

Sustainable use of resources

ITOCHU's Australian Coal Supply Chain: Coexisting with Natural Environments

Documentary Report Project on Supply Chains for Products Handled by ITOCHU Corporation.

This year's report, the sixth in the series, covers ITOCHU's supply chain for Australian coal, from the extraction at the mine to the shiploading at the port.

From the perspective of using sustainable resources, the report introduces how management gives consideration to environmental conservation and a safe working environment.

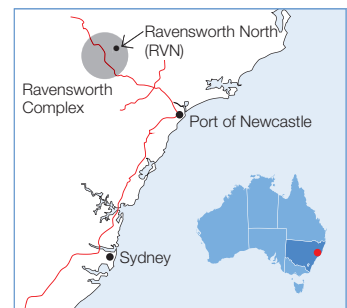


Coal being transported from the mine to the port

Front-Line Report
 Jiro Yamamoto, Dr.
 Professor, Department of Systems
 Innovation, University of Tokyo



In the Hunter Valley, New South Wales (N.S.W.), Australia, which is located about 150 kilometers north of Sydney, there is a coal mining area producing high-quality coal. The Hunter Valley is famous for its wine, and as I traveled through the region's grasslands dotted with pastureland and vineyards, I came to the coal mining site. In March 2014, I visited Ravensworth North (RVN), which belongs to the Ravensworth Complex owned by Glencore Coal Assets Australia*, a resource major. During my visit, I was able to confirm the operational status of the site and the related CSR activities. ITOCHU owns 10% of RVN through a local subsidiary.



* A group company of Glencore Xstrata, a major resources company

Consideration for the Environment at the Site of the Coal Mine

Operations began at RVN in May 2012, with initial mine production achieving 3.0 million tonnes per annum (Mtpa) of run of mine (ROM) coal by December 31, 2012. Throughout 2013 and 2014 the mine has progressively grown by the introduction of additional equipment. By 2015, production is scheduled to be about 11 million ROM tonnes, which equates to 7.8 million tonnes (clean coal). Coal reserves at the site total 280 million ROM tonnes, and the mine life is more than 20 years. The mine manager said that this is the latest large-scale, high-grade coal development project in the Hunter Valley. The start-up of the RVN mine required an investment of approximately AUD1.4 billion to expand the coal handling and preparation plant, relocate roads and power transmission lines, and purchase giant mining equipment including off-highway trucks and hydraulic excavators.

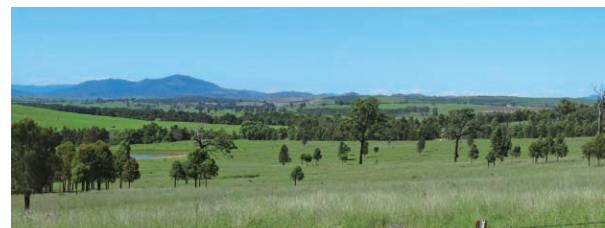
Over the four years from 2010 to 2013, 493 hectares of land were disturbed for RVN development and coal mining activities, while rehabilitation of 396 hectares in the Ravensworth Complex was performed. In mining coal, soil and waste rock over and between coal seams are removed prior to mining, which is known as stripping. The topsoil is directly placed on prepared rehabilitation areas or stockpiled and later used in the rehabilitation of the mine site. The overburden is placed in nearby emplacement

areas. Mined coal is transported to the coal handling and preparation plant, where coal tailings and rejects, associated soils and minerals in coal seams, are removed from ROM coal and later used to fill up the ex-open cut void. Plans call for the site to be rehabilitated back to the typical landscape of the Hunter Valley, with woodlands and grasslands, through a series of planting and other rehabilitation initiatives.

In its operations, RVN is paying special attention to the impact on the environment caused by dust generation and blasting vibration. Air and water monitoring is conducted at several locations on and off the site. Water is sprayed on roads using a water truck, and automatic water sprinkling equipment is installed in the conveyor transfers, dump hopper, and crushing plants. In addition, the site also continues to use and trial other dust minimization technologies such as fogger and water cannons. Moreover, RVN restricts or ceases dust-generating activities on extremely windy or dry days. RVN has had positive results with these measures. In 2013, there were three complaints regarding blasting vibration from nearby residents, and the person in charge responded immediately in accordance with site procedures. The maintenance of good relationships with local communities is an essential element of mining operations, and the entire Ravensworth Complex is taking steps to sustain those relationships. For example, comprehensive operational and environmental reports are issued several times a year.



