and Others)		
Statistical data published in this report	<ul style="list-style-type: none"> <li>• All statistical data and relevant descriptions published in this report, excluding the environmental performance data, cover all Group companies.</li> <li>• In principle, data is for the last five years (fiscal 2008 to 2012)</li> <li>• The scope of data, however, does vary in places. In such cases, the specific scope is noted on the relevant page.</li> </ul>		
Reference guidelines	This report was created with reference to the Japanese Ministry of the Environment's Environmental Reporting Guidelines (2012 edition). We also referred to the Ministry's Environmental Performance Indicators Guidelines for Organizations (2002 edition) for environmental performance data and to the Ministry's Environmental Accounting Guidelines (2005 edition) for environmental accounting standards.		

## Main Tools of Communication

### Website

The UBE Group's website delivers the latest information about UBE to its stakeholders in Japanese and English. The website is divided into sections that include Corporate Profile, News Releases, Investor Relations, Products, Research & Development and CSR Activities.



[www.ube.co.jp](http://www.ube.co.jp)

### Corporate Brochure and UBE Group Introductory Video

The Corporate Brochure succinctly summarizes the UBE Group's business activities. The UBE Group Introductory Video introduces UBE's businesses, products and facilities in video format. Both are available in Japanese, English and Chinese.



(left)  
Corporate brochure  
(below)  
Introductory video

### Annual Report

The Company's annual report is targeted mainly toward institutional investors and is printed every July, in English only. The report mainly covers management strategy, results and financial information. The report is available in PDF format in Japanese and English on UBE's website.



### Business Report

This report, intended mainly for individual investors, is printed semiannually in Japanese only. The report explains UBE's businesses and strategies in an easy to understand way and also explains various procedures related to holding shares. The Company's first business report was compiled in 2013, following the overhaul and renaming of its predecessor publication, *UBE Stockholder Communication*. The *UBE Business Report* is also available as a PDF in Japanese on UBE's website.



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The photo on the cover is of a man who once worked at UCE (UBE Corporation Europe S.A.) in Spain and his daughter, a current employee. The father worked mainly as an operator at UCE and its predecessor PQM for 34 years and introduced his daughter to UCE. The photo communicates the spirit of living and prospering together in Spain through their father-daughter bond and smiling faces.

(left) José Luis Moreno worked for UCE until 2003

(right) Vanessa Moreno began working for UCE as a shift manager in 2011



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Wings of  
technology  
Spirit of  
innovation  
**UBE**



**UBE DOG**  
ロボくん

The UBE DOG was created in March 1997 as a character for the UBE Group's TV commercials.



The "Heartfelt Mark" logo affirms that this report was published by a company that proactively promotes the employment of persons with disabilities



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