The world's largest off-highway trucks and hydraulic excavators in use at the RVN site



Hunter Valley, N.S.W., Australia

Column: Japan's Clean Coal Technology for the Earth

In April 2014, Japan's Cabinet decided on the new Strategic Energy Plan. In regard to coal, the plan stated that, "Though coal has a problem—it emits a large amount of greenhouse gas—it is now being re-evaluated as an important base-load power supply... It is an energy source that we should use while reducing the environmental load..." Currently, coal accounts for about 25% of Japan's primary energy, and that importance is not expected to change in the future. Globally, electric power is the foundation for economic development, especially in emerging countries, and coal-fired thermal power generation will have an extremely important position. Accordingly, demand for coal is forecast to increase. In terms of efficiency, environmental countermeasures, and facility operations, Japan has the world's most advanced technologies for the use of coal. Moving forward, Japan will have a significant role to play in the development and use of coal resources with consideration for the environment.



Motohiko Kato
Senior Executive Director and
Secretary General
Japan Coal Energy Center

Protecting the Health and Safety of Employees

RVN is also working hard in training employees. For example, on the road to the RVN offices there is a series of signs with nine safety provisions. At the main entrance, a monitor is used to give employees and guests an induction comprising questions about safe behaviors and operations. There is also a device used to conduct breath tests to check blood alcohol concentration. On the mining site, the huge off-highway trucks used to carry coal, which are dozens of times larger than passenger vehicles, move back and forth at a rapid pace. Directly viewing this scene in person impressed upon me the importance of ensuring that machinery is operated correctly.

Realizing Communications with Close Ties to Local Communities

RVN is working to achieve continual communications with Federal and State authorities and local communities. For example, in 2013 RVN participated in 26 local activities in such areas as tree planting, school commemorative activities, emergency rescue helicopter training, and fund raising for cancer eradication. Twice a year, a consultative community meeting is held with the participation of local residents and government authorities, and reports are made on a variety of topics, such as the state of operations, results of monitoring, and safety records. The regional support program is also discussed.

Rail Transport from the Mine to the Port

Railroad tracks have been laid to the Ravensworth Complex handling and preparation plant, and clean coal for export is loaded onto freight cars and transported by rail about 100 kilometers to the Port of Newcastle. In 2013, about 7.24 million tonnes of coal was transported on 979 trains, with measures taken to prevent the coal from falling off the rail car during transport.

Consideration for the Environment and Safety at the Port

The Port of Newcastle has three coal terminals with a combined annual shiploading capacity of about 200 Mtpa. In 2012, about 134 million tonnes was loaded. Two of the terminals, Kooragang, which has the highest shiploading capacity (120 Mtpa), and



Large reclaimer in operation as coal is loaded onto belt conveyor

Carrington (25 Mtpa), are operated by Port Waratah Coal Services Limited. Investors in Port Waratah include Glencore Xstrata and other mining companies, Japanese coal users, and general trading companies, such as ITOCHU. Coal from the RVN mine is exported from the Port Waratah terminals to Japan and other destinations in Asia.

Kooragang has four rail receipt facilities that automatically unload coal from bottom-dumping wagons of coal trains. Coal is then carried by belt conveyor to open coal stockpile yards. There are four large stockpile yards, each of which is 2.5 kilometers long and 56 meters wide. At the stockpiles, dust is controlled through the sprinkling of water at regular intervals, depending on the weather conditions. When it is time for coal to be loaded, reclaimers are used to collect coal from the stockpiles, and then belt conveyors transport coal to the shiploaders. Port Waratah is actively committed to environmental conservation and its relationship with local communities. Accordingly, despite the recent increase in volume of coal handled, the quantity of dust deposited, as regularly measured at monitoring sites, has generally remained the same.

To ensure the safety of workers, education and training are complemented with a rigorous approach to safe operations based on know-how accumulated over many years.

Concluding the Observation: Japanese Society and Australian Coal Supply Chain

Other than steam locomotive enthusiasts, the number of Japanese who have actually seen coal is probably declining. Australia's coal exports have expanded rapidly over the past several years, especially to China, yet Japan is still the largest importer of coal from Australia. The Hunter Valley's coal operations are conducted with awareness of the burden placed on the environment and nature, and of the importance of local communities as coal is exported to Japan. Visiting the RVN mine firsthand left me with a strong

impression of how that awareness is incorporated into the front-line coal mining operations that provide Japan with an ongoing supply of coal, as well as the important role that trading companies play in that mission. All of us in Japan benefit from the work that is being done on the front lines and throughout the coal supply chain.

Website for Documentary Report Project on Supply Chains

http://www.itochu.co.jp/en/csr/supply_chain/reportage/

CSR Material Issues

Respect and consideration for human rights

Manufacturing Strategy which Supports the Marketing Company

As a customer-oriented marketing company, ITOCHU's Textile Company is pursuing a new business model which aims to add value within the supply chain that is socially beneficial and environmentally friendly.



Textile Company's Manufacturing Strategy

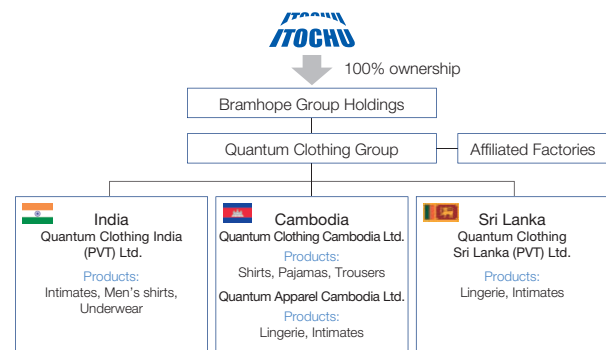
The Textile Company, the roots of which are in manufacturing, handles a broad range of products such as apparel, sportswear, underwear, uniforms, bags, and shoes for both men and women. It is able to provide products with high added value due to its ability to recommend materials and its extensive network of production bases. This has become a major source of the Textile Company's growth. Furthermore, in the apparel industry, substantial added value for customers and consumers is generated not only by product quality and competitive prices but also a wholehearted commitment to improving labor conditions and making contributions to society.

ITOCHU acquired Bramhope Group Holdings Ltd. (hereinafter "Bramhope") in July 2012. Bramhope is an apparel manufacturer and wholesaler with headquarters in the U.K., founded in 2000. The major strength of its subsidiary, Quantum Clothing Group (hereinafter "Quantum Group"), is its extensive production network that includes the company's own factories in India, Sri Lanka, and Cambodia and affiliated factories in various ASEAN countries.

The Quantum Group's main customer is Marks & Spencer PLC (hereinafter "M&S"), which is one of the world's top U.K.-based retailers. M&S purchases a large percentage of its apparel from the Quantum Group. In addition to handling various products including women's underwear (hosiery, lingerie, etc.) and men's shirts, the Quantum Group has the ability to develop stylish products in the U.K. that are in line with the M&S Plan A

initiative, a progressive program that M&S has developed to pursue sustainability. Each of the Quantum Group's factories meet strict management standards related to working environment, contributions to society, environment protection, and other aspects. Also, in addition to possessing advanced technical skills related to quality and price competitiveness, the company creates high added value in terms of society and the environment.

Building on the solid production infrastructure that combines Bramhope's expertise in supplying ethically compliant products and the ITOCHU Group's production network, which extends throughout Asia, the Textile Company will strive to enter global markets such as those of North America, China, and developing countries and develop a new business model as a marketing company.



Quantum Group's CSR

In 2010, the Quantum Group's management came together and compiled a plan in order to create a firm footing for a sustainable business; this would later become the Quantum Business Excellence Model. Developed with the Quantum Group's medium- and long-term strategy in mind, this program, which covers people, the environment, and sustainable use of raw materials, is implemented by the Quantum Group throughout the world.

Efforts by Quantum Cambodia

In Cambodia, which is in the spotlight as a center of textile manufacturing, the Quantum Group has its two main factories, one for Quantum Clothing and one for Quantum Apparel. The

country is an extremely important production base where more than 5,000 employees from both companies work. Quantum Clothing is ISO 9001 and ISO 14001 certified, while Quantum Apparel is currently developing their model. Both companies give due consideration to high quality standards and the environment.



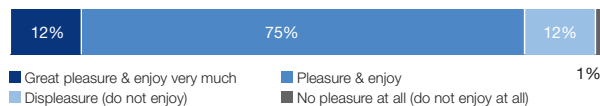
Efforts to Ensure Employee Safety

Recognizing human resources as its most important asset, the Quantum Group strives to create a working environment in which employees can not only work enthusiastically but also do so safely. As for the factory's production floor, where many employees work, the company was the first to manage factory workers' working time using a computerized system. The company also has thorough health and safety controls and checks in place to look after workers' well-being and to prevent accidents. In addition, the company has been able to create an easy-to-work-in environment that includes break areas, a cafeteria for factory workers, and a nurse's office. Surveys of employee satisfaction are also regularly conducted and acted upon, which leads to improvements that make the workplace one that employees want to work in and take pride in.



Packing assembly line

Satisfactory in Working with the Company



Providing Employees with Learning Opportunities

As for Quantum Group's CSR activities, the company considers it important that each employee properly understands CSR, and initiatives are in place to fulfill the company's responsibilities at all worksites, offering a wide range of programs and providing employees with opportunities to learn. The factory is equipped with training rooms and the company actively works to develop the skills of factory workers and to conduct educational activities, which include instruction from sewing technicians, courses in the English language, IT skills courses, and workshops in calculating wages. The company has also

introduced an outstanding employee award system, which reinforces employee drive and motivation. These efforts have been highly praised in terms of their contributions to society, as can be seen in various outcomes



English class

such as the factory being officially recognized by the local government as one with a labor environment which makes it possible for factory workers to do their work with peace of mind.

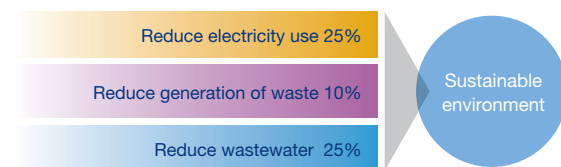
Efforts to Preserve the Environment

In 2004, the company received ISO 14001 certification and continually works to make improvements through the plan-do-check-act (PDCA) cycle. Since this PDCA cycle was introduced, the company has implemented a variety of measures that have resulted in reductions in electricity use, wastewater, and waste. An ongoing monitoring program helps to continually drive these numbers down.

With regard to specific measures, the company has not only installed energy-efficient T5 fluorescent lights on factory production floors but has also made meticulous efforts to save energy wherever it can, such as introducing light-emitting diodes (LEDs) for all sewing machines. In addition, the company conducts various educational activities and is striving to spread and raise awareness among front-line workers.

Environmental Target

Quantum Clothing (Cambodia) Ltd. has set the following plan for Eco Sustainable Management against a base line in 2007:



Comment from a Customer

M&S launched its Plan A initiative in 2007 in order to become the most sustainable retailer in the world. The plan consists of 180 concrete goals in seven fields related to sustainability which the company plans to achieve by 2020; these goals relate to areas such as climate change, waste, and natural resources.

The most important way of promoting Plan A is by gaining the understanding of consumers and business partners regarding the aims of the plan and sharing the same values. In order to do this, we provide awards to suppliers who fully understand the principles embodied in Plan A and have contributed to improving the quality of people's lives and maintaining the environment. In 2013, the Quantum Group was selected as the Supplier of the Year. For the apparel industry, issues relating to sustainability include worker welfare, raw materials, and use of chemicals throughout the supply chain, and the Quantum Group has aggressively worked on all these

issues. In particular, the company continuously implements innovative measures related to employees, including education and training programs, welfare systems, and maintaining an active dialogue. In addition, many of the company's factories have won our Eco-Factory status because of their passionate environmental efforts.

Throughout the world there is a growing focus on transparency and there are demands that companies fulfill their responsibilities, which are proportional to the scale of their operations. We are hopeful that as leading companies in the industry, both the Quantum Group and the ITOCHU Group will continue to pursue innovation which leads to sustainability within their daily operations and that those efforts become part of their corporate cultures.



Krishan Hundal
Marks & Spencer
Director of GM Technology

CSR Material Issues

Climate change

Working to realize sustainability that will deliver enrichment for the next generation by advancing environment-friendly businesses, centered on renewable energy

Renewable energy, such as geothermal and wind power, is expected to record growth as a key pillar of the energy supply in the future. Through business investment in power generation assets that utilize renewable energy, ITOCHU is working to help alleviate climate change, which is a pressing issue for global society.



Geothermal IPP Project in Indonesia

In April 2013, ITOCHU concluded a contract to construct a 320 MW geothermal power generation plant in Indonesia's Sarulla region in North Sumatra and to sell the power generated by the plant to Indonesia's state-owned electricity company for 30 years. In addition, a loan contract concerning this project was concluded in March 2014. Indonesia's potential geothermal resources are among the most extensive in the world, accounting for 40% of global geothermal resources, and the country has positioned geothermal energy as a strategic power source.

Geothermal power generation uses high-temperature and high-pressure steam and hot water extracted from geothermal

reservoirs deep underground to generate electricity. The CO₂ emitted during power generation is limited. In addition, the power generation is not dependent on weather conditions, and as a result the supply of electric power is stable in comparison with other forms of energy. Consequently, geothermal power is a form of renewable energy that is drawing attention around the world. This project is one of the largest geothermal independent power producer (IPP) projects in the world. Plans call for commercial operation to commence in stages from 2016, and the project is expected to contribute to economic development in Indonesia, where demand for electric power is projected to increase in the future.

Working with GE to Advance the Wind Power Generation Business in the United States

In May 2010, ITOCHU and General Electric Company (GE) entered into a comprehensive agreement to identify co-investment opportunities in renewable energy worldwide, and ITOCHU is now forging ahead with renewable energy operations.

The Shepherds Flat Wind Project in the U.S. state of Oregon is one of the world's largest wind power projects, with a total capacity of 845 MW. The power is supplied to approximately 235,000 regular households in California under a 20-year power purchase agreement with Southern California Edison, a California power utility. The project is contributing to the

reduction of greenhouse gas emissions by approximately 1.5 million tons annually. The Shepherds Flat Wind Project and the Keenan II Wind Power Project in the U.S. state of Oklahoma, which has a total capacity of 152 MW, are expected to reduce greenhouse gas emissions by a combined total of approximately two million tons annually. Moving forward, ITOCHU will continue working to contribute to the stable supply of electricity and the alleviation of climate change through these two projects.

Global Map of Renewable Energy Power Generation Projects

U.K.: Waste processing / power generation (See page 53)

Project name	Waste processing capacity per year	Greenhouse gas emissions reduction scale
ST&W	260,000 tons	Approx. 62,000 tons per year
Cornwall	240,000 tons	Approx. 60,000 tons per year
Merseyside	460,000 tons	Approx. 130,000 tons per year
West London	350,000 tons	Approx. 830,000 tons per year



U.S.: Wind power generation

Project name	Power generation capacity / scale	Greenhouse gas emissions reduction scale
Shepherds Flat	845 MW	Approx. 1,500,000 tons per year



Spain: Concentrating solar power generation

Project name	Power generation capacity / scale	Greenhouse gas emissions reduction scale
Solaben2&3	100 MW	Approx. 63,000 tons per year



U.S.: Wind power generation

Project name	Power generation capacity / scale	Greenhouse gas emissions reduction scale
CPV Keenan II	152 MW	Approx. 410,000 tons per year



South Africa: Solar power generation (See page 57)

Project name	Power generation capacity / scale	Greenhouse gas emissions reduction scale
Kalkbult	75 MW	Approx. 125,000 tons per year
Dreunberg	75 MW	Approx. 125,000 tons per year
Linde	40 MW	Approx. 65,000 tons per year



Indonesia: Geothermal power generation

Project name	Power generation capacity / scale	Greenhouse gas emissions reduction scale
Sarulla	320 MW	Approx. 1 million tons per year



CSR Material Issues

Contribution to local communities

ITOCHU is aiming for sustainable growth through the establishment of business models that contribute to the development of local communities

ITOCHU conducts business activities in regions throughout the world, and we strive to contribute to the development of local regions through both our business activities and our social contribution activities, thereby addressing the challenges and needs of local communities.



Supporting Cotton Farmers in India Transfer to Organic Cotton Cultivation

ITOCHU and KURKKU Co., Ltd., jointly plan and operate the Pre Organic Cotton (POC) Program, which helps farmers in India to transfer from cotton farming to organic cotton cultivation. The program aims to stop the vicious circle of environmental damage, health hazards, and economic burdens on farmers caused by pesticides and chemical fertilizers. To that end, the program includes giving guidance on organic farming and supporting acquisition of organic farming certificates during a three-year transition. From the start of the program in 2008 to its end in 2013, 3,348 farming households took part, and 1,479 of these have acquired organic farming certificates. In addition, with products from upward of 40 companies, including apparel and natural cosmetics manufacturers, having been introduced, in 2013 the volume of cotton handled reached 1,500 tons. In 2014, initiatives with major customers are expected to drive



higher POC sales and an expansion of the POC market, and to generate volumes of 2,500 tons. In 2012, as a business model achieving commercial activities and sustainable development, the project was approved as an initiative of the Business Call to Action (BCTA), which is a global initiative led by the United Nations Development Programme (UNDP). Since that time, businesses working on development issues, centered on the UNDP, have earned growing recognition.

Moving forward, we will work to further expand the POC Program, supported by understanding and empathy among companies, organizations, and consumers.

	Volume handled and sales of related products	
2013	1,500 tons	¥500 million
2015*	5,000 tons	¥2.3 billion
2017*	10,000 tons	¥5.0 billion

* Outlook

Contributing to the Reconstruction and Development of Disaster-Affected Areas with the Support of Local Industry

The ITOCHU Group is working to support the reconstruction of the city of Rikuzentakata, which suffered considerable damage due to the Great East Japan Earthquake. As a part of those initiatives, ITOCHU is providing support, from production to sales, of *Takata no Yume*, a variety of rice grown in the region.

The city of Rikuzentakata is aiming to establish *Takata no Yume* as an original, regional brand of rice that will serve as a symbol for the reconstruction of farms that suffered catastrophic damage. Production in 2014 is forecast to reach 150 tons. As a means of helping disaster-affected areas through Group business activities, ITOCHU Food Sales and Marketing Co., Ltd., is providing support in the area of sales to department stores in the Tokyo metropolitan area. Moreover, in the area of production, Group employees have volunteered to participate in rice planting

and harvesting while engaging in exchanges with local farmers. The Group is also implementing PR activities.

Nearly every month since the earthquake, ITOCHU Group employee volunteers have visited the city of Rikuzentakata, and the Group is also supporting sports and other activities for the local children (see page 85). Moving forward, the ITOCHU Group will continue to provide support, both through its business activities and through social contribution, thereby contributing to the reconstruction and development of the region.



Supporting Agriculture through Employee Volunteers

Employee volunteers provide assistance from rice planting to harvest while enjoying interaction with local farmers.



PR

- Booth at Roppongi Hills in Tokyo sells rice balls.
- At Takashimaya Shinjuku Store, which sells a wide variety of products including rice, the city of Rikuzentakata photo exhibition was held, providing PR for *Takata no Yume* rice.
- Rice samples distributed at local cycling event.

Sales

- ITOCHU Food Sales and Marketing, which handles the ITOCHU Group's wholesale and sales of rice, sold *Takata no Yume* rice at Takashimaya Shinjuku, Ginza Mitsukoshi, and other stores.
- Le Pain Quotidien, a high-end bakery restaurant operated by ITOCHU, offered a limited-time menu using *Takata no Yume* rice.